

Banner



THE BOOK OF POWER.

 EDITION 2012/2013



Banner




THE KEY TO OUR SUCCESS.

Banner is Austria's only battery manufacturer and one of Europe's largest battery producers. Our loyal customers have made this major success possible by placing their trust in the quality and efficiency of our production and the resultant products. For this, we owe our heartfelt gratitude.

Since the foundation of the family-owned Banner company by our grandfather in 1937, work has continued on the constant optimisation of our products and services, as we feel a deep-rooted sense of obligation to both our clientele and innovation.

Banner has always been ready to assume responsibility, hence the fact that for the past 75 years, relationships based on partnership have been cultivated with company customers. We are always open to new ideas and suggestions and constantly invest in the quality and updating of our products. Moreover, we sponsor sport and contribute to the conservation of both the environment and resources.

Banner – The Power Company.



Mag. Thomas Bawart
Technical CEO



Andreas Bawart
Commercial CEO

Banner



POWER TO THE WORLD

Banner – THE AUSTRIAN BRAND BATTERY.

Banner is one of the largest battery manufacturers in Europe and produces starter batteries, which constantly meet the highest technical demands of current vehicles, and markets drive - machine - stationary batteries, wheel weights and a tailor-made programme of accessories. In this catalogue you can discover why Banner, the Austrian quality battery, is always the first choice for you and your customers. We wish you every success and excellent sales!

A CLAIM TO QUALITY

Banner batteries for the aftermarket are manufactured in OEM quality, i.e. on the same production lines, using the same technologies and quality assurance systems as those employed for batteries for automotive manufacturers.

EXPERIENCE DATING BACK TO 1937

75 years of starter battery production expertise mean that Banner is one of Europe's most experienced battery manufacturers.

HIGH LEVELS OF INNOVATION

Banner AGM batteries are utilised for micro-hybrid applications (start/stop, braking energy recuperation) by companies such as Audi, BMW and Volvo. Other patented developments also serve to secure company success.

INDEPENDENT, PRIVATELY OWNED COMPANY

Banner is owned entirely by the Bawart family and is managed in the third generation by Andreas and Thomas Bawart.

LEADING IN EUROPE

With sales of four million starter batteries and sales revenues of €237 million (financial year 2011/12), Banner is one of the largest suppliers in Europe. A modern product range consisting of seven "Bull families" covers virtually every starter battery application from motorcycles to articulated trucks.

LEADING FIRST FITTERS AS CUSTOMERS

Some 30 per cent of Banner's starter battery production goes to the European plants of important automotive manufacturers such as VW, BMW, Skoda, Mitsubishi, Volvo, Mercedes Truck, Caterpillar, Kässbohrer, Liebherr, Jungheinrich, Dethleffs, etc.

MADE IN AUSTRIA

The Banner plant in Linz-Leonding is one of the most modern and environment-friendly battery production facilities in Europe. In the past two years, some €25 million have been invested in the modernisation and expansion of production capacity.

TOP CUSTOMER SERVICE

Over 250 sales staff at 27 branches in fifteen European countries, guarantee first class consulting and comprehensive customer service.



Banner

Banner



Audi

BMW

Mercedes

VW
Škoda

Aston
Martin

AIXAM

Volvo

Rammax

Mitsubishi

Liebherr

LEADING BRANDS

TRUST IN Banner QUALITY.

Bomag

**Dethleffs
Hymer**

Kässbohrer

KTM

FIRST FITTING POWER FOR START/STOP VEHICLES.

As a result of the very latest AGM and EFB technologies, Banner covers fully the high-potential start/stop or micro-hybrid vehicle segment. Makes such as Audi, BMW, Mercedes, VW and Volvo are already employing the power packs from Austria and they are not alone, as many producers of commercial vehicles and special machinery are also using Banner batteries to the Original Equipment market.

ORIGINAL QUALITY FOR RETROFITTING.

Banner manufactures batteries for O.E. and aftermarket. in line with current standards on the same production lines. As a result, identical quality assurance measures are employed for both types of manufacture. Banner implements technical developments in partnership with vehicle producers and these advances them appear in the aftermarket at almost the same time.

SUCCESSFUL PARTNERSHIPS THROUGH QUALITY IN EVERY AREA.

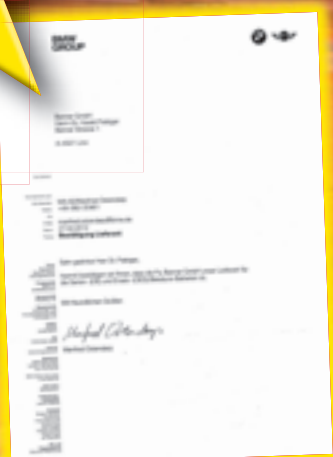
The Banner battery plant delivers roughly 30 per cent of its starter battery output for first fitting purposes, while the remainder is sold for to the aftermarket.

The main factors in the company's successful partnerships with various automotive manufacturers are technical competence, a strong brand, top product quality, flexibility, punctuality of delivery and stable production.

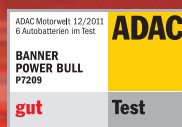
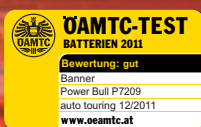
Banner's exemplary process and procedural quality is subject to ongoing monitoring according to ISO/TS 16949/2009 and is implemented on a daily basis. An in-house quality management team supports the various company areas with their respective processes.

Banner CONVINCES.

Leading European automobile clubs' such as ADAC (D), ÖAMTC (A) and TCS (CH) are all convinced of Banner's top quality. In the clubs' current 2011 tests, which represent the toughest independent examination to which batteries can be subjected, the Type P72 09 Power Bull received a top "Good" rating.



BMW AG first fitter certificate



For many years, the Automobilclub von Deutschland (AvD) and the Austrian ARBÖ have show their confidence in Banner's quality products and use them for breakdown assistance on an exclusive basis. In the spring of 2011, AvD carried out an audit at the Banner plant and tested the current Power Bull series. This received a "Very Good" rating, which a little later was reiterated by the ARBÖ.



Banner

Production



Collection
and recycling

Old battery

WITH POWER FOR OUR ENVIRONMENT.

New
battery
use

Banner ACCEPTS RESPONSIBILITY.

Banner's core values include a high degree of ecological awareness and the meeting of its responsibilities to customers, employees, neighbours and the environment. Therefore, the company builds on production processes with low environmental impact, the economic use of energy and raw materials, a closed product cycle from manufacture to recycling, and continual improvements aimed at the minimisation or avoidance of pollution. The Banner plant possesses ISO 14001 certification.

Banner RECYCLING – A CLOSED SYSTEM FOR THE ENVIRONMENT.

Many of the parts in top quality Banner batteries are made from recyclable materials. New Banner batteries are installed at the workshop/retail interface, while old batteries are placed in special containers prior to collection by the company. Banner's in-company recycling system is then used to prepare the raw materials for renewed production. This saves precious resources, keeps prices steady and protects the environment.



100% RECYCELBAR
RECYCLABLE

Banner



THE SUN PROVIDES THE POWER FOR Banner BATTERIES!

ENVIRONMENTAL PROTECTION AND RENEWABLE ENERGY ARE IMPORTANT TOPICS FOR Banner.

For many years, Banner has been concerned with the steady improvement of its production procedures with an eye to reduced ecological impact and enhanced environmental compatibility in tandem with a simultaneous increase in quality. This has not only led to an involvement in the power supply of stop/start vehicles, but in particular sustainable, in-company environmental measures.

WITH Banner, YOU START WITH THE SUN!

In 2011/2012, Banner fitted out its branches in Germany with photovoltaic technology. In the current phase, these roof-mounted systems are supplying over 100 kWh of electricity, thus preventing more than 85t of CO2 emissions annually. The electricity produced from sunlight is used for the charging of Banner starter batteries and therefore, when customers start their vehicles, they not only receive the power of a Banner battery but also that of the sun.

RECHARGING IN ALLERSHAUSEN.

2012 will see the opening of an e-vehicle charging station at the Allerhausen branch in Germany. This will be supplied with natural, environment-friendly power from roof-mounted solar panels. As a result, Banner customers will be able to recharge their e-vehicles while visiting our sales outlet.

Banner



Banner Batteries (GB) Ltd.
Tel: +44(0)1889/57 11 00



FULL POWER FOR THE UK.

THE Banner BATTERIES (GB) LTD SALES SUBSIDIARY ENSURES QUICK DELIVERY.

Banner's success emanates from its comprehensive range of high-quality starter and supply batteries, unbeatable personal customer service and uncompromisingly quick deliveries from Rugeley to every location in the British Isles.

Banner Batteries (GB) Ltd.

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Wheelhouse Road, Rugeley
UK-WS15 1UY Staffordshire, UK
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Fax +44/(0)1889/57 73 42
E-mail: office.bgb@bannerbatteries.com

Banner

FULL POWER FOR EXTREME SPORT.


Banner SPONSORS EXCEPTIONAL PERFORMANCE.

The claim that Banner batteries supply "Full performance at any time, even under extreme conditions" is underlined by the family-owned company's involvement in extreme sports. Moreover, in the final analysis it is a social obligation to not only support exceptional performance, but to also make it possible.



GERLINDE KALTENBRUNNER – A DREAM BECOMES REALITY!

Gerlinde Kaltenbrunner is the first woman to have conquered all of the world's fourteen 8,000m peaks in alpine style without artificial oxygen. Her dream became reality when, after a strenuous, two-month expedition and accompanied by the Pole Dariusz Zaluski and the Kazakhs Maxut Zhumayev and Vassiliy Pivtsov, at precisely 6:18 p.m. CET on August 23, 2011, she reached the summit of the K2, the world's second highest mountain and also the toughest to climb. Banner has been supporting Gerlinde's expeditions for a number of years and as Andreas Bawart, the company's Commercial CEO, explains: "We are deeply impressed by Gerlinde's unbending will and determination. Moreover, in spite of her innumerable sporting successes, she is just the same as when we first met."

A photograph of Gerlinde Kaltenbrunner, a mountaineer, sitting on a snowy mountain peak. She is wearing a bright red jacket with a 'Banner' logo, a dark beanie with 'Aschberg' written on it, and yellow and black climbing boots with 'LOWA' and 'GEOR' visible. She is smiling and looking towards the camera. The background shows a vast, snow-covered mountain range under a clear sky.

Gerlinde Kaltenbrunner, the first woman to have climbed all fourteen of the world's 8,000m peaks without the use of artificial oxygen.

Banner

**START
STOP** FIT 4 START/STOP
SYSTEMS



Cars



Start/stop cars

RUNNING BULL – INNOVATIVE POWER FOR ENVIRONMENT-FRIENDLY MOBILITY.

RUNNING BULL



Banner's BEST BATTERIES FOR MODERN START/STOP VEHICLES.

Banner provides the power supply for the entire start/stop vehicle range with its Running Bull series, which consists of the Running Bull AGM, Running Bull EFB and Running Bull Backup. A combination of top starting performance and high cyclical resistance makes Running Bull batteries ideal power packages, which safely master the extreme loads caused by multiple starts and the permanent charging and discharging processes in micro-hybrid vehicles.



Taxis



Small transporters



Off-road



Motor caravans



Motor boats



Construction machinery

Banner

EFB FOR START/STOP VEHICLES WITHOUT ENERGY RECUPERATION.

EFB technology is used mainly in mid-range and small cars with simple start/stop systems, but without energy recuperation. In the coming years, this type of cycle-resistant starter battery will be employed with growing frequency for the Original Equipment market.



TECHNICAL DATA AND INFORMATION

- ▶ Range of two types with capacities from 60-70 Ah
- ▶ Nonwoven cover on the separator and special active mass composition
- ▶ Twice the cycle resistance of standard batteries: E3 classification pursuant to EN 50342-1
- ▶ Top V3 vibration resistance rating pursuant to EN 50342-1
- ▶ Double lid for maximum protection against leaks and operational safety
- ▶ Zero maintenance due to modern calcium mesh technology



BACK-UP FOR START/STOP VEHICLES WITH VERY HIGH ENERGY NEEDS.

The Running Bull BackUp is the ideal support for starter batteries owing to the fact that it uses the same trend-setting technology as that employed in the "big" Running Bull. The small power pack is utilised in vehicles with a start/stop system and additional consumers with a high energy requirement such as redundant safety systems or power steering.



TECHNICAL DATA AND INFORMATION

- ▶ Valve-regulated nonwoven battery (VRLA)
- ▶ Range of two types with capacities from 9-12 Ah
- ▶ Used by Audi, BMW, Mercedes and Volvo as the O.E. fitment.
- ▶ Three times greater cycle resistance than standard batteries: highest E4 classification pursuant to EN 50342-1
- ▶ Leak-proof due to electrolyte bonding into a glass nonwoven (absorbent glass mat)
- ▶ Zero maintenance due to recombination technology
- ▶ Installation in a lateral position possible (max. 90° angle)



AGM FOR START/STOP VEHICLES WITH ENERGY RECUPERATION.



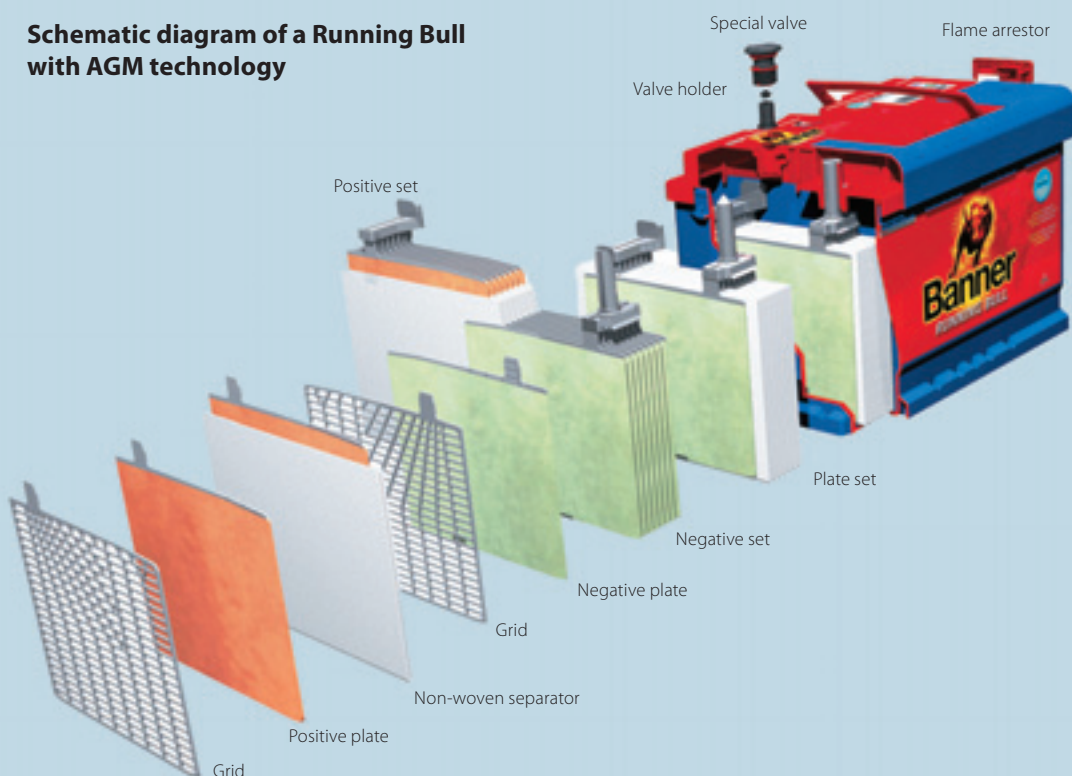
By 2015, over 70 per cent of all new vehicles will be fitted with an engine start/stop function, in order to achieve the CO₂ limitation targets set by the EU by means of sustained fuel consumption savings and emission reductions. In general, two differing starter battery types are employed in these environment-friendly vehicles, consisting of the absorbent glass mat (AGM) and the enhanced flooded battery (EFB) systems. The use of the appropriate technology depends largely on the fuel and CO₂ savings that can be attained. Above all, AGM batteries are utilised for start/stop systems with braking energy recuperation in mid-range and premium class vehicles.

TECHNICAL DATA AND INFORMATION

- ▶ Valve-regulated nonwoven battery (VRLA)
- ▶ Range of five types with capacities from 60-105 Ah
- ▶ Three times greater cycle resistance than standard batteries: highest E4 classification pursuant to EN 50342-1
- ▶ Leak-proof owing to electrolyte bonding into a glass nonwoven (absorbent glass mat)
- ▶ Zero maintenance owing to recombination technology
- ▶ Highest V3 vibration resistance pursuant to EN 50342-1
- ▶ Maximum starting performance due to very low internal resistance
- ▶ Installation in a lateral position possible (max. 90° angle)
- ▶ Flexible use as a starter and on-board power supply battery



Schematic diagram of a Running Bull with AGM technology



Banner



UNI BULL – THE UNIVERSAL GENIUS.

ABSOLUTE MAINTENANCE-FREE AND SUIT- ABLE FOR OVER 900 CAR MODELS!

With only four types, the Uni Bull universal starter battery fits into over 900 car models and therefore saves dealers storage capacity and money. Round and Ford terminals, as well as a variable bottom strip with additional adapter, mean that the battery can be used virtually everywhere. Moreover, the comfortable handles also serve as a terminal cover. The Uni Bull employs modern calcium technology and a Gore membrane as leak protection, which adds up to over 30 per cent more performance than that provided by a standard DIN battery.



Cars



Small transporters

Banner

THE UNI BULL MEANS POWER, FLEXIBILITY AND TOP TECHNOLOGY.

More than twenty years ago, Banner set a new benchmark in the battery design field with the Uni Bull, which was created specifically to reduce the diversity in the replacement business area. The new Uni Bull with calcium technology is absolutely maintenance-free. The electrode design has been computer-optimised, while the increased conductor cross-section and the very latest separators guarantee top power yield, which represents an important performance plus. What's more, the Uni Bull fits perfectly into more than 900 vehicle models.

TECHNICAL DATA AND INFORMATION

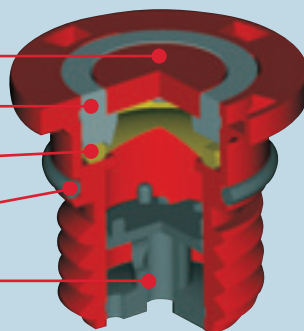
- ▶ Absolutely maintenance-free with calcium technology for minimum water consumption
- ▶ Up to 30% more power, as compared to standard DIN batteries
- ▶ Perfect installation with four-terminal connection that is suitable for 900 vehicle models
- ▶ Reliable in extreme temperatures with full power at all times
- ▶ Safe leak protection and high levels of operational safety due to the patented Accusafe system with Gore membrane



PATENTED ACCUSAFE LEAK PROTECTION WITH A GORE MEMBRANE.

Patented ACCUSAFE® leak protection ensures absolute safety. The aerosol separator removes acid particles from gases, which means that the gases can be exhausted while the acid is retained in the battery. In other words, injuries and corrosion due to acid vapours are a thing of the past.

- Backfire protection frits/degassing vent
- Pressure ring
- ACCUSAFE® Gore membrane
- O-ring sealing
- Aerosol separator



POWER FOR ALL!

THE UNI BULL FITS INTO 900 CAR MODELS.

The Uni Bull is possessed of truly universal genius and fits perfectly into almost any car. The practical four-terminal design and bottom strip adapter permit the installation of the Uni Bull in over 900 differing models. Moreover, special 19/Ford terminal design and the use of the latest calcium technology mean that the Uni Bull can also be employed for older Ford models. Last but not least as the Uni Bull has four terminals so you will get both terminal layouts 0 + 1.

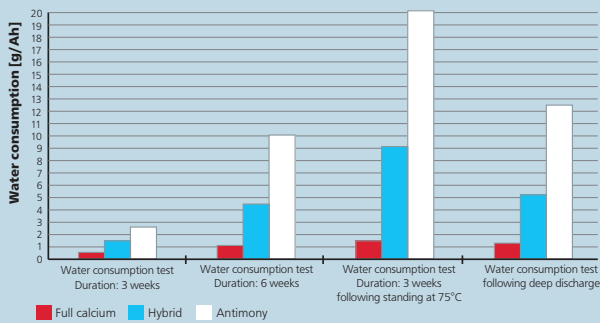


UNI BULL

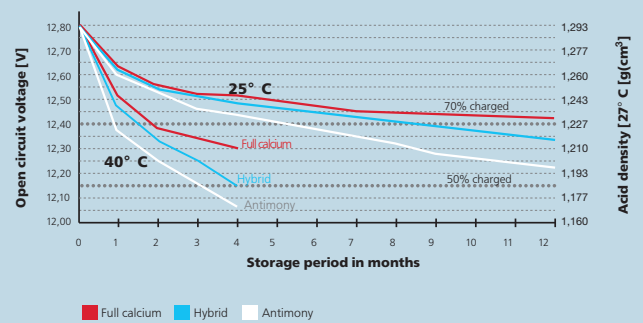
BULLISH POWER IS ONLY FOUND INSIDE, WHEN THE UNI BULL NAME IS ON THE OUTSIDE.

There are numerous details that make the Uni Bull a perfect battery. For example, every Uni Bull is supplied ready to install, or in other words, filled and charged. As a result, the handling of battery acid is a thing of the past. In addition, the Uni Bull employs a pure calcium alloy, which cuts water consumption to a minimum and renders the universal battery maintenance-free throughout its service life. Bonded plate sets also serve to make the Uni Bull vibration-resistant, while bag separators safeguard against short circuits. Finally, large reaction surfaces and improved charging capacity ensure that the Uni Bull always provides reliable starting in extreme temperatures.

WATER CONSUMPTION: FULL CALCIUM - HYBRID - ANTIMONY



SELF-DISCHARGE: FULL CALCIUM - HYBRID - ANTIMONY



Banner



POWER BULL – SUPER POWER, SUPER SAFETY.



POWER BULL

SUCCESS THROUGH INNOVATION.

The Power Bull is the flagship for Banner brand quality and THE choice for modern cars. A claim supported by the top ratings obtained during the independent battery tests of leading European automobile clubs. The Banner Power Bull answers the steadily increasing demands created by ever-higher, on-board power consumption and is therefore employed by car manufacturers such as BMW, VW and Skoda for first fitting. Calcium / calcium technology and the Double Top lid mean that the Power Bull offers greater safety, improved deep charging capacity and easier charging.



Cars



Taxis



Small transporters



Motorboats

Banner

THE POWER BULL OFFERS INNOVATIONS FOR THE STRICTEST DEMANDS.

O.E. quality for the aftermarket. The Power Bull is Banner's premium starter battery for modern vehicles. Designed in accordance with the OEM standards of BMW and VW, the Power Bull is a logical first choice when it comes to replacement battery selection.



TECHNICAL DATA AND INFORMATION

- ▶ Robust cyclical behaviour with E2 classification pursuant to EN 50342-1
- ▶ Double Top lid for twice the leak protection and 100 per cent leak protection up to an angle of 45°
- ▶ Absolutely maintenance-free due to modern calcium technology
- ▶ Extensive coverage of the European and Asian vehicle fleets owing to 23 battery types from 40-100 Ah
- ▶ V2 vibration resistance rating pursuant to EN 50342-1 due to the bonding of the plates to the battery floor and robust cell connections
- ▶ Improved backfire and ESD safety levels (against electrostatic discharge)

POWER BULL PROFESSIONAL, ORIGINAL QUALITY FOR RETROFITTING.

The new top versions of the Power Bull PROfessional with increased performance are based on proven Power Bull technology and fulfil precisely the requirements of leading German automotive manufacturers. These power packs are designed for modern cars with very high energy demands.

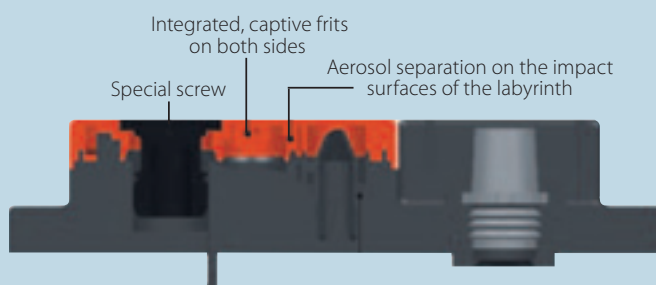


TECHNICAL DATA AND INFORMATION

- ▶ Three types with capacities of 63 Ah/75 Ah/100 Ah
- ▶ A further improvement in cold start characteristics (A)
- ▶ First fitter quality according to BMW and VW stipulations
- ▶ 190mm original height
- ▶ Improved cyclical behaviour thanks to an optimised mass recipe

DOUBLE TOP OFFERS COMPLETE LEAK PROTECTION UP TO A MAX. 45° ANGLE.

Safety in the fast lane. The Power Bull's patented Double Top leak protection ensures absolute safety at angles of up to 45° and even survived the tough roll-over test according to VW standards. Improved protection against backfiring and electrostatic discharge (ESD), as well as flexible gas vents, mounted on both sides, round off the Double Top safety package in style and help to also make the Power Bull, as well as ideal for SUVs.



POWER BULL

POWER BULL STARTING ENERGY FOR ASIAN VEHICLES.

As a result of its enormous range of capacities and casing sizes, the Power Bull can provide the energy supply for virtually all the types of vehicle manufactured in the Far East.

THE Banner POWER BULL IS ALSO AVAILABLE FOR:

CHEVROLET-DAEWOO	mitsubishi
DAIHATSU	NISSAN
HONDA	PROTON
HYUNDAI	SSANGYONG
ISUZU	SUBARU
KIA	SUZUKI
MAZDA	TOYOTA



Banner



STARTING BULL – PROVEN A MILLION TIMES OVER.



STARTING BULL

AFFORDABLE QUALITY.

Robust, fully proven and thoroughly optimised the Starting Bull is a powerful entry into the Banner brand world. This absolutely maintenance-free battery scores with top features and performance. In addition to calcium / calcium technology, the Starting Bull offer fourteen types with reliable four-chamber leak protection and enhanced safety due to central degassing and integrated backfire frits. First class attractive design with new terminal covers represents a clear indication of the potential of this battery.



Cars



Small transporters

Banner

STARTING BULL IS THE KEY TO THE Banner BRAND WORLD.

The Banner Starting Bull is a high quality O.E. entry into the world of banner branded batteries. However, safety knows no compromises and therefore this product, which has been proven millions of times over, also meets the very latest battery design standards.

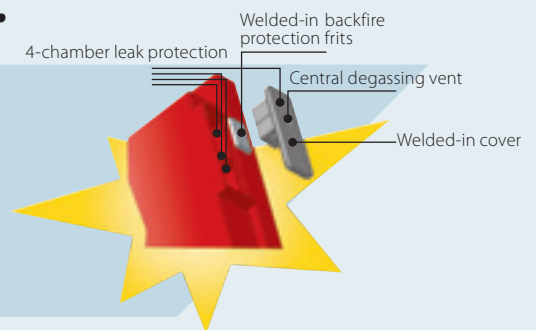
TECHNICAL DATA AND INFORMATION

- ▶ Four-chamber leak protection with integrated backfire safeguard for 14 best sellers from 40-95 Ah
- ▶ Absolutely maintenance-free due to the use of calcium / calcium technology
- ▶ Reliable cold starting behaviour
- ▶ Niche and supplementary types ensure complete coverage of the current vehicle fleet in Europe
- ▶ Simple classification due to the use of DIN and UK numbers for type designations
- ▶ Quality and know-how from Austria
- ▶ Optimum price-performance ratio



4-CHAMBER LEAK PROTECTION, THE INNOVATIVE SAFETY GUARANTEE.

Tried and tested, four-chamber leak protection is used in fourteen Starting Bull Europa types. In this system, four chambers provide a safeguard against escapes of battery acid during extreme vibrations. Moreover, central degassing and welded-in backfire frits secure optimum operational safety. All these features add up to a significant increase in safety during vehicle use and handling.





STARTING BULL

Banner



BUFFALO BULL – NEXT GENERATION POWER



TOUGHER THAN TOUGH.

The durable products of the Buffalo Bull series are the most hardworking of Banner's starter batteries. They are suitable for every type of commercial vehicle from trucks and buses to agricultural/forestry/construction machinery and snow groomers. The Buffalo Bull is available in a robust version for initial purchases and two super heavy-duty variations as the Buffalo Bull SHD and the Buffalo Bull SHD Professional. These power packs provide reliable starting in every situation and in addition, the SHD batteries supply in-board networks with sufficient power.



Buses



Trucks



Construction machinery



Agricultural machinery



Snow groomers

Banner

THE BUFFALO BULL MEANS RELIABLE BRAND QUALITY.

If they opt for the Buffalo Bull, those looking for a suitable and reliable starter battery for their commercial vehicles will have made just the right decision. This is because the Buffalo Bull is a brand battery with proven Banner quality.

TECHNICAL DATA AND INFORMATION

- ▶ Niche and supplementary types for agricultural machinery and unusual commercial vehicles
- ▶ Simple maintenance due to the externally visible electrolyte level markings and practical screws
- ▶ Robust design with set bonding
- ▶ Bag separators for backfire protection and high starting current levels



BUFFALO BULL SHD IS THE NEW FORCE FOR COMMERCIAL VEHICLES.

Rugged, constant use in commercial vehicles puts batteries to the severest test. Furthermore, over the years the demands made on modern batteries have increased greatly and in addition to cycle and vibration resistance, characteristics such as ease of maintenance, operational reliability and cold start performance are more important than ever. The optimised Buffalo Bull SHD constitutes the perfect response.

TECHNICAL DATA AND INFORMATION

- ▶ Maintenance-free hybrid technology ensures minimum water consumption
- ▶ SHD means extra cyclical and vibration resistance with a top E4/V3 rating pursuant to EN 50342-1
- ▶ The use of special surge protectors with integrated backfire protection safeguards against battery leaks and ensures operational safety
- ▶ The ConCast production process and mesh design secure reliable cold start performance



Mercedes Truck, Liebherr, Kramer/Neuson, BOMAG, Rammax, Kässbohrer, Kubota, Lindner and Caterpillar all trust Banner batteries for first fitting.

THE BUFFALO BULL SHD OFFERS DECISIVELY MORE POWER FOR COMMERCIAL VEHICLES.

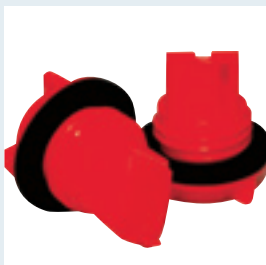
The Buffalo Bull SHD PROfessional is a top product that really starts to show its problem-solving capacity in tough situations such as stop & go and cold starts, etc., when other batteries have long given up the ghost. It has thus consolidated its position at the top end of the bus, truck and fleet operator market. Indeed, Banner has equipped the Buffalo Bull with unbeatable advantages that make it ideal for modern trucks and buses.

TECHNICAL DATA AND INFORMATION

- ▶ Meets the requirements of Mercedes Trucks
- ▶ Absolutely maintenance-free due to calcium technology, which also provides enhanced storage capacity
- ▶ Central degassing and patented four-chamber leak protection
- ▶ Captive, welded-in backfire frits and safety screws
- ▶ PinFin protection against short circuits caused by tools
- ▶ SHD means extra cycle/vibration resistance in the highest E4/V3 category pursuant to EN 50342-1
- ▶ ConCast mesh production process and optimised mesh design provide reliable cold start performance
- ▶ EN 50342-4 casing height



THE BUFFALO BULL MEANS SUCCESS BORN OF INNOVATION.



TECHNOLOGY FOR GREATER SAFETY.

Special surge protector safety screws are used in the Buffalo Bull. They have been developed by Banner in order to prevent battery acid leaks under extreme vibrations or vehicle tilting. In addition, reliable backfire protection is integrated into the surge protectors, thus fulfilling the first fitting demands of leading commercial vehicle manufacturers.



CONCAST FOR STILL MORE POWER.

Banner uses the continuous ConCast process for the production of negative mesh for both the SHD PROfessional and the SHD. The resulting advantages consist of increased frame stability and reduced production tolerances. New mesh and plate design provide optimum electrical conductance and ensure that the battery is insensitive to high current loads, which is a clear advantage for full cold start performance under all operational conditions.



OPTIMUM LEAK PROTECTION THROUGH A FLAT LID AND CENTRAL DEGASSING.

The Buffalo Bull SHD PROfessional makes an active contribution to working/operational safety. Patented, four-chamber leak protection and central degassing, integrated, captive backfire protection, safety screws and innovative "PinFin" short circuit protection round off the safety package. Battery dimensions in line with EN 50342 Part 4 guarantee optimum installation capacity.

Banner



ENERGY BULL – FULL POWER FOR FREE TIME.



THE LEISURE SPECIALIST.

The Energy Bull is designed as a long-duration discharge battery and is therefore THE special battery for hobbies and leisure. The battery is characterised by excellent cyclical resistance and simple charging, as well as easy maintenance and operational safety. The Energy Bull thus provides portable energy for yachts, electric boats, motor caravans, caravans and camping. Moreover, the battery is also suitable for powering wheelchairs and use as an energy source for signal systems and solar panels.

Banner tip! We recommend starter batteries like the Power Bull for starting motorboats, inboard and outboard motors.

The fact that several Motorhome converters & manufacturers along with caravan manufacturers now fit Energy Bull as Original Equipment proves that it is a true leisure specialist. This is further backed up by recent independent leisure press articles where the Energy Bull received excellent reviews.



Yachts



Caravans



Camping



Solar

Banner

THE ENERGY BULL HAS CONVINCING DEEP CYCLE CHARACTERISTICS.

With the Energy Bull, Banner presents a special battery for hobbies and leisure. The robust Energy Bull's characteristics make it an ideal power pack for camping/caravans, boats and use in many other applications, which extend to signal systems and electrical motor drives.

In tandem with bag separators and a special mass composition, the robust mesh structure of the battery ensures extreme cyclical resistance. The advantages at a glance:

TECHNICAL DATA AND INFORMATION

- ▶ The Energy Bull offers up to three times the cyclical resistance of standard starter batteries and is extremely durable
- ▶ MIN/MAX markings on the transparent battery casing and easy opening make the battery maintenance-friendly
- ▶ Backfire protection is integrated into the battery cover and surge protectors
- ▶ Low maintenance is secured by minimum water consumption and self-discharge
- ▶ The suitability of any standard charger makes charging straightforward
- ▶ A top V3 vibration resistance rating pursuant to EN 50342-1 is secured by plate bonding to the battery bottom and pocket separators with a glass web layer
- ▶ Optimum capacity that is perfect for dealing with cyclical loads
- ▶ Delivery in a filled and charged condition is both user- and environment-friendly
- ▶ Practical handles for easy transport



LONG, LONGER, LONGEST. NO LETTING UP ALLOWED!

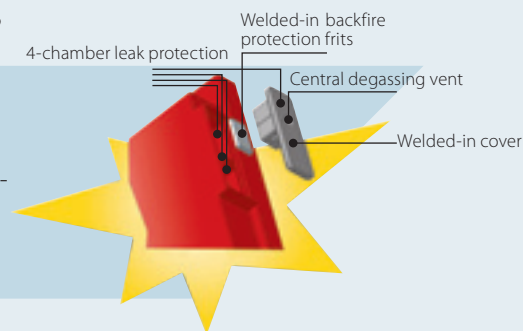
A top quality long-duration discharge battery is characterised by the fact that its power never seems to weaken. Such batteries offer uncompromising power over an extended period, as evidenced by the Energy Bull, which according to the EN cycle test provides triple the cyclical resistance of standard starter batteries. This characteristic is a recommendation for the use of the Energy Bull as a special battery for the supply of energy in every type of leisure application.

Characteristic	Starter battery	Long-duration discharge battery
Mesh alloy	Part or full calcium	Low antimony
Mesh design	Fine structure	Coarse structure
Mass type	Thin plates	Thick plates
Battery design	Cold start optimised	Special cycle mass
Separator type	Large plate surface	Large plate volume
	PE separator without glass mat	PE separator with glass mat



4-CHAMBER LEAK PROTECTION, THE INNOVATIVE SAFETY GUARANTEE.

Tried and tested four-chamber leak protection is used in virtually all Energy Bull types. In this system, four chambers provide a safeguard against escapes of battery acid during extreme vibrations. Moreover, central degassing and welded-in backfire frits secure optimum operational safety. All these features add up to a significant increase in safety during vehicle use and handling.



SURGE PROTECTORS. ENTIRELY ACID-TIGHT AND EASY TO HANDLE.

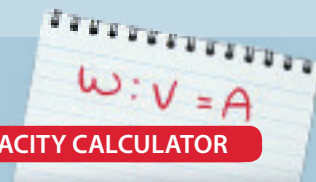
The cell screws with O-rings on the flat battery lid represent another safety bonus. These can be opened and closed without using tools, which facilitates both battery testing and refilling with water.



THE RIGHT BATTERY?

JUST ASK THE ENERGY BULL CAPACITY CALCULATOR!

CAPACITY CALCULATOR



Which is the most suitable battery? This question is often asked when an optimum power supply is being sought for a certain piece of equipment. In such situations, the Banner Capacity Calculator at www.Bannerbatterien.com is just what's needed, as in only three steps one can quickly and easily determine the power requirement for a particular application and hence the suitable battery type.

STEP 1

Establish the power needed for the desired application, or device, etc. in watts (e.g. from various technical descriptions, stickers on the device, instructions, ...).

STEP 2

Consider and define the period of time that use of the device or application will involve before recharging.

STEP 3

Use the Banner Capacity Calculator on www.Bannerbatterien.com, by entering the values directly online. The ideal battery type will then be determined automatically.

HOW TO FIND THE CAPACITY CALCULATOR.

http://www.bannerbatterien.com/banner/produkte/batterien/energy_bull/rechner/index.php

Banner



BIKE BULL – THE MOTORCYCLE BATTERY WITH Banner POWER.



HEAD FOR FREEDOM.

Biking means a feeling of unlimited freedom. Sun, hot tarmac and seemingly endless curves. However, the fun element soon disappears if the bike fails to start. Therefore, when perfect starting and plentiful power are required, the Bike Bull is always the first choice. Especially for bikers, this power pack offers everything that is required for pure cruising pleasure. In addition, the Bike Bull also provides equally safe starts for all-terrain vehicles/quads, jet skis, snowmobiles and tractor mowers. The Bike Bull programme contains 57 battery types divided into three programme grades, which are available all year round.

BIKE BULL



Motorcycles road/cross



ATV/Quads



Jet skis



Tractor mowers



Snowmobiles

Banner

THE BIKE BULL

PROVIDES POWER FOR MOTORCYCLES AND TRACTOR MOWERS.

The basic Bike Bull range consists of classic lead batteries with enclosed electrolyte. The batteries are opened for start up and maintenance and are then subsequently resealed.

TECHNICAL DATA AND INFORMATION

- ▶ High load-bearing capacity
- ▶ Safe starting even in the case of short run use
- ▶ Extensive programme consisting of 33 types
- ▶ Dry, pre-charged; enclosed electrolyte in the precisely required volume



Installation in a lateral position is not possible.

Before using our charging for the first time please allow sufficient time for the electrolyte to be absorbed into the glass mat.

THE BIKE BULL AGM

REPRESENTS THE LATEST MAINTENANCE-FREE TECHNOLOGY.

Banner power for motorcycles, ATV/quads, jet skis, tractor mowers and snowmobiles, which is especially suitable for off-road applications. Bike Bull AGM batteries are absolutely maintenance-free and are fitted with the latest AGM technology. In this system, the acid is absorbed by a glass mat and is thus bound in.



TECHNICAL DATA AND INFORMATION

- ▶ More available power
- ▶ Safe starting even in the case of short run use
- ▶ Absolute maintenance-free due to AGM technology (absorbent glass mat)
- ▶ Vibration-resistant
- ▶ Dry, pre-charged; enclosed electrolyte in the precisely required volume
- ▶ High start performance



Installation in a lateral position is not possible. The battery is sealed after filling and may not be reopened.

BIKE BULL AGM + SLA **OFFERS UNCOMPROMISING POWER.**

The top product in the Bike Bull product series is equipped with AGM+SLA technology. SLA stands for sealed lead acid and means, "closed at the plant, charged and completely sealed."



TECHNICAL DATA AND INFORMATION

- ▶ Excellent protection against tipping and leaks
- ▶ Lateral installation possible and therefore especially suitable for cross bikes and ATV/quads
- ▶ High start performance
- ▶ Vibration-resistant
- ▶ Absolute maintenance-free due to AGM technology (absorbent glass mat)



**Installation in a lateral position possible
(max. 90° angle of inclination)**



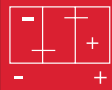

Banner



TYPE LISTS.

RUNNING BULL	46
UNI BULL	46
POWER BULL	48
STARTING BULL	50
BUFFALO BULL	54
ENERGY BULL	56
BIKE BULL	58

Banner


Type	Info	UK No.	Box	Ah 20 h	A EN		
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RUNNING BULL



AGM FOR PREMIUM START / STOP APPLICATIONS WITH BRAKE ENERGY RECUPERATION

Type	Info	UK No.	Box	Ah 20 h	A EN	Terminal 1	Terminal 2
560 01		027AGM	H5	60	640	0	1
570 01		096AGM	H6	70	720	0	1
580 01		110AGM	H7	80	800	0	1
592 01		019AGM	H8	92	850	0	1
595 01	= 592 01						
605 01 		020AGM	H9	105	950	0	1

EFB BATTERY FOR SIMPLE START / STOP APPLICATIONS

Type	Info	UK No.	Box	Ah 20 h	A EN	Terminal 1	Terminal 2
560 00 		027EFB	H5	60	560	0	1
570 00 		096EFB	H6	70	660	0	1

AGM BATTERY WITH ABSORBENT GLASS MAT AS AN INBOARD NETWORK BACK-UP BATTERY

Type	Info	UK No.	Box	Ah 20 h	A EN	Terminal 1	Terminal 2
AUX 09 				9	120	1	10
AUX 12 				12	200	1	10

UNI BULL

4-TERMINAL CALCIUM BATTERY FOR UNIVERSAL APPLICATIONS



Type	Info	UK No.	Box	Ah 20 h	A EN	Terminal 1	Terminal 2
50 100		063 / 076 / 085 / 093 / 012 / 077 / 079	T4	47	390	0+1	1+19
50 200		075 / 065 / 097 / 078 / 092 / 040	T5	58	450	0+1	1+19
50 300		027 / 025 / 069* / 068* / 072*	H5	69	520	0+1	1+19
50 400	= P45 23/24, 545 23/24	043 / 044 / 048 / 049 / 038 / 015 / 154 / 155					
50 500		096 / 067 / 095 / 082 / 086 / 115*	H6	80	700	0+1	1+19

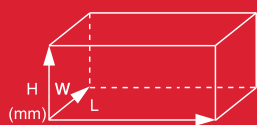
50 100 replaces: 535 28*, 536 21/24/27/28/41/46/53/54/55/59, 540 45/63, 543 12/15/16/17*/19/20/23/24, 544 09/13/34/49/59/64/65/66/69, 545 86, 546 14, 548 27*, 550 57*, P44 09, P50 03*

50 200 replaces: 545 19/33/98, 546 13, 550 35/40/44/46/48/49/56/57*/69, 552 18/19, 554 14/15/23/26/27/28, 555 18/19/30/31/45/48/59/63/64/65/66/71, 555 72/73, 558 11*, 560 08/09/91*, 562 05/19*, P55 19, P62 05/19*, PRO P63 40*

50 300 replaces: 555 18/19/30/31/45/48/59/63/64/65/66/71/72/73, 558 16/17, 560 08*/09*, 560 13*/73/74/76/ 78/88/93/94, 561 11/13, 562 05*/16/19/20/ 21, 563 18*/26/32, 564 01*/20*, 566 33*, 572 33*, P55 19*, P62 05*/19, PRO P63 40

50 500 replaces: 566 13/18/19/31/38/41/45/47, 570 24*/ 29*, 570 44/58/64/65/68/69/76, 572 17/19/20/ 21/23/25*, 572 09*/12/ 26*/29/30*/32/34, 574 05*/12/13, 575 31/40, 576 11/12, 577 19, 580 14*/34/35/41/42, P66 13*, P72 09*/12, P74 05*/12, PRO P75 40 , P80 14*/42

T = Dry, N = Wet,  Double Top,  = 4-chamber leak protection, RF = vibration-resistant , GA = battery with central degassing, HGI = hard rubber set, mG = with handle, RZS = flame arrester, * limited use, ** with base hold-down adapter,



T

N

Application

Length	Width	Box height	Total height					
241	175	190	190	mG	B13	-	-	BMW, VW, Audi, Hyundai, Kia
278	175	190	190	mG	B13	-	-	BMW, VW, Audi, Mercedes, Porsche, taxis
315	175	190	190	mG	B13	-	-	BMW, VW, Audi, Mercedes, Porsche, taxis
354	175	190	190	mG	B13	-	-	BMW, VW, Audi, Mercedes, Porsche, taxis
394	175	190	190	mG	B13	-	-	BMW, VW, Audi, Mercedes, Porsche, taxis

Start/Stop: replace AGM with AGM.

Length	Width	Box height	Total height					
241	175	190	190	mGGA	B13	-	√	Alfa Romeo, Audi, Citroen, Fiat, Ford, Peugeot, Toyota, VW
278	175	190	190	mGGA	B13	-	√	Alfa Romeo, Audi, Citroen, Fiat, Ford, Peugeot, Toyota, VW

Start/Stop: replace EFB with EFB.

Length	Width	Box height	Total height					
150	88	106	106		B00	-	-	Volvo Start/Stop, DRiVe
150	88	145	145		B00	-	-	Audi, BMW 5/7Start/Stop, Mercedes E/S-Class, Volvo Automatic

Start/Stop: replace AGM with AGM.

Length	Width	Box height	Total height					Replaces DIN-Type
210	175	175	175	mG	B01/13	-	√	35/36/40/43/44/45/46/48/50 Ah
241	175	175	175	mG	B01/13	-	√	45/46/50/52/53/54/55/58/60 Ah
241	175	190	190	mG	B01/13	-	√	55/58/60/61/62/63/64/66/72 Ah
278	175	190	190	mG	B01/13	-	√	66/70/72/74/75/76/77/80 Ah

Banner

Type	Info	UK No.	Box	Ah 20 h	A EN		
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POWER BULL

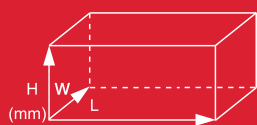
PROFESSIONAL CALCIUM / CALCIUM CAR BATTERY OF THE LATEST GENERATION

Type	Info	UK No.	Box	Ah 20 h	A EN	Terminal	Terminal
PRO P63 40		027 O.E.	H5	63	600	0	1
PRO P75 40		096 O.E.	H6	75	680	0	1
PRO P100 40		019 O.E.	H8	100	800	0	1

CALCIUM / CALCIUM CAR BATTERY OF THE LATEST GENERATION

P40 26		054	35NS	40	300	0	3
P40 27		055	35NS	40	300	1	3
P44 09		063	T4	44	420	0	1
P45 23		044 / 053	45NS	45	360	0	1+3
P45 24		043 / 057	45NS	45	360	1	1+3
P50 03		012	H4	50	450	0	1
P55 19		065	T5	55	480	0	1
P60 68		005L	D23	60	480	0	1
P60 69		005R / 014	D23	60	480	1	1
P62 05		075	T5	62	540	0	1
P62 19		027 / 025	H5	62	540	0	1
P70 24		069	D26	70	570	1	1
P70 29		068	D26	70	570	0	1
P72 09		096 / 100	T6	72	660	0	1
P72 12	= PRO P75 40/P74 12	096					
P74 12		096	H6	74	680	0	1
P80 14		110	T7	80	700	0	1
P80 42	= P80 14 In the case of a bracket mounting with 15mm height compensation – adjustment plate Art.No. 3050001120						
P88 20		017	T8	88	700	0	1
P95 04		249 / 335	D31	95	680	0	1
P95 05		250 / 334	D31	95	680	1	1
P95 33		019	H8	95	760	0	1
P100 44	= PRO P100 40/P95 33						

T = Dry, N = Wet, Double Top, = 4-chamber leak protection, RF = vibration-resistant, GA = battery with central degassing, HGI = hard rubber set, mG = with handle, RZS = flame arrester, * limited use, ** with base hold-down adapter,



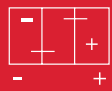

T

N

Application









Length	Width	Box height	Total height					
241	175	190	190	mGGA	B13	-	√	555 19*/59, 560 09*, 562 05*/19
278	175	190	190	mGGA	B13	-	√	566 13*/38, 570 44*, 572 09*/12, 574 05*/12
354	175	190	190	mGGA	B13	-	√	585 15*, 588 20*/27, 595 21/33, 600 44



187	127	204	226	mGGA	B00	-	√	535 20, 540 26
187	127	204	226	mGGA	B00	-	√	535 22, 540 27
210	175	175	175	mGGA	B13	-	√	536 53, 540 45**/63, 544 09/59*
238	129	203	225	mGGA	B00	-	√	545 23/84
238	129	203	225	mGGA	B00	-	√	545 24/51
210	175	190	190	mGGA	B13	-	√	544 09*/59, 550 03
241	175	175	175	mGGA	B13	-	√	545 19**, 555 19/59*
233	173	203	225	mGGA	B00	-	√	560 68, 565 33
233	173	203	225	mGGA	B00	-	√	560 69, 565 34
241	175	175	175	mGGA	B13	-	√	560 09, 562 05/19*
241	175	190	190	mGGA	B13	-	√	560 09*, 562 05*/19
260	174	200	222	mGGA	B01	-	√	560 49, 570 24
260	174	200	222	mGGA	B01	-	√	560 48, 570 29, 580 09
278	175	175	175	mGGA	B13	-	√	563 18**, 564 20**, 566 13/38*, 570 44, 571 13, 572 09/12*, 574 05/12*
278	175	190	190	mGGA	B13	-	√	566 13*/38, 570 44*, 572 09*/12, 574 05*/12
315	175	175	175	mGGA	B13	-	√	575 39, 580 14/35*/42*
354	175	175	175	mGGA	B13	-	√	585 15, 588 20/27*/34*
303	173	203	225	mGGA	B01	-	√	595 04, 600 32
303	173	203	225	mGGA	B01	-	√	595 05, 600 33
354	175	190	190	mGGA	B13	-	√	595 21/33, 600 44

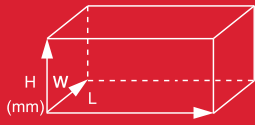
Type	Info	UK No.	Box	Ah 20 h	A EN		
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STARTING BULL

CAR BATTERY IN OEM QUALITY

6 Volt							
066 12		421		66	360	0	1
077 18		404		77	450	0	1
12 Volt							
530 30		895 / 101		30	300	0	4
530 34		896		30	300	1	4
532 02		002R		32	240	1	1
532 28		047		32	260	0	1
535 04		054HD		35	260	0	3
535 20		054	35NS	35	260	0	3
535 22		055	35NS	35	260	1	3
536 46	= P44 09**/540 63**						
538 37		037		38	300	0	19
538 80		038		38	260	1	1
540 08	 = 542 08	002L / 202					
540 63		063	T4	40	330	0	1
542 08		002L / 202	H3	42	330	0	1
543 17	= 50 100	085					
544 09		063 / 076	T4	44	360	0	1
544 13	= 50 100	077					
544 59	= P50 03	012 / 079					
545 19	= P55 19**/555 19**	040					
545 23		044 / 053	45NS	45	330	0	1+3
545 24		043 / 057	45NS	45	330	1	1+3
545 51	= P45 24/545 24						
545 77		048		45	300	0	1
545 79		049		45	300	1	1
545 84	= P45 23/545 23						
548 80	= 538 80	015					
550 03	= P50 03	012					
550 41		004L / 008	D20	50	390	0	1
550 42	= P60 69/560 69	004R					
555 18		= 560 08	078				
555 19			T5	55	450	0	1
557 16	= 50 200 without handle	113					
560 08			078	T5	60	480	1

T = Dry, N = Wet,  Double Top,  = 4-chamber leak protection, RF = vibration-resistant, GA = battery with central degassing, HGI = hard rubber set, mG = with handle, RZS = flame arrester, * limited use, ** with base hold-down adapter,



T

N

Application











Length	Width	Box height	Total height					
178	175	166	188		B04	√	√	VW -1968, Trabant
216	170	166	191		B06	√	√	VW, Ford D, Trabant, Tatra 613
Length	Width	Box height	Total height					
187	128	165	165	mGGA	B00	-	√	Small tractors, BMW motorcycles
187	128	165	165	mGGA	B00	-	√	Small tractors
165	170	165	190		B13	-	√	>2000 Spanish-built Vitaras
178	134	200	225		B01	-	√	Microcar (Aixam -98, Ligier, ...)
187	137	202	224	mGGA	B01	-	√	Hyundai Atos, Honda Jazz 03 -
187	128	202	224	mG	B00	-	√	Daihatsu, Honda, Mitsubishi, Subaru, Suzuki
187	128	202	224	mG	B00	-	√	Mazda, Suzuki, Daihatsu, Subaru
239	135	179	200		B09	-	√	Early Fords up to 1976
239	135	179	200	mG	B09	-	√	Austin
210	175	175	175	mGGA	B13	-	√	Skoda, Audi, Seat, VW
175	175	190	190	GA	B13	-	√	Fiat Punto Benzin, Aixam 99-
210	175	175	175	mGGA	B13	-	√	BMW, Opel, Renault, Fiat, Skoda
238	129	201	223	mG	B00	-	√	Toyota, Subaru, Mazda
238	129	201	223	mG	B00	-	√	Mitsubishi Colt, Lancer, Galant, Honda
218	135	203	225		B01	-	√	Renault R8-R13, Dacia
218	135	203	225		B01	-	√	Peugeot, Honda, Dacia
202	173	202	225	mG	B00	-	√	Isuzu, Kia, Mazda, Nissan, Subaru, Toyota
241	175	175	175	mGGA	B13	-	√	BMW, Fiat, Peugeot, Renault
241	175	175	175	mGGA	B13	-	√	Lada, Moskvie



Banner

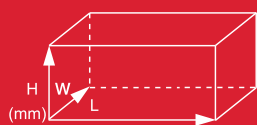
Type	Info	UK No.	Box	Ah 20 h	A EN		
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STARTING BULL

CAR & LIGHT COMMERCIAL IN O.E.M. QUALITY

12 Volt								
560 09			075	T5	60	480	0	1
560 10			U.S.A.	BCI 75	60	675	1	5
560 11		= 50 200	111					
560 48		= P70 29/570 29	073					
560 49		= P70 24/570 24	071					
560 62			005LHD	D23	60	420	0	1
560 68			005L	D23	60	420	0	1
560 69			005R / 014	D23	60	420	1	1
560 91		= 50 200	097					
562 05		= P62 05/560 09	075					
562 19			027 / 025	H5	62	480	0	1
563 18		= P72 09**/566 13**						
564 20		= P72 09** /566 13**	010					
566 13			067	T6	66	510	0	1
570 24			069	D26	70	510	1	1
570 29			068	D26	70	510	0	1
570 44			100 / 096	T6	70	640	0	1
570 72			072	D26	70	480	1	1
570 88			088	D26	70	480	0	1
570 89			089	D26	70	480	1	1
571 14		= P72 09/572 09 with Ford battery clamps						
572 09		= P72 09/570 44	096 / 100	T6	72	640	0	1
572 12			096	H6	72	640	0	1
572 33			082 / 086	H6	72	640	1	1
580 09			068HD	D26	80	600	0	1
580 14			110	T7	80	660	0	1
580 42		= P80 14/580 14 In the case of a bracket mounting with 15mm height compensation – adjustment plate Art.No. 3050001120						
588 20			017	T8	88	680	0	1
590 17			643	95AH	90	680	0	1
590 18			644	95AH	90	680	1	1
595 04			249 / 335	D31	95	640	0	1
595 05			250 / 334	D31	95	640	1	1
595 33			019	H8	95	720	0	1
610 42			020	H9	110	850	0	1

T = Dry, N = Wet,  Double Top,  = 4-chamber leak protection, RF = vibration-resistant, GA = battery with central degassing, HGI = hard rubber set, mG = with handle, RZS = flame arrester, * limited use, ** with base hold-down adapter,



T

N

Application




Length	Width	Box height	Total height					
241	175	175	175	mGGA	B13	-	√	Mercedes, BMW, Opel, Peugeot, Ford
248	178		184	mGGA	B07	-	√	Chrysler USA, Opel/Vauxhall Sintra
232	175	204	225	mG	B01	-	√	Hyundai Trajet, Elantra, i10 CRDi, i20 CRDi, i30, i40
232	173	204	225	mG	B00	-	√	Mazda, Subaru, Nissan, Toyota
232	173	204	225	mG	B00	-	√	Nissan, Toyota, Honda, Mazda, Isuzu, Mitsubishi
241	175	190	190	mGGA	B13	-	√	Mercedes, BMW, Opel, Peugeot, Ford
278	175	175	175	mGGA	B13	-	√	Mercedes, BMW, Porsche, Fiat, Lada
269	174	202	225	mG	B05	-	√	Volvo, jap. PKW's, Moskvïe
269	174	202	225	mG	B05	-	√	Japenese cars
278	175	175	175	mGGA	B13	-	√	Mercedes, BMW, Opel, Fiat, Ford
272	175		220		B01	-	√	TVR, Land Rover Discovery >99
272	175		220		B00	-	√	Jaguar, Isuzu, Toyota
272	175		220		B00	-	√	Jaguar, Triumph, Isuzu, Toyota
278	175	175	175	mGGA	B13	-	√	Mercedes, BMW, Opel, Fiat, Ford
278	175	190	190	mGGA	B13	-	√	Mercedes, BMW, Opel, Fiat, Ford
278	175	190	190	mGGA	B01	-	√	Chrysler Voyager
258	174	200	222	mGGA	B01	-	√	Kia, Hyundai, Nissan, Subaru
315	175	175	175	mGGA	B13	-	√	Audi D, BMW D, Nissan D, Renault D, VW D
354	175	175	175	mGGA	B13	-	√	BMW D, Citroen D, Mercedes D, VW D
344	172	214	230	mG	B00	√	√	IHC, Massey Ferguson
344	172	214	230	mG	B00	√	√	IHC, Mac Cormick
304	173	202	225	mG	B01	-	√	Fiat tractors, Mazda D, Nissan, Toyota D
304	173	202	225	mG	B01	-	√	Nissan D, Toyota D, Mitsubishi D
354	175	190	190	mGGA	B13	-	√	Audi, BMW, Mercedes, VW
394	175	190	190	mGGA	B13	-	√	Audi, BMW, Mercedes, VW

Banner

Type	Info	UK No.	Box	Ah 20 h	A EN		
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BUFFALO BULL SHD PROFESSIONAL

COMMERCIAL VEHICLE BATTERY IN OEM QUALITY – ABSOLUTE MAINTENANCE-FREE COMMERCIAL VEHICLE

SHD PRO 645 03 		627 / 637 PROfessional	A	145	800	3	1
SHD PRO 680 08 		629 PROfessional	B	180	1000	3	1
SHD PRO 725 03 		632 PROfessional	C	225	1150	3	1





BUFFALO BULL SHD



COMMERCIAL VEHICLE BATTERY IN OEM QUALITY (SUPER HEAVY DUTY) COMMERCIAL VEHICLE

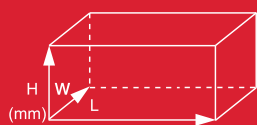
SHD 610 40		615	MAC 110	110	760	3	1
SHD 620 34	= SHD PRO 645 03/SHD 640 35/620 34						
SHD 630 13	= SHD PRO 680 08/SHD 680 32/670 43						
SHD 635 44		630	MAC 110	135	900	3	1
SHD 640 35		627 / 637 (140ah)	A	140	800	3	1
SHD 643 27	= SHD PRO 680 08/SHD 680 32/670 43						
SHD 650 38	= SHD PRO 645 03/SHD 640 35/640 35						
SHD 670 33			MAC 140	170	1000	3	1
SHD 670 43	= SHD PRO 680 08/SHD 680 32/670 43						
SHD 680 32		629 SHD (180ah)	B	180	1000	3	1
SHD 700 27	= SHD PRO 725 03/SHD 725 11/700 27						
SHD 725 11		632	C	225	1150	3	1

BUFFALO BULL

COMMERCIAL VEHICLE BATTERY IN OEM QUALITY

600 26		221 / 616		100	600	0	1
600 35		221R		100	600	1	1
605 02 		Type 31/ DP110 Centre Post	BCI 31	105	1000	9	8
605 11	= 610 11	663FLHD					
605 27	= 610 48	664					
605 28	= 610 47	663					
610 11 		663FLHD	Compact	110	720	0	1
610 47 		663	Compact	110	720	0	1
610 48 		664	Compact	110	720	1	1
610 50		TYPE 31		110	950	0	1
620 34		627	A	120	720	3	1
625 11		647	Compact	125	760	0	1
625 13		648	Compact	125	760	1	1

T = Dry, N = Wet,  Double Top,  4k = 4-chamber leak protection, RF = vibration-resistant, GA = battery with central degassing, HGI = hard rubber set, mG = with handle, RZS = flame arrester, * limited use, ** with base hold-down adapter,



T

N



Application

Length	Width	Box height	Total height					
514	189	195	220	mGGARZS	B00	-	√	Neoplan, MAN, Mercedes, Volvo, Scania, Steyr trucks
514	223	195	220	mGGARZS	B00	-	√	Neoplan, MAN, Mercedes, Volvo, Scania, Steyr trucks
517	273	212	240	mGGARZS	B00	-	√	Neoplan, MAN, Mercedes, Volvo, Scania, Steyr trucks

Length	Width	Box height	Total height					
514	175	210	210	mGGARZS	B03	-	√	MAN, Mercedes, Roman, Robur
514	175	210	210	mGGARZS	B03	-	√	MAN, Mercedes, Roman
514	189	195	220	mGRZS	B00	-	√	Steyr trucks, MAN, Mercedes
514	218	210	210	mGGARZS	B03	-	√	MAN, Mercedes, Liaz
514	223	195	220	mGRZS	B00	-	√	Steyr trucks, MAN, Roman, Multicar
517	273	212	240	mGRZS	B00	-	√	Steyr, MAN, Volvo trucks




Length	Width	Box height	Total height					
413	175	195	220	mG	B00	-	√	Mercedes D, Steyr tractors, Daihatsu D, Barkas, Ursus
413	175	195	220	mG	B00	-	√	Daihatsu, Nissan, Mitsubishi D
330	171	218	241	mGGA	B00	-	√	Caterpillar, US trucks
344	172	214	230	mG	B01	-	√	Iveco Daily 01.05-, Renault
344	172	214	230	mG	B00	-	√	IHC, Massey Ferguson
344	172	214	230	mG	B00	-	√	IHC, Mac Cormick
340	172	210	230	mG	B03	-	√	Land Rover TD5, JCB
514	189	195	220	mG	B00	-	√	MAN, Mercedes, Roman, MAZ
345	172	260	283	mG	B00	-	√	Massey Ferguson
345	172	260	283	mG	B00	-	√	Mac Cormick

Banner

Type	Info	UK No.	Box	Ah 20 h	A EN		
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BUFFALO BULL







COMMERCIAL VEHICLE BATTERY IN OEM QUALITY

Type	Info	UK No.	Box	Ah 5 h	Ah 20 h	Ah 100 h		
625 23			NATO 6TN	125	720	2	1	
635 11		655		135	760	0	1	
635 13		656		135	760	1	1	
640 35		637	A	140	760	3	1	
670 43		629	B	170	900	3	1	
680 32		629 (180ah)	B	180	950	3	1	
700 27		625	C	200	1000	3	1	
700 29		624	C	200	1000	4	1	
725 11		632 / 625HD	C	225	1050	3	1	



Type	Info	UK No.	Box	Ah 5 h	Ah 20 h	Ah 100 h		
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ENERGY BULL

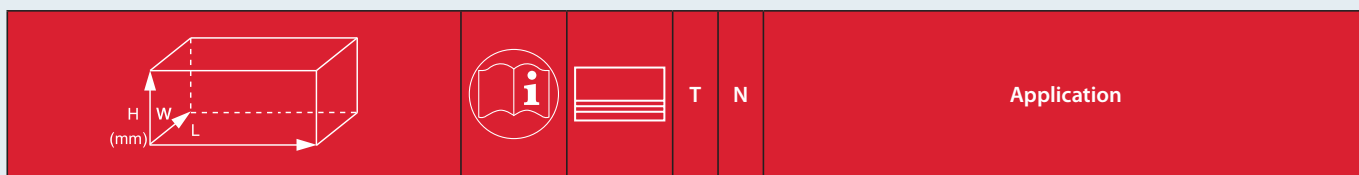
PREMIUM LEISURE BATTERIES FOR DEEP CYCLE OR LONG DURATION DISCHARGE APPLICATIONS

Type	Info	UK No.	Box	Ah 5 h	Ah 20 h	Ah 100 h		
955 01		065 Box Premium Leisure	H5	50	60	70	0	1
955 51		678 Box Premium Leisure	D26	55	72	85	1	0
956 01		096 Box Premium Leisure	H6	60	80	90	0	1
957 51		110LB / 019 Box Premium Leisure	H8	75	100	110	0	1
959 01		110 / 679 Box Premium Leisure	LOT7	90	115	135	0	1
960 51		627 Box Premium Leisure	A	105	130	140	3	1
963 51		629 Box Premium Leisure	B	135	180	195	3	1
968 01		625 Box Premium Leisure	C	180	230	250	3	1

VOYAGER LEISURE - STANDARD LEISURE BATTERY

Type	Info	UK No.	Box	Ah 5 h	Ah 20 h	Ah 100 h		
VL678		678 Standard Leisure	D26	47	55	75	1	1
VL679		679 Standard Leisure		70	90	110	1	1

T = Dry, N = Wet,  Double Top,  = 4-chamber leak protection, RF = vibration-resistant, GA = battery with central degassing, HGI = hard rubber set, mG = with handle, RZS = flame arrester, * limited use, ** with base hold-down adapter,



Length	Width	Box height	Total height					Application
280	267	213	230	mG	B00	-	√	NATO 6TN
345	172	260	283	mG	B00	-	√	Commercial vehicles
345	172	260	283	mG	B00	-	√	Commercial vehicles
514	189	195	220	mG	B00	-	√	Steyr Trucks, MAN, Mercedes
514	223	195	220	mG	B00	-	√	Steyr Trucks, MAN, Magirus, Roman, Multicar
514	223	195	220	mG	B00	-	√	Steyr-Trucks, MAN, Roman, Multicar
517	273	212	240	mG	B00	-	√	Caterpillar, Steyr, MAN, Volvo, Tatra trucks
517	273	212	240	mG	B00	-	√	Volvo, Scania
517	273	212	240	mG	B00	-	√	Steyr, MAN, Volvo trucks



Length	Width	Box height	Total height					Application
241	175	190	190	mGGA	B13	-	√	Yachts, Electric Boats, Boats, Caravans, Motor Caravans, Signal Units, Wheelchairs, Solar, Camping
256	174	205	225	mGGA	B00	-	√	Yachts, Electric Boats, Boats, Caravans, Motor Caravans, Signal Units, Wheelchairs, Solar, Camping
278	175	190	190	mGGA	B13	-	√	Yachts, Electric Boats, Boats, Caravans, Motor Caravans, Signal Units, Wheelchairs, Solar, Camping
354	175	190	190	mGGA	B13	-	√	Yachts, Electric Boats, Boats, Caravans, Motor Caravans, Signal Units, Wheelchairs, Solar, Camping
350	175	230	230	mGGA	B00	-	√	Yachts, Electric Boats, Boats, Caravans, Motor Caravans, Signal Units, Wheelchairs, Solar, Camping
514	189	195	220	mGRZS	B00	-	√	Yachts, Electric Boats, Boats, Caravans, Motor Caravans, Signal Units, Wheelchairs, Solar, Camping
514	223	195	220	mGRZS	B00	-	√	Yachts, Electric Boats, Boats, Caravans, Motor Caravans, Signal Units, Wheelchairs, Solar, Camping
517	273	212	240	mGRZS	B00	-	√	Yachts, Electric Boats, Boats, Caravans, Motor Caravans, Signal Units, Wheelchairs, Solar, Camping

Length	Width	Box height	Total height					Application
272	172	202	220	mGGA	B00	-	√	Mains Hook Up - Light Cycling
344	172		235	mGGA	B00	-	√	Mains Hook Up - Light Cycling

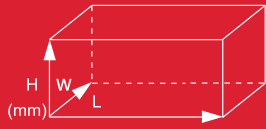
Banner

Banner battery type	Remarks	Battery art. no.	Rated voltage	Capacity Ah 10 h	Cold start current A CCA	Switching
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BIKE BULL

MOTORCYCLE BATTERY INCLUDING ACID

004 12	6N4B-2A	020 004 12 0100	6	4	/	5
007 14	B39-6	020 007 14 0100	6	7	/	6
008 11	B49-6	020 008 11 0100	6	8	/	6
012 11	6N11A-3A	020 012 11 0100	6	11	/	6
012 14	6N11A-1B	020 012 14 0100	6	11	/	6
012 25	6N12A-2D	020 012 25 0100	6	12	/	6
013 14	B38-6A	020 013 14 0100	6	14	/	6
503 12	YB3L-A	020 503 12 0100	12	3	/	6
503 13	YB3L-B	020 503 13 0100	12	3	/	6
504 11	YB4L-B	020 504 11 0100	12	4	/	5
505 12	YB5L-B	020 505 12 0100	12	5	/	6
506 11	12N5,5-3B	020 506 11 0100	12	5,5	/	6
507 13	YB7-A	020 507 13 0100	12	8	/	6
507 14	YB7C-A	020 507 14 0100	12	8	/	3
509 14	YB9-B	020 509 14 0100	12	9	/	6
511 12	YB10L-A2	020 511 12 0100	12	11	/	8
511 13	YB10L-B	020 511 13 0100	12	11	/	6
512 11	YB12A-A	020 512 11 0100	12	12	/	6
512 13	YB12AL-A2	020 512 13 0100	12	12	/	8
512 15	YB12A-B	020 512 15 0100	12	12	/	6
514 11	YB14L-A2	020 514 11 0100	12	14	/	8
514 12	YB14-A2	020 514 12 0100	12	14	/	8
514 13	YB14L-B2	020 514 13 0100	12	14	/	8
514 14	YB14-B2	020 514 14 0100	12	14	/	8
516 15	YB16B-A1	020 516 15 0100	12	16	/	7
516 16	YB16AL-A2	020 516 16 0100	12	16	/	2
518 14	Europa – BMW without ABS	020 518 14 0100	12	18	/	10
519 12	YB16-B	020 519 12 0100	12	19	/	6
519 15	YB16HL-A-CX	020 519 15 0100	12	19	/	5
520 11	Y50-N18L-A3	020 520 11 0100	12	20	/	4
520 12	Y50-N18L-A	020 520 12 0100	12	20	/	7
528 16	Y60-N24L-A	020 528 16 0100	12	28	/	3
530 15	YB30L-B	020 530 15 0100	12	30	/	4



Bottom strip

Max. length mm	Max. width mm	Max. total height mm	
102	48	96	B00
126	48	126	B00
91	83	160	B00
122	62	132	B00
122	62	132	B00
156	57	116	B00
119	83	161	B00
98	56	110	B00
98	56	110	B00
120	70	92	B00
120	60	130	B00
135	60	130	B00
135	75	133	B00
130	90	114	B00
135	75	139	B00
135	90	145	B00
135	90	145	B00
134	80	160	B00
134	80	160	B00
134	80	160	B00
134	89	166	B00
134	89	166	B00
134	89	166	B00
134	89	166	B00
160	90	161	B00
207	71	164	B00
186	82	171	B00
175	100	155	B00
175	100	155	B00
205	90	162	B00
205	90	162	B00
184	124	175	B00
168	132	176	B00

Banner

Banner battery type	Remarks	Battery art. no.	Rated voltage	Capacity Ah 10 h	Cold start current A CCA	Switching
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BIKE BULL

MOTORCYCLE BATTERY WITH AGM TECHNOLOGY (ABSORBENT GLASS MAT)
ABSOLUTELY MAINTENANCE-FREE

503 14	YTX4L-BS	021 503 14 0100	12	3	40	5
504 12	YTX5L-BS	021 504 12 0100	12	4	55	5
506 14	YTX7L-BS	021 506 14 0100	12	6	75	5
506 15	YTX7A-BS	021 506 15 0100	12	6	85	5
508 12	YTX9-BS	021 508 12 0100	12	8	90	5
510 12	YTX12-BS	021 510 12 0100	12	10	160	5
512 14	YTX14-BS	021 512 14 0100	12	12	180	5
513 14	YTX15L-BS	021 513 14 0100	12	13	180	4
514 22	YTX16-BS	021 514 22 0100	12	14	200	4
518 21	YTX20L-BS	021 518 21 0100	12	18	210	4
518 22	YTX20CH-BS	021 518 22 0100	12	18	220	4
522 14	YTX50L-BS	021 522 14 0100	12	22	300	4
522 15	YTX50-BS	021 522 15 0100	12	22	300	4

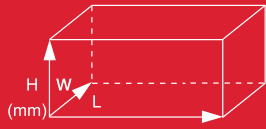
MOTORCYCLE BATTERY WITH AGM AND SLA TECHNOLOGY (FILLED AND SEALED)
ABSOLUTELY MAINTENANCE-FREE

502 01	YTZ4A-BS	022 502 01 0101	12	2	35	12
506 01	YT7B-BS	022 506 01 0101	12	6	85	11
507 01	YTZ7S	022 507 01 0101	12	7	75	5
508 01	YT9B-4	022 508 01 0101	12	8	100	11
509 01	YTZ10S	022 509 01 0101	12	9	130	11
510 01	YT12B-BS	022 510 01 0101	12	10	115	11
510 21	YTZ12A-BS	022 510 21 0101	12	10	120	11
511 01	YTZ14S	022 511 01 0101	12	11	140	11
512 01	YT14B-4	022 512 01 0101	12	12	135	11
520 01	Europa – BMW mit ABS	022 520 01 0101	12	20	170	10
530 01	YTZ30L-BS	022 530 01 0101	12	30	280	5

Notes

A = end of range model – only available for as long as stocks last
 NL = no longer available
 Bottom strip = B00 = no bottom strip/B13 = with bottom strip

The refundable used battery price is a theoretical calculation value, which may vary. Used batteries may only be returned when the casing is complete. Further information is available from the Internet (www.bannerbatteries.com) or in various Banner Batteries Ltd. publications.



Bottom strip

Max. length mm	Max. width mm	Max. total height mm	
114	71	86	B00
114	71	106	B00
114	71	131	B00
150	87	95	B00
150	87	105	B00
150	87	131	B00
150	87	147	B00
175	87	130	B00
150	87	161	B00
175	87	155	B00
150	87	161	B00
205	87	162	B00
205	87	162	B00

Max. length mm	Max. width mm	Max. total height mm	
114	49	85	B00
149	65	92	B00
113	70	105	B00
150	70	105	B00
150	87	93	B00
150	70	131	B00
150	87	105	B00
150	87	110	B00
150	70	145	B00
181	76	172	B00
166	126	175	B00

Banner



CLASSIFICATION LISTS.

STARTER BATTERIES	70
TRUCK BATTERIES	96
MOTORCYCLE BATTERIES	134

Dear Customer,

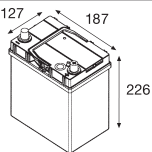
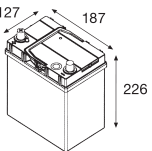
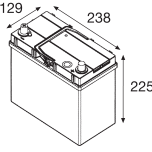
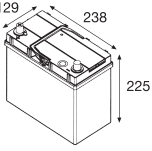
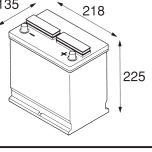
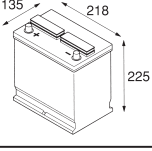
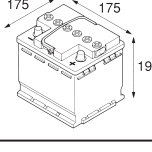

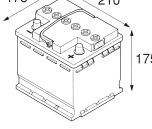


Banner products are backed by many years of experience, stringent quality requirements and the latest technologies. This adds up to the certainty that you can provide your customers with outstanding brand products with which they will be satisfied. We have classified every vehicle brand with maximum care and to the best of our ability. However, we cannot guarantee that individual automotive manufacturers always install the same battery type per model and year. Therefore, we must point out that Banner will accept no claims arising from a possibly different classification and equally no responsibility is assumed for errors and omissions.

Banner Batteries Ltd.



PRODUCT VARIATIONS

Banner PRODUCT VARIATION IN IDENTICAL OR ALTERNATIVE CASINGS

Casing type	Max. dimensions in mm	Running Bull	Uni Bull	Power Bull	Starting Bull
35NS				P40 26	535 20
				P40 27	535 22
45NS				P45 23	545 23
				P45 24	545 24
E2					545 77
					545 79
H3					540 08 
T4 / LB1			50 100	P44 09 	540 63 



PRODUCT VARIATIONS

Casing type	Max. dimensions in mm	Running Bull	Uni Bull	Power Bull	Starting Bull
T4 / LB1			50 100	P44 09 DT	544 09 4K
H4 / L1			50 100/T4	P44 09/T4 DT P50 03 DT	544 09/T4 4K
D20				P60 68/D23 P40 26/35NS**	550 41
				P60 69/D23 P40 27/35NS**	
T5 / LB2			50 200		555 18 4K
			50 200	P55 19 DT	555 19 4K
			50 200	P62 05 DT	562 05 4K
H5 / L2		560 00 560 01	50 300	P55 19/T5 DT P62 19 DT	561 31 RF
		560 00 560 01	50 300	P62 19 DT	562 05/T5 4K

* With bottom strip adapter
* With terminal sleeve

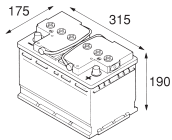
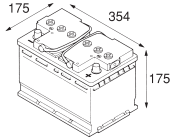
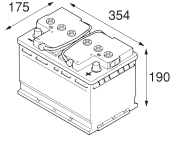
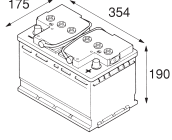
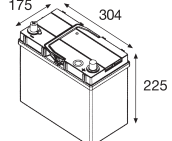
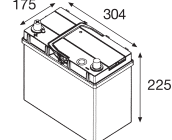
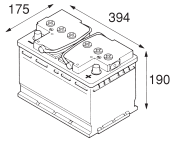


PRODUCT VARIATIONS

Casing type	Max. dimensions in mm	Running Bull	Uni Bull	Power Bull	Starting Bull
T6 / LB3				P66 13 DT	566 13 4K
				P72 09 DT	572 09 4K
H6 / L3		570 00 570 01	50 500	P66 13/T6 DT P72 12 DT	572 31 RF
			50 500		572 33 4K
		570 00 570 01	50 500	P72 12 DT	572 09/T6 4K
D23				P60 68	560 68
				P60 69	560 69
D26 / MO60				P70 24	570 24
				P70 29	570 29 580 09
T7 / LB4				P80 14 DT	580 14 4K



PRODUCT VARIATIONS

Casing type	Max. dimensions in mm	Running Bull	Uni Bull	Power Bull	Starting Bull
H7 / L4		580 01	50 500/H6	P80 14/T7 P80 42 <i>DT</i> <i>DT</i>	580 14/T7 <i>4K</i>
T8 / LB5				P88 20 <i>DT</i>	588 20 <i>4K</i>
H8 / L5		592 01		P88 20/T8 P95 33 <i>DT</i> <i>DT</i>	588 34 RF
		592 01		P95 33 <i>DT</i>	595 33 <i>4K</i>
D31 / 56 AT				P95 04	595 04
				P95 05	595 05
H9 / L6					610 42

As at 12/2011



COMPARISON TABLE

TABLE OF COMPARISONS FOR UK NO./DIN NO. AND JAPANESE PART NO. (JIS)/DIN NO.

UK No.	DIN No.
002L / 202	542 08 4K
002R	532 02
004L / 008	550 41
004R	550 42
005L	560 68
005LHD	560 62
005R / 014	560 69
010	564 20
012	544 59
017 / 024	588 20 4K
019	595 33 4K
020	610 42
027 / 025	562 19
037	538 37
038	538 80
040	545 19
043 / 057	545 24
044 / 053	545 23
047	532 28
048	545 77
049	545 79
054	535 20
054HD	535 04
055	535 22
063	540 63 4K
063 / 076	544 09 4K
065	555 19 4K
067	566 13 4K
068	570 29
068HD	580 09
069	570 24
071	560 49
072	570 72
073	560 48
075	560 09 4K
077	544 13
078	560 08 4K
085	543 17
086 / 082	572 33 4K
088	570 88
089	570 89
095	571 14
096	572 12
096 / 100	570 44 4K
097	560 91
110	580 14 4K
115	580 42
249 / 335	595 04
250 / 334	595 05
279	570 16
404	077 18
421	066 12
451	182 90
484	242 11
501	084 11
511	112 11
521	120 18
531	150 30
541	160 17
643	590 17
644	590 18
713	007 13
721	007 21
722	007 22

UK No.	DIN No.
733	007 33
895 / 101	530 30
896	530 34

JIS No.	DIN No.
J 40 L	535 20
J 40 LS	535 20
J 40 RS	535 22
J 45 L	545 23
J 45 LS	545 23
J 45 R	545 24
J 45 RS	545 24
J 50 L	550 41
J 50 R	550 42
J 60 L	560 68
J 60R	560 69
J 70 L	570 29
J 70 R	570 24
J 90 L	595 04
J 90 R	595 05
LO 7650	570 24
LO 7651	570 29
LO 7652	545 24
LO 7653	595 05
LO 7654	560 68
LO 7655	560 69
LO 7656	560 69
MF36-20GL	550 41/P50 03
MF36-21GL	550 41/P50 03
MF48-25GL	560 01
MF54-26GL	580 09
MF56-28GL	570 01
MF64-26GL	580 09
MF64-31GL	580 01
MF72-30FR	595 05
MF72-30GL	595 04
N 100	595 05
N 40	545 24
N 40	545 24
N 40L	545 23
N 40L	545 23
N 50	570 24
N 50 L	570 29
N 50 Z	570 24
N 50 ZL	570 29
N 60	560 69
N 60	545 24
N 60 (S)	545 24
N 60 L	560 68
N 60 L	545 23
N 60 L (S)	545 23
N 70	595 05
N 70 L	595 04
N 70 Z	595 05
N 70 ZL	595 04
N S 100 S6S	570 29
N S 70	570 24
NT 60 S4	545 24
NT 60 SL4	535 22
NT 80 S 6	535 20
NT 80 S6LS	545 23
NT 80 S6S	545 24
N X 100 S6	545 24

JIS No.	DIN No.
N X 100 S6L	545 23
N X 100 S6LS	545 23
N X 100 S6S	545 24
N X 110 S	570 24
N X 110 SL	570 29
N X 120 7	570 24
N X 120 7L	595 04
N X 120 L	595 04
N 100	600 35
N 100 L	600 26
N 100 Z	600 35
N 100 ZL	600 26
N 150	SHD 680 89
N 150 L	670 43
N 200	700 29
N 200 L	700 27
N 120	620 34
NS 40	535 22
NS 40 L	535 20
NS 40 Z	535 22
NS 40 Z (S)	535 22
NS 40 ZA	535 20
NS 40 ZA (S)	535 20
NS 40 ZAL	535 22
NS 40 ZAL (S)	535 22
NS 40 ZL	535 20
NS 40 ZL (S)	535 20
NS 60	545 24
NS 60 (S)	545 24
NS 60 L	545 23
NS 60 L (S)	545 23
Y 100 S6	545 23
12N 24 - 3	530 30
12N 24 - 4	530 34
26 A 19 L	530 30
26 A 19 R	530 34
28 B 19 L	535 20
28 B 19 R	535 22
32 A 19 L	530 30
32 A 19 R	530 34
32 B 20 L	535 20
32 B 20 R	535 22
32 C 24 L	545 23
32 C 24 R	545 24
34 B 17 R	535 22
34 B 17 R (S)	535 22
34 B 19 L	535 20
34 B 19 L (S)	535 20
36 B 20 L	535 20
36 B 20 R	535 22
38 B 19 R	535 22
38 B 20 L	535 20
38 B 20 L (S)	535 20
38 B 20 R	535 22
38 B 20 R (S)	535 22
40 B 19 L	535 20
40 B 19 R	535 22
46 B 24 L	545 23
46 B 24 L (S)	545 23
46 B 24 R	545 24
46 B 24 R (S)	545 24
48 D 26 L	570 29
48 D 26 R	570 24
50 B 24 L	545 23
50 B 24 LS	545 23

JIS No.	DIN No.
50 B 24 R	545 24
50 B 24 R (S)	545 24
50 D 20 L	550 41
50 D 20 R	550 42
55 B 24 L	545 23
55 B 24 LS	545 23
55 B 24 R	545 24
55 B 24 R (S)	545 24
55 D 20 L	550 41
55 D 20 R	550 42
55 D 23 L	560 68
55 D 23 R	560 69
55 D 26 L	570 29
55 D 26 R	570 29
55 D 26 L	570 29
55 D 26 R	570 24
55 D 31 L	570 29
55 D 31 R	570 24
70 D 23 R	560 68
70 D 26 L	570 29
70 D 26 R	570 24
70 D 31 L	595 04
70 D 31 R	595 05
75 D 26 L	570 29
75 D 26 R	570 24
75 D 31 R	595 05
75 D 31L	595 04
80 D 26 L	570 29
80 D 26R	570 24
85 E 41 L	600 26
85 E 41 R	600 35
95 D 26 L	570 29
95 D 26 R	570 24
95 D 31L	595 04
95 D 31R	595 05
95 E 41 L	600 26
95 E 41 R	600 35
105 E 41 L	600 26
105 E 41 R	600 35
110 F51	620 34
115 F51	620 34
115 D 31L	595 04
115 D 31R	595 05
130 E 41 L	600 26
135 G51 R	SHD 680 89
135 G51 L	SHD 643 27
145 G51 R	SHD 680 89
145 G51 L	670 43
165 G51 R	SHD 680 89
165 G51 L	670 43
170 F51 L	670 43
180 G61 L	680 32
190 H52 R	700 29
190 H52 L	700 27
210 H52 L	725 11
245 H52 L	725 11



LOW-TEMPERATURE TEST CURRENT FOR STARTER BATTERIES ACCORDING TO VARIOUS STANDARDS

Low-temperature test current is a benchmark for the starting capacity of a battery at minus 18°C.

1. DIN (Deutsche Industrie Norm) DIN EN 50342

The test is carried out at minus 18°C. Following a discharge with low-temperature current I at an end voltage of 7.5 V, the discharge period should amount to at least 10 seconds.

In addition, the battery must fulfil two additional requirements.

The period up to 6V final voltage shall amount to:

After C1:t 6 V > 90 seconds

After C2:t 6 V > 150 seconds

2. SAE (US standard)

The test is carried out at minus 18°C. With low-temperature current of up to 7.2 V, the discharge period should amount to at least 30 seconds.

$$SAE = \frac{DIN}{2} \times 3 + 40$$

3. IEC (International Electrotechnical Commission) 95-1

The test is carried out at minus 18°C. Following a discharge with the low-temperature current (I cc) after 60 seconds the voltage should amount to at least 8.4 V.

$$IEC = \frac{DIN}{0.85}$$

Reserve capacity

Following dynamo failure, reserve capacity represents the number of minutes during which a battery can supply power until the next repair shop can be reached. However, this figure is dependent upon the consumers in the vehicle. IEC envisages the following test:

Discharge with 25 A down to an end voltage of 10.5 V at a temperature of 27°C.

$$\text{Measured time in minutes} = \text{reserve capacity}$$

4. EN (Europa Norm) DIN EN 50342

The test is carried out at minus 18°C. Following a discharge with the low-temperature current I at an end voltage of 7.5 V, the discharge period should amount to at least 10 seconds.

In addition, the battery must fulfil two additional requirements.

The period up to 6 V final voltage shall amount to:

After C1:t 6 V > 90 seconds

After C2:t 6 V > 150 seconds

$$EN (C_1) = \frac{IEC}{0.6} \quad IEC = \frac{DIN}{0.85}$$

$$EN (C_2) = \frac{DIN}{0.6} \quad EN (C_1) = \frac{DIN}{0.6 \times 0.85} = \frac{DIN}{0.51}$$

As the prescribed graduations are defined in the EN, the currents are to be adjusted by rounding up or down:

- < 200 A – Level 10 A
- 200 – 300 A – Level 20 A (220, 240, 260, 280 A)
- 300 – 600 A – Level 30 A (330, 360, 390, 420, 450, 480, 510, 540, 570 A)
- 600 – 800 A – Level 40 A (640, 680, 720, 760 A)
- > 800 A – Level 50 A

Banner

CARS AND SMALL TRANSPORTERS

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Aixam						
Berline, convertible, minivan, pick-up, saloon	01.93-12.98				532 28	
Berline, convertible, minivan, pick-up, saloon	01.99-				542 08	
Alfa Romeo						
33+sports car (905, -A, 907A, B) 1.2-1.7	05.83-09.94			P50 03	542 08	
33+sports car (905, -A, 907A, B) 1.8TD	05.83-09.94		50 500	P74 12	572 12	
75 (162B) 1.6-2.0	05.85-02.92		50 300	P62 19	562 19	
75 (162B) 2.0-2.4 D, TD	05.85-02.92		50 500	P74 12	572 12	
145 (930) 1.3-1.6	07.94-01.01			P50 03	542 08	
145 (930) 1.7-2.0	07.94-01.01		50 300	P62 19	562 19	
145 (930) 1.9 TD, JTD	07.94-01.01		50 500	P74 12	572 12	
146 (930) 1.3-1.6	12.94-01.01			P50 03	542 08	
146 (930) 1.7-2.0	12.94-01.01		50 300	P62 19	562 19	
146 (930) 1.9 TD, JTD	12.94-01.01		50 500	P74 12	572 12	
147 (937) 1.6-2.0	09.01-		50 300	P62 19	562 19	
147 (937) 1.9 JTD	09.01-		50 500	P74 12	572 12	
155 (167) 1.6-2.0	02.92-12.97		50 300	P62 19	562 19	
155 (167) 1.9 TD, JTD	02.92-12.97		50 500	P74 12	572 12	
156+sports car (932) 1.6-1.8	09.97-05.06		50 300	P62 19	562 19	
156+sports car (932) 1.9-2.4 JTD, 3.2 GTA	09.97-05.06		50 500	P74 12	572 12	
156+sports car (932) 2.0-2.5 V6	09.97-05.06		50 500	P74 12	572 12	
159 1.9-2.2	06.05-	560 01	50 300	P62 19	562 19	
159 3.2 V6	06.05-	570 01	50 500	P74 12	572 12	
159+sports car 1.9-2.4 JTD	06.05-	560 01	50 300	P62 19	562 19	
164 (164) 2.0 4cyl.	01.87-09.98		50 300	P62 19	562 19	
164 (164) 2.0-3.0 6cyl.	01.87-09.98		50 300	P62 19	562 19	
164 (164) 2.5 TD	01.87-09.98			P95 33	595 33	
166 (936) 2.0-3.2 V6	09.98-		50 500	P74 12	572 12	
166 (936) 2.4 JTD	09.98-			P95 33	595 33	
8C V8	03.07-	570 01	50 500	P74 12	572 12	
Brera (939) 2.2-3.2 V6	03.02-		50 300	P62 19	562 19	
Brera (939) 2.4 JTDM	03.02-		50 500	P74 12	572 12	
Giulietta (940) 1.4 Turbo start/stop	01.12-	560 00				
Giulietta (940) 2.0 JTD start/stop	01.12-	570 00				
GT 1.8-3.2 GTA, 1.9 JTD	11.03-		50 300	P62 19	562 19	
GTV (916C_) 1.8-3.2 V6 Junior	09.94-03.08-		50 500	P74 12	572 12	
Junior JTD	03.08-			P50 03		
Mi.To. (ZAR955) 1.4	07.08-				542 08	
Mi.To. (ZAR955) 1.3-1.6	07.08-			P50 03		
Mi.To. (ZAR955) 1.4 start/stop	08.09-	560 00				
Mi.To. (ZAR955) 1.3-1.6 JTDM start/stop	08.09-	560 00				
Q2	03.07-	560 01	50 300	P62 19	562 19	
RZ Zagato 3.0 V6	01.92-12.94		50 300	P62 19	562 19	
Spider (115) 1600 (79kW), 2000 (88/93 kW)	03.71-12.93		50 300	P62 19	562 19	
Spider (916) 1.8-2.0	09.94-04.05		50 300	P62 19	562 19	
Spider (916) 3.0-3.2 V6	09.94-04.05		50 500	P74 12	572 12	
Spider 3.2 JTS	09.06-	560 01	50 300	P62 19	562 19	
Spider 2.4 JTDM	09.06-	570 01	50 500	P74 12	572 12	
SZ Zagato 3.0 V6	09.88-08.94		50 300	P62 19	562 19	
Alpine						
B3 (E46) 3.3-3.4 all models	05.99-		50 500	P80 14	580 14	
B5 (E60, E61) 4.5	03.05-	592 01		P95 33	595 33	
B7 (E65) 4.4 start/stop	01.04-	592 01				
B10 (E39) 3.2-3.3	12.96-			P95 33	595 33	
B10 (E39) 4.6-4.8	12.96-	605 01			610 42	
B12 (E38) 5.7-6.0	12.95-07.01					
Roadster (Z8) 4.8 V8	06.02-			P95 33	595 33	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Roadster S (Z4) 3.3	03.04-			P80 14	580 14	
A610 3.0 Turbo	01.91-04.95			P70 29	570 29	
AMG						
Hummer 5.7 V8				P70 24	570 24	
Hummer 6.2-6.6 D				P70 24	570 24	
ARO						
100 - 103			50 500	P74 12	572 12	
101 - 104			50 300	P55 19	555 19	
A 24	78-		50 500	P74 12	572 12	
A 24 D			50 500	P74 12	572 12	
Spartana 1.2	01.99-		50 100	P50 03	544 09	
Asia Motors						
Rocsta 4x4 1.8				P60 68	560 68	
Rocsta 4x4 2.2 D				P95 05	595 05	
Hi-Topic (AM 725) 2.7 STD, D	06.93-			P95 05	595 05	
Aston Martin						
Cygnat 1.4 start/stop	03.11-		560 00			
DB7 3.2	01.94-			P72 09	570 44	
DB7 5.9	01.94-			P95 33	595 33	
DB9 5.9 V12	01.96-			P88 20	588 20	
DBS, -Volante 5.9 V12	01.07-			P88 20	588 20	
Lagonda	01.76-12.97			P70 24	570 24	
One-77 V12	03.09-	580 01				
Rapide 6.0 V12	03.10-			P88 20	588 20	
Roadster V8, V12	06.07-			P88 20	588 20	
Vanquish 6.0 V12	09.01-			P88 20	588 20	
Vantage 4.0-6.0 V8, V12	09.01-			P88 20	588 20	
Virage 5.3 V8	01.88-12.00			P70 24	570 24	
Virage 5.9 V12	01.11-			P88 20	588 20	
Audi						
A1 1.2-1.4 TFSI	08.10-	560 01	50 300	P62 19	562 19	
A1 1.6 TDI	08.10-	570 01	50 500	P74 12	572 12	
A1 1.2-1.4 TFSI start/stop	08.10-	560 01				
A1 1.6 TDI start/stop	08.10-	570 01				
A2 (8Z0) 1.2-1.4 TDI	02.00-		50 500	P80 14	580 14	
A2 (8Z0) 1.4-1.6 FSI	02.00-		50 500	P74 12	572 12	
A2 (8Z0) 1.2-1.4 TDI start/stop	02.09-	580 01				
A2 (8Z0) 1.4-1.6 FSI start/stop	02.09-	570 01				
A3 (8L1, 8P1, 8PA) 1.6 (74-75kW)	09.96-		50 100	P50 03	544 09	
A3 (8P1) 1.4-1.8 TFSI start/stop	09.08-12.11	560 01				
A3 (8P1) 1.4-1.8 TFSI start/stop	01.12-	560 00				
A3 (8L1, 8P1, 8PA) 1.6 FSI (85 kW)-1.8 TFSI; 2.0 T quattro, FSI, S3 quattro	09.96-		50 300	P62 19	562 19	
A3 (8L1, 8P1, 8PA) 3.2 V6	09.96-		50 500	P80 14	580 14	
A3 (8L1, 8P1, 8PA) 1.9-2.0 TDI	09.96-		50 500	P80 14	580 14	
A3 (8P1) 1.9-2.0 TDI start/stop	09.08-	570 01				
A4 (8D2, 8D5, B5) 1.6-2.0 quattro, Avant, FSI	01.95-09.01		50 300*	P62 19*	562 19*	
A4 (8D2, 8D5, B5) 1.9-3.0 TDI, quattro, Avant	01.95-09.01		50 500*	P80 14*	580 14*	
A4 (8D2, 8D5, B5) 2.4-3.2 quattro, Avant, FSI, RS4, S4	01.95-09.01		50 500*	P74 12*	572 12*	
A4 (8E2, B6, 8E5, 8H7, 8HE, 8EC, 8ED, 8K2, 8K5) 1.6-2.0 quattro, Avant, FSI	11.00-		50 300	P62 19	562 19	
A4 (8E2, B6, 8E5, 8H7, 8HE, 8EC, 8ED, 8K2, 8K5) 2.4-3.2 quattro, Avant, FSI	11.00-		50 500	P74 12	572 12	
A4 (8E2, B6, 8E5, 8H7, 8HE, 8EC, 8ED, 8K2, 8K5) 1.9-2.0 TDI, quattro, Avant	11.00-		50 500	P80 14	580 14	



CARS AND SMALL TRANSPORTERS

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
A4 (8E2, B6, 8E5, 8H7, 8HE, 8EC, 8ED, 8K2, 8K5) 2.5-3.0 TDI, quattro, Avant, S4	11.00-			P95 33	595 33	
A4 (8K2, 8K5) 1.6-3.2 Avant, TFSI, quattro start/stop	11.07-	570 01				
A4 (8K2, 8K5) 2.0 TDI, quattro start/stop	11.07-	580 01				
A4 (8K2, 8K5) 2.7-3.0 TDI, quattro start/stop	11.07-	592 01				
A5 (8T) 1.8 TFSI	06.07-	592 01		P95 33	595 33	
A5 (8T) 3.2 FSI, TFSI	06.07-	605 01			610 42	
A5 (8T) S5 quattro	06.07-	605 01			610 42	
A5 (8T) 2.7-3.0 TDI, quattro	06.07-	605 01			610 42	
A5 Sportback 2.0 TFSI, quattro start/stop	03.09-	570 01				AUX 12
A5 convertible 2.0 TDI start/stop	03.09-	592 01				AUX 12
A6 (4A, C4) 1.8-2.0 quattro, Avant	06.94-12.97		50 200*	P55 19*	555 19*	
A6 (4A, C4) 1.9-2.5 TDI	06.94-12.97			P72 09*	566 13*	
A6 (4A, C4) 2.3-2.8 quattro, Avant	06.94-12.97			P72 09*	566 13*	
A6 (4A, C4) S6 quattro	06.94-12.97			P72 09*	566 13*	
A6 (4B, C5) 1.8-2.4 FSI	01.97-		50 500	P74 12	572 12	
A6 (4B, C5, 4F2, 4F5, 4FH) 2.0-3.0 TDI quattro, all-road, Avant	01.97-			P95 33	595 33	
A6 (4B, C5, 4F2, 4F5) 2.4-4.2 quattro, Avant	01.97-			P95 33	595 33	
A6 (4B, C5, 4F2, 4F5) RS6, S6, quattro, Avant	01.97-			P95 33	595 33	
A6 (4B, C5) 1.8-2.4 FSI start/stop	05.04-	570 01				AUX 12
A6 (4F2, 4F5, 4FH) 2.0-3.0 TDI quattro, all-road, Avant start/stop	05.04-	592 01				AUX 12
A6 (4F2, 4F5) 2.7-4.2 quattro, Avant start/stop	05.04-	592 01				AUX 12
A6 (4F2, 4F5) RS6, S6, quattro, Avant start/stop	05.04-	592 01				AUX 12
A7 2.8-3.0 TFSI, quattro	09.10-	592 01		P95 33	595 33	
A7 3.0 TDI, quattro	09.10-	592 01		P95 33	595 33	
A7 2.8-3.0 TFSI, quattro start/stop	09.10-	592 01				AUX 12
A7 3.0 TDI, quattro start/stop	09.10-	592 01				AUX 12
A8 (4D2, 4D8, 4E) 2.5-4.2 TDI quattro	03.94-			P95 33	595 33	
A8 (4D2, 4D8, 4E) 2.8-4.2 quattro	03.94-			P95 33	595 33	
A8 (4D2, 4D8, 4E) 3.7-6.0; quattro, S8 quattro	03.94-	605 01			610 42	
All-road (4BH) 2.7-4.2 T quattro, 2.5 TDI quattro	05.00-08.05	592 01		P95 33	595 33	
Convertible (8G7, B4) 1.8-2.8	05.91-08.00			P72 09*	566 13*	
Convertible (8G7, B4) 1.9 TDI	05.91-08.00			P72 09*	566 13*	
Coupé (89, 8B) 1.8-2.8 quattro	10.88-12.96			P72 09*	566 13*	
Q3 2.0 TFSI	06.11-	560 01	50 300	P62 19	562 19	
Q3 2.0 TDI	06.11-	570 01	50 500	P74 12	572 12	
Q3 2.0 TFSI start/stop	06.11-	560 01				
Q3 2.0 TDI start/stop	06.11-	570 01				
Q5 (8R) 2.0-3.2 FSI	03.08-	592 01		P95 33	595 33	
Q5 (8R) 2.0-3.0 TDI	03.08-	592 01		P95 33	595 33	
Q5 (8R) 2.0-3.2 FSI start/stop	03.08-	592 01				AUX 12
Q5 (8R) 2.0-3.0 TDI start/stop	03.08-	592 01				AUX 12

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Q7 (4L) 3.6-4.2 FSI	03.06-	592 01		P95 33	595 33	
Q7 (4L) 3.0-6.0 TDI	03.06-	605 01			610 42	
Q7 (4L) 3.6-4.2 FSI start/stop	03.06-	592 01				AUX 12
Q7 (4L) 3.0-6.0 TDI start/stop	03.06-	592 01				AUX 12
R8 (42) 4.2 quattro	03.07-	605 01			610 42	
TT (8N3) 1.8-3.2 VR6 quattro	10.98-06.06	560 01	50 300	P62 19	562 19	
TT (8J3) 2.0 TFSI quattro	10.06-	580 01	50 500	P80 14	580 14	
TT Roadster (8N9) 1.8-3.2 VR6 quattro	10.99-06.06	570 01	50 500	P74 12	572 12	
TT Roadster (8J9) 2.0 TFSI-3.2 V6 quattro	02.07-	580 01	50 500	P80 14	580 14	
TT Roadster (8J9) 2.0 TFS, 3.2 V6 quattro start/stop	02.07-	580 01				
V8 (D1) 3.6-4.2 quattro	10.88-02.94			P95 33*	595 33*	
Austin						
Mini MK	01.67-				545 79	
Montego (XE) 1.3-2.0	04.84-		50 100	P44 09	544 09	
Auverland						
A3 1.6	94-		50 200			
A3 1.9-2.1 D	92-		50 500	P74 12	572 12	
Beijing						
212				P70 24	570 24	
Bentley						
Arnage I, II 4.4-6.8	04.98-			P70 24	570 24	
Azure I, II 6.7-6.8	09.95-			P70 24	570 24	
Continental 6.0-6.75	10.91-			P70 24	570 24	
Continental GT, Flying Spur 6.0	06.03-		50 300	P55 19	555 19	
Continental GT W12	09.09-	592 01		P62 19		
BMW						
1 (E81, 82, 87) 116-118 i	09.04-		50 100	P50 03	544 09	
1 (E81, 82, 87) 120-130 i	09.04-	560 01	50 300	P62 19	562 19	
1 (E81, 82, 87) 118-120 d	09.04-	580 01	50 500	P80 14	580 14	
1 (E81, E87) 116-130 i EfficientDynamics start/stop	09.07-	570 01				
1 (E81, E87) 118-123 d EfficientDynamics start/stop	09.07-	580 01				
1 convertible (E88) 118-125 i	03.08-	560 01	50 300	P62 19	562 19	
1 convertible (E88) 135 i	03.08-	570 01	50 500	P74 12	572 12	
1 convertible (E88) 118-123 d	03.08-	580 01	50 500	P80 14	580 14	
1 convertible (E88) 118-125 i EfficientDynamics start/stop	03.08-	570 01				
1 convertible (E88) 135 i EfficientDynamics start/stop	03.08-	580 01				
1 convertible (E88) 118-123 d EfficientDynamics start/stop	03.08-	580 01				
1 Coupé (E82) 135 i EfficientDynamics start/stop	09.07-	570 01				
1 Coupé (E82) 120-123 d EfficientDynamics start/stop	09.07-	580 01				
3 (E30) 324 d, td	09.82-01.92			P88 20	588 20	
3 (E30) 315-325 i, all models	09.82-01.92		50 200	P55 19	555 19	
3 (E36) 316-318 i	09.90-02.98		50 300	P62 19	562 19	
3 (E36) 320-330 i, xi, M3	09.90-02.98			P72 09	570 44	
3 (E36) 318-325 td, tds	09.90-02.98			P95 33	595 33	
3 (E46) 316-318 i	02.98-02.05	560 01	50 300	P62 19	562 19	
3 (E46) 320-330 i, xi	02.98-02.05	570 01	50 500	P74 12	572 12	
3 (E46) 318-320 d	02.98-02.05	580 01	50 500	P80 14	580 14	
3 (E46) 330 d, xd	02.98-02.05	592 01		P95 33	595 33	
3 (E90) 318-320 i	01.05-	560 01	50 300	P62 19	562 19	
3 (E90) 325-335 i	01.05-	580 01	50 500	P80 14	580 14	

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3 (E90) 325-335 i EfficientDynamics start/stop	09.07-	592 01				
3 (E90) 325 d-335 d,xd	01.05-	592 01		P95 33	595 33	
3 (E90) 318-320 i EfficientDynamics start/stop	09.07-	592 01				
3 (E90) 325-335 i EfficientDynamics start/stop	09.07-	592 01				
3 (E90) 318-335 d,xd EfficientDynamics start/stop	09.07-	592 01				
3 Convertible (E30) 318-320 i	12.85-10.93		50 200	P55 19	555 19	
3 Convertible (E30) 325 i	12.85-10.93		50 300	P62 19	562 19	
3 Convertible (E36) 318 i	03.93-04.99		50 300	P62 19	562 19	
3 Convertible (E36) 320-328 i, M3 3.0-3.2	03.93-04.99		50 500	P74 12	572 12	
3 Convertible (E46) 318-330 Ci	06.00-		50 500	P74 12	572 12	
3 Convertible (E46) 318-330 Cd	02.05-	580 01	50 500	P80 14	580 14	
3 Convertible (E93) 320-335 i	03.07-	570 01	50 500	P74 12	572 12	
3 Convertible (E93) 330 d	03.07-	580 01	50 500	P80 14	580 14	
3 Convertible (E93) 320-335 i EfficientDynamics start/stop	09.07-	592 01				
3 convertible (E93) 320-330 d EfficientDynamics start/stop	09.07-	592 01				
3 Compact (E36) 316-318 ti	03.94-08.00		50 200	P55 19	555 19	
3 Compact (E36) 323 ti	08.97-08.00		50 500	P74 12	572 12	
3 Compact (E36) 318 tds	01.95-08.00			P95 33	595 33	
3 Compact (E46) 316-318 ti	06.01-02.05	560 01	50 300	P62 19	562 19	
3 Compact (E46) 325 ti	06.01-02.05	580 01	50 500	P80 14	580 14	
3 Compact (E46) 318-320 td	06.01-02.05	580 01	50 500	P80 14	580 14	
3 Coupé (E36) 316-320 i	03.92-04.99		50 200	P55 19	555 19	
3 Coupé (E36) 323 i	03.92-04.99		50 300	P62 19	562 19	
3 Coupé (E36) 325-328 i	03.92-04.99		50 500	P74 12	572 12	
3 Coupé (E46) 316-318 Ci	04.99-		50 300	P62 19	562 19	
3 Coupé (E46) 320-330 Ci, M3	04.99-		50 500	P74 12	572 12	
3 Coupé (E46) 330 Cd	04.99-			P95 33	595 33	
3 Coupé (E92) 320 i-330 xi	08.06-	580 01	50 500	P80 14	580 14	
3 Coupé (E92) 320-335 d	09.06-	592 01		P95 33	595 33	
3 Coupé (E92) 320 i-330 xi EfficientDynamics start/stop	09.07-	592 01				
3 Coupé (E92) 320-335 d,xd EfficientDynamics start/stop	09.07-	592 01				
3 Touring (E30) 316-320 i, all models	07.87-06.94		50 200	P55 19	555 19	
3 Touring (E30) 325 i, X all models	07.87-06.94		50 300	P62 19	562 19	
3 Touring (E30) 324 td	07.87-06.94			P88 20	588 20	
3 Touring (E36) 318 i, tds	01.95-10.99		50 200	P55 19	555 19	
3 Touring (E36) 320-328 i	01.95-10.99		50 500	P74 12	572 12	
3 Touring (E36) 318-325 tds	01.95-10.99			P95 33	595 33	
3 Touring (E46) 316-318i	10.99-		50 300	P62 19	562 19	
3 Touring (E46) 318-320 d	10.99-		50 500	P80 14	580 14	
3 Touring (E46) 320-330 i,xi	10.99-		50 500	P74 12	572 12	
3 Touring (E46) 330 d,xd	10.99-			P95 33	595 33	
3 Touring (E91) 318-320i	09.05-	560 01	50 300	P62 19	562 19	
3 Touring (E91) 325-335i	09.05-	580 01	50 500	P80 14	580 14	
3 Touring (E91) 318-320 d	09.05-	592 01		P95 33	595 33	
3 Touring (E91) 325-335 d	09.05-	592 01		P95 33	595 33	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
3 Touring (E91) 318-320 i EfficientDynamics start/stop	09.07-	592 01				
3 Touring (E91) 325-335 i EfficientDynamics start/stop	09.07-	592 01				
3 Touring (E91) 318-320 d EfficientDynamics start/stop	09.07-	592 01				
3 Touring (E91) 325-335 d,xd EfficientDynamics start/stop	09.07-	592 01				
5 (E28) 518-535 i	06.80-06.90			P72 09	566 13	
5 (E28) 524 d, td	06.80-06.90			P88 20	588 20	
5 (E34) 518-520 i	01.88-11.95		50 200	P55 19	555 19	
5 (E34) 525 i	01.88-11.95		50 500	P74 12	572 12	
5 (E34) 525 td, tds	01.88-11.95			P88 20	588 20	
5 (E34) 530-540 i	01.88-11.95			P88 20	588 20	
5 (E39) 520-540 i	11.95-06.03			P88 20	588 20	
5 (E39) 520-530 d, td, tds	11.95-06.03			P95 33	595 33	
5 (E60) 520-530 i	07.03-	592 01		P95 33	595 33	
5 (E60) 540-550 i	07.03-	592 01		P95 33	595 33	
5 (E60) 520-535 d, tds	07.03-	592 01		P95 33	595 33	
5 (E60) 520-530 i EfficientDynamics start/stop	09.07-	592 01				AUX 12
5 (E60) 540-550 i EfficientDynamics start/stop	09.07-	592 01				AUX 12
5 (E60) 520-535 d, tds EfficientDynamics start/stop	09.07-	592 01				AUX 12
5 Touring (E34) 518-520 i	11.91-01.97		50 200	P55 19	555 19	
5 Touring (E34) 525 i	11.91-01.97		50 300	P62 19	562 19	
5 Touring (E34) 525 tds	11.91-01.97			P88 20	588 20	
5 Touring (E34) 530-540 i	11.91-01.97			P88 20	588 20	
5 Touring (E39) 520-530 d, td, tds	01.97-06.03			P95 33	595 33	
5 Touring (E39) 520-540 i	01.97-06.03			P88 20	588 20	
5 Touring (E61) 520-530 i, xi	06.04-	592 01		P95 33	595 33	
5 Touring (E61) 545-550 i	06.04-	592 01		P95 33	595 33	
5 Touring (E61) 520-535 d,xd	06.04-	592 01		P95 33	595 33	
5 Touring (E61) 520-530 i, xi EfficientDynamics start/stop	09.07-	592 01				AUX 12
5 Touring (E61) 545-550 i EfficientDynamics start/stop	09.07-	592 01				AUX 12
5 Touring (E61) 520-530 d,xd EfficientDynamics start/stop	09.07-	592 01				AUX 12
6 (E24) 628-635 CSi	04.76-09.90		50 500	P74 12	572 12	
6 (E63, E64) 630-650 i, Ci, Csi, convertible, M6	01.04-	605 01			610 42	
6 (E64) Coupé, convertible 630-650 i, Ci, Csi EfficientDynamics start/stop	09.07-	592 01				AUX 12
7 (E32) 730-750 i	09.86-09.94		50 500	P74 12	572 12	
7 (E38) 728-740 i, 730-740 d	10.94-11.01			P95 33	595 33	
7 (E65, 66, 67, 68) 730-760 i, 730-745 d	11.01-	592 01				
7 (E68) 730-760 i, 730-745 d EfficientDynamics start/stop	09.07-	592 01				AUX 12
8 (E31) 840-850	04.90-12.99			P72 09	570 44	
M3 (E36, E46)	03.92-		50 500	P74 12	572 12	
M5 (E34, E39) 3.5-3.8	01.88-06.03			P95 33	595 33	
M5 (E60)	07.03-	592 01				
M6 (E63, E64)	01.04-	605 01			610 42	



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Mini One, convertible, Cooper, convertible, S	03.01-			P62 19		
Mini One, convertible, Cooper D	03.01-			P74 12		
Mini One, Clubman, Countryman, Cooper, S 1.6; 1.6 D start/stop	06.07-	570 01				
X1 (E84) sDrive/xDrive 18-28i EfficientDynamics-start/stop	10.09-	570 01				
X1 (E84) sDrive/xDrive 18-23d EfficientDynamics-start/stop	10.09-	580 01				
X3 (E83) 2.0	01.04-	570 01	50 500	P74 12	572 12	
X3 (E83) sDrive/xDrive 20-30i EfficientDynamics-start/stop	01.04-	570 01				
X3 (E83) 2.5-3.0	01.04-	592 01		P95 33	595 33	
X3 (E83) 2.0-3.0 d, sd	01.04-	592 01		P95 33	595 33	
X3 (E83) xDrive 18-20d EfficientDynamics start/stop	01.04-	580 01				
X3 (E83) xDrive 30-35d EfficientDynamics start/stop	01.04-	592 01				
X5 (E53, 70) 3.0-4.8 i, is	05.00-	592 01		P95 33	595 33	
X5 (E53, 70) 3.0 d	05.00-	592 01		P95 33	595 33	
X5 (E70) 3.0-4.8 i, is EfficientDynamics start/stop	09.07-	592 01				AUX 12
X5 (E70) 3.0 d EfficientDynamics start/stop	09.07-	592 01				AUX 12
X6 (E71) 3.5-5.0 i	09.07-	592 01		P95 33	595 33	
X6 (E71) 3.0-3.5 d	09.07-	592 01		P95 33	595 33	
X6 (E71) 3.5-5.0 i EfficientDynamics start/stop	09.07-	592 01				AUX 12
X6 (E71) 3.0-3.5 d EfficientDynamics start/stop	09.07-	592 01				AUX 12
Z1 2.5	06.88-06.91		50 200	P55 19	555 19	
Z3 (E36/7) 1.8-3.0; M 3.2; Coupé	10.95-06.03		50 500	P74 12	572 12	
Z4 (E85, 86) 2.0-3.2; M	02.03-	570 01	50 500	P74 12	572 12	
Z4 (E89) Coupé 3.0-3.2 M	03.06-	560 01	50 300	P62 19	562 19	
Z4 (E89) Roadster 2.0-3.2 EfficientDynamics start/stop	09.07-	570 01				
Z8 (E52) 4.9	06.00-06.03			P95 33	595 33	
Brilliance						
Zhonghua 2.0-2.4	01.05-	570 01	50 500	P74 12	572 12	
Bristol						
Bristol - all models	63-			P70 24	570 24	
Bugatti						
EB 110			50 200	P55 19	555 19	
Buick						
Park Avenue 3.8	01.91-10.96			P70 24	570 24	
Le Sabre 3.8	01.99-			P70 24	570 24	
Skylark 3.3	04.79-09.93			P70 24	570 24	
Cadillac						
Deville 4.6-4.9 V8	01.93-			P72 09	570 44	
DTS 4.6 V8	01.05-			P72 09	570 44	
Seville 4.9-5.7	08.79-			P72 09	570 44	
Eldorado, convertible				P95 04	595 04	
SRX 3.6 V6-4.6 V8	03.06-			P95 33	595 33	
Escalade 5.8	10.98-			P72 09	570 44	
XL8 4.6	03.04-		50 200	P62 05	560 09	
Other models				P70 24	570 24	
Caterham						
Super Seven Classic Line	74-				530 34	
Super Seven K, HPC, VXi	92-				530 34	
Corvette						
Coupé, convertible (C5, C6), Z06, ZR1	01.2005-		50 200			
Chery						
M14			50 200	P55 19	555 19	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
S16			50 200	P55 19	555 19	
Tiggo 5	09.06-		50 200	P55 19	555 19	
Chevrolet						
Beretta 2.2	01.87-12.96		50 100			
Beretta 2.3-3.1 V6	01.87-12.96			P70 24	570 24	
Blazer 4.3 V6	01.94-			P72 09	570 44	
Corsica 2.2-3.1 V6	01.87-12.96			P70 24	570 24	
Corvette 5.5-5.7	02.83-01.97			P70 24	570 24	
Corvette 5.7	01.97-09.04		50 500	P74 12	572 12	
HHR	03.07-					
Lumina APV 2.3-3.8	08.89-07.96			P70 24	570 24	
Trailblazer 4.2	05.06-	570 01	50 500	P74 12	572 12	
Chevrolet-Daewoo						
Aveo 1.2-1.4	03.08-			P60 69	560 69	
Captiva 2.4 R4	05.06-		50 300		560 08	
Captiva 3.2 V6	05.06-		50 500		572 33	
Captiva 2.0 CDTI	05.06-		50 500		572 33	
d'Arts	98-			P40 27	535 22	
Epica 2.0 V6	06.06-			P70 24	570 24	
Epica TD	06.06-			P95 05	595 05	
Espero (KLEJ)	10.91-09.99		50 300	P55 19	555 19	
Evanda (KLA) 1.9-2.0	12.02-		50 500		572 33	
Kalos (KLAS) 1.2-1.4	01.02-			P60 69	560 69	
Korando (KJ)	01.96-			P60 69	560 69	
Korando (KJ) D	01.96-			P95 05	595 05	
Lacetti 1.4-1.8	09.04-		50 500		572 33	
Lacetti 2.0 D	09.04-		50 500		572 33	
Lanos (KLAT)	05.97-		50 300		560 08	
Leganza (KLAV)	06.97-		50 300		560 08	
Matiz (KLYA) 0.8	09.98-			P40 26	535 20	
Matiz (KLYA) 1.0	09.98-			P40 27	535 22	
Musso (FJ) all models	01.99-			P95 05	595 05	
Nexia (KLETN)	02.95-08.97		50 300	P55 19	555 19	
Nubira, -Combi (KLAJ) 1.6-2.0	05.97-		50 500		572 33	
Rexton 2.9 TDI; 3.2 V6	04.02-			P95 05	595 05	
Rezzo 1.6-2.0	06.05-		50 300	P55 19	555 19	
Rezzo 1.6-2.0 LPG	06.05-		50 300	P62 05	560 09	
Spark 1.0-1.2	03.10-					
Tacuma	00-		50 300			
Tico (KLY3)	02.95-			P60 68	560 68	
Chrysler						
300 C (LX, LE), Touring 2.7-6.1 SRT8	09.04-	580 01	50 500	P80 14	580 14	
300 C, Touring 3.0 CRD	09.04-	592 01		P95 33	595 33	
300 M (LHY) 2.7-3.5	01.99-12.03		50 200			
Crossfire (ZH), Roadster 3.2 V6, SRT-6	07.03-		50 500		572 33	
GS Turbo II (AG)	01.88-12.92		50 200			
Le Baron	01.88-12.95		50 200			
Neon I 1.6-2.0	01.95-12.99		50 200			
Neon II	01.00-		50 100	P50 03	544 09	
New Yorker, 300 M					572 33	
Pacifica 3.5-4.0	03.03-				572 33	
PT Cruiser 1.6	06.00-		50 100	P50 03	544 09	
PT Cruiser 2.0-2.4	06.00-		50 100	P50 03	544 09	
PT Cruiser 2.2 CRD	03.01-		50 300	P62 19	562 19	
Saratoga, Vision, Neon			50 200			
Sebring (JSC) 2.7	06.01-12.07		50 200			
Sebring (JSC)	01.08-			P60 69	560 69	
Sebring (JR)	06.01-12.07		50 200			
Stratus (JA, JX)	01.95-12.00		50 200			
Vision (LH)	01.94-12.98		50 200			
Voyager I (ES) D	01.92-12.95		50 500		572 33	
Voyager (ES)	01.91-12.95		50 200			
Voyager II (GS) 2.0-3.0	01.95-03.01				572 33	
Voyager II (GS) 3.3-3.8 i AWD, 2.5 TD	01.95-03.01		50 500		572 33	
Voyager III, IV (RG) 2.4-3.8 AWD	02.00-12.07		50 500		572 33	
Voyager III, IV (RG) 2.5-2.8 CRD	02.00-12.07		50 500		572 33	
Voyager V (RT) 3.8	02.08-				560 62	

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Voyager V (RT) 2.8 CRD	02.08-					
Chrysler-Jeep						
Cherokee (XJ) 2.5-4.0	01.88-12.01		50 200			
Cherokee (XJ) 2.1-2.5 TD, CRD	01.88-12.01		50 500		572 33	
Cherokee (KJ) 3.7	01.02-			P60 69	560 69	
Cherokee (KJ) 2.5 CRD	01.02-		50 500		572 33	
Cherokee (KK) 2.8 CRD	01.08-			P95 05	595 05	
Commander (XH) 3.8-5.7 V8 HEMI	03.06 -	580 01	50 500	P80 14	580 14	
Commander 3.0 V6 CRD	03.06 -	592 01		P95 33	595 33	
Compass (MK49) 2.4	12.06-		50 300		560 08	
Compass (MK49) 2.0 CRD	12.06-		50 500		572 33	
Grand Cherokee I (ZJ) 4.0-5.2	01.93-12.95		50 200			
Grand Cherokee I (ZG) 2.5 TD+CRD	01.96-12.98		50 500		572 33	
Grand Cherokee II (WJ/WG) 3.7-4.7	01.99-12.04		50 500		572 33	
Grand Cherokee II (WJ/WG) 2.7 CRD	01.99-12.04			P95 33	595 33	
Grand Cherokee III (WH) 3.7-6.1	01.05-	580 01	50 500	P80 14	580 14	
Grand Cherokee III (WH) 3.0 CRD	01.05-	592 01		P95 33	595 33	
Patriot (MK74) 2.4	03.07-		50 500		572 33	
Patriot (MK74) 2.0 CRD	03.07-		50 500		572 33	
Wrangler I (YJ) 2.5-4.0	01.88-08.96		50 200			
Wrangler II (TJ) 2.4-4.0	08.96-12.07		50 200			
Wrangler III (JK) 3.8	02.06-			P60 69	560 69	
Wrangler III (JK) 2.8 CRD	02.06-		50 500		572 33	
Citroën						
Berlingo (MF, M_) 1.1-1.8	03.97-		50 100	P50 03	544 09	
Berlingo (MF, M_) 1.8-1.9 D	03.97-		50 300	PRO P63 40	562 19	
Berlingo (MF, M_) 2.0 HDi	12.00-		50 500	PRO P75 40	572 12	
BX (XB-) 1.4-1.9	10.82-09.93		50 200	P55 19	555 19	
BX (XB-) D	10.82-09.93		50 300	PRO P63 40	562 19	
C 1 (PM, PN) 1.0	06.05-				542 08	
C 1 (PM, PN) 1.4 HDi 55	06.05-		50 100	P50 03	544 09	
C 15 (VD-) 1.1-1.4	10.84-12.97		50 100	P50 03	544 09	
C 15 (VD-) 1.8 D	10.84-12.97		50 300	PRO P63 40	562 19	
C 2 (JM) 1.1-1.6	09.03-		50 100	P50 03	544 09	
C 2 (JM) 1.4-1.6 HDi 70-110	09.03-	560 01	50 300	PRO P63 40	562 19	
C 2 (JM) 1.4-1.6 e-HDi 70-110 +recuperation	02.11-	560 00				
C 2 (JM) 1.4-1.6 e-HDi 70-110 start/stop +recuperation	06.04-	560 01				
C 25 (280, 290) 1.8-2.0	07.84-12.94		50 300	PRO P63 40	562 19	
C 25 (280, 290) 2.5 D, TD	07.84-12.94			PRO P100 40	595 33	
C 3 (FC, HB) 1.1-1.6 - Pluriel	02.02-		50 100	P50 03	544 09	
C 3 (FC, HB) 1.4-1.6 HDi - Pluriel 70-110	02.02-	560 01	50 300	PRO P63 40	562 19	
C 3 (FC, HB) 1.4-1.6 e-HDi - Pluriel 70-110 +recuperation	02.11-	560 00				4Ah
C 3 (FC, HB) 1.4-1.6 e-HDi - Pluriel 70-110 start/stop +recuperation	06.10-	560 01				4Ah
C 4 (LC, LA, DU, UA) 1.4-1.6 - Coupé, Grand, Picasso	06.05-		50 100	P50 03	544 09	
C 4 (LC, LA, DU, UA) 2.0 - Coupé, Grand, Picasso	06.05-	560 01	50 300	PRO P63 40	562 19	
C 4 (LC, LA, DU, UA) 1.6-2.0 HDi 110-135 - Coupé, Grand, Picasso	06.05-	570 01	50 500	PRO P75 40	572 12	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
C 4 (LC, LA, DU, UA) 1.6 e-HDi 110 - Coupé, Grand, Picasso +recuperation	02.11-	570 00				
C 4 (LC, LA, DU, UA) 1.6 e-HDi 110 - Coupé, Grand, Picasso start/stop +recuperation	06.04-	570 01				
C 5 (DE, RC, RE, RD, TD) 1.6-2.0	03.01-	560 01	50 300	PRO P63 40	562 19	
C 5 (DE, RC, RE, RD, TD) 2.0-3.0	03.01-	570 01	50 500	PRO P75 40	572 12	
C 5 (DE, RC, RE, RD, TD) 1.6-3.0 HDi 110-135	03.01-	570 01	50 500	PRO P75 40	572 12	
C 5 (DE, RC, RE, RD, TD) 1.6 e-HDi 110 +recuperation	02.11-	570 00				
C 5 (DE, RC, RE, RD, TD) 1.6 e-HDi 110 start/stop +recuperation	03.11-	570 01				
C 6 (TD) 3.0 V6	09.06-			PRO P75 40	566 13	
C 6 (TD) 2.2-3.0 HDi	09.06-	570 01	50 500	PRO P75 40	572 12	
C 8 (EA, EB) 2.0-3.0	07.02-	570 01	50 500	PRO P75 40	572 12	
C 8 (EA, EB) 2.0-2.2 HDi	07.02-	570 01	50 500	PRO P75 40	572 12	
C-Crosser (EP) 2.4	07.07-	570 01	50 500	PRO P75 40	572 12	
C-Crosser (EP) 2.2 HDi	07.07-			P95 04	595 04	
C-Zero 47 kW	09.10-			P40 26	535 20	
DS3 1.1-1.6	03.10-		50 100	P50 03	544 09	
DS3 1.4-1.6 HDi 70-110	03.10-	560 01	50 300	PRO P63 40	562 19	
DS3 1.4-1.6 e-HDi 70-110 +recuperation	02.11-	560 00				
DS3 1.4-1.6 e-HDi 70-110 start/stop +recuperation	09.10-	560 01				
DS4 1.1-1.6	03.11-		50 100	P50 03	544 09	
DS4 1.4-1.6 HDi 70-110	03.11-	560 01	50 300	PRO P63 40	562 19	
DS4, DS5 1.4-1.6 e-HDi 70-110 +recuperation	03.11-	560 00				
DS4, DS5 1.4-1.6 e-HDi 70-110 start/stop +recuperation	03.11-	560 01				
DS5 2.0 HDi hybrid	11.11-	570 01	50 500	PRO P75 40	572 12	
Evasion (22, U6U) 1.8-2.0	06.94-07.02		50 300	PRO P63 40	562 19	
Evasion (22, U6U) 1.9-2.1 TD, HDi	06.94-07.02		50 500	PRO P75 40	572 12	
Jumper (230P, -L, 244) 2.0	02.94-		50 300	PRO P63 40	562 19	
Jumper (230P, -L, 244) 1.9-2.2 D, TDi, HDi	02.94-		50 500	PRO P75 40	572 12	
Jumper (230P, -L, 244) 2.5-2.8 D, TDi, HDi	02.94-06.06			PRO P100 40	595 33	
Jumper (244) 2.2-3.0 D, HDi	04.06-	605 01			610 42	
Jumpy (U6U) 1.6-2.0	06.94-		50 200	P55 19	555 19	
Jumpy (U6U) 1.9-2.0 D, TD, HDi	06.94-		50 300	PRO P63 40	562 19	
Jumpy 2.0	01.07-	560 01	50 300	PRO P63 40	562 19	
Jumpy 1.6-2.0 HDi	01.07-	570 01	50 500	PRO P75 40	572 12	
Nemo 1.4	01.08-		50 100	P50 03	544 09	
Nemo 1.4 HDi	01.08-	560 01	50 300	PRO P63 40	562 19	
Nemo 1.4 e-HDi +recuperation	02.11-	560 00				
Nemo 1.4 e-HDi start/stop +recuperation	01.08-	560 01				
Saxo (S0, S1) 1.5 D	02.96-04.04	560 01	50 300	PRO P63 40	562 19	
Saxo (S0, S1) 1.0-1.6	02.96-04.04		50 100	P50 03	544 09	
Xantia (X1, X2) 1.9-2.1 D, TD, HDi	03.93-04.03		50 500	PRO P75 40	572 12	
Xantia (X1, X2) 1.6-2.0	03.93-04.03		50 100	P50 03	544 09	
Xantia (X1, X2) 2.5-3.0 V6	03.93-04.03		50 300	PRO P63 40	562 19	
XM (Y3, Y4) 1.8-2.0	05.89-10.00		50 300	PRO P63 40	562 19	
XM (Y3, Y4) 3.0 V6; 2.1-2.5 D, TD	05.89-10.00		50 500	PRO P75 40	572 12	
Xsara (N1, N2, N0, N68) 1.4-1.6 - Picasso	04.97-		50 100	P50 03	544 09	



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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Xsara (N1, N2, N0, N68) 1.5-2.0 HDi -Picasso	04.97-		50 300	PRO P63 40	562 19	
Xsara (N1, N2, N0, N68) 1.8-2.0 -Picasso	04.97-		50 300	P62 19	562 19	
ZX (N2) 1.4-2.0 i	03.91-10.97		50 300	P55 19	555 19	
ZX (N2) 1.8-1.9 D, TD	03.91-10.97		50 500	PRO P75 40	572 12	
Dacia						
101-108	79-		50 100	P44 09	544 09	
1210-1410	06.83-12.94		50 100	P44 09	544 09	
1304 pick-up	12.72-05.83		50 300	P55 19	555 19	
240-244	87-92		50 300	P55 19	555 19	
Duster 1.6	04.10-		50 200	P55 19	555 19	
Duster 1.5 dCi 85-110	04.10-	560 01	50 300	P62 19	562 19	
Logan 1.4-1.6; MCV	09.04-		50 200	P55 19	555 19	
Logan 1.5 dCi; MCV	09.04-	560 01	50 300	P62 19	562 19	
Sandero 1.6	11.08-		50 200	P55 19	555 19	
Sandero 1.5 dCi	11.08-	560 01	50 300	P62 19	562 19	
Solenza 1.4	02.03-		50 100	P50 03	544 09	
Solenza 1.9 D	02.03-	560 01	50 300	P62 19	562 19	
Daihatsu						
Applause I, II (A101, -111)	06.89-			P45 23	545 23	
Atrai Bus 1.3	07.00-			P45 23	545 23	
Boon 1.0-1.3	01.05-			P40 26	535 20	
Cab Van				P45 23	545 23	
Charade II, III, IV 1.0-1.6; Valera	01.83-			P45 23	545 23	
Charade III 1.0 D, TD	01.87-01.93			P70 29	570 29	
Charmant (A)	10.81-07.87			P45 23	545 23	
Copen 0.7-1.3	09.03-			P45 23	545 23	
Cuore II, III, IV, V, VI, VII 0.7-1.0	09.85-			P40 26	535 20	
Extol Bus 1.3	07.00-			P45 23	545 23	
Feroza (F300), Taft, Sportrak	10.88-			P40 27	535 22	
Gran Move (G3) 1.5-1.6 16V	10.96-			P45 23	545 23	
Hijet (S85), Spar Car	10.96-			P40 26	535 20	
Hijet (S85) 1.2-1.4 D	10.96-		50 300	P62 19	562 19	
Materia (M4) 1.0-1.5	10.06-			P40 26	535 20	
Move (L6, L9) 0.7-1.0	10.96-			P40 26	535 20	
NCX	01.01-			P45 23	545 23	
Rocky/Wildcat (F7, F8) D, Fourtrak D	02.85-			P95 05	595 05	
Rocky/Wildcat, Fourtrak	02.85-			P45 24	545 24	
Sirion (M1) 0.7 Turbo 4WD	04.98-			P40 26	535 20	
Sirion (M1) 1.0-1.5	04.98-			P45 23	545 23	
Terios (J1) 1.3-1.5	05.97-10.05			P45 23	545 23	
Terios (J2) 1.3-1.5 DWVT	05.06-			P40 26	535 20	
Trevis 1.0	06.06-			P40 26	535 20	
YRV (M2) 1.0	02.01-			P40 26	535 20	
YRV (M2) 1.3 4WD, GTi	02.01-			P45 23	545 23	
Dodge						
Avenger (JSD) 2.0-2.4	09.07-		50 300			
Avenger (JSD) 2.0 CRD	09.07-		50 300			
Caliber (PM) 1.8-2.4	06.06-			P60 69	560 69	
Caliber (PM) 2.0 CRD	06.06-		50 300			
Journey (JC)	01.09-			P60 69	560 69	
Journey (JC) 2.0 CRD	01.08-		50 300			
Nitro (KA) V6	01.08-			P60 69	560 69	
Nitro (KA) 2.8 CRD	01.08-			P95 05	595 05	
Viper (SR, ZB)	01.93-		50 200			
Ferrari						
348 TB, TS	02.90-12.95		50 500	P74 12	572 12	
360 Modena (F131)	03.99-			P72 09	570 44	
California 4.3	07.08-	570 01	50 500	P74 12	572 12	
FF V12	06.11-	570 01	50 500	P74 12	572 12	
F40	02.86-06.92			P70 24	570 24	
F 355	87-		50 500	P74 12	572 12	
F 430, Spider	03.05-	570 01	50 500	P74 12	572 12	
456 GT, 512 M, TR	01.93-		50 500	P74 12	572 12	
458 4.5	12.09-	570 01	50 500	P74 12	572 12	
5_ Maranello 550-575 M	09.96-		50 500	P74 12	572 12	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
550 Barchetta 5.5	10.00-		50 500		572 33	
599 GTB	03.06-	570 01	50 500	P74 12	572 12	
612 Scaglietti 5.7 V12	09.96-		50 500	P74 12	572 12	
Mondial 8, -T, Testarossa	80-		50 500	P74 12	572 12	
Superamerica	01.05-	570 01	50 500	P74 12	572 12	
Fiat						
Barchetta (183)	03.95-			P50 03	542 08	
Bravo, Brava (182) 1.6-2.0 D, TD, JTD	10.95-		50 300	P62 19	562 19	
Bravo, Brava (182) 1.2-1.6	10.95-			P50 03	542 08	
Bravo, Brava (182) 1.8-2.0	10.95-		50 300	P62 19	562 19	
Bravo, Brava (198) all models start/stop	03.10-	560 00				
Cinquecento (170) 0.7-1,1	07.91-01.98			P50 03	542 08	
500 1.1-1.4, Abarth	09.07-				542 08	
500 1.3 D Multijet, JTD	09.07-			P50 03		
500, C all models start/stop	09.07-	560 00				
Coupé (FA/175)	11.93-		50 300	P62 19	562 19	
Croma (154) 1600	12.85-12.96			P50 03	542 08	
Croma (154) 1900-2500 TD	12.85-12.96		50 500	P74 12	572 12	
Croma (154) 2000-2500 V6	12.85-12.96		50 300	P62 19	562 19	
Croma (194) 1.8-2.2, 1.9-2.4 D	06.05-	560 01	50 300	P62 19	562 19	
Daily			50 300	P62 19	562 19	
Daily D, TD				P95 33	595 33	
Doblò (119, 223) 1.2-1.6	03.01-			P50 03		
Doblò (119, 223) 1.3-1.9 D, JTD	03.01-		50 300	P62 19	562 19	
Doblò (119, 223) 1.2-1.6 start/stop	01.10-	560 00				
Doblò (119, 223) 1.3-1.9 D, JTD start/stop	01.10-	560 00				
Ducato (280, 290, 230, 250, -L, 244) 1.8-2.0	07.82-		50 500	P74 12	572 12	
Ducato (280, 290, 230, 250, -L, TD, 244) 1.9-3.0 D, TD, JTD	07.82-			P95 33	595 33	
Ducato Bus 100-160 Natural Power 3.0	07.06-	605 01			610 42	
Ducato Bus 100-160 Multijet Power 2.2-3.0 D	07.06-	605 01			610 42	
Duna, Penny	87-91			P50 03	542 08	
Duna, Penny D	87-91		50 300	P62 19	562 19	
Fiorino (146 Uno) box	05.88-		50 300	P62 19	562 19	
Fiorino (146, 147) 1.0-1.6 pick-up	01.80-			P50 03	542 08	
Fiorino (146, 147) 1.3-1.7 D, TD pick-up	01.80-		50 500	P74 12	572 12	
Freemont V6 Pentastar	06.11-			P60 69	560 69	
Freemont 2.0 JTD Multijet	06.11-		50 300			
Grande Punto (199) 1.2-1.4	10.05-			P50 03	542 08	
Grande Punto (199) 1.3-1.9 D Multijet	10.05-	560 01	50 300	P62 19	562 19	
Grande Punto (199) 1.2-1.4 EVO start/stop	10.05-	560 00				
Grande Punto (199) 1.3-1.9 D Multijet EVO start/stop	10.05-	560 00				
Idea 1.2-1.4	01.04-			P50 03	542 08	
Idea 1.3-1.9 JTD	01.04-	560 01	50 300	P62 19	562 19	
Linea 1.4	06.07-	560 01	50 300	P62 19	562 19	
Linea 1.3-1.6 D Multijet	06.07-	560 01	50 300	P62 19	562 19	
Marea (185) 1.4-1.6	09.96-			P50 03	542 08	
Marea (185) 1.8-2.0	09.96-		50 300	P62 19	562 19	
Marea (185) 1.9-2.4 TD, JTD	09.96-		50 300	P62 19	562 19	
Multipia (186) 1.6	04.99-			P50 03	542 08	

Banner

CARS AND SMALL TRANSPORTERS

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Multipla (186) 1.9 JTD, TD	04.99-		50 300	P62 19	562 19	
Palio (178BX) 1.2-1.6	04.96-			P50 03	542 08	
Palio (178BX) 1.7 TD	04.96-		50 300	P62 19	562 19	
Panda I, II (141A, 169, 176) 650-1100, 1,1-1.2	03.80-12.11				542 08	
Panda II (169) 1.2-1.4	09.03-12.11			P50 03	542 08	
Panda I, II (141A, 169, 176) 1300 D, 1.3 JTD	03.80-12.11			P50 03		
Panda III 0.9-1.2	01.12-			P50 03	542 08	
Panda III 0.9-1.2 Twinair start/stop	01.12-	560 00				
Panda III 1.3 JTD	01.12-	560 00	50 300	P62 19	562 19	
Punto I, II, III, IV (176, -C, -L, 188, AX) 1,1-1.8	09.93-			P50 03	542 08	
Punto I, II, III, IV (176, -C, -L, 188, AX) 1.3-1.9 D, JTD	09.93-		50 300	P62 19	562 19	
Punto IV (188, AX) 1,1-1.8 EVO start/stop	10.05-	560 00				
Punto IV (188, AX) 1.3-1.9 D, JTD EVO start/stop	10.05-	560 00				
Qubo 1.4	03.09-			P50 03	542 08	
Qubo 1.3 JTD, Multijet	03.09-	560 01	50 300	P62 19	562 19	
Qubo 1.4 start/stop	03.09-	560 00				
Qubo 1.3 JTD, Multijet start/stop	03.09-	570 00				
Scudo (220P, -L) 1.6-2.0	02.96-		50 300	P62 19	562 19	
Scudo (220P, -L) 1.6-2.0 D, TD, JTD	02.96-		50 500	P74 12	572 12	
Sedici 1.6	05.06-				542 08	
Sedici 1.9 JTD	05.06-	560 01	50 300	P62 19	562 19	
Seicento (187) 0.9-1,1	01.98-				542 08	
Stilo (192) 1.2-1.4	09.01-			P50 03	542 08	
Stilo (192) 1.8-2.4	09.01-	560 01	50 300	P62 19	562 19	
Stilo (192) 1.9 D, JTD	09.01-	560 01	50 300	P62 19	562 19	
Strada (178E)	06.99-			P50 03	542 08	
Strada (178E) D, JTD	06.99-		50 300	P62 19	562 19	
Talento (290) 2.0	03.89-03.94		50 500	P74 12	572 12	
Talento (290) 1.9 D, TD	03.89-03.94			P95 33	595 33	
Tempra (159) 1.4-2.0	03.90-08.97		50 300	P62 19	562 19	
Tempra (159) 1.9 D, TD	03.90-08.97		50 500	P74 12	572 12	
Tipo (160) 1.4-1.6	07.87-04.95			P50 03	542 08	
Tipo (160) 1.7-1.9 D, TD	07.87-04.95		50 500	P74 12	572 12	
Tipo (160) 1.8-2.0	07.87-04.95		50 300	P62 19	562 19	
Ulysse (220, 179AX) 1.8-2.0 Turbo	06.94-		50 300	P62 19	562 19	
Ulysse (220, 179AX) 1.9-2.2 TD, JTD	06.94-		50 500	P74 12	572 12	
Uno (146A/E) 0.9-1.3	01.83-			P50 03	542 08	
Uno (146A/E) 1.4-1.6	01.83-		50 300	P62 19	562 19	
Uno (146A/E) 1.3-1.9 D, TD, SuperDiesel	01.83-		50 300	P62 19	562 19	
X 1/9 (128 AS)	01.74-12.89			P50 03	542 08	
Ford (D)						
C-Max (DAW, DBW, DFW, DNW) 1.4-1.6	10.98-		50 100	P55 19	555 19	
C-Max (DAW, DBW, DFW, DNW) 1.6-2.0 TD, TDCi	10.98-			P72 09	570 44	
C-Max (DAW, DBW, DFW, DNW) 1.8-2.0	10.98-		50 200	P62 05	560 09	
C-Max (DAW, DBW, DFW, DNW) 1.4-1.6 ECONetic-start/stop	09.10-	560 00				
C-Max (DAW, DBW, DFW, DNW) 1.6-2.0 TD, TDCi ECONeticstart/stop	09.10-	570 00				
C-Max (DAW, DBW, DFW, DNW) 1.8-2.0 ECONetic-start/stop	09.10-	560 00				
Cougar (BCV) 2.0-2.5 V6	01.99-		50 200	P62 05	560 09	
Cougar (BCV) 25 ST 200	01.99-			P72 09	570 44	
Econovan (KAA) 1.4	05.85-03.92		50 100			
Econovan (KAA) 2.0 D	05.85-03.92		50 200			

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Ecovan (KBA, KCA) 1.4	03.86-03.92		50 100			
Ecovan (KBA, KCA) 2.0 D	03.86-03.92			P60 68	560 68	
Escort IV, V, VI 1,1-1.8 (GAF, AWF, ABFT, AVF1, ALF, GAL, ALL, GAL, AAL, ABL)	01.81-10.96		50 200			
Escort IV, V, VI RS Turbo (GAF, AWF, ABFT, AVF1, ALF, GAL, ALL, AAL, ABL)	84-90		50 200			
Escort VII 1,1-1.8 (GAL, AAL, ABL, AFL, ANL)	11.96-		50 200	P62 05	560 09	
Escort VII 1.8 D, DT (GAL, AAL, ABL, AFL, ANL)	11.96-			P72 09	570 44	
Fiesta I, II 1.0-1.8, XR-2 (FBD, GFJ, F3L, FVD)	05.76-11.95		50 100			
Fiesta I, II, III 1.6-1.8 D, TD (FBD, GFJ)	05.76-11.95		50 200			
Fiesta III, IV, V 1.0-1.3 Courier (JAS, JBS, JH)	12.95-		50 100	P44 09	544 09	
Fiesta III, IV, V 1.4-1.8 Courier (JAS, JBS, JH)	12.95-		50 200	P62 05	560 09	
Fiesta III, IV, V 1.4-1.8 D, TDCi, Courier (JAS, JBS, FVD, JH)	12.95-			P72 09	570 44	
Fiesta VI 1.25-1.6	10.08-		50 100	P44 09	544 09	
Fiesta VI 1.4-1.6 TDCi	10.08-		50 200	P62 05	560 09	
Fiesta VI/all models ECONetic start/stop	01.10-	560 00				
Focus I, II (DAW, DBW, DFW, DNW) 1.4-1.6	10.98-		50 100	P55 19	555 19	
Focus I, II (DAW, DBW, DFW, DNW) 1.6-2.0 TD, TDCi	10.98-			P72 09	570 44	
Focus I, II (DAW, DBW, DFW, DNW) 1.8-2.5 ST	10.98-		50 200	P62 05	560 09	
Focus II start/stop 1.4-1.6 ECONetic start/stop	01.10-	560 00				
Focus II start/stop 1.6-2.5 TDCi ECONetic start/stop	01.10-	570 00				
Fusion (JU) 1.25-1.4	08.02-		50 100	P44 09	544 09	
Fusion (JU) 1.6	08.02-		50 200	P55 19	555 19	
Fusion (JU) 1.4-1.6 TDCi	08.02-			P72 09	570 44	
Galaxy (WGR, VX, VY) 1.9-2.0 TDi, TDCi	03.95-05.06	592 01		P95 33	595 33	
Galaxy (WGR, VX, VY) 2.0-2.3	03.95-05.06	570 01	50 500	P72 09	570 44	
Galaxy (WGR, VX, VY) 2.8 V6	03.95-05.06	592 01		P95 33	595 33	
Galaxy 2.0-2.3	05.06-			P62 05	560 09	
Galaxy 1.8-2.2 TDCi	05.06-			P80 14	580 14	
Galaxy 2.0-2.3 ECONetic start/stop	05.10-	560 00				
Galaxy 1.8-2.2 TDCi ECONetic start/stop	05.10-	570 00				
Ka (RBT) 1.0-1.6; Street Ka, Sport Ka	01.96-		50 100	P44 09	544 09	
Ka (RBT) 1.0-1.6; Street Ka, Sport Ka ECONetic start/stop	11.08-	560 00				
Kuga 2.5 Turbo	06.08-		50 200	P62 05	560 09	
Kuga 2.0 TDCi	06.08-			P72 09	570 44	
Maverick (UDS, UNS) 2.4-2.7 TD	02.93-04.98			P70 24	570 24	
Maverick 2.0-3.0	02.01-		50 200	P62 05	560 09	
Mondeo I, II, III, IV (GBP, BNP, BAP, BFP, BNP, B5Y, B4Y, BWY) 1.6-2.0	02.93-		50 200	P62 05	560 09	
Mondeo I, II, III, IV (GBP, BNP, BAP, BFP, BNP, B5Y, B4Y, BWY) 1.8-2.0 TD, TDCi	02.93-			P72 09	570 44	



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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Mondeo I, II, III, IV (GBP, BNP, BAP, BFP, BNP, B5Y, B4Y, BWY) 2.2 TD, TDCi	02.93-			P80 14	580 14	
Mondeo I, II, III, IV (GBP, BNP, BAP, BFP, BNP, B5Y, B4Y, BWY) 2.5 V6	02.93-			P72 09	570 44	
Mondeo III, IV (B5Y, B4Y, BWY) 3.0 V6, ST220	11.00-			P72 09	570 44	
Mondeo IV 1.6-2.0 ECO-netic start/stop	09.09-	560 00				
Mondeo IV 1.8-2.0 TDCi ECO-netic start/stop	09.09-	570 00				
Mondeo IV 2.2 TDCi ECO-netic start/stop	09.09-	570 00				
Mondeo IV 2.5 V6 ECO-netic start/stop	09.09-	570 00				
Mondeo IV V6, ST220 ECO-netic start/stop	09.09-	570 00				
Orion I, II, III (AFD, AFF, GAL) autom.	07.83-12.93		50 200			
Orion I, II, III (AFD, AFF, GAL) 1.3-1.8	07.83-12.93		50 200			
Puma (EC_) 1.4-1.7	03.97-06.02		50 200	P55 19	555 19	
Puma (EC_) ST 160	03.97-06.02		50 200	P62 05	560 09	
Ranger (TU) all models	10.99-			P95 05	595 05	
Scorpio I, II (GAE, GGE, GFR, GGR, GNR) 2.3-2.9; 2.5 D, TD	04.85-08.98		50 200			
Scorpio I, II (GAE, GGE, GFR, GGR, GNR) 1.8-2.0	04.85-08.98		50 200			
Sierra (GBC, BNC, GBG, GB4, BNG) 1.4-1.8	08.82-02.93		50 200			
Sierra (GBC, BNC, GBG, GB4, BNG) 2.0-2.3	08.82-02.93		50 200			
S-Max 2.0-2.5 20V	05.06-		50 200	P62 05	560 09	
S-Max 1.8-2.2 TDCi	05.06-			P80 14	580 14	
S-Max 2.0-2.5 20V ECO-netic start/stop	02.10-	560 00				
S-Max 1.8-2.2 TDCi ECO-netic start/stop	02.10-	570 00				
Tourneo Connect 1.8	09.02-		50 200	P62 05	560 09	
Tourneo Connect 1.8 TDCi	09.02-			P80 14	580 14	
Transit (V, T, E) 1.3-2.0	01.77-07.94		50 200			
Transit (V, T, E) 1.6-2.3	08.94-07.00		50 200	P62 05	560 09	
Transit (V, T, E) 2.0-2.5 DI, TDE	08.94-07.00			P72 09	570 44	
Transit (FD, FB, FS, FZ, FC, FA, FM, FN) 2.3	01.00-		50 200	P62 05	560 09	
Transit (FD, FB, FS, FZ, FC, FA, FM, FN) 1.8-2.4 DI, TDE, TDi, TDCi	01.00-			P80 14	580 14	
Transit Connect 1.8	09.02-		50 200	P62 05	560 09	
Transit Connect 1.8 Di, TDCi	09.02-			P80 14	580 14	
Transit Nugget 1.8-2.4 TDCi	01.00-			P72 09	570 44	
Transit, -Nugget 1.8-2.4 TDCi ECO-netic start/stop	01.06-	592 01		P95 33		
Ford (USA)						
Aero Star	01.95-87-		50 500	P72 09	570 44	
Bronco 2.9 V6 I, II				P70 29	580 09	
Explorer (U2) 4.0-4.9 V6	01.93-		50 500		572 33	
Mustang, convertible 3.8-4.9	09.93-		50 300	P62 19	562 19	
Probe I	08.88-07.93		50 200			
Probe II	09.96-		50 200	P62 05	560 09	
Taurus, wagon 3.0	09.96-			P72 09	570 44	
Wind Star 3.0-3.8	01.95-			P95 05	595 05	
Gordon						
Gordon - all models	97-		50 300		560 08	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Honda						
Accord IV (CB3, CB7, CB8, CC, CC1) 2.0-2.2	01.90-09.93			P60 69	560 69	
Accord V (CC7, CE, CD7, CD9) 2.0-2.3	03.93-02.98			P60 69	560 69	
Accord VI (CE, CF) 1.9-2.2	02.96-10.98			P60 69	560 69	
Accord VI (CE, CF) 2.0 TDi	02.96-10.98			P72 09	570 44	
Accord VII (CG, CK) 1.6-1.8	10.98-12.02		50 300	P62 19	562 19	
Accord VII (CG, CK) 2.0-3.0	10.98-12.02			P60 69	560 69	
Accord VII (CG, CK) 2.0 Turbo DI	10.98-12.02			P72 09	570 44	
Accord VII Aerodeck 2.3-2.4	02.98-			P60 69	560 69	
Accord VII Coupé (CG) 2.0-3.0	02.98-			P60 69	560 69	
Accord VII Hatchback (CH) 1.6-1.8	12.99-		50 300	P62 19	562 19	
Accord VII Hatchback (CH) 2.0-2.3	12.99-			P60 69	560 69	
Accord VII Hatchback (CH) 2.0 TDi	12.99-			P72 09	570 44	
Accord VIII, Tourer 2.0-3.0	02.03-			P45 23	545 23	
Accord VIII, Tourer 2.2 i-CTDi	02.03-	570 01	50 500	P74 12	572 12	
Accord Coupé 2.4-3.0 VTI-Vtec	07.03-			P62 05	560 09	
Capa 1.5	01.98-09.02			P45 24	545 24	
Civic IV (EG) 1.3-1.6	10.91-11.95			P45 23	545 23	
Civic IV (MA, MB) 1.4-1.6	09.94-01.97			P45 23	545 23	
Civic IV (EG, EH) 1.5-1.6	10.91-11.95			P45 23	545 23	
Civic IV (EJ) 1.5-1.6	01.94-03.96			P45 23	545 23	
Civic V (EJ9, EK1/3/4) 1.4-1.8	11.95-02.01			P45 24	545 24	
Civic V (EJ9, EK1/3/4) 2.0 TD	11.95-02.01			P95 05	595 05	
Civic V (EJ6, EJ8) 1.4-1.8	03.96-03.00			P45 24	545 24	
Civic V (MB, MC) 1.4-1.8	04.98-02.01			P45 23	545 23	
Civic V (MB, MC) 2.0 D	04.98-02.01			P60 68	560 68	
Civic VI (EU, EP) 1.4-2.0	02.01-12.05			P45 24	545 24	
Civic VI (EU, EP) 1.7 CTDi	02.01-12.05	560 01	50 300	P62 19	562 19	
Civic VI 1.3 IMA	02.03-12.05			P45 24	545 24	
Civic VI (EM) 1.6-1.7	02.01-12.05			P45 24	545 24	
Civic VII, VIII (FD) 1.4-1.8	09.05-			P45 23	545 23	
Civic VII, VIII (FD) 2.2 CTDi	09.05-	570 01	50 500	P74 12	572 12	
Civic VI, VII 1.3 IMA hybrid	01.06-12.10			P45 24	545 24	
Civic VIII 1.8 start/stop	11.11-	560 00				
Civic VIII 2.2 CTDi, DTDi start/stop	11.11-	570 00				
Concerto (HW) 1.5-1.6	08.89-10.96		50 100	P50 03	544 09	
CR-V I, II (RD) 2.0	10.95-09.06			P45 23	545 23	
CR-V I (RD) 2.2 CTDi	10.95-02.02			P60 68	560 68	
CR-V II (RD) 2.2 CTDi	12.01-09.06	570 01	50 500	P74 12	572 12	
CR-V III 2.0 i-VTEC	10.06-		50 100	P50 03	544 09	
CR-V III 2.2 i-CTDi	10.06-	570 01	50 500	P74 12	572 12	
CRX II (ED, EE) 1.4-1.6	10.87-02.92			P45 24	545 24	
CRX III (EH, EG) 1.6	03.92-12.98			P45 23	545 23	
CR-Z 1.5 hybrid	01.10-					
FR-V (BE) 1.7; 2.0	02.05-			P45 23	545 23	
FR-V (BE) 1.8	02.05-			P45 24	545 24	
FR-V (BE) 2.2 i-CTDi	07.05-	570 01	50 500	P74 12	572 12	
HR-V (GH) 1.6	03.99-			P45 23	545 23	
Insight (ZE) 1.0-1.3 hybrid	04.00-			P40 27	535 22	
Integra (DC2) 1.8-2.0	11.97-			P45 23	545 23	
Jazz II, III (GD) 1.2-1.4	03.02-			P40 26	535 20	
Jazz II, III (GD) 1.2-1.4	03.02-				535 04	
Legend II, III (KA7, KA8, KA9) 3.2-3.5	01.91-			P70 24	570 24	
Logo (GA3) 1.3	03.99-03.02			P45 24	545 24	
NSX (NA) 3.0-3.2 coupé, convertible	06.90-			P60 68	560 68	

Banner

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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Prelude II (AB)	11.83-04.87			P45 24	545 24	
Prelude III (BA) 2.0	04.86-01.92			P70 24	570 24	
Prelude IV (BB) 2.0	02.92-09.96			P60 68	560 68	
Prelude IV (BB) 2.2-2.3	02.92-09.96			P70 29	570 29	
Prelude V (BB) 2.0	10.96-			P60 68	560 68	
Prelude V (BB) 2.2	10.96-			P70 29	570 29	
S 2000 (AP) 2.0	06.99-			P60 69	560 69	
Shuttle (RA1) 2.2-2.3	10.94-05.01			P60 68	560 68	
Stream (RN) 1.7-2.0	05.01-			P45 23	545 23	
Vamos 0.7	09.99-			P45 24	545 24	
Hyundai						
Accent (X-3) 1.3-1.5	10.94-01.00				545 77	
Accent (LC) 1.3-1.6	01.00-		50 100	P50 03	544 09	
Accent (LC) 1.5 CRDi	01.00-				560 62	
Accent (MC) 1.4-1.6	11.05-		50 100	P50 03	544 09	
Accent (MC) 1.5 CRDi	11.05-				560 62	
Atos 1.0 GLS (MX)	02.98-				535 04	
Atos Prime 1.0-1,1 GLS (MX)	01.03-			P40 26	535 20	
Coupé (RD, GK) 1.6-2.7	06.96-			P70 29	580 09	
Elantra (J-3, XD) 1.6-2.0	06.00-		50 300	P55 19	555 19	
Elantra (J-3, XD) 2.0 CRDi	09.00-			P70 29	580 09	
Galloper I, II (JK-01) 2.5 TD-3.0 V6	08.91-			P95 05	595 05	
Genesis 2.0 CVT; 3.8 V6	02.11-				560 62	
Getz (TB) 1,1-1.6	09.02-		50 100	P50 03	544 09	
Getz (TB) 1.5 CRDi	09.02-			P70 29	580 09	
Grandeur 3.3 V6; 2.2 CRDi	93-			P95 05	595 05	
H-1 Starex, box 2.3	10.97-		50 500	P74 12	572 12	
H-1 Starex, box 2.5 D, TD, CRDi	10.97-			P95 04	595 04	
H 100 (P)	07.93-			P60 69	560 69	
H 100 2.5 D, TD	07.93-			P95 05	595 05	
H 150, H 350				P95 05	595 05	
Highway Van 2.0	03.00-		50 200	P62 05	560 09	
i10 1,1-1.2	04.08-				535 04	
i10 1,1 CRDi	04.08-				560 62	
i20 1.2-1.6	09.08-		50 100	P50 03	544 09	
i20 1.2-1.6 (TR Assembly)	05.10-				560 62	
i20 1.4-1.6 CRDi	09.08-				560 62	
i30, CW 1.4-2.0	07.07-				560 62	
i30, CW 1.6-2.0 CRDi	07.07-			P70 29	580 09	
i30, CW 1.4-2.0 ISG blue start/stop	07.09-	560 01				
i30, CW 1.6-2.0 CRDi ISG blue start/stop	07.09-	570 01				
i40 1.6-2.0	09.11-				560 62	
i40 1.7 CRDi	09.11-			P70 29	580 09	
i40 1.6-2.0 blue start/stop	09.11-	560 01				
i40 1.7 CRDi blue start/stop	09.11-	570 01				
iX20 1.4-1.6 CVT	10.10-		50 100	P50 03	544 09	
iX20 1.4-1.6 CRDi	10.10-				560 62	
iX20 1.4-1.6 CVT blue start/stop	10.10-	560 01				
iX20 1.4-1.6 CRDi blue start/stop	10.10-	570 01				
iX35 2.0	04.10-				560 62	
iX35 2.0 CRDi	04.10-			P95 05	595 05	
iX35 1.6-2.4 blue start/stop	04.10-	560 01				
iX35 1.7-2.2 CRDi blue start/stop	04.10-	570 01				
iX55 3.0 V6 CRDi	10.09-			P95 05	595 05	
L 100, -D	93-			P95 04	595 04	
Lantra I (J-1) 1.5-1.6	10.90-11.95				545 79	
Lantra I (J-1) 1.8	10.90-11.95			P60 69	560 69	
Lantra II (J-2) 1.5-1.6	11.95-09.00				545 77	
Lantra II (J-2) 1.8-2.0	11.95-09.00			P60 68	560 68	
Lantra II (J-2) 1.9 D	11.95-09.00				560 62	
Matrix (FC) 1.6-1.8	09.01-		50 300	P62 19	562 19	
Matrix (FC) 1.5 CRDi	06.01-			P70 29	580 09	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Rodius CRDi	05.05-			P70 29	580 09	
Santa Fe (SM, CM) 2.0-2.4	03.01-			P60 68	560 68	
Santa Fe (SM, CM) 2.0-2.2 CRDi	03.01-			P95 04	595 04	
Santa Fe (SM, CM) 2.7 V6	03.01-			P70 29	580 09	
Santamo 2.0 GLX 3x3	99-			P70 24	570 24	
S-Coupé (SLC) 1.5	02.90-05.96			P45 24	545 24	
Sonata I (Y-2) 1.8-3.0 V6	09.88-10.93			P70 24	570 24	
Sonata II (Y-3) 1.8-2.0	05.93-06.98		50 300		560 08	
Sonata II (Y-3) 3.0 V6 (107kW)	05.93-06.98			P70 24	570 24	
Sonata III (EF) 2.0	03.98-10.01		50 300	P62 19	562 19	
Sonata III (EF) 2.4-2.5	03.98-10.01		50 500	P74 12	572 12	
Sonata IV (EU4) 2.0-2.7	10.01-		50 300	P62 19	562 19	
Sonata IV (EU4) 2.0-2.2 CRDi	10.01-			P70 29	580 09	
Sonata V (NF) 2.0-3.3	01.05-			P70 29	580 09	
Sonata V (NF) 2.0-2.2 CRDi	01.05-			P95 04	595 04	
Starex 2200-2300 HSV, SVX	06.97-			P70 24	570 24	
Starex (H1) 2.5 TD, CRDi	06.97-			P95 04	595 04	
Stellar 1.3-2.0	10.83-12.91			P45 24	545 24	
Terracan (HP) 2.5 TD; 2.9 CRDi; 3.5 V6	12.01-			P95 04	595 04	
Tiburon 1.6-2.7 16 V	06.98-			P60 69	560 69	
Trajet (F0) 2.0	03.00-				560 62	
Trajet (F0) 2.0 CRDi; 2.7 V6	03.00-			P70 29	580 09	
Tucson (JM) 2.0	07.03-				560 62	
Tucson (JM) 2.0 CRDi 120 PS; 2.7 V6	07.03-			P70 29	580 09	
Tucson (JM) 2.0 CRDi 140 PS	07.03-			P95 04	595 04	
Veloster 1.6 GDI	08.11-		50 100	P50 03	544 09	
Veloster 1.6 GDI blue start/stop	08.11-	560 01				
XG 25, 350	12.98-			P70 29	580 09	
XG 30/300	12.98-			P70 29	580 09	
Innocenti						
Koral				P50 03	544 09	
Mini 0.55-1.0	88-			P50 03	544 09	
SE	82-				545 79	
Isuzu						
Amigo 2.3-2.6	89-			P60 69	560 69	
Aska 1.8-2.0	83-			P60 69	560 69	
Aska D	83-			P70 24	570 24	
Campo (KB) 2.0	01.83-			P70 24	570 24	
Campo (KB) 2.2-2.5 D	01.83-			P95 04	595 04	
D-Max (8DH) 2.4-3.5 V6 4x4	05.02-			P95 05	595 05	
D-Max (8DH) 2.5 D	05.02-			P95 04	595 04	
D-Max (8DH) 2.5 DiTD 4x4, 3.0 D 4x4	05.02-			P70 29	570 29	
D-Max (8DH) 2.5 D 4x4, 3.0 DiTD 4x4	05.02-			P95 04	595 04	
Gemini 1.5-1.8	02.88-			P60 68	550 41	
Gemini 1.7 D, TD	02.88-			P70 29	580 09	
Midi-bus, van, box (93/98000N)	01.88-			P60 69	560 69	
Midi-bus, van, box D, TD (93/98000 N)				P95 04	595 04	
Piazza 2.0 Turbo	06.81-			P70 29	580 09	
Rodeo 2.0-2.6	90-			P60 69	560 69	
Rodeo 2.3-2.8 TD	90-			P95 05	595 05	
TLD				P70 24	570 24	
Trooper (UB) 3.1-3.5 V6	08.91-			P95 05	595 05	
Trooper (UB) 3.0 DTI	08.91-			P95 05	595 05	
VAN				P60 69	560 69	
VAN D				P95 05	595 05	
Iveco						
Massif 3.0 HPI, HPT	10.08-	592 01		P95 33	595 33	
Jaguar						
S-Type (CCX) all models	01.99-	592 01		P95 33	595 33	



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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
X-Type (CF1) all models	06.01-	570 01	50 500	P74 12	572 12	
X-Type Estate 2.5-3.0	02.04-	570 01	50 500	P74 12	572 12	
X-Type Estate 2.0-2.2 D	02.04-	580 01	50 500	P80 14	580 14	
XF 3.0-5.0	09.07-	592 01		P95 33	595 33	
XF 2.7-3.0 D	09.07-	592 01		P95 33	595 33	
XJ 6 3.4	07.68-02.93		50 300	P62 19	562 19	
XJ 6 4.2, 12 5.3, 12 HE	07.68-02.93		50 500	P74 12	572 12	
XJ Sovereign V12	07.68-02.93		50 300	P62 19	562 19	
XJ (XJ 40, 81) 6 2.9-3.6	10.86-11.94		50 300	P62 19	562 19	
XJ (XJ 40, 81) 6 4.0-V12 6.0	10.86-11.94		50 500	P74 12	572 12	
XJ (X300) all models	11.94-07.97		50 500	P74 12	572 12	
XJ (NAW, NBW) 8 3.2-4.0; R 4.0	07.97-05.03		50 500	P74 12	572 12	
XJ all models	05.03-	570 01	50 500	P74 12	572 12	
XJS convertible, coupé all models	09.75-03.96		50 500	P74 12	572 12	
XJSC convertible all models	07.85-03.96		50 500	P74 12	572 12	
XK 8 convertible (QDV) all models	03.96-			P95 33	595 33	
XK 8 coupé (QEV), all models	03.96-			P95 33	595 33	
XK convertible, coupé, all models	03.06-			P95 33	595 33	
Jeep						
Cherokee (XJ) 2.5-4.0	01.88-12.01		50 200			
Cherokee (XJ) 2.1-2.5 TD, CRD	01.88-12.01		50 500		572 33	
Cherokee (KJ) 3.7	01.02-			P60 69	560 69	
Cherokee (KJ) 2.5 CRD	01.02-		50 500		572 33	
Cherokee (KK) 2.8 CRD	01.08-			P95 05	595 05	
Commander (XH) 3.8-5.7 V8 HEMI	03.06 -	580 01	50 500	P80 14	580 14	
Commander 3.0 V6 CRD	03.06 -	592 01		P95 33	595 33	
Compass (MK49) 2.4	12.06-		50 300		560 08	
Compass (MK49) 2.0-2.2CRD	12.06-		50 500		572 33	
Grand Cherokee I (ZJ) 4.0-5.2	01.93-12.95		50 200			
Grand Cherokee I (ZG) 2.5 TD+CRD	01.96-12.98		50 500		572 33	
Grand Cherokee II (WJ/WG) 3.7-4.7	01.99-12.04		50 500		572 33	
Grand Cherokee II (WJ/WG) 2.7 CRD	01.99-12.04			P95 33	595 33	
Grand Cherokee III (WH) 3.7-6.1	01.05-	580 01	50 500	P80 14	580 14	
Grand Cherokee III (WH) 3.0 CRD	01.05-	592 01		P95 33	595 33	
Patriot (MK74) 2.4	03.07-		50 500		572 33	
Patriot (MK74) 2.0 CRD	03.07-		50 500		572 33	
Wrangler I (YJ) 2.5-4.0	01.88-08.96		50 200			
Wrangler II (TJ) 2.4-4.0	08.96-12.07		50 200			
Wrangler III (JK) 3.8	02.06-			P60 69	560 69	
Wrangler III (JK) 2.8 CRD	02.06-		50 500		572 33	
KIA						
Besta D	01.07-			P95 04	595 04	
Carens I 1.8-2.0	07.01-		50 300	P62 19	562 19	
Carens I 2.0 CRDi FL	07.02-12.05			P70 29	580 09	
Carens II 1.6	06.10-				560 62	
Carens II 2.0	06.06-			P70 29	580 09	
Carens II 1.6 CRDi	06.10-			P70 29	580 09	
Carens II 2.0-2.9 CRDi	06.06-			P95 04	595 04	
Carnival I, II (UP) 2.4-3.5 V6	98-			P60 68	560 68	
Carnival I, II (UP) 2.9 TD; CRDi	98-			P88 20	588 20	
Carnival III (VQ) 2.4-3.5 V6	06.06-	570 01	50 500	P74 12	572 12	
Carnival III (VQ) 2.2-2.9 CRDi	06.06-			P95 04	595 04	
cee'd, pro cee'd 1.4-2.0	01.07-				560 62	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
cee'd, pro cee'd 1.6-2.0 CRDi	01.07-			P70 29	580 09	
cee'd, pro cee'd 1.4-2.0 ISG start/stop	05.09-	560 01				
cee'd, pro cee'd 1.6-2.0 CRDi ISG start/stop	05.09-	570 01				
Cerato 1.5-2.0 CRDi	04.04-			P70 29	580 09	
Cerato 1.6-2.0	04.04-		50 300	P62 19	562 19	
Clarus (K9A, GC) 1.8-2.0 16V	07.96-		50 300	P62 19	562 19	
Joice 2.0	02.00-			P70 24	570 24	
K2500, -FL, K2700	03.04-	570 01	50 500	P74 12	572 12	
K2500, -FL, K2700 TCI, LSD	03.04-			P95 04	595 04	
Magentis (GD) 2.0; -FL	05.01-		50 300	P62 19	562 19	
Magentis (GD, MG) 2.0 CRDi	05.01-02.06			P95 04	595 04	
Magentis 2.0 CRDi	03.06-			P70 29	580 09	
Magentis (GD, MG) 2.5-2.7 V6, FL	05.01-			P70 29	580 09	
Magentis (MG) 2.0	12.06-				560 62	
Opirus I 3.5 V6	09.03-09.05			P70 29	580 09	
Opirus II 3.5 V6	09.05-				560 62	
Optima 2.0-2.4 ISG start/stop	03.11-	560 01				
Optima 1.7 CRDi ISG start/stop	03.11-	570 01				
Picanto 1.0-1,1	03.03-				535 04	
Picanto 1,1 CRDi	03.06-02.11				560 62	
Picanto 1,1 CRDi	03.11-			P70 29	580 09	
Picanto 1.0-1.2 ISG start/stop	03.11-	560 01				
Picanto 1,1 CRDi ISG start/stop	03.11-	570 01				
Pregio	96-		50 500	P74 12	572 12	
Pregio D, TCI	93-			P95 04	595 04	
Pride (DA), -Wagon	01.90-12.00			P60 68	550 41	
Retona (CE) 2.0	06.99-			P60 68	560 68	
Retona (CE) 2.0 TD	06.99-			P95 04	595 04	
Rio I 1.3-1.5	08.00-05.05			P60 68	560 68	
Rio II, III 1.4 - 1.6	06.05-				560 62	
Rio II, III 1.5 CRDi	06.05-			P70 29	580 09	
Rio III 1,1 - 1.6 ISG start/stop	03.11-	560 01				
Rio III 1,1-1.5 CRDi ISG start/stop	03.11-	570 01				
Roadster	06.04-	560 01	50 300	P62 19	562 19	
Rocsta	93-			P60 68	560 68	
Rocsta D	93-			P95 04	595 04	
Sedona	98-			P60 68	560 68	
Sedona D	98-			P95 04	595 04	
Shuma I, II (FB)	10.97-		50 300	P62 19	562 19	
Shuma I, II (FB) TD	10.97-		50 300	P62 19	562 19	
Sorento (JC) 2.4-3.5 V6	01.03-			P70 24	570 24	
Sorento (JC) 2.2-2.5 CRDi	06.02-			P95 05	595 05	
Sorento (XM) 2.4-3.5 V6	09.09-			P70 29	580 09	
Sorento (XM) 2.0-2.5 CRDi	09.09-			P95 04	595 04	
Soul 1.6 CCVT	02.09-				560 62	
Soul 1.6 CRDi	02.09-			P70 29	580 09	
Soul 1.6 ISG start/stop	02.09-	560 01				
Soul 1.6 CRDi ISG start/stop	02.09-	570 01				
Sportage I (K00) 2.0 i 4WD; 16V 4WD	04.94-		50 200			
Sportage I, II (K00) 2.0 TD 4WD, CRDi	04.94-			P95 05	595 05	
Sportage II (K00) 2.0	04.94-				560 62	
Sportage II (K00) 2.0 TD, CRDi	04.04-			P70 29	580 09	
Sportage II (K00) 2.7 V6	04.04-			P70 29	580 09	
Sportage II (MMO) 2.0 i 16V; Fresh	03.02-		50 300		560 08	

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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Sportage III (SL) 1.6-2.0 ISG start/stop	08.10-	560 01				
Sportage III (SL) 1.7-2.0 ISG CRDi start/stop	08.10-	570 01				
Venga 1.4-1.6	09.09-	560 01	50 300	P62 19	562 19	
Venga 1.4-1.6 CRDi	09.09-	570 01	50 500	P74 12	572 12	
Venga 1.4-1.6 ISG start/stop	09.09-	560 01				
Venga 1.4-1.6 CRDi ISG start/stop	09.09-	570 01				
KTM						
X-Bow 2.0 Turbo FSI	09.07-	560 01	50 300	P62 19	562 19	
Lada						
110-112 1.5-2.0	01.95-		50 300		560 08	
1200-1600	01.70-02.93		50 300		560 08	
2170, 2172 1.6	12.08-		50 300		560 08	
Kalina (1117-1119) 1.6	09.07-		50 300		560 08	
Nadeschda (2120) 1.7-1.8	12.97-		50 300		560 08	
Niva (2121), Nova (2103/4/5/8/9)	12.76-		50 300		560 08	
Priora 1.6	01.09-		50 300		560 08	
Samara 1,1-1.5	01.86-		50 300		560 08	
Toscana 1.3-1.5	09.83-		50 300		560 08	
Lamborghini						
Diablo	01.90-		50 500	P74 12	572 12	
Murciélago 6.2; LP 640	11.01-		50 500	P74 12	572 12	
Lancia						
Dedra (SW835) 1.6-2.0	01.89-07.99			P50 03	542 08	
Dedra (SW835) 1.9 TDS	01.89-07.99		50 500	P74 12	572 12	
Delta I, II, III (831AB0, 836) 1,1-2.0	09.79-08.99		50 300	P62 19	562 19	
Delta I, II, III (831AB0, 836) 1.9-2.0 D, TD	09.79-08.99		50 500	P74 12	572 12	
Kappa (838A, -B) 2.0-3.0	07.96-10.01		50 300	P62 19	562 19	
Kappa (838) 2.4 D, TD, JTD	07.96-10.01		50 500	P74 12	572 12	
Lybra (839AX, BX) 1.6-2.0	07.99-		50 300	P62 19	562 19	
Lybra (839AX, BX) 1.9-2.4 JTD	07.99-		50 300	P62 19	562 19	
Musa 1.4	10.04-			P50 03	542 08	
Musa 1.3-1.9 JTD	10.04-	560 01	50 300	P62 19	562 19	
Musa 1.4 start/stop	10.04-	560 00				
Musa 1.3-1.9 JTD start/stop	10.04-	560 00				
Phedra (179) 2.0-3.0	09.02-	560 01	50 300	P62 19	562 19	
Phedra (179) 2.0-2.2 TD, JTD	09.02-	570 01	50 500	P74 12	572 12	
Prisma (831AB0) 1.3-1.6	01.83-02.92			P50 03	542 08	
Prisma (831AB0) 2.0	01.83-02.92		50 300	P62 19	562 19	
Prisma (831AB0) 1.9 D, TD	01.83-02.92		50 500	P74 12	572 12	
Thema (834) 2000-3000	01.83-07.93		50 300	P62 19	562 19	
Thema (834) 2500 Turbo D, DS, TD	01.83-07.93		50 500	P74 12	572 12	
Thema 3.6 V6 Pentastar	11.11-	592 01				
Thema 3.0 JTD V6 Multijet	11.11-	592 01				
Thesis (841AX) 2.0-3.2	07.02-			P95 33	595 33	
Thesis (841AX) 2.4 TD, JTD, Multijet	07.02-			P95 33	595 33	
Voyager V (RT) 3.8	09.11-				560 62	
Voyager V (RT) 2.8 CRD	09.11-					
Y10 (156) 1.0-1.3	03.85-12.95			P50 03	542 08	
Y (840A) 1,1-1.4	11.95-09.03			P50 03	542 08	
Ypsilon (840A) 1.2-1.4	10.03-			P50 03	542 08	
Ypsilon (840A) 1.3 JTD, Multijet	10.03-		50 300	P62 19	562 19	
Ypsilon (840A) 1.2-1.4 start/stop	10.10-	560 00				
Ypsilon (840A) 1.3 JTD, Multijet start/stop	10.10-	560 00				
Zeta (838 A, -B, 220) 2.0-2.1 TD, JTD	07.96-09.02		50 500	P74 12	572 12	
Zeta (838, 220) 2.0	07.96-09.02		50 300	P62 19	562 19	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Landwind						
2.0-2.4; 2.8 D	09.05-			P95 05	595 05	
LDV						
Convoy 2.5 DI, TDI	10.96-			P70 24	570 24	
Lexus						
ES (F1, F2, VZV) 250, 300, 3.0-3.3	12.89-10.06			P70 29	580 09	
GS (JZS147, 160) 300-450, 4.3 VVTi	03.93-03.05			P70 24	570 24	
GS (GRS, UZS) 3.0-4.3; 300, 430	04.05-			P70 24	570 24	
GS (GRS, UZS) 450 h	04.05-			P70 29	580 09	
GS (GRS, UZS) 460	04.05-			P95 05	595 05	
IS (GXE10) 200	04.99-			P60 69	560 69	
IS (GXE10) 300	04.99-			P60 68	560 68	
IS 250	10.05-			P70 24	570 24	
IS 220 D	10.05-			P95 05	595 05	
IS F	10.05-			P60 69	560 69	
LS (UFC10, UFC20) 400	10.89-10.00			P95 04	595 04	
LS (FE) 430	10.00-			P70 29	580 09	
LS 460	09.06-			P95 05	595 05	
LS 600 h start/stop	06.07-			P45 23		
RX (XU1) 300; 3.0	08.97-05.03			P70 29	580 09	
RX (MCU) 300-350, 3.3	05.03-			P70 29	580 09	
RX (MCU) 400 h	09.06-			P45 23	545 23	
RX (MCU) 450 h start/stop	09.06-			P45 23		
RX (GYL) 3.5; 350 AWD	04.09-			P70 29	580 09	
SC 430	08.01-			P70 29	580 09	
Ligier						
J512			50 100	P44 09	544 09	
J56	83-				532 28	
Lotus						
Elan 1.6	09.89-11.95		50 300	P62 19	562 19	
Elise -330 R	08.95-		50 100	P50 03	544 09	
Esprit 2.0-3.5 V8	10.75-		50 300	P62 19	562 19	
Excel 2.2	10.83-08.91		50 300	P62 19	562 19	
Exige 1.8	09.01-		50 100	P50 03	544 09	
Mahindra						
CJ 330, CJ 530	90-			P95 33	595 33	
Maruti						
800	87-			P45 24	545 24	
Maserati						
228 2.8	12.86-12.90		50 300	P62 19	562 19	
420, 430	03.85-12.94		50 300		560 08	
Biturbo 222-425	06.84-12.94		50 300		560 08	
Biturbo Coupé 2.0-2.5	12.81-12.88		50 300		560 08	
Biturbo Spider 2.0-2.8	07.85-12.94		50 300		560 08	
Ghibli II	04.92-			P88 20	588 20	
Karif 2.8	04.88-		50 500	P74 12	572 12	
Quattroporte I, II 2.0-4.9	08.76-			P70 24	570 24	
Quattroporte III 4.2	03.04-	592 01		P95 33	595 33	
Shamal 3.2	09.89-11.95		50 500	P74 12	572 12	
Spyder Coupé, GT convertible 4.2	10.01-		50 500	P74 12	572 12	
Mazda						
121 II (DB) 1,1-1.3	11.90-03.96			P45 23	545 23	
121 III (JASM, JBMS) 1.25-1.3	03.96-		50 100	P44 09	544 09	
121 III (JASM, JBMS) 1.8 D	03.96-		50 200	P55 19	555 19	
2 (B2W, DY) 1.3-1.5	04.03-03.07		50 100	P44 09	544 09	
2 (B2W, DY) 1.4 CD 68-90	04.03-03.07		50 200	P62 05	560 09	
2 (DE) 1.3-1.5	04.07-			P60 68	550 41	
2 (DE) 1.4-1.6 CD 68-90	04.07-			P70 29	570 29	
3 (BK12, 14, BL) 1.4-1.6	10.03-			P60 68	550 41	
3 (BK12, 14, BL) 2.0-2.3; MPS	10.03-			P60 68	560 68	
3 (BK12, 14, BL) 1.6 CD 90-110	10.03-			P70 29	570 29	
3 (BK12, 14, BL) 2.0 CD 143-185	10.03-			P95 04	595 04	
3 (BL) 1.6-2.0 i-stop start/stop	09.09-			P45 23		



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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
323 I (FA)	05.78-05.86			P60 68	550 41	
323 II (BD)	06.80-10.89			P60 68	550 41	
323 III (BF)	08.85-11.91			P60 68	550 41	
323 III (BW)	05.86-03.93			P60 68	560 68	
323 III 1.7 D (BW)	05.86-03.93			P95 04	595 04	
323 IV C, F, S 1.7 D (BG)	06.89-			P95 04	595 04	
323 IV C, F, S 1.3-2.0 (BG)	06.89-			P60 68	550 41	
323 V (BA) C	08.93-09.98			P60 68	550 41	
323 V F/S (BG)	06.89-10.93			P60 68	550 41	
323 V F/S 1.3-1.8 (BA)	07.93-09.98			P60 68	550 41	
323 V F/S 2.0 (BA)	07.93-09.98			P60 68	560 68	
323 V F/S 2.0 D (BA)	07.93-09.98			P95 04	595 04	
323 V P	10.96-09.98			P60 68	550 41	
323 V P 2.0 D	10.96-09.98			P95 04	595 04	
323 VI F/P/S 1.3-2.0 (BJ)	09.98-			P60 68	550 41	
323 VI F/P/S 2.0 TD, DITD (BJ)	09.98-			P95 04	595 04	
5 (CR19) 1.8-2.0	07.05-			P60 68	560 68	
5 (CR19) 2.3	07.05-			P70 29	570 29	
5 (CR19) 2.0-2.2 CD 110-143	07.05-			P95 04	595 04	
6 (GG, GY, GH) 1.6-2.3; MPS	06.02-			P60 68	560 68	
6 (GG, GY, GH) 2.5; MPS	06.02-			P70 29	570 29	
6 (GG, GY, GH) 2.0-2.2 CD 125-185	09.02-			P95 04	595 04	
626 II 1.6-2.0 (GC)	11.82-09.87			P60 68	560 68	
626 II 2.0 D (GC)	11.82-09.87			P95 04	595 04	
626 III 1.8-2.2 (GD/GV)	06.87-05.92			P70 29	570 29	
626 III 2.0 D (GD/GV)	06.87-05.92			P60 68+P60 69	560 68+560 69	
626 IV 1.8-2.0 (GE)	08.91-03.97			P60 68	560 68	
626 IV 2.0 D Compr. (GE)	08.91-03.97			P95 04	595 04	
626 IV 2.0 DITD (GF/GW)	05.97-			P95 04	595 04	
626 V 1.8-2.0 (GF/GW)	05.97-			P60 68	560 68	
929 I (LA)	09.78-07.86			P60 68	560 68	
929 II 2.0 (HV)	01.83-12.87			P60 68	560 68	
929 II 2.0 66 kW (HB)	12.81-09.87			P60 69	560 69	
929 II 2.0 66+88 kW (HB)	02.81-09.87			P60 69	560 69	
929 II 2.0 73 kW (HB)	02.81-09.87			P60 68	560 68	
929 II 2.0 73+88 kW (HB)	12.81-09.87			P60 68	560 68	
929 III 2.0-3.0 (HC)	05.87-06.91			P70 29	570 29	
B-series 2.0-2.2 (UF)	01.85-06.99			P60 69	560 69	
B-series 2.6; 2.2-2.5 D (UF)	01.85-06.99			P95 05	595 05	
B-series 2.2-2.6; 2.5 D, TD (UN)	02.99-			P95 05	595 05	
BT-50 (CD) 2.5 CD; 3.0 CDVi	03.07-			P95 05	595 05	
CX-5 2.0	03.12-			P60 68	560 68	
CX-5 2.2 CD	03.12-			P95 04	595 04	
CX-7 2.2-2.5	08.07-			P60 68	560 68	
CX-7 2.2 CD 173	08.08-			P95 04	595 04	
CX-9 3.5 V6	03.07-			P70 29	570 29	
Demio (A6, A7, DW) 1.2-1.6	08.98-04.00			P45 23	545 23	
E 1600 (BA2)	81-83			P60 69	560 69	
E 2000 (SR2)	81-			P60 68	550 41	
E 2200 D (SR2)	83-88			P95 04	595 04	
MPV I, II (LV, LW) 2.0-3.6 i, V6	03.95-			P60 68	560 68	
MPV I, II (LV, LW) 2.0 DI; 2.5 TD	03.95-			P95 04	595 04	
MX-3 (EC)	07.91-			P60 68	560 68	
MX-5 I (NA) 1.6-1.8	09.89-03.98				540 63*	
MX-5 II (NB) 1.6-1.9	03.98-02.05				540 63*	
MX-5 III (NC) 1.8-2.0	03.05-			P45 23	545 23	
MX-6 (GE6)	07.91-			P60 68	560 68	
Premacy (CP) 1.8-2.3	07.99-			P60 68	560 68	
Premacy (CP) 2.0 TD	07.99-			P95 04	595 04	
RX-7 III (FD)	07.92-			P70 29	570 29	
RX-8 (SE17)	10.03-			P70 29	570 29	
T 2500 - 3500				P70 24	570 24	
Tribute (EP) 4 cyl.	03.00-		50 200			

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Tribute (EP) 6 cyl.	03.00-			P72 09	570 44	
Xedos 6 (CA)	01.92-		50 200			
Xedos 9 (TA)	07.93-			P60 68	560 68	
Mercedes-Benz						
100 (631) D	02.88-02.96		50 500	P74 12	572 12	
190 (W201) 2.0; E 2.0	10.82-08.93		50 300	P62 19	562 19	
190 (W201) D 2.0; D 2.5.	10.82-08.93		50 500	P74 12	572 12	
190 (W201) E 1.8	10.82-08.93		50 300	P62 19	562 19	
190 (W201) E 2.3	10.82-08.93		50 300	P62 19	562 19	
190 (W201) E 2.5; E 2.6; E Evo.	10.82-08.93		50 500	P74 12	572 12	
190 (W201) TD 2.5	10.82-08.93			PRO P100 40	595 33	
A-Class (W168, 169) 140-200	07.97-		50 300	P62 19	562 19	
A-Class (W168, 169) 160-200 CDI	07.97-		50 500	P74 12	572 12	
A-Class (W168, 169) 140-200 start/stop	09.10-	570 01				
A-Class (W168, 169) 160-200 CDI start/stop	09.10-	570 01				
B-Class (W245) 150-200	06.05-	560 01	50 300	P62 19	562 19	
B-Class (W245) 180-200 CDI	06.05-	570 01	50 500	P74 12	572 12	
B-Class (W245) 150-200 start/stop	06.10-	570 01				
B-Class (W245) 180-200 CDI start/stop	06.10-	570 01				
Convertible (A123, A124) 300 CE-23	09.91-05.93		50 500	P74 12	572 12	
C-Class (W202) 180-240	03.93-05.00		50 300	P62 19	562 19	
C-Class (W202) 280	03.93-05.00		50 500	P74 12	572 12	
C-Class (W202) 200-250 D, CDI, Turbo-D, 36-43 AMG	03.93-05.00			PRO P100 40	595 33	
C-Class estate (S202) 180-240	06.96-03.01		50 300	P62 19	562 19	
C-Class estate (S202) 280	06.96-03.01		50 500	P74 12	572 12	
C-Class estate (S202) 200-250 D, CDI, Turbo-D, 43 AMG	06.96-03.01			PRO P100 40	595 33	
C-Class (W203) 180-240	05.00-		50 300	P62 19	562 19	
C-Class (W203) 280-350	05.00-		50 500	P74 12	572 12	
C-Class (W203) 200-320 CDI, C 32-55 AMG	05.00-	592 01		PRO P100 40	595 33	
C-Class T-Model (S203) 180-240	03.01-		50 300	P62 19	562 19	
C-Class T-Model (S203) 280-350	03.01-		50 500	P74 12	572 12	
C-Class T-Model (S203) 200-320 CDI, C 32-55 AMG, 30 CDI AMG	03.01-			PRO P100 40	595 33	
C-Class Coupé (CL203) 160-230	03.01-		50 300	P62 19	562 19	
C-Class Coupé (CL203) 320	03.01-		50 500	P74 12	572 12	
C-Class Coupé (CL203) 200-220 CDI, C 32 AMG, 30 CDI AMG	03.01-			PRO P100 40	595 33	
C-Class (W204) 180	01.07-	570 01	50 500	P74 12	572 12	
C-Class (W204) 200-230	01.07-	592 01		PRO P100 40	595 33	
C-Class (W204) 200-320 CDI	01.07-	592 01		PRO P100 40	595 33	
C-Class (W204) 180 start/stop	01.07-	570 01				AUX 12
C-Class (W204) 200-230 start/stop	01.07-	592 01				AUX 12
C-Class (W204) 200-320 CDI start/stop	01.07-	592 01				AUX 12
C-Class T-Model (S204) 180-240	08.07-	570 01	50 500	P74 12	572 12	
C-Class T-Model (S204) 280-350	08.07-	592 01		PRO P100 40	595 33	

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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
C-Class T-Model (S204) 200-320 CDI, C 32-55 AMG, 30 CDI AMG	08.07-	592 01		PRO P100 40	595 33	
CLC-Class 180-200 Compressor	05.08-	570 01	50 500	P74 12	572 12	
CLC-Class 230-350	05.08-	592 01		PRO P100 40	595 33	
CLC-Class 200-220 CDI	05.08-	592 01		PRO P100 40	595 33	
CLC-Class 160 all models start/stop	01.10-	570 01				AUX 12
CLK (C208) 200-230	06.97-06.02		50 500	P74 12	572 12	
CLK (C208) 320, 430, 55 AMG	06.97-06.02			PRO P100 40	595 33	
CLK convertible (A208) 200-230	03.98-03.02		50 500	P74 12	572 12	
CLK convertible (A208) 320, 430, 55 AMG	03.98-03.02			PRO P100 40	595 33	
CLK (C209) 200-240	06.02-	560 01	50 300	P62 19	562 19	
CLK (C209) 280, 320, 350, 500	06.02-	570 01	50 500	P74 12	572 12	
CLK (C209) 220 CDI, 270 CDI, 320 CDI, 55-63 AMG	06.02-	592 01		PRO P100 40	595 33	
CLK convertible (A209) 200-240	02.03-	560 01	50 300	P62 19	562 19	
CLK convertible (A209) 280-500	02.03-	570 01	50 500	P74 12	572 12	
CLK convertible (A209) 320 CDI, 55-63 AMG	02.03-	592 01		PRO P100 40	595 33	
CLS (C219) 280-500, 55-63 AMG, 320-350 CDI + start/stop	10.04-	592 01				AUX 12
Coupé (C123, C124) 220-230 CE	03.87-05.93		50 300	P62 19	562 19	
Coupé (C123, C124) 300-320 CE	03.87-05.93		50 500	P74 12	572 12	
E-Class (W123, 124) 200-280	06.93-06.95		50 300	P62 19	562 19	
E-Class (W123, 124) 250 D, TD; 36 AMG, 300 D, TD; 60 AMG	06.93-06.95			PRO P100 40	595 33	
E-Class (W123, 124) 280 long, 300, 320-500, 300 r-matic, 200 D	06.93-06.95		50 500	P74 12	572 12	
E-Class (W210) 200-240	06.95-03.02		50 500	P74 12	572 12	
E-Class (W210) 280-430, 50-55 AMG	06.95-03.02			PRO P100 40	595 33	
E-Class (W210) 200-320 CDI	06.95-03.02			PRO P100 40	595 33	
E-Class (W211) 200-500, 55-63 AMG + start/stop	03.02-	592 01				AUX 12
E-Class (W211) 200-420 CDI + start/stop	03.02-	592 01				AUX 12
E-Class (W212) all models start/stop	01.09-	592 01				AUX 12
E-Class convertible (A207) all models	01.10-	592 01		PRO P100 40	595 33	AUX 12
E-Class Coupé (C123) 200-320	06.93-	570 01	50 500	P74 12	572 12	
E-Class Coupé (C123) 36 AMG	06.93-	592 01		PRO P100 40	595 33	
E-Class Coupé (C207) all models	01.10-	592 01		PRO P100 40	595 33	AUX 12
E-Class T-Model (S123) 200-280	06.93-06.96		50 300	P62 19	562 19	
E-Class T-Model (S123) 300 3-matic, 36 AMG, 250-300 D, 300 TD	06.93-06.96			PRO P100 40	595 33	
E-Class T-Model (S123) 320	06.93-06.96		50 500	P74 12	572 12	
E-Class Estate (S210) 200-240	06.96-03.03		50 500	P74 12	572 12	
E-Class Estate (S210) 280-430, 55 AMG	06.96-03.03			PRO P100 40	595 33	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
E-Class T-Model (S211) 200-500, 55-63 AMG + start/stop	03.03-	592 01				AUX 12
E-Class T-Model (S211) 220-320 CDI + start/stop	03.03-	592 01				AUX 12
E-Class T-Model (S212) all models start/stop	01.09-	592 01				AUX 12
G-Class (W360, W460) 230-280 G/E	03.79-08.93			PRO P100 40	595 33	
G-Class (W360, W460) 230-250 GD	03.79-08.93			PRO P100 40	595 33	
G-Class (W360, W460) 300 GD	03.79-08.93			PRO P100 40	595 33	
G-Class (W361, W461) 230-G 290 TD	02.90-			PRO P100 40	595 33	
G-Class (W361, W461) 250 GD	02.90-			PRO P100 40	595 33	
G-Class (W361, W461) 290 GD/G 290 D	02.90-			PRO P100 40	595 33	
G-Class (W363, W463) 230 GE, G 320	09.93-			PRO P100 40	595 33	
G-Class (W363, W463) 300 GE, 250-300 GD, G 320	09.93-			PRO P100 40	595 33	
G-Class (W363, W463) G 300 TD, 350 G TD, G 300 CDI	09.93-			PRO P100 40	595 33	
G-Class (W363, W464) 400 CDI	09.89-			PRO P100 40	595 33	
G-Class (W363) G 36 AMG, G 500,-E	09.93-			PRO P100 40	595 33	
GL-Class (X164) 450-500, 320-420 CDI	09.06-	592 01		PRO P100 40	595 33	
GL-Class (X164) 450-500, 320-420 CDI BlueTEC start/stop	09.06-	592 01				AUX 12
GLK-Class (X204) all models	06.08-	592 01		PRO P100 40	595 33	
Maybach 57, 62 all models	03.02-	592 01				
M-Class (W163) ML 350-500, 63 AMG	01.97-06.05	592 01		PRO P100 40	595 33	
M-Class (W163) ML 270-420 CDI	01.97-06.05	592 01		PRO P100 40	595 33	
M-Class (W164) ML 350-500, 63 AMG + start/stop	07.05-	592 01				
M-Class (W164) ML 280-450 CDI + start/stop	07.05-	592 01				
R-Class (W251, V251) 280-500, R 63 AMG + start/stop	01.06-	592 01				
R-Class (W251, V251) 300-350 CDI + start/stop	01.06-	592 01				
S-Class (W126) 260 SE, 280 S	10.79-06.91		50 300	P62 19	562 19	
S-Class (W126) 280-300 SE/L	10.79-06.91		50 500	P74 12	572 12	
S-Class (W126) 380-560 SE/L	10.79-06.91		50 500	P74 12	572 12	
S-Class (W126) 320-560 SE/L	10.79-06.91			PRO P100 40	595 33	
S-Class (W130) 280, 300-320SE/L, SE 320, 300 SE/L, S 500, S 600, 600 SE/L, S 300 TD, S 350 TD	02.91-10.98			PRO P100 40	595 33	
S-Class (W220) 280, 320, 430, 500, 600, 55-63 AMG	10.98-08.05	592 01		PRO P100 40	595 33	
S-Class (W220) 320 CDI, 400 CDI	10.98-08.05	592 01		PRO P100 40	595 33	
S-Class (W220) 350, 4matic, 430 4matic, 500 4matic, 600, 55-65 AMG	10.98-08.05	592 01				AUX 12



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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
S-Class (W220) 320 CDI, 400 CDI	10.98-08.05	592 01				AUX 12
S-Class (W221) 350-600, 63-65 AMG + start/stop	10.05-	592 01				AUX 12
S-Class (W221) 320 CDI, 420 CDI + start/stop	10.05-	592 01				AUX 12
S-Class Coupé (C126) 380-560 SEC	10.81-06.91			PRO P100 40	595 33	
S-Class Coupé (C130) SEC/CL 320-600	09.92-02.99			PRO P100 40	595 33	
S-Class Coupé (C215) CL 500-600	03.99-03.06	592 01		PRO P100 40	595 33	AUX 12
S-Class Coupé (C216) CL 500-600	05.06-	592 01		PRO P100 40	595 33	AUX 12
SL (R107) 280-380	05.71-08.89		50 500	P74 12	572 12	
SL (R107) 420-500	05.71-08.89		50 500	P74 12	572 12	
SL (R129) 280-600, 55 AMG	03.89-10.01			PRO P100 40	595 33	
SL (R230) 280-600, 55-65 AMG + start/stop	10.01-	570 01				AUX 12
SLK (R170) 200-320, -K, 32 AMG	04.96-04.04	570 01	50 500	P74 12	572 12	
SLK (R171) 200-350, 55 AMG	03.04-	570 01	50 500	P74 12	572 12	
SLR (R199) 5.4	04.04-	570 01				
SLR (R199) 5.4 722 Edition, roadster	04.04-	592 01				
SLS (C197) 6.2 AMG + start/stop	03.10-	592 01				AUX 12
Sprinter (901, 902, 903, 903, 904, 906) 208-518 D, CDI	01.95-			PRO P100 40	595 33	
Sprinter (901, 902, 903, 903, 904, 906) 213-414	01.95-			P88 20	588 20	
Sprinter (904, 906) all models start/stop	01.10-	592 01				AUX 12
Notchback (W123) 200, -E, 220 E	12.83-06.93		50 300	P62 19	562 19	
Notchback (W123) 200-250 D	12.83-06.93		50 500	P74 12	572 12	
Notchback (W123) 230-320 E 3-matic	12.83-06.93		50 500	P74 12	572 12	
Notchback (W123) 250 TD, 300 D, 300 TD, -3-matic	12.83-06.93			PRO P100 40	595 33	
Notchback (W123) 500 E	12.83-06.93			PRO P100 40	595 33	
T1, T2 (601, 602) 207-815 D	05.77-02.96			PRO P100 40	595 33	
T1, T2 (601, 602) 208, 210, 510	05.77-02.96			P88 20	588 20	
T2 Vario 512 - 818 D	02.96-			PRO P100 40	595 33	
Vaneo (313, 414) 1.6-1.9	02.02-	560 01	50 300	P62 19	562 19	
Vaneo (313, 414) 1.7 CDI	02.02-	570 01	50 500	P74 12	572 12	
V-Class (638/2) 200-280	02.96-			P88 20	588 20	
V-Class (638/2) 200-220 CDI, 230 TD	02.96-			PRO P100 40	595 33	
Viano (W639) 3.2-3.7	09.03-	570 01	50 500	P74 12	572 12	
Viano (W639) 2.0-3.0 CDI (110 kW)	09.03-	592 01		PRO P100 40	595 33	
Vito (638) 113-126	02.96-		50 500	P74 12	572 12	
Vito (638) 108-120 CDI	02.96-			PRO P100 40	595 33	
MG						
MGF (RD) 1.6-1.8	03.95-03.02		50 200	P62 05	560 09	
MGR V8 3.9	09.92-12.95		50 200	P62 05	560 09	
MG TF 115-160	03.02-		50 300	P62 19	562 19	
MG ZR 1.5-1.60 TD	06.01-		50 200	P62 05	560 09	
MG ZS 120-180	07.01-		50 100	P50 03	544 09	
MG ZS 2.0 TD	07.01-			P72 09	570 44	
MG ZT, ZT-T 160-260	06.01-		50 300	P62 19	562 19	
MG ZT, ZT-T 2.0 CDTi	06.01-		50 500	P74 12	572 12	
MG X-Power 4.6-5.0	01.03-			P72 09	570 44	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Mini						
Mini (R50, R53) One, convertible, Cooper, convertible, S	03.01-			P62 19	562 19	
Mini (R50, R53) One, convertible, Cooper D	03.01-			P74 12	570 44	
Mini (R52, R55-57) One, Clubman, Countryman, Cooper, S 1.6; 1.6 D start/stop	09.06-	570 01				
Mitsubishi						
3000 GT (Z16) V6 QP1	06.92-			P70 24	570 24	
ASX 1.6	06.10-			P70 29	570 29	
ASX 1.8 DI-D	09.10-			P95 04	595 04	
Carisma DX (DA0A) 1.6-1.8	07.95-		50 300	P62 19	562 19	
Carisma DX (DA0A) 1.8 GDI; 1.9 GDI, DI-D, TD	07.95-		50 500	P74 12	572 12	
Carisma VI, VII DX (DA0A) 2.0 16V GT EVO	09.96-		50 500	P74 12	572 12	
Challenger	98-			P60 69	560 69	
Challenger D, TDi	98-			P95 05	595 05	
Colt III (C5_A) 1.3	03.88-05.92			P45 24	545 24	
Colt III (C5_A) 1.5-1.8	03.88-05.92			P45 24	545 24	
Colt III (C5_A) 1.8 Diesel GLX	03.88-05.92			P70 24	570 24	
Colt IV (CA_A) 1.3-1.8	03.92-08.95			P45 24	545 24	
Colt IV (CA_A) 1.3-1.8	03.92-08.95			P60 69	560 69	
Colt V (CJ_A) 1300-1600	09.95-			P60 69	560 69	
Colt VI, VII 1,1-1.3 NEW	06.04-		50 100	P50 03	544 09	
Colt VI, VII 1.5 NEW	06.04-	560 01	50 300	P62 19	562 19	
Colt VI 1.5 DI-D HP NEW	01.03-10.08		50 500	P74 12	572 12	
Colt CZC convertible VI 1.5	05.06-	560 01	50 300	P62 19	562 19	
Colt 1,1-1.3 NEW Cleartec start/stop	03.09-	560 01		P62 19		
Eclipse I, II (D20A, D30A) 2.0-3.0 V6	04.91-			P60 68	560 68	
FE-/FH-Serie Canter	-90			P70 24	570 24	
FE-Serie Canter	91-			P95 05	595 05	
FH-Serie Canter				600 35		
FM-/FK-Serie Canter				P95 05	595 05	
Galant IV (E3A) 1.8-2.0	11.87-10.92			P45 24	545 24	
Galant IV (E3A) 1.8 Turbo-D	11.87-10.92			P70 24	570 24	
Galant V, VI (E5A, E7A, E8A, EA) 1.8-3.8	11.92-			P70 24	570 24	
Galant V, VI (E5A, E7A, E8A, EA) 2.0 GLSI, V6, TDI	11.92-			P95 05	595 05	
Galloper (JK-01) 2.5 TD; 3.0 V6	02.99-			P70 24	570 24	
Grandis all models	11.97-05.03			P60 68	560 68	
Grandis 2.4	04.04-			P60 68	560 68	
Grandis 2.0 DI-D	04.04-			P70 29	570 29	
i MIEV 47 kW (Mitsubishi Innovative Electric Vehicle)	03.10-			P40 26	535 20	
L 200 P (KT) 2.4-3.5	11.86-			P70 24	570 24	
L 200 2.5-3.2 DI-D	11.86-			P95 04	595 04	
L 300 (L03, P0, P1, P2) 1.6-2.0	05.80-			P60 69	560 69	
L 300 (L03, P0, P1, P2) 2.5 D, TD	05.80-			P95 05	595 05	
L 400 (PAOV) 2.0	04.94-			P60 69	560 69	
L 400 (PAOV) 2500 TD	04.94-			P95 05	595 05	
Lancer III, IV, V, VI, VII (C1V, C3V, C6A, C7A, CB/DA, CBW, CDW, CK/PA)	09.85-			P60 69	560 69	
Lancer III, IV, V, VI, VII (C1V, C3V, C6A, C7A, CB/DA, CBW, CDW, CK/PA) 1.8 D; 2.0 GLX D	09.85-			P95 05	595 05	
Lancer EVO I-IX	09.85-			P70 29	570 29	
Lancer EVO X	09.08-	570 01				

Banner

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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Outlander 2.0-2.4	05.03-			P70 29	570 29	
Outlander 2.0 DI-D; 2.4 Mivec	03.07-			P95 04	595 04	
Pajero II, III, IV (V2, V4, V60, V70, V80, V90) 1.8-3.5	12.90-			P70 24	570 24	
Pajero II, III, IV (V2, V4, V60, V70, V80, V90) 2.5-2.8 TD; 3.2 DI-D; 3.5 V6	12.90-			P95 04	595 04	
Pajero Pinin (H6, H7) 1.8-2.0 GDI	10.99-		50 300	P62 19	562 19	
Pajero Pinin (H6, H7) 3.2 DiD	10.99-			P95 05	595 05	
Pajero Sport (K90T, KH8W) 2.5-3.2 TD; DI-D	11.98-			P95 05	595 05	
Pajero Sport (K90T, KH8W) 1.8-3.5 V6	11.98-			P60 69	560 69	
Santamo 2.0	03.99-			P70 24	570 24	
Shogun				P60 69	560 69	
Sigma (F16A, F07W) 3.0	12.90-07.96			P70 24	570 24	
Space Gear (PA/B/D/W)	05.95-			P70 24	570 24	
Space-Gear (PA/B/D/W) 2.5 TD	05.95-			P95 05	595 05	
Space-Runner/Wagon (N10W, N20W, N50)	10.91-10.98			P70 24	570 24	
Space-Runner/Wagon (N10W, N20W, N50) 2.0 TD	10.91-10.98			P95 05	595 05	
Space-Runner/Wagon (N80W, N90W, N50) 2.0-2.4 GDI	10.98-			P70 24	570 24	
Space-Star (DGOA) 1.3-1.6	06.98-		50 300	P62 19	562 19	
Space-Star (DGOA) 1.8 GDI-1.9 DID	06.98-		50 500	P74 12	572 12	
Morgan						
3/3 2-seater	72-		50 100			
3/3 3-seater, Plus 8 Vit.	68-				545 79	
4/4, Plus 4, Roadster, 4-seater	78-		50 100			
Aero 8	10.00-		50 200			
AeroMax	01.06-		50 200			
Moskwitsch						
412-427 1.5			50 300		560 08	
2142			50 300		560 08	
ASLK 2137, 2140 1.5	03.76-		50 300		560 08	
Nissan						
100 NX (B13)	03.90-10.94			P60 68	560 68	
200 SX (S13) 1.8 Turbo	07.88-11.94			P60 69	560 69	
200 SX (S13) 2.0 16V	07.88-11.94			P70 24	570 24	
200 SX (S14) 2.0-2.4	10.93-			P60 69	560 69	
300 ZX (Z31, Z32)	01.83-09.95			P60 68	560 68	
350 Z (Z33) 3.5 - Roadster	10.03-			P60 68	560 68	
370 Z (Z34) 3.7 V6 - Roadster	04.09-			P60 68	560 68	
Almera I (N15) 1.4-1.6	07.95-07.00			P60 68	560 68	
Almera I (N15) 2.0 D	07.95-07.00			P95 04	595 04	
Almera II (N16) 1.5-1.8	03.00-		50 200	P55 19	555 19	
Almera II (N16) 1.5-2.2 dCi, Di	03.00-			P72 09	570 44	
Almera Tino II (V10) 1.8-2.0	08.00-		50 200	P55 19	555 19	
Almera Tino II (V10) 2.2 Di, dCi	08.00-			P72 09	570 44	
Atleon 110.56, 130.70, 130.75, 165.75	00-			P60 68	560 68	
Atleon 120.35 TD, 120.56 3x2	00-			P95 05	595 05	
Cube (Z12) 1.6-1.8	01.10-			P60 68	560 68	
Cube (Z12) 1.5 dCi	01.10-			P70 29	580 09	
Evalia 1.6 DiG	05.11-		50 100	P50 03	544 09	
Evalia 1.5 dCi	05.11-	560 01	50 300	P62 19	562 19	
Interstar (X70) dCi 80-150	08.03-			P95 33	595 33	
Interstar Flatbed, chassis	08.03-	570 01	50 500	P74 12	572 12	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Juke 1.6 DiG Turbo	10.10-			P60 68	560 68	
Juke 1.5 dCi	10.10-	570 01	50 500	P74 12	572 12	
Kubistar (X76) 1.2-1.6	08.03-		50 100	P44 09	544 09	
Kubistar (X76) 1.5 dCi	08.03-	570 01	50 500	P74 12	572 12	
L-Serie, M-Serie	91-			P95 05	595 05	
Maxima I, II (J30, A32) 3.0i; 2.0-3.0 QX	10.88-08.00			P70 29	580 09	
Maxima QX (A33) 2.0-3.5	03.00-		50 500	P74 12	572 12	
Micra (K11) 1.0-1.4	08.92-02.03			P45 23	545 23	
Micra (K11) 1.5 D	08.92-02.03		50 200	P62 05	560 09	
Micra (K12) 1.0-1.6	01.03-		50 100	P44 09	544 09	
Micra (K12) 1.5 dCi	01.03-		50 200	P62 05	560 09	
Micra C+ (K12) 1.4-1.6	08.05-		50 200	P62 05	560 09	
Micra 1.2 DiG-S start/stop	09.11-	560 01				
Murano (Z50, Z51) 3.5 V6	06.05-			P60 68	560 68	
Murano (Z50, Z51) 2.0 dCi	09.09-			P70 29	580 09	
Navara (D22) 2.4	09.97-			P70 29	580 09	
Navara (D22) 3.0	09.97-		50 500	P74 12	572 12	
Navara (D40) 2.5 dCi	07.05-	570 01	50 500	P74 12	572 12	
Navara (D40) 2.8 D				P70 29	580 09	
Note (E11) 1.4-1.6	03.06-		50 100	P44 09	544 09	
Note (E11) 1.5 dCi	03.06-		50 200	P62 05	560 09	
NV 200 1.6 DiG	03.09-		50 100	P50 03	544 09	
NV 200 1.5 dCi	03.09-	560 01	50 300	P62 19	562 19	
NV 400 2.3 dCi	03.09-	592 01		P95 33	595 33	
Pathfinder (R50) 2.4-3.5 V6	09.97-12.04			P70 24	570 24	
Pathfinder (R50) 2.7-3.2 TD	09.97-12.04			P95 05	595 05	
Pathfinder (R51) 4.0	03.05-	570 01	50 500	P74 12	572 12	
Pathfinder (R51) 4.0 4WD	03.05-	560 01	50 300	P62 19	562 19	
Pathfinder (R51) 2.5 dCi	03.05-	570 01	50 500	P74 12	572 12	
Patrol (W260) 2.8 TD-3.2 D	08.88-11.95			P95 04	595 04	
Patrol GR I (Y60) 2.8 TD-4.2 D	08.87-06.97			P95 04	595 04	
Patrol GR I (Y60) 4.2 KAT	08.87-06.97			P70 29	570 29	
Patrol GR II (Y61) 2.8 TD-4.2 TD	06.97-			P95 04	595 04	
Patrol GR II (Y61) 4.5-4.8	06.97-			P95 04	595 04	
Pick-up (D21)	09.85-02.98			P70 24	570 24	
Pick-up (D21) 2.5-2.7 D	09.85-02.98			P95 05	595 05	
Pick-up (D22) 2.4i; 2.5-3.2 D	02.98-			P95 05	595 05	
Pick-up (D22) 2.5 TD 4WD	02.98-			P70 24	570 24	
Pixo (UA0) 1.0-1,1	06.09-			P40 27	535 22	
Prairie (M10, M11)	01.83-07.93			P60 68	560 68	
Primastar (X83) 2.0 dCi 80-150	09.02-	580 01	50 500	P80 14	580 14	
Primera (P10, W10) 1.6-2.0	06.90-03.98		50 300	P62 19	562 19	
Primera (P10, W10) 2.0 D	06.90-03.98		50 500	P74 12	572 12	
Primera (P11, WP11) 1.6-2.5	06.96-		50 300	P62 19	562 19	
Primera (P11, WP11) 2.0 TD	06.96-		50 500	P74 12	572 12	
Primera (P12, WP12) 1.6-2.5	03.02-	560 01	50 300	P62 19	562 19	
Primera (P12, WP12) 1.9-2.2 dCi, Di	03.02-	570 01	50 500	P74 12	572 12	
Qashqai (J10, JJ10) 1.6	03.07-		50 100	P50 03	544 09	
Qashqai (J10, JJ10) 2.0	03.07-	560 01	50 300	P62 19	562 19	
Qashqai (J10, JJ10) 1.5-2.0 dCi	03.07-	570 01	50 500	P74 12	572 12	
Serena (C23M) 1.6-2.0	07.92-			P60 69	560 69	
Serena (C23M) 2.0-2.3 D	07.92-			P95 05	595 05	
Skyline (R32, R33, R34) 2.0-3.5	03.89-			P70 24	570 24	
Sunny III (N13, Y10) 1.6, -Traveller	10.90-			P60 68	560 68	



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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Sunny III (N13/Y10) 2.0 D	10.90-			P95 04	595 04	
Terrano I (WD21) 2.4	07.86-02.96			P60 68	560 68	
Terrano I (WD21) 3.0	07.86-02.96			P95 05	595 05	
Terrano I (WD21) 2.7 TD	07.86-02.93			P70 29	580 09	
Terrano II (R20) 2.4	02.93-		50 300		560 08	
Terrano II (R20) 2.7 TD, TDi, Di-4WD	02.93-			P95 05	595 05	
Terrano II (R20) 3.0 Di 4WD	02.93-		50 300	P62 19	562 19	
Tiida (C11X, SXC11X) 1.6-1.8	06.07-	560 01	50 200	P55 19	555 19	
Tiida (C1X, SC11X) 1.5 dCi	06.07-	560 01	50 300	P62 19	562 19	
Urvan (E24) 2.0-2.4	11.86-			P60 68	560 68	
Urvan (E24) 2.3-2.5 D	11.86-			P70 29	580 09	
Vanette (C22, HC23) 1.6-2.4 i	10.86-			P70 24	570 24	
Vanette (C 22, HC 23) 2.0-2.3 D	10.86-			P95 05	595 05	
X-Trail (T30) 2.0-2.5 (121kW)	07.01-			P60 68	560 68	
X-Trail (T30) 2.0-2.5 (132kW) 4x4	07.01-		50 500	P74 12	572 12	
X-Trail (T30) 2.2 Di, dCi FWD, 4x4	07.01-			P70 29	580 09	
X-Trail (T31) 2.0-2.5 FWD	06.07-			P60 68	560 68	
X-Trail (T31) 2.0 dCi	06.07-			P70 29	580 09	
Opel						
Agila (H00) 1.0-1.2	09.00-		50 100	P44 09	544 09	
Agila (H00) 1.3 CDTI	09.00-		50 200	P62 05	560 09	
Agila (H00) 1.0-1.2 ecoFLEX	09.08-		50 100	P44 09	544 09	
Agila (H00) 1.3 CDTI ecoFLEX	09.08-		50 200	P62 05	560 09	
Antara 2.4 R4	05.06-		50 300		560 08	
Antara 3.2 V6	05.06-		50 500		572 33	
Antara 2.0 CDTI	05.06-		50 500		572 33	
Arena (THB, TB, TF) 1.9-2.5 D	03.98-08.01		50 200	P55 19	555 19	
Arena (THB, TB, TF) 1.9-2.5 D	03.98-08.01		50 500	P72 09	570 44	
Astra F, G, H 1-2.1.4	09.91-		50 100	P44 09	544 09	
Astra F, G, H 1.6-2.0	09.91-		50 200	P62 05	560 09	
Astra F, G, H 2.2	09.91-			P72 09	570 44	
Astra F, G, H 1.7-2.2 D, TD, DTI, CDTI	09.91-			P72 09	570 44	
Astra J 1.3-1.6 ecoFLEX	12.09-			P62 05	560 09	
Astra J 1.3-2.0 CDTI ecoFLEX	12.09-			P72 09	570 44	
Astra J GTC 2.0 CDTI 16V 165PS / 1956CC ecoFLEX start/stop	09.10-	580 01				
Calibra A 2.0 i5	06.90-07.97		50 100	P44 09	544 09	
Calibra A 2.0 i 16V, -Turbo, 3x3, 2.5 i	06.90-07.97		50 200	P55 19	555 19	
Campo (TF) 2.3	08.87-			P60 69	560 69	
Campo (TF) 2.5 D; 3.1 TD, DTI	08.87-			P95 05	595 05	
Combo (71) 1.2-1.7	07.94-		50 200	P55 19	555 19	
Combo (71) 1.7 Di, DTI, CDTI	07.94-			P72 09	570 44	
Corsa A, B, C (73-79, F35, F08-68) 1.5 D, TD, Di, DTI, CDTI	09.82-06.06		50 200	P62 05	560 09	
Corsa A, B, C (73-79, F35, F08-68) 1.0-1.8	09.82-06.06		50 200	P55 19	555 19	
Corsa D 1.0	07.06-		50 100	P44 09	544 09	
Corsa D 1.2-1.6	07.06-		50 200	P55 19	555 19	
Corsa D 1.3-1.7 CDTI	07.06-			P72 09	570 44	
Corsa D 1.0 ecoFLEX	07.09-		50 100	P44 09	544 09	
Corsa D 1.2-1.6 ecoFLEX	07.06-		50 200	P55 19	555 19	
Corsa D 1.3-1.7 CDTI ecoFLEX	07.09-			P72 09	570 44	
Frontera A (5MWL4) 2.0-2.4	03.92-10.98		50 200	P55 19	555 19	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Frontera A (5MWL4) 2.3-2.8 TD, TDS	03.92-10.98			P72 09	570 44	
Frontera B (6B) 2.2-3.2	10.98-			P72 09	570 44	
Frontera B (6B) 2.2 DTI	10.98-			P88 20	588 20	
GT convertible 2.0	06.07-			P72 09	570 44	
Insignia 1.6-1.8	09.08-		50 200	P62 05	560 09	
Insignia 2.0-2.8 V6	09.08-			P72 09	570 44	
Insignia 2.0 CDTI, Biturbo	09.08-			P88 20	588 20	
Insignia 1.6-1.8 ecoFLEX	09.08-		50 200	P62 05	560 09	
Insignia 2.0-2.8 V6 ecoFLEX	09.08-			P72 09	570 44	
Insignia 2.0 CDTI, Biturbo ecoFLEX	09.08-			P88 20	588 20	
Kadett C, E 1.0-1.3	09.73-		50 100	P44 09	544 09	
Kadett C, E 1.5-1.7 D, TD	09.73-			P72 09	570 44	
Kadett C, E 1.6-2.0	09.73-		50 200	P55 19	555 19	
Meriva 1.4-1.8 16V	05.03-		50 200	P62 05	560 09	
Meriva 1.3-1.7 CDTI	05.03-			P72 09	570 44	
Meriva 1.4-1.8 16V ecoFLEX	05.03-		50 200	P62 05	560 09	
Meriva 1.3-1.7 CDTI ecoFLEX	05.03-			P72 09	570 44	
Midi D	91-		50 300		560 08	
Monterey A (UBS)3.1 TD; 3.2	09.91-07.98			P72 09	570 44	
Monza 2.0-3.0	78-87		50 200	P55 19	555 19	
Movano (J9, F9, H9)	07.98-			P88 20	588 20	
Movano (J9, F9, H9) 1.9-2.8 DTI; CDTI	07.98-			P95 33	595 33	
Omega A 1.8-2.0	09.86-05.94		50 200	P55 19	555 19	
Omega A 2.2-3.6 V6	09.86-05.94			P72 09	566 13	
Omega A 2.3 D, TD	09.86-05.94			P72 09	570 44	
Omega B 2.0	03.94-07.03		50 200	P62 05	560 09	
Omega B 2.2-3.2	03.94-07.03			P72 09	566 13	
Omega B 2.0-2.2 DTI	03.94-07.03			P72 09	570 44	
Omega B 2.5 DT, DTI	03.94-07.03			P80 14	580 14	
Roadster GT	03.07-		50 200	P62 05	560 09	
Signum 1.8	05.03-		50 200	P62 05	560 09	
Signum 2.0-3.2 V6	05.03-			P72 09	566 13	
Signum 1.9-2.2 CDTI, DTI	05.03-			P72 09	570 44	
Signum 3.0 V6 CDTI	05.03-			P88 20	588 20	
Sintra 2.2 DTI	11.96-04.99			P72 09	570 44	
Sintra 2.2-3.0	11.96-04.99		50 200	P62 05	560 09	
Speedster 2.0-2.2	09.00-		50 200	P55 19	555 19	
Tigra (95_) 1.4-1.6	07.93-12.00		50 200	P55 19	555 19	
Tigra Twin Top 1.4-1.8	06.04-		50 200	P62 05	560 09	
Tigra Twin Top 1.3 CDTI	06.04-			P72 09	570 44	
Vectra A, B 1.4-1.8	04.88-07.03		50 200	P55 19	555 19	
Vectra A, B 2.0-2.6	04.88-07.03		50 200	P62 05	560 09	
Vectra A, B 1.7-2.2 D, DTI, CDTI	04.88-07.03			P72 09	570 44	
Vectra C 1.6-1.8	04.02-		50 200	P62 05	560 09	
Vectra C 2.0-3.2 V6	04.02-			P72 09	570 44	
Vectra C 1.9-2.2 DTI, CDTI	04.02-			P80 14	580 14	
Vectra C 3.0 CTDI	04.02-			P88 20	588 20	
Vectra C 1.6-1.8 ecoFLEX	04.02-		50 200	P62 05	560 09	
Vectra C 2.0-3.2 V6 ecoFLEX	04.02-			P72 09	570 44	
Vectra C 1.9-2.2 DTI, CDTI ecoFLEX	04.02-			P80 14	580 14	
Vectra C 3.0 CTDI ecoFLEX	04.02-			P88 20	588 20	
Vivaro 2.0	08.01-		50 500	P72 09	566 13	
Vivaro 1.9-2.5 Di, DTI, CDTI	08.01-		50 500	P80 14	580 14	
Zafira (F75) 1.6-1.8	04.99-		50 200	P55 19	555 19	
Zafira (F75) 2.0-2.2	04.99-		50 200	P62 05	560 09	
Zafira (F75) 1.7-2.0 DTI, CDTI	04.99-			P72 09	570 44	
Zafira (F75) 1.6-1.8 ecoFLEX	07.09-		50 200	P55 19	555 19	
Zafira (F75) 2.0-2.2 ecoFLEX	07.09-		50 200	P62 05	560 09	

Banner

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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Zafira (F75) 1.7-2.0 DTI, CDTI ecoFLEX	07.09-			P72 09	570 44	
Peugeot						
106 I, II (1A, 1C, 1) 1.0-1.1	09.91-				542 08	
106 I, II (1A, 1C, 1) 1.3-1.6	09.91-		50 100	P50 03	544 09	
106 I, II (1A, 1C, 1) 1.2-1.5 D	09.91-		50 300	PRO P63 40	562 19	
107 1.0	03.05-				542 08	
107 1.4 HDi	03.05-		50 100	P50 03	544 09	
1007 (KM) 1.4-1.6	03.05-		50 100	P50 03	544 09	
1007 (KM) 1.4-1.6 HDi	03.05-	560 01	50 300	PRO P63 40	562 19	
205 I, II (731 A/C, -B, 20D, 20A/C) 0.9-1.4	02.83-		50 100	P50 03	544 09	
205 I, II (731 A/C, -B, 20D, 20A/C) 1.5-1.9	02.83-		50 300	P55 19	555 19	
205 I, II (731 A/C, -B, 20D, 20A/C) 1.7-1.9 D, TD	02.83-		50 500	PRO P75 40	572 12	
206 (2A/C, 2A/K, 2D) 1.1-1.6 CC, Saloon	09.98-		50 100	P50 03	544 09	
206 (2A/C, 2A/K, 2D) 1.4-2.0 CC, Saloon	09.98-		50 300	PRO P63 40	562 19	
206 (2A/C, 2A/K) 1.4-2.0 TD, HDi	09.98-		50 300	PRO P63 40	562 19	
207 (WA, WC, WD) 1.1-1.6	05.06-		50 100	P50 03	544 09	
207 (WA, WC, WD) 1.9-2.0	05.06-	560 01	50 300	PRO P63 40	562 19	
207 (WA, WC, WD) 1.6 HDi	05.06-	560 01	50 300	PRO P63 40	562 19	
305 I, II (581E) 1.4-1.9	10.82-07.90		50 300	PRO P63 40	562 19	
305 I, II (581E) 1.9 D	10.82-07.90		50 500	PRO P75 40	572 12	
306 (7A/C, -B, -E, -D) 1.1-1.6	05.93-		50 100	P50 03	544 09	
306 (7A/C, -B, -E, -D) 1.8-2.0	05.93-		50 300	P55 19	555 19	
306 (7A/C, -B, -E, -D) 1.9-2.0 D, HDi	05.93-		50 300	PRO P63 40	562 19	
307 (3A/C, 3E, 3H, 3B) 1.4-1.6 CC	08.00-		50 100	P50 03	544 09	
307 (3A/C, 3E, 3H, 3B) 2.0 CC	08.00-	560 01	50 300	PRO P63 40	562 19	
307 (3A/C, 3E, 3H, 3B) 1.4-2.0 HDi CC	08.00-	570 01	50 500	PRO P75 40	572 12	
308 (4A/C) 1.4-2.0	10.07-	560 01	50 300	PRO P63 40	562 19	
308 (4A/C) 1.4-2.0 HDi	10.07-	570 01	50 500	PRO P75 40	572 12	
308 (4A/C) 1.4-1.6 e-HDi +recuperation	03.11-	570 00				
308 (4A/C) 1.4-1.6 e-HDi start/stop +recuperation	03.11-	570 01				
309 I, II (10C, 10A, 3C, 3A) 1.1-1.6	07.89-12.93		50 100	P50 03	544 09	
309 I, II (10C, 10A, 3C, 3A) 1.9	10.85-		50 300	PRO P63 40	562 19	
309 I, II 1.8-1.9 D, TD	07.89-12.93		50 500	PRO P75 40	572 12	
3008 1.6	03.09-	560 01	50 300	PRO P63 40	562 19	
3008 1.6-2.0 HDi	03.09-	570 01	50 500	PRO P75 40	572 12	
405 I, II (15B, -E, 3B, -E) 1.4-1.6	01.87-10.96		50 100	P50 03	544 09	
405 I, II (15B, -E, 3B, -E) 1.8-1.9 D, TD	01.87-10.96		50 500	PRO P75 40	572 12	
405 I, II (15B, -E, 3B, -E) 1.8-2.0	01.87-10.96		50 300	PRO P63 40	562 19	
406 (8) 1.6-2.0	10.95-		50 300	P55 19	555 19	
406 (8) 3.0 V6, 24V	10.95-		50 300	PRO P63 40	562 19	
406 (8) 1.9-2.2 D, TD, HDi	10.95-		50 500	PRO P75 40	572 12	
407 (6 D/E/C) 1.8-3.0	05.04-	560 01	50 300	PRO P63 40	562 19	
407 (6 D/E/C) 1.6-2.7 HDi	05.04-	570 01	50 500	PRO P75 40	572 12	
4007 (GP) 2.4	07.07-	570 01	50 500	PRO P75 40	572 12	
4007 (GP) 2.2 HDi	07.07-			P95 04	595 04	
505 (551A, -D) 1.8-2.0	05.79-12.93		50 100	P50 03	544 09	
505 (551A, -D) 2.2	05.79-12.93		50 300	PRO P63 40	562 19	
505 (551A, -D) 2.3-2.5 D, TD	10.68-12.93		50 500	PRO P75 40	572 12	
508, SW 1.6	01.11-	560 01	50 300	PRO P63 40	562 19	
508 SW 1.6-2.2 HDi	01.11-	570 01	50 500	PRO P75 40	572 12	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
508 SW 1.6 e-HDi + recuperation	03.11-	570 00				
508 SW 1.6 e-HDi start/stop +recuperation	03.11-	570 01				
5008 1.6	09.09-	560 01	50 300	PRO P63 40	562 19	
5008 1.6-2.0 HDi	09.09-	570 01	50 500	PRO P75 40	572 12	
605 (6B) 2.0-3.0	06.89-09.99		50 300	PRO P63 40	562 19	
605 (6B) 2.1-2.5 TD	06.89-09.99		50 500	PRO P75 40	572 12	
607 (9) 2.0-2.2	02.00-	560 01	50 300	PRO P63 40	562 19	
607 (9) 3.0	02.00-	570 01	50 500	PRO P75 40	572 12	
607 (9) 2.0-2.2 D, TD, HDi	02.00-	570 01	50 500	PRO P75 40	572 12	
607 (9) 2.7 D, TD, HDi	02.00-			P80 14	580 14	
806 (221) 1.8-2.0	06.94-08.02		50 300	PRO P63 40	562 19	
806 (221) 1.9-2.1 TD; HDi	06.94-08.02		50 500	PRO P75 40	572 12	
807 (E) 2.0-3.0	06.02-	570 01	50 500	PRO P75 40	572 12	
807 (E) 2.0-2.2 HDi	06.02-	570 01	50 500	PRO P75 40	572 12	
Bipper (AA) 1.4	05.08-		50 200	P55 19	555 19	
Bipper (AA) 1.4 HDi	05.08-	560 01	50 300	PRO P63 40	562 19	
Boxer (230P, -L, 244) 2.0	06.93-		50 500	PRO P75 40	572 12	
Boxer (230P, -L, 244) 1.9-3.0 D, TD, HDi	06.93-			PRO P100 40	595 33	
Boxer 2.2-3.0 D, HDi	04.06-	605 01			610 42	
Expert (224, 222, 223, VF3) 1.6-2.0	07.95-		50 300	PRO P63 40	562 19	
Expert (224, 222, 223, VF3) 1.9-2.0 TD, HDi	07.95-		50 500	PRO P75 40	572 12	
iOn 47 kW	09.10-			P40 26	535 20	
J5 (280P, -L, 260P, -L, 290L) 1.8-2.0	09.90-03.94		50 500	PRO P75 40	572 12	
J5 (280P, -L, 260P, -L, 290L) 1.9-2.5 D, TD	09.90-03.94			PRO P100 40	595 33	
Partner, Tepee (5- F) 1.1-1.8	06.96-		50 200	P55 19	555 19	
Partner, Tepee (5- F) 1.8-2.0 D, HDi	06.96-		50 500	PRO P75 40	572 12	
RCZ 1.6 THP	03.10-	560 01	50 300	PRO P63 40	562 19	
RCZ 2.0 HDi	03.10-	570 01	50 500	PRO P75 40	572 12	
Pontiac						
Grand Prix, Trans Sport				P70 24	570 24	
Phoenix, Fiero, Firebird				P70 24	570 24	
Trans Am, Grand Am				P70 24	570 24	
Trans Sport 2.3-3.8	07.89-12.97		50 300			
Porsche						
911 (964, 993, 996, 997) 3.1-3.8	01.63-		50 500	P74 12	572 12	
924 2.0 Carrera GT; 2.5 S	11.75-07.88			P72 09*	566 13*	
928 4.6-5.4	09.77-11.95		50 500	P74 12	572 12	
933, -convertible	01.82-07.91			P72 09*	566 13*	
944 all models	06.81-07.91			P72 09*	566 13*	
959 2.8	01.86-04.91		50 500	P74 12	572 12	
968 3.0	06.91-11.95			P72 09*	566 13*	
997 GT3	06.04-	570 01	50 500	P74 12	572 12	
Boxster, -Spyder (986, 987) 2.5-3.2	09.96-	580 01	50 500	P80 14	580 14	
Boxster start/stop 2.5-2.7	02.10-	580 01			AUX 12	
Cajun 2.0-3.0 TFSI start/stop	03.13-	580 01			AUX 12	
Cajun 2.0-3.0 TDI start/stop	03.13-	592 01			AUX 12	
Carrera GT 5.7	07.03-	580 01	50 500	P80 14	580 14	
Cayenne (955) 3.2-4.8 Turbo	09.02-	605 01			610 42	
Cayenne (955) 3.0 TDI	02.09-	605 01			610 42	
Cayman 2.9-3.4 S	03.05-	592 01				
Panamera S, 4S, Turbo start/stop	04.09-	592 01			AUX 12	
Proton						
Aeroback 1.3-1.6	01.89-11.96			P60 69	560 69	
Gen 2 1.3-1.6	06.04-			P60 69	560 69	
Impian 1.6	09.01-			P60 69	560 69	
Jumbuck pick-up 1.5	05.02-			P60 69	560 69	
Perdana 600 618-620	01.96-			P60 69	560 69	
Persona 300 FLH 313-316	03.96-			P60 69	560 69	



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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Persona 300 320 D	01.93-			P95 05	595 05	
Persona 300 FLH 313-318	01.93-			P60 69	560 69	
Persona 300 LIM 313-316	01.93-			P60 69	560 69	
Persona 300 LIM 320 D	01.93-			P95 05	595 05	
Saloon 1.5	01.89-11.96			P60 69	560 69	
Satria 1.5-1.8	07.00-			P60 69	560 69	
Scimitar Sabre Roadster 1.3-2.0	01.92-12.95		50 100	P44 09	544 09	
Wira 1.3-1.5	08.00-			P60 69	560 69	
Puch						
G (W461) 230	02.90-		50 300	P62 19	562 19	
G (W461) 290 GD, TD	02.90-			P95 04	595 04	
G (W463) 230-320	09.89-		50 300	P62 19	562 19	
G (W463) 36-55 AMG, 300-350 GD, TD	09.89-			P95 33	595 33	
Renault						
Avantime (DE0) 2.0-3.0 V6	09.01-05.03		50 500	PRO P75 40	572 12	
Avantime (DE0) 2.2 dCi	09.01-05.03		50 500	PRO P75 40	572 12	
Clio I, II (B/C57, 5/357, B/C/SB0) 1,1-1.4	05.90-04.05		50 100	P50 03	544 09	
Clio I, II (B/C57, 5/357, B/C/SB0) 1.6-2.0	05.90-04.05	560 01	50 300	PRO P63 40	562 19	
Clio II (BB0, CB0) 3.0 V6	05.90-04.05	570 01	50 500	PRO P75 40	572 12	
Clio I, II (B/C57, 5/357, B/C/SB0) 1.5-1.9 D, dCi, dTi	05.90-04.05	570 01	50 500	PRO P75 40	572 12	
Clio III, IV (BR0, CR0, KR0) 1.2 eco2	05.05-		50 100	P44 09	544 09	
Clio III, IV (BR0, CR0, KR0) 1.6-2.0 eco2	05.05-		50 200	P62 05	560 09	
Clio III, IV (BR0, CR0, KR0) 1.5 dCi eco2	05.05-			PRO P75 40	572 12	
Espace I, II, III (J11, J/S63, JE0) 2.0-2.9 V6	07.84-10.02		50 300	PRO P63 40	562 19	
Espace I, II, III (J11, J/S63, JE0) 1.9-3.0 dCi	07.84-10.02		50 500	PRO P75 40	572 12	
Espace IV (JK0) 2.0-3.5 V6	11.02-	570 01	50 500	PRO P75 40	572 12	
Espace IV (JK0) 1.9-3.0 dCi	11.02-	580 01	50 500	P80 14	580 14	
Fluence 1.6-2.0 eco2	02.10-		50 100	P50 03	544 09	
Fluence 1.5-1.6 dCi eco2	02.10-	570 01	50 500	PRO P75 40	572 12	
Grand Scenic II, III (JM0/1, JZ0/1) 1.4-1.6 eco2	04.04-		50 200	P62 05	560 09	
Grand Scenic II, III (JM0/1, JZ0/1) 2.0 eco2	04.04-			PRO P75 40	566 13	
Grand Scenic II, III (JM0/1, JZ0/1) 1.5-2.0 dCi eco2	04.04-			PRO P75 40	572 12	
Grand Scenic 1.5-1.6 dCi 130 Energy start/stop	05.11-	570 01				
Kangoo, be bop (KC0, FC0, KW0, FW0) 1.2 eco2	03.98-		50 100	P50 03	544 09	
Kangoo, be bop (KC0, FC0, KW0, FW0) 1.4-1.6 eco2	03.98-		50 300	PRO P63 40	562 19	
Kangoo, be bop (KC0, FC0, KW0, FW0) 1.5-1.9 dCi, RXED eco2	03.98-		50 500	PRO P75 40	572 12	
Koleos 2.5	09.08-			P60 68	560 68	
Koleos 2.0 dCi	09.08-			P70 29	570 29	
Laguna I, II, III (B56, K56, BG0/1, KG0/1, KT0/1, DT0/1) 1.6-2.0 eco2	11.93-		50 300	PRO P63 40	562 19	
Laguna I, II, III (B56, K56, BG0/1, KG0/1, KT0/1, DT0/1) 2.2-3.0 V6 eco2	11.93-		50 500	PRO P75 40	572 12	
Laguna I, II, III (B56, K56, BG0/1, KG0/1, KT0/1, DT0/1) 1.5-3.0 dCi, dTi eco2	11.93-		50 500	PRO P75 40	572 12	
Latitude 1.6-2.0	01.11-	560 01	50 300	PRO P63 40	562 19	
Latitude 1.5-1.9 dCi	01.11-	570 01	50 500	PRO P75 40	572 12	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Master I (T, P) 28-35, 30 2.0-2.2	08.80-07.98		50 100	P50 03	544 09	
Master I (T, P) 28-35 2.1-2.5 D, TD	08.80-07.98		50 500	PRO P75 40	572 12	
Master II, III (JD/ND, FD, ED/HD/DU) 1.9-3.0 dTi, dCi	07.98-			PRO P100 40	595 33	
Megane I (BA0, LA0, DA0, EA0, JA0) 1.4-1.6	01.96-08.03		50 100	P50 03	544 09	
Megane I (BA0, LA0, DA0, EA0, JA0) 1.8-2.0	01.96-08.03		50 300	PRO P63 40	562 19	
Megane I (BA0, LA0, DA0, EA0, JA0) 1.9 D, dT, dCi, dTi	01.96-08.03		50 500	PRO P75 40	572 12	
Megane II (BM0, CM0, KM0, EM0) 1.4-2.0	11.02-10.08	560 01	50 300	PRO P63 40	562 19	
Megane II (BM0, CM0, KM0, EM0) 1.5-2.0 dCi	11.02-10.08	570 01	50 500	PRO P75 40	572 12	
Megane III (BZ0, KZ0/1, DZ0) 1.4-1.6 eco2	11.08-		50 100	P50 03	544 09	
Megane III (BZ0, KZ0/1, DZ0) 2.0; 1.5 dCi eco2	11.08-	560 01	50 300	PRO P63 40	562 19	
Megane III (BZ0, KZ0/1, DZ0) 1.9-2.0 dCi eco2	11.08-	570 01	50 500	PRO P75 40	572 12	
Megane CC 1.4	06.10-		50 100	P50 03	544 09	
Megane CC 1.5-2.0 dCi	06.10-	570 01	50 500	PRO P75 40	572 12	
Megane Scenic I (JA0/1) all models	01.97-09.99	570 01				
Messenger RVI D, TD				PRO P100 40	595 33	
Modus (F/JPO) 1.2-1.6 eco2	12.04-		50 200	P62 05	560 09	
Modus (F/JPO) 1.5 dCi eco2	12.04-		50 500	PRO P75 40	572 12	
R 5, Super 5 (B/C30)	10.83-12.96		50 100	P50 03	544 09	
R 19 I, II (L53, B/C53, D53, 853) 1.9 D, TD	01.88-09.96		50 500	PRO P75 40	572 12	
R 19 I, II (L53, B/C53, D53, 853) 1.3-1.7	01.88-09.96		50 100	P50 03	544 09	
R 19 I, II (L53, B/C53, D53, 853) 1.8	01.88-09.96		50 300	PRO P63 40	562 19	
R 21 (B38, L38, K38) 1.7	09.89-08.93		50 100	P50 03	544 09	
R 21 (B38, L38, K38) 2.0-2.2	09.89-08.93		50 300	PRO P63 40	562 19	
R 21 (B38, L38, K38) 2.1 D, TD	09.89-08.93		50 500	PRO P75 40	572 12	
R 25 (B29) 2.0	03.83-12.93		50 300	P55 19	555 19	
R 25 (B29) 2.1 D, TD	03.83-12.93		50 500	PRO P75 40	572 12	
R 25 (B29) 2.2-2.8	03.83-12.93		50 300	PRO P63 40	562 19	
Rapid (F30, G30) 1,1-1.3	07.85-03.98		50 100	P50 03	544 09	
Rapid (F30, G30) 1.6-1.9 D	07.85-03.98		50 300	PRO P63 40	562 19	
Safrane I, II (B54) 2.0-2.5	03.92-12.00		50 300	PRO P63 40	562 19	
Safrane I, II (B54) 2.9-3.0 V6	03.92-12.00		50 500	PRO P75 40	572 12	
Safrane I, II (B53) 2.1-2.5 dT	03.92-12.00			PRO P100 40	595 33	
Scenic I (JA0/1) 1.4-1.6	09.99-08.03		50 100	P50 03	544 09	
Scenic I (JA0/1) 1.8-2.0	09.99-08.03		50 300	PRO P63 40	562 19	
Scenic I (JA0/1) 1.9 dTi, dCi	09.99-08.03		50 500	PRO P75 40	572 12	
Scenic II, III (JM0/1, JZ0/1) 1.4 eco2	04.04-		50 100	P44 09	544 09	
Scenic II, III (JA0/1, JZ0/1) 1.6-2.0 eco2	06.03-		50 200	P62 05	560 09	
Scenic II, III (JA0/1, JZ0/1) 1.5 dCi eco2	06.03-		50 200	P62 05	560 09	
Scenic II, III (JM0/1, JZ0/1) 1.9-2.0 dCi eco2	06.03-		50 500	PRO P75 40	572 12	
Scenic 1.6 dCi 130 Energy start/stop	05.11-	570 01				
Sport Spider (EF0) 2.0 16V	03.95-10.99		50 300	PRO P63 40	562 19	
Thalia (LB0/1/2_) 1.2	02.98-10.03		50 100	P44 09	544 09	
Thalia (LB0/1/2_) 1.4-1.6	02.98-10.03		50 200	P55 19	555 19	

Banner

CARS AND SMALL TRANSPORTERS

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Thalia (LB0/1/2_) 2.0	02.98-10.03		50 300	PRO P63 40	562 19	
Thalia (LB0/1/2_) 1.5 dCi	02.98-10.03		50 500	PRO P75 40	572 12	
Trafic I, II (TXW, TXX, PXX, JL, FL) 1.7-2.2	03.89-		50 300	PRO P63 40	562 19	
Trafic I, II (TXW, TXX, PXX, JL, FL) 1.9-2.5 D, dCi, dTi	03.89-		50 500	P80 14	580 14	
Twingo I, II, III, IV (C06, S06, CN0) 1.2-1.6 Turbo eco2	03.93-		50 100	P50 03	544 09	
Twingo IV (CN0) 1.5 dCi eco2	03.07-	560 01	50 300	PRO P63 40	562 19	
Vel Satis (BJ0) 2.0	06.02-03.03		50 500	PRO P75 40	572 12	
Vel Satis (BJ0) 2.0	04.03-	580 01	50 500	P80 14	580 14	
Vel Satis (BJ0) 2.2-3.0 dCi	06.00-06.02		50 500	PRO P75 40	572 12	
Vel Satis (BJ0) 2.2-3.0 dCi	05.02-	580 01	50 500	P80 14	580 14	
Vel Satis (BJ0) 3.5 V6	06.00-06.02		50 500	PRO P75 40	572 12	
Vel Satis (BJ0) 3.5 V6	07.02-	580 01	50 500	P80 14	580 14	
Wind 1.2-1.6	09.10-		50 100	P50 03	544 09	
Rolls-Royce						
Corniche convertible 6.8	01.90-12.02			P70 24	570 24	
Corniche convertible 6.8	01.03-	592 01		P95 33	595 33	
Phantom 6.75	05.03-	592 01		P95 33	595 33	
Silver Seraph 5.4	01.90-12.02			P70 24	570 24	
Silver Seraph 5.4	01.03-	592 01		P95 33	595 33	
Rover						
25 (RF) 1.4-1.8	10.99-			P62 05	560 09	
25 (RF) 2.0 iDT	10.99-			P72 09	570 44	
45 (RT) 1.4-2.0	02.00-			P62 05	560 09	
45 (RT) 2.0 iDT	02.00-			P72 09	570 44	
75 (RT) 1.8-2.5 V6	02.99-			P72 09	570 44	
75 (RT) 2.0 CDTi	02.99-			P72 09	570 44	
75 (RU) 1.8-2.0 V6	08.01-			P62 05	560 09	
75 (RU) 2.5 V6	08.01-			P72 09	570 44	
75 (RU) 2.0 CDTi	08.01-			P72 09	570 44	
100 (XP) convertible 111-114	03.93-12.98		50 100	P44 09	544 09	
100 (XP) convertible 114-115 D	03.93-12.98			P55 19	555 19	
200 (RF) 214-216	11.95-03.00		50 100	P44 09	544 09	
200 (RF) 218	11.95-03.00			P55 19	555 19	
200 (RF) 220 D, SD, SDi	11.95-03.00			P62 05	560 09	
200 (XH) 214-216	03.85-09.89		50 100	P44 09	544 09	
200 (XW) 214-220	10.89-10.95		50 100	P44 09	544 09	
200 (XW) 218 TD	10.89-10.95			P62 05	560 09	
200 (XW) coupé 216-220	10.92-		50 100	P44 09	544 09	
2000-3500 (SD1)	06.76-10.86		50 300		560 08	
400 (RT) 414-416	05.95-03.00		50 100	P44 09	544 09	
400 (RT) 420	05.95-03.00			P55 19	555 19	
400 (RT) 420 D, Di	05.95-03.00			P72 09	570 44	
400 (XW) 414	03.90-03.95		50 100	P44 09	544 09	
400 (XW) 416-420	03.90-03.95			P55 19	555 19	
400 (XW) 418-420 D, TD	03.90-03.95			P72 09	570 44	
400 (XW) Tourer 1.6-2.0	09.93-11.98		50 100	P44 09	544 09	
400 (XW) Tourer 1.8 TD	09.93-11.98			P72 09	570 44	
600 (RH) 618	08.93-02.99		50 100	P44 09	544 09	
600 (RH) 620-623	08.93-02.99			P62 05	560 09	
600 (RH) 620 Sdi	08.93-02.99			P72 09	570 44	
800 820-827	10.86-02.99			P62 05	560 09	
800 825 D, SD	10.86-02.99			P72 09	570 44	
convertible (XW) 214-216	01.92-11.99		50 100	P44 09	544 09	
Cityrover 1.4	01.04-	560 01	50 300	P62 19	562 19	
Defender (LD) 90, 110 TDI	09.90-			P70 24	570 24	
Defender (LD) 2.5 TD5 4WD	09.90-			P70 24	570 24	
Defender V8	09.90-			P95 05	595 05	
Discovery I 2.0-3.5; 2.5 TDI	09.89-06.93			P70 24	570 24	
Discovery II 2.0; 3.9-4.0 V8; 2.5 TD	06.94-09.04			P70 24	570 24	
Discovery III 2.7 TD, 4.4	10.04-09.10	592 01		P95 33	595 33	
Discovery IV 2.7 TD, 4.4	10.10-	592 01		P95 33	595 33	
Freelander I (LN) 1.8-2.5	02.98-		50 300	P62 19	562 19	
Freelander I (LN) 2.0 Di; TD4	02.98-		50 500	P74 12	572 12	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Freelander II 2.2-3.2; 2.2 TD4 4x4	02.06-	570 01	50 500	P74 12	572 12	
Feelander II (FA) 2.0-2.2 TD4 start/stop	02.08-	580 01				
Land Rover	70-			P70 24	570 24	
Land Rover D	87-			P95 33	595 33	
Maestro 1.3	09.90-01.95		50 100	P44 09	544 09	
Maestro 1.6	09.90-01.95		50 100	P44 09	544 09	
Maestro 2.0 D, TD	09.90-01.95			P72 09	570 44	
MGF (RD) 1.8	03.95-03.02			P62 05	560 09	
Mini MK I	01.91-				545 77	
Mini MK I convertible	09.92-				545 79	
Montego (XE) Estate 1.3	10.83-12.93		50 100	P44 09	544 09	
Montego (XE) 2.0 i, GTi, Dturbo	10.88-10.95			P55 19	555 19	
Range Rover I 2.4 D, TD; 3.5-4.3	07.70-07.94			P70 24	570 24	
Range Rover II (LP) 3.9-4.6	07.94-03.02			P70 24	570 24	
Range Rover III (LM) 3.0 TD, 4-2.4.4	03.02-	592 01		P95 33	595 33	
Range Rover III (LM) 3.6 TD; 5.0 V8	03.02-	605 01			610 42	
Range Rover Evoque 2.0; 2.2 D4, TD4, SD4	09.11-					
Range Rover Sport (LS) 2.7 TDVM, 4.2-5.0; 3.6 TD	02.05-	605 01			610 42	
Streetwise 1.4	08.03-	560 01	50 300	P62 19	562 19	
Streetwise 2.0 TD	08.03-	570 01	50 500	P74 12	572 12	
Saab						
900 I 2.0; Combi coupé 2.0; convertible	09.78-06.94		50 300	P62 19	562 19	
900 II 2.0-2.3; coupé, convertible	07.93-02.98		50 300	P62 19	562 19	
900 II 2.5; coupé, convertible	07.93-02.98		50 500	P74 12	572 12	
9000 2.0	09.83-12.98		50 300	P62 19	562 19	
9000 2.3-3.0	09.83-12.98		50 500	P74 12	572 12	
9-3 (YS3D) 1.8-2.3; convertible	02.98-08.03		50 300	P62 19	562 19	
9-3 (YS3D) 1.9-2.2 TiD	02.98-09.02			P95 33	595 33	
9-3 (YS3F) 1.8-2.8; X, convertible, estate	09.02-	560 01	50 300	P62 19	562 19	
9-3 (YS3F) 1.9; X, convertible, estate TiD, TtiD	09.02-	570 01	50 500	P74 12	572 12	
9-5 (YS3E) 2.0-3.0; estate	09.97-	570 01	50 500	P74 12	572 12	
9-5 (YS3E) 1.9-3.0; estate TiD	09.97-	570 01	50 500	P74 12	572 12	
9-7X	03.05-	570 01	50 500	P74 12	572 12	
9-7X TiD	03.05-	570 01	50 500	P74 12	572 12	
Seat						
Alhambra (7V8, 7V9) 1.8-2.0	03.96-		50 300	P62 19	562 19	
Alhambra (7V8, 7V9) 1.9-2.0 TDI	03.96-			P95 33	595 33	
Alhambra (7V8, 7V9) 2.8 V6	03.96-		50 500	P74 12	572 12	
Alhambra (7V8, 7V9) 1.8-2.0 Ecomotive start/stop	03.05-	560 01				
Alhambra (7V8, 7V9) 1.9-2.0 TDI Ecomotive start/stop	03.05-	592 01				
Alhambra (7V8, 7V9) 2.8 V6 Ecomotive start/stop	03.05-	570 01				
Altea (5P1, 5P5), -Freerak 1.4-2.0	03.04-	560 01	50 300	P62 19	562 19	
Altea (5P1, 5P5), -Freerak 1.6-2.0 TDI	03.04-	570 01	50 500	P74 12	572 12	
Altea -Freerak 1.4-2.0 Ecomotive start/stop	10.09-	560 01				
Altea, -Freerak 1.6-2.0 TDI Ecomotive start/stop	10.09-	570 01				
Arosa (6H) 1.0-1.4	05.97-		50 100	P50 03	544 09	



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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Arosa (6H) 1.2-1.7 SDI, TDI	05.97-		50 300	P62 19	562 19	
Cordoba (6K2/C2, 6K5) 1.0-1.6	02.93-06.99		50 200*	P55 19*	555 19*	
Cordoba (6K2/C2, 6K5) 1.7-1.9 TD, TDI, SDI	02.93-12.02			P72 09*	566 13*	
Cordoba (6K5) 1.0-1.6	02.93-12.02		50 200*	P55 19*	555 19*	
Cordoba (6K5) 1.7-1.9 TD, TDI, SDI	02.93-12.02			P72 09*	566 13*	
Cordoba (6L2) 1.2	09.02-		50 100	P50 03	544 09	
Cordoba (6L2) 1.4-2.0	09.02-	560 01	50 300	P62 19	562 19	
Cordoba (6L2) 1.4-1.9 TD, TDI, SDI	09.02-	570 01	50 500	P74 12	572 12	
Exeo, ST (3R2, 3R5) 1.6-2.0	06.09-	560 01	50 300	P62 19	562 19	
Exeo, ST (3R2, 3R5) 2.0 TDI	06.09-	570 01	50 500	P74 12	572 12	
Fura (025A)	01.82-12.86		50 100			
Ibiza I, II 0.9-1.5	06.83-08.99		50 200			
Ibiza I, II 1.6-2.0	06.83-08.99		50 300			
Ibiza I, II 1.7-1.9 D, TD, SDI, TDI	06.83-08.99		50 300			
Ibiza III, IV, V (6K1, 6L1, 6J5, 6J1) 1.0-1.6	08.99-		50 100	P50 03	544 09	
Ibiza III, IV, V (6K1, 6L1, 6J5, 6J1) 1.8-2.0 20V	08.99-		50 300	P62 19	562 19	
Ibiza III, IV, V (6K1, 6L1, 6J5, 6J1) 1.4-2.0 SDI, TDI	08.99-		50 500	P74 12	572 12	
Ibiza III, IV, V (6J5, 6J1) 1.0-1.6 Ecomotive start/stop	03.08-	560 01				
Ibiza III, IV, V (6J5, 6J1) 1.8 20V Ecomotive start/stop	03.08-	560 01				
Ibiza III, IV, V (6J5, 6J1) 1.4-2.0 TDI Ecomotive start/stop	03.08-	570 01				
Inca (9KSF) 1.4-1.6i	11.95-06.03		50 100			
Inca (9KSF) 1.7-1.9 SDI, TDI	11.95-06.03		50 200	P62 05	560 09	
Inca (9KSF) 1.7-1.9 SDI, TDI	11.95-06.03			P72 09	570 44	
Leon (1M1, 1P1) 1.4	11.99-		50 100	P50 03	544 09	
Leon (1M1, 1P1) 1.6-2.0; 2.8 Cupra	11.99-		50 300	P62 19	562 19	
Leon (1M1, 1P1) 1.9-2.0 SDI, TDI	11.99-		50 500	P74 12	572 12	
Leon 1.4-2.0; 2.8 Cupra Ecomotive start/stop	01.10-	560 01				
Leon 1.9-2.0 SDI, TDI Ecomotive start/stop	01.10-	570 01				
Marbella (28, 028A) 850, 900	08.86-10.98		50 200			
Mii 1.0-1.4	11.11-		50 100	P50 03	544 09	
Ronda (022A) 1.2-1.6	06.82-11.88		50 100			
Ronda (022A) 1.7 D	06.82-11.88			P70 24	570 24	
Terra (023, 024) 1.3-1.4 D	01.87-12.96		50 300			
Terra (023, 024) 0.9	01.87-12.96		50 100			
Toledo I (1L) 1.6-2.0	01.91-03.99		50 200*	P55 19*	555 19*	
Toledo I (1L) 1.9 D, SDI, TD, TDI	01.91-03.99			P72 09*	566 13*	
Toledo II, III (1M2, 5P2) 1.4-1.8	04.99-		50 100	P50 03	544 09	
Toledo II, III (1M2, 5P2) 2.3 V5	04.99-		50 300	P62 19	562 19	
Toledo II, III (1M2, 5P2) 1.9-2.0 TDI	03.99-		50 500	P74 12	572 12	
Scion						
xB	03.07-			P70 29	570 29	
Škoda						
Citigo 1.0-1.4	09.11-		50 100	P50 03	544 09	
Fabia (6Y) 1.0-1.4	08.99-		50 100	P50 03	544 09	
Fabia (6Y) 2.0	08.99-		50 300	P62 19	562 19	
Fabia (6Y) 1.4-1.9 SDI, TDI	08.99-		50 500	P74 12	572 12	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Fabia (6Y) 1.0-1.4 GreenLine start/stop	04.10-	560 01				
Fabia (6Y) 2.0 GreenLine start/stop	04.10-	560 01				
Fabia (6Y) 1.4-1.9 SDI, TDI GreenLine start/stop	04.10-	570 01				
Favorit, Forman (781, 785, 787)	05.89-06.97		50 200	P55 19	555 19	
Felicia I, II (791, 795, 797, 6U1, 6U5) 1.3-1.6	10.94-		50 100	P50 03	544 09	
Felicia I, II (791, 795, 797, 6U1, 6U5) 1.9 D	10.94-	560 01	50 300	P62 19	562 19	
Felicia I, II (791, 795, 797, 6U1, 6U5) 1.3-1.6 GreenLine start/stop	10.94-	560 01				
Felicia I, II (791, 795, 797, 6U1, 6U5) 1.9 D GreenLine start/stop	10.94-	560 01				
Octavia (1U2, 1U5, 1Z3, 1Z5) 1.4-1.6, -Scout	09.96-		50 100	P50 03	544 09	
Octavia (1U2, 1U5, 1Z3, 1Z5) 1.8-2.0, -Scout	09.96-		50 300	P62 19	562 19	
Octavia (1U2, 1U5, 1Z3, 1Z5) 1.9-2.0 SDI, TDI, -Scout	09.96-		50 500	P74 12	572 12	
Octavia (1U2, 1U5, 1Z3, 1Z5) 1.4-1.6, -Scout GreenLine start/stop	04.10-	560 01				
Octavia (1U2, 1U5, 1Z3, 1Z5) 1.8-2.0, -Scout GreenLine start/stop	04.10-	560 01				
Octavia (1U2, 1U5, 1Z3, 1Z5) 1.9-2.0 SDI, TDI, -Scout GreenLine start/stop	04.10-	570 01				
Praktik 1.2-1.4	01.08-		50 100	P50 03	544 09	
Praktik 1.4-1.9 SDI, TDI	01.08-	570 01	50 500	P74 12	572 12	
Praktik 1.2-1.4 GreenLine start/stop	04.10-	560 01				
Praktik 1.4-1.9 SDI, TDI GreenLine start/stop	04.10-	570 01				
Rapid 1.2-1.3 (120G, 130G, 135G)	02.83-10.91		50 100	P44 09	544 09	
Roomster, -Scout (5J) 1.2-1.4	03.06-		50 100	P50 03	544 09	
Roomster, -Scout (5J) 1.6	03.06-	560 01	50 300	P62 19	562 19	
Roomster, -Scout (5J) 1.4-1.9 SDI, TDI	03.06-	560 01	50 300	P62 19	562 19	
Roomster, -Scout (5J) 1.2-1.6 GreenLine start/stop	04.10-	560 01				
Roomster, -Scout (5J) 1.4-1.9 SDI, TDI GreenLine start/stop	04.10-	560 01				
Superb (3U4, 3T4, 3T5) 1.4	02.02-	560 01	50 300	P62 19	562 19	
Superb (3U4, 3T4, 3T5) 1.8-2.8 V6	02.02-	570 01	50 500	P74 12	566 13	
Superb (3U4, 3T4, 3T5) 3.6 V6	02.02-	570 01	50 500	P74 12	566 13	
Superb (3U4, 3T4, 3T5) 1.9-2.5 TDI	02.02-	570 01	50 500	P74 12	572 12	
Superb (3U4) 1.8-2.8 V6 GreenLine start/stop	04.10-	570 01				
Superb (3U4) 1.9-2.5 TDI GreenLine start/stop	04.10-	570 01				
Yeti 1.2	09.09-		50 100	P50 03	544 09	
Yeti 1.8	09.09-	560 01	50 300	P62 19	562 19	
Yeti 2.0 TDI	09.09-	570 01	50 500	P74 12	572 12	
Yeti 1.2-1.8 GreenLine start/stop	04.10-	560 01				
Yeti 2.0 TDI GreenLine start/stop	04.10-	570 01				

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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Smart Car						
Smart forfour 1,1-1.5	04.04-		50 100	P50 03	544 09	
Smart forfour 1.5 CDI	04.04-	570 01	50 500	P74 12	572 12	
Smart formore 1,1-1.3	03.06-		50 100	P50 03	544 09	
Smart formore 1.5 CDI	03.06-	560 01	50 300	P62 19	562 19	
Smart fortwo (MC01) 0.6-1.0 Crossblade, roadster, coupé, city-coupé, convertible	07.98-		50 100	P50 03	544 09	
Smart fortwo (MC01) 0.8 CDI City-Coupé, convertible	07.98-		50 300	P62 19	562 19	
Smart fortwo (MC01) all models start/stop	07.09-	560 01				
SMT						
Trike all models			50 100	P44 09	544 09	
SsangYong						
Actyon 2.3 4x4; 200 Xdi, 2.0 Xdi Sports	10.06-			P95 05	595 05	
Actyon 2.3; 2.0 Xdi	10.06-			P70 24	570 24	
Family	96-			P60 69	560 69	
Family D, TD	93-			P95 05	595 05	
Kallista 2.9 i V6	93-			P45 24	545 24	
Korando (K3, K4, KJ) all models	12.88-			P95 05	595 05	
Kyron 2.0-2.7 Xdi	06.05-			P95 05	595 05	
Musso (FJ) 2.0-3.2	10.95-			P60 68	560 68	
Musso (FJ) 2.3-2.9 D, TD	10.95-			P95 05	595 05	
Rexton all models	04.02-			P95 05	595 05	
Rodius 2.7 Xdi	01.05-			P95 05	595 05	
Stavic 2.7-3.2	02.05-			P95 05	595 05	
Subaru						
Forester (SF) 2.0-2.5	08.97-09.02			P60 68	560 68	
Forester (SG) 2.0-2.5	09.02-	560 01	50 300	P62 19	562 19	
Forester (SG, SH) 2.0-2.5	01.08-			P60 68	560 68	
Forester (SH) 2.0 D	01.08-			P95 04	595 04	
Impreza (GD, GG) 1.6-2.5	12.00-			P60 68	560 68	
Impreza (GD, GG) 2.0 D	12.08-			P70 29	580 09	
Impreza (GD, GG) 2.0 WRX STi	12.00-		50 300	P62 19	562 19	
Impreza (GFC, GC, GF) 1.6-2.0	08.92-12.00			P60 68	560 68	
Impreza Hatchback 1.5-2.5	01.08-			P60 68	560 68	
Impreza Hatchback 2.0 D	01.08-			P95 04	595 04	
Impreza 1.6-2.0 start/stop	03.12-	560 00		P60 68		
Impreza 2.0 D	03.12-			P95 04	595 04	
Justy I (KAD)	11.83-10.95			P40 26	535 20	
Justy II (JMA; MS)	10.95-11.03			P45 23	545 23	
Justy III (G3X) 1.3-1.5	09.03-		50 100	P44 09	544 09	
Justy IV 1.0	01.07-			P45 23	545 23	
Legacy I, II, III, IV, V (BC, BJFM BDM, BG, BE, BH) 1.6-3.0	01.89-			P60 68	560 68	
Legacy IV, V (BE, BH) 2.0 D	09.03-			P95 04	595 04	
Leone I, II	11.83-02.92			P60 69	560 69	
Libero (E10, E12)	01.83-			P45 23	545 23	
Outback I, II, III, IV (BE, BH) 2.2-3.6	10.00-			P60 68	560 68	
Outback IV 2.0 D	03.08-			P95 04	595 04	
SVX (CX) 3.3 i	09.92-12.97			P60 69	560 69	
Trezia 1.3-1.5	04.11-			P70 29	580 09	
Tribeca (B9) 3.0-3.6	01.05-			P60 68	560 68	
Vivio 0.7 660	03.92-10.95			P40 26	535 20	
XV 1.6-2.0 start/stop	03.12-	560 00		P60 68		
XV 2.0 D	03.12-			P95 04	595 04	
Suzuki						
Alto II, III (EC, EF)	01.86-06.02			P40 26	535 20	
Alto IV, V (FF, GF)	06.02-			P45 23	545 23	
Baleno (EG) 1.3-1.6	07.95-			P40 27	535 22	
Baleno (EG) 1.8	07.95-			P45 24	545 24	
Baleno (EG) 1.9 TD	07.95-			P70 29	580 09	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Baleno sqauteback, estate (EG) 1.9 TD	07.95-			P45 23	545 23	
Cappuccino (EA) 0.7	08.93-08.95			P40 27	535 22	
Carry (ED, FD) 1.0-1.3	10.85-			P40 27	535 22	
Grand Vitara (FT, GT, JB) 1.6-2.7	03.98-			P60 68	560 68	
Grand Vitara (FT, GT, JB) 1.9 DDiS, 2.0 TD, HDi; 3.2	03.98-			P95 04	595 04	
Ignis I, II (FH) 1.3-1.5	10.00-09.03		50 100	P44 09	544 09	
Ignis II 1.3 DDiS	09.03-			P72 09	570 44	
Jimny (FJ) 0.7-1.3	09.98-			P45 24	545 24	
Jimny (FJ) 1.5 DDiS	09.98-			P60 68	560 68	
Kizashi 2.4	09.10-			P60 68	560 68	
Liana (ER) 1.3-2.3	07.01-			P45 23	545 23	
Liana (ER) 1.4 DDiS	07.01-			P70 29	580 09	
Samurai (SJ) 1.0-1.3	11.88-			P40 27	535 22	
Samurai (SJ) 1.9 TD	11.88-			P70 29	580 09	
Swift I, II (AA/AB/AH/AJ, EA, MA) 1.0-1.6	10.83-05.01			P40 27	535 22	
Swift II convertible (SF413) 1.3	09.91-10.96			P40 27	535 22	
Swift III (SG) 1.3-1.6	02.05-		50 100	P44 09	544 09	
Swift III (SG) 1.3 DDiS	02.05-		50 200	P62 05	560 09	
Swift start/stop	09.10-	560 01				
Splash 1.0-1.2	03.08-		50 100	P44 09	544 09	
Splash 1.3 DDiS	03.08-		50 200	P62 05	560 09	
SX4 (GY) 1.3-2.0 saloon	04.06-		50 200	P62 05	560 09	
SX4 (GY) 1.6-2.0 DDiS	04.06-	570 01	50 500	P74 12	572 12	
Vitara (ET, TA) 1.6	07.88-			P40 27	535 22	
Vitara (ET, TA) 2.0-2.5	07.88-			P45 24	545 24	
Vitara (ET, TA) 1.9-2.0 D, TD, DDiS	07.88-			P70 29	580 09	
Wagon R+ (EM) 1.0-1.2	02.98-05.00			P40 26	535 20	
Wagon R+ (EM) 1.2 4WD, 1.3 VVTi	02.98-05.00		50 100	P44 09	544 09	
Wagon R+ (MM) 0.7-1.3; 1.3 DDiS	05.00-			P40 26	535 20	
Wagon R+ (MM) 1.3 4WD	05.00-		50 100	P44 09	544 09	
X-90 (EL) 1.6	09.95-			P40 26	535 20	
Tata						
Indica	01.99-			P60 69	560 69	
Indigo (4V2) 1.4; 1.4 D, TD	01.03-			P60 68	560 68	
Nano 0.6	03.09-			P40 26	535 20	
Pick-up Telcoline TDI, 3x3	01.99-			P95 05	595 05	
Safari 3x3	01.99-			P95 05	595 05	
Tatra						
613	75-95				077 18	
700	96-			P95 33	595 33	
Telco 307D, TDi	96-			P95 33	595 33	
Telco, Telcoline, sport	93-		50 500	P74 12	572 12	
Toyota						
4 Runner (N130) 2.4-3.0	08.87-03.96			P70 24	570 24	
4 Runner (N130) 2.4 Turbo-D	08.87-03.96			P70 24	570 24	
4 Runner (N130) 3.4 4x4	08.87-03.96			P95 05	595 05	
4 Runner (N130) 2.8-3.0 Turbo-D, TDi	08.87-03.96			P95 05	595 05	
Auris 1.33-1.8 (Jap. assy.)	03.07-	560 01	50 300	P62 19	562 19	
Auris 1.4-2.2 D-4D (UK assy.)	03.07-	570 01	50 500	P74 12	572 12	
Auris 1.33-1.8 (Jap. assy.) start/stop	12.08-	560 00				
Auris 1.4-2.2 D-4D (UK assy.) start/stop	12.08-	570 00				
Avensis (T22, T25, T27) 1.6-2.4	09.97-		50 300	P62 19	562 19	
Avensis (T22, T25, T27) 2.0 TD, D-4D	09.97-		50 500	P74 12	572 12	
Avensis (T25, T27) 2.2 D-4D, D-CAT	04.03-	580 01	50 500	P80 14**	580 14**	
Avensis Verso 2.0 D4-D	08.01-			P95 04	595 04	
Avensis Verso 2.0-2.4 VVT-i	08.01-			P60 68	560 68	



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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Aygo (B10) 1.0	06.05-				542 08	
Aygo (B10) 1.4 HDi	06.05-			P50 03		
Camry (V1, V10) 1.8-3.0	06.91-08.96			P60 68	560 68	
Camry (V20) 2.2-3.0	08.96-11.01			P60 68	560 68	
Camry (V30, V40) 2.0-3.5 V6	11.01-			P70 29	580 09	
Carina E (T19) 1.5-2.0	03.92-09.97			P60 68	560 68	
Carina E (T19) 2.0 D	03.92-09.94			P95 04	595 04	
Carina E (T19) 2.0 D, TD	10.94-09.97		50 500	P74 12	572 12	
Carina II (T15, T17, T19) 1.5-2.0	10.83-06.93			P60 68	560 68	
Carina II (T15, T17, T19) 2.0 D	10.83-06.93			P95 04	595 04	
Celica 1.6-2.0 all models (TA60, RA40, RA6, TA4C, TA60, RA6)	08.77-10.86			P60 68	560 68	
Celica 1.6-2.2 all models (T16, ST16, T16F, T18, T20)	08.85-11.99			P45 23	545 23	
Celica 1.8 all models (ZZT23)	11.99-			P60 68	560 68	
Corolla (E9) 1.3-1.6	07.87-06.93			P60 68	560 68	
Corolla (E9) 1.8 D	07.87-06.93			P95 04	595 04	
Corolla (E10, E11) - Verso 1.3-2.0	07.92-01.02			P60 68	560 68	
Corolla (E10, E11) -Verso 1.9-2.0 D-4D, D-CAT	07.92-01.02			P95 04	595 04	
Corolla (E11) - Verso 1.4 D4D, 2.0 D4D	04.97-01.02		50 500	P74 12	572 12	
Corolla (E12, ZER, ZZE) 1.4-2.0 D-4D; Verso	01.02-	570 01	50 500	P74 12	572 12	
Corolla (E12, ZER, ZZE) 1.4-2.0 VVT-i, VTL-i TS; Verso	01.02-	560 01	50 300	P62 19	562 19	
Corolla (E12, ZER, ZZE) 2.2 D-4D; Verso	04.04-	580 01	50 500	P80 14**	580 14**	
Corolla (E12) 1.4-2.0 D-4D; Verso start/stop	12.09-	570 00				
Corolla (E12) 1.4-2.0 VVT-i, VTL-i TS; Verso start/stop	12.09-	560 00				
Corolla (E12) 2.2 D-4D; Verso start/stop	12.09-	570 00				
Dyna 100 D	03.97-			P70 29	580 09	
Dyna 100, 150	89-			P70 24	570 24	
Dyna 2.5-4.6 D4D	08.01-			P95 04	595 04	
HI-ACE III (H10) 2.0-2.4	08.89-08.95			P60 69	560 69	
HI-ACE III (H10) 2.4 D, TD	08.89-08.95			P95 05	595 05	
HI-ACE IV (H1, H2) 2.4	08.95-			P60 69	560 69	
HI-ACE IV (H1, H2) 2.4 4WD	08.95-04.98			P70 24	570 24	
HI-ACE IV (H1, H2) 2.4 D, TD-2.5D, TD 4WD, 3.0 D-4D	08.95-			P95 04	595 04	
HI-ACE IV (H1, H2) 2.7	08.95-			P60 69	560 69	
HI-ACE IV (H1, H2) 2.7 4WD	08.95-			P70 24	570 24	
HI-ACE IV (H1, H2) 3.0	08.95-			P60 69	560 69	
HI-LUX (N) 1.8-2.7	01.84-			P70 24	570 24	
HI-LUX (N) 2.4-3.0 D	01.84-			P95 05	595 05	
IQ (AJ1) 1.0	03.09-			P45 24	545 24	
IQ (AJ1) 1.33 start/stop	03.09-	560 00				
IQ (AJ1) 1.4 D-4D	03.09-			P70 24	570 24	
Landcruiser (J6) 2.5-4.0 D, TD	10.81-12.89			P95 04	595 04	
Landcruiser (J6) 4.0	10.81-12.89			P95 05	595 05	
Landcruiser (J7) 2.4 (77 kW)	11.84-			P70 29	580 09	
Landcruiser (J7) 2.4 (84 kW), 2.4 D (53 kW), 2.4 TD (63 kW), 3.0 TD (92 kW)	11.84-			P95 05	595 05	
Landcruiser (J7) 2.4 TD (66 kW), 2.5 TD (85 kW), 3.4 D, TD, 4.2 TD	11.84-			P95 04	595 04	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Landcruiser 300 3.0L D4-D	01.10-			P95 04	595 04	
Landcruiser 300 4.0 V6 VVT-i	01.10-			P60 68	560 68	
Landcruiser 80 (J8) 3.5 FRT, 4.5, 3.0-4.2 TD	01.90-12.97			P95 04	595 04	
Landcruiser 80 (J8) 4.0	01.90-12.97			P95 05	595 05	
Landcruiser 90 (J9) 3.0 TD, D-4D, 4.2 TD	04.96-			P95 04	595 04	
Landcruiser 90 (J9) 2.4-4.7	04.96-			P60 68	560 68	
Landcruiser 100 (J10) 4.2 TD, 4.7	01.98-			P95 04	595 04	
Landcruiser (J12) 2.7-4.0; 3.0 D-4D	01.03-			P95 05	595 05	
Lite-ACE (CM3V, KM3V, R2) 1.3-1.5	03.92-			P45 24	545 24	
Lite-ACE (CM3V, KM3V, R2) 2.2	03.92-			P60 69	560 69	
Lite-ACE (CM3V, KM3V, R2) 2.0 D	10.79-01.92			P95 05	595 05	
MR2 (W1, W2) 1.6-2.0	12.83-05.00			P45 23	545 23	
MR2 (W3) 1.8	04.00-			P60 68	560 68	
Paseo (EL53, EL54) 1.5 16V	03.96-07.99			P60 69	560 69	
Picnic (XM10) 2.0	05.96-12.01			P45 23	545 23	
Picnic (XM10) 2.2 D	05.96-12.01			P95 04	595 04	
Previa (TCR1, 2) 2.0 D-4D; 2.4	05.90-08.00			P60 68	560 68	
Previa (ACR3) 2.4-3.0	08.00-			P60 68	560 68	
Previa (ACR3) 2.0 D-4D	08.00-			P95 04	595 04	
Prius 1.5-1.8 VVT-i hybrid	05.00-01.04			P40 27	535 22	
Prius 1.5-1.8 hatchback	08.03-			P45 24	545 24	
RAV 4 I, II, III (SXA1, XA2) 1.8-3.5	06.93-			P60 68	560 68	
RAV 4 II, III (XA2) 2.0-2.2 D-4D; D-CAT	06.00-			P95 04	595 04	
Starlet (EP91) 1.3	04.96-			P60 69	560 69	
Starlet (P8) 1.0-1.3	12.89-03.96			P45 24	545 24	
Starlet (P8) 1.5 D	12.89-03.96			P60 68	560 68	
Supra (MA70, JZA80) 3.0	01.86-08.98			P70 29	570 29	
Tercel (L1, L2, AL2)	01.88-03.97			P45 24	545 24	
Urban Cruiser 1.3 VVT-i	04.09-			P45 23	545 23	
Urban Cruiser 1.4 D-4D start/stop	04.09-	560 00				
Verso-S 1.6-1.8	01.09-	560 01	50 300	P62 19	562 19	
Verso-S 2.0-2.2 D-4D	01.09-	580 01	50 500	P80 14	580 14	
Verso-S 1.6-1.8 start/stop	01.09-	560 00				
Verso-S 2.0-2.2 D-4D start/stop	01.09-	570 00				
Yaris (CP10) 1.0 (48 kW)-1.3 (64 kW)	04.99-		50 100	P44 09	595 04	
Yaris (CP10) 1.0 (50 kW)-1.3 16V (63 kW)-1.5 TS (77 kW)	04.99-			P45 24	545 24	
Yaris (CP10) 1.4 D-4D (55 kW)	12.01-06.05			P60 69	560 69	
Yaris (CP10) 1.4 D-4D (55 kW)	07.05-	560 01	50 300	P62 19	562 19	
Yaris (CP10) 1.5 VVT-i TS (78 kW)	04.99-		50 100	P50 03	544 09	
Yaris 1.0-1.3 VVT-i	01.06-		50 100	P50 03	544 09	
Yaris 1.0-1.33 VVT-i start/stop	06.09-	560 00				
Yaris 1.8 VVTi	01.06-	560 01	50 300	P62 19	562 19	
Yaris D-4D	01.06-	560 01	50 300	P62 19	562 19	
Yaris Verso (NC/LP2) 1.3-1.5	11.99-			P45 24	545 24	
Yaris Verso (NC/LP2) 1.4 D-4D	11.99-			P60 69	560 69	
Toyota Lexus						
ES (F1, F2, VZV) 250, 300, 3.0-3.3	12.89-10.06			P70 29	580 09	

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Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
GS (JZS147, 160) 300-450, 4.3 VVTi	03.93-03.05			P70 24	570 24	
GS (GRS, UZS) 3.0-4.3; 300, 430	04.05-			P70 24	570 24	
GS (GRS, UZS) 450 h	04.05-			P70 29	580 09	
GS (GRS, UZS) 460	04.05-			P95 05	595 05	
IS (GXE10) 200	04.99-			P60 69	560 69	
IS (GXE10) 300	04.99-			P60 68	560 68	
IS 250	10.05-			P70 24	570 24	
IS 220 D	10.05-			P95 05	595 05	
IS F	10.05-			P60 69	560 69	
LS (UFC10, UFC20) 400	10.89-10.00			P95 04	595 04	
LS (FE) 430	10.00-			P70 29	580 09	
LS 460	09.06-			P95 05	595 05	
LS 600 h start/stop	06.07-			P45 23		
RX (XU1) 300; 3.0	08.97-05.03			P70 29	580 09	
RX (MCU) 300-350, 3.3	05.03-			P70 29	580 09	
RX (MCU) 400 h	09.06-			P45 23	545 23	
RX (MCU) 450 h start/stop	09.06-			P45 23		
RX (GYL) 3.5; 350 AWD	04.09-			P70 29	580 09	
SC 430	08.01-			P70 29	580 09	
Trabant						
1.1 Universal, Tramp	05.90-12.91		50 100	P44 09	544 09	
P 601 (12V), Universal, Tramp, box	01.66-03.90		50 100	P44 09	544 09	
Triumph						
Accalim, Dolomite, Spitfire, TR6-8	75-				545 79	
TVR						
1600, 2500, 3000 M, Taimar, S3C, Tasmin 2.8	70-				545 79	
Tasmin 3.5; V8S, Griffith	83-			P70 24	570 24	
UMM						
Alter I, Alvar 2.0	87-		50 500	P74 12	572 12	
Alter I, Alvar D, TD	87-			P95 33	595 33	
Alter II	93-		50 500	P74 12	572 12	
Entrepreneur	-86		50 500	P74 12	572 12	
Venturi (MVS)						
210, 260, 300, 300	87-		50 300	P62 19	562 19	
Volkswagen						
Amarok 2.0	08.10-	570 01	50 500	P74 12	572 12	
Amarok 2.0 TDI, BiTDI	08.10-	592 01		P95 33	595 33	
Amarok 2.0 BlueMotion start/stop	03.11-	570 01				
Amarok 2.0 TDI, BiTDI BlueMotion start/stop	03.11-	592 01				
Bora (1J2, 1J6) 1.4-1.6	10.98-05.05		50 100	P50 03	544 09	
Bora (1J2, 1J6) 1.8-2.8	10.98-05.05	560 01	50 300	P62 19	562 19	
Bora (1J2, 1J6) 1.9 SDI, TDI	10.98-05.05	570 01	50 500	P74 12	572 12	
Caddy I, II (14, 9K9, 9U7) 1.3-1.8	08.82-01.04		50 200*	P55 19*	555 19*	
Caddy I, II (13, 9K9, 9U7) 1.6-1.9 D, SDI, TDI	08.82-01.04			P72 09*	566 13*	
Caddy III (2KB, 2KA) 1.4-2.0	03.04-		50 200	P55 19	555 19	
Caddy III (2KB, 2KA) 1.9-2.0 SDI, TDI	03.04-	570 01	50 500	P74 12	572 12	
Caravelle, -VR6 2.0	01.00-	560 01	50 300	P62 19	562 19	
Caravelle 2.0 TDI, BiTDI	01.00-	592 01		P95 33	595 33	
Corrado (53I) 1.8-2.9 VR6	08.87-12.95		50 200*	P62 05*	560 09*	
Crafter (2E) 2.5 TDI 65-80kW	04.06-	570 01	50 500	P74 12	572 12	
Crafter (2E) 2.5 TDI 100-125kW	04.06-	592 01		P95 33	595 33	
Crafter (2E) 2.5 TDI 65-80kW BlueMotion start/stop	05.10-	570 01				
Crafter (2E) 2.5 TDI 100-125kW BlueMotion start/stop	05.10-	592 01				
Eos 1.4-2.0 FSI, TSI, TFSI	07.06-	560 01	50 300	P62 19	562 19	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Eos 3.2-3.6 V6	07.06-	570 01	50 500	P74 12	572 12	
Eos 2.0 TDI	07.06-	570 01	50 500	P74 12	572 12	
Eos 1.4-2.0 FSI, TSI, TFSI BlueMotion start/stop	07.06-	570 01				
Eos 3.2-3.6 V6 BlueMotion start/stop	07.06-	570 01				
Eos 2.0 TDI BlueMotion start/stop	07.06-	570 01				
Fox (5Z1) 1.0-1.4	03.06-		50 100	P50 03	544 09	
Fox (5Z1) 1.6	03.06-	560 01	50 300	P62 19	562 19	
Fox (5Z1) 1.4 D, SDI, TDI	03.06-	560 01	50 300	P62 19	562 19	
Fox (5Z1) 1.9 D, SDI, TDI	03.06-	570 01	50 500	P74 12	572 12	
Golf I, II (17, 155, 19E, 1G1) 1.0-1.8	01.79-12.92		50 100*	P55 19*	555 19*	
Golf I, II (17, 155, 19E, 1G1) 1.3-1.8	01.79-12.92		50 200*	P55 19*	555 19*	
Golf I, II (17, 155, 19E, 1G1) 1.3-1.9 D, SDI, TDI	01.79-12.92		50 200*	P62 05*	566 13*	
Golf, -Cross III, IV (1H1, 1H5, 1E7, 1J1, 1J5, 1E7) 1.0-1.6 Plus, FSI, TSI	08.91-		50 100	P50 03	544 09	
Golf, -Cross III, IV (1H1, 1H5, 1E7, 1J1, 1J5, 1E7) 1.8-3.2; GTI Plus, FSI, TSI	08.91-		50 300	P62 19	562 19	
Golf, -Cross III, IV (1H1, 1H5, 1E7, 1J1, 1J5, 1E7) 1.9-2.5 GTD, SDI, TDI Plus	08.91-		50 500	P74 12	572 12	
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 1.0 Plus	10.03-		50 100	P50 03	544 09	
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 1.2-1.6 Plus	10.03-	560 01	50 300	P62 19	562 19	
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 1.8-2.0 FSI, GTi	10.03-	570 01	50 500	P74 12	572 12	
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 1.8 hybrid	10.03-	570 01				
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 2.5-3.2 FSI VR5, R32	10.03-	580 01	50 500	P80 14	580 14	
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 1.6 SDI, TDI	10.03-	570 01	50 500	P74 12	572 12	
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 1.9-2.0 SDI, TDI	10.03-	580 01	50 500	P80 14	580 14	
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 1.2-1.6 Plus BlueMotion start/stop	10.03-	570 01				
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 1.8-2.0 FSI, GTi BlueMotion start/stop	10.03-	570 01				
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 2.5-3.2 FSI VR5, R32 BlueMotion start/stop	10.03-	580 01				
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 1.6 SDI, TDI BlueMotion start/stop	10.03-	570 01				
Golf V, VI (1K1, 1K5, 5K1, AJ5, 5M1, 521) 1.9-2.0 SDI, TDI BlueMotion start/stop	10.03-	580 01				
Jetta II (19E, 1G2) 1.3-1.8	01.84-12.92		50 100*	P55 19*	555 19*	
Jetta II (19E, 1G2) 1.6 D, TD	01.84-12.92		50 200*	P62 05*	566 13*	
Jetta III (1K2) 1.4-1.6 TSI	08.05-	560 01	50 300	P62 19	562 19	
Jetta III (1K2) 2.0-2.5 FSI	08.05-	570 01	50 500	P74 12	572 12	
Jetta III (1K2) 1.9-2.0 TDI	08.05-	570 01	50 500	P74 12	572 12	
Beetle (12V) 1302, 1303	03.39-09.92		50 100*	P44 09*	555 19*	



CARS AND SMALL TRANSPORTERS

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Beetle (12V) 1600	03.39-09.92		50 200*	P55 19*	555 19*	
Beetle (6V)	03.39-09.92				077 18	
LT 28-35 I, II (281-363, 2DM) 2.0-2.4	03.75-		50 300	P62 19	562 19	
LT 28-35 I, II (281-363, 2DM) 2.3-2.8 D, SDI, TDI	03.75-			P95 33	595 33	
LT 28-46 II (2DX0AE) 2.3	03.96-		50 500	P74 12	572 12	
LT 28-46 II (2DX0AE) 2.5 SDI, TDI	03.96-			P95 33	595 33	
LT 40-55 I, II 2.4	03.75-06.96		50 500	P74 12	572 12	
LT 40-55 I, II 2.4 D, TD	03.75-06.96			P95 33	595 33	
Lupo (6X1, 6E1) 1.0-1.4	03.98-07.05		50 100	P50 03	544 09	
Lupo (6X1, 6E1) 1.2-1.7 SDI, TDI	03.98-07.05	570 01	50 500	P74 12	572 12	
Lupo (6X1, 6E1) 1.6 GTI	03.98-07.05	560 01	50 300	P62 19	562 19	
Multivan (7HM, 7HF) 2.0	05.03-	570 01	50 500	P74 12	572 12	
Multivan (7HM, 7HF) 3.0-3.2	05.03-	580 01	50 500	P80 14	580 14	
Multivan (7HM, 7HF) 1.9-2.5 TDI, BitDI	05.03-	592 01		P95 33	595 33	
Multivan (7HM, 7HF) 1.9-2.5 TDI, BitDI BlueMotion start/stop	05.11-	592 01				
New Beetle (9C1, 1C1, 1Y7) 1.9 TDI	01.98-		50 500	P74 12	572 12	
New Beetle (9C1, 1C1, 1Y7) 1.4-2.5	01.98-		50 300	P62 19	562 19	
New Beetle (9C1, 1C1, 1Y7) 3.2 RSI	01.98-		50 500	P74 12	572 12	
Passat (32B, 35I) 1.3-2.2	08.80-05.97		50 200*	P55 19*	555 19*	
Passat (32B, 35I) 1.6-1.9 TD, SDI, TDI	08.80-05.97			P72 09*	566 13*	
Passat (32B, 35I) 2.8-2.9	08.80-05.97			P72 09*	566 13*	
Passat (3B2, 3B5, 3B3, 3B6) 1.6-1.8	08.96-05.05		50 100	P50 03	544 09	
Passat (3B2, 3B5, 3B3, 3B6) 2.0-2.3	08.96-05.05		50 200	P55 19	555 19	
Passat (3B2, 3B5, 3B3, 3B6) 2.8-2.9	08.96-05.05	560 01	50 300	P62 19	562 19	
Passat (3B2, 3B5, 3B3, 3B6) 1.9-2.5 SDI, TDI	08.96-05.05	570 01	50 500	P74 12	572 12	
Passat (3B5, 3B3, 3B6) 4.0 W8	08.96-05.05	580 01	50 500	P80 14	580 14	
Passat (3C2, 3C5) 1.4 TSI BlueMotion start/stop	03.05-	570 01				
Passat (3C2, 3C5) 1.6-2.0 FSI, TSI, TFSI	03.05-	570 01	50 500	P74 12	572 12	
Passat (3C2, 3C5) 3.2-3.6 FSI	03.05-	580 01	50 500	P80 14	580 14	
Passat (3C2, 3C5) 1.9-2.0 TDI	03.05-	580 01	50 500	P80 14	580 14	
Passat (3C2, 3C5) 1.4 TSI BlueMotion start/stop	02.10-	570 01				
Passat (3C2, 3C5) 1.6-2.0 TDI BlueMotion start/stop	02.10-	580 01				
Passat (3C2, 3C5) 3.2-3.6 FSI BlueMotion start/stop	08.05-	580 01				
Passat CC 1.8 TSI	06.08-	560 01	50 300	P62 19	562 19	
Passat CC 2.0 TSI	06.08-	570 01	50 500	P74 12	572 12	
Passat CC 1.9-2.0 TDI	06.08-	580 01	50 500	P80 14	580 14	
Passat CC 3.6	06.08-	570 01	50 500	P74 12	572 12	
Passat CC 2.0 BlueTDI BlueMotion start/stop	06.08-	580 01				
Phaeton (3D2) 3.2-6.0; V6-V8, W12	04.02-	592 01		P95 33	595 33	
Phaeton (3D2) 3.0-5.0 V6-V10 TDI	04.02-	592 01		P95 33	595 33	
Phaeton 3.2-6.0; V6-V8, W12 BlueMotion start/stop	04.02-	592 01				

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Phaeton 3.0-5.0 V6-V10 TDI BlueMotion start/stop	04.02-	592 01				
Polo (86C, 86CF, 6N1, 6NF) 1.0-1.4	10.81-10.99		50 100*	P55 19*	555 19*	
Polo (86C, 86CF, 6N1, 6NF) 1.3-1.9 D, SDI, TDI	10.81-10.99			P72 09*	566 13*	
Polo (86C, 86CF, 6N1, 6NF) 1.6-2.0	10.81-10.99		50 200*	P55 19*	555 19*	
Polo (6KV2, 6KV5) 1.4-1.6	10.94-09.01		50 200	P55 19	555 19	
Polo (6KV2, 6KV5) 1.7-1.9 SDI; TDI	10.94-09.01		50 300	P62 19	562 19	
Polo (6N2, 9N_, 6R) 1.0-1.6	10.99-		50 300	P62 19	562 19	
Polo (6N2, 9N_, 6R) 1.8	10.99-		50 500	P74 12	572 12	
Polo (6N2, 9N_, 6R) 1.2 TDI	10.99-		50 300	P62 19	562 19	
Polo (6N2, 9N_, 6R) 1.4-1.9 SDI, TDI	10.99-		50 500	P74 12	572 12	
Polo (6R) 1.6 TDI BlueMotion start/stop	06.09-	570 01				
Scirocco III (13) 1.4-2.0 FSI, TFSI	08.08-	560 01	50 300	P62 19	562 19	
Scirocco III (13) 1.9-2.5 TDI	08.08-	570 01	50 500	P74 12	572 12	
Scirocco III (13) 1.4-2.0 FSI, TFSI BlueMotion start/stop	08.08-	570 01				
Scirocco III (13) 1.9-2.5 TDI BlueMotion start/stop	08.08-	570 01				
Sharan (7M) 1.8 T 20V	09.97-03.00		50 300*	P62 19*	562 19*	
Sharan (7M) 1.8 T 20V	04.00-		50 300	P62 19	562 19	
Sharan (7M) 1.9-2.0 TDI, 115CV (3 Motion)	09.95-04.00			P95 33*	595 33*	
Sharan (7M) 1.9-2.0 TDI, 115CV (3 Motion)	04.00-			P95 33	595 33	
Sharan (7M) 2.0	09.95-03.00		50 500*	P74 12*	572 12*	
Sharan (7M) 2.0	04.00-		50 500	P74 12	572 12	
Sharan (7M) 2.8 V6, VR6 Syncro	01.97-04.00		50 500*	P74 12*	572 12*	
Sharan (7M) 2.8 V6, VR6 Syncro	04.00-		50 500	P74 12	572 12	
Sharan 1.8-2.0 BlueMotion start/stop	03.08-	570 01				
Sharan 2.8 V6, VR6 Syncro BlueMotion start/stop	03.08-	580 01				
Sharan 1.9-2.0 TDI, 115CV (3 Motion) BlueMotion start/stop	03.08-	592 01				
Taro 1.8-2.3	03.89-03.97			P60 69	560 69	
Taro 2.3 D	03.89-03.97			P70 24	570 24	
Tiguan (5N) 1.4-2.0	03.08-	560 01	50 300	P62 19	562 19	
Tiguan (5N) VR6	03.08-	570 01	50 500	P74 12	572 12	
Tiguan (5N) 2.0 TDI	03.08-	570 01	50 500	P74 12	572 12	
Tiguan (5N) 1.4-2.0 BlueMotion start/stop	03.08-	570 01				
Tiguan (5N) VR6 BlueMotion start/stop	03.08-	570 01				
Tiguan (5N) 2.0 TDI BlueMotion start/stop	03.08-	580 01				
Touareg (7LA) 2.5 TDI	10.02-	570 01	50 500	P74 12	572 12	
Touareg (7LA) 3.0 TDI, V6 TDI	10.02-	592 01		P95 33	595 33	
Touareg (7LA) 3.0-3.2 V6	10.02-	592 01		P95 33	595 33	
Touareg (7LA) 4.2 V8-6.0 W12	10.02-	592 01		P95 33	595 33	
Touareg (7LA) 2.5 TDI BlueMotion start/stop	10.02-	570 01				
Touareg (7LA) 3.0 TDI, V6 TDI BlueMotion start/stop	10.02-	592 01				










Banner

CARS AND SMALL TRANSPORTERS

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
Touareg (7LA) 3.0-3.2 V6 BlueMotion start/stop	10.02-	592 01				
Touareg (7LA) 4.2 V8-6.0 W12 BlueMotion start/stop	10.02-	592 01				
Touran, -Cross 1.4-2.0 FSI	02.03-	560 01	50 300	P62 19	562 19	
Touran, -Cross 1.9-2.0 TDI	02.03-	570 01	50 500	P74 12	572 12	
Touran, -Cross 1.4-2.0 FSI BlueMotion start/stop	03.08-	570 01				
Touran, -Cross 1.9-2.0 TDI BlueMotion start/stop	03.08-	570 01				
Transporter T3 1.9-2.1	05.79-07.92		50 200*	P55 19*	555 19*	
Transporter T3 1.9-2.1 Syncro	05.79-07.92		50 500*	P72 09*	566 13*	
Transporter T3 1.6-1.7 D; TDI	05.79-07.92		50 500*	P72 09*	570 44*	
Transporter T4 (70X_) 1.6	07.90-04.03		50 200*	P62 05*	555 19*	
Transporter T4 (70X_) 1.8-2.8 VR6	07.90-04.03		50 500*	P74 12*	572 12*	
Transporter T4 (70X_) 1.9-2.5 D; TDI	07.90-04.03			P95 33	595 33	
Transporter T5 (7H_, 7J_) 2.0-3.2	04.03-	570 01	50 500	P74 12	572 12	
Transporter T5 (7H_, 7J_) 1.9-2.5 TDI, BiTDI	04.03-	592 01		P95 33	595 33	
Up 1.0-1.4	09.11-		50 100	P50 03	544 09	
Vento (1HX0) 1.4-1.6	11.91-09.98		50 200*	P55 19*	555 19*	
Vento (1HX0) 1.8-2.8	11.91-09.98		50 300*	P62 19*	562 19*	
Vento (1HX0) 1.9 SDI, TDI	11.91-09.98		50 500*	P74 12*	572 12*	
Volvo						
340-460 (343, 345, 344, 445, 464) 1.4-2.0	08.79-12.96		50 500	P74 12	572 12	
340-460 (343, 345, 344, 445, 464) 1.6-1.9 D, TD	08.79-12.96		50 500	P74 12	572 12	
480 E 1.7-2.0	03.86-07.96		50 300	P55 19	555 19	
740-780 (744, 745, 704, 764, 765) 2.0-2.3; 2.9	03.86-07.92		50 300	P62 19	562 19	
740-780 (744, 745, 704, 764, 765) 2.4 D, TD	08.86-07.90		50 500	P74 12	572 12	
850-960 (LS, LW, 945, 944, 964, 965) 2.0-2.9	03.92-12.96		50 500	P74 12	572 12	
850-960 (LS, LW, 945, 944, 964, 965) 2.4-2.5 D, TD, TDI	01.91-12.96		50 500	P74 12	572 12	
C30 1.6-1.8	10.06-	560 01	50 300	P62 19	562 19	
C30 2.0-2.4	10.06-	570 01	50 500	P74 12	572 12	
C30 1.6-2.0 D	10.06-	580 01	50 500	P80 14	580 14	
C30 1.8 F DRIVE	03.09-	560 01	50 300	P62 19	562 19	AUX 09
C30 1.6 D DRIVE start/stop	03.09-	570 01				AUX 09
C70 I, II 2.0-2.5	03.97-		50 500	P74 12	572 12	
C70 I, II 2.5 TDI	03.97-		50 500	P74 12	572 12	
S40 I (VS) 1.6-2.0	07.95-12.03		50 300	P62 19	562 19	
S40 I (VS) 1.9 DI, TD	07.95-12.03		50 500	P74 12	572 12	
S40 II (MS) 1.6-1.8	01.04-	560 01	50 300	P62 19	562 19	
S40 II (MS) 2.0-2.4	01.04-	570 01	50 500	P74 12	572 12	
S40 II (MS) 1.6-2.0 D	01.04-	580 01	50 500	P80 14	580 14	
S40 1.8 F DRIVE	03.09-	560 01	50 300	P62 19	562 19	AUX 09
S40 1.6 D DRIVE start/stop	03.09-	570 01				AUX 09
S60 2.0-2.5	11.00-		50 300	P62 19	562 19	
S60 2.4 D, D5	11.00-			P95 33	595 33	
S70 (P80) 2.0-2.5	01.97-11.00		50 500	P74 12	572 12	
S70 (P80) 2.5 TDI	01.97-11.00		50 500	P74 12	572 12	
S80 I, II (TS, XY) 2.0-3.0	05.98-		50 500	P74 12	572 12	
S80 I, II (TS, XY) 2.4-2.5 D, TDI	05.98-			P95 33	595 33	
S80 1.6 D DRIVE	03.09-	592 01		P95 33	595 33	AUX 09
S90 2.5-2.9	01.97-		50 500	P74 12	572 12	
V40 (VS, VW) 1.6-2.0	07.95-		50 300	P62 19	562 19	
V40 (VS, VW) 1.9 TD, DI	07.95-		50 500	P74 12	572 12	
V50 (MW) 1.6-2.0 D	04.04-	580 01	50 500	P80 14	580 14	
V50 (MW) 1.6-1.8	04.04-	560 01	50 300	P62 19	562 19	

Brand / Model designation	Year of manufacture	Running Bull	Uni Bull	Power Bull	Starting Bull	Running Bull BackUp
V50 (MW) 2.0-2.4	04.04-	570 01	50 500	P74 12	572 12	
V50 (MW) 2.4 D5	04.04-	570 01	50 500	P74 12	572 12	
V50 (MW) 1.8 F DRIVE	03.09-	560 01	50 300	P62 19	562 19	AUX 09
V50 (MW) 1.6 D DRIVE start/stop	03.09-	570 01				AUX 09
V70 I (P80) 2.0-2.5	01.97-03.00		50 500	P74 12	572 12	
V70 I (P80) 2.5 TDI	01.97-03.00			P95 33	595 33	
V70 II (P80) 2.4-2.5 D, TDI	03.00-			P95 33	595 33	
V70 II (P80) T5 2.0-2.5	03.00-		50 500	P74 12	572 12	
V70 III 2.0 F-2.5 FT DRIVE	03.09-	570 01	50 500	P74 12	572 12	AUX 09
V70 III 1.6 D DRIVE	03.09-	592 01		P95 33	595 33	AUX 09
V90 2.5-2.9	01.97-12.98		50 500	P74 12	572 12	
XC60	03.08-	570 01	50 500	P74 12	572 12	
XC60 D5 AWD	03.08-	592 01		P95 33	595 33	
XC60 2.4 D DRIVE	03.09-	592 01		P95 33	595 33	AUX 09
XC70 2.4-2.5	03.00-		50 500	P74 12	572 12	
XC70 D5 AWD	03.00-	592 01		P95 33	595 33	
XC70 2.4 D DRIVE	03.09-	592 01		P95 33	595 33	AUX 09
XC90 2.5-2.9 T, T6, V8	10.02-	570 01	50 500	P74 12	572 12	
XC90 2.5 D5	10.02-	592 01		P95 33	595 33	
Zastava						
101 (1100) 1,1-1.3	06.72-12.93		50 300		560 08	
Yugo 0.9-1.3	04.80-06.95		50 300		560 08	
Yugo Florida 1,1-1.6	10.88-		50 300		560 08	
ZAZ						
Tavrija 1,1-1.3	01.89-		50 300		560 08	
Zhengzhou						
Paladin 2.4-3.3	06.02-			P70 29	570 29	
Paladin 2.4	06.02-	570 01*	50 500*	P74 12*	572 12*	
Zhonghua						
Grandeur 2.0-2.3	10.03-			P70 29	570 29	
SY 2.0-2.3	06.99-			P70 29	570 29	
Zhongxing						
Admiral Pick-Up 2.2	01.00-			P70 29	570 29	
Banner 2.2	01.97-			P70 29	570 29	
Grand Tiger Pick-Up 2.2 4WD	08.05-			P70 29	570 29	
Tiger Pick-Up 2.2	01.97-10.03			P70 29	570 29	

Warnings and Safety Rules for Lead-Acid Batteries

-  Take note of the information on the battery, the instructions for use and the operating instructions of the vehicle.
-  Wear eye protection.
-  Keep children away from acid and batteries.
-  **Explosion danger:**
 - A highly explosive oxyhydrogen gas is emitted during battery charging therefore:
-  **No naked flames, sparks, naked lights or smoking:**
 - Avoid sparking when handling cables and electronic devices.
 - Avoid short circuits.
-  **Chemical burns danger:**
 - Acid is highly caustic therefore:
 - Wear gloves and eye protection.
 - Do not tilt the battery, as acid could spill out from the degassing vents.
-  **First Aid:**
 - If acid splashes into the eyes rinse immediately with clear water for several minutes. Then consult a physician.
 - If acid splashes onto the skin or clothes neutralise immediately by using an alkaline solution or soap and rinse with large amounts of water.
 - If acid is swallowed consult a physician immediately.
-  **Warning:**
 - Do not expose batteries to direct sunlight without protection.
 - Always store batteries in a frost-free area, as discharged batteries can freeze.
-  **Disposal:**
 - Hand in used batteries at a collection centre. During transportation take note of the instructions contained in Item 1. Never dispose of old batteries with domestic waste.



INSTRUCTIONS FOR THE USE OF STARTER BATTERIES

1. Storage and Distribution

- Dry batteries do not need maintenance. Store in a dry and cool environment (frost-free).
- Recharge starter batteries when acid density is below 1.21 kg/l (1.18 kg/l with acid 1.23 kg/l). See Note 4.
- Wet-filled batteries must be transported in an upright position to avoid acid spillage.
- During transportation secure the battery to prevent it falling over.

Running Bull AGM/BackUp: leak-proof even when upside down and in the case of damage to the casing. At the latest, recharge in the case of off-load voltage ≤ 12.50 V (see Note 4). Acid density measurement and topping up with distilled water are not possible.

2. Start-up

Banner batteries, which are supplied dry-charged, are ready for use as soon as they have been filled with acid. They do not require special charging.

- During filling, the temperature of the battery and acid should amount to at least 10°C.
- Remove the vent plugs.
- At a maximum, fill the individual battery cells with sulphuric acid pursuant to VDE 0510 with a density of 1.28 kg/l (1.23 kg/l for tropical countries) up to the acid level mark or 15 mm above the top of the plates.
- Leave the battery to stand for 15 minutes for the level to settle, gently tip it several times and then top up where necessary.
- Screw or press in the vent plugs/caps tightly, wipe off any surplus acid splashes.

Filled Batteries are ready for use.

Running Bull AGM/BackUp: immediately ready for use.

Note. The battery will require recharging should sufficient starting power be unavailable due to low temperatures or poor storage conditions (see Note 4).

3. Battery installation

- Before fitting or removing the battery, switch off the engine and all power users.
- Avoid short circuits due to tools.
- When removing the battery, first disconnect the negative (-) terminal and then the positive (+) terminal.
- Prior to fitting the battery, clean the battery compartment.
- Ensure that the battery is secured tightly.
- Clean terminals and battery clips and lubricate slightly with acid-free grease.
- When fitting the battery first connect the positive (+) terminal and then the negative (-) terminal. Ensure that the clips are secured.

4. Charging outside the vehicle

- Before charging, check the electrolyte level and top up if necessary with de-ionised or distilled water to the acid level mark or 15 mm above the upper edge of the plates at a maximum.
- The battery should be removed before recharging, in order to avoid the possibility of damage to the vehicle.

Warning! Follow the vehicle manufacturer's instructions when disconnecting the terminals.

- Batteries may only be charged with direct current. Connect the positive (+) battery terminal to the positive (+) terminal of the charger, and the negative (-) battery terminal to the negative (-) terminal of the charger.
- Do not switch on the charger until the battery has been disconnected. When charging is completed, switch off the charger before disconnecting the battery.
- It is recommended that the charging current be equal to one tenth of the capacity (e.g. 44 Ah divided by 10 = 4.4 A charging current).
- The temperature of the acid may not exceed 55°C during charging. If the temperature rises above 55°C, the charging process must be discontinued.
- Charging is finished when the current drops to 0 or stops falling, or if the automatic charger switches off.
- Charging must be performed in a well-ventilated room.

Warning! Oxyhydrogen gas is formed during charging! Fires, sparks, open flames and smoking are strictly prohibited!

Running Bull AGM/BackUp: only recharge with a voltage controlled charger (max. 14.8 V)! The use of standard, non-voltage controlled chargers will destroy the battery through overloading and cause the electrolyte to escape!

5. Maintenance

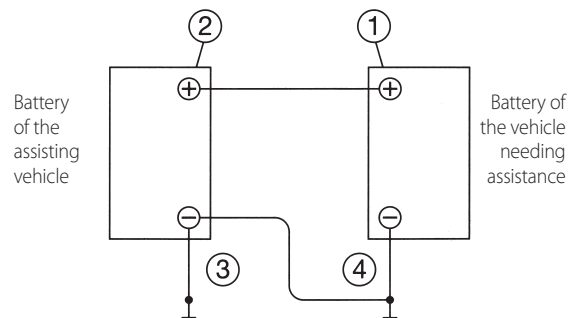
In order to ensure maximum battery life, the following instructions should be followed:

- Keep the surfaces of the battery clean and dry.
- Check the acid levels regularly and if necessary top up with deionised or distilled water. Never top up with acid. If a substantial water loss occurs, an expert should check the voltage regulator.
- Do not put so-called additives into the battery acid.
- The level of charge of the battery can be checked by means of acid density measurement. If the density of the acid is below 1.21 kg/l (or 1.18 kg/l, 1.23kg/l in the case of acid filling) the battery must be recharged (see Note 4). With this density the battery is protected against freezing down to -15°C (with 1.28 kg/l down to -70°C).

Running Bull AGM/BackUp: the charge status can only be determined via the off-load voltage. The battery is to be recharged in the case of off-load voltage of ≤ 12.50 V (see Note 4). Acid density measurement, or topping up with distilled water, is not possible.

6. Assisted starting

- In view of the sensitive electronic components in the vehicle, as a rule starting assistance should only be provided by means of a Banner booster.
- Starting assistance from vehicle to vehicle can lead to voltage peaks during disconnection, which can damage or even destroy vehicle electronic systems.
- Therefore, it is essential that the following procedure be strictly observed when using starter cables!
- Standardised starter cables (e.g. in accordance with DIN 72 553) should always be used for giving starting assistance.
- Observe the instructions for use of the starter cables.
- Only connect batteries with the same nominal voltage.
- **When connecting the terminals, both vehicle engines must be switched off!** First connect the two positive terminals (1) with (2). Then connect the negative terminal of the assisting vehicle (3) with (4), the blank metallic point on the vehicle needing assistance, away from the battery. (Observe the instructions of the vehicle manufacturer.)



- Now start the vehicle needing assistance for a maximum of 15 seconds. Do not start the assisting vehicle.
- When disconnecting the terminals, remove the cables in the reverse sequence to the above.

7. Standby storage

- Charge the battery (see Note 4) and store in a cool dry place.
- Should the battery be left in the vehicle, disconnect the negative terminal.
- Regularly check the level of charge (see Note 5).

Banner

TRUCKS AND BUSES

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
ASTRA				
HD 7 / HD 7-C / HD 8 42.36 - 88.54	01.00-	SHD 680 32		
AVIA				
All models 12 V			592 01	P95 33
D-Line D 60 / 75 / 90 / 100	10.01-		592 01	P95 33
AWD				
TL-Series		625 11		
Barkas				
All models diesel		SHD 640 35		
Barreiros				
All models		SHD 670 33		
Bedford				
CF-Series CF 2/230 / CF 2/250 / CF 2/280 / CF 2/350		610 48		
CF-Series D		610 48		
D-Series D 7,5 T			592 01	P95 33
TJ-Series TJ 220 - TJ 1000		610 48		
TK-Series TK 466 - TK 1630		610 48		
TL-Series / TM-Series TL 570 - 3200, TM 500 - 3800		625 11		
Y-Series YNT		610 47		
Y-Series YNV		610 11		
Berna				
4VF, 4VM / D180 - D330		SHD 670 33		
5 VFS, VF, VM, V		SHD 640 35		
Bova				
Futura FHD 10 - 14, FLD 15	09.84-	SHD 725 11		
Futura FHD/FLD 104 - 127	09.84-	SHD 725 11		
Lexio LD/LLD 123, 130	09.05-	SHD 725 11		
Magiq HD 120, 122	10.99-	SHD 725 11		
Magiq MHD 122 - 148	10.99-	SHD 725 11		
Synergy DD 130, 138 / SDD 130, 141	09.04-	SHD 725 11		
Bremach				
GR-Series GR35			592 01	P95 33
GR-Series GR45			592 01	P95 33
NB-Series NB35			592 01	P95 33
NB-Series NB45			592 01	P95 33
Büssing				
14-150 (12 V), 14-185		SHD 680 32		
14-150 (24 V)		SHD 640 35		
AK 14-150		SHD 680 32		
BS		SHD 640 35		
BS Bus		SHD 680 32		
Commodore, prefect		SHD 680 32		
Konsul		SHD 680 32		
Supercargo L 14-185		SHD 680 32		
Commer-Carrier-Dodge				
300-Series		SHD 680 32		
DAF				
45 FA 45.120 - 45.210	01.91-12.00	610 11		
55 FA 55.150 - 55.230	09.95-12.00	625 11		
65 CF FA 65 CF 180/210	02.98-12.00	SHD 680 32		
65 FA 65.180 - 65.240	01.93-02.98	SHD 640 35		
75 CF FA 75 CF 250/290	02.98-12.00	SHD 680 32		
75 FA 75.240 - 75.300	07.92-02.98	SHD 640 35		
85 CF FA 85 CF 340/380	02.98-12.00	SHD 680 32		
85 FA 85.330 - 85.400	07.92-02.98	SHD 680 32		
95 FA 95.310 - 95.430	09.87-01.98	SHD 680 32		
95 XF FA 95 XF 380/430/480/530	01.97-09.02	SHD 680 32		
CF 65 FA 65.180 - 65.290	01.01-12.04	SHD 680 32		
CF 75 FA 75.250 - 75.360	01.01-12.04	SHD 680 32		
CF 85 FA 85.340 - 85.510	01.01-12.04	SHD 680 32		
CF 65 FA 65.180 - 65.290	01.05-	SHD PRO 680 08/ SHD 680 32		
CF 75 FA 75.250 - 75.360	01.05-	SHD PRO 680 08/ SHD 680 32		
CF 85 FA 85.340 - 85.510	01.05-	SHD PRO 680 08/ SHD 680 32		
F 1000 FA 1000		610 11		
F 1100 FA 1100		SHD 640 35		
F 1200 FA 1200		SHD 640 35		
F 1300 FA 1300		SHD 640 35		
F 1400 FA 1400		SHD 640 35		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
F 1500 FA/FD 1500		SHD 640 35		
F 1600 FA /FGG 1600/1521		SHD 640 35		
F 1700 FA 1700		SHD 640 35		
F 1800 FAV 1800		SHD 640 35		
F 1900 FA/FD/FT 1900		SHD 680 32		
F 2100 FA/FAG/FAS/FT 2103/2105		SHD 680 32		
F 2300 FA/FAB/FAG/FAS/FAT/FAV/ FMB/FMT/FT 2300/2303/2305	09.63-10.93	SHD 680 32		
F 2500 FA/FAG/FAT/FMD/ FMT 2500/2503/2505/2525/2535		SHD 680 32		
F 2700 FA/FAB/FAG/FAR/FMT/FT 2700	01.90-10.93	SHD 680 32		
F 2800 FA/FAB/FAC/FAD/FAR/FAS/ FAT/FMD/FT/FTS/FTT 2800/2803/ 2804/2805/2825	09.73-09.91	SHD 680 32		
F 2900 FA/FAD/FMD/FT 2900	01.90-10.93	SHD 680 32		
F 3200 FA/FAB/FAR/FAS/FAT/FMD 3200	01.90-10.93	SHD 680 32		
F 3300 FA/FAC/FAD/FAG/ FAS/FAT/FT/FTG/FTS/FTT 3300/3303/3304/3305/3325	06.81-09.91	SHD 680 32		
F 3600 FA/FAG/FAR/FAS/FT/FTT 3600/3603/3604/3605/3625	06.85-09.91	SHD 680 32		
F 600 FA 600		610 11		
F 800 FA 800		610 11		
F 900 FA 900		610 11		
LF 45 45.130 - 45.250	01.01-	610 11		
LF 55 55.170 - 55.290	01.01-	625 11		
N 2800 NAT 2826		SHD 725 11		
N 3300 NAT 3326		SHD 725 11		
XF 105 105.410 - 105.510	10.05-	SHD PRO 680 08/ SHD 680 32		
XF 95 95.380 - 95.530	09.02-12.06	SHD 680 32		
Dennis				
Javelin		SHD 680 32		
16-18		625 11		
Dart/Delta		610 11		
Dominant/ Maxim/ Mercury Pax/ Paxit		625 11		
Dodge				
300-Series C 17T, 38T, 3864		SHD 725 11		
300-Series C 2464, C 38T, 4084, K 3820, R 3820P		SHD 670 33		
C 4084		SHD 680 32		
K 3820		SHD 640 35		
Ebro				
100/8D			592 01	P95 33
F260, F275			570 01	P74 12
F350 / L50, 60, 70 Turbo, 80 / P137 / P170, P190		625 11		
L-Series L 35/L45/L60/L80			592 01	P95 33
F-Series F 100 - F 350			570 01	P74 12
Trade 2,0; 2,8			570 01	P74 12
Enasa				
1000-Series 1061-1066		SHD 725 11		
EOS Coach				
All models		SHD 725 11		
ERF				
205, 220, 260T(Rolls Royce) / 290 / 31R4		625 11		
64 R 260T (Rolls Royce) / 84 PF (Perkins)		610 11		
S (Perkins) / 84 PS (Perkins) / 84 PV (Perkins)		610 11		
86 PS fire truck		610 11		
All models (Cummins)		610 11		
All models (Gardner GX)		625 11		
All models (Gardner LW)		610 11		
All models (Gardner LX, LXB)		625 11		
All models (Perkins)		610 11		
C-Series		625 13		
CP-Series		625 13		
E-Series / EC-Series		SHD 680 32		



TRUCKS AND BUSES

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
L10 / TRAILBLAZER 32G46, 36RZ		625 11		
ECL 7.28 RD3 / TP3 (206 kW)	04.02-	SHD 680 32		
ECM 6.22 / 7.22	04.02-	SHD 680 32		
ECT 10.35 / 10.43 / 11.39 / 11.42 / 12.36 / 13.46 / 13.48 / 32.35	04.02-	SHD 680 32		
Trailblazer 32G46, 36RZ		625 13		
F.T.F.				
All models		SHD 725 11		
FAR				
CM 54, 55, 56 V			592 01	P95 33
Faun				
AK AK 414 HW		SHD 725 11		
L L 1212/45 ZA 6x6, L 1212/45 ZA 6x7		SHD 725 11		
FBW				
All models		SHD 640 35		
Fiat				
AL 418 AL		SHD 635 44		
Daily 28 F 8 / 30 F 8 / 32 F 8 / 35 F 8 / 40 F 8		SHD 635 44		
E 242 E			592 01	P95 33
F 170 F		SHD 670 33		
50 F - 79 F			570 01	P74 12
NC 50 NC - 170 NC		SHD 640 35		
NR 130 NR / 150 NR 20		SHD 640 35		
NT 130NT, NT20		SHD 640 35		
N 619 N - 697 N		SHD 670 33		
PAC 190 PAC 20 / 190 PAC 26/ 260 PAC 26		SHD 640 35		
PC 65 PC / 75 PC			570 01	P74 12
P 170.35 P		SHD 670 33		
TP 170.35 TP		SHD 670 33		
T 170.35 T		SHD 670 33		
130 NC, NR, NT 20		SHD 640 35		
159.17		SHD 640 35		
170.35		SHD 670 33		
242/15 / 242/18			592 01	P95 33
70.10 / 79.13			570 01	P74 12
Foden				
2000 / 3000 / 4000 Series		625 13		
ER / FCU over 40t (Cummins) / FE, FG, FLE models		610 48		
Fleetmaster Range / FR CHASSIS (Rolls Royce)		625 13		
HAULMASTER Range / S 104, 106, 108 S 83		610 48		
Tilt Cab (Cummins) / Tilt Cab (Gardner)		610 48		
Tilt Cab (Rolls Royce)		625 13		
Fleetmaster		625 13		
Haulmaster		610 48		
S 104 - 108		610 48		
Tiltcab Gardner Motor / Gardner Motor		610 48		
Tiltcab Rolls Royce Motor		625 11		
Ford				
1013 / 1315 / 1620 / 1924 / 2417 / 2624 / 3424		610 48		
6 AA, 6 CA, 7 AA (24V)		625 13		
Bus chassis		SHD 640 35		
D & K PASSENGER / D-Series		610 48		
Transcontinental		625 11		
CARGO-Series 1012 - 1115		610 48		
CARGO-Series 1215 - 1520		625 11		
CARGO-Series 413F, 413F2 (24V)		625 13		
CARGO-Series 608 - 915		610 48		
Cargo 0609 - 0915	04.81-	610 48		
Freight-Rover				
Sherpa 185 - 300				P95 05
Ginaf				
C2		SHD 680 32		
F F 160-F 535		SHD 680 32		
G G 3229-G 5450		SHD 680 32		
KFS 10 - 16		SHD 680 32		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
X2, X3, X4		SHD 680 32		
X5		SHD 680 32		
X4-Series X4241 S-X4446 TS		SHD 680 32		
GMC				
7000		SHD 725 11		
Guy				
Big J (12 V)		625 13		
Big J (24 V)		625 13		
T 43		625 13		
Hanomag-Henschel				
F 150 K, F 150 L		600 26		
F 161 AK-F 193 S		SHD 640 35		
F 20, 23, 25, 30, 35, 36 diesel		SHD 640 35		
F 20-F35		SHD 640 35		
F 40 KA diesel, F 40, 45 B diesel		600 26		
F 45 V diesel		SHD 640 35		
F 46-F 86		SHD 640 35		
H-Series H 161 AK-H 191 S-R		SHD 640 35		
Hanomag-Rheinstahl				
A 28		SHD 680 32		
Garant L, LL, EL, K		SHD 680 32		
L 28		SHD 680 32		
Markant L, LL, K, S		SHD 680 32		
Hino				
FH / FS, FY		SHD 680 32		
HB KY / HE		SHD 640 35		
KB		SHD 680 32		
KM KL KLR KR		610 48		
KY / ZM		SHD 680 32		
IFA				
Multicar M24		SHD 640 35		
All other models		SHD 680 32		
Ikarus				
297.07 / 398.20 / 405 / 417		SHD 680 32		
Inbus				
All other models		SHD 725 11		
Ino				
HE		SHD 640 35		
Irisbus				
ACCESS'BUS 127 GX 127	01.02-	SHD 725 11		
ARWAY 12 m / 12.8 m	06.06-	SHD 725 11		
AXER 12 m / 12.8 m	10.03-01.07	SHD 725 11		
ARWAY (243 kW)		SHD 725 11		
CITELIS 12 / 18 / 18 CNG	09.05-	SHD 725 11		
CROSSWAY 10.6 m / 12 m / 12.8 m	06.06-	SHD 725 11		
CITELIS (213 kW)		SHD 725 11		
CROSSWAY (243 kW)		SHD 725 11		
DAILY TOURYS 16 / 19	11.06-	610 11		
DOMINO 2001	10.03-	SHD 725 11		
EVADYS H/HD 12 m / 12.8 m	10.03-	SHD 725 11		
EVADYS (280 kW)		SHD 725 11		
RECREO 12 m / 12.8 m	10.03-01.07	SHD 725 11		
IVECO				
Daily II 29L10 - 50C15	05.99-	610 11		
Daily I 30-8 - 59-12	01.78-04.99		592 01	P95 33
EuroCargo 60E10 - 95E21	01.91-	610 47		
EuroCargo 100E15 - 100E21	01.91-	610 11		
EuroCargo 120E15 - 180E28	01.91-	SHD 680 32		
EuroCargo 260E23 - 320E28	01.91-	SHD 680 32		
EuroStar LD 190E38 - LD 440E52	01.93-02.02	SHD 680 32		
EuroTech MH 190E24 - 440E35	09.98-	SHD 680 32		
EuroTech MP 180E34 - 440E43	01.92-	SHD 680 32		
EuroTech MT 180E24 - 400E30	01.92-08.98	SHD 680 32		
EuroTech MT 180E24 - 400E30	01.93-11.04	SHD 680 32		
EuroTrakker MP 340E34 - MP 720E42	01.93-11.04	SHD 680 32		
M 115-17 - 175-24	06.82-12.92	SHD 680 32		
MK 110-13 - 130-16	01.83-12.91	SHD 670 33		
MK 75-9 - 90-13	01.83-12.91	SHD 610 40		
P/PA hooded truck 120-13 - 330-30	12.79-12.93	SHD 680 32		
P/PA 159-17-330-36	12.79-12.93	SHD 680 32		
Stralis AD 190S27 - AD 260S45	02.02-	SHD 680 32		
Stralis AD/AT 440S33 - AD/AT 440S43	02.02-	SHD 725 11		

Banner

TRUCKS AND BUSES

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Stralis AS 190S40 - AS 260S50	02.02-	SHD 680 32		
Stralis AS 260S50 (368 kW)	02.02-	SHD 725 11		
Stralis AS 260S54 - AS 260S56	02.02-	SHD 680 32		
Stralis AS/AT 440S40 - AS/AT 440S56	02.02-	SHD 725 11		
Trakker AD/AT 190T31 - AD/AT 720T50	10.04-	SHD 725 11		
TurboStar 190-33 - 190-48	07.84-12.93	SHD 680 32		
TurboTech 190-26 - 220-36	01.90-01.93	SHD 680 32		
Zeta 109 - 14	01.79-12.92	SHD 610 40		
Zeta 50-8 - 65-12	01.79-12.92		592 01	P95 33
Zeta 79-10 - 95-14	01.79-12.92	SHD 610 40		
Zeta A60-9 - A70-12	01.79-12.92		592 01	P95 33
IVECO Fiat				
100AI/NC/NR/NT/PC 130AI/NC/NR/NT		SHD 640 35		
135.14 - 165.24		SHD 680 32		
170.23 - 220.36		SHD 680 32		
242			592 01	P95 33
260.25-330.36		SHD 680 32		
54.12		SHD 640 35		
625N			592 01	P95 33
645N / 650N / 662N / 683N		SHD 640 35		
80NC/NR, 90NC			592 01	P95 33
IVECO Magirus				
109-14		SHD 610 40		
110-13 / 110-16 / 110-17		SHD 670 33		
115-17 / 120-13 / 120-17		SHD 680 32		
130-13 / 130-16		SHD 670 33		
135-14 -340-34		SHD 680 32		
50-9 / 60-11 / 65-9			592 01	P95 33
75-9 - 90-13		SHD 610 40		
AHB 6x4 (220 PS)		SHD 680 32		
IVECO Unic				
100 NC/NR/PC		SHD 640 35		
109.14		SHD 610 40		
110 NC/PC, 120, 130		SHD 640 35		
110.14 - 135.17		SHD 680 32		
130NC/NR/NT		SHD 640 35		
130.16 / 135.17		SHD 680 32		
140NC/NR/NT		SHD 640 35		
145.17		SHD 680 32		
150NL/NR, 159NC, 170NC/NR/NT/U		SHD 640 35		
175.17 - 190.48		SHD 680 32		
230 EURO		SHD 640 35		
240.36 - 260.30		SHD 680 32		
35.8 - 65.10			592 01	P95 33
75P / PC,90P		SHD 640 35		
79.10 / 79.14		SHD 610 40		
Jelcz				
All models		SHD 680 32		
Jonckheere				
All models 12 V		SHD 680 32		
All models 24 V		SHD 680 32		
Karosa				
All models		SHD 680 32		
Kässbohrer				
Setra 260 DW		SHD 610 40		
S 10 - 14 / S 103 / S 200 - 216 / S 300 - 315		SHD 680 32		
S 80			592 01	P95 33
S 9 / SG 175 / SG 180		SHD 680 32		
S 100 - 150		SHD 680 32		
KHD				
M M 110 D 7 FK - M 160 D 16 L		600 26		
M M 170 D 10 AL - M 180 R 12		SHD 640 35		
M M 200 SH 110 U		SHD 725 11		
M M 230 L 117 - M 230 R 120, L120		SHD 640 35		
M M 230 TR 120, TL 120		SHD 640 35		
Leyland				
BX 16/18/19, BX 984-1600		625 11		
Bison 2		625 13		
Bison BN		610 48		
Buffalo 2		625 13		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Buffalo BU		610 48		
Chieftain		610 48		
Clydesdale		610 48		
Constructor T100 / T45		625 11		
Cruiser T45		625 11		
EA Van D		625 13		
EV Van Diesel		625 11		
Eland		610 48		
FAD 80.260 - 80.300		625 11		
FAD 80.300 - 80.330		SHD 680 32		
FAS 2300 HAT / 2700 HS		SHD 680 32		
FAS 75.240		625 11		
FAT 75.240 / 75.270		625 11		
FA 2300 HAT / 2700 HS		SHD 680 32		
FA 45.120 - 65.210		610 47		
FG (2, 2 & 2, 5 l)		610 11		
FG (3, 8; 4, 8; 5, 1 l)		625 11		
FM (2, 2 & 2, 5 l)		610 11		
FTG 80.330		625 11		
FTG 85.330 - 95.430		SHD 680 32		
FT 2300/2700/3200		SHD 680 32		
FT 75.270 - 80.330		625 11		
FT 85.330 - 95.430		SHD 680 32		
Freighter 12 V		610 11		
Freighter 24 V		625 11		
Handyman		610 11		
JU J4 D		610 48		
Landmaster T68		625 11		
Landtrain T43		625 11		
Marthon 2		625 13		
T 45 Roadtrain Range 17.27 / 17.28 / 17.30 / 20.32 / 20.33				
11.14 / 12.12 / 14.12 / 14.14		625 11		
145 Turbo		610 11		
8.12, 8.13 / 80-Series / BX & TR models		625 11		
BEAR		610 48		
Boxer 1200/1300		625 11		
COMET (Tilt Cab)		610 48		
FF, FG, FJ (3.8-5.1 l), FM (3.8-5.1 l)		625 11		
FREIGHTERT 203 / T207 / T500		610 11		
MARATHON		625 13		
MASTIFF / MS / OCTOPUS / RETRIEVER		625 11		
ROAD RUNNER (T211) / ROAD RUNNER (T45)				
ROADTRAIN (T 45-Series)		610 11		
SUPER COMET (Tilt Cab)		610 11		
SUPER MASTIFF / TERRIER (TR) / WF (3.8 & 4.8 Liter)		625 11		
WF (2.2 & 2.5 Liter)		610 11		
MANDATOR		625 13		
LIAZ				
All models		SHD 725 11		
MACK				
All models 12 V		610 48		
Magirus-Deutz				
Bus E113		SHD 635 44		
Bus M2000 / R106		SHD 680 32		
Bus R80 R/L81			592 01	P95 33
Bus SH 105/110/120/170		SHD 680 32		
Bus T117 L117 / TL100 L100 / TL120 L120 / TR100 R100		SHD 670 33		
D 100 D / 120 D / 130 D		SHD 680 32		
D 232 D / 256 D / 270 D / 310 D / 340 D		SHD 680 32		
D 170 D		SHD 635 44		
D 75 D / 80 D		SHD 680 32		
D 85 D / 90 D / 135 D		SHD 635 44		
L 260 L 117		SHD 670 33		
M 130M / 160 M / 168 M		SHD 680 32		
M 192 M		SHD 640 35		
M 256 M / 320 M		SHD 680 32		



TRUCKS AND BUSES

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
M 90 M		SHD 635 44		
M 120 R 80			592 01	P95 33
M 130 D / M 160 D / M 168 M		600 26		
M 170 D		SHD 640 35		
M 170 SH 110 / M 200 SH 110 U		SHD 680 32		
M 90 D		600 26		
M 90 M		SHD 670 33		
M 320 M		SHD 680 32		
R 130 R 81			592 01	P95 33
SH 230 SH 110		SHD 680 32		
MAN				
EL 202/222/262	01.93-01.01	SHD 725 11		
EM 192/222/223	08.87-	SHD 680 32		
F 2000 19.233 - 41.463	01.94-	SHD 680 32		
F 90 underfloor 19.322 - 26.422	06.86-09.96	SHD 640 35		
F 90 19.242 - 19.502	06.86-12.97	SHD 640 35		
F 90 24.242 - 48.462	06.86-12.97	SHD 680 32		
G 90 6.100 - 10.150	09.87-05.95	SHD 640 35		
G 6.90 - 10.136	10.79-08.88	SHD 640 35		
L 2000 8.103 - 12.225	10.93-	SHD 640 35		
LIONS COMFORT RN 313 / RN 353	09.96-	SHD 725 11		
LION'S COACH FRH 352, RH 353 / FRH 402	09.95-	SHD 725 11		
LION'S COACH RH 403, RH 413, RH 463, RHC 464	09.95-	SHD 725 11		
LION'S STAR FRH 352, RH 353 / FRH 402	03.91-	SHD 725 11		
LION'S STAR RH 403, RH 414, RHS 414 / RH 464, RHS 464	03.91-	SHD 725 11		
M 2000 L 12.163 - 18.285	09.99-	SHD 640 35		
M 2000 M 14.224 - 25.224	08.95-12.05	SHD 640 35		
M 90 12.152 - 24.272	08.88-12.98	SHD 640 35		
NG 262/263/312/313	08.92-	SHD 680 32		
NL 202/222/262/263/313	09.88-	SHD 680 32		
NM 152/182/192/222/223	08.87-	SHD 640 35		
NÜ 263/313	03.96-	SHD 680 32		
R R/FR/FRH 292, FRH 362	05.85-01.93	SHD 725 11		
SD 200	04.74-04.94	SHD 680 32		
SD 202	04.74-04.94	SHD 725 11		
SG 220/240/242/292/312/322	09.72-	SHD 680 32		
SL II SL 202	04.84-05.96	SHD 680 32		
SL 200	06.72-04.87	SHD 680 32		
SM 152	08.87-	SHD 640 35		
SM 182/192	08.87-	SHD 680 32		
SR 240/280	02.75-08.94	SHD 680 32		
SÜ 240/242/263/272/292/313/322	04.93-05.95	SHD 680 32		
TGA 18.310 - 19.480	03.00-02.05	SHD 680 32		
TGA 24.350 - 41.530	03.00-02.05	SHD 680 32		
TGA 18.310 - 19.480	03.05-	SHD PRO 680 08/ SHD 680 32		
TGA 24.350 - 41.530	03.05-	SHD PRO 680 08/ SHD 680 32		
TGL 7.150 - 12.240	04.05-	SHD PRO 645 03/ SHD 640 35		
TGM 12.240 - 26.330	10.05-	SHD PRO 645 03/ SHD 640 35		
TGS 18.320 - 18.540	10.07-	SHD PRO 680 08/ SHD 680 32		
TGS 24.320 - 24.480	10.07-	SHD PRO 680 08/ SHD 680 32		
TGX 18.360 - 18.540	10.07-	SHD PRO 680 08/ SHD 680 32		
TGX 24.360 - 41.680	10.07-	SHD PRO 680 08/ SHD 680 32		
ÜL 242/272/292/313/353	09.89-	SHD 680 32		
MAS				
All models		SHD 680 32		
Meili				
AB 44000		635 27		
AB 63500		635 27		
MA 1500		635 27		
MA 1501		635 27		
MA 2500		635 27		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
MA 4000		635 27		
MD 1000		610 47		
MD 1001		610 47		
Menarini				
110 I				
316.13		SHD 670 33		
316.8				
370.10.27		SHD 670 33		
370.12.25		SHD 670 33		
370.12.35				
418 AC		SHD 725 11		
419 AL		SHD 725 11		
A 70.12				P95 04
Mercedes-Benz				
ACTROS MP2 1832 - 4151	04.03-	SHD PRO 680 08/ SHD 680 32		
ACTROS 1831 - 4148	04.96-10.02	SHD 680 32		
ATEGO 2 712 - 1529	10.04-	SHD PRO 645 03/ SHD 640 35		
ATEGO 712 - 2628	01.98-10.04	SHD 640 35		
AXOR 2 1823 - 3343	10.04-	SHD PRO 680 08/ SHD 680 32		
AXOR 1823 - 2628	09.01-10.04	SHD 680 32		
CITARO (O 530) G/GNG/N/NG	01.98-	SHD 725 11		
CITO (O 520) 130 kW	09.98-	SHD 725 11		
CONECTO (O 345) C/H/M/UE	11.01-	SHD 725 11		
ECONIC 1823 - 2628	03.98-	SHD 680 32		
LK/LN2 709 - 2020	01.84-12.98		592 01	P95 33
LP 608 - LP 1013	09.63-12.84		592 01	P95 33
MB-TRAC 1000/1100	07.73-12.91	SHD 680 32		
MB-TRAC 1300/1400/1500	07.73-12.91	SHD 680 32		
MB-TRAC 65/70, 700/800	07.73-12.91	SHD 640 35		
MB-TRAC 900	07.73-12.91	SHD 640 35		
MK 1222 - 2534	12.87-09.96	SHD 640 35		
NG 1013 - 3836	08.73-09.96	SHD 640 35		
O 301	09.85-12.87	SHD 640 35		
O 303	10.74-09.92	SHD 680 32		
O 305	09.67-07.77	SHD 680 32		
O 307	04.73-12.87	SHD 680 32		
O 309	01.68-02.89		592 01	P95 33
O 340	01.91-06.95	SHD 725 11		
O 402	10.85-12.91	SHD 640 35		
O 404	09.91-10.99	SHD 680 32		
O 405	09.84-	SHD 680 32		
O 407	03.87-11.01	SHD 680 32		
O 408	09.89-12.98	SHD 680 32		
SK 1728 - 4850	07.87-09.96	SHD 640 35		
T1/TN 407 D - 410 D	01.77-06.95		592 01	P95 33
T2/LN1 507D - 814D	03.86-12.94	SHD 640 35		
T2/L L 407 D - LK 911	01.68-12.88		592 01	P95 33
TOURINO (O 510)	10.03-	SHD PRO 725 03/ SHD 725 11		
TOURISMO (O 350)	09.94-	SHD 725 11		
TOURO (O 500)	10.01-	SHD 725 11		
TRAVEGO (O 580)	10.99-	SHD 725 11		
UNIMOG U 100/110, U 1000 - U 2450	01.66-	SHD 640 35		
UNIMOG U 3000/4000/5000	01.66-	600 26		
UNIMOG U 300/400	01.66-	SHD 640 35		
UNIMOG U 500	01.66-	SHD 640 35		
UNIMOG U 60T, U 600T	01.66-	600 26		
UNIMOG U 66/72/90, U 800/900		SHD 640 35		
VARIO 512 D - 818 D	09.96-		592 01	P95 33
Mitsubishi				
Canter 35/60/75	10.97-	610 48		
Mowag				
A 8			570 01	P74 12
AW-100				P70 24
B-300			570 01	P74 12
W-300 B				P70 24
Multicar				
M25 1.9 / 2.2	01.78-12.92	SHD 640 35		
M26 1.9 / 2.5 / 2.8	06.92-		592 01	P95 33
Tremo 501 / 601 / Carrier	09.98-		592 01	P95 33

Banner

TRUCKS AND BUSES

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
UX100	01.99-		592 01	P95 33
Neoplan				
Centroliner N 4407/4411/4416/4420/4421	10.98-	SHD 680 32		
Cityliner N 116/N 1216	04.73-	SHD 680 32		
Euroliner N 3316	10.98-	SHD 680 32		
Jetliner N 208/213/214/216	09.73-09.93	SHD 680 32		
Skyliner N 122	09.73-	SHD 725 11		
Spaceliner N 117	09.79-	SHD 725 11		
Starliner N 516 - N 5218	09.96-	SHD 725 11		
Tourliner N 2216	09.02-	SHD 725 11		
Transliner N 314/316/321	12.88-	SHD 680 32		
Trendliner N 3516	09.04-	SHD PRO 725 03/ SHD 725 11		
Nissan				
Atleon 110.35, 110.56, 120.35, 120.56, 140.70	09.00-		592 01	P95 33
Atleon 110.56, 120.56, 140.75, 165.76		610 11		
Trade 100 (78 kW) / 3, 0 (63 kW) / 75 (55 kW)	03.87-12.00		570 01	P74 12
OM				
100-130 Series		SHD 635 44		
150-200 Series		SHD 670 33		
40 - 75				P95 04
Daino, Leoncino, Lupetto				P70 24
Leoncino, Lupetto D				P95 04
Tigrotto				P70 24
Pegaso				
1100 - 1136			592 01	P95 33
1223 - 1236 / 2331 - 2334 / 2426		SHD 680 32		
3041 - 3050 / 3560			592 01	P95 33
360		SHD 680 32		
5068 / 75 / COMET1091 / 1098 / EKUS 100 Turbo / J4 800			592 01	P95 33
Praga				
S 5 T		SHD 635 44		
UV 80			592 01	P95 33
V 3 S		SHD 635 44		
Renault trucks				
B B110-50/55/70/90	01.83-09.95		592 01	P95 33
Berliet 130 B/TB, 150 B		SHD 680 32		
Berliet 90 B		SHD 640 35		
Berliet C 210-380, CBH280/340, CLM280/340		SHD 680 32		
Berliet GB 131, GB/GC 191		SHD 640 35		
Berliet GLR 190/230, GR 191		SHD 680 32		
Berliet GR 305/320/350		SHD 680 32		
Berliet JK 60/65/75		SHD 640 35		
Berliet PR 10/12/14		SHD 680 32		
Berliet TB 191		SHD 640 35		
Berliet TBH 280		SHD 670 33		
Berliet TBK6, TCK8, TEK6		SHD 680 32		
Berliet TR 250 - 350		SHD 680 32		
C/CBH/CCH/CLM	10.82-10.98	SHD 635 44		
C Commando Range G08 / G10 / G13 / G17 / G20		625 11		
G 170.11 - G 200.18	10.82-09.91	SHD 640 35		
G 210.16 - 340.19	10.82-09.91	SHD 640 35		
Kerax 260.18 - 460.32	06.97-	SHD 680 32		
Magnum AE 385.18 - 560.26	09.90-	SHD 680 32		
Magnum DXi 440.18 - 500.26, E.TECH 400.18 - 480.26	09.90-	SHD 680 32		
Major R 340ti.16 - 420ti.35	05.91-10.96	SHD 680 32		
Manager G 200.13 - 330.17	09.91-10.96	SHD 680 32		
Mascott 110.35 - 160.65	01.99-06.04	610 47		
Maxter G 230ti.19 - G 340ti.40	10.92-06.97	SHD 640 35		
Messenger B 80.35 - 120.65	05.92-06.99		592 01	P95 33
Midliner M 140.12 - 250.16, S 100.08 - 220.14	09.83-01.00	SHD 635 44		
Midlum 135.08 - 280.18	01.00-	SHD 680 32		
Premium 2 Distribution 240.18 - 450.18, Route 410.18 - 450.25	10.05-	SHD 680 32		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Premium Distribution 210.16 - 420.18, Route 300.16 - 420.26	04.96-	SHD 680 32		
R 310.16 - 350.26	10.80-10.91	SHD 670 33		
R 365.17 - 420.24	10.80-10.91	SHD 680 32		
Saviem 10.215 - 19.280		SHD 640 35		
Saviem 21.215 - 32.256		SHD 640 35		
Saviem HL, HM, HN, HP		SHD 640 35		
Saviem JK 60 / JN 80		SHD 640 35		
Saviem JN, JP, JR / JX		SHD 640 35		
Saviem P 35 D / PS 30 / PS 30 (TELMA)		SHD 640 35		
Saviem SM (24 V) 5, SM 6/7/8-13		SHD 640 35		
Saviem TP 3			592 01	P95 33
Robur				
All models		SHD 670 33		
Roman				
All other models		SHD 725 11		
L 60		SHD 680 32		
S 400		SHD 680 32		
W 50		SHD 680 32		
Santana				
LR 119 2,3		SHD 640 35		
LR 1300 2,3 D, -Ejercito		625 11		
LR 2000 3,4 D, -Ejercito		SHD 640 35		
Saurer				
Other models		SHD 640 35		
D D 180 - D 330		SHD 640 35		
Sava				
5720			592 01	P95 33
J41000, J41100, J4700, J4800			592 01	P95 33
Scammel				
Handyman			592 01	P95 33
Scania				
2 - Series 112,92	05.80-05.88	SHD 640 35		
2 - Series 82	05.80-05.88	SHD 640 35		
2 - Series R/T 142	05.80-05.88	SHD 680 32		
3 - Series bus K 113, L 113	01.89-12.97	SHD 680 32		
3 - Series bus K 93	01.89-12.97	SHD 640 35		
3 - Series 113, T 113	01.88-12.96	SHD 680 32		
3 - Series 143, T 143	01.88-12.96	SHD 680 32		
3 - Series 93, T 93	01.88-12.96	SHD 640 35		
4 - Series 114, 94, T 114, T 94	09.95-09.04	SHD 680 32		
4 - Series 124 / 144 / 164	09.95-09.04	SHD 725 11		
4 - Series T 124 / 144	09.95-09.04	SHD 725 11		
G 230/270/340/380/420	03.04-	SHD PRO 680 08/ SHD 680 32		
P/R/T 230/270/280/310	03.04-	SHD PRO 680 08/ SHD 680 32		
P/R/T 340/380/420/470/480/500/560/620	03.04-	SHD PRO 680 08/ SHD 680 32		
Seddon Atkinson				
B 14.215B, 18.215B, 18.235B		625 11		
B 21.215B		SHD 640 35		
C 26.245C, 26.280C		SHD 680 32		
Strato Cruiser		SHD 680 32		
Strato day cab		625 11		
Strato sleeper cab		SHD 680 32		
2-11 Series / 200 Series / 201 Series		610 47		
3-11 Series / 300 Series / 301 Series		625 11		
4-11 Series / 400 Series / 401 Series		625 11		
Europacer / Pacer		SHD 680 32		
Pegaso		SHD 680 32		
Setra				
Comfort Class 400 S 415 / 416 / 417	10.03-	SHD 725 11		
Top Class 400 S 411 / 415 / 431	06.01-	SHD 725 11		
Shelvolke & Dempster				
1290 - 1891		SHD 680 32		
320, 320 (6x6)		SHD 680 32		
680 M, 790		SHD 640 35		
890, 990, 990 A		SHD 680 32		
TBY (24 V)		610 48		
Sisu				
A-45 CL		SHD 680 32		



TRUCKS AND BUSES

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
E 11, E 12, E 14, E 18		SHD 680 32		
Jury		SHD 680 32		
Kontio		SHD 680 32		
M-Series		SHD 680 32		
SK 170, 171, 190		SHD 680 32		
SL 190, 210		SHD 680 32		
SM 220, 280, 300, 332, 372		SHD 680 32		
SR 160, 300, 320		SHD 680 32		
Skoda				
Bus AB 21		SHD 635 44		
Spykstaal				
All models petrol			570 01	P74 12
All models diesel			592 01	P95 33
Steyr Daimler Puch				
10 S-Series 10 S 14 / 10 S 18		SHD 635 44		
11 S-Series 11 S 14 / 11 S 18			592 01	P95 33
12 M-Series 12 M 18 / 12 M 21		SHD 640 35		
12 S-Series 12 S 14 / 12 S 18 / 12 S 21		SHD 635 44		
1290-Series 1290		SHD 680 32		
1291-Series 1291		SHD 640 35		
13 S-Series 13 S 23 / 13 S 14 / 13 S 18 / 13 S 21		SHD 635 44		
1391-Series 1391		SHD 640 35		
14 S-Series 14 S 14 / 14 S 18 / 14 S 21		SHD 635 44		
1490-Series 1490		SHD 640 35		
1491-Series 1491		SHD 640 35		
15 S-Series 15 S 23 / 15 S 14 / 15 S 18 / 15 S 21		SHD 640 35		
16 S-Series 16 S 21 / 16 S 23 / 16 S 14 / 16 S 18		SHD 640 35		
17 S-Series 17 S 18 / 17 S 21 / 17 S 23		SHD 640 35		
1890-Series 1890		SHD 680 32		
1891-Series 1891		SHD 680 32		
19 S-Series 19 S 39		SHD 640 35		
19 S-Series 19 S 24 / 19 S 28		SHD 640 35		
19 S-Series 19 S 31 / 19 S 34 / 19 S 37		SHD 680 32		
22 S-Series 22 S 28		SHD 640 35		
22 S-Series 22 S 31 / 22 S 34 / 22 S 37		SHD 680 32		
26 S-Series 26 S 28		SHD 640 35		
26 S-Series 26 S 31 / 26 S 34 / 26 S 37		SHD 680 32		
2891-Series 2891		SHD 640 35		
32 S-Series 32 S 28		SHD 640 35		
32 S-Series 32 S 31 / 32 S 34 / 32 S 37		SHD 680 32		
33 S-Series 33 S 31 / 33 S 34		SHD 640 35		
40 S-Series 40 S 31 / 40 S 34 / 40 S 37		SHD 640 35		
480-Series 480		SHD 640 35		
586/590-Series 586, 590		SHD 640 35		
591/691-Series 591, 691			592 01	P95 33
680/690-Series 680, 690		SHD 640 35		
790/791 Series 790, 791		SHD 640 35		
880/990/990-Series 880, 990, 991		SHD 680 32		
890/891-Series 890		SHD 640 35		
Pinzgauer Turbo D			592 01	P95 33
SFL 11 HUA 280		SHD 680 32		
SG 18 HUA 280		SHD 680 32		
SL 11 HU 250 / SL 11 HUA 280		SHD 680 32		
SS 11 HU 200 / SS 11 HUA 280		SHD 680 32		
S 9 S 14 / 9 S 18		SHD 635 44		
380, 780		SHD 640 35		
Tatra				
P / S 148 P 3, 148S1/S3		SHD 680 32		
T 138 / 148		SHD 680 32		
T 815 / 815-2		SHD 725 11		
Terberg				
Com.Tr 200/4 200/6		SHD 640 35		
FM 1350/1450/1950/2000/2800/3000		SHD 680 32		
F 1100/1150/1350/1450/1550		SHD 640 35		
F 1850/1900/2000/2850		SHD 680 32		
F950/975/1050		SHD 640 35		
RT20 / RT220 4x4		SHD 640 35		
SF 1200/1300/1350/1450		SHD 640 35		
TER 170/190		SHD 640 35		
TER 200/280		SHD 640 35		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
TSR 100U/1025/1100		SHD 640 35		
TT17		SHD 680 32		
YT180 4x2		SHD 640 35		
Toyota				
Dyna 100				P60 68
Dyna 100 diesel				P70 29
Dyna 150				P60 69
Dyna 150-200 diesel				P95 04
Dyna 2,5-4,6 D4D				P95 04
Dyna LY60-LH80				P70 24
Dyna YH81				P60 69
Dyna YH81 diesel				P70 24
F6		SHD 725 11		
HJ 45 (diesel)				P70 24
Stout (RK 110)				P70 24
VEB FZ. Werke				
L 60-Series L 60		SHD 680 32		
Multicar M 21 / M 24 / M 25 / M 25A		SHD 640 35		
W 50-Series W 50		SHD 640 35		
Volkswagen				
L 80 4, 3	07.95-12.00		592 01	P95 33
Volvo				
9700	04.01-	SHD 725 11		
9900	10.01-	SHD 725 11		
B 12	01.92-	SHD 680 32		
F 10/F12	08.77-12.94	SHD 640 35		
F 16	10.87-12.94	SHD 680 32		
F 4 F 406/408	09.75-02.86	610 47		
F 6 F 610/611/612/615/616/617	03.75-02.86	610 47		
F7	08.78-12.85	SHD 640 35		
FE 240-18 - 320-26	05.06-	SHD PRO 680 08/ SHD 680 32		
FH 12	08.93-	SHD 680 32		
FH 16 FH 16/470/520/540/610	08.93-	SHD 680 32		
FH 16/580/660	08.93-	SHD 680 32		
FH 400 - 520	09.05-	SHD PRO 725 03/ SHD 725 11		
FL 10 / FL 12	09.85-09.98	SHD 640 35		
FL 4 FL 408	02.86-10.89	610 11		
FL 6 FL 608 - 619	09.85-03.00	SHD 640 35		
FL 7	09.85-09.98	SHD 640 35		
FL II FL 240-12 - 280-16	05.06-	SHD PRO 680 08/ SHD 680 32		
FLC 140	09.96-09.00	610 11		
FL 180-10 - 250-18	03.00-	SHD 640 35		
FM 10, FM 12	09.98-12.01	SHD 680 32		
FM 7, FM 9	08.98-12.01	SHD 680 32		
FM 300 - 480	09.05-	SHD PRO 725 03/ SHD 725 11		
FS 7 FS 718	11.91-03.96	SHD 640 35		
N 10	01.73-12.89	SHD 640 35		
NH 12	05.99-	SHD 680 32		

Banner

AGRICULTURAL AND CONSTRUCTION MACHINERY

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Adriatica				
Major Mac, Master Mac			570 01	P74 12
Super Mac				P44 09
Aebi				
KT 65, KT 80			592 01	P95 33
MFH 500, 2500			592 01	P95 33
Multicar FUMO, Hydrostat			592 01	P95 33
Multicar TREMO			592 01	P95 33
S2 - S 10	600 26			
T 80, T 90			592 01	P95 33
TC 07			592 01	P95 33
TP 1000 petrol, TP 1000 diesel				
TP 1000A				
TP 20 - TP 67			592 01	P95 33
TP 35			592 01	P95 33
TP 48, P			592 01	P95 33
TP 68			592 01	P95 33
TP 88			592 01	P95 33
TP 98 K			592 01	P95 33
TT 120 - TT 270			592 01	P95 33
TT 33				
TT 40			570 01	P74 12
TT 55			570 01	P74 12
TT 75			570 01	P74 12
TT 77, TT 80			592 01	P95 33
Universal H 77			592 01	P95 33
Agip-Fiori				
2t concrete dumper				P70 24
Agria				
4700, 4800 (15, 16, 23 ps)				P44 09
4800 Ruggerini				P44 09
4800/45 (16 HP), 4800/48 (12&16 HP)				P44 09
4900 - 7200				P44 09
8500			570 01	P74 12
9300				P44 09
9900 E			570 01	P74 12
Agrifull				
230 C - 355 C			570 01	P74 12
50 - 65			580 01	P80 14
68 SC				P44 09
70 C - 80 C			592 01	P95 33
Derby 60, Griso 70, 75			580 01	P80 14
Jolly 40, 50			570 01	P74 12
Pinto 6110, Pinto 6115	SHD 680 32			
Agrostroj				
SP8-050		SHD 680 32		
TZ-4K14			560 01	P62 19
Ahlmann				
AS 12		SHD 640 35		
Akerman-Volvo				
200		600 26		
350 (Volvo engine)		600 26		
EC280		SHD 640 35		
EC340, 390, 420, 450, 620, 650		SHD 680 32		
Aktiv-Sampo				
Harvester 580 - 690			592 01	P95 33
Aktiv				
Harvester 580 - 690			592 01	P95 33
AL-KO				
All models				P44 09
Allis-Chalmers				
545, series B		610 11		
B-diesel		600 26		
AMA				
AMA AMV1.L borravn				P44 09
AMA 7CP 140S, 185 S, 250 S		SHD 680 32		
C-140S, 185 S, 250 S		SHD 680 32		
SC 40 DS			592 01	P95 33
SC 5DS		SHD 640 35		
SC 30DS, - 40 DS			570 01	P74 12
Ameise				
EJC - EJ12B		SHD 680 32		
Propermat KS 55, 57		SHD 680 32		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Propermat PSE				P44 09
Antonio-Carraro				
All models			570 01	P74 12
ARA				
Digger all models		SHD 680 32		
Arbra				
Snow plough SD 15, SG 15				P70 24
Armal				
MV 135, 185, 250		SHD 640 35		
Arnoux				
W 33 - 45			580 01	P80 14
ASEA				
G(B, D, G) T120-1, H120-1, 25-1		610 11		
GMD32		625 11		
H120-1, H25-1		610 11		
Atila				
Digger 1202 - 1602		SHD 680 32		
Digger 1704		SHD 640 35		
Atkinson				
DUMP truck & snowplough (Internal)		625 13		
DUMP truck (other engines)		610 11		
DUMP truck (Cummins engine)		625 11		
Atlas Copco				
1602		SHD 680 32		
35B, 35D		610 11		
58 I/S, 75 DBA		610 11		
80 I/S		SHD 640 35		
Air Partner Unit		610 11		
H775		610 11		
KXA 60, 120, 180 Series		600 26		
PNS 1200		SHD 680 32		
PR365RD, PR363COD, PR600RD		610 48		
PR600, PR 600Cud, PR600Rd		610 48		
PR700, VOD, 600D		600 26		
PRH, PRSS, 700D		600 26		
PT1200Gd		SHD 680 32		
PT900, 1000, 1200DD		600 26		
PTHS 1200 DD		600 26		
ROC 712H		625 11		
ROC 920 HC		600 26		
ROC410HC, H127		625 11		
ST (S) 71/95		600 26		
VSS250		600 26		
VSS335		SHD 640 35		
VT3/4, VT5		610 48		
VT5/V55		600 26		
VT6		610 11		
XA (S) 125, 160, 175 Series		600 26		
XA/XAS/XASS 60, 80, 120, 160		625 11		
XRHS 350		SHD 670 33		
Derrick Boomer H 175		610 11		
Derrick H127		625 13		
Atlas				
1102 - 1902		SHD 670 33		
1304 - 1804		600 26		
1602B/D, 1622D, 1702, 1902		SHD 670 33		
804		600 26		
Aveling-Barford				
28,35,40		625 13		
GB, GF, GR		610 48		
GC		SHD 680 32		
GC (Ford & Ruston engine)		SHD 640 35		
GC4 (Lister & Ford engine)		SHD 670 33		
GC4 (Lister 24 V)		SHD 640 35		
GD		SHD 680 32		
GD4 (Perkins & Ford engine)		SHD 670 33		
GF & GR		SHD 640 35		
MG3, MG4, MG5		625 11		
MT1		610 11		
RD30, 35, 40, 50, 55		625 11		
SL2, SL3 (Cummins) SW3/557>		625 11		
SR1		610 48		
Super 700		625 11		



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Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
SW4, SW5		610 48		
TG12, TG14		625 11		
TS125, 140, 150 (Matbro)		625 11		
TS185, 200, 230 (Leyland, Ford, Perkins engine)		SHD 640 35		
VR3, VR4		610 48		
WXL13, WXL24		625 11		
AVTO				
B 335, Belarus 40, 611, 800, Belarus 820, Comodore			580 01	P80 14
D 254		SHD 640 35		
T 150 K			580 01	P80 14
D 45, F 43/8 S, MTS 82, MTZ 80			580 01	P80 14
T 600, 604, Titan 1100 - 1310			580 01	P80 14
Barber-Greene				
522 - 879 petrol				P70 24
Barker B 1000				P70 29
Bautz				
1100 - 1310			580 01	P80 14
1111			592 01	P95 33
1301		SHD 680 32		
2000			592 01	P95 33
AL 122 - AW 120 U			570 01	P74 12
D 12, 14			592 01	P95 33
D 254		SHD 635 44		
T 600			592 01	P95 33
T 600/30/40/600S				P70 29
T 600 V				P95 04
T 604			592 01	P95 33
BCS				
701			560 01	P62 19
Motofalciatrici				P44 09
Belarus				
1507		SHD 640 35		
Tractor 50S		625 11		
Tractor DZ133, 820, 525		610 11		
Tractor LT2-T40, LT2-T40K		SHD 670 33		
Belos				
Ride-on mower 252 - 275				P45 23
Ride-on mower 816, 817				P44 09
Belotti				
B 75		SHD 725 11		
Benati				
All models			570 01	P74 12
Berkby				
2600 - 6300			570 01	P74 12
Bertolini				
310 - 315				P70 24
421				P44 09
424 - 432			560 01	P62 19
4503 C			560 01	P62 19
510 - 534			560 01	P62 19
533 DT				P70 24
Bima				
285, 300, 325, 360		SHD 680 32		
Blaw Knox				
PF 35				P70 24
Bobard				
410 - 580 TR			580 01	P80 14
53 B, 58, 68 L			592 01	P95 33
620, 621			592 01	P95 33
625 A . 630 Turbo			580 01	P80 14
70, 77, 730			592 01	P95 33
A 35, B 30			580 01	P80 14
B 45			592 01	P95 33
B 54, Bob K 53 B, C 70 - CC III 55, Ceres 3000			580 01	P80 14
H 35, 55, K 1000/40, K 30 - K38			580 01	P80 14
K 42 - K 68 L			592 01	P95 33
M 30, 40, 45			580 01	P80 14
M 55, 75, 90			592 01	P95 33
M 60 3 rangs			580 01	P80 14
M 90 4x4			592 01	P95 33

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
MT 95, P 30, Poly-Bob			580 01	P80 14
PX 55 - PX 60, 621			592 01	P95 33
TRP 113		SHD 670 33		
V 500				P95 05
Bobcat				
611, 721, 825		625 11		
864 H		625 11		
X 320, X 331		625 11		
790, K, O		SHD 640 35		
Boki				
2050				P44 09
4550			592 01	P95 33
Bolens				
Ride-on mower GT 16, 1900 H, tractor				P44 09
Ride-on mower HT 20				P70 24
Bolinders-Volvo				
T 1641		SHD 680 32		
230,32		SHD 640 35		
2654		SHD 680 32		
35,36,55		SHD 680 32		
350, 400, 430, 470		SHD 680 32		
600, 620, 640, 650		SHD 680 32		
800, 810, 814		SHD 680 32		
BM 975, BM 1240		625 11		
LM 1240		625 11		
LM 218		SHD 640 35		
S 950, S 1000		SHD 680 32		
VHK 115, VHK 116, VHK 310		SHD 640 35		
Bomag				
BV 101 AB			592 01	P95 33
BW 100AD, BW 101A, BW 120ADL			580 01	P80 14
BW 160		SHD 640 35		
Vibratory roller BT 60/4, 65/4			560 01	P62 19
Vibratory roller BT 80 D			570 01	P74 12
K 351, K 451, K 3008		SHD 680 32		
Vibratory roller BW 90				P95 04
Bourgoin				
300 M, 406 M		SHD 640 35		
Axiale SP		SHD 680 32		
CX 400 M		SHD 640 35		
Doux		SHD 640 35		
DP 5		SHD 640 35		
DP 7, TZ 7		SHD 680 32		
GM 3, 4		SHD 680 32		
GR 10		SHD 640 35		
GX 300, 400		SHD 680 32		
GX 406		SHD 640 35		
GX Axial		SHD 640 35		
GX MD, GX300, GX400		SHD 640 35		
GY 103, GY 104, GY 134		SHD 680 32		
MTH		SHD 640 35		
Bouyer				
900		SHD 640 35		
Elan			580 01	P80 14
Braud				
1014, 1020, 1114, 1214		SHD 680 32		
105,108		SHD 680 32		
2414, 2514, 2614, 2714		SHD 680 32		
258, 405, 502, 503, 504, 505		SHD 680 32		
600, 602, 603, 604, 605, 650		SHD 680 32		
700, 701, 750		SHD 680 32		
800, 801		SHD 680 32		
Bray				
560, 562, 566, 570, 572, 577, 588		625 11		
H4, H8		SHD 640 35		
Brodway				
Digger City			570 01	P74 12
Broom & Wade				
SV398 (Leyland engine)		610 48		
WR125, WR160 (Perkins or Ford engine)		610 11		
WR315, WR380 (Leyland engine D)		610 48		

Banner

AGRICULTURAL AND CONSTRUCTION MACHINERY

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
WR85, WR100		610 11		
Brunett				
578F		SHD 670 33		
678F, 878		625 13		
Bröyt				
X2B		SHD 725 11		
X3		SHD 640 35		
X3L, X4T, X31TL		SHD 680 32		
X4, X30, X50, X30T		SHD 680 32		
X41L, X42TF, X45TB, X52WF		SHD 680 32		
Bucher				
1600 - 2800			592 01	P95 33
Jenit 4000			592 01	P95 33
Polytrac 40		600 26		
Polytrac 50			592 01	P95 33
TM 600			560 01	P62 19
TM 800, 850			570 01	P74 12
TM 1000			592 01	P95 33
All other models			592 01	P95 33
Digger 206			592 01	P95 33
Digger FG 20, 25 truck				P70 24
Digger M 700				P70 24
Digger S 15		SHD 640 35		
Bucher Schörling				
1500		625 11		
616B, 646		610 11		
FE18		610 48		
S15		SHD 640 35		
Buch				
D40, 50, 452, 454			592 01	P95 33
Bungartz & Peschke				
L5MA				P44 09
Bührer				
465, 475		625 13		
465L		SHD 635 44		
BD2, EFD6, GP21		SHD 640 35		
MEF18, MS12, MS 13		610 11		
OP17, OP18, OS13		610 11		
RF19		610 11		
RP21		SHD 640 35		
SUPER STANDARD DF18		610 11		
TM 4		610 11		
UM4, UPM4, UNM4		610 11		
VS13		610 11		
ZS13, ZS21		610 11		
Büscher				
TP 1200 - 2000				P70 24
TP 2400			592 01	P95 33
TP 2600				P70 24
Canycom				
709				P45 23
Carraro Antonio				
Carrarino Super Series 43, Carrarino Super, Mini, Carrarino				P44 09
Motocoltivatore Carrarino 390, 500, 510				P44 09
All other models			570 01	P74 12
Case IH				
1600CV/D, 1700CV/D, 1800CV/D		625 13		
1830, 1845		610 48		
2670		625 13		
354, 444, 454(D)		610 48		
450		SHD 680 32		
500, 574		610 48		
580/590		625 13		
634, 674, 684, 685		625 13		
770-780, 784,		625 13		
880, 885 Selectamatic		610 11		
955, 956, 1055, 1056		SHD 635 44		
970, 1150, 1200, 1210, 1212		610 11		
990, 990/1, 995, 996 Selectamatic		610 11		
B2275BTD8, 125B, 634, 3400, 3500		625 13		
B276 (diesel)		610 48		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
B5, B85, BH25, BH85, H25B		610 48		
BUD154		610 48		
Front loader 100B		625 13		
Front loader 114,125		625 11		
Front loader 165		610 11		
Construction machine 2090 - 2470		610 11		
Construction machine 2590 - 2870		610 48		
Construction machine 3294 - 3594		610 48		
Construction machine 385 - 885		610 48		
Construction machine 4490 - 4994		610 48		
Construction machine 580		625 13		
Construction machine H85		610 48		
Construction machine universal loader 1835B, 1845B		625 13		
Construction machine W7E, W10E		610 48		
Construction machine W9B, W12		610 11		
Dumper K414B		SHD 640 35		
Dumper K425B, K442B, K540		SHD 680 32		
Dumper K555, K565		SHD 680 32		
Dumper TD-24		SHD 670 33		
Dumper TD-8B		625 11		
Digger D8-61/62, 275, 276		610 48		
Digger IH 640-HD		625 11		
Case				
1000-Series 1100		625 13		
1000-Series 1180		SHD 680 32		
1000-Series 1190, 1194, 1290, 1294, 1390, 1394		625 13		
1000-Series 1255XL, 1455XL		SHD 680 32		
1000-Series 1270, 1370		610 48		
1000-Series 1280, 1380, 1580		SHD 680 32		
1000-Series 1490, 1494, 1594, 1690, 1694		625 13		
1000-Series 1880		SHD 680 32		
200-Series 205,255		625 13		
2000-Series 2090, 2094, 2290, 2294, 2390, 2670		610 48		
300-Series 305		625 13		
300-Series 355, 455, 555		625 13		
3000-Series 3210, 3220, 3230		625 13		
400-Series 415, 415M		625 13		
400-Series 440-8, 480-8		SHD 670 33		
400-Series 466, 480/8		SHD 640 35		
400-Series 485XL		610 48		
400-Series 495XL		625 13		
4000-Series 4210, 4220, 4230, 4240, 4494, 4694, 4894		625 13		
4000-Series 4566		SHD 680 32		
4000-Series 4890		610 48		
500-Series 502, 504, 512		625 13		
500-Series 566		SHD 640 35		
500-Series 585XL		610 48		
500-Series 590		SHD 680 32		
500-Series 595 Super		625 11		
500-Series 595XL		625 13		
5000-Series 5566, 6090		SHD 680 32		
600-Series 600, 602, 604		625 13		
600-Series 640, 680		SHD 680 32		
600-Series 685XL		610 48		
600-Series 695XL		625 13		
6000-Series 6250, 6350, 6550, 6650, 6850		SHD 680 32		
700-Series 700, 702, 703, 710, 712, 742, 755		625 13		
700-Series 780		SHD 680 32		
800-Series 800		625 13		
800-Series 850		SHD 725 11		
800-Series 865, 895XL		625 13		
8000-Series 8000, 8050, 8100, 8150, 8200, 8350, 8400, 8450		SHD 680 32		
8000-Series 8550, 8750, 8950		SHD 680 32		
900-Series 900, 945		SHD 725 11		
900-Series 916, 918		610 48		



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Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Caterpillar tractor 1150 A, B, C		610 48		
Caterpillar tractor 1450, 1450B		SHD 640 35		
Caterpillar tractor 450		SHD 680 32		
Magnum MX 180, 200, 220, 240, 270		610 48		
Maxxum 5120, 5130, 5140, 5150		610 48		
Maxxum MX 100, 110, 120, 135, 150, 170		610 48		
Maxxum MXM 120, 130, 140, 155, 175, 190		SHD 680 32		
Mega 8300, 8600		610 11		
Minisneaker DH4, DH5		610 11		
Caterpillar digger CX700		SHD 640 35		
Caterpillar digger CX800		SHD 725 11		
Tractor 180-90		SHD 680 32		
Tractor 60-94, 65-94, 72-94		SHD 680 32		
Tractor C110		625 11		
Tractor CS 100, 110, 130, 150		SHD 680 32		
Tractor CVX 120, 130, 150, 170, MXM 120-190, CS 110		SHD 680 32		
Tractor CX 50 - 100		625 13		
Tractor G170, G190, G210, G240		610 11		
Tractor JXU90U		610 11		
Tractor Laser 130		SHD 680 32		
Tractor TS series, 90, 100, 110		610 11		
Tractor Universallader 1816, 1830, 1845		610 48		
Tractor drigger 471, 474, LP		625 11		
Tractor drigger 580F		625 11		
Tractor drigger 6000		SHD 680 32		
Tractor drigger 8000, 9000, 800T, 900T		610 48		
Wheeled loader 1240		625 11		
Wheeled loader 1529, 580L		610 11		
Wheeled loader 1816, 1830, 1845		610 48		
Wheeled loader 345B, 545B, 605B		610 48		
Wheeled loader 400		610 11		
Wheeled loader 413, 415, 417, 418, 420		625 11		
Wheeled loader 4200B		610 11		
Wheeled loader 4300B		610 11		
Wheeled loader 4500B		SHD 640 35		
Wheeled loader 50, 70, 90		610 11		
Wheeled loader 621, 622, 641, 642, 654		610 11		
Wheeled loader 807B		625 11		
Wheeled loader 821B, 841, 845, 846		610 11		
Wheeled loader FL11		SHD 680 32		
Wheeled loader FR7, 10, 12, 20		610 11		
Wheeled loader L120, 150, 160, 180		SHD 640 35		
Wheeled loader L180E, 220D, 220E		SHD 680 32		
Wheeled loader L30 (Brasil)		610 48		
Wheeled loader L30, 50, 70, 90		610 11		
Wheeled loader L330C		610 48		
Wheeled loader L50B/C/D, 70B/C/D, 90B/C/D		610 11		
Wheeled loader W24, W24B, W24E, W26B		SHD 680 32		
Wheeled loader W7E, W9B, W9E, W14, W20B		610 48		
Caterpillar				
Construction machine Series 3408T/TA		SHD 680 32		
Construction machine Series 4610, 4620		610 48		
Construction machine Series AH40, AH50, AH60		SHD 680 32		
Construction machine Series AM25, AM30, AM36, AM60		SHD 680 32		
Construction machine Series B15 – B18, B20 – B25		SHD 680 32		
Forestry machine 83-35, 84-35, 85-35		SHD 680 32		
Forestry machine 836, 838		610 48		
Forestry machine 840, 860		610 11		
Forestry machine 8431, 8335, 8435, 8535		SHD 680 32		
Forestry machine 886		SHD 680 32		
Forestry machine 890		SHD 640 35		
Forestry machine 901 Serie 1/2		610 11		
Forestry machine 911 battery outside chassis		SHD 640 35		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Forestry machine 911, battery inside chassis		610 11		
Forestry machine 921, 8921.1		SHD 640 35		
Forestry machine 923		SHD 670 33		
Forestry machine 969, 971, 980, 985		625 11		
Forestry machine SM460		SHD 640 35		
Forestry machine SM900		625 11		
Forestry machine SMV21		600 26		
Grader L20B2		600 26		
Hydraulik digger 304C/CR, 312C /CL		610 48		
Mobil digger M318D (124 kW)		610 48		
Wheeled loader 906H, 908H, 914G, 924G		610 48		
Bulldozer 152, 182		SHD 680 32		
Bulldozer 161A		SHD 640 35		
Bulldozer 162, 173, 192		SHD 670 33		
Bulldozer RG-6		625 13		
Bulldozer TV 50, TV80		SHD 640 35		
Tractor 245 (DES) 12V		SHD 680 32		
Tractor 2550		610 11		
Tractor 311, 312, 320, 325, 330		SHD 680 32		
Tractor 501D, 501PD, 502D, 502PD, 502S, 590		610 48		
Tractor 601PD		610 48		
Tractor 613C, 615C		SHD 680 32		
Tractor 769, 773, 777		SHD 680 32		
Tractor 951, 954 (elektrical start)		SHD 640 35		
Tractor BHF16 to BHF20		SHD 680 32		
Tractor D4D, D6C		SHD 640 35		
Tractor DUMP truck 769 (direct motor start)		SHD 680 32		
Tractor DW10		SHD 680 32		
Tractor EST		SHD 680 32		
Tractor L200		SHD 680 32		
Tractor T30B, T35B, T40B, T45B, T50, T55B, T60B		610 48		
Tractor V100 - V180		SHD 680 32		
Tractor V30 - V80		610 48		
Tractor Rad-bulldozer 631B, 630B, 261, 619, 633, 662		SHD 680 32		
Truck C500 Y30 D, C500 40/55 D		610 11		
Truck DW60, RW80, RW110, RW140		SHD 640 35		
Truck Y60 -Y150		SHD 680 32		
Mobile machine 12D, 920, 966D		SHD 680 32		
Mobile machine D4 E		610 48		
Challenger				
H-Series all models				P70 24
All other models				P70 24
Claas				
Harvester Commandor 114CS		SHD 680 32		
Harvester Europa D, Gigant, Matador		SHD 640 35		
Harvester Lexion 480		SHD 680 32		
Harvester Mercur, Senator		SHD 640 35		
Harvester SFB, SFM		SHD 640 35		
Dominator 105, 106		SHD 640 35		
Dominator 76, 85, 85H, 96, 97		SHD 635 44		
Dominator 96, 106		SHD 680 32		
Tractor COMET (Mercedes)		SHD 680 32		
Tractor JAGUAR 690, 695, 860, 880		SHD 640 35		
Tractor SP Combine (Perkins P3)		610 11		
Clark Equipment				
125 (GM oder Leyland engine), 125-S		SHD 680 32		
125 (Rolls Royce engine)		625 11		
175 (GM oder Cummins engine)		SHD 680 32		
243		610 48		
275S, 275 ART, 280TD (Cummins or GM engine)		SHD 680 32		
512, 520, 521 Van Carrier		SHD 680 32		
55, 55AWS, 65A, 65AWS, 65R		625 11		
743		610 11		
75 (Leyland oder Daf engine)		610 48		
75ART (Leyland, Perkins, Volvo engine)		625 11		
85 (GM engine)		625 11		

Banner

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Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
85 (Leyland engine)		610 48		
BOBCAT825		610 48		
C/CH/CY 500		610 48		
DC 160		SHD 640 35		
DCY 160/300 DAF		SHD 640 35		
DCY 160/300 PD		SHD 680 32		
Bulldozer 11 OHT		SHD 680 32		
T65 DUMP Truck (GM or Cummins engine)		610 48		
Coles				
1 TON		610 48		
100DA, 100LPG, 120D		610 11		
18/22T, 25/30T, 30/35T, 40/45T		625 13		
30-33, 45-50		625 13		
40DA, 40PA, 50DA, 50LPG		610 11		
54/60 T, 120, Husky 615/633		625 11		
AP415		610 48		
AT1100 (Super), AT1400		610 48		
AT528, AT633, AT865		610 48		
LEDA		610 11		
RT615, RT620, RT625, RT628, RT630, RT640		610 48		
SUPER Truck 820, 825		610 48		
SUPER Truck 830		625 13		
Electric crane mounted on diesel truck		625 13		
Hydraulic crane mounted on diesel truck 30/35T, 40/45T		625 13		
Consolidated Pneumatic				
Compressor 1245, 185 F		SHD 670 33		
Continental				
CB 25, 30, 40				P70 29
CB 69, 70, CD 5, CD 7A, TP 6			592 01	P95 33
Conveyancer				
D5, G4, G5				P70 29
TC4-		600 26		
Coventry Climax				
All models				P70 24
Daewoo				
DH 180, DH 200, DH 220		SHD 680 32		
David Brown				
Snow plough D, F 31B, 31 F, 34 F			592 01	P95 33
Demag				
AC 265 Crane		SHD 640 35		
B 304, B 306, B 308, B 310		SHD 640 35		
DF 60 C		SHD 640 35		
DF110, DF 140		SHD 640 35		
H 30		SHD 680 32		
HC 190-5 95 Crane		SHD 640 35		
HC 190-5-75 Auto		SHD 670 33		
HC340 Auto		SHD 725 11		
HC 340 Crane		SHD 680 32		
Derot Tecnomat				
DH 3, DH 22, DH 33, DHY 33		625 11		
DS 33, DTD 110, 80, DT(Y) 80		625 11		
DTX 125		SHD 680 32		
TD 2000		625 11		
Destia				
BVH 1321				P70 29
BVH 1622, BVHM 1622			560 01	P62 19
DV 16 A, 16 B, 20 B			592 01	P95 33
DV 25, 32, 35		SHD 640 35		
DVH 1622			580 01	P80 14
MV 12, 15, 16			560 01	P62 19
Deutz-Fahr				
Agroprima 4.31 - 6.16		SHD 640 35		
Agrostar 3.57 - 8.31		SHD 640 35		
AGROXTRA 4.58		SHD 680 32		
Agroxtra 6.07, 6.17		SHD 640 35		
Harvester 10, 20, 30, 360, 410		600 26		
Harvester 1170		SHD 680 32		
Harvester 1400, 1600		SHD 640 35		
Harvester 1450CWS		SHD 680 32		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Harvester 2025, 2055		610 11		
Harvester 240, 307		600 26		
Harvester 307, 510, 520, 530		610 11		
Harvester 3400, 3500, 3600, 3650, 3700, 3750, 3890		SHD 680 32		
Harvester H6500, 8100		SHD 680 32		
Harvester 450		610 11		
Harvester 515, 750, 760		625 11		
Harvester 525, 620, 625		610 11		
Harvester 630		600 26		
Harvester 726, 780		600 26		
Harvester 792, 892		600 26		
Harvester 830		600 26		
Harvester 88, 186, 187		600 26		
Harvester DGD4		600 26		
Harvester M1322M, M1322H		SHD 640 35		
Harvester M182, 3900		SHD 680 32		
Harvester M33.70, M33.80		SHD 640 35		
Harvester M72, M112, 3300, 3350		625 11		
Harvester M940, 980		SHD 640 35		
Harvester MX300		SHD 680 32		
Harvester VWT2		600 26		
D 10006		SHD 640 35		
D 10006, 13006, 16006		SHD 680 32		
D 400, 540		SHD 680 32		
D 4005, D 4006		SHD 640 35		
D 45		SHD 640 35		
D 5005, D 5506		SHD 680 32		
D 5006, 5206, 5506		SHD 640 35		
D 5506		SHD 680 32		
D 6005, D 6006		SHD 680 32		
D 6006, 6007, 6206, 6207, 6507, 6806, 6807		SHD 640 35		
D 7006		SHD 680 32		
D 7006 A, D 7007		SHD 640 35		
D 7206, 7207		SHD 640 35		
D 7506, D 7807		SHD 680 32		
D 7806 C		SHD 640 35		
D 7807		SHD 680 32		
D 7807 C		SHD 640 35		
D 8005, 8006		SHD 680 32		
D 8006 A		SHD 640 35		
D 9005, D 9006		SHD 680 32		
D25, 30, 270		SHD 640 35		
DX 100 Powermatic		SHD 680 32		
DX 110, DX 120		SHD 640 35		
DX 140, 145, 160		SHD 680 32		
DX 230, DX 230 A, DX 250		SHD 640 35		
DX 3.60, DX 3.65, DX 3.70, DX 3.90		SHD 640 35		
DX 4.07, 4.10, 4.17, 4.20, 4.30, 4.31, 4.50, 4.51, 4.56, 4.57, 4.70, 4.90		SHD 640 35		
DX 4.71		SHD 680 32		
DX 50		SHD 640 35		
DX 6.05, DX 6.07, DX 6.10, DX 6.16, DX 6.17, DX 6.30, DX 6.70		SHD 640 35		
DX 6.11, DX 6.21, DX 6.31, DX 6.50, DX 6.61, DX 6.81		SHD 680 32		
DX 7.10		SHD 680 32		
DX 75		SHD 635 44		
DX 8.30		SHD 635 44		
DX 80, DX 85, DX 85 V, DX 86, DX 90, DX 92		SHD 640 35		
M 1000 - 2780		SHD 640 35		
M 33.60, M 34.80, M35.40, M 35.75		SHD 635 44		
M 3330 - 4045		SHD 640 35		
M 66, 66 S, 88, 88S		SHD 640 35		
M Axial A 50		SHD 680 32		
M 35.80, M 36.10, M 36.30		SHD 640 35		
Tractor 10006, 13006		SHD 680 32		
Tractor 140, 145A, DX160		SHD 670 33		
Tractor 3.30, 3.50, 3.65, 3.90, 4.70		SHD 640 35		
Tractor 4006, 4007, 4506, 5006, 6006		SHD 680 32		
Tractor 6.50, 7.10, 5207		SHD 640 35		



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Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Tractor 600S, 900S		SHD 680 32		
Tractor 6206, 7006, 7206, 9006		SHD 680 32		
Tractor 7207C, 7807C		SHD 640 35		
Tractor Agroplus 85 T, 95, 100 DT		SHD 640 35		
Tractor DX130		SHD 640 35		
Tractor DX360, 390, 470		SHD 640 35		
Tractor DX417		SHD 640 35		
Tractor DX471, DX451		SHD 640 35		
Tractor DX605, 610, 630, 650 Serien		SHD 670 33		
1300, 1320, 1322, 1600, 1620, 1630		SHD 640 35		
16006		SHD 680 32		
2580, 2680, 2685, 2780 (MD)		SHD 640 35		
3.30, 3.50, 3.70, 3.90 F/S		SHD 640 35		
3330, 3360, 3480, 3570, 3578, 3580, 3610, 3630, 3640		SHD 640 35		
4005, 4056, 4060, 4065, 4070, 4075, 4080, 4090		SHD 640 35		
5005		SHD 680 32		
5506, 6005		SHD 640 35		
6206, 6207, 6507, 6806, 6807		SHD 640 35		
7007, 7206, 7207		SHD 640 35		
7506		SHD 680 32		
7808		SHD 640 35		
8005, 9005		SHD 680 32		
Axial A 50		SHD 680 32		
Intrac 2003, Intrac 2004		SHD 640 35		
Intrac 6.60		SHD 680 32		
RUBIN, -X 100		SHD 640 35		
SHF 300, 400, 3008		SHD 640 35		
Dieci				
Ikarus 35.13TA		SHD 635 44		
Disalcar				
IN70				P95 04
Douglas Equipment				
Tugmaster Fifth Wheel		SHD 635 44		
Drabant				
All forestry machine models				P70 24
Dronningborg				
1200, 1250, 1600, 1650		600 26		
4000, 4500, 7500, 8500		SHD 640 35		
7000, 7200		610 48		
88, 900, 950		600 26		
8900, 9000		SHD 640 35		
Dutra Le Robuste				
D 4KB		SHD 680 32		
UE 65		SHD 670 33		
D 4K		SHD 640 35		
Dynapac				
421/C, 501 C		SHD 680 32		
CA 15, 25, 30, 51		SHD 680 32		
CA 301, 511, 551		SHD 680 32		
CC 101, 121, 211/C		SHD 680 32		
CC20, CC40		610 48		
CC21, 30, 41, 42		SHD 680 32		
CG11, CG12		610 48		
CH47, CA151, 251		SHD 680 32		
CK50, 51		SHD 680 32		
Ebro				
178, 183		SHD 640 35		
6100, 6120, 6125		SHD 640 35		
A 21, L, A 30			580 01	P80 14
Eicher				
3014		SHD 725 11		
4072		SHD 640 35		
3072 - 3088		SHD 640 35		
3084 - 3066			580 01	P80 14
3105 - 3145		SHD 680 32		
3253 - 3254		SHD 640 35		
330 - 365			580 01	P80 14
3704 - 3711		SHD 640 35		
3712 - 3714		SHD 670 33		
4038 - 4066			580 01	P80 14
530 - 550			580 01	P80 14

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
552, 565		SHD 640 35		
635 - 666 Turbo V			580 01	P80 14
680 P		SHD 640 35		
All other models			580 01	P80 14
Buffle 3353, Buffle 3354			580 01	P80 14
Mammouth 3011 - 3422		SHD 640 35		
Mammouth 3423, 3453, II 3551			580 01	P80 14
Panthere 295, 295 K			580 01	P80 14
Puma ES 200, Puma ES 201, Puma ES 202		SHD 670 33		
Tigre (E) FM 200, Puma ES EM 200 B, ES EL 235			580 01	P80 14
Tigre II			580 01	P80 14
Tigre Royal EA 400, EM 300, 3151			580 01	P80 14
Tigre Royal II 3015		SHD 640 35		
Tigre Royal II 3016, II 3251		SHD 670 33		
Energic				
1452, 560, (S)280, 645, 665			580 01	P80 14
1652		SHD 670 33		
4 RM 1035, 4 RM 1038		SHD 670 33		
503			580 01	P80 14
510 Diesel			570 01	P74 12
530 - 540		SHD 670 33		
545			580 01	P80 14
Engels Machines				
Asparagus harvester A1				
Asparagus harvester A2				
Euclid				
14 Yard bulldozer		SHD 640 35		
7 Yard bulldozer				P70 24
C20B2				P95 04
F.E. Weatherhill				
12 HB			580 01	P80 14
Fahr				
C2D, C 100, C110B		SHD 670 33		
Favorit 620, 626		SHD 670 33		
James 52		625 11		
James 73, 83		SHD 670 33		
M 86		SHD 670 33		
Famulus				
RS 14.30, RS 14.36		SHD 670 33		
Faun				
L 1212/45 ZA		SHD 725 11		
Fendt				
162, 168, 178, 186, 192		SHD 640 35		
231 GT, 250, 255, 255 KGT		SHD 670 33		
25 GT, 275 GT		SHD 640 35		
303 - 309		SHD 635 44		
390, 395		SHD 640 35		
600LS, 610LS, 611LS, 612LS, 614LS, 615LS		SHD 680 32		
AGROBIL S		SHD 640 35		
Backhoe loader TS60/80		SHD 640 35		
GT255, 275, 390, 395		SHD 635 44		
TS60, TS80		SHD 640 35		
Xylon 320		SHD 640 35		
Farmer 104, 105, 106, 108		SHD 640 35		
Farmer 162, 168, 178, 186, 192, 198		SHD 635 44		
Farmer 200		SHD 670 33		
Farmer 201, 203		SHD 640 35		
Farmer 204, 205		SHD 635 44		
Farmer 231, 250, 275, 305, 308, 309, 310, 311, 312, 360, 380, 395		SHD 640 35		
Favorit 310, 600, 610, 611, 612, 614, 615, 622, 626		SHD 680 32		
Hauler 712 Vario - 936 Vario		SHD 680 32		
Fiat Agri				
1180 DT, DTH		SHD 640 35		
1500, 1580, 1880, 3790		SHD 680 32		
605C, 607		SHD 635 44		
632, 634, 636, 637, 638, 647		SHD 640 35		
715DT		SHD 640 35		
72.94 DT		SHD 640 35		

Banner

AGRICULTURAL AND CONSTRUCTION MACHINERY

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
780		SHD 670 33		
800, 805, 821L, 850, 850C, 850DT		SHD 680 32		
880, 980		SHD 670 33		
990		SHD 635 44		
AD 10, AD14, AD18		SHD 670 33		
AD 1410		SHD 680 32		
BD10, BD14, BD18		SHD 670 33		
D120, D130B, D135B, D140, D165		SHD 670 33		
D1M30B, D1M35B		SHD 670 33		
F 100, F 110, F 120, F 130, F 140		SHD 640 35		
FL10, FL14, FR 12		SHD 640 35		
Laverda 3650, 3790		SHD 680 32		
M 112, M 132, M 152		625 11		
MX 240, M 300		SHD 680 32		
100-Series 100.9, 110.9		SHD 640 35		
100-Series 1000		SHD 670 33		
100-Series 115.90, 130.90		SHD 640 35		
100-Series 120C, 120G		SHD 640 35		
100-Series 140.90, 160.90		SHD 680 32		
100-Series 180C, 180C1		SHD 640 35		
400-Series 400, 450, 456		SHD 635 44		
400-Series 455		SHD 640 35		
500-Series 500, 540, 570, 580		SHD 635 44		
60-Series 65.66, 65.88, 65.90		SHD 640 35		
70-Series 70.88, 70.90		SHD 640 35		
80-Series 80.65, 80.66, 80.75, 80.76, 80.88, 80.90		SHD 640 35		
80-Series 82.86 DT, 82.94 DT, 85.90, 88.94 DT		SHD 640 35		
90-Series 90.90		SHD 640 35		
Fiat-Allis				
BD8		610 48		
FL 9		610 11		
SL11HD		SHD 640 35		
Fiat				
OM 50 C, 361 C, 411 C		600 26		
OMBJ 12, 15, 20, DJ 20, DJ 25			592 01	P95 33
Ford				
1000-Series 1900, 1910, 1920		610 48		
2000-Series 2511E, 2512E, 2513E, 2514E, 2610		SHD 670 33		
2000-Series 2711E, 2712E, 2713E, 2714E, 2715E, 2740ET		625 11		
3000-Series 3055, 3610, 3910		SHD 670 33		
3000-Series 3430, 3930		610 11		
4000-Series 4100, 4110, 4600		SHD 670 33		
4000-Series 4130, 4630, 4830		610 11		
4000-Series 4610		SHD 670 33		
5000-Series 5600, 5610		SHD 670 33		
6000-Series 6500, 6600, 6610, 6700, 6710, 6810		SHD 670 33		
7000-Series 7600, 7610, 7700, 7710, 7910		SHD 640 35		
7000-Series 7740, 7810, 7840		610 11		
8000-Series 8000, 8200, 8600, 8700		SHD 670 33		
8000-Series 8100, 8210, 8600, 8700		SHD 640 35		
8000-Series 8240, 8340		610 11		
8000-Series 8630, 8730, 8830		SHD 670 33		
8000-Series 8670, 8770, 8870, 8970		610 11		
9000-Series 9000, 9600, 9700		SHD 670 33		
Tractor 860		SHD 640 35		
Tractor A62, 64, 66		625 11		
Tractor DEXTRA 3000, 3600		SHD 670 33		
Tractor FORCE 5000, 7000, 8000, 8600, 9600		SHD 670 33		
Tractor FW 60		610 48		
Tractor MAJOR 4000 (Diesel)		SHD 670 33		
Tractor SUPER MAJOR 5000, 7000, 8000		SHD 670 33		
Tractor TS Serie 90, 100, 110		610 11		
Tractor TW 5, 10, 15, 20, 25, 30, 35		SHD 670 33		
Foredil				
10.13, 20.13			580 01	P80 14

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
30.13, 40.13, 5.13				P70 24
Fortschritt				
323 A		SHD 640 35		
All harvester models		SHD 680 32		
E 280, 281, 301		SHD 680 32		
E 302		SHD 680 32		
E 303		SHD 725 11		
E 512 - E 524		SHD 680 32		
Galion				
303, 503				P70 24
Gardenhac				
Tractor 14				P44 09
Gehl				
3300, 6600				P70 24
4400, 4610, 6620				P95 05
SL 3935-5625				P95 05
Goldini				
25 DT				P44 09
4 RM 3050			570 01	P74 12
521 - 928			570 01	P74 12
764 BD, 774 A			580 01	P80 14
930 - 933 TD				P70 24
Base 20				P44 09
C 55, C 75			570 01	P74 12
Euro 26 - Euro 50 A				P44 09
G'M 4, 14, 18, 20				P44 09
Idea 26			570 01	P74 12
Idea 30, 40			570 01	P74 12
Transcar 22 RS				P44 09
Tractor 900				P70 24
Tractor cingolati C 45, C 60				P70 24
Universal 236, 240				P70 24
Gremo				
Forestry machine 604, 802, 803, 804, 1004		610 11		
Forestry machine TT12C		SHD 670 33		
Grimme				
DS 80 - DS 100		SHD 640 35		
DSN 100 - DGL 1700		SHD 680 32		
Grove				
AT5285		610 48		
TM750 E		610 48		
Guedner-Linde				
G 50, 60, 75		SHD 640 35		
H 35, 40		SHD 680 32		
Guedner				
G 394, G 675, G 685, G4314		SHD 640 35		
Gutbrod				
1050 diesel - 2600 diesel				P44 09
2800			570 01	P74 12
2900 diesel				P70 24
3000				P44 09
Tractor D9, 12 diesel				P44 09
Hakotrac				
2000				P44 09
HakoJonas			570 01	P74 12
Hako				
2000				P44 09
3500			580 01	P80 14
4000				P44 09
2300 diesel			570 01	P74 12
3800, 3800 diesel			570 01	P74 12
4800, 4800 diesel				
8014 - 8016			560 01	P62 19
Grundmaster, 322 D				P45 24
Profi 182				P70 24
Hanix				
N 350-2, N 300-2				P95 05
Hanomag				
320		SHD 640 35		
400C		610 11		
44C		SHD 635 44		
6400		SHD 680 32		



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Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Brillant 600, 700		SHD 640 35		
K 7, K8, K 60, K320		SHD 680 32		
K10, K90E, K565		SHD 680 32		
R 430		SHD 640 35		
R540		600 26		
Robust 800, 900		SHD 680 32		
Caterpillar bulldozer 44D		600 26		
Caterpillar bulldozer 66C, 77C		SHD 670 33		
Caterpillar bulldozer B30C		SHD 725 11		
Caterpillar bulldozer D600		SHD 670 33		
Caterpillar bulldozer K12C, B18C		SHD 670 33		
Caterpillar bulldozer K7B, K11		SHD 680 32		
Härnö				
GDL 2550			592 01	P95 33
Hegglund				
BV 206				P95 04
Hemek-Vamas				
9110				P70 24
Herrmann Lanz Hela				
28/32, D 36, D 40		SHD 640 35		
36 HP		SHD 680 32		
Herriau				
Alle models		SHD 680 32		
Hey Wang				
HD 17			580 01	P80 14
Hieble				
Alle models				P80 14
Hinomoto				
Holder A 55			570 01	P74 12
Holder A 60, C 500			592 01	P95 33
Hitachi				
EX 063		600 26		
EX 081, 083, 103, 143, 200, 220, 300, 400		SHD 640 35		
EX 100WD, 160WD		610 48		
EX 300		SHD 680 32		
UH 02, 031		SHD 680 32		
UH 063		610 48		
UH 10, 14-2, 20, 30, 50		SHD 680 32		
Hoes				
11011K		SHD 670 33		
Holder				
3705			570 01	P74 12
A 12, AM 2, AG 3, AG 35				P70 29
A 20, A 21 S				P70 29
A 23, A 30, A 40, A 55			560 01	P62 19
A 440			580 01	P80 14
A 45			560 01	P62 19
A 50			580 01	P80 14
A 55 F			560 01	P62 19
A 60			580 01	P80 14
B 12				P70 29
B 40 - B 51				P80 14
C 40, 50, P 70			560 01	P62 19
C 440			580 01	P80 14
C 500, C 5000, C 6000			580 01	P80 14
C 560			592 01	P95 33
E 14, P 30, P 50, P 60			560 01	P62 19
Parc 60			560 01	P62 19
Hough				
DH30 B, DH50 B		600 26		
DH65C		610 48		
Huddig				
760, 860 Alle models			570 01	P74 12
Hürlimann				
6120		SHD 680 32		
7000		600 26		
D 115 - D 550		600 26		
H 345		644 50		
H 355 F		644 50		
H 4105, H 478, H 488 T			580 01	P80 14
H 466, H 488				P95 05
H 490		SHD 680 32		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
H 5110, H 5116 T		SHD 680 32		
H 6130		SHD 680 32		
H 6135 - H 6170		SHD 680 32		
Prestige			592 01	P95 33
Prince			570 01	P74 12
T 1400, T 9200		600 26		
XA, XB, XE, XF, XN, XM			592 01	P95 33
XL			580 01	P80 14
XT		SHD 670 33		
Husky				
1254, 1477, 1886				P44 09
Hymas				
82 R, 6000		SHD 680 32		
H 240			592 01	P95 33
Hymatic (Compair)				
Compressor 74 D			570 01	P74 12
Hyster				
719 car wash device		625 11		
KARRY Crane (PERKINS P3 or P4 engine)		610 11		
UC, UE		610 48		
YC diesel		610 11		
YC, YE (LPG or petrol engine)		610 48		
H150		SHD 640 35		
H20, 25, 30E diesel		610 48		
H30, 40, 50, 60F diesel		SHD 640 35		
H60, 110E, nyare mod.		SHD 640 35		
H60, 70, 80E diesel		SHD 640 35		
H60F diesel		SHD 640 35		
HC (LPG or petrol))		610 48		
P40A, 50A		610 48		
S150A		625 11		
S60, S70, S100 (PERKINS engine)		SHD 680 32		
IHI				
IS 10 F				P70 24
Iller				
NMW, B 100				P70 24
IMT				
Tractor 542			560 01	P62 19
Ingersoll-Rand				
250, 365, 600, 750		625 13		
85, 125, 175		625 11		
DRAF125, DR140, DR150		610 48		
P600/900		610 48		
TP105, TP120, TPG120, TPF120, TPM120, TP210		610 48		
Compressor 1010, 2110		610 11		
Compressor 140 Gyroflo		625 11		
Compressor 150-4 Gyroflo		625 13		
Compressor DR125		625 11		
Compressor DRG600 SL (engine mod.)		625 13		
Compressor JD544, 544A, 644		610 11		
Compressor JD544B, 644B		SHD 680 32		
Compressor JD670, 750, 770		SHD 680 32		
Compressor P 125		SHD 670 33		
Compressor P100, 140		610 48		
Compressor P175VD, P250VD		SHD 680 32		
Compressor P175W, 250W, 375W		610 11		
Compressor P600W		625 13		
Compressor TP210		610 11		
Compressor XL-DL900, -DL1200		SHD 680 32		
International-Harvester				
1246		SHD 680 32		
1394, 1494, 1594, 1694		625 13		
275, 276		625 13		
406, 430, 439, 440		600 26		
414		625 13		
4494, 4894		625 13		
485XL, 585XL, 685XL, 785XL, 885XL		610 48		
745, 844 XL		SHD 640 35		
855 XL		610 48		
956, 1056		SHD 640 35		
Hydra 84		625 11		

Banner

AGRICULTURAL AND CONSTRUCTION MACHINERY

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Asphalt machine H25, H25D, H50B		600 26		
Caterpillar bulldozer TD88		625 13		
Compressor 515B		610 11		
Digger 510 m/Hymas 42		SHD 680 32		
Digger JD34, 44, 45, 54		SHD 680 32		
Digger JD35		SHD 670 33		
Digger JD440B m/power shift		610 48		
Digger JD540A, 544, 544A, 644A		610 48		
Digger JD544B, 644B, 670, 770, 772A		SHD 670 33		
Digger JD750, 850 Caterpillar bulldozer		SHD 680 32		
Digger KH11, 15, 28L, 90		600 35		
Digger PC40, PC160, PC180, PC200EN-6, PC230, PC290		610 48		
Digger PC160NLC-7, PC180NLC-6		625 13		
Digger PW130, PW150, PW170-6, PW200/220-7K		610 48		
Intropa-Rolba				
FAI-Pandax 320, 330			570 01	P74 12
FAI-Pandax 340, 350		SHD 640 35		
H 10 B				P70 24
Terex		SHD 725 11		
Imer & Else				
801 R			592 01	P95 33
D 1051 R, 1801, 1101 R		SHD 670 33		
D 141-9D			592 01	P95 33
D 71-R, 301 R, 451 R		600 26		
D 341 R, 401 R, 4451 R, 661 R			570 01	P74 12
R 540		600 26		
S 1051			592 01	P95 33
S 701			570 01	P74 12
Irus				
U 1200, 1200 K				P70 29
Iseki				
3110, 3510, 5000, 6000, 6500		610 11		
TS3110, 4510		610 48		
TS4510		610 11		
Italimacchine				
Poplipa 215				P70 24
ITMA				
480, 500			580 01	P80 14
A 35, -S			570 01	P74 12
Iveco				
Stralis AT-Series		SHD 725 11		
Jacobsen				
F 10 (diesel & petrol)			580 01	P80 14
Jacquet				
Hydro 780			580 01	P80 14
JCB				
2000(3256)		625 11		
360 HYDRAULIC		625 11		
4C Turbo, 4CN, 4D		625 11		
FASTRAC		625 11		
JCB2D11, JCB3111, JCB3C111, JCB3D111		625 11		
JVC2B/3C/3D/4C/4D		625 11		
SL702, 704, 900, 907, 908, 1000, 1500, 1750		625 11		
TRAILERS 5050, 5051, 5052, 5053, 5054, 5055		610 11		
TRAILERS 5056		625 11		
Type 1, 5, 5C		625 13		
100-Series 100, 110, 110B, 112, 114		625 11		
100-Series 180 loader		625 11		
1000-Series 1000, 1250, 1500, 1750		625 11		
2-Series 2D, 2DS, 3C, 3CS, 3D, 3DS		625 11		
3-Series 3C, 3CX, 3D		625 11		
400-Series 406, 410, 412, 415		610 11		
400-Series 413, 418, 420, 423, 425, 428, 430		625 11		
5-Series 5C		625 11		
500-Series 520		610 11		
500-Series 530		625 11		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
500-Series 525B		610 11		
500-Series 530B		625 11		
700-Series 700, 702, 704		625 11		
800-Series 802 MINI		610 48		
800-Series 805, 805B, 806, 806B, 807, 807B, 808		625 11		
800-Series 806C, 807C, 811, 812, 812S, 814, 814S, 816S, 817, 818, 818S		625 11		
800-Series 820, 820S, 850B		625 11		
900-Series 900, 902, 907, 908		625 11		
900-Series 921, 926		610 11		
Digger 4DX		625 11		
Digger 807B, 808		625 11		
Tractor digger F-Series		SHD 670 33		
Jenbacher Werke				
4 T 6 SES/800KVA		SHD 680 32		
C 120 SES/250KVA - C 320 SES/670KVA		SHD 680 32		
JM-Series all models		SHD 680 32		
JW 20 ES /15 KVA, JW 25 20 KVA			570 01	P74 12
JW 200 ES/160 KVA		SHD 680 32		
JW 2000, JW 28000		SHD 680 32		
JW 250			570 01	P74 12
JW 300 ES/250 KVA		SHD 680 32		
JW 370			570 01	P74 12
JW 40 ES/30KVA		SHD 680 32		
JW 400 ES/350KVA		SHD 680 32		
JW 550			580 01	P80 14
JW 600 ES/500KVA		SHD 680 32		
JW 650, JW 750		SHD 680 32		
JW 8 ES/6KVA			570 01	P74 12
JW 80 ES/125KVA		SHD 680 32		
LM 1500 ES/1250KVA - LM 1150/3000 GDES		SHD 680 32		
MT 2866, MT 2842		SHD 680 32		
Jobu				
Timberjack AC				P70 29
John Deere				
JD310, JD410, JD450A, JD540, JD644		610 11		
LD544		610 48		
2000-Series 2270, 2280		SHD 640 35		
3000-Series 3650		SHD 640 35		
4000-Series 4050, 4055, 4250, 4255		610 11		
4000-Series 4630, 4640, 4650, 4840, 4850		610 48		
5000-Series 5420		SHD 640 35		
5000-Series 5440		610 48		
7000-Series 7600, 7700, 7800		610 48		
900-Series 965, 975, 985		SHD 640 35		
Harvester 1065, 1068H, 1072, 1075, 1075H, 166, 1169H4		SHD 635 44		
Harvester 1174, 1174H4		SHD 635 44		
Harvester 1177, 5420		SHD 640 35		
Harvester 630, 730, 950, 965, 965H, 968H, 970, 975, 975H4, 985		SHD 635 44		
Harvester MD 1065, MD 1072, MD 1075		SHD 640 35		
Harvester MD 330, 430, 530, 630, 730		610 11		
Harvester MD 925, MD 930		610 11		
Harvester MD 932, 954		SHD 640 35		
Harvester MD 940		610 11		
Teleskopplader 3700, 3800		600 26		
Tractor 5460		SHD 640 35		
Tractor 6110, 6210, 6310, 6410, 6510, 6810		SHD 640 35		
Tractor 6120, 6220, 6320, 6420, 6420S		SHD 640 35		
Tractor 6506		SHD 640 35		
Tractor 6520, 6620, 6820, 6920, 6920S		SHD 680 32		
Tractor 8100, 8200, 8300, 8400		600 26		
Tractor 8110, 8210, 8310, 8410		600 26		
Tractor 8120, 8220, 8320, 8420, 8520		600 26		



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Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Z Series 1155, 1158, 1169, 1174, 1177, 1188		SHD 640 35		
Z Series 2054, 2056, 2058, 2064, 2066		SHD 640 35		
Z Series 6610, 6710, 6810, 6910		SHD 640 35		
Jolly				
CSF				P44 09
Joy Sullivan				
1262			570 01	P74 12
Jungheinrich				
Ameise		SHD 680 32		
Kalmar LMV				
3-7.5t				P70 24
8-15t			592 01	P95 33
16t		SHD 635 44		
Kato				
HD 400 SE, 450 SE, 700 SE		600 26		
Mobile crane		SHD 640 35		
Kibo				
1600				P44 09
Klevshult-Herkules				
Junior 2,3t diesel		600 26		
Kobelco				
K904E, 904II, K905, 905A, 905II		600 35		
SK100, 120, 400		600 35		
Kockum-Landsverk				
5250				P70 24
KS 82-54				P95 05
Komatsu				
BC 200 LC, 210 LC		SHD 640 35		
BD 180, BC 240		SHD 635 44		
HA 205, 250		SHD 640 35		
Digger loader WB93R-5, WB93S-5, WB97R-5, WB97S-5		SHD 680 32		
Hydraulic digger PC120, PC150, PC150HD, PC150NHD		SHD 640 35		
Hydraulic digger PC1250/SP-8 (502 kW)		SHD 725 11		
Hydraulic digger PC130-7, PC160LC-7, PC180LC-7, PC180NLC-7		SHD 640 35		
Hydraulic digger PC180LLC		610 48		
Hydraulic digger PC200, PC210, PC210-6K, PC210LC, PC220		SHD 640 35		
Hydraulic digger PC2000-8		SHD 725 11		
Hydraulic digger PC210/LC/NLC-8/LC-8 MH		SHD 640 35		
Hydraulic digger PC228USLC-3		SHD 640 35		
Hydraulic digger PC230NHD-8		SHD 640 35		
Hydraulic digger PC240		610 48		
Hydraulic digger PC240-8 SL, PC240LC/NLC-8		SHD 640 35		
Hydraulic digger PC280LC, PC280NLC		610 48		
Hydraulic digger PC290LC/NLC-8		SHD 640 35		
Hydraulic digger PC300LC, PC300NLC		SHD 640 35		
Hydraulic digger PC340LC-7SLF		SHD 640 35		
Hydraulic digger PC350LC/NLC-8		SHD 640 35		
Hydraulic digger PC450LC/HD-8		SHD 640 35		
Hydraulic digger PC600/LC-8		SHD 680 32		
Hydraulic digger PC800/LC-8		SHD 725 11		
Dumper HD325-7, HD405-7		SHD 680 32		
Dumper HD465-7, HD605-7		SHD 725 11		
Dumper HD785-7		SHD 680 32		
Dumper HM300-2, 350-2, 400-2		SHD 640 35		
Caterpillar bulldozer D3, D31S, D40, D45, D45A, D45S, D50, D50A, D50S		SHD 640 35		
Caterpillar bulldozer D51EX/PX-22		SHD 725 11		
Caterpillar bulldozer D53, D55, D65E, D75S, D84A, D150, D155A		SHD 640 35		
Wheeled loader W70, W90, W120		SHD 640 35		
Wheeled loader WA380-6, 430-6, 470-6, 480-6, 500-6		SHD 640 35		
Wheeled loader WA600-6, 800-3, 900-3		SHD 725 11		
Telescopic loader WH609, 613, 713, 716		SHD 635 44		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Mobile machine Valtra VL-542, VL-942, VL-2402		625 13		
Krabat				
Tractor				P70 29
Kramer				
1014		SHD 680 32		
515, 1411		SHD 640 35		
611, 811		SHD 680 32		
All-wheel 1014		SHD 640 35		
K 33, KA		SHD 640 35		
U800		SHD 640 35		
VL 400, VL540		SHD 640 35		
KL-Series KLB 330		SHD 640 35		
Telescopes 3307, 4009, 4507		SHD 640 35		
Krasser				
U 4V			570 01	P74 12
Kubota				
3750, 4150		SHD 640 35		
RW25, RW30, RW30S, RW35		610 48		
KH-Series KH14-3, KH15-3, KH16W, KH18, KH20, KH28		610 48		
L-Series L 245DT, 285, 295, 345, 345DT, 355		610 48		
Kälble				
3 WTV-K			580 01	P80 14
5 WTV, 5 WTV-K		SHD 640 35		
7 WTV-K, 8 TV-K		SHD 680 32		
K 20 B		SHD 680 32		
KV 25 B		SHD 680 32		
KVW 35		SHD 725 11		
RP 18			592 01	P95 33
SL 12		SHD 680 32		
SL 15			592 01	P95 33
SL 18		SHD 680 32		
SL 18B			592 01	P95 33
SL 25		SHD 680 32		
VG 12, VG 18		SHD 680 32		
VG 18 B		SHD 680 32		
Labor Hako				
2000			560 01	P62 19
2300 D, 3800 D			570 01	P74 12
4000			560 01	P62 19
P 20				P44 09
Labourier				
All models			580 01	P80 14
Lamborghini				
1056		SHD 680 32		
1106, 1156 DT, 1256, 1506		SHD 680 32		
1506, 1706 Turbo		SHD 680 32		
190, 360		SHD 640 35		
470, 480		SHD 680 32		
754, 774.8, 854		SHD 640 35		
904		SHD 680 32		
955		SHD 680 32		
956		SHD 640 35		
HERLAN 480		SHD 640 35		
Premier 850, 950, 1050, 1060		SHD 680 32		
R 1056, R 1106, R 1306, R 1506		SHD 680 32		
R 754, R804, R850, R 854, R 955		SHD 680 32		
R653DT		600 35		
R955DT		SHD 670 33		
Lancer Boss				
H SERIES Mk2 & 3		625 13		
W Series		SHD 640 35		
Side loader 180, 200, 300, 400, 500, 700, 800, 1000, 1800, 2000		610 48		
Side loader 200 Series, (Perkins 4/107), 300 Series (Leyland OE 138)		610 48		
Side loader 2500, 3500		625 11		
Landini				
10000, 12500, 13000, 13500, 14500		SHD 640 35		
10000 S		610 11		

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Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
14500 Turbo		625 11		
5000-Series 5000, 5500, 5830, 5870		610 11		
6000-Series 6000, 6060, 6500, 6550, 6830, 6840, 6870, 6880		610 11		
7000-Series 7000, 7500, 7550, 7830, 7860, 7870, 7880		610 11		
8000-Series 8000, 8500, 8550, 8830, 8860, 8870		610 11		
9000-Series 9080, 9500		SHD 640 35		
Lanz				
Bulli				P70 24
HG, NI 22, NO-R, NV			580 01	P80 14
D-Series 112				P70 29
D-Series 117			580 01	P80 14
D-Series 12 S				P70 29
D-Series 14				P80 14
D-Series 218 - 230			570 01	P74 12
D-Series 24			580 01	P80 14
D-Series 254 - 260		SHD 640 35		
D-Series 315, 318				P80 14
D-Series 415			570 01	P74 12
D-Series 420 - 484			580 01	P80 14
D-Series all other models			580 01	P80 14
LB-Series			560 01	P62 19
Laverda				
3300, 3350, 3400, 3450, 3500, 3550, 3550AL		SHD 680 32		
3600, 3700, 3750, 3790, 3850, 3890, 3900, 3990		SHD 680 32		
M 182		625 11		
M120		SHD 680 32		
MX 240, MX 300		SHD 680 32		
Lennen				
C110		625 11		
UM352, UM353 CM		625 13		
Leyland Nuffield				
2100, 4100		625 13		
245, 253, 255, 270, 285		625 13		
345, 352		610 48		
344, 384		625 13		
465, 475, 485, 586		625 13		
Leyland				
154(D)		610 11		
2100		625 13		
262, 270, 272, 285		625 13		
4100		625 13		
704		625 11		
Tractor 154, 245, 502		610 11		
Tractor 253, 255		610 48		
Tractor 3/45, 4/65, 4/75, 384, 915		625 13		
Tractor 344, 384, 485		625 13		
Tractor 602, 604, 702, 802		625 13		
Liebherr				
A 309 - 316 Litronic			592 01	P95 33
A 900 - 914 C Litronic, ZW,		SHD 635 44		
A 924 - 974 B, C Litronic		SHD 670 33		
BOS		SHD 670 33		
Caterpillar crane HS, LR, LTR		SHD 670 33		
HS 835 - 895 HD Litronic		SHD 725 11		
L 506 - 514 Stereo			592 01	P95 33
L 524 - 580 2plus2		SHD 725 11		
LR 622, 634 B Litronic		SHD 670 33		
Mobile crane LG, LTC, LTF, LTM, MK		SHD 670 33		
P 954 - 996 B, C Litronic		SHD 635 44		
PR 712 - 764 B Litronic		SHD 680 32		
R 313 - 317 Litronic			592 01	P95 33
R 900 - 996 B, C Litronic		SHD 640 35		
RL 22 B Litronic		SHD 640 35		
RL 42 B Litronic		SHD 680 32		
RL 52 Litronic		SHD 640 35		
RL SR 712 BM Litronic		SHD 680 32		
T 252 - 445-10		SHD 725 11		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Linde				
H 12F - H 16				P44 09
H 20 F - H 40 F (4.0 t)			580 01	P80 14
H 50 F - H 80		SHD 680 32		
LPG			580 01	P80 14
Type 330, 350				P44 09
Lindner				
1450 - 1500			592 01	P95 33
1600 - 1750		SHD 640 35		
B 30 - B 45		600 26		
BF 14 - BF 25, BF LW 20				P70 29
BF 30 - BF 45		600 26		
BF 250		610 47		
BF 320 S, BF 420 S, BF 520 S			592 01	P95 33
BF 350 S, BF 450 S		600 26		
BF 550 S - BF 620 S		625 11		
BF 650 S		SHD 640 35		
T 3500 S			592 01	P95 33
Alpin				
Geotrac 60, 63		SHD 640 35	592 01	P95 33
Geotrac 70		SHD 640 35		
Geotrac 73 - 102		SHD 640 35		
Unitrac 68 - 100			592 01	P95 33
Unitrac 102			592 01	P95 33
Loadstar trucks				
125B/3400, 125B/3500		625 11		
1600CV/D, 1700CV/D, 1800CV/D		625 11		
584, 634, 674, 684, 784, 884		625 11		
955, 1055		SHD 635 44		
Loiseau				
12.64		SHD 680 32		
3 Rangs 4000		SHD 640 35		
344, 34x4, 3860, 3864x4		SHD 680 32		
4 Wheel Driver		SHD 640 35		
4000		SHD 640 35		
H 1		625 11		
L 44		SHD 680 32		
V 104		SHD 680 32		
Lokomo				
Mobile crane 14.07, 14.09, 23.07, 23.09, 36.07		SHD 680 32		
Mobile crane A 331, A351, A391		SHD 670 33		
Mobile crane PPM 187, TC5		SHD 640 35		
Lännen Tehtaat				
1280M, 1480M, 1680M, 1880T		SHD 670 33		
CM 8, CM8-4		SHD 670 33		
M12, M13, T14, M16, M19, T18, T27		SHD 670 33		
S 9, S10		SHD 670 33		
T214, T221		SHD 670 33		
UM 3, UM 4		SHD 670 33		
UM 353, 355		625 13		
UM 475		SHD 670 33		
UM 8CC		625 11		
Lundberg				
Tractor 341 - 343				P70 24
Tractor 595		SHD 640 35		
Mabec				
4RM 180, 300				P70 24
CB 12 DD			560 01	P62 19
Maco				
Compressors		SHD 640 35		
MV 21			570 01	P74 12
TM 50		SHD 640 35		
Manitou				
4RM40K SITE LIFT		SHD 680 32		
BL22 SITE LIFT		625 13		
MB 25 D, 25TC, 30TC, 40, 50, 60		SHD 680 32		
MB20, MB25, MB25C, MB26C, MB30		610 48		
MB25M		SHD 680 32		
MB25P FARM LIFT		625 13		
MC10, 15, 20, 25, 30, MC20H		610 48		
MC40 TC, 50, 80		SHD 680 32		
MCL 30H		610 48		



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Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
ROUGH TERRAIN VEHICLE		610 48		
MAN				
All models 2, 4 S 1, 4 S 2, 4 T, 22		SHD 680 32		
Marco				
MSL 500 B		600 26		
Marshall				
135			580 01	P80 14
642 - 844		SHD 640 35		
944, D 110		SHD 680 32		
Massey Ferguson				
1000, 1080, 1100		610 11		
1004, 1014		SHD 680 32		
1102, 1114, 1132, 1134, 1182		SHD 680 32		
132, 133, 134, 135		610 11		
1800, 1805		610 11		
233, 235, 245, 253, 254, 255, 260, 263, 264		610 11		
2640, 2640/4, 2680/4, 2720		610 11		
273, 274, 274.4, 275, 275.2, 275.4, 285.5, 285.4		610 11		
274 4x4		625 11		
283, 287		SHD 635 44		
284, 294, 294S		SHD 640 35		
293		610 11		
3165, 3303, 3305, 3680		625 13		
32, 33		SHD 640 35		
324		610 11		
366		SHD 640 35		
3670, 3680, 3690		610 11		
373		610 11		
560, 560/5		610 11		
595		SHD 680 32		
D700C		SHD 640 35		
FE 35, FE 135, FE 165, FE 175 (D)		625 11		
FE65		610 11		
W 11		SHD 680 32		
MF1020, MF1030, MF1040, MF1080		610 48		
MF11, MF16, MF20, MF24, MF27		610 11		
MF1100, MF1105, MF1135, MF1155, MF1200, MF1250, MF1550		625 11		
MF130, MF135, MF148, MF152		610 48		
MF1505, MF2135, MF2203, MF2205		610 11		
MF154C		625 11		
MF155, MF158, MF164, MF165, MF168		610 11		
MF174C, MF177, MF245C, MF274C		625 11		
MF175, MF178, MF185, MF186, MF187, MF188		610 48		
MF200, MF203, MF205, MF230, MF252		610 48		
MF2135C, MF2203C		625 11		
MF234		625 11		
MF240, MF250, MF263, MF265, MF290, MF307		610 48		
MF2620, MG2650, MF2680, MF2720		610 11		
MF2645, MF2685, MF2725		SHD 640 35		
MF29, MF30, MF31, MF35, MF40, MF50		610 11		
MF300, MF410, MF410/8		610 48		
MF3303, MF3305		610 11		
MF362, MF365, MF375, MF390		625 11		
MF410, MF418, MF487, MF500, MF500/7, MF506		610 48		
MF4200, 4215, 4225, 4230, 4233, 4235, 4240, 4243, 4245, 4255		610 11		
MF503, MF530		625 11		
MF507, MF510/7, MF515/7, MF520, MF525		610 11		
MF50B, MF50D		625 11		
MF5180, MF6308		610 11		
MF55, MF55C, MF66C		SHD 640 35		
MF550, MF565, MF575, MF590, MF595		610 11		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
MF5751		625 11		
MF600, MF620, MF625, MF630, MF670		610 11		
MF647, MF655, MF665, MF698		625 11		
MF65, MF70		610 11		
MF675, MF690		625 11		
MF700		SHD 640 35		
MF7250, 7252, 7254, 7256, 7272, 7274, 7276		SHD 635 44		
MF750, MF760		610 11		
MF800, MF805, MF825, MF830, MF835, MF845		625 11		
MF8140, 8150, 8160, 8170, 8240, 8250, 8260, 8270, 8280		610 11		
MF94C, MF133, MF134C		625 11		
Matador				
Harvester 87		600 26		
Matbro				
40, 50, 70, 80, 90, 100, 120, 150, 180, 200		625 11		
60, 80 LOADING / SHOVEL / SUPER LOADING / COMPACT		625 11		
MASTIFF 11 & 111, MASTIFF MAJOR LOADING, MASTER MINOR		625 11		
Series VY100, 120, 150, 180, 200		625 11		
Series VY60, 70, 80, 90		625 11		
STAR LOADING SHOVEL		625 11		
SUPER LOAD		625 11		
Matral				
All models				P70 24
Matrot				
All models		SHD 680 32		
Meili				
VM 1300		610 47		
VM 1400		635 27		
VM 1800		635 27		
VM 2500		635 27		
VM 3500 autom.		610 47		
VM 3500 HD40		635 27		
VM 500 Mini		635 27		
VM 600		610 47		
VM 7000		635 27		
VM 8000		635 27		
all other models AB, MA		635 27		
MD Series		610 47		
Mengele				
SF2000, 3000, 4000, 5000, 5200, 5500, 5600, 5800		SHD 640 35		
SF 300, 400		SHD 680 32		
SF 6000, 6300 6500, 6600, 6800, 7000, 7300, 7800		SHD 635 44		
Mercedes Benz				
1000/441, 1100/442, 1300/443, 1500/443		SHD 640 35		
700/440, 800/440, 900/440		SHD 640 35		
MB Track 1100, MB Track 1600, MB Track 6.60, MB Track 8		SHD 680 32		
MB Track 700, 800, 900, 1000, 1300, 1400, 1500, 1600		SHD 640 35		
Traktor 65/70, 67/70, 680, 700, 800, 900, 1000, 1300, 1500, 1600		SHD 640 35		
Unimog		SHD 640 35		
Mercury				
13M, 13M2, 30M2, 32P, 40M, 40M2, 43P, 45P, 46P, 55P, 65P, 70P		610 11		
200, 300		610 11		
AT40, AT46, AT65P, AT70		610 11		
MD250/400 (Perkins V8 engine)		610 11		
MD40/60, 70		625 11		
Merlo				
All tractors and tillers			592 01	P95 33
cement mixer DBM 1200			580 01	P80 14
DM 1000				P70 24

Banner

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Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
MHT				
Harvester 132 HVT plus			570 01	P74 12
Harvester 18002 HVT			592 01	P95 33
Harvester 242 HV, HVT			592 01	P95 33
Harvester 9002 HV			570 01	P74 12
Michigan				
125C, 175C		610 11		
275B, C		610 11		
35 A Perkins (B)		SHD 680 32		
35B		600 26		
45C, 55C		610 11		
475C, L320		610 11		
55		SHD 680 32		
55, 65, 75 Leyland		610 11		
75, 85 Cummins und GM		625 11		
750A, 753A		625 11		
75B		SHD 640 35		
75C		610 11		
95 A 2		SHD 680 32		
L190, L270, L320, L480		610 48		
Mikasa				
Road roller NOR 20 N				P95 04
Moll				
Harvester				P95 04
Motostandard				
1050 D - 3000				P44 09
Moxy				
MT26 - MT 31		SHD 640 35		
MT36 - MT41		SHD 725 11		
5200, 6200S		SHD 670 33		
MTZ				
Tractor			580 01	P80 14
Napolione				
2800			570 01	P74 12
3000 - 5000				P70 24
6000 - 10000			570 01	P74 12
Nardi				
All models				P70 24
Neuson				
Digger 803				
Digger 9503, 14504		SHD 640 35		
Digger, dumper 1001-1601				P44 09
Digger, dumper 1404-2403				P44 09
Digger, dumper 28z3				P44 09
Digger, dumper, SSL 2001			570 01	P72 09
Digger, dumper, SSL 2503			570 01	P72 09
Digger, dumper, SSL 3001-5001			592 01	P95 33
Digger, dumper, SSL 3503-8003			592 01	P95 33
Digger, dumper, SSL 38z3			570 01	P72 09
Digger, dumper, SSL 501			570 01	P72 09
Digger, dumper, SSL 701			592 01	P95 33
Dumper 6001, 9001, 10001			592 01	P95 33
SSL 901, 1101			592 01	P95 33
Neuson-Kramer				
Wheeled loader 180, 280				P44 09
Wheeled loader 380, 480, 750, 850			570 01	P72 09
Wheeled loader 580, 680, 950, 1150			570 01	P72 09
Wheeled loader 880			570 01	P72 09
Telescope loader 580 T			570 01	P72 09
Telescope loader 750 T			570 01	P72 09
Telescope 3306			570 01	P72 09
Telescope 4009			570 01	P72 09
Telescope 4107			570 01	P72 09
Neuson-MHT				
Harvester 132 HVT plus			570 01	P72 09
Harvester 18002 HVT			592 01	P95 33
Harvester 242 HV, HVT			592 01	P95 33
Harvester 9002 HV			570 01	P72 09
New Holland				
TM-Series TM 120, 130, 140, 155, 175, 190		SHD 680 32		
Tractor 70		610 11		
Tractor 8055		SHD 640 35		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Tractor TS 90, 100, 110, 115		610 11		
Nissan				
DF05A5OU, DF05A6OU, DF5A7OU		610 48		
FF05A7OU		610 48		
QF01		610 48		
QFF02 FORK LIFT (diesel)		610 48		
Truck FD104, 105		600 35		
Truck H 02 diesel		600 35		
Nuffield-BMC				
245, 253		610 48		
262, 270, 272, 344, 384, 255		625 13		
3/45, 3/65, mini		610 11		
342, Universal		600 26		
4/25, 4/65		610 48		
DM-3, 3-DL, 10-42		600 26		
Omme				
All models		SHD 640 35		
Orenstein & Koppel				
DE 100		SHD 670 33		
DE 26		SHD 680 32		
DFG 26, DFG 30, DFG 40, DFG 50, DFG 60, DFG 80		SHD 640 35		
G12		SHD 640 35		
MH 122		SHD 635 44		
MH 9, MH 12, MH 14, MH 18, MH 25		SHD 640 35		
RH 6, RH 9, RH 12, RH 14, RH 18, RH 25		SHD 640 35		
RH 60, RH 70, RH 75		SHD 680 32		
RH 122		SHD 635 44		
Paget (Valmet)				
305, 405, 502, 504, 505, 602, 604, 605, 702, 705		SHD 680 32		
802, 803, 805, 903, 905		SHD 680 32		
6300, 6400, 6600, 8000, 8100 E, 8400		SHD 680 32		
Parca				
Tractor 714		600 26		
Pasquali				
409, 440				P44 09
439, 492, 493, 944			560 01	P62 19
9445, 955, 985				P44 09
947				P70 29
951, 976, 987				P70 24
957, 958 - 978				P70 24
965 - 979			570 01	P74 12
985 - 995			560 01	P62 19
992				P44 09
996, 997			570 01	P74 12
Payloader				
510, 515		610 48		
H25B, 500		610 48		
H30B, H50B, DH50B		600 26		
H65C		SHD 640 35		
Pegaso-Enasa				
545, 645			580 01	P80 14
PEL-JOB				
EB706		610 11		
TP13D		610 11		
TP15D		SHD 680 32		
Poclair				
75C, 75P, 90C, 90P, 115C, 115P, 160C		SHD 680 32		
GC, GY, LC, LY		SHD 635 44		
GCK		SHD 640 35		
MC		SHD 680 32		
MY		SHD 640 35		
P 10, P 20		SHD 640 35		
SC		SHD 680 32		
Digger 60, 90, 115, 160		SHD 680 32		
Digger GC120, 125CKB		600 26		
Digger P60		SHD 640 35		
Ponsse				
All models		SHD 680 32		
Porsche				
All models 218-419, AP, AR, P 111			580 01	P80 14



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Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Power General				
Compressor 500 D				P70 29
Propermat				
PSE			560 01	P62 19
Rammax				
Small vibratory roller			560 01	P62 19
Road roller 2200, 2400; large vibratory roller			570 01	P74 12
Ransome & Rapier				
Petrol digger crane		600 26		
Ransomes				
All models				P44 09
Rapid				
300, Alltrac 1800 - 2500, Alltrac AC 2000			580 01	P80 14
Cargo-Trac			592 01	P95 33
Tractor MT 200				P70 24
Tractor MT 3000			580 01	P80 14
Rapid Special (Slanzi engine)			560 01	P62 19
Reform Multi				
33, 50, 1450			592 01	P95 33
45, 145		600 26		
Reformwerke				
Bison, Bison super		SHD 725 11		
Metrac all other models			592 01	P95 33
Muli 145 - 401, 50 - 600			592 01	P95 33
Muli 45			592 01	P95 33
Reliance				
2500, 3000			570 01	P74 12
Renault				
ARES				
CERES 320, 330, 340X, 345X,		SHD 680 32		
CERGOS 340, 350, 355		610 11		
100-Series 106.54 - 180.94		SHD 680 32		
60-Series 68.12, 68.14		610 48		
90-Series 95-12, 103-12, 103-14		610 11		
Tractor 551-4, 651-4, 681-4, 751-5, 751-45		610 11		
Tractor 68RS, 75RS, 95TX, 103TX		610 48		
Riviere Casalis				
H 500		SHD 640 35		
RC 5500		SHD 680 32		
TVL 353, 453, 463			580 01	P80 14
Rolba				
R 200 E			592 01	P95 33
Rotair				
Compressor MDVN 32				P70 24
Rottne				
Forestry machine Rapid		SHD 640 35		
Ruston Bycyrus				
30RBH		SHD 680 32		
S.I.F.T.				
15, 26			580 01	P80 14
Saint Chamond				
All models			580 01	P80 14
Same				
1056P, 1056PT		SHD 640 35		
Ariete		610 48		
Centoro 70		SHD 680 32		
Centurion 75		SHD 680 32		
Dinosauro		SHD 680 32		
Jaguar 95		SHD 680 32		
KRIPTON 80, 90, 100		610 48		
Mercury		SHD 640 35		
Minitauro		SHD 640 35		
Panther		SHD 640 35		
Sirenetta		610 11		
Taurus		SHD 640 35		
Trident		SHD 680 32		
Aurora-Series Aurora 45		610 11		
Buffalo-Series Buffalo		SHD 680 32		
Condor-Series Condor 55		610 11		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Delfino 32		610 11		
Drago		SHD 680 32		
Hercules-Serie Hercules		SHD 680 32		
Laser-Serie Laser 110, 130, 150		SHD 680 32		
Leopard-Serie Leopard 85 DT, 85 U, 90		SHD 680 32		
Leopard C		SHD 640 35		
Tiger 100, 105		SHD 680 32		
Tractor Aricte		600 26		
Tractor Aricte		610 11		
Tractor Drago 100		SHD 670 33		
Tractor Silver 80, 90, 100		SHD 680 32		
Samsong				
SE235 LC3, 240 LC3, 280 LC3, 290 LC3, 350, 450		SHD 725 11		
SE350, SE450		SHD 725 11		
Schaeff				
HR26B, HS26AS, HML30A/B/C		SHD 640 35		
SKL850, SKB800, SKB840, HR30		SHD 640 35		
SKB 800, SKB 840		SHD 640 35		
SKL 300-701		SHD 640 35		
Schanzlin				
Gigant-Series Gigant 300 (35 HP)			570 01	P74 12
Gigant-Series all other models			580 01	P80 14
Golfrac			570 01	P74 12
Schilter				
ST 9500 A		SHD 640 35		
Schmidt				
HF 2		SHD 640 35		
SK 310			570 01	P74 12
SKS 150, SKS 250			592 01	P95 33
VF 311		SHD 640 35		
Schäf				
NR 26 A			580 01	P80 14
All other models		SHD 640 35		
Shibaura				
GT 14, GT 16				P45 23
V 475 F, V 490 F				P45 23
Tractor Minitractor				P70 24
Tractor S 500-0, 2500-0, 1640, SE 160				P70 24
Shilter				
Traktor 1000, 1500				P70 29
Sicom				
600			592 01	P95 33
1000			570 01	P74 12
Someca (Fiat)				
M 90, M 100, M 150			580 01	P80 14
M 120		SHD 680 32		
Space Saver				
All models				P95 04
Sperry New Holland				
1540 - 1895			570 01	P74 12
8030, 8040			580 01	P80 14
8055		SHD 640 35		
8070, 8080			570 01	P74 12
818 - 907			560 01	P62 19
Sampo 500, TF 32, TF 34			570 01	P74 12
TF 42, TF 44			580 01	P80 14
TX 32, 34			570 01	P74 12
TX 36 - TX 56			580 01	P80 14
Stavostroj				
KNB250, KTO300, SFS100		SHD 680 32		
TLN030, RN030		SHD 640 35		
VP200 Standard		SHD 680 32		
VP200 Torpedo		SHD 640 35		
VSH100		SHD 680 32		
VSH150, 61W, 102W		SHD 640 35		
W500D, W500PD		SHD 680 32		
W71, 110, 112, 113, 170		SHD 640 35		
W900D		SHD 640 35		
ZV1500		SHD 640 35		
Steinbock				
DPG/NA				P95 04

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Steyr				
15, 18				P95 04
30, 40		600 26		
70		SHD 680 32		
D 80, 84			560 01	P62 19
83 TK		SHD 640 35		
86 ST		600 26		
90			592 01	P95 33
185				P70 29
188, 190 - 280		600 26		
D 180			580 01	P80 14
D 188			592 01	P95 33
430, 540		600 26		
545, -Super, 548		SHD 640 35		
650, 658, 760, 768				P70 29
870		SHD 640 35		
980, -Super, 988		SHD 680 32		
1030 - 1400		SHD 680 32		
1108			592 01	P95 33
8045, -A, 8055, 8065			580 01	P80 14
8060 - 8090		SHD 640 35		
8110 - 8130 Turbo		SHD 680 32		
8140 - 8180		SHD 680 32		
8300, 8320		SHD 640 35		
9078 - 9094			580 01	P80 14
9125		SHD 680 32		
9155, 9170, 9190		SHD 680 32		
D 430, 540, 580			592 01	P95 33
M 958 - M 975			580 01	P80 14
M 9086 - M 9094 Base			592 01	P95 33
Tractor 30, 40, 90				P95 04
Tractor 180				P95 04
Tractor 188, 190			560 01	P62 19
Tractor 8055, 8065			592 01	P95 33
Tractor 1100 - 1400		600 26		
Tractor CVT 120, 130, 150, 170		SHD 680 32		
Stiga				
Ride-on mower TR 90				P60 68
Stiger				
1840, 2540				P95 05
Still				
Truck R 40, 43			592 01	P95 33
Truck 7001 - 7037				P44 09
Sullair				
Compressor F 35 D, 50 D, 74 D, 94 D			592 01	P95 33
Compressor 21D, 28 D, 34 D, F 40 D			570 01	P74 12
Compressor F 54 D			570 01	P74 12
Tadano				
TB 12				P70 29
TB 25 - 45				P95 05
TB 650S				P70 29
TBO 25, TBO 35				P95 04
TL 20				P70 24
Takeuchi				
All models TB 020 - TB 045				P70 24
TCM				
Wheeled loader FD 20, 25, 30		600 26		
Wheeled loader FG 20		600 26		
Wheeled loader FG 25				P70 24
Tecnomat				
655		SHD 680 32		
Terex-Atlas				
TM350, TM520		SHD 640 35		
Terex-Schaeff				
Mobil digger TW110 (67 kW)		SHD 640 35		
Caterpillar digger TC125 (69 kW)		SHD 640 35		
Thwaites				
5t catapillar digger		625 13		
6t GALAXY		625 13		
ALLDRIVE 5t		625 13		
ALLDRIVE 8t GOLIATH		625 13		
TUSKER (elektrical start)		610 48		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Timberjack				
215, 230, 404		610 11		
360, 209		610 48		
1210, 1210 B		610 11		
1270 B, C		SHD 640 35		
1410		610 11		
1470, 1710, 1840, 1870, 1880		SHD 640 35		
260, 280 master, 280 E		SHD 640 35		
410, 450		625 13		
678 F/P		610 11		
705/260, 705/270, 705/280, 706/260, 707/280		SHD 640 35		
770		625 13		
810		610 48		
810 B		610 11		
870, 870 B		610 11		
910, 1010, 1070		625 13		
990, 1270		610 11		
Mini brunett 578F, 678F		610 11		
Toro				
Wheeled loader 500 D		SHD 680 32		
TowMotor				
540 D, 600 D, 680 D, 5023-5101		SHD 670 33		
All other models				P70 29
Toyota				
FT 2 FD 50, 60				P60 68
5FD 10-18				P60 69
6 FBF 15-30			560 01	P62 19
FD 15 - 35, SFG 15				P60 69
Engine type 2F, H				P95 05
Engine type 2J, 5P				P70 24
Engine type 3P, 4P, 5R				P45 24
TD 20, 25, 3TD35, 45				P95 05
Troyan				
204				P70 24
Umo-Belarus				
All models			580 01	P80 14
Unimog				
T600/421			592 01	P95 33
Union				
U 20		SHD 680 32		
Universal				
(SM) 1600 DTC		SHD 680 32		
1640		SHD 680 32		
400, 453, 533		SHD 680 32		
445 DTC, 445 V, 445 L, 445 ST		SHD 680 32		
530 DTC, L, ST, V, 600 V1		SHD 680 32		
533, 703, 703 DT		SHD 680 32		
600 HC, 643		SHD 680 32		
640 DT, ST, DTC, HC, V		SHD 680 32		
850, 1010		SHD 680 32		
FM445		625 11		
SM 640, 1010 DT, 1445		SHD 680 32		
SV 530, 530 V		SHD 640 35		
U 400, V 400		SHD 680 32		
Ursus				
1134, 1201, 1204, 1222, 1224, 1232, 1234		SHD 640 35		
1634		SHD 680 32		
207, 208, 209, 210		SHD 640 35		
4512, 4514, 5312, 5314		SHD 640 35		
932, 934		SHD 640 35		
Tractor 1034, 1434, 1614		610 48		
Tractor 4514, 5514, 6514		610 11		
Tractor 914, 1014		610 48		
Utos				
All models		SHD 680 32		
Valmet				
1103, 1203, 2005, 2105		SHD 640 35		
305, 355, 405, 455		625 13		
4100, 4300, 4400		SHD 640 35		
502, 504, 505, 702, 703		625 13		



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Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
8000, 8100, 8300, 8400, 8600		625 13		
802, 803, 903		625 13		
805		SHD 680 32		
Valor				
All models			580 01	P80 14
Valtra				
A72 - A92 Series		625 13		
N82 - N92 Series		SHD 680 32		
N-Series		SHD 680 32		
T1-Series		SHD 680 32		
T2-Series		SHD 680 32		
N2-Series		SHD 680 32		
65-Series		625 13		
600 - 900		625 13		
A-Series		625 13		
An-Series		625 13		
Mezzo - Mega		SHD 680 32		
HiTech		SHD 680 32		
X-Series		SHD 680 32		
C-Series		SHD 680 32		
M-Series		SHD 680 32		
XM-Series		SHD 680 32		
Tc, Tch-Series		SHD 680 32		
T-Series		SHD 725 11		
S-Series	01.70-12.08	SHD 725 11		
S-Series	01.09-	610 48		
Valtra-Valmet				
Loader H240			592 01	P95 33
Snowmobile loader TN, TD-205, 255, 275			592 01	P95 33
Vandel				
4325		SHD 680 32		
Versatile				
All models			580 01	P80 14
Viking				
PEX 722 (Volvo), 900		610 11		
PEX100		SHD 640 35		
PW999		610 11		
REX 722 (Deutz)		610 11		
V110, 160H		610 11		
Volvo-BM Valmet				
Tractor 305, 405, 415M		625 13		
Volvo				
4200, 4400, 4500, 4600		625 11		
4300		610 11		
861 dumper		SHD 640 35		
A 20, 25 dumper		SHD 640 35		
BM 616, BM 616B		SHD 640 35		
L 120		SHD 640 35		
L 4950, L 4951		SHD 640 35		
LM 1640, 1641		SHD 640 35		
LM 1240, 1254		625 11		
VKH116, 118, 310, 312		SHD 640 35		
Digger EC160		610 11		
Digger EC160B, 180B		SHD 680 32		
Digger EC160C, 180C		SHD 640 35		
Digger EC210B, 210C		SHD 680 32		
Digger EC240, 240 B		SHD 725 11		
Digger EC280		SHD 640 35		
Digger EC290, 290B, 330B		SHD 725 11		
Digger EC340		SHD 680 32		
Digger EC360, EC360B		SHD 725 11		
Digger EC390, 450		SHD 680 32		
Digger EC460, 460B		SHD 725 11		
Digger EC650		SHD 680 32		
Digger EC700B		SHD 725 11		
Digger EW140		610 11		
Digger EW140B, 140C		SHD 640 35		
Digger EW160		610 11		
Digger EW160B, 160C		SHD 640 35		
Digger EW180B, 180C		SHD 640 35		
Digger EW200B		SHD 640 35		

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Dumper A25D, 28, 30, 30C, 30D, 35, 35C, 35D, 40, 40D		SHD 680 32		
Dumper EL70		610 11		
Wheeled loader L110E, 120E, 150E, 180E, 220E		SHD 640 35		
Wheeled loader L320E		SHD 725 11		
Wacker				
Road roller 86-110, 90A			560 01	P62 19
Road roller LS 15				P95 04
Wallis & Stevens				
Advanced rollers OG, PG				P70 24
Wayne				
Road sweeping machine				P70 24
Westwood				
Ride-on mower 250 truck				P95 04
Wheel Horse				
1257, 1277				P45 24
D 200, -Automatic				P44 09
Wille				
445			592 01	P95 33
Willer				
Road roller 150				P95 05
Yale & Towne				
2000 (Cummins)		610 48		
204A (Cummins)		610 11		
2711E (Diesel)		610 11		
300 (Leyland)		SHD 640 35		
3000 (Cummins & Leyland)		SHD 640 35		
D30, 51, 60		610 48		
FORK LIFT Truck (D)		610 48		
G1F, GP51F, L51F, LP51F/60 (Ford P oder LP engine)		610 11		
JUNIOR Tractor (D)		610 48		
Yale				
6PD51, 40, 60		600 26		
Yanmar				
1800 S1, 336 D		600 26		
YM 2760				P95 04
150, 160				P45 23
186				P45 23
240 - 336				P70 24
Zetor				
50 SUPER		SHD 680 32		
10000-Series 11245, 12245		SHD 640 35		
10000-Series 12145, 16111, 16145, 16245		600 26		
10000-Series 14011		SHD 680 32		
10000-Series 14245		SHD 640 35		
10000-Series 16045, 16145		SHD 680 32		
10000-Series 16245		SHD 640 35		
3000-Series 3320, 3340		SHD 680 32		
3000-Series 3321, 3341		SHD 640 35		
3000-Series 3511, 3545		600 26		
4000-Series 4011D, 4511, 4611		600 26		
4000-Series 4321, 4341		SHD 640 35		
4000-Series 4712, 4718		625 11		
4000-Series 4911		600 26		
5000-Series 5011, 5011S, 5045, 5211, 5245		SHD 680 32		
5000-Series 5320, 5340		SHD 680 32		
5000-Series 5341		SHD 640 35		
5000-Series 5411, 5511		600 26		
5000-Series 550		SHD 680 32		
5000-Series 5511/5545, 5611/5645, 5711, 5718, 5745, 5911, 5945		600 26		
6000-Series 6011, 6045, 6245		SHD 680 32		
6000-Series 6211, 6320, 6340		SHD 680 32		
6000-Series 6711, 6718, 6745, 6748, 6911, 6940, 6948		600 26		
7000-Series 7011, 7045, 7245, 7745		SHD 680 32		
7000-Series 7211, 7711		SHD 680 32		
8000-Series 8211, 8245		600 26		
8000-Series 8245		SHD 640 35		

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8000-Series 8520, 8540		SHD 680 32		
9000-Series 9520, 9540		SHD 680 32		
Tractor 7011, 7045, 7211, 7245, 7745		SHD 680 32		
Zettelmeyer				
ZW		SHD 680 32		
Wheeled loader WAS, WAW		SHD 670 33		
Wheeled loader WT2, WTL, ZL 500		600 26		
Wheeled loader ZW90		SHD 670 33		
ZL 1000, 1001		SHD 680 32		
ZL 1801, 2000, 2002		SHD 640 35		
ZL 300		SHD 635 44		
ZL 3002, 4001, 4002, 5001F		SHD 680 32		
ZL 801		SHD 680 32		



SNOW GROOMERS

Brand / Model designation	Year of manufacture	Buffalo Bull	Running Bull	Power Bull
Bombardier-Camoplast				
All other models (Yeti BR, ...)		625 11		
BR 180				P80 14
Jumbo		625 11		
Yeti +				P95 04
Yeti M		610 47		
Intropa-Ratrac				
1500				P70 29
1800				P95 04
Hydro Turbo	01.81-	SHD 640 35		
Hydromaster		SHD 725 11		
Turbo Cat				P95 05
Turbo LKWTT 260		SHD 680 32		
Kässbohrer				
PistenBully 100			592 01	P95 33
PistenBully 120			592 01	P95 33
PistenBully 130			592 01	P95 33
PistenBully 150			592 01	P95 33
PistenBully 170			592 01	P95 33
PistenBully 200		SHD 635 44		
PistenBully 210			592 01	P95 33
PistenBully 220			592 01	P95 33
PistenBully 240			592 01	P95 33
PistenBully 260		SHD 635 44		
PistenBully 270		SHD 640 35		
PistenBully 300 Kandahar, Park Bully, Polar		SHD 635 44		
PistenBully 320		SHD 640 35		
PistenBully 600, W		SHD 635 44		
PistenBully Canyon			592 01	P95 33
Leitner				
LH 250			592 01	P95 33
LH 300		610 47		
LH 350		610 47		
LH 360				P72 09*
LH 400		SHD 670 33		
LH 420		SHD 680 32		
LH 500		SHD 670 33		
LH 600		SHD 670 33		
LMC				
260				
1500				
2700				
Paana				
125			560 01	P62 19
170			560 01	P62 19
Forest			560 01	P62 19
Prinoth-Leitner				
2000				P95 04
A11				P95 04
Everest Parkdesigner, power		SHD 725 11		
Husky			570 01	P74 12
Junior		600 26		
Leitwolf		SHD 670 33		
T2				P95 04
T4S		SHD 670 33		
Titan				P95 04
TR				P72 09*

* mit Bodenleistenadapter



BIKE BULL

BIKE BULL – classified according to Banner type

Bike Bull 6 V with acid pack

Banner battery type	First fitting designation	Banner order number	Ah 10 h	A (CCA)					Drawing	
Length x Width x Height										
	6N2-2A*		2		5	70 47 96	0.10	B00		
	6N4-2A*		4		5	71 71 96	0.20	B00		
004 12	6N4B-2A	020 004 12 0100	4		5	102 48 96	0.20	B00		
	6N4A-4D*		4		5	57 61 131	0.20	B00		
	6N4-2A7*		4		5	71 71 96	0.20	B00		
	6N6-1B*		6		5	99 57 121	0.30	B00		
	6N6-3B*		6		6	99 57 121	0.30	B00		
	6N6-3B-1*		6		6	99 57 111	0.30	B00		
	6N6-1D-2*		6		5	99 57 111	0.30	B00		
007 14	B39-6	020 007 14 0100	7		6	126 48 126	0.30	B00		
008 11	B49-6	020 008 11 0100	8		6	91 83 160	0.50	B00		
	6YB8L-B*		8		5	121 71 96	0.30	B00		
	6N11-2D*		11		6	150 70 100	0.40	B00		
012 11	6N11A-3A	020 012 11 0100	11		6	122 62 132	0.40	B00		
012 14	6N11A-1B	020 012 14 0100	11		6	122 62 132	0.40	B00		
012 25	6N12A-2D	020 012 25 0100	12		6	156 57 116	0.50	B00		
013 14	B38-6A	020 013 14 0100	14		6	119 83 161	0.70	B00		

* Not in range



BIKE BULL

Bike Bull 12 V with acid pack

Banner battery type	First fitting designation	Banner order number	Ah 10 h	A (CCA)					Drawing
Length x Width x Height									
503 12	YB3L-A	020 503 12 0100	3		6	98 56 110	0.20	B00	
503 13	YB3L-B	020 503 13 0100	3		6	98 56 110	0.20	B00	
504 11	YB4L-B	020 504 11 0100	4		5	120 70 92	0.30	B00	
505 12	YB5L-B	020 505 12 0100	5		6	120 60 130	0.40	B00	
	12N5,5-4B*		5.5		2	138 61 131	0.40	B00	
	12N5,5-4A*		5.5		2	138 61 131	0.40	B00	
506 11	12N5,5-3B	020 506 11 0100	5.5		6	135 60 130	0.40	B00	
	12N5,5A-3B*		5.5		6	104 91 115	0.40	B00	
507 13	YB7-A	020 507 13 0100	8		6	135 75 133	0.60	B00	
507 14	YB7C-A	020 507 14 0100	8		3	130 90 114	0.60	B00	
509 14	YB9-B	020 509 14 0100	9		6	135 75 139	0.60	B00	
	YB9L-A2*		9		2	138 77 141	0.60	B00	
511 12	YB10L-A2	020 511 12 0100	11		8	135 90 145	0.80	B00	
511 13	YB10L-B	020 511 13 0100	11		6	135 90 145	0.80	B00	
512 11	YB12A-A	020 512 11 0100	12		6	134 80 160	0.80	B00	
	YB12B-B2*		12		8	161 91 131	0.80	B00	
512 13	YB12AL-A2	020 512 13 0100	12		8	134 80 160	0.80	B00	
512 15	YB12A-B	020 512 15 0100	12		6	134 80 160	0.80	B00	
514 11	YB14L-A2	020 514 11 0100	14		8	134 89 166	0.90	B00	
514 12	YB14-A2	020 514 12 0100	14		8	134 89 166	0.90	B00	
514 13	YB14L-B2	020 514 13 0100	14		8	134 89 166	0.90	B00	
514 14	YB14-B2	020 514 14 0100	14		8	134 89 166	0.90	B00	
	HYB16-A-A*		16		7	152 92 182	1.10	B00	
516 15	YB16B-A1	020 516 15 0100	16		7	160 90 161	1.00	B00	

* Not in range

BIKE BULL



Bike Bull 12 V with acid pack

Banner battery type	First fitting designation	Banner order number	Ah 10 h	A (CCA)							Drawing
						Length	Width	Height			
516 16	YB16AL-A2	020 516 16 0100	16		2	207	71	164	1.10	B00	
	YB18-A*		18		7	182	92	164	1.20	B00	
518 14	Europa – BMW without ABS	020 518 14 0100	18		10	186	82	171	1.00	B00	
	YB18L-A*		18		7	192	92	164	1.20	B00	
519 12	YB16-B	020 519 12 0100	19		6	175	100	155	1.20	B00	
519 15	YB16HL-A-CX	020 519 15 0100	19		5	175	100	155	1.20	B00	
520 11	Y50-N18L-A3	020 520 11 0100	20		4	205	90	162	1.40	B00	
520 12	Y50-N18L-A	020 520 12 0100	20		7	205	90	162	1.40	B00	
528 16	Y60-N24L-A	020 528 16 0100	28		3	184	124	175	1.70	B00	
530 15	YB30L-B	020 530 15 0100	30		4	168	132	176	2.00	B00	
530 30		010 530 30 0101	30		10	187	128	165	1.60	B00	
530 34		010 530 34 0101	30		10	187	128	165	1.60	B00	

* Not in range



BIKE BULL AGM

Bike Bull 12 V AGM

AGM = absorbent glass mat, with acid pack

Banner battery type	First fitting designation	Banner order number	Ah 10 h	A (CCA)					Drawing		
Length x Width x Height											
502 10 = 502 01 AGM+SLA											
	YT4B-BS*		2	40	13	113	38	85.5	0.12	B00	
503 14	YTX4L-BS	021 503 14 0100	3	40	5	114	71	86	0.19	B00	
504 12	YTX5L-BS	021 504 12 0100	4	55	5	114	71	106	0.24	B00	
506 14	YTX7L-BS	021 506 14 0100	6	75	5	114	71	131	0.33	B00	
506 15	YTX7A-BS	021 506 15 0100	6	85	5	150	87	95	0.38	B00	
508 12	YTX9-BS	021 508 12 0100	8	90	5	150	87	105	0.45	B00	
510 12	YTX12-BS	021 510 12 0100	10	160	5	150	87	131	0.60	B00	
510 21= 510 21 AGM+SLA											
512 14	YTX14-BS	021 512 14 0100	12	180	5	150	87	147	0.69	B00	
513 14	YTX15L-BS	021 513 14 0100	13	180	4	175	87	130	0.75	B00	
514 22	YTX16-BS	021 514 22 0100	14	200	4	150	87	161	0.80	B00	
518 21	YTX20L-BS	021 518 21 0100	18	210	4	175	87	155	0.90	B00	
518 22	YTX20CH-BS	021 518 22 0100	18	220	4	150	87	161	0.70	B00	
522 14	YTX50L-BS	021 522 14 0100	22	300	4	205	87	162	1.08	B00	
522 15	YTX50-BS	021 522 15 0100	22	300	4	205	87	162	1.08	B00	

* Not in range



BIKE BULL AGM+SLA

Bike Bull 12 V AGM + SLA technology

AGM = absorbent glass mat, SLA = sealed lead acid

Banner battery type	First fitting designation	Banner order number	Ah 10 h	A (CCA)					Drawing		
Length x Width x Height											
502 01	YTZ4A-BS	022 502 01 0101	2	35	12	114	49	85	-	B00	
506 01	YT7B-BS	022 506 01 0101	6	85	11	149	65	92	-	B00	
507 01	YTZ7S	022 507 01 0101	7	75	5	113	70	105	-	B00	
508 01	YT9B-4	022 508 01 0101	8	100	11	150	70	105	-	B00	
509 01	YTZ10S	022 509 01 0101	9	130	11	150	87	93	-	B00	
510 01	YT12B-BS	022 510 01 0101	10	115	11	150	70	131	-	B00	
510 21	YTZ12A-BS	022 510 21 0101	10	120	11	150	87	105	-	B00	
511 01	YTZ14S	022 511 01 0101	11	140	11	150	87	110	-	B00	
512 01	YT14B-4	022 512 01 0101	12	135	11	150	70	145	-	B00	
520 01	Europa – BMW without ABS	022 520 01 0101	20	170	10	181	76	172	-	B00	
530 01	YTZ30L-BS	022 530 01 0101	30	280	5	166	126	175	-	B00	

* Not in range

Ah 10 h	A (CCA)				
Capacity in Ah (10h)	Low-temperature test current	Pole	Max. dimensions in mm Length x Width x Total height	Bottom strip	Acid in approx. litres



BIKE BULL

BIKE BULL – classified according to first fitting designation

Bike Bull 6 V with acid pack

First fitting designation	Banner battery type	Banner order number	Ah 10 h	A (CCA)					Drawing
Length x Width x Height									
6N2-2A*			2		5	70 47 96	0.10	B00	
6N4-2A*			4		5	71 71 96	0.20	B00	
6N4-2A7*			4		5	71 71 96	0.20	B00	
6N4A-4D*			4		5	57 61 131	0.20	B00	
6N4B-2A	004 12	020 004 12 0100	4		5	102 48 96	0.20	B00	
6N6-1B*			6		5	99 57 121	0.30	B00	
6N6-1D-2*			6		5	99 57 111	0.30	B00	
6N6-3B*			6		6	99 57 121	0.30	B00	
6N6-3B-1*			6		6	99 57 111	0.30	B00	
6N11-2D*			11		6	150 70 100	0.40	B00	
6N11A-1B	012 14	020 012 14 0100	11		6	122 62 132	0.40	B00	
6N11A-3A	012 11	020 012 11 0100	11		6	122 62 132	0.40	B00	
6N12A-2D	012 25	020 012 25 0100	12		6	156 57 116	0.50	B00	
6YB8L-B*			8		5	121 71 96	0.30	B00	
B38-6A	013 14	020 013 14 0100	14		6	119 83 161	0.70	B00	
B39-6	007 14	020 007 14 0100	7		6	126 48 126	0.30	B00	
B49-6	008 11	020 008 11 0100	8		6	91 83 160	0.50	B00	

LIST 1



BIKE BULL

Bike Bull 12 V with acid pack

First fitting designation	Banner battery type	Banner order number	Ah 10 h	A (CCA)					Drawing	
Length x Width x Height										
12N5,5-3B	506 11	020 506 11 0100	5,5		6	135 60 130	0.40	B00		
12N5,5-4A*			5,5		2	138 61 131	0.40	B00		
12N5,5-4B*			5,5		2	138 61 131	0.40	B00		
12N5,5A-3B*			5,5		6	104 91 115	0.40	B00		
YB3L-A	503 12	020 503 12 0100	3		6	98 56 110	0.20	B00		
YB3L-B	503 13	020 503 13 0100	3		6	98 56 110	0.20	B00		
YB4L-B	504 11	020 504 11 0100	4		5	120 70 92	0.30	B00		
YB5L-B	505 12	020 505 12 0100	5		6	120 60 130	0.40	B00		
YB7-A	507 13	020 507 13 0100	8		6	135 75 133	0.60	B00		
YB7C-A	507 14	020 507 14 0100	8		3	130 90 114	0.60	B00		
YB9-B	509 14	020 509 14 0100	9		6	135 75 139	0.60	B00		
YB9L-A2*			9		2	138 77 141	0.60	B00		
YB10L-A2	511 12	020 511 12 0100	11		8	135 90 145	0.80	B00		
YB10L-B	511 13	020 511 13 0100	11		6	135 90 145	0.80	B00		
YB12A-A	512 11	020 512 11 0100	12		6	134 80 160	0.80	B00		
YB12A-B	512 15	020 512 15 0100	12		6	134 80 160	0.80	B00		
YB12AL-A2	512 13	020 512 13 0100	12		8	134 80 160	0.80	B00		
YB12B-B2*			12		8	161 91 131	0.80	B00		
YB14-A2	514 12	020 514 12 0100	14		8	134 89 166	0.90	B00		
YB14-B2	514 14	020 514 14 0100	14		8	134 89 166	0.90	B00		
YB14L-A2	514 11	020 514 11 0100	14		8	134 89 166	0.90	B00		
YB14L-B2	514 13	020 514 13 0100	14		8	134 89 166	0.90	B00		
YB16AL-A2	516 16	020 516 16 0100	16		2	207 71 164	1.10	B00		
YB16-B	519 12	020 519 12 0100	19		6	175 100 155	1.20	B00		

* Not in range



BIKE BULL

Bike Bull 12 V with acid pack

First fitting designation	Banner battery type	Banner order number	Ah 10 h	A (CCA)					Drawing	
Length x Width x Height										
YB16B-A1	516 15	020 516 15 0100	16		7	160 90 161	1.00	B00		
YB16HL-A-CX	519 15	020 519 15 0100	19		5	175 100 155	1.20	B00		
HYB16-A-A*			16		7	152 92 182	1.10	B00		
YB18-A*			18		7	182 92 164	1.20	B00		
YB18L-A*			18		7	192 92 164	1.20	B00		
YB30L-B	530 15	020 530 15 0100	30		4	168 132 176	2.00	B00		
Y50-N18L-A	520 12	020 520 12 0100	20		7	205 90 162	1.40	B00		
Y50-N18L-A3	520 11	020 520 11 0100	20		4	205 90 162	1.40	B00		
Y60-N24L-A	528 16	020 528 16 0100	28		3	184 124 175	1.70	B00		
Europa – BMW without ABS	518 14	020 518 14 0100	18		10	186 82 171	1.00	B00		
	530 30	010 530 30 0101	30		10	187 128 165	1.60	B00		
	530 34	010 530 34 0101	30		10	187 128 165	1.60	B00		

* Not in range



BIKE BULL AGM

Bike Bull 12 V AGM technology

AGM = absorbent glass mat, with acid pack

First fitting designation	Banner battery type	Banner order number	Ah 10 h	A (CCA)					Drawing		
Length x Width x Height											
YT4B-BS*			2	40	13	113	38	85,5	0.12	B00	
YTR4A-BS = YTZ4A-BS AGM+SLA											
YTX4L-BS	503 14	021 503 14 0100	3	40	5	114	71	86	0.19	B00	
YTX5L-BS	504 12	021 504 12 0100	4	55	5	114	71	106	0.24	B00	
YTX7A-BS	506 15	021 506 15 0100	6	85	5	150	87	95	0.38	B00	
YTX7L-BS	506 14	021 506 14 0100	6	75	5	114	71	131	0.33	B00	
YTX9-BS	508 12	021 508 12 0100	8	90	5	150	87	105	0.45	B00	
YTX12A-BS = YTZ12A-BS AGM+SLA											
YTX12-BS	510 12	021 510 12 0100	10	160	5	150	87	131	0.60	B00	
YTX14-BS	512 14	021 512 14 0100	12	180	5	150	87	147	0.69	B00	
YTX15L-BS	513 14	021 513 14 0100	13	180	4	175	87	130	0.75	B00	
YTX16-BS	514 22	021 514 22 0100	14	200	4	150	87	161	0.80	B00	
YTX20CH-BS	518 22	021 518 22 0100	18	220	4	150	87	161	0.70	B00	
YTX20L-BS	518 21	021 518 21 0100	18	210	4	175	87	155	0.90	B00	
YTX50-BS	522 15	021 522 15 0100	22	300	4	205	87	162	1.08	B00	
YTX50L-BS	522 14	021 522 14 0100	22	300	4	205	87	162	1.08	B00	

* Not in range



BIKE BULL AGM+SLA

Bike Bull 12 V AGM + SLA technology

AGM = absorbent glass mat, SLA = sealed lead acid

First fitting designation	Banner battery type	Banner order number	Ah 10 h	A (CCA)					Drawing		
Length x Width x Height											
YTZ4A-BS	502 01	022 502 01 0101	2	35	12	114	49	85	-	B00	
YT7B-BS	506 01	022 506 01 0101	6	85	11	149	65	92	-	B00	
YTZ7S	507 01	022 507 01 0101	7	75	5	113	70	105	-	B00	
YT9B-4	508 01	022 508 01 0101	8	100	11	150	70	105	-	B00	
YTZ10S	509 01	022 509 01 0101	9	130	11	150	87	93	-	B00	
YT12B-BS	510 01	022 510 01 0101	10	115	11	150	70	131	-	B00	
YTZ12A-BS	510 21	022 510 21 0101	10	120	11	150	87	105	-	B00	
YT14B-4	512 01	022 512 01 0101	12	135	11	150	70	145	-	B00	
YTZ14S	511 01	022 511 01 0101	11	140	11	150	87	110	-	B00	
Europa – BMW without ABS	520 01	022 520 01 0101	20	170	10	181	76	172	-	B00	
YTZ30L-BS	530 01	022 530 01 0101	30	280	5	166	126	175	-	B00	

* Not in range

Ah 10 h	A (CCA)				
Capacity in Ah (10h)	Low-temperature test current	Pole	Max. dimensions in mm Length x Width x Total height	Bottom strip	Acid in approx. litres



TERMINALS

Connecting poles

	Terminal			Batterie-Type Banner			
	Front	Side	Top				
1							
2				516 16	YB16AL-A2		
3				507 14 528 16	YB7C-A Y60-N24L-A		
4				513 14 514 22 518 21 518 22	YTX15L-BS YTX16-BS YTX20L-BS YTX20CH-BS	520 11 522 14 522 15 530 15	Y50-N18L-A3 YTX50L-BS YTX50-BS YB30L-B
5				004 12 503 14 504 11 504 12 506 14 506 15	6N4B-2A YTX4L-BS YB4L-B YTX5L-BS YTX7L-BS YTX7A-BS	507 01 508 12 510 12 512 14 519 15 530 01	YTZ7S YTX9-BS YTX12-BS YTX14-BS YB16HL-A-CX YTZ30L-BS
6				007 14 008 11 012 11 012 14 012 14 012 25 013 14 503 12 503 13	B39-6 B49-6 6N11A-3A 6N11A-1B 6N12A-2D B38-6A YB3L-A YB3L-B	505 12 506 11 507 13 509 14 511 13 512 11 512 15 519 12	YB5L-B 12N5,5-3B YB7-A YB9-B YB10L-B YB12A-A YB12A-B YB16-B
7				516 15 520 12	YB16B-A1 Y50-N18L-A		
8				511 12 512 13 514 11	YB10L-A2 YB12AL-A2 YB14L-A2	514 12 514 13 514 14	YB14-A2 YB14L-B2 YB14-B2
9							
10				518 14 520 01 530 30 530 34	Europa - BMW ohne ABS Europa - BMW mit ABS		
11				506 01 508 01 509 01 510 01	YT7B-BS YT9B-4 YTZ10S YT12B-BS	510 21 511 01 512 01	YTZ12A-BS YTZ14S YT14B-4
12				502 01	YTZ4A-BS		
13							
14							





TYPE COMPARISON LIST



Bike Bull

Old Banner battery type	Old Banner order no.	Old first fitting designation	Banner DIN battery type	Banner order number	First fitting designation
6V					
002 10	010 002 10 0000	6N2-2A			
004 11	010 004 11 0000	6N4-2A			
004 12	010 004 12 0000	6N4B-2A	004 12	020 004 12 0100	6N4B-2A
004 13	010 004 13 0000	6N4A-4D			
004 14	010 004 14 0000	6N4-2A7			
004 17	010 004 17 0000	6N4B-2A-3	004 12	020 004 12 0100	6N4B-2A
004 19	010 004 19 0000	6N6-1B			
006 11	010 006 11 0000	6N6-3B			
006 12	010 006 12 0000	6N6-3B-1			
006 13	010 006 13 0000	6N6-1D-2			
007 14	010 007 14 0000	B39-6	007 14	020 007 14 0100	B39-6
008 11	010 008 11 0000	B49-6	008 11	020 008 11 0100	B49-6
008 12	010 008 12 0000	6YB8L-B			
011 12	010 011 12 0000	6N11A-1B	012 14	020 012 14 0100	6N11A-1B
011 13	010 011 13 0000	6N11-2D			
			012 11	020 012 11 0100	6N11A-3A
			012 14	020 012 14 0100	6N11A-1B
012 15	010 012 15 0000	6N11A-3A	012 11	020 012 11 0100	6N11A-3A
012 25	010 012 25 0000	6N12A-2D	012 25	020 012 25 0100	6N12A-2D
013 14	010 013 14 0000	B38-6A	013 14	020 013 14 0100	B38-6A
12V					
503 12	010 503 12 0000	YB3L-A	503 12	020 503 12 0100	YB3L-A
503 13	010 503 13 0000	YB3L-B	503 13	020 503 13 0100	YB3L-B
504 11	010 504 11 0000	YB4L-B	504 11	020 504 11 0100	YB4L-B
505 12	010 505 12 0000	12N5-3B	505 12	020 505 12 0100	YB5L-B
505 13	010 505 13 0000	YB5L-B	505 12	020 505 12 0100	YB5L-B
506 10	010 506 10 0000	12N5,5-4B			
506 11	010 506 11 0000	12N5,5-4A			
506 12	010 506 12 0000	12N5,5A-3B			
506 13	010 506 13 0000	12N5,5-3B	506 11	020 506 11 0100	12N5,5-3B
507 11	010 507 11 0000	12N7-4A	507 13	020 507 13 0100	YB7-A
507 12	010 507 12 0000	12N7-3B	506 11	020 506 11 0100	12N5,5-3B
507 13	010 507 13 0000	YB-7C-A	507 14	020 507 14 0100	YB7C-A
			507 14	020 507 14 0100	YB7C-A
507 14	010 507 14 0000	YB7-A	507 13	020 507 13 0100	YB7-A
509 14	010 509 14 0000	12N9-4B-1	509 14	020 509 14 0100	YB9-B
509 16	010 509 16 0000	YB9L-A2			
509 17	010 509 17 0000	YB9-B	509 14	020 509 14 0100	YB9-B
510 11	010 510 11 0000	12N10-3B	511 13	020 511 13 0100	YB10L-B
511 12	010 511 12 0000	YB10L-A2	511 12	020 511 12 0100	YB10L-A2
			511 13	020 511 13 0100	YB10L-B
511 14	010 511 14 0000	YB10L-B	511 13	020 511 13 0100	YB10L-B
512 11	010 512 11 0000	12N12A-4A-1	512 11	020 512 11 0100	YB12A-A
512 12	010 512 12 0000	YB12B-B2			
512 13	010 512 13 0000	YB12AL-A2	512 13	020 512 13 0100	YB12AL-A2
512 14	010 512 14 0000	YB12A-A	512 11	020 512 11 0100	YB12A-A
			512 15	020 512 15 0100	YB12A-B
512 17	010 512 17 0000	YB12A-B	512 15	020 512 15 0100	YB12A-B
514 11	010 514 11 0000	12N14-3A	514 11	020 514 11 0100	YB14L-A2
514 12	010 514 12 0000	YB14-A2	514 12	020 514 12 0100	YB14-A2
514 13	010 514 13 0000	YB14L-A2	514 11	020 514 11 0100	YB14L-A2
514 14	010 514 14 0000	YB14-B2	514 14	020 514 14 0100	YB14-B2
514 15	010 514 15 0000	YB14L-B2	514 13	020 514 13 0100	YB14L-B2
514 16	010 514 16 0000	YB14L-A1	514 11	020 514 11 0100	YB14L-A2
514 17	010 514 17 0000	SYB14L-A2	514 11	020 514 11 0100	YB14L-A2
516 11	010 516 11 0000	YB16AL-A2	516 16	020 516 16 0100	YB16AL-A2
516 12	010 516 12 0000	HYB16-A-A			
516 14	010 516 14 0000	YB16-B-A1	516 15	020 516 15 0100	YB16B-A1
516 15	010 516 15 0000	YB16-B-A	516 15	020 516 15 0100	YB16B-A1
			516 16	020 516 16 0100	YB16AL-A2
516 18	010 516 18 0000	YB16-B-CX	519 12	020 519 12 0100	YB16-B



TYPE COMPARISON LIST



Bike Bull

Old Banner battery type	Old Banner order no.	Old first fitting designation	Banner DIN battery type	Banner order number	First fitting designation
518 11	010 518 11 0000	YB16L-B	519 15	020 519 15 0100	YB16HL-A-CX
518 12	010 518 12 0000	YB18-A			
518 14	010 518 14 0000	BMW without ABS	518 14	020 518 14 0100	Europa – BMW without ABS
518 15	010 518 15 0000	YB18L-A			
519 12	010 519 12 0000	YB16-B	519 12	020 519 12 0100	YB16-B
519 13	010 519 13 0000	YB16CL-B	519 15	020 519 15 0100	YB16HL-A-CX
			519 15	020 519 15 0100	YB16HL-A-CX
520 11	010 520 11 0000	Y50-N18L-A3	520 11	020 520 11 0100	Y50-N18L-A3
520 12	010 520 12 0000	Y50-N18L-A	520 12	020 520 12 0100	Y50-N18L-A
520 13	010 520 13 0000	SY50-N18L-A	520 12	020 520 12 0100	Y50-N18L-A
520 19	010 520 19 0000	Y50-N18L-A-CX	520 12	020 520 12 0100	Y50-N18L-A
528 16	010 528 16 0000	Y60-N24L-A	528 16	020 528 16 0100	Y60-N24L-A
			530 15	020 530 15 0100	YB30L-B

Bike Bull AGM

502 10	021 502 10 0100	YTR4A-BS	502 01 AGM+SLA	022 502 01 0101	YTZ4A-BS
			503 14	021 503 14 0100	YTX4L-BS
504 10	010 504 10 0000	YT4L-BS	503 14	021 503 14 0100	YTX4L-BS
			504 12	021 504 12 0100	YTX5L-BS
504 14	010 504 14 0000	YT4B-BS			
504 15	010 504 15 0000	YTR-4A-BS	502 01 AGM+SLA	022 502 01 0101	YTZ4A-BS
505 14	010 505 14 0000	YT5L-BS	504 12	021 504 12 0100	YTX5L-BS
505 15	010 505 15 0000	YTX5L-BS	504 12	021 504 12 0100	YTX5L-BS
			506 14	021 506 14 0100	YTX7L-BS
			506 15	021 506 15 0100	YTX7A-BS
507 15	010 507 15 0000	YTX7A-BS	506 15	021 506 15 0100	YTX7A-BS
507 16	010 507 16 0000	YTX7L-BS	506 14	021 506 14 0100	YTX7L-BS
			508 12	021 508 12 0100	YTX9-BS
509 15	010 509 15 0000	YTX9-BS	508 12	021 508 12 0100	YTX9-BS
			510 12	021 510 12 0100	YTX12-BS
510 21	021 510 21 0100	YTX12A-BS	510 21 AGM+SLA	022 510 21 0101	YTZ12A-BS
			512 14	021 512 14 0100	YTX14-BS
512 16	010 512 16 0000	YTX12-BS	510 12	021 510 12 0100	YTX12-BS
512 18	010 512 18 0000	YT12A-BS	510 21 AGM+SLA	022 510 21 0101	YTZ12A-BS
514 19	010 514 19 0000	YTX14-BS	512 14	021 512 14 0100	YTX14-BS
			513 14	021 513 14 0100	YTX15L-BS
			514 22	021 514 22 0100	YTX16-BS
516 17	010 516 17 0000	YTX16-BS	514 22	021 514 22 0100	YTX16-BS
			518 21	021 518 21 0100	YTX20L-BS
52014	010 520 14 0000	YTX20L-BS	518 21	021 518 21 0100	YTX20L-BS
			518 22	021 518 22 0100	YTX20CH-BS
			522 14	021 522 14 0100	YTX50L-BS
			522 15	021 522 15 0100	YTX50-BS

Bike Bull AGM+SLA

			502 01	022 502 01 0101	YTZ4A-BS
			506 01	022 506 01 0101	YT7B-BS
506 15	010 506 15 0100	YT7-B4	506 01	022 506 01 0101	YT7B-BS
			507 01	022 507 01 0101	YTZ7S
			508 01	022 508 01 0101	YT9B-4
508 15	010 508 15 0100	YT9B-4	508 01	022 508 01 0101	YT9B-4
			509 01	022 509 01 0101	YTZ10S
509 22	010 509 22 0100	YTZ10S	509 01	022 509 01 0101	YTZ10S
			510 01	022 510 01 0101	YT12B-BS
510 15	010 510 15 0100	YT12-B4	510 01	022 510 01 0101	YT12B-BS
			510 21	022 510 21 0101	YTZ12A-BS
			511 01	022 511 01 0101	YTZ14S
511 20	010 511 20 0100	YTZ12S	511 01	022 511 01 0101	YTZ14S
511 21	010 511 21 0100	YTZ14S	511 01	022 511 01 0101	YTZ14S
			512 01	022 512 01 0101	YT14B-4
514 22	010 514 22 0100	YT14B-4	512 01	022 512 01 0101	YT14B-4
			520 01	022 520 01 0101	Europa – BMW with ABS
			530 01	022 530 01 0101	YTZ30L-BS

Banner

MOTORCYCLES

Brand	Model designation	Banner type	First fitting designation
Adler	100 M	007 14	B39-6
Adler	250 M	007 14	B39-6
Adly	50 all models	504 11	YB4L-B
Aermacchi	125 SX	507 14	YB7C-A
Aermacchi	175 SX	507 14	YB7C-A
Aermacchi	250 Ala Azzurra/Bianca	012 14	6N11A-1B
Aermacchi	250 Alo Oro/Rossa/Verde	012 14	6N11A-1B
Aermacchi	250 Chimera	007 14	B39-6
Aermacchi	250 SX	507 14	YB7C-A
Aermacchi	350 Ala Azzurra/Bianca	012 14	6N11A-1B
Aermacchi	350 Alo Oro/Rossa/Verde	012 14	6N11A-1B
Agrati-Garelli	Moped	504 11	YB4L-B
Aprilia	50 all other models	504 11	YB4L-B
Aprilia	50 SR Ditech	504 12	YTX5L-BS
Aprilia	100 Scarabeo	504 12	YTX5L-BS
Aprilia	100 Scarabeo 4T, ST	509 14	YB9-B
Aprilia	125 AF 1 Futura (e-start)	509 14	YB9-B
Aprilia	125 AS R	506 11	12N5,5-3B
Aprilia	125 Classic	509 14	YB9-B
Aprilia	125 ETX (e-start)	509 14	YB9-B
Aprilia	125 ETX (kick start)	506 11	12N5,5-3B
Aprilia	125 Habana, Custome	508 12	YTX9-BS
Aprilia	125 Leonardo (kick start)	512 11	YB12A-A
Aprilia	125 Leonardo (e-start)	509 14	YB9-B
Aprilia	125 MX	509 14	YB9-B
Aprilia	125 Pegaso (e-start)	509 14	YB9-B
Aprilia	125 Red Rose (e-start)	509 14	YB9-B
Aprilia	125 RS Extrema (e-start)	509 14	YB9-B
Aprilia	125 RS Racing, Replica	509 14	YB9-B
Aprilia	125 RX (e-start)	509 14	YB9-B
Aprilia	125 S (e-start)	509 14	YB9-B
Aprilia	125 Scarabeo	512 13	YB12AL-A2
Aprilia	125 Sport City	509 14	YB9-B
Aprilia	125 SR 125	506 14	YTX7L-BS
Aprilia	125 ST, -STX	506 11	12N5,5-3B
Aprilia	125 Tuareg	506 11	12N5,5-3B
Aprilia	125 Tuareg (e-start)	509 14	YB9-B
Aprilia	125 Tuareg Rally	509 14	YB9-B
Aprilia	125 Tuono	509 14	YB9-B
Aprilia	150 Leonardo, Scarabeo	512 13	YB12AL-A2
Aprilia	150 Mojito	506 14	YTX7L-BS
Aprilia	150 SR	506 14	YTX7L-BS
Aprilia	200 Atlantic, Scarabeo	512 13	YB12AL-A2
Aprilia	200 STX	506 11	12N5,5-3B
Aprilia	250 Atlantic	512 13	YB12AL-A2
Aprilia	250 ETX e-starter	514 11	YB14L-A2
Aprilia	250 ETX, -STX	506 11	12N5,5-3B
Aprilia	250 Leonardo	512 13	YB12AL-A2
Aprilia	250 RS	503 14	YTX4L-BS
Aprilia	250 RS Replica	504 11	YB4L-B
01.2009-			
Aprilia	250 Sport City	510 12	YTX12-BS
Aprilia	350 ETX	509 14	YB9-B
Aprilia	350 ETX (e-start)	514 13	YB14L-B2
Aprilia	350 Tuareg Wind	514 13	YB14L-B2
Aprilia	450 RVX, SVX	506 15	YTX7A-BS
01.1990-12.2008			
Aprilia	500 Atlantic, Scarabeo	514 11	YB14L-A2
01.2009-			
Aprilia	500 Atlantic, Scarabeo	510 12	YTX12-BS
Aprilia	550 RVX, SVX	506 15	YTX7A-BS
Aprilia	600 ETX (e-start)	514 11	YB14L-A2
Aprilia	600 ETX (kick start)	506 11	12N5,5-3B
Aprilia	600 Pegaso	512 13	YB12AL-A2
Aprilia	600 Tuareg Wind	514 11	YB14L-A2
Aprilia	650 ETX	506 11	12N5,5-3B
Aprilia	650 ETX (e-start)	514 13	YB14L-B2
Aprilia	650 Moto 6.5, Stark	514 11	YB14L-A2
Aprilia	650 Pegaso	512 13	YB12AL-A2
Aprilia	650 Pegaso Strada, Factory, Trail	510 12	YTX12-BS
01.2009-			
Aprilia	750 Dorsoduro, Shiver	512 14	YTX14-BS

Brand	Model designation	Banner type	First fitting designation
01.2009-			
Aprilia	850 MAN, GT	512 14	YTX14-BS
Aprilia	1000 ETV, SL Falco	512 14	YTX14-BS
Aprilia	1000 RST, RSV, Tuono	510 12	YTX12-BS
Aprilia	1000 RSV4 R, Factory	509 01	YTX10S
Aspes	Yuma	507 14	YB7C-A
01.1991-12.1995			
ATK	All models	508 12	YTX9-BS
01.1996-12.2001			
ATK	All models	506 14	YTX7L-BS
Big Dog	All models	518 21	YTX20L-BS
B.S.A.	250 (12V)	507 14	YB7C-A
B.S.A.	250 (6V)	007 14	B39-6
B.S.A.	350 (12V)	507 14	YB7C-A
B.S.A.	350 (6V)	007 14	B39-6
B.S.A.	650 (12V)	507 14	YB7C-A
B.S.A.	650 (6V)	007 14	B39-6
B.S.A.	750 (12V)	507 14	YB7C-A
B.S.A.	Bantan (6V)	008 11	B49-6
B.S.A.	Rocket 750 (12V)	509 14	YB9-B
B.S.A.	Spitfire HK 35 (12V)	509 14	YB9-B
B.S.A.	Spitfire HK 35 (6V)	008 11	B49-6
B.S.A.	Starfire B 25 (12V)	509 14	YB9-B
B.S.A.	Starfire B 25 (6V)	008 11	B49-6
B.S.A.	Thunderbolt (6V)	008 11	B49-6
B.S.A.	Thunderbolt 750 (12V)	509 14	YB9-B
Bajaj	125 Cheetak Classic, SL, Gespenn	507 14	YB7C-A
Benelli	50 all models	504 11	YB4L-B
Benelli	80 all models	504 11	YB4L-B
Benelli	100 K2	505 12	YB5L-B
Benelli	125 Adiva	512 14	YTX14-BS
Benelli	125 Cross, -CSE, -Sport	012 14	6N11A-1B
Benelli	125 CS Scooter	509 14	YB9-B
Benelli	125 Custom Guzzi, -Guzzi		12N5,5-4A
Benelli	125 Enduro	008 11	B49-6
Benelli	125 Jamo (e-start)	509 14	YB9-B
Benelli	125 Velvet	508 12	YTX9-BS
Benelli	150 Adiva	512 14	YTX14-BS
Benelli	150 Velvet	508 12	YTX9-BS
Benelli	250 2-cyl.	012 14	6N11A-1B
Benelli	250 4-cyl.	512 11	YB12A-A
Benelli	250 TS	012 14	6N11A-1B
Benelli	250 Velvet	510 12	YTX12-BS
Benelli	254 2-cyl.	509 14	YB9-B
Benelli	254 4-cyl.	509 14	YB9-B
Benelli	350 RS	530 30	
Benelli	354	514 11	YB14L-A2
Benelli	500 LS	514 11	YB14L-A2
Benelli	500 Quattro	530 30	
Benelli	500 SS	512 11	YB12A-A
Benelli	504	514 11	YB14L-A2
Benelli	650 Tornado	512 11	YB12A-A
Benelli	654	514 11	YB14L-A2
Benelli	750 Sei	514 11	YB14L-A2
Benelli	750 SS	512 11	YB12A-A
Benelli	850 SS	512 11	YB12A-A
Benelli	900 Sei, Tornado TRE	530 30	
Beta	50 all models	504 11	YB4L-B
Beta	125 Eikon	508 12	YTX9-BS
Beta	150 Eikon	508 12	YTX9-BS
Beta	600 YB9	512 13	YB12AL-A2
Beta	750 SB3	514 11	YB14L-A2
Beta	900 HS2900	514 11	YB14L-A2
Beta	1000 YB6	514 11	YB14L-A2
Beta	YB10 Dieci	512 14	YTX14-BS
BFG	600 Odyssey	514 11	YB14L-A2
Big Dog	All models	520 01	
Bimota	600 YB9	512 13	YB12AL-A2
Bimota	750 SB3	514 11	YB14L-A2
Bimota	900 DB2, HS 2900, Tesi	514 11	YB14L-A2
Bimota	900 DB3 Mantra	506 14	YTX7L-BS
Bimota	996 SB8R, SB8RS	510 12	YTX12-BS
Bimota	1000 YB6, YB8, YB10	514 11	YB14L-A2



MOTORCYCLES

Brand	Model designation	Banner type	First fitting designation
Bimota	1000 YB10 dieci	512 14	YTX14-BS
Bimota	1000 YB11	510 12	YTX12-BS
Bimota	1100 SB6, SB7	506 14	YTX7L-BS
Bimota	1100 SB6R	510 12	YTX12-BS
BMW	125 C1	514 11	YB14L-A2
BMW	150 C1	514 11	YB14L-A2
BMW	200 C1	514 11	YB14L-A2
BMW	260 R26	007 14	B39-6
BMW	260 R26, R27 1-cyl.	012 14	6N11A-1B
01.2009-			
BMW	450 G	507 01	YTZ75
11.2007-			
BMW	450 G X	520 01	
BMW	500 R50/S 2-cyl.	013 14	B38-6A
BMW	500 R50/5	518 14	
BMW	500 R50/2 2-cyl.	013 14	B38-6A
BMW	600 R60/6, R60/7	530 30	
BMW	600 R60/5	518 14	
BMW	600 R60, R60/2 2-cyl.	013 14	B38-6A
01.1978-12.1984			
BMW	650 R65LS	518 14	
12.1984-12.1995			
BMW	650 R65LS	530 30	
01.1993-			
BMW	650 F	512 13	YB12AL-A2
BMW	650 FGS	512 14	YTX14-BS
BMW	750 R75/6, R75/7	530 30	
BMW	750 R75/5, K75C, S	518 14	
BMW	750 K75, RT	530 30	
BMW	800 FST, GS	512 14	YTX14-BS
BMW	800 R80/7, R80RT	530 30	
BMW	800 R80GS, R80ST	518 14	
BMW	800 R80, R80RT	530 30	
BMW	850 R	520 01	
BMW	900 R90/6, R90S	530 30	
01.1983-12.2008			
BMW	1000 all K models	530 30	
01.1987-12.1995			
BMW	1000 R100 GS, PD, R, RS, RT	530 30	
01.2009-			
BMW	1000 SRR	509 01	YTZ10S
01.2009-			
BMW	1000 SRR DWA	510 21	YTZ12A-BS
BMW	1100 all models	520 01	
BMW	1150 all models	520 01	
BMW	1200 RC, KRS, KLT, GT, RC, RS, S	520 01	
BMW	1200 HP2 Sport/Megamoto, RGS, KR	512 14	YTX14-BS
BMW	1300 KGT	520 01	
BMW	1300 KR, S	512 14	YTX14-BS
BSV	50 GP Dio, SP Dio, GZ	512 14	YTX14-BS
BSV	50 ZX	502 01	YTZ4A-BS
BSV	100 R S, T	530 30	
Buell	500 Blast	512 14	YTX14-BS
Buell	984 XB9R Firebolt	512 14	YTX14-BS
Buell	1000 RR	519 12	YB16-B
Buell	1125 R, CR	512 14	YTX14-BS
Buell	1125 RR Buell Racing	507 01	YTZ75
Buell	1200 RR, RS, RSS	519 12	YB16-B
Buell	1200 S1 Lightning	512 14	YTX14-BS
Buell	1200 X1 Lightning	518 21	YTX20L-BS
Buell	1200 M 2 Cyclone	518 21	YTX20L-BS
Buell	1200 S2, S2t Thunderbolt	519 12	YB16-B
Buell	1200 S3, S3t Thunderbolt	518 21	YTX20L-BS
Buell	1200 XB12R, XB12S, XB12X	512 14	YTX14-BS
Cagiva	50 City, -Prima, -Super City	504 11	YB4L-B
Cagiva	125 Blues Cruister, -Supercity, -Tamanaco	008 11	B49-6
Cagiva	125 Blues, -Elefant		12N5,5-4A
Cagiva	125 EG/SS 125	507 14	YB7C-A
Cagiva	125 Freccia, -Mito	509 14	YB9-B
Cagiva	125 GP S		12N5,5-4A
Cagiva	125 HD SS, -SSTm -SSX, -WSXT, -GP 125 S		12N5,5-4A

Brand	Model designation	Banner type	First fitting designation
Cagiva	125 Rapator		12N5,5-4A
Cagiva	125 W8, -K7	504 11	YB4L-B
Cagiva	125 WER	503 14	YTX4L-BS
Cagiva	200 Elefant		12N5,5-4A
Cagiva	200 Roadster	507 14	YB7C-A
Cagiva	200 Roadster	509 14	YB9-B
Cagiva	250 Roadster SST, SX	507 14	YB7C-A
Cagiva	350 EGS, -SX	507 14	YB7C-A
Cagiva	350 Elefant	514 11	YB14L-A2
Cagiva	350 R, -E T4		12N5,5-4A
Cagiva	350 Roadster SST	507 14	YB7C-A
Cagiva	350 SST,SX	507 14	YB7C-A
Cagiva	350 T4 Ala Rossa		12N5,5-4A
Cagiva	350 T4 R	503 12	YB3L-A
Cagiva	350 W12	514 11	YB14L-A2
Cagiva	400 EGS	507 14	YB7C-A
Cagiva	500 Canyon, River	512 14	YTX14-BS
Cagiva	500 T4 E Elefant	514 11	YB14L-A2
Cagiva	600 Canyon	514 11	YB14L-A2
Cagiva	600 Canyon River	516 16	YB16AL-A2
Cagiva	600 W 16, -River	514 11	YB14L-A2
Cagiva	650 Elefant	514 11	YB14L-A2
Cagiva	650 Raptor, V Raptor	510 12	YTX12-BS
01.1994-			
Cagiva	750 Elefant	519 12	YB16-B
01.1989-12.1993			
Cagiva	750 Elefant	514 11	YB14L-A2
Cagiva	900 Canyon I.E., Elefant, Grand Canyon	519 12	YB16-B
Cagiva	900 E	516 16	YB16AL-A2
Cagiva	1000 Canyon I.E., Navigator	519 12	YB16-B
Cagiva	1000 Gran Canyon	512 14	YTX14-BS
Cagiva	1000 Raptor	508 12	YTX9-BS
Cagiva	1000 V-Raptor	510 12	YTX12-BS
Cagiva	K3/50, W4/50	504 11	YB4L-B
Can-AM	125	505 12	YB5L-B
Can-AM	250	505 12	YB5L-B
Can-AM	990 Spyder	522 14	YTX50L-BS
Cannondale	440 all models	504 12	YTX5L-BS
CCM	404 DS, Supermoto, R 30	508 12	YTX9-BS
CCM	600 all models	508 12	YTX9-BS
Chang Jiang	Motorcycle	505 12	YB5L-B
CVM	All electric starters	508 12	YTX9-BS
CZ Motokov	125		6N6-3B
CZ Motokov	175 Sport		6N6-3B
CZ Motokov	250 Sport		6N6-3B
CZ Motokov	Trial	007 14	B39-6
Daelim	125 History, Otello, VL Daystar, Roadwin	506 15	YTX7A-BS
Daelim	125 NS	506 15	YTX7A-BS
Daelim	125 VC	509 14	YB9-B
Daelim	125 VS, VT	509 14	YB9-B
DDR	50 all models	503 14	YTX4L-BS
Derbi	50 Atlantis	504 11	YB4L-B
Derbi	50 Atlantis USA	503 14	YTX4L-BS
Derbi	50 Aventura	504 11	YB4L-B
Derbi	50 DS	505 12	YB5L-B
Derbi	50 Easy, Femix, Furax, GPR, Hunter, Paddock	504 11	YB4L-B
Derbi	50 Predator GP1	503 14	YTX4L-BS
Derbi	50 Predator LC, O2, Senda, Sport, Vamos, Variant, GS	504 11	YB4L-B
Derbi	100 Atlantis 100	508 12	YTX9-BS
Derbi	125 Boulevard, Senda SM	508 12	YTX9-BS
Derbi	125 Vamos	505 12	YB5L-B
Denpr	MT 11	504 11	YB4L-B
DRR	All models	503 14	YTX4L-BS
Ducati	125 Cross, -Enduro	007 14	B39-6
Ducati	125 Six Day		6N4-2A
Ducati	129 Aurea	007 14	B39-6
Ducati	175 Cross	013 14	B38-6A
Ducati	250 Cross	013 14	B38-6A
Ducati	300	512 11	YB12A-A
Ducati	350 Cross	013 14	B38-6A

Banner

MOTORCYCLES

Brand	Model designation	Banner type	First fitting designation
Ducati	350 F3	514 11	YB14L-A2
Ducati	350 Mark 3, Scrambler	013 14	B38-6A
Ducati	350 Sport GTV	520 12	Y50-N18L-A
Ducati	350 Vento	512 11	YB12A-A
Ducati	350 XL, -Alazzurra	514 11	YB14L-A2
Ducati	400 Alazzurra, F3	514 11	YB14L-A2
Ducati	400 Supersport	516 16	YB16AL-A2
Ducati	400 TS	013 14	B38-6A
Ducati	500	512 11	YB12A-A
Ducati	500 Pantha	514 11	YB14L-A2
Ducati	500 Sport GTV	520 12	Y50-N18L-A
Ducati	600 M Chromo, Monster Desmodue, Supersport	516 16	YB16AL-A2
Ducati	600 M Dark, SS Supersport	510 12	YTX12-BS
Ducati	600 Pantha, TL	514 11	YB14L-A2
Ducati	620 Monster/IE/S IE/Sport	510 12	YTX12-BS
Ducati	650 Alazzurra, -Pantah Replica	514 11	YB14L-A2
01.2009-			
Ducati	696 Monster	510 01	YT12B-BS
Ducati	748 Bipostr, SR	510 12	YTX12-BS
Ducati	748 Monster, -Sport	516 16	YB16AL-A2
Ducati	749 Dark, S, R	510 12	YTX12-BS
Ducati	750 (kick start)	512 11	YB12A-A
Ducati	750 Electric	530 30	
Ducati	750 F1, Montjuich, Paso, Indiana	514 11	YB14L-A2
Ducati	750 GT, Luguna Seca	530 30	
Ducati	750 Monster, Sport, SS IE, SS Veloce	510 12	YTX12-BS
01.1988-12.1990			
Ducati	750 Paso	516 15	YB16B-A1
Ducati	750 Paso/F1	514 11	YB14L-A2
01.1988-			
Ducati	750 Sport	516 16	YB16AL-A2
Ducati	750 SS, -Desmo, Desmolmola	512 11	YB12A-A
Ducati	796 Hypermotard	510 01	YT12B-BS
Ducati	800 Monster, SS Carrera	510 12	YTX12-BS
Ducati	848	510 01	YT12B-BS
Ducati	850 (kick start)	512 11	YB12A-A
Ducati	850 Electric, -SD, -SS, -SSC	530 30	
Ducati	851 SP, SS	516 16	YB16AL-A2
Ducati	860 GT, GTS	530 30	
Ducati	860 kick start, SS	512 11	YB12A-A
Ducati	888 SP, -SPS	516 16	YB16AL-A2
Ducati	900	530 30	
-2000			
Ducati	900 Monster	516 16	YB16AL-A2
01.2001-			
Ducati	900 Monster	510 01	YT12B-BS
-1988			
Ducati	900 Paso	516 15	YB16B-A1
-1981			
Ducati	900 SS	512 11	YB12A-A
Ducati	906 Paso	519 12	YB16-B
Ducati	907 I.E. Paso	519 12	YB16-B
Ducati	916 all models	516 16	YB16AL-A2
Ducati	944 -Sport Touring 2	516 16	YB16AL-A2
Ducati	996 S, SPS	516 16	YB16AL-A2
Ducati	996 ST4s	510 01	YT12B-BS
Ducati	998	518 21	YTX20L-BS
Ducati	1000 Desmosedici RR, GT	510 01	YT12B-BS
01.2000-			
Ducati	1000 Multistrada	510 12	YTX12-BS
01.2007-12.2007			
Ducati	1098	512 14	YTX14-BS
01.2001-			
Ducati	1098 all models	510 01	YT12B-BS
Ducati	1100 all models	510 01	YT12B-BS
01.2009-			
Ducati	1198	510 01	YT12B-BS
Ducati	1200 Multistrada	510 01	YT12B-BS
1996-			
Ducati	9000 HR	518 21	YTX20L-BS
Endress	50 EMR	504 12	YTX5L-BS
Enfield	350 Bullet, -de Luxe	504 12	YTX5L-BS

Brand	Model designation	Banner type	First fitting designation
E-Ton	50 all models	504 12	YTX5L-BS
E-Ton	150 Sport	506 15	YTX7A-BS
E-Ton	150 Beamer, Matrix	508 12	YTX9-BS
Excelsior-Henderson	1386 Super X	518 21	YTX20L-BS
Facer	All models	519 12	YB16-B
Fantic - Motor	50 Alien, Extra, Grinta, Leader, Queenie	503 14	YTX4L-BS
Fantic - Motor	50 Oasis EPV	506 11	12N5,5-3B
Fantic - Motor	50 Pony, -Pony SR, -Big Wheel, HP1, Koala, Oasis	504 11	YB4L-B
Fantic - Motor	50 TX220	007 14	B39-6
Fantic - Motor	80 Clubman, Koala	504 11	YB4L-B
Fantic - Motor	125 Clubman, Extra, Hit, Raider-LC, Sport	503 12	YB3L-A
Fantic - Motor	125 GTA	505 12	YB5L-B
Fantic - Motor	125 GTA Electric Sport	509 14	YB9-B
Fantic - Motor	125 Sport, Strada (6V)	004 12	6N4B-2A
Fantic - Motor	125 Strada-Sport	004 12	6N4B-2A
Fantic - Motor	125 XR Tiger	505 12	YB5L-B
Fantic - Motor	250 Raider LC (12V), Sport	503 12	YB3L-A
Fantic - Motor	No i Electric Sport	504 11	YB4L-B
Garelli	50 all models	503 14	YTX4L-BS
Garelli	125 GTA (e-start)	509 14	YB9-B
Garelli	125 GTA (Kick/e-start)	505 12	YB5L-B
Garelli	125 GTA (kick start)	505 12	YB5L-B
Garelli	125 TSR		12N7-4B
Garelli	125 XR Tiger	505 12	YB5L-B
Garelli	125 XR Tiger (e-start)	509 14	YB9-B
Garelli	125 XR Tiger (kick start)	505 12	YB5L-B
Gas Gas	125 Pampera	503 14	YTX4L-BS
Gas Gas	200 EC	503 14	YTX4L-BS
Gas Gas	200 TXT	503 14	YTX4L-BS
Gas Gas	250 Pampra	503 14	YTX4L-BS
Gas Gas	250 TT Enducross	503 14	YTX4L-BS
Gas Gas	320 Pampera	503 14	YTX4L-BS
Gas Gas	370 Pampera	503 14	YTX4L-BS
Gas Gas	450 FSR	507 01	YTZ75
Gilera	50 Bullit Mix, 503	504 11	YB4L-B
Gilera	50 DANN, Ice	503 14	YTX4L-BS
Gilera	50 Eaglet, Sioux e-starter, Top Rallye, 303	504 11	YB4L-B
Gilera	50 GSA (e-start)	505 12	YB5L-B
Gilera	50 Runner, Stalker, Storm, Typhoon	504 11	YB4L-B
Gilera	124 Florida	013 14	B38-6A
Gilera	124 Regularita Starda	012 14	6N11A-1B
Gilera	125 Arizona	509 14	YB9-B
Gilera	125 Coguar	509 14	YB9-B
Gilera	125 Crono E, S, -CX, Apache E, -S, -CX	509 14	YB9-B
Gilera	125 Crono K, -S, Apache K, -S	506 11	12N5,5-3B
Gilera	125 DANN	511 13	YB10L-B
Gilera	125 Fast Bike (e-start)	509 14	YB9-B
Gilera	125 Fast Bike (kick start)	506 11	12N5,5-3B
Gilera	125 Freestyle (e-start)	509 14	YB9-B
Gilera	125 Freestyle (kick start)	506 11	12N5,5-3B
Gilera	125 GFR (e-start)	509 14	YB9-B
Gilera	125 GFR (kick start)	506 11	12N5,5-3B
Gilera	125 KK, KZ (e-start)	509 14	YB9-B
Gilera	125 KK, KZ (kick start)	506 11	12N5,5-3B
Gilera	125 MX1, MXR (kick start)	506 11	12N5,5-3B
Gilera	125 Nebraska (e-start)	509 14	YB9-B
Gilera	125 Nebraska (kick start)	506 11	12N5,5-3B
Gilera	125 R1, R1S (e-start)	509 14	YB9-B
Gilera	125 R1, R1S (kick start)	506 11	12N5,5-3B
Gilera	125 RC Rally	511 13	YB10L-B
Gilera	125 Regularita Strada	012 14	6N11A-1B
Gilera	125 RTX, RV, RX (kick start)	506 11	12N5,5-3B
Gilera	125 Runner FX, PD	509 14	YB9-B
Gilera	125 Runner VX, 4T	506 11	12N5,5-3B
Gilera	125 SP01, SP02 (e-start)	509 14	YB9-B
Gilera	125 SP01, SP02 (kick start)	506 11	12N5,5-3B
Gilera	125 TG 1, -GR 1	012 14	6N11A-1B
Gilera	125 Top Rally (e-start)	509 14	YB9-B
Gilera	125 Top Rally (kick start)	506 11	12N5,5-3B
Gilera	125 Typhoon	507 13	YB7-A



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Brand	Model designation	Banner type	First fitting designation
Gilera	125 X, XR1, XR2 (e-start)	509 14	YB9-B
Gilera	125 XR1, XR2 (kick start)	506 11	12N5,5-3B
Gilera	150 G	013 14	B38-6A
Gilera	150 Vigilli Urbani	012 14	6N11A-1B
Gilera	180 Runner FXR, SP	511 13	YB10L-B
Gilera	180 Runner SP, VXR 4T	510 12	YTX12-BS
Gilera	200 Arizona	509 14	YB9-B
Gilera	200 Fast Bike El.-Starter	506 11	12N5,5-3B
Gilera	200 Fast Bike kick starter	509 14	YB9-B
Gilera	200 Motocarro	013 14	B38-6A
Gilera	200 RTX	509 14	YB9-B
Gilera	200 RV	509 14	YB9-B
Gilera	200 RX , RV, RTX	509 14	YB9-B
Gilera	250 Arizona Rally	511 13	YB10L-B
Gilera	250 G	013 14	B38-6A
Gilera	250 NGR	511 13	YB10L-B
Gilera	250 RV	509 14	YB9-B
Gilera	300 G	013 14	B38-6A
Gilera	350 (kick start)	506 11	12N5,5-3B
Gilera	350 Dakota	509 14	YB9-B
Gilera	350 Dakota (e-start)	511 13	YB10L-B
Gilera	350 ER (e-start)	511 13	YB10L-B
Gilera	350 XRT	514 11	YB14L-A2
Gilera	500 Dakota, Nexus	514 11	YB14L-A2
Gilera	500 Saturno	514 11	YB14L-A2
Gilera	600 Northwest, Top Rallye, XRT	514 11	YB14L-A2
Gilera	600 RC E- -S, -Northwest	514 11	YB14L-A2
Gilera	600 RCK S, -R	506 11	12N5,5-3B
Harley-Davidson	90 X	507 14	YB7C-A
Harley-Davidson	125 TX, SX	507 14	YB7C-A
Harley-Davidson	175 SX	507 14	YB7C-A
Harley-Davidson	250 EG	507 14	YB7C-A
Harley-Davidson	250 SX	507 14	YB7C-A
Harley-Davidson	350 EG	507 14	YB7C-A
Harley-Davidson	400 EG	507 14	YB7C-A
Harley-Davidson	500 MAR, MT	514 11	YB14L-A2
<i>01.1986-12.1996</i>			
Harley-Davidson	883 XL, XLH	519 12	YB16-B
<i>01.1997-12.2003</i>			
Harley-Davidson	883 XL, XLH	518 21	YTX20L-BS
<i>01.2004-</i>			
Harley-Davidson	883 XL, XLH	513 14	YTX15L-BS
Harley-Davidson	1000 XL, XLCH, XLCR	519 12	YB16-B
Harley-Davidson	1100 XL	519 12	YB16-B
Harley-Davidson	1130 VRSC	519 12	YB16-B
<i>01.1997-12.2003</i>			
Harley-Davidson	1200 XL, XLH	518 21	YTX20L-BS
<i>01.2004-</i>			
Harley-Davidson	1200 XL, XLH	513 14	YTX15L-BS
Harley-Davidson	1250 VRSC	519 12	YB16-B
Harley-Davidson	1340 FL, FLH	530 15	YB30L-B
Harley-Davidson	1340 FXD, FXST, FLST	518 21	YTX20L-BS
Harley-Davidson	1450 FL, FLH	530 15	YB30L-B
Harley-Davidson	1450 FXD, FXST, FLST	518 21	YTX20L-BS
Harley-Davidson	1570 FL, FLH	530 01	YTZ30L-BS
Harley-Davidson	1570 FXD, FXST, FLST	518 21	YTX20L-BS
Harley-Davidson	1580 FL, FLG	530 01	YTZ30L-BS
Harley-Davidson	1584 FXD, FXST, FLST	518 21	YTX20L-BS
Harley-Davidson	1690 FLHTK	530 01	YTZ30L-BS
Harley-Davidson	1803 CVO FLH	530 01	YTZ30L-BS
Harley-Davidson	1803 CVO FXD, FLST	518 21	YTX20L-BS
Heinkel	150	012 14	6N11A-1B
Heinkel	R 103	012 14	6N11A-1B
Heinkel	Scooter-Tourist	012 14	6N11A-1B
Hercules	50 City CV Scooter	007 14	B39-6
Hercules	50 Limbo, Reggae, Splinter, Gipsy	504 11	YB4L-B
Hercules	50 Ultra, Fox, Swing, Samba	504 11	YB4L-B
Hercules	80 City CV, -E		6N11-2D
Hercules	80 Ultra, Chopper, Samba	505 12	YB5L-B
Hercules	125 RT	012 14	6N11A-1B
Hercules	125 RT, BW, T, X	012 14	6N11A-1B
Hercules	125 Samba, SR	505 12	YB5L-B
Hercules	2000 W Wankel		YB18L-A

Brand	Model designation	Banner type	First fitting designation
Hercules	K 103	012 14	6N11A-1B
Hercules	K 105 X	012 14	6N11A-1B
Hercules	K 125 BW	012 14	6N11A-1B
Hercules	K 125 E, K 125X Military	012 14	6N11A-1B
Hercules	K 125 RT, S, X	012 14	6N11A-1B
Hercules	RX 9	505 12	YB5L-B
HMZ	50 Cab	503 14	YTX4L-BS
HMZA	125 Cruise		
Hodaka	90		6N4-2A
Hodaka	100		6N4-2A
Honda	50 CB		6N2-2A
Honda	50 CHF, Metropolitan, II, SP	504 12	YTX5L-BS
Honda	50 Lead	504 11	YB4L-B
Honda	50 MB		6N4-2A-7
Honda	50 MBX	503 12	YB3L-A
Honda	50 MT		6N4-2A-7
Honda	50 NB, ND, NH	504 11	YB4L-B
Honda	50 NH Lead	505 12	YB5L-B
Honda	50 NS 1	503 12	YB3L-A
Honda	50 NSR	503 12	YB3L-A
Honda	50 PK0	503 14	YTX4L-BS
Honda	50 PX, Snoopy	504 11	YB4L-B
Honda	50 PXR	504 11	YB4L-B
Honda	50 SA Vision	503 14	YTX4L-BS
Honda	50 SFX	502 01	YTZ4A-BS
Honda	50 SGX	503 14	YTX4L-BS
Honda	50 SH	504 11	YB4L-B
Honda	50 SJ/SY Bali	502 01	YTZ4A-BS
Honda	50 SS		6N2-2A
Honda	50 ST	503 14	YTX4L-BS
Honda	50 SZX	502 01	YTZ4A-BS
Honda	80 CH Elite	504 12	YTX5L-BS
Honda	80 CY, MB		6N4-2A-7
Honda	80 MBX	503 12	YB3L-A
Honda	80 MCX	503 12	YB3L-A
Honda	80 MT		6N4-2A-7
Honda	80 MTX RS/R2	503 12	YB3L-A
Honda	80 MZX RS/R2	503 12	YB3L-A
Honda	80 NH Lead, SH E	505 12	YB5L-B
Honda	80 XL		6N6-3B-1
Honda	90 C, CW, M	504 11	YB4L-B
Honda	90 EZ (Club)	504 12	YTX5L-BS
Honda	90 Shadow	504 12	YTX5L-BS
Honda	90 Super Club, TH90 T	503 14	YTX4L-BS
Honda	100 BC, C-MA, C-TH	503 14	YTX4L-BS
Honda	100 CB N		6N6-3B
Honda	100 C-M	505 12	YB5L-B
Honda	100 EX Bali	504 12	YTX5L-BS
Honda	100 HS		6N4-2A7
Honda	100 NF M	504 12	YTX5L-BS
Honda	100 NH-1D	504 12	YTX5L-BS
Honda	100 SH	504 12	YTX5L-BS
Honda	100 SH Scoopy	504 12	YTX5L-BS
Honda	100 SJ Bali	504 12	YTX5L-BS
Honda	100 SJ Bali EX	504 12	YTX5L-BS
Honda	110 C	507 01	YTZ7S
Honda	110 NXH Elite	506 14	YTX7L-BS
Honda	125 CB K	012 25	6N12A-2D
Honda	125 CB N		6N6-3B-1
Honda	125 CB S		6YB8L-B
Honda	125 CB S,S V		6N6-3B-1
Honda	125 CB T		6YB8L-B
Honda	125 CB T Italia	509 14	YB9-B
Honda	125 CB TD	509 14	YB9-B
Honda	125 CBX/Endurance		6N6-3B-1
Honda	125 CDT	509 14	YB9-B
Honda	125 CG		6YB8L-B
Honda	125 CG,-IR	503 12	YB3L-A
Honda	125 CH E	509 14	YB9-B
Honda	125 CH J	508 12	YTX9-BS
Honda	125 CHA T	509 14	YB9-B
Honda	125 City Fly	504 12	YTX5L-BS
Honda	125 CM C	509 14	YB9-B

Banner

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Brand	Model designation	Banner type	First fitting designation
Honda	125 CMT	012 11	6N11A-3A
Honda	125 CMR	503 14	YTX4L-BS
Honda	125 CMX	506 14	YTX7L-BS
Honda	125 CRM	503 14	YTX4L-BS
Honda	125 CS		6N6-3B
Honda	125 FES	508 12	YTX9-BS
Honda	125 GLR	504 12	YTX5L-BS
Honda	125 MBX FE	505 12	YB5L-B
Honda	125 MT Elsinore		6N6-3B
Honda	125 MTX	505 12	YB5L-B
Honda	125 NES	506 14	YTX7L-BS
Honda	125 NH D	505 12	YB5L-B
Honda	125 NS F	505 12	YB5L-B
Honda	125 NSR	504 12	YTX5L-BS
Honda	125 NSR F/R/R2/Raiden	504 12	YTX5L-BS
Honda	125 NX	506 14	YTX7L-BS
Honda	125 Pantheon	508 12	YTX9-BS
Honda	125 PCX	507 01	YTZ7S
Honda	125 Rebel	506 14	YTX7L-BS
Honda	125 SES, SH, Shadow	506 14	YTX7L-BS
<i>01.1988-</i>			
Honda	125 Spacy JF 03	508 12	YTX9-BS
Honda	125 TL		6N2-2A
Honda	125 TMX		6N6-3B
Honda	125 VT C	504 12	YTX5L-BS
Honda	125 VT Shadow	506 14	YTX7L-BS
Honda	125 XL RC	503 12	YB3L-A
Honda	125 XL RPD	509 14	YB9-B
Honda	125 XL S		6N4-2A
Honda	125 XL SD		YB2.5L-C-2
Honda	125 XLR R	506 14	YTX7L-BS
Honda	125 XVV	504 12	YTX5L-BS
Honda	150 CRF F	504 12	YTX5L-BS
Honda	150 SH	506 14	YTX7L-BS
Honda	200 CB	509 14	YB9-B
Honda	200 CM	509 14	YB9-B
Honda	200 TLR	503 14	YTX4L-BS
Honda	230 CRF	507 01	YTZ7S
<i>01.1991-12.2007</i>			
Honda	250 CB Nighthawk	506 14	YTX7L-BS
Honda	250 CB G, K	512 11	YB12A-A
<i>01.2011-</i>			
Honda	250 CBR R	506 14	YTX7L-BS
Honda	250 CB RC, RS, RSD	509 14	YB9-B
Honda	250 CFR X	504 12	YTX5L-BS
Honda	250 CH	510 12	YTX12-BS
Honda	250 CJT	509 14	YB9-B
Honda	250 CM C, CMX C	509 14	YB9-B
Honda	250 CMX Rebel	506 14	YTX7L-BS
Honda	250 CN, Fusion	510 12	YTX12-BS
Honda	250 NSS	510 12	YTX12-BS
Honda	250 NX, Dominator	506 14	YTX7L-BS
Honda	250 PS	510 12	YTX12-BS
Honda	250 SM	510 21	YTZ12A-BS
Honda	250 VT FD	509 14	YB9-B
Honda	250 XL		6N6-3B-1
Honda	250 XL k1-14		6N6-3B
Honda	250 XL RC	503 12	YB3L-A
Honda	250 XL S		6N4-2A
Honda	250 XR L, R	503 14	YTX4L-BS
Honda	350 CB F, K	512 11	YB12A-A
Honda	350 XL		6N6-3B-1
Honda	350 XL R	503 12	YB3L-A
Honda	360 CB, F	512 11	YB12A-A
Honda	400 CB N	512 11	YB12A-A
Honda	400 CB S chassis no. -2002761	512 15	YB12A-B
Honda	400 CB S chassis no. 2002762-	514 14	YB14-B2
Honda	400 CBT	512 11	YB12A-A
Honda	400 CMX Rebel	512 11	YB12A-A
Honda	400 NS R 2-stroke	504 12	YTX5L-BS
Honda	400 NV C Steed	508 12	YTX9-BS
Honda	400 VFR R	506 15	YTX7A-BS
Honda	450 CB, CL, CM, CMX	512 11	YB12A-A

Brand	Model designation	Banner type	First fitting designation
Honda	450 CRF, X	507 01	YTZ7S
<i>01.1994-</i>			
Honda	500 CB 2-cyl.	508 12	YTX9-BS
Honda	500 CB-K3	512 11	YB12A-A
Honda	500 CBR	508 12	YTX9-BS
Honda	500 CX, C, E	514 11	YB14L-A2
Honda	500 FT	514 11	YB14L-A2
Honda	500 NX	508 12	YTX9-BS
Honda	500 VF F, C, E	512 11	YB12A-A
Honda	500 XBR	512 15	YB12A-B
Honda	500 XL R, S	503 12	YB3L-A
Honda	550 CB F, K	512 11	YB12A-A
Honda	550 CBX	512 11	YB12A-A
Honda	582, FSC 600	511 01	YTZ14S
<i>01.1998-12.1998</i>			
Honda	600 CB Hornet	506 14	YTX7L-BS
<i>01.2002-12.2003</i>			
Honda	600 CB Hornet	509 01	YTZ10S
<i>01.1991-12.2000</i>			
Honda	600 CBR F Hornet	508 12	YTX9-BS
<i>01.2001-</i>			
Honda	600 CBR F Hornet, F4i, 600 RR	509 01	YTZ10S
<i>01.2002-</i>			
Honda	600 FSC Silver Wing	510 21	YTZ12A-BS
<i>01.1988-12.2003</i>			
Honda	600 VT C Shadow	508 12	YTX9-BS
<i>01.2004-</i>			
Honda	600 VT C Shadow	509 01	YTZ10S
Honda	600 XL LM Paris Dakar	514 12	YB14-A2
Honda	600 XL R	503 12	YB3L-A
Honda	600 XL V	512 15	YB12A-B
Honda	600 XR R	503 12	YB3L-A
Honda	650 B Z	512 11	YB12A-A
Honda	650 CB	512 11	YB12A-A
Honda	650 CB SC Nighthawk	512 13	YB12AL-A2
Honda	650 CBX E Nighthawk	512 13	YB12AL-A2
Honda	650 CX CD	514 12	YB14-A2
Honda	650 CX E	514 14	YB14-B2
Honda	650 Deauville	508 12	YTX9-BS
Honda	650 FX	508 12	YTX9-BS
Honda	650 GL	514 14	YB14-B2
Honda	650 NTV	508 12	YTX9-BS
Honda	650 NTV Reveré	509 14	YB9-B
Honda	650 NX Dominator	508 12	YTX9-BS
Honda	650 R	509 14	YB9-B
Honda	650 SLR	509 14	YB9-B
Honda	650 Vigor	508 12	YTX9-BS
Honda	650 XL, V	511 01	YTZ14S
Honda	650 XR L	508 12	YTX9-BS
<i>01.1993-</i>			
Honda	650 XRV -Africa Twin	512 15	YB12A-B
Honda	650 XRV J	514 14	YB14-B2
<i>01.2009-</i>			
Honda	680 DN-01	511 01	YTZ14S
Honda	700 CB SC	514 11	YB14L-A2
<i>01.2010-</i>			
Honda	700 NTV	511 01	YTZ14S
Honda	700 VF C Magna, F Interceptor	514 11	YB14L-A2
Honda	700 VFR F	512 15	YB12A-B
Honda	700 VT C Shadow		HYB16-A-A
Honda	750 CB F1, F2, FA, K1, K2, KZ	514 11	YB14L-A2
<i>01.1991-12.2003</i>			
Honda	750 CB Nighthawk	514 12	YB14-A2
Honda	750 CBX, -F	514 12	YB14-A2
<i>01.1994-</i>			
Honda	750 RVF R	508 12	YTX9-BS
Honda	750 VF 750 S, ST	514 11	YB14L-A2
Honda	750 VF F	514 12	YB14-A2
<i>01.1986-12.1989</i>			
Honda	750 VFR FG-FK, chassis no. 2009621-	514 14	YB14-B2
Honda	750 VFR FL	510 12	YTX12-BS
Honda	750 VFR R	508 12	YTX9-BS
Honda	750 VT C, CD, CD 2	512 14	YTX14-BS



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Brand	Model designation	Banner type	First fitting designation
01.2001-			
Honda	750 VT DC, A, B, RS, C2B, Shadow Spirit	511 01	YTZ14S
Honda	750 XLV	514 12	YB14-A2
-1992			
Honda	750 XRV Africa Twin	514 14	YB14-B2
01.1993-			
Honda	750 XRV Africa Twin	512 14	YTX14-BS
Honda	800 PC Pacific Coast	510 12	YTX12-BS
01.2002-			
Honda	800 VFR	510 21	YTZ12A-BS
01.1998-12.2001			
Honda	800 VFR FI	510 12	YTX12-BS
01.2002-12.2007			
Honda	800 VFR P	511 01	YTZ14S
Honda	800 VT C Shadow	514 14	YB14-B2
Honda	900 CB F	509 01	YTZ10S
Honda	900 CB F Hornet	509 01	YTZ10S
Honda	900 CB FZ80	514 11	YB14L-A2
Honda	900 CBR R	508 12	YTX9-BS
-1999			
Honda	900 CBR RR FireBlade	508 12	YTX9-BS
01.2000-			
Honda	900 CBR RR FireBlade	509 01	YTZ10S
Honda	919 CB F	509 01	YTZ10S
Honda	929 CBR RR, RE	509 01	YTZ10S
Honda	954 CBR RR	509 01	YTZ10S
Honda	1000 CB C	514 11	YB14L-A2
Honda	1000 CB F Big One	510 12	YTX12-BS
01.1987-12.1996			
Honda	1000 CBR F	514 13	YB14L-B2
01.2006-			
Honda	1000 CBR, F	509 01	YTZ10S
01.2004-12.2007			
Honda	1000 CBR RR	509 01	YTZ10S
01.2008-			
Honda	1000 CBR RR	507 01	YTZ7S
Honda	1000 CBX	522 14	YTX50L-BS
Honda	1000 CBX prolink	520 12	Y50-N18L-A
Honda	1000 GL Gold Wing	520 12	Y50-N18L-A
Honda	1000 RVT	510 21	YTZ12A-BS
Honda	1000 SP-2	520 12	Y50-N18L-A
Honda	1000 Varadero ABS	520 12	Y50-N18L-A
Honda	1000 VF F, R	516 15	YB16B-A1
01.1997-12.2000			
Honda	1000 VTR	510 12	YTX12-BS
01.2001-			
Honda	1000 VTR	509 01	YTZ10S
Honda	1000 XLV Varadero	512 14	YTX14-BS
01.2010-			
Honda	1100 CB	511 01	YTZ14S
01.1983-			
Honda	1100 CB F Super Sport	514 11	YB14L-A2
01.1997-12.2000			
Honda	1100 CBR XX	510 12	YTX12-BS
01.2001-			
Honda	1100 CBR XX	510 21	YTZ12A-BS
Honda	1100 GL Gold Wing	522 14	YTX50L-BS
Honda	1100 ST 1100 Pan European	512 14	YTX14-BS
Honda	1100 VF C, S	518 21	YTX20L-BS
01.1985-12.2000			
Honda	1100 VT C, C2, C3, T Shadow	511 01	YTZ14S
01.2000-12.2007			
Honda	1100 VT C, C2, C3	512 14	YTX14-BS
Honda	1200 GL Gold Wing	522 14	YTX50L-BS
01.10-			
Honda	1200 VFR F	511 01	YTZ14S
01.03-			
Honda	1300 ST, A, P, VT CS, CR, CXA, Fury	511 01	YTZ14S
Honda	1300 VTX, R, S, Retro	512 14	YTX14-BS
Honda	1500 GL A Aspencade	520 11	Y50-N18L-A3
Honda	1500 GL C (F6C)	512 14	YTX14-BS
Honda	1500 GL Gold Wing	522 14	YTX50L-BS
Honda	1500 GL Valkyrie	512 14	YTX14-BS

Brand	Model designation	Banner type	First fitting designation
Honda	1800 all models	518 21	YTX20L-BS
Horex	Imperator, -Gespann	512 14	YTX14-BS
HRD	125	509 14	YB9-B
HRD	125 Red Silver	509 14	YB9-B
HRD	125 White Horse	509 14	YB9-B
01.1997-12.2000			
Husaberg	All models	508 12	YTX9-BS
01.2001-12.2002			
Husaberg	All models	504 12	YTX5L-BS
Husaberg	FE, FX, FS	507 01	YTZ7S
Husqvarna	400 TE E	512 14	YTX14-BS
Husqvarna	450 TE, TC	507 01	YTZ7S
Husqvarna	580 TE E, SM S	512 14	YTX14-BS
Hyosung	50 all models	503 14	YTX4L-BS
Hyosung	100 EZ	504 12	YTX5L-BS
Hyosung	125 GF	507 14	YB7C-A
Hyosung	125 GS	507 14	YB7C-A
Hyosung	125 GT Naked	512 14	YTX14-BS
Hyosung	125i MS3	508 12	YTX9-BS
Hyosung	125 XR	506 15	YTX7A-BS
Hyosung	250 Aquila	507 14	YB7C-A
01.2009-			
Hyosung	250 NS3	508 12	YTX9-BS
01.2009-			
Hyosung	250 GV	508 12	YTX9-BS
01.2009-			
Hyosung	250 GT, R	512 14	YTX14-BS
Hyosung	250i MS3	508 12	YTX9-BS
01.2009-			
Hyosung	650 GT, GV	512 14	YTX14-BS
Hyosung	700 ST7	512 14	YTX14-BS
Hyosung	Cruise I+II	507 14	YB7C-A
Hyosung	Hyper/Karion	506 15	YTX7A-BS
Hyosung	Supercab	504 12	YTX5L-BS
Hyundai	HMD Cab	503 14	YTX4L-BS
Indian	1442	518 21	YTX20L-BS
Indian	1638	522 14	YTX50L-BS
Innocenti	125 Lambretta	012 14	6N11A-1B
Innocenti	150 Lambretta	012 14	6N11A-1B
Innocenti	175 Lambretta	012 14	6N11A-1B
Innocenti	175 Lambro	530 30	
Innocenti	200 Lambro	530 30	
Innocenti	450 Lambro	530 30	
Innocenti	550 Lambro	530 30	
Innocenti	650 Lambro	530 30	
Italjet	50 Adly	505 12	YB5L-B
Italjet	50 Bazooka, 2	504 11	YB4L-B
Italjet	50 Bucanier	506 11	12N5,5-3B
Italjet	50 Coyotte		6N2-2A
Italjet	50 Cruise	504 11	YB4L-B
Italjet	50 Dragster, Reporter, Scoop	504 11	YB4L-B
Italjet	50 Pista, Torpedo	504 11	YB4L-B
Italjet	50 Velocifero, Formula, Formula Race	504 11	YB4L-B
Italjet	125 Dragster	511 13	YB10L-B
Italjet	125 Formula, Torpedo	509 14	YB9-B
Italjet	125 Millenium	506 15	YTX7A-BS
Italjet	150 Millenium	506 15	YTX7A-BS
Italjet	150 Torpedo	509 14	YB9-B
Italjet	180 Dragster	512 14	YTX14-BS
Itteco	50 Bucanier	506 11	12N5,5-3B
Itteco	50 Cool	504 11	YB4L-B
Jawa	50 Mosquito 50	504 11	YB4L-B
Jawa	250 (12V)	505 12	YB5L-B
Jawa	250 (6V)	013 14	B38-6A
Jawa	350 (12V)	505 12	YB5L-B
Jawa	350 (6V)	013 14	B38-6A
Jawa	350 California (6V)	008 11	B49-6
Jawa	360 (6V)	013 14	B38-6A
Jawa	361 (6V)	013 14	B38-6A
Jawa	634 (6V)	013 14	B38-6A
Jawa	638 (12V)	505 12	YB5L-B
Jawa	640 (12V)	505 12	YB5L-B
Jawa	CZ 476 (6V)	008 11	B49-6

Banner

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Brand	Model designation	Banner type	First fitting designation
Jawa	CZ 477 (6V)	008 11	B49-6
Kasea	50 Sense, Prima	504 12	YTX5L-BS
Kasea	125 RX	506 15	YTX7A-BS
Kawasaki	20 AR		6N6-1D-2
Kawasaki	50 AE, AR		6N6-3B-1
Kawasaki	50 AR 5 C7, C8		6N6-1D-2
Kawasaki	50 AR C2-C4	512 11	YB12A-A
Kawasaki	50 AR C5	512 11	YB12A-A
Kawasaki	50 AV		6N6-1D-2
Kawasaki	80 AE, AR		6N6-1D-2
Kawasaki	80 KMX		6N2-2A-7
Kawasaki	90 all models		12N5,5A-3B
Kawasaki	125 AR, B1-B8, S	505 12	YB5L-B
Kawasaki	125 BN Eliminator	509 14	YB9L-B
Kawasaki	125 K		6N6-3B-1
Kawasaki	125 K7	503 13	YB3L-B
Kawasaki	125 KDX	503 12	YB3L-A
Kawasaki	125 KDX B1-B4	503 12	YB3L-A
Kawasaki	125 KDX SR	503 12	YB3L-A
Kawasaki	125 KE, KH		6N6-1D-2
Kawasaki	125 KH K7,K10	503 13	YB3L-B
Kawasaki	125 KH L1		6N6-3B-1
Kawasaki	125 KMX	504 11	YB4L-B
Kawasaki	125 KMX A1	503 12	YB3L-A
Kawasaki	125 KS		6N6-1D-2
Kawasaki	175 KDX B	004 12	6N4B-2A
Kawasaki	175 KE B, D, F		6N6-1D-2
Kawasaki	200 KMX A2-A5	504 11	YB4L-B
Kawasaki	200 Z	511 13	YB10L-B
Kawasaki	250 Estrella	508 12	YTX9-BS
01.2008-12.2008			
Kawasaki	250 EX Ninja	506 15	YTX7A-BS
01.2009-			
Kawasaki	250 EX Ninja	508 12	YTX9-BS
Kawasaki	250 KE	004 12	6N4B-2A
Kawasaki	250 KH		12N5,5-4A
Kawasaki	250 KL		6N6-3B-1
Kawasaki	250 KL Super Sherpa	506 14	YTX7L-BS
01.1982-			
Kawasaki	250 KLT A, C	512 11	YB12A-A
Kawasaki	250 KLX S	506 14	YTX7L-BS
Kawasaki	250 Z	511 12	YB10L-A2
Kawasaki	250 ZZR		YB9L-A2
Kawasaki	252 EL		YB9L-A2
Kawasaki	305 EX A1, B GP, GPZ		YB9L-A2
Kawasaki	305 KZ, LTD, Z	511 12	YB10L-A2
Kawasaki	350 KH		12N5,5-4A
Kawasaki	400 KH		12N5,5-4A
Kawasaki	400 Z B, C	512 11	YB12A-A
Kawasaki	400 Z J (4-cyl.)	512 11	YB12A-A
-1990			
Kawasaki	400 ZXR	512 11	YB12A-A
01.1991-			
Kawasaki	400 ZXR	508 12	YTX9-BS
Kawasaki	440 all models	512 11	YB12A-A
Kawasaki	450 EN	512 11	YB12A-A
Kawasaki	450 KLX R	507 01	YTZ75
Kawasaki	450 Z LTD	512 11	YB12A-A
Kawasaki	500 EN A, C Vulcan	512 13	YB12AL-A2
Kawasaki	500 ER-5	510 12	YTX12-BS
Kawasaki	500 EX A, D Ninja	514 11	YB14L-A2
Kawasaki	500 GPX R	512 11	YB12A-A
Kawasaki	500 GPZ R	512 11	YB12A-A
Kawasaki	500 GPZ S (2-cyl.)	514 11	YB14L-A2
Kawasaki	500 KL Tengai	514 11	YB14L-A2
Kawasaki	500 KLE (2-cyl.)	510 12	YTX12-BS
Kawasaki	500 KLE (LE500)	510 12	YTX12-BS
Kawasaki	500 KLR	514 11	YB14L-A2
Kawasaki	500 KZ B	512 11	YB12A-A
Kawasaki	500 Z, B, F	512 11	YB12A-A
Kawasaki	500 Z GP	512 11	YB12A-A
Kawasaki	500 ZL, ZZR	512 11	YB12A-A
Kawasaki	537 ER KW	510 12	YTX12-BS

Brand	Model designation	Banner type	First fitting designation
-1993			
Kawasaki	550 Zephyr	512 11	YB12A-A
01.1994-			
Kawasaki	550 Zephyr	510 12	YTX12-BS
Kawasaki	600 GPX C Warbird	512 11	YB12A-A
Kawasaki	600 GPZ E/L, R	512 11	YB12A-A
Kawasaki	600 KL A KLAR	504 11	YB4L-B
Kawasaki	600 KL A1	504 11	YB4L-B
Kawasaki	600 KL600R, KLR600 (KL600B)	514 11	YB14L-A2
Kawasaki	600 KLR B1	514 11	YB14L-A2
Kawasaki	600 KLR B2	514 11	YB14L-A2
Kawasaki	600 ZK E ZZR Ninja	510 12	YTX12-BS
Kawasaki	600 ZL B Eliminator	512 11	YB12A-A
Kawasaki	600 ZX FA ZX-6R Ninja, G, J, K, M, N	508 12	YTX9-BS
Kawasaki	600 ZX E, F ZX-6R Ninja	510 12	YTX12-BS
01.2002-12.2004			
Kawasaki	600 ZZR	510 12	YTX12-BS
01.2005-			
Kawasaki	600 ZZR	512 11	YB12A-A
Kawasaki	636 ZX-6R	508 12	YTX9-BS
Kawasaki	650 EJ	512 14	YTX14-BS
01.2009-			
Kawasaki	650 ER6n	510 12	YTX12-BS
Kawasaki	650 GPZ R	512 11	YB12A-A
Kawasaki	650 KL Tengai	514 11	YB14L-A2
Kawasaki	650 KLR (KL650A)	514 11	YB14L-A2
Kawasaki	650 KLR, C	514 11	YB14L-A2
01.1993-			
Kawasaki	650 KLX	508 12	YTX9-BS
Kawasaki	650 KLX (LX650C)	508 12	YTX9-BS
Kawasaki	650 KZ B, C, D SR, E LTD, F	511 12	YB10L-A2
Kawasaki	650 KZ H CSR	512 11	YB12A-A
Kawasaki	650 Ninja R	510 12	YTX12-BS
Kawasaki	650 Tengai	514 11	YB14L-A2
Kawasaki	650 W	512 14	YTX14-BS
Kawasaki	650 Z B1/B2/ZBSR, 650	511 12	YB10L-A2
Kawasaki	650 ZX-6R	510 12	YTX12-BS
Kawasaki	700 KZ A	512 11	YB12A-A
Kawasaki	700 VN A Vulcan, LTD	514 11	YB14L-A2
1989-			
Kawasaki	750 GPX R	514 11	YB14L-A2
Kawasaki	750 GPZ A, E, G	514 11	YB14L-A2
Kawasaki	750 GPZ R	512 11	YB12A-A
Kawasaki	750 GPZ R Ninja (ZK750G)	514 11	YB14L-A2
Kawasaki	750 H2 Series		12N5,5-4A
Kawasaki	750 KZ A	514 11	YB14L-A2
Kawasaki	750 KZ B, G LTD	514 11	YB14L-A2
Kawasaki	750 KZ D	514 11	YB14L-A2
Kawasaki	750 KZ E	512 11	YB12A-A
Kawasaki	750 KZ F LTD; N Spectre	514 11	YB14L-A2
Kawasaki	750 KZ H; L LTD; GP	512 11	YB12A-A
Kawasaki	750 KZ K LTD KI	514 11	YB14L-A2
Kawasaki	750 KZ L LTD; M CSR, P, GT	514 11	YB14L-A2
Kawasaki	750 KZ R L, L	512 11	YB12A-A
Kawasaki	750 KZ Y LTD Y, Y	512 13	YB12AL-A2
Kawasaki	750 VN, Z B	514 11	YB14L-A2
01.2009-			
Kawasaki	750 Z (EU)	508 12	YTX9-BS
Kawasaki	750 Z E	512 11	YB12A-A
01.1983-			
Kawasaki	750 Z GP	514 11	YB14L-A2
01.1983-			
Kawasaki	750 Z GP Turbo	514 11	YB14L-A2
Kawasaki	750 Z GT	514 11	YB14L-A2
Kawasaki	750 Z H2-LTD (4-cyl.)	512 11	YB12A-A
Kawasaki	750 Z L	512 11	YB12A-A
Kawasaki	750 Z LTD (2-cyl.)	514 11	YB14L-A2
Kawasaki	750 Z P1, P2	514 11	YB14L-A2
Kawasaki	750 Z S1	514 11	YB14L-A2
Kawasaki	750 Z Zephyr	510 12	YTX12-BS
Kawasaki	750 ZK -J	512 13	YB12AL-A2
Kawasaki	750 ZN A LTD	514 11	YB14L-A2
Kawasaki	750 ZR-7, S	510 12	YTX12-BS



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Brand	Model designation	Banner type	First fitting designation
Kawasaki	750 ZX F Ninja	514 11	YB14L-A2
Kawasaki	750 ZX-7R	510 12	YTX12-BS
01.1993-			
Kawasaki	750 ZX-7RR	508 12	YTX9-BS
-1989			
Kawasaki	750 ZXR	514 11	YB14L-A2
01.1991-12.1992			
Kawasaki	750 ZXR	510 12	YTX12-BS
01.1990-12.1990			
Kawasaki	750 ZXR	512 13	YB12AL-A2
01.1993-			
Kawasaki	750 ZXR	508 12	YTX9-BS
01.1995-12.2003			
Kawasaki	800 VN, Classic	512 14	YTX14-BS
01.2004-			
Kawasaki	800 VN, Classic	510 12	YTX12-BS
Kawasaki	900 A4	511 12	YB10L-A2
Kawasaki	900 GPZ R	514 11	YB14L-A2
Kawasaki	900 KZ A, B LTD	511 12	YB10L-A2
Kawasaki	900 MK2	514 11	YB14L-A2
Kawasaki	900 Vulcan	510 12	YTX12-BS
01.1976-			
Kawasaki	900 Z	511 12	YB10L-A2
Kawasaki	900 Z 1000 A, -ST, MK2, Z1R, ST	514 11	YB14L-A2
01.1976-			
Kawasaki	900 Z1 Series	514 11	YB14L-A2
Kawasaki	900 Z1R, ZL A, ZX A Ninja	514 11	YB14L-A2
01.1998-			
Kawasaki	900 ZX-9R C, E, F Ninja	508 12	YTX9-BS
-1997			
Kawasaki	900 ZX-9R Ninja	510 12	YTX12-BS
Kawasaki	1000 GPZ RX, ZX 10	514 11	YB14L-A2
Kawasaki	1000 GTR (ZGT00A)	518 21	YTX20L-BS
Kawasaki	1000 KZ A, B LTD, C	514 11	YB14L-A2
Kawasaki	1000 KZ E Shaft	519 15	YB16HL-A-CX
Kawasaki	1000 KZ G Classic	514 11	YB14L-A2
Kawasaki	1000 KZ J, M CSR, P	518 21	YTX20L-BS
Kawasaki	1000 KZ LTD K, R SS	518 21	YTX20L-BS
Kawasaki	1000 KZ ST	519 15	YB16HL-A-CX
01.2003-			
Kawasaki	1000 Z	508 12	YTX9-BS
Kawasaki	1000 Z A, B, C, D, G, MK 2	514 11	YB14L-A2
Kawasaki	1000 Z GTR	518 21	YTX20L-BS
Kawasaki	1000 Z GTR, K 1, LTD, R2, J	518 21	YTX20L-BS
Kawasaki	1000 Z1-R (KZ1000D)	514 11	YB14L-A2
Kawasaki	1000 ZG A Concours, ZGT A	518 21	YTX20L-BS
Kawasaki	1000 ZL A Eliminator	514 11	YB14L-A2
01.1986-12.1990			
Kawasaki	1000 ZX 10-R	514 11	YB14L-A2
01.2011-			
Kawasaki	1000 ZX 10-R	507 01	YTZ75
Kawasaki	1000 ZX A Concours	518 21	YTX20L-BS
Kawasaki	1000 ZX A Ninja, ZX 10B Tomcat	514 11	YB14L-A2
Kawasaki	1000 ZX C Ninja	510 01	YT12B-BS
01.1995-			
Kawasaki	1100 GPZ	512 14	YTX14-BS
Kawasaki	1100 KZ A	518 21	YTX20L-BS
Kawasaki	1100 KZ B GP	519 15	YB16HL-A-CX
Kawasaki	1100 KZ D Spectre, L LTD	518 21	YTX20L-BS
Kawasaki	1100 Z ST	518 21	YTX20L-BS
Kawasaki	1100 Z Zephyr	518 22	YTX20CH-BS
Kawasaki	1100 ZG -A7, 8	518 21	YTX20L-BS
Kawasaki	1100 ZN B LTD	514 11	YB14L-A2
Kawasaki	1100 ZR A,B	518 22	YTX20CH-BS
01.1997-			
Kawasaki	1100 ZRX	512 14	YTX14-BS
Kawasaki	1100 ZX C-G, D 1	512 14	YTX14-BS
01.1990-12.1993			
Kawasaki	1100 ZX-11 Ninja	514 11	YB14L-A2
01.1994-			
Kawasaki	1100 ZX-11 Ninja, ZX-12 Ninja	512 14	YTX14-BS
Kawasaki	1100 ZXR C	512 14	YTX14-BS

Brand	Model designation	Banner type	First fitting designation
01.1993-			
Kawasaki	1100 ZZR	512 14	YTX14-BS
-1992			
Kawasaki	1100 ZZR	514 11	YB14L-A2
Kawasaki	1100 ZZR EU (ZXT10C)	514 11	YB14L-A2
Kawasaki	1100 ZZR EU (ZXT10D)	512 14	YTX14-BS
Kawasaki	1200 ZG A, B Voyager	520 12	Y50-N18L-A
Kawasaki	1200 ZRX R/S (ZRT20A/B)	510 12	YTX12-BS
Kawasaki	1200 ZX A1	512 14	YTX14-BS
Kawasaki	1200 ZX-12R Ninja (ZXT20B)	512 14	YTX14-BS
Kawasaki	1200 ZZ-R (ZXT20C)	512 14	YTX14-BS
Kawasaki	1300 KZ A, B Touring	520 12	Y50-N18L-A
-1995			
Kawasaki	1300 VN 15 B2-B6	520 12	Y50-N18L-A
Kawasaki	1300 Z, Z/ZG A	520 12	Y50-N18L-A
Kawasaki	1300 ZG, ZGT A	520 12	Y50-N18L-A
Kawasaki	1300 ZN A Europe	530 30	
Kawasaki	1400 ZX Ninja, Concours, ZG	512 14	YTX14-BS
01.1996-			
Kawasaki	1500 VN A, -C Vulcan	520 12	Y50-N18L-A
Kawasaki	1500 VN D, -E Vulcan, G1, -F, -H, -L, -N, -P, -J1	518 22	YTX20CH-BS
01.1996-			
Kawasaki	1500 VN SE B Vulcan	520 12	Y50-N18L-A
Kawasaki	1600 VN	518 22	YTX20CH-BS
Kawasaki	1700 VN	518 22	YTX20CH-BS
Kawasaki	2000 VN	518 22	YTX20CH-BS
KL-Shelung	50 Club, Racer	512 14	YTX14-BS
Kreidler	50 Florett	507 14	YB7C-A
Kreidler	80 Florett	507 14	YB7C-A
Kreidler	125 Mustang	507 14	YB7C-A
KTM	50 Go, Chrono	503 14	YTX4L-BS
KTM	50 Kross	504 11	YB4L-B
KTM	80 RLW-RSL, Chopper/PL	509 14	YB9-B
KTM	125 EXC	509 14	YB9-B
KTM	200 EXC	509 14	YB9-B
KTM	250 EXC	504 12	YTX5L-BS
KTM	250 XC, XC-W	503 14	YTX4L-BS
KTM	250 XCF	504 12	YTX5L-BS
KTM	300 EXC, XC, XC-W	503 14	YTX4L-BS
KTM	380 EXC	509 14	YB9-B
KTM	400 EXC Racing, XC-W	504 12	YTX5L-BS
KTM	400 LC4, RXC, LC4	508 12	YTX9-BS
KTM	450 EXC, MXC, SX-F, XC-F, XC-W	504 12	YTX5L-BS
KTM	500 K4 Enduro	509 14	YB9-B
KTM	520 EXC, MXC	507 01	YTZ75
01.2003-			
KTM	525 EXC Racing, MXC	507 01	YTZ75
01.2003-			
KTM	530 EXC Racing, XC-W	507 01	YTZ75
KTM	550 LC	509 14	YB9-B
KTM	620 Adventure, Duke, E, LC4, LS-E	508 12	YTX9-BS
KTM	625 LC4 SXC, SMC	509 01	YTZ10S
01.1999-12.2002			
KTM	640 Adventure, Duke, RXC LC4, Supermoto	508 12	YTX9-BS
01.2003-			
KTM	640 Adventure, Comet, Duke II, RXC LC4, Supermoto	509 01	YTZ10S
KTM	660 SMC	508 12	YTX9-BS
KTM	690 Duke, Enduro R, Supermoto	509 01	YTZ10S
KTM	950 Adventure, Supermoto, Superduke, VS	511 01	YTZ14S
01.2003-			
KTM	990 Adventure, Superduke, Supermoto	511 01	YTZ14S
01.2003-			
KTM	1090 RC8	511 01	YTZ14S
Kymco	50 Agility	506 15	YTX7A-BS
Kymco	50 Calypso 50, Cobra, Cross, Filly 50	504 12	YTX5L-BS
Kymco	50 Dink, People, Top Boy	504 12	YTX5L-BS
Kymco	50 Fever ZX, Heroism, Curio	504 11	YB4L-B
Kymco	50 KB	503 14	YTX4L-BS

Banner

MOTORCYCLES

Brand	Model designation	Banner type	First fitting designation
Kymco	50 Racer, Looping, People	504 12	YTX5L-BS
Kymco	50 Scout, ZX Fever, Sniper	503 14	YTX4L-BS
Kymco	50 Spacer, Super 9	504 12	YTX5L-BS
Kymco	80 Filly	504 12	YTX5L-BS
Kymco	100 all models	504 12	YTX5L-BS
Kymco	125 Agility	504 12	YTX5L-BS
Kymco	125 B&W	508 12	YTX9-BS
Kymco	125 Calypso	508 12	YTX9-BS
Kymco	125 Dink LX	508 12	YTX9-BS
Kymco	125 Fox Hunt	506 15	YTX7A-BS
Kymco	125 Heroism, -Spacer, -Vector	504 11	YB4L-B
Kymco	125 Jockey	506 15	YTX7A-BS
Kymco	125 Movie, Vivio	508 12	YTX9-BS
Kymco	125 People, Zing	506 15	YTX7A-BS
Kymco	150 B&W, Dink/LX, Spacer, Vivio	508 12	YTX9-BS
Kymco	150 CX, DJW, DJX, DJY	503 14	YTX4L-BS
Kymco	150 Fox Hunt, People	506 15	YTX7A-BS
Kymco	150 Heroism	504 11	YB4L-B
Kymco	150 People S, Super S	506 15	YTX7A-BS
Kymco	200 People S	506 15	YTX7A-BS
Kymco	250 all models	510 12	YTX12-BS
Kymco	400 Xciting	510 12	YTX12-BS
Kymco	500 Xciting	512 14	YTX14-BS
Kymco	K 12	504 11	YB4L-B
Laverda	125 CU Rider	506 11	12N5,5-3B
Laverda	125 GS Lesmo	506 11	12N5,5-3B
Laverda	125 LB	506 11	12N5,5-3B
Laverda	125 LZ (Zündapp Motor)	012 14	6N11A-1B
Laverda	350	518 21	YTX20L-BS
Laverda	500		YB18L-A
Laverda	600 OR Atlas	514 11	YB14L-A2
Laverda	650 Ghost, Strike	514 11	YB14L-A2
Laverda	668	518 14	
Laverda	750		YB18L-A
Laverda	750 Formula	504 11	YB4L-B
Laverda	750 SF/SFC/GTL/GTS		12N24-3A
Laverda	750 Strike		12N24-3A
Laverda	1000	530 30	
Laverda	1200	530 30	
Maico	125 GS	007 14	B39-6
Maico	250 GS T	007 14	B39-6
Maico	250 M	007 14	B39-6
Maico	250 MD	505 12	YB5L-B
Maico	260 GS T	007 14	B39-6
Maico	360 T	007 14	B39-6
Maico	400 T	007 14	B39-6
Maico	440 T	007 14	B39-6
Maico	504 GS	007 14	B39-6
Maico	All other wet battery types	008 11	B49-6
Maico	Cup	505 12	YB5L-B
Malaguti	50 all models	504 11	YB4L-B
Malaguti	100 Ciak	505 12	YB5L-B
Malaguti	100 F12	504 12	YTX5L-BS
Malaguti	100 Phantom F12	504 12	YTX5L-BS
Malaguti	125 Ciak, F18	509 14	YB9-B
Malaguti	125 Madison	509 14	YB9-B
Malaguti	125 Runner VS, Rally	503 12	YB3L-A
Malaguti	125 Runner, R		6N6-3B
Malaguti	150 Ciak	509 14	YB9-B
Malaguti	150 F18	509 14	YB9-B
Malaguti	150 Madison	509 14	YB9-B
Malaguti	180 Madison	509 14	YB9-B
Malaguti	200 Madison	509 14	YB9-B
Malaguti	250 Madison	509 14	YB9-B
Malaguti	400 Madison	509 14	YB9-B
Malaguti	500 Spidermax GT	509 14	YB9-B
Malanca	125 CE	012 14	6N11A-1B
Malanca	125 Mark		12N5,5-4B
Malanca	125 OB One		12N5,5-4B
Malanca	125 SSM		12N5,5-4B
Malanca	150 GT	012 14	6N11A-1B
Matchless	250 (6V)	013 14	B38-6A

Brand	Model designation	Banner type	First fitting designation
Matchless	350 (6V)	013 14	B38-6A
Matchless	500 (6V)	013 14	B38-6A
Matchless	650 (12V)	506 15	YTX7A-BS
Matchless	650 (6V)	013 14	B38-6A
Matchless	750 (12V)	506 15	YTX7A-BS
Matchless	II Greevee 711 (12V)	506 15	YTX7A-BS
MBK	50-80 all models	504 11	YB4L-B
MBK	100 Booster, Ovetto	504 12	YTX5L-BS
MBK	100 Nitro	503 14	YTX4L-BS
MBK	125 Active	507 14	YB7C-A
MBK	125 Doodo, -Skyliner	507 14	YB7C-A
MBK	125 Flame	506 15	YTX7A-BS
MBK	125 IP 125 MAG	507 14	YB7C-A
MBK	125 Skyliner 125		YB7L-B2
MBK	125 XC Active	507 14	YB7C-A
MBK	125 XC Flame	506 15	YTX7A-BS
MBK	150 Vertex	506 15	YTX7A-BS
MBK	250 Magestic	507 14	YB7C-A
MBK	250 YP Majesty	506 15	YTX7A-BS
Montesa	250 Crono	512 11	YB12A-A
Moto Guzzi	125 Bicilindrico, twin cylinder	012 14	6N11A-1B
Moto Guzzi	125 Custom	509 14	YB9-B
Moto Guzzi	125 Stornello Scrambler	013 14	B38-6A
Moto Guzzi	125 Stornello Sport	007 14	B39-6
Moto Guzzi	125 TT		12N5,5-4A
Moto Guzzi	160 Stornello Scrambler	013 14	B38-6A
Moto Guzzi	175 Lodola	008 11	B49-6
Moto Guzzi	200 Motocarro Ercolino	013 14	B38-6A
Moto Guzzi	250 4-cyl.	512 11	YB12A-A
Moto Guzzi	250 Bicilindrico, twin cylinder	012 14	6N11A-1B
Moto Guzzi	350		YB18L-A
Moto Guzzi	350 Florida, Nevada, NTX		YB18L-A
Moto Guzzi	350 GTS		YB18L-A
Moto Guzzi	400 GTS		YB18L-A
Moto Guzzi	450		YB18L-A
Moto Guzzi	500 all models	520 12	Y50-N18L-A
Moto Guzzi	600 all models	520 12	Y50-N18L-A
Moto Guzzi	650 Nevada	520 12	Y50-N18L-A
Moto Guzzi	650 Nevada N.T	530 30	
Moto Guzzi	650 NTX		YB18L-A
Moto Guzzi	650 V65	530 30	
Moto Guzzi	650 V65 Custom		YB18L-A
Moto Guzzi	750	530 30	
Moto Guzzi	750 Nevada, Club		YB18L-A
Moto Guzzi	750 NTX, V75		YB18L-A
Moto Guzzi	750 Strada, Targa, V7	530 30	
Moto Guzzi	850 all models	530 30	
Moto Guzzi	936 Bellagio	518 21	YTX20L-BS
Moto Guzzi	1000 all models	530 30	
Moto Guzzi	1064 all models	518 21	YTX20L-BS
<i>01.2003-12.2005</i>			
Moto Guzzi	1100 California	513 14	YTX15L-BS
<i>01.2005-12.2009</i>			
Moto Guzzi	1100 California, Special Jackal, Brevia, Griso	518 22	YTX20CH-BS
<i>01.1994-12.2005</i>			
Moto Guzzi	1100 Stone, EV	530 30	
<i>01.1997-12.2000</i>			
Moto Guzzi	1100 Quota, Sport	513 14	YTX15L-BS
<i>01.1998-12.2005</i>			
Moto Guzzi	1100V11 Bassa, EV	530 30	
<i>01.1999-12.2005</i>			
Moto Guzzi	1100V11 Le Mans, Sport	513 14	YTX15L-BS
<i>01.2009-</i>			
Moto Guzzi	1200 all models	518 22	YTX20CH-BS
Moto Guzzi	V 50		YB18L-A
Moto Guzzi	V 11 C. I./C. S.		
Moto Guzzi	V 35	530 30	
Moto Morini	125 Corsaro	007 14	B39-6
Moto Morini	125 Country	007 14	B39-6
Moto Morini	350 Kangaroo	012 14	6N11A-1B
Moto Morini	350 SPK2		YB18L-A
Moto Morini	500 Camel	012 14	6N11A-1B



MOTORCYCLES

Brand	Model designation	Banner type	First fitting designation
Moto Morini	500 Excalibur		YB18L-A
Moto Morini	500 S, -Turbo		YB18L-A
Moto Morini	501		YB18L-A
Motobecane	92 D	007 14	B39-6
Motobecane	124 L, LT, LT1, LT2	012 14	6N11A-1B
Motobecane	124 series	012 14	6N11A-1B
Motobecane	Booster	504 11	YB4L-B
Motobecane	D 353	007 14	B39-6
Motobecane	Hot Champ, Moped	504 11	YB4L-B
Motobecane	Moped	504 11	YB4L-B
Motobecane	SP93D, DL	007 14	B39-6
Motobecane	Target, Active 50, Active 80	504 11	YB4L-B
Motor Jikov	50 Dandy	504 11	YB4L-B
Motor Jikov	125 Dandy	505 12	YB5L-B
Motorans	250 Strada	512 11	YB12A-A
Motorans	350 Forsa	520 12	Y50-N18L-A
Motorans	350 Vento	512 11	YB12A-A
Motorans	500 Desmo	514 11	YB14L-A2
Motorans	500 Twin	520 12	Y50-N18L-A
Motron	50 all models	504 11	YB4L-B
MV Agusta	125 GT 125	506 11	12N5,5-3B
MV Agusta	125 Serie/series	012 14	6N11A-1B
MV Agusta	350 GT 350	506 11	12N5,5-3B
MV Agusta	750 Aviamento, GT, F4, Serie Oro	530 30	
<i>01.2000-12.2008</i>			
MV Agusta	750 F4 Brutale	509 01	YTZ10S
MV Agusta	750 GT 750 S, -SS	530 30	
MV Agusta	800 S, -SS	530 30	
MV Agusta	900 GT 900 S	530 30	
MV Agusta	910 Brutale	509 01	YTZ10S
<i>01.1989-12.2004</i>			
MV Agusta	1000 F4 S/1+1, GT 1000	530 30	
<i>01.2005-</i>			
MV Agusta	1000 F4 S/1+1, GT 1000	509 01	YTZ10S
MV Agusta	1100 GT 1100	530 30	
MZ/MUZ	125 ES, TS, ETS	012 14	6N11A-1B
MZ/MUZ	125 ETZ	509 14	YB9-B
MZ/MUZ	125 Saxon Roadster	505 12	YB5L-B
MZ/MUZ	150 ES, TS, ETS	012 14	6N11A-1B
MZ/MUZ	150 ETZ	509 14	YB9-B
MZ/MUZ	250 ETZ	509 14	YB9-B
MZ/MUZ	250 TS, ETS	012 14	6N11A-1B
MZ/MUZ	251 Saxton Tour, Saxon Fun	505 12	YB5L-B
MZ/MUZ	301 ETZ	505 12	YB5L-B
MZ/MUZ	301 Saxon Tour, Saxon Fun	505 12	YB5L-B
MZ/MUZ	350 Navigator	012 14	6N11A-1B
MZ/MUZ	500 Country, Tour, Silverstar Classic	514 11	YB14L-A2
MZ/MUZ	500 Green Star, Red Star	514 11	YB14L-A2
MZ/MUZ	500 Mastiff, Baghira		
MZ/MUZ	500 Silverstar Gespann, Saxon Country	514 11	YB14L-A2
MZ/MUZ	500 Skorpion Replica	514 11	YB14L-A2
MZ/MUZ	660 all models	509 14	YB9-B
MZ/MUZ	1000 S		
Norton	350 Navigator	507 14	YB7C-A
Norton	750 Ranger	509 14	YB9-B
Norton	850 Commando	514 11	YB14L-A2
Ossa	250 Copa	007 14	B39-6
Ossa	500 Yankee	514 11	YB14L-A2
Ozbike	all models	504 12	YTX5L-BS
Panda Motor Sports	36 Com-ute		6N4-2A
Panda Motor Sports	50 Com-ute		6N4-2A
Panda Motor Sports	50 Cub	503 14	YTX4L-BS
Panda Motor Sports	50 Fun Rider		6N2-2A
Panda Motor Sports	50 Retro	507 13	YB7-A
Panda Motor Sports	70 Trail Rider	503 14	YTX4L-BS
Panther	589	013 14	B38-6A
Panther	645 120	013 14	B38-6A
Panther	1000	013 14	B38-6A
Peugeot	25 all models	504 11	YB4L-B
Peugeot	50 all models	504 11	YB4L-B
Peugeot	80 all models	505 12	YB5L-B
Peugeot	100 all models	504 12	YTX5L-BS
Peugeot	125 all models	505 12	YB5L-B

Brand	Model designation	Banner type	First fitting designation
Peugeot	150 all models	512 11	YB12A-A
PGO	50 Comet, Galaxy, Big Max, Ultima	503 14	YTX4L-BS
PGO	50 Start	504 11	YB4L-B
PGO	80 Star, Big Max	503 14	YTX4L-BS
PGO	90 all models	503 14	YTX4L-BS
PGO	125 T-Rex	503 14	YTX4L-BS
PGO	125 Ultima	503 14	YTX4L-BS
PGO	150 4T T-Rex	503 14	YTX4L-BS
Polaris Victory	All models	518 21	YTX20L-BS
Puch	50 Lido, Typhoon, Storm, NRG	504 11	YB4L-B
Puch	50 M, MS, Cobra	007 14	B39-6
Puch	50 Monza GSL; GT; GTL; Jet	007 14	B39-6
Puch	80 Cobra, GT, Monza	007 14	B39-6
Puch	80 Lido, SE	505 12	YB5L-B
Puch	125 Lido CD, Typhoon	507 13	YB7-A
Puch	175 SV- SVS	008 11	B49-6
Puch	250 SG, -SGS	008 11	B49-6
Rizzato	50 all models	504 11	YB4L-B
Royal-Enfield	250 Turbo Twin	007 14	B39-6
<i>01.2000-12.2003</i>			
Royal-Enfield	350 all models (e-start)	512 14	YTX14-BS
<i>01.1995-12.1999</i>			
Royal-Enfield	350 all models (kick start)	507 13	YB7-A
<i>01.2000-12.2003</i>			
Royal-Enfield	350 all models (kick start)	505 12	YB5L-B
<i>01.2000-12.2003</i>			
Royal-Enfield	500 all models (e-start)	512 14	YTX14-BS
<i>01.1995-12.1999</i>			
Royal-Enfield	500 all models (kick start)	507 13	YB7-A
<i>01.2000-12.2003</i>			
Royal-Enfield	500 all models (kick start)	505 12	YB5L-B
Royal-Enfield	750 Interceptor	507 13	YB7-A
Sachs	50 City CV		6YB8L-B
Sachs	50 Reggae, Splinter	504 11	YB4L-B
Sachs	50 SR Samba, Fox, Gipsy, Limbo	504 11	YB4L-B
Sachs	80 City CV, -E		6N11-2D
Sachs	80 SR	505 12	YB5L-B
Sachs	125 Kat	505 12	YB5L-B
Sachs	125 Sachs Scooter		6YB8L-B
Sachs	125 Ultra 6-gear	509 14	YB9-B
Sachs	125 ZZ	506 11	12N5,5-3B
Sachs	600 Roadster		
Sachs	800 Roadster V2		
Sachs	1000 Beast		
Sanglas	400 Y	512 11	YB12A-A
Sanglas	500 S2-V5	514 11	YB14L-A2
Sanyang	50 all models	503 14	YTX4L-BS
Sanyang	125 Duke	506 15	YTX7A-BS
Sanyang	125 Husky, Super Duke	506 14	YTX7L-BS
Sanyang	150 all models	506 15	YTX7A-BS
Simson	S 50	012 14	6N11A-1B
Simson	S 50 B, C, E, N	012 14	6N11A-1B
Simson	S 51	012 14	6N11A-1B
Simson	S 51/1m B	506 11	12N5,5-3B
Simson	S 51/1m C	506 11	12N5,5-3B
Simson	S 51/1m E	506 11	12N5,5-3B
Simson	S 53	506 11	12N5,5-3B
Simson	S 70, C, E	012 11	6N11A-3A
Simson	S 70/1, E	506 11	12N5,5-3B
Simson	S 83, B, CX, E, OR	506 11	12N5,5-3B
Simson	SR 50 N	012 11	6N11A-3A
Simson	SR 50, B	012 11	6N11A-3A
Simson	SR 50, CC, CCE, XC, XG	505 12	YB5L-B
Simson	SR 50/1, B, C, CC, XC, XG	506 11	12N5,5-3B
Simson	SR 80, CC, CCE	505 12	YB5L-B
Simson	SR 80/1	506 11	12N5,5-3B
Simson	SR 80/1 B	506 11	12N5,5-3B
Simson	SR 80/1 C, CC, XC, XG	506 11	12N5,5-3B
Skyliner	Scooter	507 14	YB7C-A

Banner

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Brand	Model designation	Banner type	First fitting designation
Stinger	Orca	503 14	YTX4L-BS
Suzuki	50 A ZZS	503 14	YTX4L-BS
Suzuki	50 A, KM		6N4-2A
Suzuki	50 AD, Adress, AE, M, AG T, AH, AJ, AP AY, AZ, CP	503 14	YTX4L-BS
Suzuki	50 CP CH, CS	504 11	YB4L-B
Suzuki	50 FA, Shuttle		6N4-2A
Suzuki	50 FB, M	503 14	YTX4L-BS
Suzuki	50 GT	004 12	6N4B-2A
Suzuki	50 Katana	503 14	YTX4L-BS
Suzuki	50 OR	004 12	6N4B-2A
Suzuki	50 RB	004 12	6N4B-2A
Suzuki	50 RC	503 14	YTX4L-BS
Suzuki	50 RG	504 11	YB4L-B
Suzuki	50 RV	004 12	6N4B-2A
Suzuki	50 Sephia	503 14	YTX4L-BS
Suzuki	50 TR S, Street Magic		YT4B-BS
Suzuki	50 TS		6N4-2A
Suzuki	50 TS XK	504 11	YB4L-B
Suzuki	50 Tune	503 14	YTX4L-BS
Suzuki	50 UR (Velde)		YT4B-BS
Suzuki	50 UX W	503 14	YTX4L-BS
Suzuki	50 YR		YT4B-BS
Suzuki	50 Zillion	503 14	YTX4L-BS
Suzuki	50 ZR, K, KE	004 12	6N4B-2A
Suzuki	50 ZZ	503 14	YTX4L-BS
Suzuki	80 A		6N4-2A
Suzuki	80 CP	505 12	YB5L-B
Suzuki	80 DG	504 11	YB4L-B
Suzuki	80 FB D	504 12	YTX5L-BS
Suzuki	80 FB, M	503 14	YTX4L-BS
Suzuki	80 FR	503 14	YTX4L-BS
Suzuki	80 GT E; EX; L; LX	004 12	6N4B-2A
Suzuki	80 RG, C	504 11	YB4L-B
Suzuki	80 TS ER		6N4B-2A
Suzuki	80 TS X	504 11	YB4L-B
Suzuki	90 A100, Go-Fer		6N4-2A
Suzuki	90 CS G	505 12	YB5L-B
Suzuki	90 FB	503 14	YTX4L-BS
Suzuki	90 RV		6N4-2A
Suzuki	90 TC		6N4-2A
Suzuki	90 TC J, R		6N2-2A
Suzuki	90 TS		6N4-2A
Suzuki	100 AG	504 12	YTX5L-BS
Suzuki	100 AH Adress	504 12	YTX5L-BS
Suzuki	100 AX		6N4-2A
Suzuki	100 B P		6N4-2A
Suzuki	100 FB	505 12	YB5L-B
Suzuki	100 GP V		6N4-2A
Suzuki	100 GT, SP	004 12	6N4B-2A
Suzuki	100 TC Blazer, Honcho		6N4-2A
Suzuki	105 B P		6N4-2A
Suzuki	110 all models	504 12	YTX5L-BS
Suzuki	125 AN	506 15	YTX7A-BS
Suzuki	125 Burgman	508 12	YTX9-BS
Suzuki	125 CS	507 13	YB7-A
Suzuki	125 DN	507 13	YB7-A
Suzuki	125 DR R, S	504 11	YB4L-B
Suzuki	125 DR SE	506 15	YTX7A-BS
Suzuki	125 DR SZ		6N4-2A
Suzuki	125 DZ	506 14	YTX7L-BS
Suzuki	125 Epicuro	506 15	YTX7A-BS
Suzuki	125 GN, -Z	507 13	YB7-A
Suzuki	125 GP		6N4-2A
Suzuki	125 GS	507 13	YB7-A
Suzuki	125 GT	505 12	YB5L-B
Suzuki	125 GZ Marauder	506 14	YTX7L-BS
Suzuki	125 K	511 13	YB10L-B
Suzuki	125 PG Gamma	504 12	YTX5L-BS
Suzuki	125 RA X, RG	504 11	YB4L-B
Suzuki	125 RV		6N4-2A
Suzuki	125 RV SE, R, Tracker	506 14	YTX7L-BS
Suzuki	125 SP	004 12	6N4B-2A

Brand	Model designation	Banner type	First fitting designation
Suzuki	125 SP		6N4-2A
Suzuki	125 TC Prospector, TF	004 12	6N4B-2A
Suzuki	125 TS Duster, ER	004 12	6N4B-2A
Suzuki	125 TS R, SZ	503 14	YTX4L-BS
Suzuki	125 TS, ERT		6N4-2A
Suzuki	125 VL Intruder LC	506 14	YTX7L-BS
Suzuki	150 AN	506 15	YTX7A-BS
Suzuki	150 Burgman	508 12	YTX9-BS
Suzuki	150 UC Epicuro	506 15	YTX7A-BS
Suzuki	185 TC Suerra		6N4-2A
Suzuki	185 TF, TS ER	004 12	6N4B-2A
Suzuki	200 B	507 13	YB7-A
Suzuki	200 Big Boy	511 12	YB10L-A2
Suzuki	200 DR SE	506 14	YTX7L-BS
Suzuki	200 GT N, EN	507 13	YB7-A
Suzuki	200 RV	506 14	YTX7L-BS
Suzuki	200 SP	504 11	YB4L-B
Suzuki	200 T	505 12	YB5L-B
Suzuki	200 TS R, RM	503 14	YTX4L-BS
Suzuki	250 AN Burgmann	506 15	YTX7A-BS
Suzuki	250 DR	504 12	YTX5L-BS
Suzuki	250 DR S	504 11	YB4L-B
Suzuki	250 DR S (Europe)	506 14	YTX7L-BS
Suzuki	250 DR Z	507 01	YTZ7S
Suzuki	250 Glass Stocker, GN, GNX E, GS T	511 12	YB10L-A2
Suzuki	250 GSF	506 15	YTX7A-BS
Suzuki	250 GSX ES		YB12B-B2
Suzuki	250 GSX FS	506 15	YTX7A-BS
Suzuki	250 GSX, ET	511 12	YB10L-A2
Suzuki	250 GT	505 12	YB5L-B
Suzuki	250 GT ET	511 12	YB10L-A2
Suzuki	250 GZ Marauder	506 14	YTX7L-BS
Suzuki	250 RG	505 12	YB5L-B
Suzuki	250 RGV	503 14	YTX4L-BS
Suzuki	250 SP	504 11	YB4L-B
Suzuki	250 T	505 12	YB5L-B
Suzuki	250 TS		6N2-2A
Suzuki	250 TS Savage	004 12	6N4B-2A
Suzuki	250 TS X	504 11	YB4L-B
Suzuki	250 TU X	511 12	YB10L-A2
Suzuki	250 VL	506 14	YTX7L-BS
Suzuki	250 Volty	511 12	YB10L-A2
Suzuki	250 X 7	505 12	YB5L-B
Suzuki	300 GS L		YB12B-B2
<i>01.1994-</i>			
Suzuki	350 DR SE	506 14	YTX7L-BS
Suzuki	350 DR S	503 14	YTX4L-BS
Suzuki	350 DR S, SH	503 14	YTX4L-BS
Suzuki	350 DR SE	506 14	YTX7L-BS
Suzuki	350 T J, R	505 12	YB5L-B
Suzuki	350 T-1, -2	505 12	YB5L-B
Suzuki	370 SP	004 12	6N4B-2A
Suzuki	380 GT	507 13	YB7-A
Suzuki	400 AN Burgmann	508 12	YTX9-BS
Suzuki	400 DR S	004 12	6N4B-2A
Suzuki	400 DRZ E, S	506 01	YT7B-BS
Suzuki	400 GN, L, T, TD, X	004 12	6N4B-2A
Suzuki	400 GS X	507 13	YB7-A
Suzuki	400 GS, E, GSF	508 12	YTX9-BS
Suzuki	400 GSF M	508 12	YTX9-BS
Suzuki	400 GSX ED, EZ		YB12B-B2
Suzuki	400 GSX FS Inazuma	506 15	YTX7A-BS
Suzuki	400 GSX T, S, ES	511 12	YB10L-A2
Suzuki	400 GSX X	511 13	YB10L-B
Suzuki	400 GSX-R, RF	508 12	YTX9-BS
Suzuki	400 SP	004 12	6N4B-2A
Suzuki	400 SV S	508 12	YTX9-BS
Suzuki	400 TS T	511 12	YB10L-A2
Suzuki	400 TS, Apache	505 12	YB5L-B
Suzuki	400 VZ	506 15	YTX7A-BS
Suzuki	425 GS	511 12	YB10L-A2
Suzuki	450 GS E, GA, L		YB12B-B2
Suzuki	450 GS E, S, T, TU, TX	511 12	YB10L-A2



MOTORCYCLES

Brand	Model designation	Banner type	First fitting designation
Suzuki	500 DR S	504 11	YB4L-B
01.1986-			
Suzuki	500 DR S	505 12	YB5L-B
01.1989-			
Suzuki	500 GS E (2-cyl.)	511 13	YB10L-B
Suzuki	500 GS E, EU	511 13	YB10L-B
Suzuki	500 GS EN	511 13	YB10L-B
Suzuki	500 GS F	511 13	YB10L-B
Suzuki	500 GS L	511 12	YB10L-A2
Suzuki	500 GSX EF, ES	511 13	YB10L-B
Suzuki	500 GT	507 13	YB7-A
Suzuki	500 GT B	511 12	YB10L-A2
Suzuki	500 GT Titan	507 13	YB7-A
Suzuki	500 RG	504 12	YTX5L-BS
Suzuki	500 SP	504 11	YB4L-B
Suzuki	500 T Titan	507 13	YB7-A
Suzuki	550 GS, D, E, EG, L, M, T	511 12	YB10L-A2
Suzuki	550 GSX E, L, ES, EF, EV	511 13	YB10L-B
Suzuki	550 GT J, K, L, M	511 12	YB10L-A2
Suzuki	600 Bandit	508 12	YTX9-BS
Suzuki	600 DR R, RU, S, SU	505 12	YB5L-B
Suzuki	600 GSF F Bandit	508 12	YTX9-BS
01.1997-			
Suzuki	600 GSF S	508 12	YTX9-BS
-1990			
Suzuki	600 GSX F	511 13	YB10L-B
01.1997-			
Suzuki	600 GSX F Katana	508 12	YTX9-BS
Suzuki	600 GSX-R	508 12	YTX9-BS
01.1997-			
Suzuki	600 RF R	508 12	YTX9-BS
Suzuki	600 SP6600	505 12	YB5L-B
Suzuki	600 VS GLS	508 12	YTX9-BS
Suzuki	600 VS Intruder	516 15	YB16B-A1
Suzuki	650 AN, Burgman	512 14	YTX14-BS
Suzuki	650 DL V Storm	510 12	YTX12-BS
Suzuki	650 DR R	511 13	YB10L-B
Suzuki	650 DR R SP44A	503 14	YTX4L-BS
Suzuki	650 DR RE, REU	510 12	YTX12-BS
Suzuki	650 DR RER SP45A	510 12	YTX12-BS
Suzuki	650 DR RS SP41/42A	511 13	YB10L-B
Suzuki	650 DR RS, RSU	505 12	YB5L-B
Suzuki	650 DR RSE SP43A	512 14	YTX14-BS
Suzuki	650 DR RSE, RSEU	512 14	YTX14-BS
Suzuki	650 DR RU	505 12	YB5L-B
Suzuki	650 DR SE SP46A	508 12	YTX9-BS
Suzuki	650 DR SE, SEU	508 12	YTX9-BS
Suzuki	650 DR SES	510 12	YTX12-BS
Suzuki	650 GR	514 11	YB14L-A2
Suzuki	650 GS EX	511 12	YB10L-A2
Suzuki	650 GS GT	514 11	YB14L-A2
Suzuki	650 GSX F	508 12	YTX9-BS
Suzuki	650 LS, Savage	514 13	YB14L-B2
Suzuki	650 SFV Gladius	510 21	YTZ12A-BS
Suzuki	650 SV, A, SA, S	510 21	YTZ12A-BS
Suzuki	650 XF Freewind	508 12	YTX9-BS
Suzuki	650 XN85 Turbo	514 11	YB14L-A2
Suzuki	700 GS E, ES, GV, GL	514 11	YB14L-A2
Suzuki	700 VS GL Intruder	516 15	YB16B-A1
Suzuki	750 DR Big	514 13	YB14L-B2
Suzuki	750 DR S, SU Big	514 11	YB14L-A2
Suzuki	750 GS, GSX E, ES, ET	514 11	YB14L-A2
01.1989-12.1997			
Suzuki	750 GSX F Katana	514 13	YB14L-B2
01.1998-			
Suzuki	750 GSX F Katana	508 12	YTX9-BS
-1992			
Suzuki	750 GSX R	514 11	YB14L-A2
01.1992-12.1995			
Suzuki	750 GSX R	510 12	YTX12-BS
01.1996-12.1999			
Suzuki	750 GSX-R T	508 12	YTX9-BS

Brand	Model designation	Banner type	First fitting designation
01.2000-			
Suzuki	750 GSX-R T	510 21	YTZ12A-BS
Suzuki	750 GT, K, LL T	514 11	YB14L-A2
Suzuki	750 VS GL, GLP, Intruder	516 15	YB16B-A1
01.1992-			
Suzuki	800 DR Big	512 14	YTX14-BS
Suzuki	800 DR S, SU Big	512 14	YTX14-BS
1991-			
Suzuki	800 DR SM	514 13	YB14L-B2
Suzuki	800 DR ST	514 11	YB14L-B2
Suzuki	800 VL Intruder, Volusia	510 12	YTX12-BS
Suzuki	800 VS GLP	516 15	YB16B-A1
01.1996-			
Suzuki	800 VS Intruder	516 15	YB16B-A1
Suzuki	800 VX	516 15	YB16B-A1
Suzuki	800 VZ Marauder	510 12	YTX12-BS
Suzuki	850 GS G, GL	514 11	YB14L-A2
Suzuki	900 RF R/RS 2	508 12	YTX9-BS
Suzuki	1000 DL V Storm	512 14	YTX14-BS
Suzuki	1000 GS, G, L, S	514 11	YB14L-A2
Suzuki	1000 GSX-R, TL, R, S	510 12	YTX12-BS
Suzuki	1100 GS E, ES	514 13	YB14L-B2
Suzuki	1100 GS G	512 14	YTX14-BS
Suzuki	1100 GS G Katana	514 11	YB14L-A2
01.1993-			
Suzuki	1100 GSF Bandit	510 12	YTX12-BS
Suzuki	1100 GSX E, ED, EF, EZ	514 11	YB14L-A2
Suzuki	1100 GSX F, FJ	514 13	YB14L-B2
Suzuki	1100 GSX G	512 14	YTX14-BS
Suzuki	1100 GSX Katana, L	514 11	YB14L-A2
01.1993-			
Suzuki	1100 GSX RW	510 12	YTX12-BS
Suzuki	1100 GSX SZ	514 13	YB14L-B2
Suzuki	1150 GSE, S	514 13	YB14L-B2
Suzuki	1200 GS SS, GSF, S, A Bandit	510 12	YTX12-BS
Suzuki	1200 GSX	510 12	YTX12-BS
01.1993-			
Suzuki	1200 GSX R Hayabusa	510 21	YTZ12A-BS
Suzuki	1200 GV GL Marauder	514 13	YB14L-B2
Suzuki	1250 GSF, A Bandit	510 21	YTZ12A-BS
01.1999-12.2007			
Suzuki	1300 GSX-R, Hayabusa	510 21	YTZ12A-BS
01.2008-			
Suzuki	1300 GSX-R B-King, Hayabusa	510 12	YTX12-BS
Suzuki	1400 GSX	512 14	YTX14-BS
Suzuki	1400 GV	520 12	Y50-N18-L-A
Suzuki	1400 VS GLF, GLP	518 22	YTX20CH-BS
01.1987-			
Suzuki	1400 VS Intruder	514 11	YB14L-A2
01.1987-			
Suzuki	1500 VL, VL LC Intruder	518 22	YTX20CH-BS
Suzuki	1500 VZ	518 22	YTX20CH-BS
Suzuki	1600 Marauder, Boulevard M95	518 22	YTX20CH-BS
01.2006-			
Suzuki	1800 VLR, VZR	518 22	YTX20CH-BS
Suzuki	XN 85 Turbo	514 11	YB14L-A2
Sym (Sanyang)	50 Big Wheel, Fancy, Super Fancy, Jet	503 14	YTX4L-BS
01.2009-			
Sym (Sanyang)	50 DD	503 14	YTX4L-BS
Sym (Sanyang)	50 Fiddlell, Mio, SYMply	506 15	YTX7A-BS
Sym (Sanyang)	50 Jet Euro	507 01	YTZ7S
01.2009-			
Sym (Sanyang)	50 Mio	504 12	YTX5L-BS
Sym (Sanyang)	50 RS	503 14	YTX4L-BS
Sym (Sanyang)	125 Duke, Husky, Super Duke	506 14	YTX7L-BS
Sym (Sanyang)	125 Fiddlell	506 15	YTX7A-BS
Sym (Sanyang)	125 HD	508 12	YTX9-BS
01.2009-			
Sym (Sanyang)	200 HD	508 12	YTX9-BS
Sym (Sanyang)	250 RV	510 12	YTX12-BS
TGB	50 Akros, Ergon	503 14	YTX4L-BS
TGB	50 Bunny AS X	504 11	YB4L-B
Tomos	Quadro e-start, Revival	504 11	YB4L-B

Banner

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Brand	Model designation	Banner type	First fitting designation
Triumph	120 Bonneville	507 14	YB7C-A
Triumph	150 all models	514 11	YB14L-A2
Triumph	173 Tigress	012 14	6N11A-1B
Triumph	200 Tiger	012 14	6N11A-1B
Triumph	250 all models	012 14	6N11A-1B
Triumph	350 (12V)	007 14	B39-6
Triumph	350 (6V)	012 14	6N11A-1B
Triumph	350 3TA, Twenty One	013 14	B38-6A
Triumph	500 (12V)	007 14	B39-6
Triumph	500 5TA, TR5A/R	012 14	6N11A-1B
Triumph	600 (12V)	007 14	B39-6
Triumph	600 Daytona	508 12	YTX9-B5
Triumph	600 TT600	510 12	YTX12-B5
Triumph	650 XVS Drag Star	506 15	YTX7A-B5
Triumph	675 Daytona	506 01	YT7B-B5
Triumph	675 Street Triple	508 12	YTX9-B5
Triumph	750 all models	514 11	YB14L-A2
Triumph	800 all models	510 12	YTX12-B5
Triumph	885 all models	514 11	YB14L-A2
Triumph	865 all models	510 01	YT12B-B5
Triumph	900 all models	512 14	YTX14-B5
Triumph	955 all models	512 14	YTX14-B5
Triumph	956 all models	514 11	YB14L-A2
Triumph	995 all models	512 14	YTX14-B5
Triumph	1000 all models	514 11	YB14L-A2
Triumph	1050 all models	510 12	YTX12-B5
Triumph	1200 Trophy	512 14	YTX14-B5
Triumph	1200 all other models	514 11	YB14L-A2
Triumph	1600 Thunderbird	518 21	YTX20L-B5
Triumph	2300 Rocket 3	518 21	YTX20L-B5
Triumph	6T T20B	007 14	6N11A-1B
Velocette	350	013 14	B38-6A
Velocette	500	013 14	B38-6A
Velocette	Early Venon	013 14	B38-6A
Velocette	Le Voque (12 V)	007 14	B39-6
Velocette	Traxton	013 14	B38-6A
Velocette	Viper	013 14	B38-6A
Vespa-Gilera	50 Cobra	504 11	YB4L-B
Vespa-Gilera	50 RC, SP	504 11	YB4L-B
Vespa-Gilera	50 Tubone	504 11	YB4L-B
Vespa-Gilera	80 TG 2	012 11	6N11A-3A
Vespa-Gilera	80 TG 3	012 11	6N11A-3A
Vespa-Gilera	125 Runner	512 14	YTX14-B5
Vespa-Gilera	125 RC Rally	506 11	12N5,5-3B
Vespa-Gilera	125 TG 1	012 11	6N11A-3A
Vespa-Gilera	150 Strada	012 11	6N11A-3A
Vespa-Gilera	200 Runner	510 12	YTX12-B5
Vespa-Gilera	200 RV	506 11	12N5,5-3B
Vespa-Gilera	200 RX Enduro	506 11	12N5,5-3B
Vespa-Gilera	300 Nexus	512 14	YTX14-B5
Vespa-Gilera	350, 500 Itoh	514 11	YB14L-A2
Vespa-Gilera	500 Nexus	514 11	YB14L-A2
Vespa-Gilera	500 Fuoco	514 22	YTX16-B5
Vespa-Gilera	1300 Stalker ZAPC	504 11	YB4L-B
Vespa-Gilera	600 RC	506 11	12N5,5-3B
Vespa-Gilera	Arizona	506 11	12N5,5-3B
Vespa-Gilera	Cobra	509 14	YB9-B
Vespa-Gilera	Cobra Offroad	506 11	12N5,5-3B
Vespa-Gilera	CX	509 14	YB9-B
Vespa-Gilera	MX 1	509 14	YB9-B
Vespa-Gilera	MXR	509 14	YB9-B
Vespa-Gilera	R 2	509 14	YB9-B
Vespa-Gilera	SPO 1	509 14	YB9-B
Vespa-Gilera	SPO 2	509 14	YB9-B
Vespa-Gilera	XR 1	509 14	YB9-B
Vespa-Gilera	XR 2	509 14	YB9-B
Vespa-Piaggio	50 all other models	504 11	YB4L-B
Vespa-Piaggio	50 APE FL	509 14	YB9-B
Vespa-Piaggio	50 FLY	509 14	YB9-B
Vespa-Piaggio	50 LX	509 14	YB9-B
Vespa-Piaggio	50 PK S e-starter	507 13	YB7-A

Brand	Model designation	Banner type	First fitting designation
Vespa-Piaggio	50 PX	507 13	YB7-A
Vespa-Piaggio	50 Typhoon	509 14	YB9-B
Vespa-Piaggio	80 Cosa	509 14	YB9-B
Vespa-Piaggio	80 Free	504 11	YB4L-B
Vespa-Piaggio	80 NRG	504 11	YB4L-B
Vespa-Piaggio	80 NTT	504 11	YB4L-B
Vespa-Piaggio	80 P	506 11	12N5,5-3B
Vespa-Piaggio	80 PK	507 13	YB7-A
Vespa-Piaggio	80 PX E	509 14	YB9-B
Vespa-Piaggio	80 Quartz	504 11	YB4L-B
Vespa-Piaggio	80 Sfera	504 11	YB4L-B
Vespa-Piaggio	80 TPH	507 13	YB7-A
Vespa-Piaggio	80 Zip	504 11	YB4L-B
Vespa-Piaggio	125 Cosa	509 14	YB9-B
Vespa-Piaggio	125 ET 4	509 14	YB9-B
Vespa-Piaggio	125 GT, GTS	509 14	YB9-B
Vespa-Piaggio	125 P E	506 11	12N5,5-3B
Vespa-Piaggio	125 P X	506 11	12N5,5-3B
Vespa-Piaggio	125 PK S	507 13	YB7-A
Vespa-Piaggio	125 PK XL	507 13	YB7-A
Vespa-Piaggio	125 PX	509 14	YB9-B
Vespa-Piaggio	125 PX T5	509 14	YB9-B
Vespa-Piaggio	125 Sfera	507 13	YB7-A
Vespa-Piaggio	125 Skipper	507 13	YB7-A
Vespa-Piaggio	125 SKR	507 13	YB7-A
Vespa-Piaggio	150 Cosa, Fly	509 14	YB9-B
Vespa-Piaggio	150 EX	507 13	YB7-A
Vespa-Piaggio	150 LX	509 14	YB9-B
Vespa-Piaggio	150 P PX	506 11	12N5,5-3B
Vespa-Piaggio	150 P X	506 11	12N5,5-3B
Vespa-Piaggio	150 PE ARC	509 14	YB9-B
Vespa-Piaggio	150 PX E	509 14	YB9-B
Vespa-Piaggio	150 PX E	506 11	12N5,5-3B
Vespa-Piaggio	150 SKR	507 13	YB7-A
Vespa-Piaggio	200 Cosa	509 14	YB9-B
Vespa-Piaggio	200 L Granturismo	511 13	YB10L-B
Vespa-Piaggio	200 P E	506 11	12N5,5-3B
Vespa-Piaggio	200 PX	506 11	12N5,5-3B
Vespa-Piaggio	200 PX ARC	509 14	YB9-B
Vespa-Piaggio	200 PX E	506 11	12N5,5-3B
Vespa-Piaggio	200 PX E	509 14	YB9-B
Vespa-Piaggio	200 PX GS	509 14	YB9-B
Vespa-Piaggio	250 BV	512 14	YTX14-B5
Vespa-Piaggio	250 GTS, GTV	512 14	YTX14-B5
	-1998		
Vespa-Piaggio	250 Hexagon	509 14	YB9-B
	01.1999-		
Vespa-Piaggio	250 Hexagon	511 13	YB10L-B
Vespa-Piaggio	250 MP3	512 14	YTX14-B5
Vespa-Piaggio	250 NGR	506 11	12N5,5-3B
Vespa-Piaggio	300 GTS	512 14	YTX14-B5
Vespa-Piaggio	350 Dakota	506 11	12N5,5-3B
Vespa-Piaggio	400 MP3	512 14	YTX14-B5
Vespa-Piaggio	460 X9	512 14	YTX14-B5
Vespa-Piaggio	500 BV, MP3	512 14	YTX14-B5
Vespa-Piaggio	CAR	530 30	
Vespa-Piaggio	MP, MPR	530 30	
Vespa-Piaggio	P 602	530 30	
Victory	All models	518 21	YTX20L-B5
Winking	50 Aero X, Bunny AT, -AS, -AX	504 11	YB4L-B
Xingfu	125 XF Hunter	505 12	YB5L-B
Yamaha	50 Axis	503 14	YTX4L-B5
Yamaha	50 Beluga	504 11	YB4L-B
Yamaha	50 Bop, Breeze		6N4-2A
Yamaha	50 BW's	504 11	YB4L-B
Yamaha	50 CA, E Riva		6YB8L-B
Yamaha	50 CE S Riva, CG	504 11	YB4L-B
Yamaha	50 Chappy		6N4-2A
Yamaha	50 CR, CTS/SS	504 11	YB4L-B
Yamaha	50 CV		6YB8L-B
Yamaha	50 CW Zuma	504 11	YB4L-B
Yamaha	50 CY	503 14	YTX4L-B5
Yamaha	50 DT	004 12	6N4B-2A



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Brand	Model designation	Banner type	First fitting designation
Yamaha	50 DT M		6N4A-4D
Yamaha	50 DT MX	004 12	6N4B-2A
Yamaha	50 DT R	503 12	YB3L-A
Yamaha	50 FS 1		6N4A-4D
Yamaha	50 GT		6N4-2A
Yamaha	50 Jog Z		YT4B-BS
Yamaha	50 LB P, LB2, LB3, P Champ		6N4-2A
Yamaha	50 Max	504 11	YB4L-B
Yamaha	50 MJ Towner		6N4-2A
Yamaha	50 NEO S, NG, Original	504 11	YB4L-B
Yamaha	50 QT Yamahopper		6N4-2A
Yamaha	50 R	504 11	YB4L-B
<i>01.1981-</i>			
Yamaha	50 RD	004 12	6N4B-2A
Yamaha	50 RD M	004 12	6N4B-2A
Yamaha	50 RX		6N4-2A
Yamaha	50 Sachs Roller, Salient		6YB8L-B
Yamaha	50 SH, Slider, Spy	504 11	YB4L-B
Yamaha	50 Sting SG (Mofa)		6N4-2A
Yamaha	50 STS/SS, Target	504 11	YB4L-B
Yamaha	50 TRZ, TTR E		YT4B-BS
Yamaha	50 TY M		6N4A-4D
Yamaha	50 VOX	504 12	YTX5L-BS
Yamaha	50 Why	504 11	YB4L-B
Yamaha	50 TTR E	502 01	YTZ4A-BS
Yamaha	50 XC	504 12	YTX5L-BS
Yamaha	50 XF, XFW	504 12	YTX5L-BS
Yamaha	50 YA	503 14	YTX4L-BS
Yamaha	50 YB		YT4B-BS
Yamaha	50 YE Zest	504 11	YB4L-B
Yamaha	50 YJ R Vino/Vino Classic	503 14	YTX4L-BS
Yamaha	50 YM Breeze	504 11	YB4L-B
Yamaha	50 YW A Zuma	504 12	YTX5L-BS
Yamaha	50 YZ, D, ZS		YT4B-BS
Yamaha	60 all models		6N2-2A
Yamaha	65 all models	504 11	YB4L-B
Yamaha	80 CV Beluga, Riva		6N11-2D
Yamaha	80 DT Mini Enduro, MX, MXS		6N4-2A
Yamaha	80 DTLC, LC	503 13	YB3L-B
Yamaha	80 FS 1DX, SD		6N4A-4D
Yamaha	80 G6S, G6SB, G7S		6N4A-4D
Yamaha	80 GT Mini Enduro, GT1		6N4-2A
Yamaha	80 LB Chappy, -2A		6N4-2A
Yamaha	80 RD LC	503 13	YB3L-B
Yamaha	80 RD MX	004 12	6N4B-2A
Yamaha	80 RX SE		6N4-2A
Yamaha	80 SV	507 14	YB7C-A
Yamaha	80 TZR, D	503 14	YTX4L-BS
Yamaha	80 V, D		6N4-2A
Yamaha	80 YE Zesyt	504 11	YB4L-B
Yamaha	80 YG5T, YG5S	507 14	YB7C-A
Yamaha	80 YSR, B, D		6N4-2A
Yamaha	90 BW s 100	504 12	YTX5L-BS
Yamaha	90 CR	504 11	YB4L-B
Yamaha	90 HS1, HS1B	506 11	12N5,5-3B
Yamaha	90 HT1, HT1B Enduro		6N2-2A
Yamaha	90 YA	503 14	YTX4L-BS
Yamaha	100 Aerox	503 14	YTX4L-BS
Yamaha	100 AG E		6N4-2A
Yamaha	100 BW s	504 12	YTX5L-BS
Yamaha	100 DT Enduro	004 12	6N4B-2A
Yamaha	100 LST, LSTA	507 14	YB7C-A
Yamaha	100 LS2		12N5,5A-3B
Yamaha	100 LT2, LT3 Enduro	004 12	6N4B-2A
Yamaha	100 NEO S	503 14	YTX4L-BS
Yamaha	100 RS		6N4A-4D
Yamaha	100 RS DX		6N4-2A
Yamaha	100 RS T, RXZ S		6N4A-4D
Yamaha	100 V, V E	503 13	YB3L-B
Yamaha	100 YL2C/CM	507 14	YB7C-A
Yamaha	100 YQ	503 14	YTX4L-BS
Yamaha	100 YT (Taiwan)	504 12	YTX5L-BS
Yamaha	110 all models	505 12	YB5L-B

Brand	Model designation	Banner type	First fitting designation
Yamaha	115 all models		6N4-2A
Yamaha	125 AS2C	506 11	12N5,5-3B
Yamaha	125 AT2, AT3 Enduro	507 14	YB7C-A
Yamaha	125 BL 125	507 14	YB7C-A
Yamaha	125 DT	004 12	6N4B-2A
Yamaha	125 DT 125 R	503 13	YB3L-B
Yamaha	125 DT E	507 14	YB7C-A
Yamaha	125 DT LC	503 13	YB3L-B
Yamaha	125 DT LC 10V		6N6-3B-1
Yamaha	125 DT LC 35E	503 13	YB3L-B
Yamaha	125 DT MX	004 12	6N4B-2A
Yamaha	125 DT R4 DK	503 13	YB3L-B
Yamaha	125 DT RE		12N5,5-4B
Yamaha	125 RD	506 11	12N5,5-3B
Yamaha	125 RD LC	505 12	YB5L-B
Yamaha	125 RS	511 13	YB10L-B
Yamaha	125 RX	004 12	6N4B-2A
Yamaha	125 SR	507 14	YB7C-A
<i>01.1993-</i>			
Yamaha	125 TDR	504 12	YTX5L-BS
Yamaha	125 TW	507 14	YB7C-A
Yamaha	125 TTR	503 14	YTX4L-BS
<i>01.1993-</i>			
Yamaha	125 TZR	505 12	YB5L-B
Yamaha	125 XC	507 14	YB7C-A
Yamaha	125 XC Beluga (Roller)	507 14	YB7C-A
Yamaha	125 XC Cygnus (Roller)	506 15	YTX7A-BS
Yamaha	125 XC T Cygnus	506 15	YTX7A-BS
Yamaha	125 XT		6N4A-4D
Yamaha	125 XV	511 12	YB10L-A2
Yamaha	125 XV, S Virago	505 12	YB5L-B
Yamaha	125 YAS1/C		12N5,5A-3B
Yamaha	125 YJ	506 15	YTX7A-BS
<i>01.2009-</i>			
Yamaha	125 Zuma	506 15	YTX7A-BS
Yamaha	150 RX	503 13	YB3L-B
Yamaha	150 SR	507 14	YB7C-A
Yamaha	150 XC Fly One R	506 15	YTX7A-BS
Yamaha	175 DT Enduro	004 12	6N4B-2A
Yamaha	175 DT Enduro		6N6-3B-1
Yamaha	180 RT G		6N6-3B-1
Yamaha	180 XC Cygnus	511 12	YB10L-A2
Yamaha	180 XC Cygnus (Roller)		6N11-2D
Yamaha	180 XC, D, Z Riva	511 13	YB10L-B
Yamaha	185 all models		YB7L-B
Yamaha	200 AGE, G	004 12	6N4B-2A
Yamaha	200 BW	507 14	YB7C-A
Yamaha	200 CS3B, CS3C		YB9L-A2
Yamaha	200 CSS		YB9L-A2
Yamaha	200 DTRE	503 13	YB3L-B
Yamaha	200 RD, DX	509 14	YB9-B
Yamaha	200 TW	507 14	YB7C-A
Yamaha	200 XC, Z Riva	511 13	YB10L-B
Yamaha	200 XT		6N4A-4D
Yamaha	200 YCS1		YB9L-A2
<i>01.1992-12.2000</i>			
Yamaha	225 XT Serow	506 14	YTX7L-BS
<i>01.2001-</i>			
Yamaha	225 XT	507 01	YTZ7S
Yamaha	230 TTR E	504 12	YTX5L-BS
Yamaha	250 DT Enduro	004 12	6N4B-2A
Yamaha	250 DT MX		6N6-3B-1
Yamaha	250 DT3 Enduro		6N4-2A
Yamaha	250 Majesty	506 14	YTX7L-BS
Yamaha	250 Maxam	509 01	YTZ10S
Yamaha	250 Morphous	509 01	YTZ10S
Yamaha	250 RD		12N5,5A-3B
Yamaha	250 RDLC		12N5,5A-3B
Yamaha	250 SR	512 11	YB12A-A
Yamaha	250 SR, E, SE	512 11	YB12A-A
Yamaha	250 SRV, G	506 15	YTX7A-BS
Yamaha	250 SRX	512 11	YB12A-A
Yamaha	250 TDR	505 12	YB5L-B

Banner

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Brand	Model designation	Banner type	First fitting designation
Yamaha	250 Tricker	507 01	YTZ75
Yamaha	250 TT R		YT7B-BS
Yamaha	250 TZR	505 12	YB5L-B
Yamaha	250 WR F, X, R	507 01	YTZ75
Yamaha	250 XS	512 11	YB12A-A
01.1984-12.2007			
Yamaha	250 XT	503 13	YB3L-B
01.2008-			
Yamaha	250 XT	507 01	YTZ75
Yamaha	250 XV	511 12	YB10L-A2
Yamaha	350 BW		YB12B-B2
Yamaha	350 BWE	507 14	YB7C-A
Yamaha	350 R3	505 12	YB5L-B
Yamaha	350 RD		12N5,5A-3B
01.1986-			
Yamaha	350 RD F	505 12	YB5L-B
Yamaha	350 RD R5		12N5,5A-3B
Yamaha	350 RDLC, LCF	505 12	YB5L-B
Yamaha	350 RZ	506 11	12N5,5-3B
Yamaha	350 TT, TTE		6N2-2A
Yamaha	350 XT	503 13	YB3L-B
Yamaha	350 YR2/C	506 11	12N5,5-3B
Yamaha	360 XS	512 11	YB12A-A
Yamaha	400 FZR	512 13	YB12AL-A2
Yamaha	400 FZRRR, RRSP	508 12	YTX9-BS
Yamaha	400 RD		12N5,5A-3B
Yamaha	400 SR		YT4B-BS
Yamaha	400 XJ	512 11	YB12A-A
Yamaha	400 XS Maxim	512 11	YB12A-A
Yamaha	400 XS, SE, DOHC	512 11	YB12A-A
Yamaha	400 XSS Heritage Special	512 11	YB12A-A
Yamaha	400 XV	512 13	YB12AL-A2
Yamaha	400 YP Majesty	508 12	YTX9-BS
Yamaha	450 all models	507 01	YTZ75
Yamaha	500 FXR, FZR	512 13	YB12AL-A2
Yamaha	500 RD	506 11	12N5,5-3B
Yamaha	500 SR		YT4B-BS
Yamaha	500 SR, SP	507 14	YB7C-A
01.2009-			
Yamaha	500 SP T-Max	509 01	YTZ10S
Yamaha	500 XJ	512 11	YB12A-A
Yamaha	500 XP (T-Max)	508 01	YT9B-4
Yamaha	500 XS	514 11	YB14L-A2
Yamaha	500 XSE	514 11	YB14L-A2
Yamaha	500 XT	503 13	YB3L-B
Yamaha	500 XT A		6N6-3B-1
01.1990-			
Yamaha	500 XT E	508 12	YTX9-BS
Yamaha	500 XT N, T	505 12	YB5L-B
Yamaha	500 XT Z Tenere	512 13	YB12AL-A2
Yamaha	500 XTE	508 12	YTX9-BS
Yamaha	500 XV	512 13	YB12AL-A2
Yamaha	535 all models	512 13	YB12AL-A2
Yamaha	550 XJ	512 11	YB12A-A
01.1984-			
Yamaha	550 XT	505 12	YB5L-B
Yamaha	550 XZ	514 11	YB14L-A2
Yamaha	600 FJ, FZ	512 11	YB12A-A
Yamaha	600 FZ6	510 01	YT12B-BS
01.1989-12.1993			
Yamaha	600 FZR	512 13	YB12AL-A2
Yamaha	600 FZR R 94	510 12	YTX12-BS
Yamaha	600 FZRR	512 13	YB12AL-A2
Yamaha	600 FZS Fazer	510 12	YTX12-BS
Yamaha	600 FZS S	510 01	YT12B-BS
Yamaha	600 SRX	505 12	YB5L-B
Yamaha	600 TT		6N2-2A
Yamaha	600 TTE	508 12	YTX9-BS
Yamaha	600 TTS	503 14	YTX4L-BS
Yamaha	600 TT T, TTW		6N4-2A-7
Yamaha	600 XJ	512 11	YB12A-A
01.1992-			
Yamaha	600 XJ Diversion	508 12	YTX9-BS

Brand	Model designation	Banner type	First fitting designation
Yamaha	600 XJ, H, N	512 11	YB12A-A
01.1984-			
Yamaha	600 XT	505 12	YB5L-B
01.1992-			
Yamaha	600 XT E	508 12	YTX9-BS
01.1986-			
Yamaha	600 XT Z Tenere	512 13	YB12AL-A2
Yamaha	600 XTE, EH, EN	508 12	YTX9-BS
Yamaha	600 XTE, EH, EN, H, N, Z	505 12	YB5L-B
Yamaha	600 XTKH	503 14	YTX4L-BS
Yamaha	600 XTZ	512 13	YB12AL-A2
Yamaha	600 YX Radian	512 11	YB12A-A
01.2006-			
Yamaha	600 YZF-R6, R7	509 01	YTZ10S
01.2001-12.2007			
Yamaha	600 YZF-R6, R6S	508 01	YT9B-4
01.1999-12.2000			
Yamaha	600 YZF-R6	510 01	YT12B-BS
01.1995-12.2007			
Yamaha	600 YZF	510 12	YTX12-BS
Yamaha	650 Burgman	512 14	YTX14-BS
Yamaha	650 TX	514 11	YB14L-A2
Yamaha	650 TX3	512 11	YB12A-A
Yamaha	650 X1	506 11	12N5,5-3B
Yamaha	650 X2	512 11	YB12A-A
Yamaha	650 XJ	512 11	YB12A-A
Yamaha	650 XJ, R, XJT Turbo	512 11	YB12A-A
Yamaha	650 XS, SE	514 11	YB14L-A2
Yamaha	650 XS-2, XSS	514 11	YB14L-A2
Yamaha	650 XVS DragStar, V-Star	510 01	YT12B-BS
Yamaha	660 MT-03, SZR, XTX, R, Z	508 12	YTX9-BS
Yamaha	700 FZ Fazer	514 11	YB14L-A2
Yamaha	700 XJ Maxim, XJS	514 11	YB14L-A2
Yamaha	700 XV C, Virago, XVSS	516 16	YB16AL-A2
Yamaha	750 FX	514 11	YB14L-A2
Yamaha	750 FZ, Genesis	514 11	YB14L-A2
Yamaha	750 FZR	508 12	YTX9-BS
Yamaha	750 FZRRT Genesis	514 11	YB14L-A2
Yamaha	750 FZX	514 11	YB14L-A2
Yamaha	750 TX	519 15	YB16HL-A-CX
Yamaha	750 XJ	514 11	YB14L-A2
Yamaha	750 XJ Seca	514 11	YB14L-A2
Yamaha	750 XJM Midnight Virago	514 11	YB14L-A2
Yamaha	750 XS, SE	514 11	YB14L-A2
Yamaha	750 XS-2	514 11	YB14L-A2
Yamaha	750 XTZ Super Tenere	514 11	YB14L-A2
Yamaha	750 XV SE	516 16	YB16AL-A2
Yamaha	750 XV Virago	516 16	YB16AL-A2
Yamaha	750 YZF R	510 12	YTX12-BS
Yamaha	750 YZF SP	510 12	YTX12-BS
Yamaha	750 YZF-R7	508 01	YT9B-4
Yamaha	800 FZ8	509 01	YTZ10S
-1995			
Yamaha	850 TDM	510 01	YT12B-BS
01.1996-			
Yamaha	850 TDM	510 01	YT12B-BS
Yamaha	850 TRX	510 12	YTX12-BS
Yamaha	850 XS	514 11	YB14L-A2
Yamaha	900 TDM	510 01	YT12B-BS
Yamaha	900 XJ S	512 14	YTX14-BS
Yamaha	900 XJ, -F, XJR, Seca	514 11	YB14L-A2
Yamaha	920 all models	520 12	Y50-N18L-A
Yamaha	950 all models	511 01	YTZ14S
01.1991-			
Yamaha	1000 FZR	512 14	YTX14-BS
01.2001-12.2005			
Yamaha	1000 FZS 1	512 01	YT14B-4
01.2006-			
Yamaha	1000 FZS 1	511 01	YTZ14S
01.1991-			
Yamaha	1000 GTS	512 14	YTX14-BS
Yamaha	1000 XV TR1	520 12	Y50-N18L-A
Yamaha	1000 XV Virago	520 12	Y50-N18L-A



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Brand	Model designation	Banner type	First fitting designation
Yamaha	1000 XV, SE Midnight Sp.	520 12	Y50-N18L-A
01.1997-12.1997			
Yamaha	1000 YZF, R	512 14	YTX14-BS
01.1998-12.2003			
Yamaha	1000 YZF R1	510 01	YT12B-BS
01.2004-			
Yamaha	1000 YZF R1	509 01	YTZ10S
Yamaha	1100 BT	512 01	YT14B-4
01.1991-			
Yamaha	1100 FJ	514 11	YB14L-A2
Yamaha	1100 XJ Maxim	520 11	Y50-N18L-A3
Yamaha	1100 XS, -S, -Virago	520 12	Y50-N18L-A
Yamaha	1100 XV Virago	520 11	Y50-N18L-A3
Yamaha	1100 XVG, GC	520 12	Y50-N18L-A
Yamaha	1100 XVS V-Star, Drag Star, A Drag Star	512 01	YT14B-4
-1990			
Yamaha	1200 FJ	514 11	YB14L-A2
01.1991-			
Yamaha	1200 FJ, A	512 14	YTX14-BS
Yamaha	1200 VMX V-Max	516 16	YB16AL-A2
Yamaha	1200 XJR	512 14	YTX14-BS
Yamaha	1200 XTZ, Super Tenere	510 21	YTZ12A-BS
Yamaha	1200 XVZ	520 12	Y50-N18L-A
Yamaha	1300 FJR	512 01	YT14B-4
01.2007-			
Yamaha	1300 XJR	511 01	YTZ14S
01.1986-12.1993			
Yamaha	1300 XVZ13	520 12	Y50-N18L-A
01.1996-			
Yamaha	1300 XVS13, XVZ13	518 21	YTX20L-BS
Yamaha	1600 XV Road Star	518 21	YTX20L-BS
Yamaha	1700 MT-01 (EU)	512 01	YT14B-4
01.2009-			
Yamaha	1700 V-Max	511 01	YTZ14S
Yamaha	1700 XVA Road Star, Silverado	518 21	YTX20L-BS
Yamaha	1700 XVAT, XVP	512 01	YT14B-4
Yamaha	1854 all models	512 01	YT14B-4
Zündapp	80 K, -KS Super	508 12	YTX9-BS
Zündapp	125 GS, -KS	012 14	6N11A-1B
Zündapp	175 KS	012 14	6N11A-1B

Banner

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Brand	Model designation	Banner type	First fitting designation
Adly	All models	503 14	YTX4L-BS
Aeon (Benzai)	50 Cobra, CX-Sport	503 14	YTX4L-BS
Aeon (Benzai)	90 Cobra, CX-Sport	503 14	YTX4L-BS
Aeon (Benzai)	100 Cobra, CX-Sport	503 14	YTX4L-BS
Arctic Cat	50 all models	504 12	YTX5L-BS
01.2000-12.2006			
Arctic Cat	90 all models	503 14	YTX4L-BS
01.2007-			
Arctic Cat	90 all models	507 01	YTZ7S
Arctic Cat	150 all models	508 12	YTX9-BS
01.1990-12.2005			
Arctic Cat	250 all models	514 11	YB14L-A2
01.2005-			
Arctic Cat	250 DVX, 2x4	510 12	YTX12-BS
Arctic Cat	300 all models	514 11	YB14L-A2
Arctic Cat	300 DVX, Utility	510 12	YTX12-BS
Arctic Cat	366 all models	514 12	YB14-A2
Arctic Cat	400 all other models	514 12	YB14-A2
Arctic Cat	400 DVX	508 12	YTX9-BS
Arctic Cat	450 all models	514 12	YB14-A2
Arctic Cat	500 all models	514 12	YB14-A2
Arctic Cat	550 all models	514 12	YB14-A2
Arctic Cat	650 all models	514 12	YB14-A2
01.2006-12.2008			
Arctic Cat	700 all models	514 12	YB14-A2
01.2009-			
Arctic Cat	700 TRV, Mudpro, LTD, TBX		YTX20H-BS
Arctic Cat	1000 all models		YTX20H-BS
BRP (Can-Am)	50 DS, Quest	503 14	YTX4L-BS
BRP (Can-Am)	70 DS	503 14	YTX4L-BS
BRP (Can-Am)	90 DS, DS-F, Quest	503 14	YTX4L-BS
BRP (Can-Am)	200 Rally	514 12	YB14-A2
BRP (Can-Am)	250 DS	510 12	YTX12-BS
BRP (Can-Am)	300 Outlander	513 14	YTX15L-BS
BRP (Can-Am)	400 Outlander	513 14	YTX15L-BS
BRP (Can-Am)	400 Outlander XT, MAX	518 21	YTX20L-BS
BRP (Can-Am)	450 DS	506 01	YT7B-BS
09.1999-12.2005			
BRP (Can-Am)	500 Traxter, Quest	519 15	YB16HL-A-CX
01.2002-12.2005			
BRP (Can-Am)	500 Traxter, Quest	522 14	YTX50L-BS
BRP (Can-Am)	500 Outlander, MAX, Renegade	518 21	YTX20L-BS
BRP (Can-Am)	650 DS	513 14	YTX15L-BS
BRP (Can-Am)	650 Quest	519 15	YB16HL-A-CX
BRP (Can-Am)	650 Outlander, MAX	518 21	YTX20L-BS
BRP (Can-Am)	660 Outlander	518 21	YTX20L-BS
BRP (Can-Am)	800 Outlander	518 21	YTX20L-BS
Cannondale	All models	508 12	YTX9-BS
DRR	All models	503 14	YTX4L-BS
01.1999-12.2003			
E-Ton	50 AXL, TXL, NXL, RXL,	503 14	YTX4L-BS
01.2004-			
E-Ton	50 all models	504 12	YTX5L-BS
E-Ton	70 Viper	504 12	YTX5L-BS
E-Ton	90 AXL, TXL, NXL, RXL,	504 12	YTX5L-BS
E-Ton	90 DXL Sierra	503 14	YTX4L-BS
E-Ton	150 CXL, YXL Yukon	508 12	YTX9-BS
E-Ton	250 Vector	510 12	YTX12-BS
Honda	90 TRX, EX	504 12	YTX5L-BS
01.1986-12.1987			
Honda	125 ATC M	510 12	YTX12-BS
01.1984-12.1985			
Honda	125 ATC M	509 14	YB9L-B
01.1987-12.1988			
Honda	125 TRX Fourtrax	508 12	YTX9-BS
01.1985-12.1986			
Honda	125 TRX Fourtrax	509 14	YB9L-B
01.1982-12.1983			
Honda	200 ATC E Big Red	514 12	YB14-A2
-1984			
Honda	200 ATC ES Big Red	514 12	YB14-A2

Brand	Model designation	Banner type	First fitting designation
01.1984-12.1985			
Honda	200 ATC M	514 12	YB14-A2
01.1991-12.1996			
Honda	200 TRX D Fourtrax Type II	510 12	YTX12-BS
01.1990-12.1991			
Honda	200 TRX Fourtrax	510 12	YTX12-BS
-1984			
Honda	200 TRX Fourtrax	514 12	YB14-A2
01.1986-12.1988			
Honda	200 TRX SX Fourtrax	510 12	YTX12-BS
01.1985-12.1987			
Honda	250 ATC EC Big Red	510 12	YTX12-BS
01.1985-12.1987			
Honda	250 ATC SC	510 12	YTX12-BS
01.1985-12.1987			
Honda	250 TRX Fourtrax	510 12	YTX12-BS
01.1997-12.2000			
Honda	250 TRX Recon	510 12	YTX12-BS
01.2001-			
Honda	250 TRX X, EX	508 12	YTX9-BS
-1996			
Honda	300 Four EX	512 14	YTX14-BS
01.1988-12.2000			
Honda	300 TRX EX Fourtrax	508 12	YTX9-BS
01.1992-12.2000			
Honda	300 TRX Fourtrax	512 14	YTX14-BS
01.1988-12.2000			
Honda	300 TRX FW Fourtrax 4x4	512 14	YTX14-BS
-1985			
Honda	350 FL R Odyssey	510 12	YTX12-BS
01.1987-12.1989			
Honda	350 TRX D Fourtrax 4x4	512 14	YTX14-BS
01.1986-12.1987			
Honda	350 TRX Fourtrax	512 14	YTX14-BS
-2000			
Honda	350 TRX Rancher	512 14	YTX14-BS
01.1989-12.1990			
Honda	400 FL R Pilot	512 14	YTX14-BS
01.1999-12.2003			
Honda	400 TRX EX, Fourtrax, Sportrax	508 12	YTX9-BS
01.1995-12.2003			
Honda	400 TRX FW Foreman	512 14	YTX14-BS
Honda	420 TRX Fourtrax Rancher	512 14	YTX14-BS
01.1998-12.2004			
Honda	450 TRX S Fourtrax S,ES	512 14	YTX14-BS
01.2006-			
Honda	450 TRX ER	507 01	YTZ7S
01.2003-			
Honda	500 all models	512 14	YTX14-BS
01.2003-			
Honda	650 TRX FA Fourtrax Rubicon	518 21	YTX20L-BS
01.2006-			
Honda	680 TRX	518 21	YTX20L-BS
01.2008-			
Honda	700 TRX XX	508 12	YTX9-BS
Hyosung	450 TE S	508 12	YTX9-BS
John Deere	All models	518 21	YTX20L-BS
Husabert	All models	508 12	YTX9-BS
Kasea	50 Mini Skyhawk	503 14	YTX4L-BS
Kasea	50 Skyhawk	504 12	YTX5L-BS
Kasea	65 KS, KU models	506 15	YTX7A-BS
Kasea	90 KS, KU models	506 15	YTX7A-BS
Kasea	90 Skyhawk	504 12	YTX5L-BS
Kasea	125 KS, KU models, Adventure	506 15	YTX7A-BS
Kasea	150 Skyhawk, Adventure	506 15	YTX7A-BS
Kasea	170 Skyhawk	506 15	YTX7A-BS
Kasea	250 Skyhawk	506 15	YTX7A-BS
Kawasaki	50 KFX	504 12	YTX5L-BS
Kawasaki	80 KSF-A	504 12	YTX5L-BS
Kawasaki	90 KFX	504 12	YTX5L-BS
01.1987-12.1988			
Kawasaki	110 KLF B Mojave		YB9L-A2



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Brand	Model designation	Banner type	First fitting designation
<i>01.1985-12.1988</i>			
Kawasaki	185 KLF A Bayou	511 13	YB10L-B
<i>01.1981-12.1984</i>			
Kawasaki	200 KLT A, C	509 14	YB9-B
<i>-1983</i>			
Kawasaki	200 KLT B, C	512 11	YB12A-A
<i>01.1988-12.1999</i>			
Kawasaki	220 KLF A Bayou	511 12	YB10L-A2
<i>01.1992-12.1999</i>			
Kawasaki	220 KLF A Bayou (CN)	514 12	YB14-A2
<i>01.1982-12.1983</i>			
Kawasaki	250 KLT A	512 11	YB12A-A
<i>01.1984-12.1985</i>			
Kawasaki	250 KLT C Prairie	511 13	YB10L-B
<i>-1983</i>			
Kawasaki	250 KLT C Prairie	512 11	YB12A-A
<i>01.1995-12.1999</i>			
Kawasaki	300 KEF A Lakota	514 12	YB14-A2
<i>01.1992-12.1998</i>			
Kawasaki	300 KLF B Bayou (CN)	519 15	YB16HL-A-CX
<i>01.1988-12.1991</i>			
Kawasaki	300 KLF B1-B4 Bayou	514 12	YB14-A2
<i>01.1992-12.1999</i>			
Kawasaki	300 KLF B5-B12 Bayou	519 15	YB16HL-A-CX
<i>01.1989-12.1991</i>			
Kawasaki	300 KLF C1,-C3 Bayou	514 12	YB14-A2
<i>01.1989-12.1999</i>			
Kawasaki	300 KLF C4,-C11,-C12	519 15	YB16HL-A-CX
<i>01.1999-12.2000</i>			
Kawasaki	300 KVF A, -B	519 15	YB16HL-A-CX
Kawasaki	360 KVF Prairie	514 12	YB14-A2
<i>01.1993-12.2000</i>			
Kawasaki	400 KLF B Bayou 4x4	519 15	YB16HL-A-CX
<i>01.1997-12.2000</i>			
Kawasaki	400 KVF A, 2 Prairie (CN)	519 15	YB16HL-A-CX
<i>01.1997-12.2000</i>			
Kawasaki	400 KVF A1, 2Prairie 4x4	514 12	YB14-A2
<i>-1998</i>			
Kawasaki	400 KVF B1 Prairie (CN)	519 15	YB16HL-A-CX
<i>-1998</i>			
Kawasaki	400 KVF B1, 2 Prairie	514 12	YB14-A2
<i>01.1999-12.2000</i>			
Kawasaki	400 KVF C, D Prairie	514 12	YB14-A2
<i>01.2008-</i>			
Kawasaki	450 KFX	506 14	YTX7L-BS
<i>01.2002-12.2003</i>			
Kawasaki	650 KVF A, B Prairie		KMX14-BS
<i>01.2003-12.2006</i>			
Kawasaki	700 KVF, KSV, KFX		KMX14-BS
<i>01.2005-12.2008</i>			
Kawasaki	750 KVF		KMX14-BS
<i>01.2008-</i>			
KTM	450 SX, XC	504 12	YTX5L-BS
<i>01.2008-</i>			
KTM	505 SX, XC	504 12	YTX5L-BS
KTM	525 XC	504 12	YTX5L-BS
Kymco	50 all models	504 12	YTX5L-BS
Kymco	90 all models	504 12	YTX5L-BS
Kymco	150 all models	508 12	YTX9-BS
Kymco	250 all models	510 12	YTX12-BS
Kymco	300 all models	510 12	YTX12-BS
Panda Motor Sports	50 KD	507 13	YB7-A
Panda Motor Sports	80 KD	507 13	YB7-A
Panda Motor Sports	125 KD	507 13	YB7-A
<i>01.2000-12.2002</i>			
Polaris	50 Scrambler	503 14	YTX4L-BS
<i>01.2003-</i>			
Polaris	50 Outlaw, Predator, Scrambler	504 12	YTX5L-BS
<i>01.2001-12.2002</i>			
Polaris	90 all models	503 14	YTX4L-BS
<i>01.2003-</i>			
Polaris	90 all models	504 12	YTX5L-BS
Polaris	200 all models	510 12	YTX12-BS

Brand	Model designation	Banner type	First fitting designation
<i>01.1985-12.2003</i>			
Polaris	250 all models	514 12	YB14-A2
Polaris	300 all models	514 14	YB14-B2
<i>01.1987-12.2002</i>			
Polaris	325 all models	514 12	YB14-A2
Polaris	330 all models		YTX14AH-BS
<i>01.1998-12.2001</i>			
Polaris	335 Sportsman	514 12	YB14-A2
<i>01.1994-12.2003</i>			
Polaris	400 all models	514 12	YB14-A2
<i>01.1995-12.2002</i>			
Polaris	425 all models	514 12	YB14-A2
<i>01.1999-12.2003</i>			
Polaris	450 diesel (primary)	530 15	YB30L-B
<i>01.1999-12.2003</i>			
Polaris	450 diesel (secondary)	514 12	YB14-A2
Polaris	450 Outlaw	508 12	YTX9-BS
<i>01.1999-</i>			
Polaris	500 all other models	514 12	YB14-A2
Polaris	500 Outlaw, Predator	508 12	YTX9-BS
Polaris	500 Sportsman EFI	530 01	YTZ30L-BS
Polaris	525 Outlaw	508 12	YTX9-BS
Polaris	550 Sportsman		YTX14AH-BS
Polaris	600 Sportsman	530 01	YTZ30L-BS
<i>01.2002-</i>			
Polaris	700 all models	530 01	YTZ30L-BS
<i>01.2005-</i>			
Polaris	800 Sportsman	530 01	YTZ30L-BS
Polaris	850 Sportsman	530 01	YTZ30L-BS
Qianjiang	50	503 14	YTX4L-BS
Qianjiang	100	503 14	YTX4L-BS
S.M.C.	All other models	506 15	YTX7A-BS
S.M.C.	KS/KU	506 15	YTX7A-BS
S.M.C.	Mini	503 14	YTX4L-BS
S.M.C.	Sky	504 12	YTX5L-BS
S.M.C.	Skyhawk	504 12	YTX5L-BS
<i>01.2006-12.2008</i>			
Suzuki	50 Quad Sport	504 12	YTX5L-BS
<i>01.1987-12.2000</i>			
Suzuki	80 LT Quad Sport	504 12	YTX5L-BS
<i>01.2007-12.2008</i>			
Suzuki	90 LTZ	506 15	YTX7A-BS
<i>01.1989-12.1994</i>			
Suzuki	160 LT-E Quad Runner	509 14	YB9-B
<i>01.1991-12.2000</i>			
Suzuki	160 LT-F Quad Runner	509 14	YB9-B
<i>01.1987-12.1993</i>			
Suzuki	230 LT E Quad Runner	510 12	YTX12-BS
<i>01.1985-12.1986</i>			
Suzuki	230 LT GE Quad Runner	511 12	YB10L-A2
<i>01.1986-12.1987</i>			
Suzuki	230 LT-F Quad Runner	511 12	YB10L-A2
<i>01.1985-12.1986</i>			
Suzuki	250 LT-EF Quad Runner	520 11	Y50-N18L-A3
<i>01.1988-12.1999</i>			
Suzuki	250 LT-F Quad Runner	514 12	YB14-A2
<i>01.1999-12.2002</i>			
Suzuki	250 LT-F Quad Runner (opt)	520 11	Y50-N18L-A3
<i>01.2002-</i>			
Suzuki	250 LT-F Ozark	510 12	YTX12-BS
<i>01.2004-</i>			
Suzuki	250 LT-Z QuadSport	508 12	YTX9-BS
<i>01.1991-12.1999</i>			
Suzuki	280 LT-F4WDX	514 12	YB14-A2
<i>01.1987-12.1989</i>			
Suzuki	300 LT-E, LT-F Quad Runner	514 12	YB14-A2
<i>01.2002-</i>			
Suzuki	400 LT-A, LT-F	512 14	YTX14-BS
<i>01.2003-</i>			
Suzuki	400 LT-Z QuadSport	508 12	YTX9-BS
<i>01.2007-</i>			
Suzuki	450 LT-A King Quad	512 14	YTX14-BS

Banner

ATV/QUADS

Brand	Model designation	Banner type	First fitting designation
01.2006-			
Suzuki	450 LT-R QuadRacer	509 01	YTZ10S
01.2000-12.2001			
Suzuki	500 LT-A F QuadMaster	514 22	YTX16-BS
01.2002-			
Suzuki	500 LT-A F F QuadRunner	518 22	YTX20CH-BS
01.2004-12.2007			
Suzuki	700 LT-A, LT-V		KMX14-B
01.2007-12.2008			
Suzuki	750 LT-A	518 22	YTX20CH-BS
01.1987-12.1999			
Suzuki	LT-4WD Quad Runner	514 12	YB14-A2
01.1987-12.1999			
Suzuki	LT-4WD Quad Runner (Opt)	520 11	Y50-N18L-A3
01.1991-12.1999			
Suzuki	LT-F4WDX King Quad	514 12	YB14-A2
01.1986-12.1999			
Suzuki	LT-F4WDX King Quad	514 12	YB14-A2
01.1991-12.1994			
Suzuki	LT-F4WDX King Quad (Opt)	520 11	Y50-N18L-A3
01.1996-12.1999			
Suzuki	LT-F4WDX King Quad (Opt)	520 11	Y50-N18L-A3
Yamaha	50 all models		12N7D-3B
Yamaha	80 all models		12N7D-3B
01.2009-			
Yamaha	90 all models	504 12	YTX5L-BS
Yamaha	100 all models		12N7D-3B
Yamaha	125 YFA-1, YFM125S, Grizzly		YB12C-A
01.2011-			
Yamaha	125 YFM12R, Raptor	507 01	YTZ7S
Yamaha	200 all models		YB14A-A1
Yamaha	225 all models		YB14A-A1
Yamaha	230 all models		YB14A-A1
Yamaha	250 YFB FW Timber Wolf 4WD		YB12C-A
Yamaha	250 YFB Timber Wolf 2WD		YB12C-A
Yamaha	250 YFM Bear Tracker		YB14A-A2
Yamaha	250 YFM Moto-4		YB14A-A1
Yamaha	250 YFM25R, Raptor	507 01	YTZ7S
Yamaha	350 all models		YB14A-A1
01.1996-12.1997			
Yamaha	400 YFM FM Kodiak	518 21	YTX20L-BS
01.1998-			
Yamaha	400 YFM FM Kodiak		YB14A-A1
01.1994-12.1995			
Yamaha	400 YFM FWF Kodiak	514 12	YB14-A2
Yamaha	400 YFM FWN Big Bear 4WD	518 21	YTX20L-BS
Yamaha	400 YFM N Big Bear 2WD	518 21	YTX20L-BS
Yamaha	450 YFM45FX Wolverine	518 21	YTX20L-BS
01.2004-12.2008			
Yamaha	450 YFZ, X	506 01	YT7B-BS
01.2009-			
Yamaha	450 YFZ R, X	507 01	YTZ7S
01.2011-			
Yamaha	550 YMF5FG Grizzly	518 21	YTX20L-BS
Yamaha	600 all models	518 21	YTX20L-BS
01.2002-12.2003			
Yamaha	660 YFM FW Grizzly	518 21	YTX20L-BS
01.2001-12.2003			
Yamaha	660 YFM R Raptor	512 14	YTX14-BS
01.2007-			
Yamaha	700 YFM GF Grizzly	518 21	YTX20L-BS
01.2006-			
Yamaha	700 YFM R Raptor	512 14	YTX14-BS

TRACTOR MOWERS (RIDE-ON MOWERS)

Brand	Model designation	Banner type	First fitting designation
Allis-Chalmers	405, 408, 508	509 14	YB9-B
Ariens/Gravely Co	1330, 1332, 8028, 8530	514 11	YB14L-A2
Ariens/Gravely Co	90100 & 91200 Series	512 11	YB12A-A
Ariens/Gravely Co	92500 & 92700 Series	512 11	YB12A-A
Bolens	Husky 728, Husky 770, Husky 829	509 14	YB9-B
Carter Brothers	EX 502 - EX 702 C	512 11	YB12A-A
Carter Brothers	EZ 502 - EZ 702 C	512 11	YB12A-A
Carter Brothers	EZ 502, EZ 502 C, EC 702, EZ 702 C	512 11	YB12A-A
Case Int.	M 80	512 11	YB12A-A
-1996			
Garden Way/Troy Built	Pony	512 11	YB12A-A
01.1997-			
Garden Way/Troy Built	Pony	509 14	YB9-B
General Power	All models	512 11	YB12A-A
General Power	WES725, WES725-FS	512 11	YB12A-A
General Power	3-725-E7, 3-725-E8, 3-725-E9	512 11	YB12A-A
Huffmann MFG. CO. (Huffy)	H-270, H-360	512 11	YB12A-A
Hull Industries	TC30ER	519 12	YB16-B
Jacobsen/Homelite/Hustler	730 Ole, 750 Deluxe	509 14	YB9-B
Jacobsen/Homelite/Hustler	42642 - 43043	509 14	YB9-B
Jacobsen/Homelite/Hustler	Javelin MK 11	509 14	YB9-B
Jacobsen/Homelite/Hustler	Re 8 E	509 14	YB9-B
Lawn Boy	All models		YB9L-A2
Montgomery Ward	99 & other series	509 14	YB9-B
MTD Products	330, 395, 400, 500, 600 series	512 14	YTX14-BS
MTD Products	385, 410, 412, 465, 485, 489, 497, 500, 525, 526	512 14	YTX14-BS
MTD Products	600, 698, 760, 775, 795, 796	512 14	YTX14-BS
MTD Products	300-600 series	514 11	YB14L-A2
MTD Products	700-800 series	520 12	Y50-N18L-A
Murray Ohio MFG.CO.	2523, 3033, 3035	512 14	YTX14-BS
Murray Ohio MFG. CO.	6-30502, 6-30502X4, 6-30702, 6-30702X4, 7-30502	512 14	YTX14-BS
Noma	321050..., 321054..., 32800..., 328018, 360100, 360101	512 14	YTX14-BS
Roper	96444, 96927, 96941	509 14	YB9-B
Roper	K 522, K 852	509 14	YB9-B
Roper	K9224AR, K922PRA, K9324AR, K932P-RA, L8000AT	512 14	YTX14-BS
Sears	502.256050, 502.256051	512 14	YTX14-BS
Sears	502.256070, 502.256071, 502.256080	512 14	YTX14-BS
Sears	502.256081, 502.256120..., 502.256126	512 14	YTX14-BS
Sears	502.256135 - 502.256142	519 12	YB16-B
Sears	917.255260 - 917.255340	512 14	YTX14-BS
Sears	502.256060..., 502.256063	512 14	YTX14-BS
Sears	502.256130...- 502.256138	512 14	YTX14-BS
Simplicity	3008, 3008-3, 99075	509 14	YB9-B
Simplicity	990775	509 14	YB9-B
Snapper	All walk-behind mowers (e-start)	503 14	YTX4L-BS
Swisher	18 Hp/32"	512 11	YB12A-A
Western Int'l. (Dynamark)	320800, 328000	512 14	YTX14-BS
Western Int'l. (Dynamark)	361000 - 361114	512 14	YTX14-BS
Western Int'l. (Dynamark)	421101, 456301	512 14	YTX14-BS
01.1984-			
Wheel Horse/Toro	A85, A115	512 14	YTX14-BS
01.1985-			
Wheel Horse/Toro	108-3, 108-5, 111-5	512 14	YTX14-BS
White Outdoor Products	FST-16	520 12	Y50-N18L-A
White Outdoor Products	GT-185, GT-205, GT-1000	520 12	Y50-N18L-A
White Outdoor Products	LT-125, LT-155, LT-160, LT-165	520 12	Y50-N18L-A
Yard Man Inc.	Beetle	512 14	YTX14-BS



SNOWMOBILES

Brand	Model designation	Banner type	First fitting designation
Arctic Cat	500 4 Stroke Trail, Touring	522 14	YTX50L-BS
01.1995-			
Arctic Cat	500 Bearcat 340, 440	514 12	YB14-A2
01.2003-			
Arctic Cat	500 Bearcat WT, 570	522 14	YTX50L-BS
01.1991-			
Arctic Cat	500 Cheetah	514 11	YB14L-A2
01.1995-			
Arctic Cat	500 Cougar	516 15	YB16B-A1
Arctic Cat	500 Crossfire 500, 600, 700		YTX20H-BS
Arctic Cat	500 EXT 600	516 15	YB16B-A1
01.2007-			
Arctic Cat	500 F5 LXR	516 15	YB16B-A1
Arctic Cat	500 F6, F8, F1000		YTX20H-BS
Arctic Cat	500 Firecat	522 14	YTX50L-BS
01.1994-			
Arctic Cat	500 Jag, Jag Dix	514 12	YB14-A2
Arctic Cat	500 Jaguar		YTX20H-BS
Arctic Cat	500 King Cat 900	522 14	YTX50L-BS
Arctic Cat	500 M5, M6, M7		YTX20H-BS
Arctic Cat	500 Mountain Cat 500, 600, 1000	516 15	YB16B-A1
Arctic Cat	500 Mountain Cat 570, 800, 900	522 14	YTX50L-BS
Arctic Cat	500 Pantera 550, 600	516 15	YB16B-A1
Arctic Cat	500 Pantera 800	522 14	YTX50L-BS
01.1994-			
Arctic Cat	500 Panther	514 12	YB14-A2
Arctic Cat	500 Panther 340, 370, 440	514 12	YB14-A2
Arctic Cat	500 Panther 550	516 15	YB16B-A1
Arctic Cat	500 Panther 570, 660	522 14	YTX50L-BS
Arctic Cat	500 Powder Extreme, Special	516 15	YB16B-A1
Arctic Cat	500 Puma	514 12	YB14-A2
01.2004-			
Arctic Cat	500 Sabercat	516 15	YB16B-A1
Arctic Cat	500 Sabercat 600, 700	522 14	YTX50L-BS
Arctic Cat	500 T660	522 14	YTX50L-BS
01.1997-			
Arctic Cat	500 Thundercat	516 15	YB16B-A1
01.1995-			
Arctic Cat	500 Wildcat	507 13	YB7-A
Arctic Cat	500 Z 370, 440	514 12	YB14-A2
Arctic Cat	500 Z 570	522 14	YTX50L-BS
Arctic Cat	500 ZL 550, 600	516 15	YB16B-A1
Arctic Cat	500 ZL 800	522 14	YTX50L-BS
Arctic Cat	500 ZR 500, 600	516 15	YB16B-A1
Arctic Cat	500 ZR 800, 900	522 14	YTX50L-BS
Arctic Cat	500 ZRT	516 15	YB16B-A1
Arctic Cat	570 all models	516 15	YB16B-A1
Arctic Cat	800 F8 LXR		YTX20H-BS
Arctic Cat	1056 all models		YTX20H-BS
BRP Ski-Doo	All models 4-Stroke	522 14	YTX50L-BS
BRP Ski-Doo	CK3	522 14	YTX50L-BS
01.2004-12.2006			
BRP Ski-Doo	Elite	530 15	YB30L-B
01.1999-12.2001			
BRP Ski-Doo	ZX	513 14	YTX15L-BS
01.2002-12.2003			
BRP Ski-Doo	ZX	518 21	YTX20L-BS
BRP Ski-Doo	300 Skandic	518 21	YTX20L-BS
BRP Ski-Doo	550	518 21	YTX20L-BS
BRP Ski-Doo	600	518 21	YTX20L-BS
BRP Ski-Doo	800	518 21	YTX20L-BS
BRP Ski-Doo	1000 all models	522 14	YTX50L-BS
BRP Ski-Doo	1200 all models	518 21	YTX20L-BS
Kawasaki	All models	522 14	YTX50L-BS
01.1985-12.1993			
Polaris	All models (e-start)	520 12	Y50-N18L-A
01.1994-12.2005			
Polaris	All models (e-start)	514 12	YB14-A2
01.1992-12.2003			
Polaris	all other models	514 12	YB14-A2
01.2006-			
Polaris	FS FST	518 21	YTX20L-BS
Polaris	500 Wide Track	522 14	YTX50L-BS

Brand	Model designation	Banner type	First fitting designation
Polaris	544 all models	514 12	YB14-A2
Polaris	550 all models	518 21	YTX20L-BS
Polaris	600 IQ Touring	512 14	YTX14-BS
Polaris	600 Rush, IQ, shift, Switchback	518 21	YTX20L-BS
01.2010-			
Polaris	600 Wide Track	530 01	YTZ30L-BS
01.2006-12.2010			
Polaris	750 FS/FST, Wide Track, Turbo	518 21	YTX20L-BS
01.2010-			
Polaris	750 FS Wide Track	530 01	YTZ30L-BS
Polaris	800 all models	518 21	YTX20L-BS
01.1988-12.1990			
Yamaha	80 SV	507 14	YB7C-A
-1990			
Yamaha	125 SV	514 11	YB14L-A2
01.1983-12.1996			
Yamaha	300 CF	516 16	YB16AL-A2
01.1989-12.1997			
Yamaha	340 CS Ovation	514 11	YB14L-A2
01.1978-12.1984			
Yamaha	340 EC	514 11	YB14L-A2
01.1979-12.1980			
Yamaha	340 ET	514 11	YB14L-A2
-1979			
Yamaha	340 ET	520 12	Y50-N18L-A
01.1984-12.1997			
Yamaha	480 PZ	514 11	YB14L-A2
01.1991-12.1997			
Yamaha	480 VT, -GTS	514 11	YB14L-A2
01.2011-			
Yamaha	500 Phazer, Venture Lite	512 14	YTX14-BS
01.1994-12.1999			
Yamaha	500 V-max	516 16	YB16AL-A2
01.1994-12.1999			
Yamaha	500 VX Ovation	516 16	YB16AL-A2
01.1979-12.1980			
Yamaha	540 EC	520 12	Y50-N18L-A
01.1989-12.1999			
Yamaha	540 VK	516 16	YB16AL-A2
01.1985-12.1996			
Yamaha	540 XL	516 16	YB16AL-A2
01.1988-12.1996			
Yamaha	570 EX	516 16	YB16AL-A2
01.1994-12.1997			
Yamaha	600 V-max DX, -ST	516 16	YB16AL-A2
01.1997-12.1998			
Yamaha	600 VT, Venture	516 16	YB16AL-A2
01.1999-12.2003			
Yamaha	600 VT, Venture	520 12	Y50-N18L-A
Yamaha	600 VX ER, Vmax ER	520 12	Y50-N18L-A
01.1996-12.1997			
Yamaha	600 VX Ovation	516 15	YB16B-A1
Yamaha	600 VX XTC Vmax XTC	516 16	YB16AL-A2
Yamaha	700 all models	520 12	Y50-N18L-A
01.2009-			
Yamaha	973 Vector, Viking	518 21	YTX20L-BS
01.2006-			
Yamaha	998 Apex	512 14	YTX14-BS
01.2006-			
Yamaha	1000 Apex	512 14	YTX14-BS
01.2003-12.2005			
Yamaha	1000 RS, RX R	518 21	YTX20L-BS
01.2009-			
Yamaha	1049 all models	518 21	YTX20L-BS

Banner

JET SKIS

Brand	Model designation	Banner type	First fitting designation
01.1989-			
Aqua-Jet	430 SX 1	519 12	YB16-B
01.1989-			
Aqua-Jet	432 SX 1	519 12	YB16-B
01.1997-12.1999			
Arctic Cat	640 Tiger Shark	514 11	YB14L-A2
01.1997-12.1999			
Arctic Cat	770 Tiger Shark	514 11	YB14L-A2
01.1993-12.2001			
Arctic Cat	Tiger Shark all other models	519 12	YB16-B
BRP Sea-Doo	780 3D	518 21	YTX20L-BS
01.1988-12.2007			
BRP Sea-Doo	1500 all other models	518 21	YTX20L-BS
01.2003-			
BRP Sea-Doo	1500 GTI, GTX 4-Tec, RXP, RXT, WAKE	530 15	YB30L-B
01.1988-12.1989			
Fazer	All models	519 12	YB16-B
01.2002-12.2007			
Honda	1235 Aqua Trax F-12X, F-12	518 21	YTX20L-BS
01.2003-12.2007			
Honda	1235 Aqua Trax R-12, R-12X	518 21	YTX20L-BS
01.2003-12.2009			
Honda	1470 Aqua Trax F-15, F-15X	518 21	YTX20L-BS
01.1986-12.1991			
Kawasaki	300 JS-B	519 15	YB16HL-A-CX
01.1987-			
Kawasaki	399 JS-A	519 15	YB16HL-A-CX
-1996			
Kawasaki	400 JS-A	519 15	YB16HL-A-CX
01.1977-12.1992			
Kawasaki	440 JS-A	519 15	YB16HL-A-CX
01.1982-12.1995			
Kawasaki	550 JS-A, -B, -C	519 15	YB16HL-A-CX
01.1986-12.1996			
Kawasaki	650 JF-A, -B	519 15	YB16HL-A-CX
01.1991-12.1995			
Kawasaki	650 JL-A	519 15	YB16HL-A-CX
01.1987-12.1995			
Kawasaki	650 JS-A, -B	519 15	YB16HL-A-CX
01.1992-12.1995			
Kawasaki	750 JH A1-A4, B1-B3	519 15	YB16HL-A-CX
01.1995-12.1997			
Kawasaki	750 JH C1-C3	518 21	YTX20L-BS
-1996			
Kawasaki	750 JH E1	518 21	YTX20L-BS
-1997			
Kawasaki	750 JH E2	518 21	YTX20L-BS
01.1998-12.1999			
Kawasaki	750 JH G1-G2	518 21	YTX20L-BS
01.1992-12.1995			
Kawasaki	750 JS A1-A4	519 15	YB16HL-A-CX
01.1995-12.1997			
Kawasaki	750 JS B1-B3	519 15	YB16HL-A-CX
01.1998-12.1999			
Kawasaki	750 JS C1-C2	518 21	YTX20L-BS
-1994			
Kawasaki	750 JT A, B1	519 15	YB16HL-A-CX
01.1995-12.1996			
Kawasaki	750 JT B2	518 21	YTX20L-BS
01.2003-			
Kawasaki	800 JS SX-R	518 21	YTX20L-BS
01.1995-12.1996			
Kawasaki	900 JH A1-A2	518 21	YTX20L-BS
01.1998-12.2005			
Kawasaki	900 JT A2, -B1	518 21	YTX20L-BS
01.1996-12.2004			
Kawasaki	1100 JH A1-A3, -B1-B2, JT	518 21	YTX20L-BS
01.1999-12.2007			
Kawasaki	1200 JH, JT-A, B, C, STX-R, STX-12F	518 21	YTX20L-BS
01.2004-			
Kawasaki	1500 JT, STX, Ultra LX	518 21	YTX20L-BS
Polaris	All models	518 21	YTX20L-BS

Brand	Model designation	Banner type	First fitting designation
S.O.S.Marine	All models	519 15	YB16HL-A-CX
Scram Jet	All models	528 16	Y60-N24L-A
01.1987-12.1992			
Ultranautics	800 all models	530 30	
01.1988-12.1991			
Ultranautics	1250 all models	530 30	
Wet Jet	All models	519 12	YB16-B
01.1987-12.2007			
Yamaha	Wave runner all models	518 21	YTX20L-BS
Yamaha	700 Superjet	518 21	YTX20L-BS
Yamaha	1100 VX	518 21	YTX20L-BS
Yamaha	1800 FX, FZ	518 21	YTX20L-BS
01.2004-12.2008			
Yamaha	450 YFZ, X	506 01	YT7B-BS
01.2009-			
Yamaha	450 YFZ R, X	507 01	YTZ7S
01.2011-			
Yamaha	550 YMF5FG Grizzly	518 21	YTX20L-BS



Banner



ROBUST & RELIABLE ACCESSORIES.

READY AT ANYTIME.

"Trust is good, control is better!" is a well-known truism. Accordingly, Banner accessories provide professional certainty regarding the status of every battery, as well as facilitating maintenance, completing charging, or assisting starts. Banner's comprehensive programme contains chargers, start boosters, test and battery service items. The entire Banner range of accessories is trimmed to the retention of the optimum performance and long service life of starter and special batteries.



Banner

CHARGERS

FOR CONSTANT FULL POWER.

Available for all types of batteries and in a range of versions, Banner chargers leave no wish unanswered. From a favourably priced model for first-time buyers to a professional standard device, Banner chargers always ensure that any battery is optimally charged. Ideal systems are also on offer for the retention of car and motorcycle battery charge levels during winter mothballing.



START BOOSTERS

FOR POWER JUST IN CASE.

What does one do, when suddenly nothing functions? Banner boosters supply mobile power anytime and anywhere. These portable starting devices are quick and simple to use and ideal for transport in car boots. They also offer a diversity of applications in the leisure area, e.g. as a power source for coolers, televisions and other electrical devices.



TESTING AND CHECKING DEVICES FOR EXTENDED SERVICE LIFE.

A battery provides a constant supply of energy when it is kept in an optimum condition. Using Banner testing and checking devices, one can assess the battery charge status, the voltage, the battery acid level and much more besides. As a result, it is possible to determine if and what measures are necessary for the retention of full battery performance.



SERVICING DEVICES FOR OPTIMUM BATTERY CARE.

The range of Banner servicing aids extends from protective terminal sprays, to connecting cables and battery equalizers. In other words, everything that is needed for perfect battery maintenance and servicing. This also provides a decisive plus with regard to safety, owing to discharge protection, fire prevention and safeguards against unauthorised use.



Banner



Type	Accugard Bike	Accugard Car	Accu Pro	AccuMate	Accucharger MPL 10	GR 1	XC 0.8	XS 0.8	MXS 3.6	MXS 5.0	MXS 7.0	MXS 10
Order no.	1240001500	1240001600	1240001700	1240000200	1240003000	1210000120	1240001960	1240001950	1240002000	1240002030	1240002050	1240002055
Charging characteristic	IU	IU	IU	IU	IUoU		PIUP	PIUP	PIUP	PIoUIoIUoUP	PIoUIoIUoUP	PIoUIoIUoUP
Charging current	900mA	1.8 A	3.5 - 7 A	1.2 A	10 A	0 - 70 A	800mA	800mA	3.6 A	5.0 A	7 A	10 A
Rated voltage	12 V	12 V	12/24 V	6/12 V	12 V	12/24 V	6 V	12 V	12 V	12 V	12 V	12 V
Max. charging voltage		14.3 V	14.4 bzw. 28.8 V	14.3 V	15.85 V	0.7 - 17 V	7.2 V	14.4 V	14.7 V	15.8 V	15.7 V	15.8 V
Battery capacity			18 - 150 Ah	4 - 75 Ah	35 - 110 Ah		1.2 - 32 Ah	1.2 - 32 Ah	1.2 - 120 Ah	1.2 - 110 Ah	14 - 225 Ah	20 - 200 Ah
RUNNING BULL AGM	☹	☺	☺	☺	☹	☺	☹	☹	☺	☺	☺	☺
RUNNING BULL EFB	☹	☺	☺	☺	☺	☺	☹	☹	☺	☺	☺	☺
POWER BULL Ca/Ca	☹	☺	☺	☺	☺	☺	☹	☹	☺	☺	☺	☺
UNI BULL Ca/Ca	☹	☺	☺	☺	☺	☺	☹	☹	☺	☺	☺	☺
STARTING BULL	☹	☺	☺	☺	☺	☺	☹	☹	☺	☺	☺	☺
ENERGY BULL Sb/Sb	☹	☺	☺	☹	☺	☺	☹	☹	☺	☺	☺	☺
BUFFALO BULL	☹	☹	☺	☹	☺	☺	☹	☹	☺	☺	☺	☺
Bike Bull Ca/Ca	☺	☺	☺	☺	☹	☺	☺	☺	☺	☺	☺	☺
AGM	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
AGM-Sla	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓
RUNNING BULL BACKUP	☺	☺	☺	☺	☹	☹	☺	☺	☺	☺	☺	☺
Areas of application	Ideal or only for charge retention		Charge retention		Charge retention Boost	Charge retention Back-up operation Boost Buffer charge Start boost	Charge retention up to 100 Ah only for 6 V batteries	Charge retention up to 100 Ah	Charge retention	Charge retention up to 160 Ah Back-up operation Boost	Charge retention Back-up operation Boost	Charge retention up to 300 Ah Back-up operation Boost

Key: ☺ Recommended
 ☺ Possible
 ☹ Not recommended



MXS 25	MXT 14	MXTS 70	Powertool 3600	Powertool 7000	Acctiva Easy 1204	Acctiva Easy 2403	Accucharger 12-10	Accucharger 12-20	Accucharger 24-10	Accucharger 12/24-20	Accucharger Prof. 35A	Banner Profiler
1240002090	1240002070	1240002270	1240003600	1240007000	1232404000	1232405000	1231201000	1231202000	1232401000	1232402000	1232403035	1200006000
PIoIUoIUoUP	PIoIUoIUoUP	PIoIUoIUoUP	PIUP	PIoIUoIUoUP	IUoU	IUoU	IWUoU	IUoU/IU	IUoU/IU	IUoU/IU	IUoU/IU	la, IUa, IUoU
25 A	14 A	70 A	3.6 A	7 A	4.5 A	3 A	10 A	20 A	10 A	20 A	35 A	30 A
12 V	24 V	12/24 V	12 V	12 V	12 V	24 V	12 V	12 V	24 V	12/24 V	6/12 /24 V	12/24/36/48/80/120 V
15.8 V	31.6 V	16/32 V	14.7 V	15.7 V	14.4 V	28.8 V	14.4 V	14.4 V	28.8 V	14.4 bzw. 28.8 V	2.0 - 33.6 V	2 - 144 V
50 - 500 Ah	28 - 300 Ah	40 - 1500 Ah	1.2 - 120 Ah	14 - 225 Ah	2 - 135 Ah	1.5 - 100 Ah	36 - 180 Ah	44 - 300 Ah	36 - 180 Ah	44 - 300 Ah	3 - 350 Ah	3 - 300 Ah
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😞	😞	😊	😊	😊	😊	😞	😊	😊	😞	😊	😊	😞
✓	✗	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✗
✓	✗	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✗
✓	✗	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✗
😊	😞	😊	😊	😊	😊	😞	😊	😊	😞	😊	😊	😞
Charge retention Back-up operation operation Boost	Charge retention up to 50Ah Back-up operation Boost Only for 24 V applications	Charge retention Back-up operation operation Boost	Charge retention	Charge retention Back-up operation operation Boost	Charge retention Back-up operation operation Testing Checks	Only for 24 V applications	Charge retention Back-up operation operation Buffer charge	Charge retention Back-up operation operation Buffer charge	Only for 24 V applications	Charge retention Back-up operation operation Buffer charge	Charge retention Back-up operation operation Boost Buffer charge	Charge retention possible for up to 10 batteries in series

Banner



Banner LINES FOR USERS.

The ideal charger for your application, whether it be for a motorcycle, car or motor caravan. Versatility and perfect performance for every requirement.



Banner **ACCUGARD BIKE** IDEAL FOR SMALL BATTERY CHARGE RETENTION

Art. No.: 1240001500
Rated voltage: 220 – 240 V, 50 Hz
Charge characteristic: IU
Weight: 1 kg



Banner **ACCUGARD CAR** SIMPLE CHECKS AND TESTING

Art. No.: 1240001600
Rated voltage: 220 – 240 V, 50 Hz
Charge characteristic: IU
Weight: 1 kg



Banner **ACCU PRO** FULLY AUTOMATIC 12/24V CHARGER

Art. No.: 1240001700
Rated voltage: 220 – 240 V, nominal 12/24 V
Battery capacity: 18 – 150 Ah
Dimensions: 150 x 165 x 175 mm
Weight: 2,6 kg



Banner **POWERTOOL 3600** VERSATILE DEVICE FOR CHARGING AND CHARGE RETENTION

Art. No.: 1240003600
Voltage: 170 – 260 V AC, 50 – 60 Hz
Battery capacity: 14 – 225 Ah
Charger type: 4-stage, fully automatic characteristic with pulse charging
Protection type: IP 65 **Dimensions:** 165 x 61 x 38 mm **Weight:** 0.5 kg



Banner **POWERTOOL 7000** THE PROFESSIONAL CHARGING SYSTEM WITH REFRESH FUNCTION

Art. No.: 1240007000
Rated voltage: 170 – 260 V AC, 50 – 60 Hz
Battery capacity: 14 – 225 Ah
Charger type: 8-stage, fully automatic characteristic with pulse charging
Protection type: IP 65 **Dimensions:** 191 x 89 x 48 mm **Weight:** 0.8 kg

Banner

Banner ACCUCHARGER

THE CHARGERS FOR PROFESSIONALS.

These devices facilitate the charging of conventional starter batteries without disconnecting the vehicle on-board network and are especially suitable for cars, vintage cars and boats. Automatic charging with an IUoU characteristic, buffer charging, back-up operation and retentive charging make the Accucharger an ideal tool for any workshop.



12 V
10 A

Banner ACCUCHARGER 12-10 POWERFUL AND SIMPLE TO USE

Art. No.: 1231201000
Mains voltage: 230 V (+/-15%); 50 Hz
Battery capacity: 36 – 180 Ah
Output: max. 148 W

Dimensions: 188 x 142 x 70 mm
Weight: 1 kg
Charging characteristic: IUoUoU



24 V
10 A

Banner ACCUCHARGER 24-10 POWERFUL AND SIMPLE TO USE

Art. No.: 1232401000
Mains capacity: 36 – 180 Ah
Rated voltage: 230 V (+/-15%)
Input Power: max. 308 W

Charging characteristic: IUoU/IU
Dimensions: 285 x 142 x 70 mm
Weight: 1.75 kg



12 V
20 A

Banner ACCUCHARGER 12-20 POWER FOR THE WORKSHOP

Art. No.: 1231202000
Mains voltage: 230 V (+/-15%)
Battery capacity: 44 – 300 Ah
Input Power: max. 305 W

Charging characteristic: IUoUoU
Dimensions: 285 x 142 x 70 mm
Weight: 1.75 kg



12/24 V
20 A

Banner ACCUCHARGER 12/24 POWER FOR CARS AND TRUCKS

Art. No.: 1232402000
Mains voltage: 230 V (+/-15%)
Battery capacity: 44 – 300 Ah
Input Power: max. 565 W

Charging characteristic: IUoU/IU
Dimensions: 285 x 142 x 70 mm
Weight: 2.05 kg



6/12/24 V
35 A

Banner Accucharger Prof. 35 A **THE PROFESSIONAL CHARGER SYSTEM WITH REFRESH FUNCTION**

A special charger with graphic display and regeneration mode for deep discharged calcium batteries. Buffer operation for vehicle diagnosis.

The Banner Accucharger Pro 35 A not only breathes new life into deep discharged Ca/Ca batteries, but also revives AGM batteries.

Art. No.: 1232403035
Mains voltage: 230 V AC; $\pm 15\%$, 50 – 60 Hz
Battery capacity: 3 – 350 Ah
End charging power – refresh mode: wet 16 V, AGM 14.8 V
Charging characteristic: IUoU/IU
Dimensions: 247 x 162 x 88 mm
Weight: 2.0 kg



144 V
30 A

Banner Profilader **THE FLEXIBLE CHARGER FOR YOUR BATTERIES**

This device is contained in a steel sheet housing and in line with requirements can be set for the charging process. The rated voltage ranges from 12-120V and three characteristic lines are available. As many as ten batteries can be charged in sequence and the device is fitted with four robust rollers in order to provide easy transport.

Art. No.: 1200006000
Voltage: 400 V AC
Rated voltage: 12 / 24 / 36 / 48 / 80 / 120 V
Output: 4.9 kVA
Charging voltage: max. 2 – 144 V
Charging current: 30 A
Mains current: 3 x 12 A
Ambient temperature: 0°C to +40°C
Battery type: wet, gel
Charging characteristic: Ia, IUa, IUoU
Battery capacity: 3 – 300 Ah
Dimensions: 500 x 700 x 360 mm
Weight: 80 kg

Banner

CTEK CHARGERS FOR END USERS.

Unique, patented battery charging from CTEK.



6 V
0.8 A

XC 0.8 UNIQUE 6 V CHARGING

Art. No.: 1240001960
Voltage: 170 – 260 V AC; 50 – 60 Hz
Battery capacity: 1.2 to 32 Ah
Protection type: IP 65
Dimensions: 142 x 51 x 36 mm **Weight:** 0,3 kg



12 V
0.8 A

XS 0.8 SMALL FOOTPRINT CHARGING

Art. No.: 1240001950
Voltage: 170 – 260 V AC; 50 – 60 Hz
Battery capacity: 1.2 to 32 Ah
Protection type: IP 65
Dimensions: 142 x 51 x 36 mm **Weight:** 0.3 kg



12 V
3.6 A

MXS 3.6 CHECKED, TESTED, SIMPLE

Art. No.: 1240002000
Voltage: 170 – 260 V AC; 50 – 60 Hz
Battery capacity: 1.2 to 120 Ah
Protection type: IP 65
Dimensions: 165 x 61 x 38 mm **Weight:** 0.5 kg



12 V
5.0 A

MXS 5.0 FOR USERS WITH THE STRICTEST REQUIREMENTS

Art. No.: 1240002030
Voltage: 220 – 240 V AC, 50 – 60 Hz
Battery capacity: 1.2 to 110 Ah, charge retention up to 160 Ah
Protection type: IP 65
Dimensions: 168 x 65 x 38 mm **Weight:** 0.6 kg



12 V
7.0 A

MXS 7.0 FOR LARGER BATTERIES

Art. No.: 1240002050
Voltage: 170 – 260 V AC; 50 – 60 Hz
Battery capacity: 14 to 225Ah
Protection type: IP 65
Dimensions: 191 x 89 x 48 mm **Weight:** 0.8 kg

CTEK CHARGERS **FOR PROFESSIONALS.**

Unique, patented battery charging from CTEK.



MXS 10 **FLEXIBLE PROFESSIONAL CHARGER**

Art. No.: 1240002055
Voltage: 220 – 240 V AC; 50 – 60 Hz
Battery capacity: 20 to 200 Ah, charge retention up to 300 Ah
Protection type: IP 65
Dimensions: 197 x 93 x 49 mm **Weight:** 0.8 kg



MXS 25 **PERFORMANCE FOR PROFESSIONALS**

Art. No.: 1240002090
Voltage: 170 – 260 V AC; 50 – 60 Hz
Battery capacity: 50 to 500 Ah
Protection type: IP 44
Dimensions: 235 x 130 x 65 mm **Weight:** 1.4 kg



MXS 25 Extended **PERFORMANCE FOR PROFESSIONALS WITH 6 M CHARGER CABLE AND WALL FIXTURE**

Art. No.: 1240002095
Voltage: 170 – 260 V AC; 50 – 60 Hz
Battery capacity: 50 to 500 Ah
Protection type: IP 44
Dimensions: 235 x 130 x 65 mm **Weight:** 1.4 kg



MXT 14 **THE 24 V PROFESSIONAL CHARGER**

Art. No.: 1240002070
Voltage: 170 – 260 V AC; 50 – 60 Hz
Battery capacity: 28 to 500 Ah
Protection type: IP 44
Dimensions: 235 x 130 x 65 mm **Weight:** 1.8 kg



MXTS 70 **THE WORKSHOP PROFESSIONAL**

Art. No.: 1240002270
Battery capacity: 12 V: 40 – 1500 Ah, 24 V: 20 – 750 Ah
Protection type: IP 20
Dimensions: 332 x 178 x 80 mm **Weight:** 3.6 kg

Banner

Banner **START BOOSTERS** FOR PROFESSIONALS.

Banner start boosters are fitted with special, exchangeable high-current AGM batteries and are ideal for cars, trucks and construction machinery. They also provide reliable assistance in arctic temperatures.

1600 Amp
12 V



P3 Professional **MOBILE POWER FOR PETROL AND DIESEL VEHICLES**

Art. No.: 1220000700
Voltage: 12 V
Max. start current: 1600 A
Capacity: 12 V, 16 Ah
Cold start current: 680 A
Weight: 8.5kg (10.7kg including packaging)
Charge: 230 V
Charging: 12V, 1.5A
Charge voltage: max. 14.9V
Battery: Hawker Genesis AGM high current
Cable: copper cable, \varnothing 28mm², length 1.1m
Dimensions: 28 x 16 x 35 cm

3200/1600 Amp
12/24 V



Start-Truck **FOR ALL 12 AND 24 V APPLICATIONS**

Art. No.: 1220000310
Voltage: 12/24 V
Max. start current: 3200 A/1600 A
Capacity: 12/24 V, 32 Ah
Cold start current: 680 A/1360 A
Weight: 17.2kg (19.4kg including packaging)
Charge: 230 V
Charging: 12V, 1.5A
Charge voltage: max. 14.9/25.2V
Battery: Hawker Genesis AGM high current
Cable: copper cable, \varnothing 40mm², length 1.75m

3200/1600 Amp
12/24 V



Banner ES 1224 **SAFETY FOR ALL 12 AND 24 V APPLICATIONS**

Art. No.: 1220011224
Voltage: 12/24 V
Max. start current: 1600 A (24 V) / 3200 A (12 V)
Capacity: 2 x 16 Ah
Cold start current: 680 A/1360 A
Charge voltage: max. 14.9/25.2V
Battery: Hawker Genesis AGM high current
Weight: 20.4 kg
Cable length: 150 cm
Dimensions: 25.5 x 17.9 x 39 cm

With extended early warning system

Protection against polarity reversal and the wrong choice of voltage, as well as a warning of loads on the vehicle battery provide optimum safety.

Banner **START BOOSTERS** AND BACK-UP OPERATION.

Banner start boosters are fitted with special, exchangeable high-current AGM batteries and are ideal for cars, trucks and construction machinery. They also provide reliable starting in arctic temperatures.

Car start booster cable

SAFE START ASSISTANCE FOR CARS DUE TO OVERVOLTAGE PROTECTION

35 mm²
4.5 m



- **Art. No.:** 1030000735
- 35 mm² cable cross-section
- Length 4.5 m, weight 4.5 kg
- Protection against voltage peaks
- Handy crocodile clips for tight spaces
- Fully insulated, 600 A steel sheet crocodile clips with two cast pole inserts
- Extremely flexible PVC copper cable
- For petrol engines up to max. 7,000 cc
- For diesel engines up to max. 4,000 cc
- Max. 480 A short-term load
- TÜV/GS/DIN 72553
- Contained in a practical zip bag

Truck start booster cable

SAFE START ASSISTANCE FOR TRUCKS DUE TO OVERVOLTAGE PROTECTION

50 mm²
5 m



- **Art. No.:** 1030000750
- 50 mm² cable cross-section
- Length 5 m, weight 5.6 kg
- Protection against voltage peaks
- Handy crocodile clips for tight spaces
- Fully insulated, 600 A steel sheet crocodile clips with two cast pole inserts
- Extremely flexible PVC copper cable
- For diesel engines up to max. 16,000 cc
- Max. 1000 A short-term load
- With practical fabric bag

Banner Memory Saver

THE MEMORY SAVER PROVIDES RELIABLE PROTECTION SGSINDT VEHICLE DATA LOSS

12 V
7 Ah



- **Art. No.:** 1030003000
- Voltage: 12 V
- Battery: 7 Ah
- Dimensions: 19.7 x 19 x 20.3 cm
- Weight: 3.6 kg
- Connection via an OBDII Plug or cigarette lighter
- Battery and charge status display
- Including battery charger
- Handy design

Banner

Banner **BATTERY TESTING DEVICES** **CONTROLS PROVIDE CERTAINTY.**

Loading, measuring and testing with Banner battery testers allows quick and easy battery checks.



BT 301
PROF. TEST DEVICE WITH INTEGRATED PRINTER
FOR 6 AND 12 V BATTERIES

Art. No.: 1210000250
Cold current start: 40 – 2000 CCA
Cable length: 80 cm, **Weight:** 610 g, **Dimensions:** 19 x 11 x 4 cm
Thermal paper roll: 1210000260 (VE 2 St.)



BBT 205
PROF. TEST DEVICE WITH INTEGRATED PRINTER FOR 12V BATTERIES
AND THE STARTING AND CHARGING SYSTEM

Art. No.: 1210000190
Cable length: 533.4 mm, **Weight:** 499 g
Dimensions: 230 x 102 x 65 mm
Thermal paper roll: width 57 mm, diameter 47.6 mm



Milton Tester
ANALOGUE LOAD TESTER FOR BATTERIES

Art. No.: 1210000200
Battery voltage: 6/12 V
Discharge current: up to 100 Ah
Dimensions: 290 x 105 x 75 mm



Milton Tester Digital
DIGITAL LOAD TESTER FOR BATTERIES

Art. No.: 1210000225
Battery voltage: 12 V
Discharge current: up to 100 Ah
Testing time: 10 sec
Dimensions: 290 x 105 x 75 mm



Load Tester
RC CHECKS AND K20 TEST MADE EASY

Art. No.: 1240001800
Battery voltage: 12 V
Discharge current: 1 – 420 A
Final discharge voltage: 8.4/9/9.4/10/10.5/11V
Interface: RS232

Banner *SERVICE PRODUCTS* FOR LONG SERVICE LIFE.

Everything that one needs for the optimum servicing and maintenance of Banner batteries.



Distilled water

Banner distilled water stands out due to its highest purity level.
Contents: 5 l

Art. No.: 1000001100



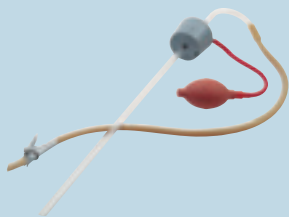
Water refill bottle with nozzle

The nozzle in the bottle neck stops the flow of water as soon as the level is exactly reached. Contents: 2 l

Art. No.: 1040000400

Bottle nozzle

Art. No.: 1040000200



Simplex pump

For filling batteries with acid. Independent liquid flow due to leverage effect. Comfortable and quick interruption by means of a pinchcock.

Art. No.: 1010000600



Neutralon

- A colour indicator shows the end of neutralisation
- No dissolving of dyes, rubber, cables, plastics, metals and textiles
- Contents: 1,000 ml

Art. No.: 1010001200



Digatron connecting cable

Art. No.: 1030000900

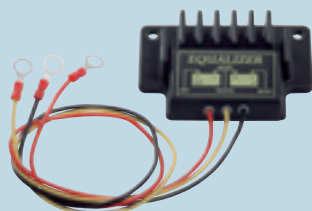
Permanent current: max. 60 A

Electric strength: 600 V

Cable: PVC-insulated copper cable, galvanised individual wires

Cable length: 46 cm, **Cable thickness:** 7 mm

Wire cross-section: 10 mm²



Charging Equalizer

- Provides even charging in two batteries switched in sequence
- Suitable for all 12V batteries switched in sequence

Art. No.: 1240001910

Rated voltage: 2x12 V batteries in sequence

Weight: 499 g

Banner

BATTERY CLAMPS



Standard battery clamps

Standard+: 17.5 mm
Art. No.: 1020002000

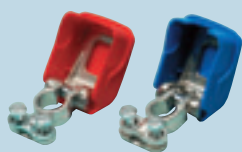
Standard-: 15.9 mm
Art. No.: 1020001900



Peugeot battery clamps

Peugeot lead-coated +: 17.5 mm
Art. No.: 1020002500

Peugeot lead-coated -: 15.9 mm
Art. No.: 1020002400



Easy Click battery clamps

Quick power +: 17.5 mm
Art. No.: 1020002300

Quick power -: 15.9 mm
Art. No.: 1020002200



FIAT battery clamps for thin terminals

Fiat/Jap./thin terminals +: 12.8 mm
Art. No.: 1020001800

Fiat/Jap./thin terminals -: 11.2 mm
Art. No.: 1020001700



Ford battery clamps

Ford+/-:
Art. No.: 10200012000



US vehicle battery clamps

US vehicle +: 17.5 mm
Art. No.: 1020002100

US vehicle -: 15.9 mm
Art. No.: 1020001100

TERMINAL SLEEVES AND CARE



Ford DIN terminal sleeves

From Ford to DIN terminal

Ford - DIN terminal sleeve +
Art. No.: 1020001500

Ford - DIN terminal sleeve -
Art. No.: 1020001600



Thin DIN terminal sleeves

From thin to DIN terminal

For Uni Bull 50400 and Japanese batteries

Thin DIN terminal sleeve +
Art. No.: 1020001300

Thin DIN terminal sleeve -
Art. No.: 1020001400



Side terminal 3/8"

Adapter with a 3/8" winding on a DIN terminal

US 3/8" side terminal on a DIN terminal +
Art. No.: 1020000500

US 3/8" side terminal on a DIN terminal -
Art. No.: 1020000600



Banner terminal grease

Art. No.: 1000000200

- Gas-tight sealing of the battery clamps and terminals
- Non-electricity conductive
- Prevents the formation of corrosion
- Prevents the formation of transitional resistance
- Also suitable for plug-in contacts and lamp sockets
- Contents: 1000 g



Banner terminal protection spray

Art. No.: 1000000110

- Gas-tight sealing of the battery clamps and terminals
- Non-electricity conductive
- Prevents the formation of corrosion
- Prevents the formation of transitional resistance
- Also suitable for plug-in contacts and lamp sockets
- Contents: 400 ml



Banner terminal brush

For the rational cleaning of the battery terminals

Art. No.: 1030001500

Banner

TESTERS AND CHECKING DEVICES FOR BATTERY SERVICING.



Refractometer MEASUREMENT OF BATTERY ACID, ANTI-FROST AND COOLANTS

Measurement device for battery acid, coolants and anti-frost windscreen cleaning agents. This handy refractometer is a precise optical instrument. It is small, light and has advantageous calibrations in order to facilitate easy use.

Art. No.: 1210000800



Hydrometer ACID PUMP FOR THE DETERMINATION OF BATTERY ACID DENSITY

For the measurement of acid density. Safe, quick readings. 160 mm bulbous glass body. Coloured and numerical scale.

Small acid tester, numerical scale from 1.16 to 1.30.

Art. No.: 1030001300

Large acid tester, numerical scale from 1.10 to 1.30.

Art. No.: 1030001400



Pen multimeter SAFETY FOR ALL 12 AND 24 V APPLICATIONS

- Measurement value storage
- Four-digit, digital display
- Peak value storage
- Automatic shutdown
- Automatic measurement range selection
- Continuity testing

Art. No.: 1210008211

DCV: 200 m/2/20/200/600 V \pm 0,7%

Resistance: 200/2 k/20 k/200 k/2 M Ω /20 M Ω \pm 1,2%

Batteries: 1.5 V(AAA) \times 2

Dimensions: 208 \times 38 \times 29 mm

Weight: 110 g including batteries

Banner



Forklifts



Lifting platforms



Sweeping machines

AGS – DRIVE-DEVICE- STATIONARY BATTERIES.

ENERGY SOLUTIONS FOR THE TRACTION AND EMERGENCY POWER SUPPLY AREAS

RECHARGEABLE "POWER PLANTS":

Banner AGS batteries are reliable and powerful power packs, which are employed in every area of the drive-device-stationary battery sector. These applications extend from electric stackers, lifting platforms, AGVs and golf carts, to safety, emergency power and signal systems, as well as including renewable energy supply, electrical wheelchairs and camping/boat/caravan power systems. Banner supplies these special batteries in the form of the Traction Bull, the Standby Bull and the Traction Bull Bloc in wet, AGM and gel versions. This guarantees that the optimum battery is always employed for the specific application in question. Professional chargers and a comprehensive accessory/spare part programme make Banner AGS batteries a reliable partner.



Small stackers



Golf carts



Renewable energy



Emergency power generators



Communications systems

Banner



TRACTION BULL – THE DRIVING FORCE.



RELIABLE, LONG SERVICE LIFE.

Traction Bull batteries are ideal for stackers, skids, baggage tractors and other electric vehicles. These high-output power packs are manufactured using two technical systems. The Traction Bull Nass (Wet) employs liquid electrolyte, while Traction Bull Gel uses maintenance-free gel technology. Both battery types are utilised wherever long service life, maximum reliability, top performance and cyclical resistance are required.



Forklifts



Lifting platforms



Sweeping machines



Small stackers



Skids

Banner

TRACTION BULL NASS (WET)

OPTIMUM COST EFFICIENCY UNDER HIGH CYCLICAL LOADS.

The Banner Traction Bull PzS/PzB is a lead-acid battery containing liquid electrolyte. This battery is used wherever extensive service life, great reliability and cyclical resistance are needed. PzS batteries are recognised generally as the most cost-efficient and best-proven solution for electrical storage in AGVs, skids and other e-vehicles with high energetic and cyclical requirements.

TECHNICAL DATA AND INFORMATION

- ▶ Robust lead-acid technology battery with liquid electrolyte
- ▶ Proven tubular plate technology for high performance and reliability
- ▶ Top design, material and processing standards (EN 60254-2, IEC 254-2)
- ▶ High cyclical resistance



DESIGN

- ▶ Positive tubular plates
- ▶ High capacity for running times and long battery life
- ▶ High energy density
- ▶ Fully insulated terminals and connectors
- ▶ Electrolyte-tight terminals
- ▶ Insulated, maintenance-free terminal screws

APPLICATIONS

- ▶ Skids
- ▶ Sweeping machines
- ▶ Lifting platforms
- ▶ Special applications (AGVs, skids)
- ▶ Etc.

OPTION

In order to replace the water used during electrolysis automatically, Banner Traction Bull batteries can be fitted with a filling system, which guarantees quick, safe and clean refills. This filling system reduces the maintenance requirement and prolongs battery service life.

OPTION: ELECTROLYTE CIRCULATION

In the case of extreme loads, a pump module ensures homogenous mixing during charging. This prevents electrolyte and temperature stratification, which in practice results in a 20 per cent cut in the energy requirement, charging time reductions of up to 30 per cent and a lowering of water consumption by as much as 80 per cent.

TRACTION BULL EX – FOR EXPLOSION SAFEY

Traction Bull ATEX batteries are the solution for the drive systems of forklift trucks in areas subject to the danger of explosion. The new drive battery series possesses special accreditation for use in the 1-2 (gas) and 21-22 (dust) zones.



TRACTION BULL GEL OPERATIONAL RELIABILITY AND MAINTENANCE-FREE

The Banner Traction Bull PzV/PzVB is a maintenance-free, gel technology drive battery, which is used wherever long service life, great reliability, high performance and cyclical resistance are required. PzV batteries are ideal for forklifts, e-vehicles, diesel-powered vehicles, cleaning and sweeping machines and AGVs. Due to its high levels of operational safety, this series is especially suitable for applications in the foods, pharmaceutical and chemicals industries.

TECHNICAL DATA AND INFORMATION

- ▶ Zero maintenance (no topping up with water during the battery's entire service life)
- ▶ Proven tubular plate technology for high performance and reliability
- ▶ Top design, material and processing standards (EN 60254-2, IEC 254-2)
- ▶ High cyclical resistance
- ▶ Solid electrolyte as a safeguard against leaks
- ▶ Very low self-discharge
- ▶ Minimum gassing during operation



DESIGN

- ▶ Positive tubular plates.
- ▶ High capacity for long running times and extended battery life.
- ▶ High energy density.
- ▶ Fully insulated terminals and connectors.
- ▶ Electrolyte-tight terminal design.
- ▶ Insulated, zero-maintenance terminal screws

APPLICATIONS

- ▶ Industrial trucks
- ▶ Sweeping machines
- ▶ Lifting platforms
- ▶ Special applications (AGVs, skids)
- ▶ Etc.

Banner

TRACTION BULL BLOC – THE INEXPENSIVE DRIVE ALTERNATIVE.

The Banner Traction Bull Bloc is especially suitable for problematic tasks in the small traction area and as a series, represents a reasonably priced alternative to classic drive batteries. In addition, the Traction Bull Bloc batteries stand out due to their robust design, long service life and above all, high levels of cyclical resistance. Two differing technologies are also available for the Traction Bull Bloc in the form of the Traction Bull Bloc Gel with gel-embedded electrolyte and a wet version with liquid electrolyte.

TRACTION BULL BLOC DRY BULL

The Banner Trac Bull Bloc DB is a closed, valve-controlled lead battery with gelatinised electrolyte. The imbedding of the electrolyte in a gel prevents leaks and the problem of acid stratification. Using recombination (the decomposition of the water is almost entirely compensated for by the recombination of hydrogen on the positive plates), the life of the battery remains unaffected by water losses. The sealed battery system prevents electrolyte leakage and minimum self-discharge means that the maintenance-free Traction Bloc Bull Gel can be stored for longer periods than standard lead-acid batteries.

TECHNICAL DATA AND INFORMATION

- ▶ Block batteries with a rated voltage of 6 and 12 V
- ▶ Zero-maintenance during the entire service life
- ▶ Recommended temperature range of 20°C
- ▶ Low self-discharge
- ▶ Can be used in any position
- ▶ Non-corroding terminals
- ▶ No hazardous substances according to FAA and IATA
- ▶ Long storage capacity



DESIGN

- ▶ Positive electrode: lead/calcium, high-performance mesh with pasted active mass
- ▶ Negative electrode: lead/calcium, high-performance mesh with pasted active mass
- ▶ Micro-porous synthetic separator
- ▶ Casing material: polypropylene
- ▶ Electrolyte: high-purity sulphuric acid embedded in a gel
- ▶ Terminal design: electrolyte-sealed, safety terminal
- ▶ Cell connection: welded on the inside through the casing wall
- ▶ Cell stopping: safety valve with overpressure ventilation system

APPLICATIONS

- ▶ Golf caddies
- ▶ Lifting platforms
- ▶ Cleaning machines
- ▶ AGVs
- ▶ Camping/caravans
- ▶ Wheelchairs
- ▶ Marine
- ▶ Etc.

TRACTION BULL BLOC GIS – IDEAL FOR SMALL TRACTION APPLICATIONS.

The Trac Bull Bloc GiS batteries with liquid electrolyte and grid-type plate technology represent a powerful, reasonably priced alternative to classic drive batteries. GiS batteries stand out due to their robust design, extremely strong grid-type plates and special alloying. Other advantages include a long service life and high cyclical resistance. These batteries are mainly used in the small traction area.

TECHNICAL DATA AND INFORMATION

- ▶ Block batteries with a rated voltage of 6, 8 and 12 V
- ▶ High cyclical resistance
- ▶ Recommended temperature range of 20°C
- ▶ Robust design
- ▶ Long service life
- ▶ Extremely thick grid plates
- ▶ Special separators
- ▶ First fitter quality



DESIGN

- ▶ Very thick positive and negative plates
- ▶ Special plate design for improved active mass adhesion and improved conduction
- ▶ Innovative separators
- ▶ Electrolyte: diluted sulphuric acid
- ▶ Casing material: polypropylene
- ▶ Special, patented active mass composition
- ▶ High antimony content

APPLICATIONS

- ▶ Small stackers
- ▶ Lifting platforms
- ▶ E-vehicles
- ▶ Cleaning machines
- ▶ Golf carts
- ▶ Etc.

Banner



STANDBY BULL – THE EMERGENCY SUPPLY BATTERY.



THE POWER RESERVE.

The Standby Bull series consists of genuine emergency power supply batteries for areas of major relevance to safety and security. In the case of primary supply failures, these batteries ensure an uninterrupted flow of power to large computer centres, security systems (alarms, emergency exits), renewable energy sources, the diesel starters of generators and emergency systems (switchgear and transmitters). Banner offers the Standby Bull in lead-acid, gel, web and nickel-cadmium technology versions.



Notbeleuchtung



Emergency lighting



Renewable energy

















Emergency power generators



Communications systems

Banner

This product overview is intended to assist the finding of the correct battery for the respective application. It shows the extent of the Banner range and offers a choice for a tailor-made battery concept. Banner customer advisors from both the sales force and sales office teams are more than happy to assist in the search for the most cost-efficient answer to every enquiry. After all, the Standby Bull from Banner adds up to greater quality, safety and performance.

Battery Type	OPzS cell	OPzS bloc	OGi bloc	SCG cell	SBG bloc	SCV cell	OPZV cell	
<p>Applications</p>       								
<p>Other or incorrect applications can have a negative effect on battery performance and life</p>	<p>Telecommunications Emergency power supply Solar power Safety lighting Power plant operation</p>	<p>Emergency power supply Radio relay Solar power Safety lighting</p>	<p>Diesel start Safety lighting UPS systems</p>	<p>Power plant operation Mobile radio Power generation/distribution Emergency power supply</p>	<p>Power plant operation Mobile radio Power generation/distribution Emergency power supply</p>	<p>Mobile radio Railway systems Telecommunications Safety lighting</p>	<p>Solar power Emergency power supply Telecommunications Transformer substations</p>	
System	Closed	Closed	Closed	Sealed	Sealed	Sealed	Sealed	
Capacity in Ah	100 – 3000 ■	50 – 300 ■	25 – 300 ■	50 – 3850 ■	18 – 230 ■■	50 – 3850 ■	200 – 3000 ■	
Voltage	2V Single-cell	6V, 12V Block	6V, 12V Block	2V Single-cell	6V, 12V Block	2V Single-cell	2V Single-cell	
Positive electrode	Tubular plate	Tubular plate	Grid plate	Grid plate	Grid plate	Grid plate	Tubular plate	
Alloy	Lead-antimony	Lead-antimony	Lead-antimony	Lead-calcium	Lead-calcium	Lead-calcium	Lead-calcium	
Electrolyte	Liquid	Liquid	Liquid	Gel *	Gel *	Mat **	Gel *	
Typical discharge times	1 h – 10 h	30 min – 10 h	5 min – 1 h	1 h – 10 h	30 min – 3 h	30 min – 3 h	30 min – 10 h	
Water refilling intervals (with ceramic stoppers)	3 years	2 years	2 years	Unnecessary	Unnecessary	Unnecessary	Unnecessary	
Electrolyte density, screw terminals, fully insulated	●	●	●	●	●	●	●	
Standard stoppers/Folding lid ●	●	●	●					
Valve				●	●	●	●	
Ventilation requirement (purs. to EN 50272-2 factor/gas in mA/Ah)	5	5	5	1	1	1	1	

	SBV bloc	FAV bloc	GiV bloc	GiV-S bloc	GiVC bloc	KH P	KM P	KL P
								
	Fire alarm systems UPS systems Diesel start Safety lighting	UPS systems Telecommunications Switchgear Traffic systems	Safety lighting Danger alarms UPS systems Fire alarm systems	UPS systems Leisure and domestic appliances	Golf trolleys Solar power Wind power plants Rehabilitation technology	USP systems Switching stations Diesel start	Power plants USP systems Safety lighting Traffic systems	Industrial plants Transformer substations Emergency power supply
	Sealed	Sealed	Sealed	Sealed	Sealed	Closed	Closed	Closed
	18 – 230 ■■	30 – 180 ■	1.3 – 70 ■■	5 – 44 ■■	7.5 – 230 ■■	10 – 250 ■■■	11 – 520 ■■■	11 – 470 ■■■
	12V Block	12V Block	6V, 12V Block	12V Block	6V, 12V Block	1.2V Single-cell	1.2 V Single-cell	1.2V Single-cell
	Grid plate	Grid plate	Grid plate	Grid plate	Grid plate	Taschenplatte	Taschenplatte	Taschenplatte
	Lead-calcium	Lead-calcium	Lead-calcium	Lead-calcium	Lead-calcium	Ni-Cd	Ni-Cd	Ni-Cd
	Mat **	Mat **	Mat **	Mat **	Gel *	Liquid	Liquid	Liquid
	5 min – 1 h	5 min – 1 h	5 min – 1 h	3 min – 30 min	30 min – 10 h	<20 min	20 min – 90 min	1 h – 10 h
	Unnecessary	Unnecessary	Unnecessary	Unnecessary	Unnecessary	1 year	1 year	1 year
	●	●	●	●	●	●	●	
						●●	●●	●●
	●	●	●	●	●			
	1	1	1	1	1	5	5	5

* With gelatinised electrolyte
 ** With absorbed electrolyte in a glass fibre mat
 Standard
 ● Ah – C10/20 °C
 ■ Ah – C20/20 °C
 ■■ Ah – C5/20 °C

Banner

STATIONARY BATTERY CHARGING SYSTEMS – SAFETY FIRST!

When it is vital that a system not go down owing to a power failure, total safety is the number one priority. Therefore, Banner initially determines factors such as the time-related energy requirement, the desired service life and the need for high cyclical resistance. On this basis, Banner offers top quality for the four main areas of application comprised by uninterrupted power supply (UPS), safety lighting, electricity generators for telecommunications systems/transformer substations and charging technology for renewable energy island solutions

PSS POWER SUPPLY UNIT – SAFETY USING 19" PLUG-IN TECHNOLOGY

Whether for telecommunications and IT, railway signal system, or the own consumption systems of power plants and transformer substations, the Banner PSS power supply unit with 19" plug-in technology is the first choice when it comes to maximum security of supply.

APPLICATIONS

- ▶ Secured DC current supply in parallel stand-by rectifier and battery operation
- ▶ Direct feeding of DC consumers
- ▶ Telecommunications and IT
- ▶ Railway signal systems
- ▶ Process control technology in the chemicals industry
- ▶ Plant control systems, e.g. low-voltage transformer substations
- ▶ Own requirement systems in power plants and transformer substations
- ▶ Emergency power supply on ships and rail vehicles
- ▶ Technical industrial applications



SIBECONTROL EMERGENCY SUPPLY DEVICE – COMPATIBLE WITH 19" PLUG-IN TECHNOLOGY

Sibecontrol stands out due to a fully automatic monitoring system and a modular 19" plug-in design with practical swing frame. The stable, steel sheet cubicle door has a window that allows quick overviews even when the door is closed.

APPLICATIONS

- ▶ Fully automatic, processor-controlled monitoring systems
- ▶ Modular 19" plug-in design on a swing frame
- ▶ Steel sheet cubicle door with window
- ▶ Individual switching with free programming per power circuit (DL, BL, DLS, TLS)
- ▶ Integrated, freely selectable individual light or power circuit surveillance
- ▶ Central substation monitoring
- ▶ Free PC programming of plant/customer data
- ▶ Individual light monitoring with target location information in clear text
- ▶ Internal and external bus system
- ▶ Automatic hardware recognition, even for subsequently inserted modules



BATTERY SHELVES, BATTERY CUBICLES AND ACCESSORIES – STATIONARY APPLICATIONS IN PERFECTION

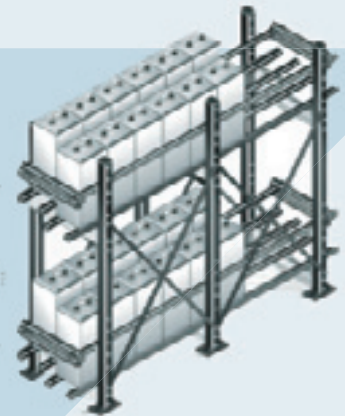
Banner supports its customers not only with the planning, punctual delivery, installation and start-up of the complete system and permanent service, but also delivers tailor-made battery shelving and cubicles. Banner provides secure customised systems, which are available whenever required.

BATTERY SHELVING – UNDOUBTEDLY THE BEST CHOICE

Banner provides standard and special shelving in earthquake- and tipping-resistant versions. The surfaces are sintered for the highest resistance to corrosion. The shelves have height-adjustable feet, which can be matched to any flooring situation.

VERSIONS

- ▶ Standard/special shelving in a practical, modular design system
- ▶ Earthquake- and tipping-resistant versions
- ▶ Fully insulated, acid-resistant longitudinal and transverse supports with PE sintered coating
- ▶ Quick, easy and clean assembly
- ▶ Tension resistance tested according to DIN VDE 0100 and DIN VDE 0510 TÜV
- ▶ Simple earthing
- ▶ Height-adjustable feet in insulated plastic



BATTERY CUBICLES – A TOP CLASS, INGENIOUS SYSTEM

Fully redesigned for optimum operating conditions. This battery cubicle system facilitates complete battery use in series. In this regard the innovative modular design system offers decisive advantages.

ADVANTAGES

- ▶ Multifarious possibilities for diverse cubicle versions
- ▶ Guaranteed, optimum storage of various battery blocks/cells
- ▶ Adjustments to available systems in dimensions and colours
- ▶ Finishing, supply and assembly in a very short period



... AND THE ACCESSORIES MAKE THE SYSTEM PERFECT

Banner accessories ensure optimum installation and monitoring. Connections are provided in every length and cross-section with the matching anchorage materials, positive/negative terminal covers, system-adjusted battery connections (BAE fuse), battery monitoring units (BACS), electrolyte sumps, terminal grease and an extensive range of maintenance accessories.

Banner



CHARGING TECHNOLOGY – OPTIMUM BATTERY CARE SAVES HARD CASH.

HOW ONE CHARGES TODAY.

Using modern, high-frequency charging technology from Banner, all the batteries for stackers, industrial trucks, lifting platforms and many other pieces of equipment are not only charged in optimum fashion, but also highly economically. This fact has been proven by a test of the logistics of a leading foods supplier, which demonstrated that as compared to out-of-date systems, with Banner charging up to 30 per cent of energy costs could be saved. This technology also offers other unbeatable advantages that include the charging of many differing batteries, the central control of all the charges via LAN and the definition of charging time by real time clocks. This means that low load charges can be employed, all the battery charging data can be logged via Wi-IQ and the charging device adjusts automatically to the battery temperature, thus offering a type of smart loading.



Lifting platforms



Sweeping machines



Small stackers



Golf carts



Skids

Banner

Banner HF CHARGER TECHNOLOGY – HIGH IQ CHARGING

Banner HF chargers are highly sophisticated and constitute a proven series for medium and large sized drive batteries with outputs of 1, 3, 7 and 14 kW. Banner has thus not only launched a new era in an optical sense, for apart from their attractive design, above all the HF+ inverter devices stand out due to their internal technical innovations. Indeed, straightforward operation due to plug & charge, adjustable charging characteristics and robust design speak for themselves.

TECHNICAL DATA AND INFORMATION

- ▶ HF technology
- ▶ Efficiency levels of up to 96 per cent
- ▶ Protective battery charging and therefore low battery warming
- ▶ Reduced water consumption
- ▶ Lower energy consumption and therefore significant cost savings
- ▶ Freely programmable characteristic
- ▶ Robust design
- ▶ Reduction in servicing frequency
- ▶ Longer battery service life



APPLICATIONS

- ▶ Industrial trucks
- ▶ Sweeping machines
- ▶ Lifting platforms
- ▶ Special applications (AGVs, skids)
- ▶ Vehicles for disadvantaged persons
- ▶ Wheelchairs

OPTIONS

- ▶ Signal lamps
- ▶ Unintentional start-up protection
- ▶ Battery filling system control
- ▶ AIR Plus electrolyte circulation

Banner PULSE CHARGER – UNCOMPROMISING ECONOMIC RELIABILITY

For many years, the Banner PULS device family has been characterised by high levels of reliability in combination with optimum cost-efficiency during tough operation. Proven pulse charging on the basis of the Wa characteristic is used as a standard process. As compared to standard Wa and Wsa charging, the Banner PULS series stands out due to reduced water consumption and low gas development in the post-charging phase in combination with a simultaneously smaller classification. Accordingly the Banner PULS series represents an economic charging system for drive batteries.

TECHNICAL DATA AND INFORMATION

- ▶ A modern pulse charge system for wet batteries
- ▶ Charging times of 6.5 – 14 h possible
- ▶ Reduced battery water consumption and thus a low maintenance requirement
- ▶ Lower gas development in the post charging phase, calculation according to the ZVEI "Aeration of battery rooms for drive batteries" code of practice
- ▶ Automatic charging procedure, automatic equalising charging
- ▶ Energy savings and battery protection through variable post charging times (longer battery life)
- ▶ Simple operation, therefore automatic charging start, but "switching on" may not be forgotten
- ▶ Charging status lights



APPLICATIONS

- ▶ Industrial trucks
- ▶ Sweeping machines
- ▶ Lifting platforms
- ▶ Special applications (AGVs)
- ▶ Skids
- ▶ Etc.

OPTIONS

- ▶ Electrolyte circulation
- ▶ Aquamatics

Banner

Banner MGX CHARGER – GLOBALLY PROVEN CHARGING TECHNOLOGY

The Banner MGX Charger is a proven device in the industrial sector, which above all is used worldwide in the cleaning sector. Numerous cleaning machine manufacturers are already employing the MGX Charger.

TECHNICAL DATA AND INFORMATION

- ▶ Automatic charging process after battery connection
- ▶ Flexibility both for gel and lead/acid batteries (programmable with the multi-programmer from the Banner accessories programme)
- ▶ Data store
- ▶ Switch to charge retention following full charging
- ▶ Equalisation of grid voltage fluctuations (min. 185 V to max. 250 V)



APPLICATIONS

- ▶ Cleaning machines
- ▶ Wheelchairs
- ▶ E-scooters
- ▶ Invalid carriages



Banner



AGS SERVICE – PERFECT SUPPORT FOR MAXIMUM CUSTOMER SATISFACTION.

ALL-ROUND SAFETY.

It is clearly evident that perfect service not only creates the ideal conditions for battery service life and safe function, but also satisfied customers. In this regard, Banner's full service package for the AGS segment leaves no wish unanswered. Whether for leasing via a rental service, spare part supply or battery service, Banner assists its customers in every respect and thus supports a smooth, cost-efficient operation.

Banner SERVICE

THE COMPLETE RANGE OF A MAJOR BRAND

Banner is more than a battery manufacturer, as its main priority is thinking in terms of customer advantages. This approach commences with the quality and technical superiority of its products. Indeed, a response to new challenges creates great potential for innovations and ongoing improvements with regard to both products and in-company efficiency. Banner offers its customers systematic, full service packages from project planning and realisation to after sales support and therefore assists its customers in every phase. Moreover, new services such as Banner Rental are continually being created.

BATTERY LEASING VIA THE RENTAL SERVICE OFFERS MANY ADVANTAGES

No capital commitment. Battery purchases involve pre-financing for use in subsequent periods and amortisation is only achieved after several years. Leasing saves capital commitment and frees up funding for other projects.

High operational security. Optimum battery maintenance guarantees minimum standstills and downtimes.

Budget certainty. As costs are known and fixed from the outset, there are no financial surprises.

Individual solutions. A rental solution accommodates individual requirements and facilitates great flexibility.

RENTAL SERVICE

Bottlenecks due to peak loads? Not enough batteries? No problem! Banner leased batteries are always available for one day, one week or several months as required. Banner offers a maximum degree of flexibility.

SPARE PARTS

Original spare parts are the only means of preventing premature wear, offer optimum safety, minimise down-times and maintain reliable operational readiness. Banner provides a comprehensive spare part service and can guarantee excellent availability levels owing to its highly modern computing network, which extends right across Europe.

SERVICE

Banner does not merely offer its customers repairs. Clients can put together a service package in line with their individual requirements. A choice is available between regular maintenance and the Banner full service package on a quarterly, half-yearly or yearly basis. The customer decides on frequency and hence maintenance costs. Should a fault occur, this is not a problem, as service hotlines in each country mean that highly qualified and experienced engineers are available immediately.

Banner

BATTERY ACCESSORIES – TRACTION AND STATIONARY

Banner's has an extensive range of accessories for optimum battery care and maintenance, which extends from plug and socket devices to the end cable, and from connectors to the appropriate tools. The products below represent a cross-section of Banner's extensive accessories programme. A complete overview is available at any time from Banner sales advisors.



PLUG AND SOCKET DEVICES

Battery and equipment plug and socket devices



END CABLES

End cables with Euro socket and grip



CABLE SCREW CONNECTORS

Screw connectors with various cross-sections and lengths



TOOLS

Complete torque keys
Art. Nr.: 0450000122



BATTERY FILLING SYSTEMS

For the automatic filling of traction batteries



WATER CONTAINER AND ACCESSORIES

60l tank complete with accessories
Art.No.: 0450000318



BATTERY CARRYING BELT

Easy to use. Anchorage without the risk of slippage. **Art.No.: 00450000822**



WATER FILLING WAGON

Including charger, tank and batteries
Art.No.: 0450000620



BATTERY CABLE

16 – 120 mm²



CABLE SHOES

For 16 – 120 mm²
6-10 whole sizes



CABLE CONNECTORS

In various lengths, cross-sections and with cable shoes



ADAPTER +/-

M6 round pole



ADAPTER +/-
J-type with M8 drilling



END ANGLE
20 mm end angle, 15 mm end angle



END TERMINAL COVER
Horizontal



END TERMINAL COVER
Vertical



BATTERY PLUGS
Ceramic bayonet
Art.No.: 0450000256



CERAMIC FUNNEL PLUG
No cover, bayonet
Art.No.: 0450000356



REFILL JUG
1.5 l, transparent
Art.No.: 0450000457



FUNNEL
Art.No.: 0450000557



MAINTENANCE SET
Art.No.: 0450000657



RUBBER GLOVES
Size: L
Art.No.: 0450001157



FASTON ADAPTER
4.7



PROTECTIVE GLASSES
Art.No.: 0450001357



EYEWASH BOTTLE
Art.No.: 0450001457

Banner



WUCHTOFIT WHEEL BALANCING. GUARANTEED DRIVING SAFETY.

TOP BRAND QUALITY FOR PERFECT WHEEL BALANCE.

Banner's top quality Wuchtofit wheel weights have a perfect shape and offer optimum grip through the patented steel clip or the proven Norton adhesive strip. The weights are attractive on any rim, as their clever design provides an outstanding appearance. Moreover, the first class quality of a Wuchtofit wheel weight is underlined by the materials used, which ensure unique corrosion resistance. This means that expensive rims retain their looks even after many years.

GUARANTEED DRIVING QUALITY THROUGH SAFETY AND SMOOTH RUNNING.

When wheels are perfectly weighted, this rules out steering wheel vibration and unpleasant vehicle noises. The vehicle can be steered precisely and safely and the wheel weights prevent any one-sided tyre wear. Consequently, Wuchtofit wheel weights represent an important detail in increased driving safety and customers reap the benefits of optimised, patented technology and Austrian quality with all the security provided by a major brand.



Cars



Trucks



Motorcycles Road/Cross

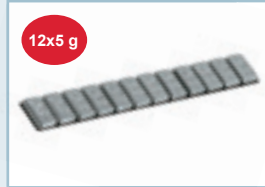
Banner

ADHESIVE WHEEL WEIGHTS FOR CARS

Banner offers adhesive wheel weights for the most demanding requirements. The strong adhesive strip is available in light or dark blue.

WU 15S NORTON

60 g adhesive steel weight block

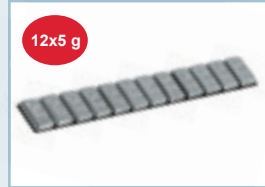


With extra-strong polyurethane adhesive strip for increased adhesion and shear resistance in OEM quality.

Art. No.: 0711500060
Coating: zinc
Adhesive strip: polyurethane, OEM quality
Width: 19 mm
Height: 4 mm
Weight: 60 g
Batch: 50

WU 15S NORFIX

60 g adhesive steel weight block



With strong polyurethane adhesive strip for powerful adhesion and shear resistance in aftermarket quality.

Art. No.: 0711530060
Coating: zinc
Adhesive strip: polyethylene, aftermarket quality
Width: 19 mm
Height: 4 mm
Weight: 60 g
Batch: 100

WU 15S FLAT

30 g adhesive steel weight block



Art. No.: 0711510030
Coating: zinc
Adhesive strip: polyethylene, aftermarket quality
Width: 19 mm
Height: 2.5 mm
Weight: 30 g
Batch: 100

WU 15S BLACK

60 g adhesive steel weight block



Art. No.: 0711520060
Coating: zinc
Adhesive strip: polyurethane, OEM quality
Width: 19 mm
Height: 4 mm
Weight: 60 g
Batch: 50

WU 22S ROLL

5 g adhesive steel weight roll



Art. No.: 07112205000
Coating: zinc
Adhesive strip: polyurethane, OEM quality
Width: 19 mm
Height: 4 mm
Weight: 5 kg
Batch: 1

ADHESIVE WHEEL WEIGHTS FOR MOTORCYCLES AND TRUCKS

WU 17 for motorcycles

60 g adhesive lead weight block



Adhesive weight strip with high heat resistance of up to +180°C

Art. No.: 08600060
Height: 5 mm
Weight: 60 g
Batch: 50

WU 18 for motorcycles

60 g adhesive lead weight block



Adhesive weight strip with high heat resistance of up to +180°C

Art. No.: 08620060
Height: 4 mm
Weight: 60 g
Batch: 50

WU 31 for trucks

Steel rims



Impact weight for tapered rims from 22.5 x 6.75 to 26.5 x 12 inch.
Material: lead

*(For tables please see page 203)

WU 36B for trucks

Light metal rims



Adhesive weight for all light metal rims with pre-formed radius, powder-coated.
Material: lead

** (For tables please see page 203)

UNIVERSAL ZINC WHEEL WEIGHTS FOR TRUCKS

Two types of wheel weights are suitable for virtually all steel and light metal rims. An optimum fit offers simple and straightforward installation, while a special coating ensures an optimum visual appearance and resistance to every type of weather-related influence.

WU1Z for cars

Impact wheel weight for steel rims



Material: zinc
Surface: powder-coated

Sizes/weights	Art.No.	Batch
5 g	0700100005	100
10 g	0700100010	100
15 g	0700100015	100
20 g	0700100020	100
25 g	0700100025	100
30 g	0700100030	100
35 g	0700100035	100
40 g	0700100040	100
45 g	0700100045	50
50 g	0700100050	50
55 g	0700100055	50
60 g	0700100060	50

WU3Z for cars

Impact wheel weight for light metal rims



Material: zinc
Surface: powder-coated

Sizes/weights	Art.No.	Batch
5 g	0700300005	100
10 g	0700300010	100
15 g	0700300015	100
20 g	0700300020	100
25 g	0700300025	100
30 g	0700300030	100
35 g	0700300035	100
40 g	0700300040	100
45 g	0700300045	50
50 g	0700300050	50
55 g	0700300055	50
60 g	0700300060	50

VALVES

Snap-in rubber valve

Mounted 4.5bar



Permitted for max. pressure of up to 4.5 bar on cold tyres. TÜV tested. Max. rim thickness at the valve aperture: max. 4 mm

Type 412 Length 33 mm
Art.No.: 1010001900

Type 413 Length 43 mm
Art.No.: 1010002000

Type 414 Length 49 mm
Art.No.: 1010002100

Type 418 Length 62 mm
Art.No.: 1010002200

Valve aperture: 11.3 mm
Batch: 100

TR 412 rubber valve

Mounted 4.5bar



With chrome sleeve for opening pressure of up to 4.5 bar, TÜV-tested

Art.No. 1010001910
Valve aperture: 11.3 mm
Batch: 25

42 MS metal valve

Mounted >4.5bar



For tyre pressures of over 4.5 bar, permissible for pressure of more than 4.5 bar on cold tyres, TÜV-tested

Length 42 mm
Art.No.: 1010002300
Valve aperture: 11.5 mm
Batch: 25

Valve insertion lever



Valve insertion tool for the safe installation of snap-in tyre valves

Art.No.: 1010004000
Batch: 1

Valve core wrench



Art.No. 1010004010
Batch: 1

TOOLS AND ACCESSORIES

Standard circlip pliers



For wheel weights

Type WU 17
Art.No.: 1000000130
Batch: 1

Special assembly pliers



For wheel weights

Type WU 70
Art.No.: 1000000135
Batch: 1

Spring lever



Spring lever for the removal of weight clips

Type WU 71
Art.No.: 1000000138
Batch: 1

Adhesive weight cutters



Cutters for practical use with adhesive weights

Art.No.: 1000000141
Batch: 1

Assembly paste



5kg container, temperature-resistant from -20°C to +50°C, excellent assembly characteristics particularly for light metal rims.

Art.No.: 1000000300
Batch: 1

Rim Cleaning Set



The Banner Rim Cleaning Set consists of a scraper, an eraser disk and a rim cleaning spray.

Art.No.: 1000000380
Batch: 1

Individual components

(batch: 1 respectively)

Scraper Art.No.: 1000000121

Eraser disk Art.No.: 1000000122

Rim cleaning spray Art.No.: 1000000120

* WU 31 for trucks (page 202)

** WU 36B for trucks (page 202)

Sizes/weights	Art.No.	Batch	Sizes/weights	Art.No.	Batch
50 g	09310050	25	50 g	09361050	25
75 g	03910075	25	75 g	09361075	25
100 g	03910100	25	100 g	09361100	25
150 g	09310150	25	125 g	09361125	25
200 g	09310200	25	150 g	09361150	25
250 g	09310250	20	175 g	09361175	25
300 g	09310300	15	200 g	09361200	25
350 g	09310350	10	250 g	09361250	25
400 g	09310400	10	300 g	09361300	25



GENERAL CONDITIONS OF SALE

- 1. Scope**
- 1.1 These general conditions apply to legal transactions between companies for the delivery of goods and analogously for services. Software is governed primarily by the software conditions issued by the Austrian Electrical and Electronics Industry Association. Installation work is subject to the regulations of the Austrian heavy and weak current industry and those of the Austrian electrical and electronics industry for electro-medical technology.
- 1.2 Deviations from the conditions mentioned under Item 1.1 only take effect subject to the written approval of the seller.
- 2. Quotations**
- 2.1 Seller quotations are regarded as non-binding.
- 2.2 Without the permission of the seller, no quotation or project documentation may be reproduced or made available to third parties. The return of the documentation may be demanded at any time and should the order be placed elsewhere, it is to be sent back to the seller immediately.
- 3. Contractual agreement**
- 3.1 A contract is regarded as concluded once the seller has received written confirmation of the contract, following the receipt of the order, or has dispatched a delivery.
- 3.2 Information contained in catalogues and brochures, etc. as well as other written or verbal statements are only of material importance when the order confirmation refers to them in specific terms.
- 3.3 Subsequent alterations and supplements to the contract are only valid when confirmed in writing.
- 4. Prices**
- 4.1 The prices are valid ex-works or ex-warehouse of the seller, excluding packing, loading and sales tax. If charges, taxes or other payments are required in connection with supply, these are to be borne by the purchaser. If direct delivery of the order has been agreed, this and any transport insurance required by the purchaser will be invoiced separately. However, this does include unloading and loading. Packaging will only be accepted back subject to express agreement.
- 4.2 In the case of orders that deviate from the overall quotation, the seller retains the right to make appropriate price changes.
- 4.3 Prices are based on costs at the time of the initial quotation. Should the costs increase in the period up to supply, the seller is entitled to adjust prices accordingly.
- 4.4 In the case of repair contracts, the performance recognised by the seller as appropriate will be provided and invoiced on the basis of the related expenditure. This applies to services and additional services, the necessity of which first becomes apparent in the course of the completion of the order. No special information of the purchaser is required in this regard.
- 4.5 The purchaser will be invoiced for expenses relating to the preparation of repair quotations or an expertise.
- 5. Delivery**
- 5.1 The delivery period commences with the latest of the subsequent dates:
- Date of order confirmation.
 - Date of the fulfilment of the technical and commercial obligations and other preconditions incumbent upon the purchaser.
 - Date upon which the seller receives a prepayment or guarantee prior to the delivery of the goods.
- 5.2 Official or third party approval required for the fulfilment of conditions is to be obtained by the purchaser. Should such approval not be obtained in time, the delivery period is extended accordingly.
- 5.3 The seller is entitled to make partial or pre-deliveries and to invoice them. Should on-call delivery have been agreed, at the latest the goods are regarded as having been called up one year after ordering.
- 5.4 Where situations arise that are unforeseen or cannot be influenced by the parties, such as acts of God, and where these hinder the fulfilment of the agreed delivery deadline, this is extended to include the duration of these circumstances. In particular, such circumstances include armed conflict, official intervention and bans, delays relating to transport and customs, transport damage, shortages of power and raw materials, labour disputes and the loss of an important sub-supplier that is difficult to replace. The aforementioned conditions also justify a prolongation of the delivery period when they apply to sub-suppliers.
- 5.5 Should a contractual penalty for delivery delays have been agreed between the contractual parties, this will be dealt with according to the following terms, whereby a deviation from one of the individual conditions does not affect the remainder.
A delay in the fulfilment of supply, which can be proven to be the singular responsibility of the seller, entitles the purchaser to claim a contractual penalty of a maximum of 5% for each completed week of delay, but not in excess of 5% of the value of that part of the overall order, which due to the failure to supply an important item punctually, could not be employed and where the purchaser has incurred damages to this amount. Additional claims under the heading of a delay are excluded.
- 6. Passing of risk and place of performance**
- 6.1 The use and risk pass to the purchaser upon the departure of the delivery from the plant or warehouse of the seller, irrespective of the agreed type of pricing (e.g. delivery free, CIF, etc.). This also applies when supply takes place in the course of installation, or should the transport be completed, or organised and managed by the seller.
- 6.2 The place of performance for supply and performance is the venue at which the performance is completed. The risk related to supply or an agreed partial performance passes to the purchaser upon provision.
- 7. Payment**
- 7.1 Unless other conditions of payment have been agreed, 1/3 of the price is to be paid upon order confirmation, 1/3 at the halfway point of the delivery period and the remainder upon delivery. Irrespective of these payments, the VAT contained in the bill must be paid within 30 days of invoicing.
- 7.2 In the case of partial invoices, partial payments are to be made upon receipt of the respective billing. This also applies to clearing amounts, which are additional to the original total amount and relate to subsequent deliveries or other agreements, irrespective of the conditions of payment agreed for the main delivery.
- 7.3 Payments without deductions are to be made to the free paying agent of the purchaser in the agreed currency. The general acceptance of cheques or bills only takes place in lieu of payment. All related interest and charges (e.g. collection and discount expenses) are to be borne by the purchaser.
- 7.4 The purchaser is not entitled to withhold or offset payments for reasons of warranty claims or other counter-claims.
- 7.5 A payment is regarded as made on the day that it becomes available to the seller for disposition.
- 7.6 Should the purchaser be in arrears with an agreed payment of other obligations relating to this or other transactions, the seller can undertake the following without prejudicing other rights:
- Postpone the fulfilment of own obligations until this payment has been made, or other obligations have been met and claim a reasonable prolongation of the delivery period.
 - Call in all open claims from this or other transactions and charge default interest at a rate of 1.25% per month plus sales tax on the respective debt, unless the seller proves costs in excess of this amount. In all cases, the seller is entitled to invoice for preliminary litigation costs, in particular, reminder costs and legal expenses.
- 7.7 Agreed rebates or bonuses are subject to the prompt provision of the complete payment.
- 7.8 The seller retains ownership of all the goods supplied until complete payment of the invoiced amounts, including interest and costs, has been made. To secure the purchase price claim, the purchaser hereby assigns to the seller any claims relating to the further sale of reserved goods, even if these have been processed, altered or mixed and undertakes to make an appropriate entry into its books or on invoices. On request, the purchaser must make known to the seller the assigned claim together with the debtor and provide the information and documentation needed for a recovery of the debt and to inform the indebted third party of the transfer of the claim. In the case of seizure or other recourse, the purchaser is obliged to point out the right of ownership of the seller and to inform the latter immediately.
- 8. Warranty and acceptance of responsibility for defects**
- 8.1 Subject to the fulfilment of the agreed conditions of payment, the seller is obliged to repair any design, material or production defects with a negative effect upon functionality that may exist at the date of hand-over in accordance with the stipulations of the following terms. No warranty claims can be made of the basis of information contained in catalogues, brochures, advertising materials, written or verbal statements, which have not been accepted into the contract.
- 8.2 The warranty period lasts 12 months, unless special warranty periods have been agreed for individual delivery items. This also applies to supplies and services, attached to a building or real property. The warranty period commences with the risk transfer in accordance with Item 6.
- 8.3 A prerequisite for warranty claims is that the purchaser has immediately made the defect known in writing. The purchaser has to immediately prove the existence of a defect and provide the seller with available information and data. In the case of a defect subject to warranty in accordance in Item 8.1, the seller can either choose to repair the defective article at the place of performance, have it returned for the purpose of repair, or provide an appropriate price reduction.
- 8.4 All auxiliary costs relating to the repair of the defect (e.g. assembly, disassembly, transport, disposal, travel time) are to be borne by the purchaser. For warranty work at the company of the purchaser, the required staff, lifting gear, scaffolding and incidentals are to be supplied free of charge. Replaced parts will become the property of the seller.
- 8.5 Should the seller manufacture an item on the basis of design information, drawings, models or other specifications of the purchaser, then the warranty of the seller only extends to completion according to the stipulated conditions.
- 8.6 Excluded from the warranty are defects originating from arrangement and installation not carried out by the seller, insufficient setting-up, a failure to adhere to the installation requirements and conditions for use, overloading of the components beyond the performance levels stated by the seller, negligent or incorrect handling and the use of unsuitable supplies. This also applies to defects, which can be traced to materials supplied by the purchaser.
In addition, the seller does not provide a warranty for damage caused by third parties, atmospheric discharges, overloads and chemicals. The warranty does not extend to the replacement of components subject to natural wear and tear. In the case of the purchase of second-hand goods, the seller does not provide a warranty.
- 8.7 The warranty is immediately null and void should changes or repair work be carried out on supplied goods by the purchaser, or by a third party expressly authorised by the purchaser without the written approval of the seller.
- 8.8 Claims pursuant to § 933b ABGB lapse with the expiry of the period contained in Item 8.2.
- 8.9 The conditions 8.1 to 8.8 also apply to each case of defects arising for other legal reasons.
- 9. Withdrawal from the contract**
- 9.1 Unless a special regulation has been agreed, the prerequisite for the withdrawal of the purchaser from the contract is a delay in delivery, which can be traced to the gross negligence of the seller and the unsuccessful completion of a reasonable extension to the delivery period. Withdrawal must be made known in the form of a registered letter.
- 9.2 Irrespective of other rights, the seller is entitled to withdraw from the contract when:
- The completion of the order, the begin or continuation of contractual performance is impossible, or despite a reasonable extension, has been further delayed for reasons that are the responsibility of the purchaser.
 - When concerns relating to the solvency of the purchaser have arisen and despite the request of the seller, the purchaser neither makes a prepayment, nor provides suitable collateral.
 - Due to the circumstances listed under item 5.4, the extension to the period of delivery amounts to more than half of the period agreed originally, or at least 6 months.
- 9.3 Withdrawal from the contract can also be declared for the reasons listed above with regard to an open portion of the supplies or services.
- 9.4 Should insolvency proceedings be initiated against one of the contractual parties, or an application for the introduction of insolvency proceedings be rejected on the grounds of a lack of assets, the other contractual party is entitled to withdraw from the contract without setting a period of grace.
- 9.5 In the case of withdrawal and irrespective of the damage claims of the seller, including preliminary litigation costs, supplies and services already completed are to be calculated in accordance with the contract and paid. This also applies to supplies and services not yet accepted by the purchaser, as well as preparations made by the seller. Instead, the seller also has the right to demand the return of items delivered previously.
- 9.6 Other consequences of withdrawal are excluded.
- 10. Liability**
- 10.1 The seller is liable for damage outside the area of application relating to the product warranty only where gross negligence can be proved under the terms of legal stipulations. Liabilities of the seller for minor negligence, restitution for subsequent damage and asset losses, lost savings, interest losses and damages derived from third party claims are excluded.
- 10.2 Any claims for damages are excluded in the case of a failure to adhere to the conditions relating to installation, commissioning and use (e.g. as contained in the operating instructions) or the official conditions of certification.
- 10.3. Should contractual penalties be agreed, additional claims under the respective items are excluded.
- 11. Assertion of claims**
- Unless shorter deadlines have been separately agreed in individual cases, or are foreseen under the terms of legal stipulations, all purchaser claims must be asserted before a court within a period of three years following the transfer of risk, otherwise the claims lapse.
- 12. Commercial rights and copyright**
- 12.1 Should an item be manufactured by the seller in accordance with design instructions, drawings, models or other specifications provided by the purchaser then the purchaser has to indemnify the seller against claims in the case of any infringements of rights.
- 12.2 Production documentation, e.g. plans, sketches and other technical information, as well as models, catalogues, brochures, picture, etc. remain the property of the seller and are subject to standard legal stipulations with regard to reproduction, copying, competition, etc. Item 2.2 also applies to production documentation.
- 13. Miscellaneous**
- Should individual terms of this contract or their stipulations become invalid, this does not result in the invalidity of the remainder of the contract. The invalid term is to be replaced by one, which serves the purpose of the contract as closely as possible.
- 14. Competent court/applicable law**
- Any disputes arising from this contract, including those relating to its existence or non-existence, are to be dealt with exclusively by the competent court at the head offices of the seller in Vienna in the area of jurisdiction of the Inner City District Court. The contract is subject to Austrian law and further transfers of the case are excluded. The application of the United Nations UNCITRAL agreement concerning the international sale of goods is excluded.
- 15. Copyright and usufruct**
- 15.1 All photos, illustrations, text and other content, of both this homepage and the brochures, circulars, pamphlets and advertising of Banner GmbH and its sales companies, are subject to copyright.
- 15.2 Any type of application, use, reproduction, provision to the public, etc. requires the prior written approval of Banner GmbH.
- 15.3 The unauthorised use of pictures, illustrations, text and content subject to copyright in the either private or the business area, shall constitute an infringement of copyright and upon coming known will be met by a cease and desist warning, together with the assertion of claims for damages and legal action.

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PATENTS

1700000211
AccuSafe joint patent with Gore - usufruct rights assigned to Gore DE 197 03 444
AccuSafe new applicant Banner A - 943/2001
Double cover joint patent with Moll U - 02027 9204 (registration still in progress, also registered in the USA)
AGM valve stopper joint registered design protection with Accumalux

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