

ACDelco®

Batteries

Catalogue: Issue 3



1800 ACDelco
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Suits Most Makes Most Models

ACDelco®



Batteries

warranty

WARRANTIES FOR ACDelco SEALED MAINTENANCE FREE BATTERIES

Car - Private Use	30 Months
SUV & 4WD	12 Months
Marine	12 Months
Trucks / Commercial / Industrial	12 Months
Taxi	6 Months
Deep Cycle	6 Months

WARRANTIES FOR ACDelco LOW MAINTENANCE ACCESSIBLE BATTERIES

Car - Private Use	24 Months
SUV & 4WD	12 Months
Trucks / Commercial / Industrial	12 Months
Taxi	6 Months

WARRANTY CONDITIONS

This warranty does not cover:

- / Loss of the time, inconveniences, loss of use or any other consequential damages.
- / Labour for removal from and replacement in the unit / vehicle unless prior written approval is obtained from ACDelco.
- / Parts that have been subject to deliberate abuse.
- / Conditions resulting from normal wear, negligence, alterations or accidents.
- / Parts used in an incorrect application or parts that are not used for their intended purpose.

DISCLAIMER

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Batteries Catalogue

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About ACDelco batteries

Typically there are a number of different styles of batteries including:

STARTING / CRANKING (TRADITIONAL AUTOMOTIVE TYPE BATTERIES)

Which are designed primarily for short term minimal discharge but high cold cranking ability (e.g. start an engine).

A HIGH CYCLE BATTERY

Fits in between a cranking / starting battery and a dual purpose deep cycle / cranking battery. Primarily it is a starting / cranking battery, but has the ability to be cycled (similar to deep cycle), but not to the same DOD (Depth of Discharge) as a deep cycle. These batteries would be used in applications that required high Cold Cranking Amps (CCA) (for starting) and were being discharged to 25% DOD (light duty cycle).

DUAL PURPOSE STARTING AND DEEP CYCLE (MARINE / RV BATTERIES)

Which combine the characteristics of a deep cycle battery with the cold cranking ability of a traditional battery. These batteries are the perfect choice for the recreational boater, providing a balance between effective starting power and deep cycle power and recharge capacity.

DEEP CYCLE BATTERIES

Which are designed to be run down and then charged up again on a regular basis, e.g. running powered items in a boat, caravan or SUV. These batteries traditionally have limited cold cranking / starting ability and are generally not used for engine starts, although they can be depending on the nominated current draw for a particular engine.

The ACDelco Battery range consists mainly of two different battery designs:

ACDelco Sealed Maintenance Free Battery (SMF)



ACDelco Low Maintenance Accessible Battery (LMA)





The ACDelco difference

The ACDelco Sealed Maintenance Free (SMF) and Low Maintenance Accessible (LMA) manufacturing and design process differs from most other conventional batteries in several strategic ways.

ACDelco Batteries use wrought-lead calcium expanded grids that provide:

- / Strong corrosion resistance.
- / Long shelf life.
- / Maintenance free usage.
- / Resistance to overcharge.

Most other conventional batteries use cast antimony grids which make the battery more susceptible to corrosion and water loss.

The ACDelco flat-bottomed, polypropylene rib case provides improved vibration resistance and stronger durability.

While some other batteries use removable covers, the ACDelco SMF Battery incorporates sealed covers with built in flame arresters for better resistance to acid loss, electrolyte contamination and explosions from external sparks.

ACDelco SMF Batteries incorporate a patented Liquid Gas Separator which prevents electrolyte losses. The liquid is collected and returned to the reservoir.

ACDelco SEALED MAINTENANCE FREE ADVANTAGE

ACDelco Sealed Maintenance Free Batteries have a very low self-discharge rate below 27 °C, see Figure 1. Although storage above 27 °C increases self-discharge, ACDelco Sealed Maintenance Free Batteries stored at constant elevated temperatures (38 °C) have a shelf life that.

- / Is three times longer than conventional wet antimony batteries.
- / Is comparable to dry charged batteries that are not vacuum sealed.
- / Permits installation without charging where good stock rotation and
- / inventory control is maintained (three turns or more a year).

Cold temperatures are not harmful to ACDelco Sealed Maintenance Free Batteries when they are fully charged. When the hydrometer eye is green, these batteries may be stored at temperatures as low as – 29 °C.

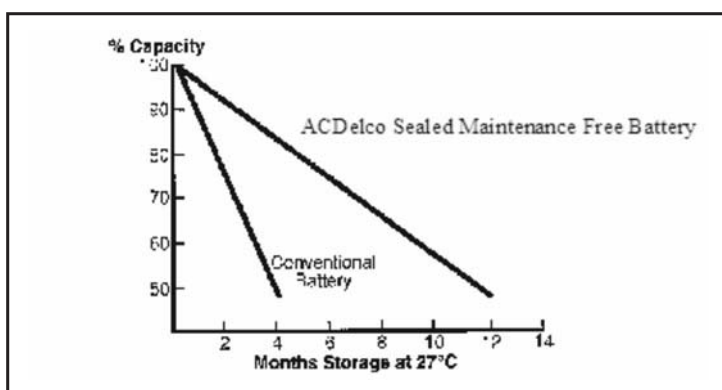


Figure 1

Caution:

To prevent electrolyte freezing and battery damage, do not store ACDelco Sealed Maintenance Free Batteries below -7 °C unless it is fully charged and the green eye is visible in the state of charge indicator.



Why You Should Choose ACDelco SMF batteries

All ACDelco Sealed Maintenance Free (SMF) Batteries feature lead calcium expanded grids (lead calcium technology) for improved resistance to corrosion, overcharging, gassing, water usage, self discharge and thermal runaway, all of which limit battery life in conventional lead acid batteries. The range includes batteries to suit cranking / starting (traditional automotive), high cycle, dual purpose starting / deep cycle and deep cycle applications.

FEATURES & BENEFITS

- / Inbuilt hydrometer (most batteries) - Indicates state of charge.
- / Factory sealed - Makes these batteries truly maintenance-free.
- / Polypropylene case - Reinforced design is precisely tailored to support the battery elements to withstand road shock and vibration. This strong durable material combines light weight with high impact strength.
- / Liquid-gas separator area - Returns liquid to reservoir for longer life.
- / Integrated or rope handle - For ease of transport and installation.
- / Flame arrestor - Safety system, prevents explosion from sparks outside the battery, minimizes acid leakage and prevents inflow of dust.
- / Heat sealed covers - Helps prevent electrolyte contamination and increase case strength.
- / Centered cast on plate strap - Stronger than thinner gas-burned conventional connectors.
- / Low resistance envelope separators - Encapsulated negative plates help to prevent shorting / treeing between negative and positive plates as well as aid in vibration durability.
- / Increased battery shelf life - Up to 12 months shelf life without charging due to the use of Calcium / Calcium grids (compared to conventional batteries).



ACDelco Offers a Comprehensive Product Range to Suit Most Makes Most Models.

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Compare the ACDelco SMF battery advantage



ACDelco Sealed Maintenance Free Battery (SMF)



Conventional Battery - Other Brands

Comparison of ACDelco SMF Batteries to Conventional Batteries

ACDelco Sealed Maintenance Free Batteries (calcium / calcium)	VS	Typical Conventional Lead Antimony Batteries
Routine testing and maintenance not required		Require frequent checking and testing
All feature latest calcium / calcium grid technology		Generally use older type lead antimony cast grids
Inbuilt hydrometer – Check the charge of the battery at a glance		
Very low water loss rate		Higher water loss rate
Completely sealed design eliminates electrolyte leakage		– Require fill caps allowing electrolyte leakage that can reduce life, corrodes terminals, wiring and battery tray – Required regular maintenance resulting in potential acid contact
Liquid–gas separator area – Returns liquid to reservoir for longer life		
Acid contact risks eliminated		Required regular maintenance resulting in potential acid contact
Highly resistant to heat damage		Vulnerable to high temperature
Excellent resistance to vibration and road shock		Less resistant to vibration and road shock
Extremely low self–discharge rate, up to 12 months storage life		High self–discharge rate – Less than 4 months storage life when filled
Low gassing rate, reduces the explosion hazard during charging		High gassing rate, increases the explosion hazard during charging
No acid handling – Batteries are filled at the factory		Acid handling can increase exposure to the environment
Centered cast on plate strap – Stronger than thinner gas–burned conventional connectors		
Reduced recycling frequency (due to longer life) results in reducing environmental pollution		– High recycling frequency results in higher amount of scrapped batteries – Acid / lead handling increases exposure to the environment
Polypropylene case – Combines light weight with high impact strength		
Separator envelopes – Encapsulate plates to prevent shorting		
Integrated or rope/plastic handle – For ease of transport and installation (most part numbers)		



Why You Should Choose ACDelco LMA batteries

All ACDelco Low Maintenance Accessible (LMA) Batteries feature lead calcium expanded grids (lead calcium technology) for resistance to corrosion, overcharging, gassing, water usage, self discharge and thermal runaway, all of which limit battery life in conventional lead antimony batteries.

FEATURES & BENEFITS

- / Accessible coin top vent caps (most batteries) to allow filling if required - Coin top vent caps also allow easier fitment for applications that require a flat top for top hold down bracket mounting.
- / Polypropylene case - Reinforced design is precisely tailored to support the battery elements, a strong durable material to withstand road shock and vibration. Combines light weight with high impact strength.
- / Integrated or rope / plastic handle (most batteries) - For ease of transport and installation.
- / Centered cast on plate strap - Stronger than thinner gas-burned conventional connectors.
- / Heat sealed covers - Help's prevent electrolyte contamination and increase case strength.
- / Low resistance envelope separators - Encapsulated negative plates help to prevent shorting / treeing between negative and positive plates as well as aid in vibration durability.
- / Increased battery shelf life - Up to 6 months shelf life without charging due to the use of calcium / calcium grids (compared to conventional batteries).



ACDelco Offers a Comprehensive Product Range to Suit Most Makes Most Models.



Compare the ACDelco LMA battery advantage



ACDelco Low Maintenance Accessible Battery (LMA)



Conventional Battery - Other Brands

Comparison of ACDelco LMA Batteries to Conventional Batteries		
ACDelco Low Maintenance Accessible Batteries (calcium / calcium)	VS	Typical Conventional Lead Antimony Batteries
Reduced testing and maintenance required compared to conventional lead antimony batteries		Require frequent checking and testing
All feature latest calcium / calcium grid technology		Generally use older type lead antimony cast grids
Very low water loss rate (on most part numbers)		Higher water loss rate
Accessible coin top vent caps to allow filling if required (most part numbers)		<ul style="list-style-type: none"> - Require fill caps allowing electrolyte leakage that can reduce life, corrodes terminals, wiring and battery tray - Required regular maintenance resulting in potential acid contact
Highly resistant to heat damage		Vulnerable to high temperature
Excellent resistance to vibration and road shock		Less resistant to vibration and road shock
Very low self-discharge rate, up to 6 months storage life		High self-discharge rate - Less than 4 months storage life when filled
Low gassing rate, reduces the explosion hazard during charging		High gassing rate, increases the explosion hazard during charging
Reduced recycling frequency (due to longer life) results in reducing environmental pollution		<ul style="list-style-type: none"> - High recycling frequency results in higher amount of scrapped batteries - Acid / lead handling increases exposure to the environment
Polypropylene case - Combines light weight with high impact strength		
Centered cast on plate strap - Stronger than thinner gas-burned conventional connector		
Separator envelopes - Encapsulate plates to prevent shorting		
Integrated or rope / plastic handle - For ease of transport and installation (most part numbers)		



Battery's Calcium Grid technology explained

The grid is the heart of the battery because it carries current in and out of the plates.

Battery grids are made of lead mixed with other metals to give it greater strength. At one time, antimony was the preferred strengthening agent and is still more common in conventional batteries. However, grids in ACDelco SMF & LMA Batteries are made of lead and calcium.

Lead calcium grids have many advantages over lead antimony grids including their resistance to corrosion as shown here:

Lead Calcium Grid	VS	Lead Antimony Grid
Cold wrought (welded or forged)		Heat cast (formed in a mould)
Fine, uniform surface grain		Course surface grain
Resists corrosion		Accelerate corrosion

GRID CORROSION

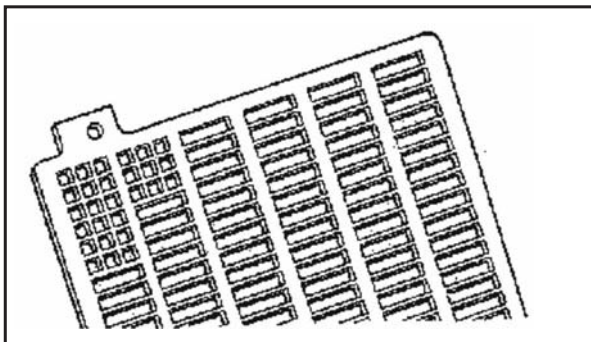
Gradual corrosion is a normal occurrence during the service life of a battery and it is the primary enemy of the positive grid. Corrosion begins on the grid surface at grain boundary sites (places where the grain touches and bonds) and penetrates into the interior of the grid along the grain boundaries. This effect is more prevalent in batteries with course grained grids.

As the grid corrodes, it is weakened because the cross section of the wires are reduced. This decreases the current carrying capacity of the grid. In extreme cases, sections of the grid wires become completely severed and removed from the electrical circuit.

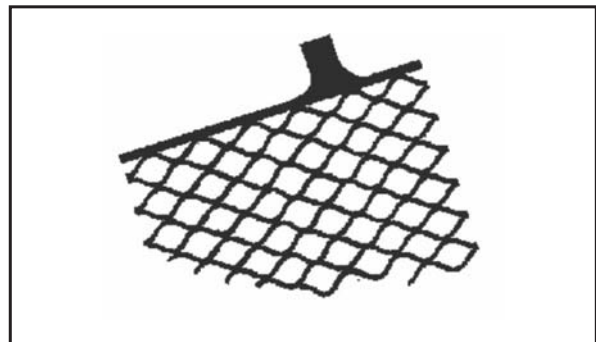
Corrosion takes place primarily at the positive grid, and the process is more pronounced in batteries that routinely experience overcharging.

LEAD ANTIMONY CAST GRID

At one time, lead antimony grids were readily available, inexpensive, easy to cast, and for many years, provided a rechargeable battery that offered optimum efficiency and low cost.



Lead Antimony Cast Grid



Lead Calcium Wrought Grid



Battery's Calcium Grid technology explained (continued)

LEAD CALCIUM GRID

The lead calcium grid is wrought, therefore, it is substantially more resistant to corrosion as well as overcharging, gassing, water usage, self discharge, and thermal runaway, all of which limit battery life in conventional lead acid batteries.

PLATES AND PASTE

The plates are the active materials in the battery. The first step in making the plates is to paste a mud like material to the grid. The paste is a mixture of lead oxide, sulfuric acid and water. Fiber or plastic strips are often used to reinforce the plates for strength and resistance to vibration. The composition of the negative paste also contains expanders that prevent the hardened paste from shrinking and reverting to its dense inactive state. When the paste dries on the grid, the materials become a hardened plate.

During the manufacturing process, the plates are immersed in an electrolyte solution composed of sulfuric acid and water that gives them a forming charge. This charge alters the chemical properties of both plates. The process converts the lead oxide on the positive plate to lead dioxide. The same forming charge converts the lead oxide on the negative plate to sponge lead.

CELL LUGS

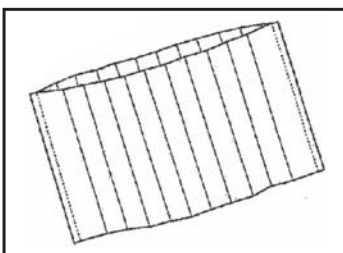
Cell lugs are connectors that attach to the tabs on the grids and link one cell to another at a position above the height of the plates. Each SMF & LMA battery cell has two lugs, one connects all the positive plates and the other connects all the negative plates, within the cell. The cells are then connected in series, using through the partition welds between the lugs of adjoining cells.

ENVELOPE SEPARATOR

Separators are nonconductive, micro porous materials that allow good electrolyte diffusion between the plates while preventing them from touching each other.

Separators in ACDelco SMF & LMA Batteries are made of polyvinyl chloride and shaped like an envelope. They are sealed on three sides. It helps prevent internal treeing between plates. Treeing is a condition that occurs when active material transfers from one plate through a hole in the separator, and forms a connection to the next plate. Treeing would test as a short because the active material from one plate group forms a bridge to a plate group with an opposite charge.

Since positive plates and negative plates are placed alternatively next to each other, envelope separators need only be wrapped around every negative plate.



Envelope Separator



Battery

safety precautions*

Correct Lifting Procedure

- / Caution batteries are heavy therefore ACDelco recommends using correct lifting procedure when handling.

Use a Sealed Battery to Help Avoid Battery Acid Burns

- / Wherever possible, use a Sealed Maintenance Free Battery to all but eliminate the risk of contact with battery acid under normal conditions.
- / Use extreme care, especially when handling a conventional or a non sealed maintenance free battery as you are more likely to accidentally come into contact with battery acid / electrolyte.

If Electrolyte is Spilled

- / If electrolyte is spilled or splashed onto clothing or the body, wash with water and neutralize with a solution of baking soda and water.
- / Electrolyte splashed into eyes is extremely dangerous. If this occurs, gently open eyes and wash with cool clean water for 5 minutes. Call a doctor.

If Electrolyte is Swallowed

- / Drink lots of water or milk. Follow with milk of magnesia, beaten eggs or vegetable oil. Call a doctor.

Preparing Electrolyte

- / Using rubber gloves is a good idea when handling a battery, a must when handling electrolytes.
- / Always add the concentrated acid to the water never add water to the acid.

Electrolyte Storage

- / Electrolyte should be stored in plastic containers with a sealed cover. Do not store in the sun or near any other heat source.

Explosive Risk

- / Batteries generate explosive gases during operation and when charged. Keep batteries away from flames, sparks, burning cigarettes or other ignition sources.
- / Avoid placing any metallic objects on top of the battery as it could cause shorting.

Ventilate and Protect Your Eyes

- / When charging batteries, always shield eyes and work in a well-ventilated area never in a closed room.

Disconnection Safety

- / Always turn battery charger or ignition off before disconnecting a battery.

Battery Charging Safety Precautions

- / Please refer "Recharging Batteries" on page 15.

*ACDelco recommends you wear appropriate protective clothing and safety glasses when handling batteries.



Checking batteries*

All Types

- / Is the battery loose or tight in the carrier?
- / Loose batteries can fail due to prolonged vibration.
- / Does the battery look damaged or mishandled?
- / This can also cause failures.

Apply the Headlight Test

- / Park near a wall or outside a garage door after dusk.
- / Turn the engine off and put the hand brake on.
- / Turn on the headlights - if bright, the battery is OK.
- / If the headlights are dim, start the engine (making sure the car is in park or neutral).
- / If the lights brighten up with the engine on, the battery is bad and needs replacing.

Voltmeter Test

- / You may also use a voltmeter to check the battery's voltage.
- / A normal fully charged battery should read around 12.5 to 13.5 volts.
- / If the battery is under 12.5 volts, recharge the battery.

Volt-Ohmmeter Test

- / If the battery tests OK but isn't quite holding a charge, check the alternator drive belt.
- / If the drive belt is tight, test the voltage regulator using a volt-ohmmeter according to the manufacturer's instructions or the vehicle owner's manual.

ACDelco SEALED MAINTENANCE FREE BATTERY



Read the Inbuilt Hydrometer

- / On top of the battery you'll find the inbuilt hydrant charge indicator - look into it.
- / If there is no light, it usually means there is no charge in the battery - it's flat.
- / If you see a coloured light, review the label near the charge indicator for details on how charged or otherwise your battery is based on the colour of the light.

*ACDelco recommends you wear appropriate protective clothing and safety glasses when handling batteries.



Checking batteries* (continued)

LOW MAINTENANCE ACCESSIBLE BATTERIES

Is the Electrolyte Below the Tops of the Separators?

- / This indicates overcharging or poor maintenance.
- / Overcharge condition may be due to incorrect voltage setting, low voltage caused by heat or internal defects, or batteries of an old age.

Is Any Electrolyte on the Top of the Battery?

- / This can indicate overcharging or overfilling.

Check Hydrometer Reading

- / A low specific gravity reading of 1.220 or less in all cells indicates a flat (discharged) battery.
- / It must be charged before further examination and testing can occur.
- / The battery may be flat due to problems in the electrical system (e.g.: slipping alternator belt, poor voltage regulator, faulty alternator, or high resistance due to corrosion).
- / The battery may be shorting internally due to manufacturing defects, or shorts through the ageing process or vibration damage.



Understanding battery terminology

Reserve Capacity

Number of minutes a new, fully charged battery can be discharged at 25 amps and maintain a terminal voltage higher than 1.75 volts per cell at 27 °C.

Cold Cranking Amps (CCA)

The current that a, fully charged battery can deliver for 30 seconds and maintain a terminal voltage greater than or equal to 1.2 volts per cell at -18 °C.

Cycle Life

Number of charge / discharge cycles a battery can endure before it loses its ability to hold a useful charge (highly dependent on depth of discharge).

Amp Hour Capacity

The ability of a fully charged battery to deliver a specified quantity of electricity at a given rate over a period of time.

*ACDelco recommends you wear appropriate protective clothing and safety glasses when handling batteries.



Battery

installation guidelines

General Precautions

- / Wear appropriate protective clothing and safety glasses.
- / Before removing an old battery, make sure the engine, lights and all accessories are turned off.
- / Check if vehicle has a computerized electrical system. If so, an alternative power source to maintain electronic memory when battery is disconnected may be required (to avoid damage to the main computer or other segments of the vehicle's electronically controlled equipment).
- / Check if vehicle has air bags fitted. If so, see following...

Safety Precautions for Vehicles Fitted with an Air Bag

- / Always check to ensure that the ignition is **off** before removing either of the battery terminals.
- / Don't sit behind the steering wheel or in other seats with an air bag while any electrical service work is carried out on the vehicle.
- / Removing or replacing battery terminals will not unintentionally trigger an air bag system, however removal of battery terminals with the ignition on can cause damage to electronic components, including the air bags - so don't do it.
- / If you need to work on the electrical system beyond replacing the battery, you must electrically disable the air bag system first.
- / Never indiscriminately probe the electrical wiring / connectors in or near the steering column.
- / Most air bag systems use bright yellow wiring and harness connectors - do not interfere with any harness of this colour.

Removal of Old Battery

- / Note location of positive (+) terminal and mark polarity on positive cable.
- / Remove the negative or earth (-) terminal first to avoid damaging the wiring or battery by accidentally grounding tools.
- / Remove second (+) terminal.
- / Undo the hold-down clamp and remove old battery, noting position of terminal posts.

New Battery Installation

- / Inspect tray and area for corrosion and replace or repair as necessary.
- / To clean tray, scrub the area with water and baking soda (sodium bicarbonate), then rinse with water.
- / Dry and paint corroded steel parts with acid proof paint.
- / Clean and brush terminals.
- / Check cable and starter motor connections tighten if necessary.
- / Replace terminal clamps and / or cables if badly corroded.
- / Sit the new battery in the tray ensuring it's level and that the terminal posts are correctly positioned.
- / Secure battery with hold-downs, tightened to ensure battery can't move in the tray.
- / Apply a thin coating of high temperature grease to the posts and cable connections.
- / Replace cables ensuring that the earth (-) terminal is connected last.
- / Tighten connections but don't over tighten.
- / Never hammer cable connections onto battery posts as this can damage your battery.

Recharging batteries*

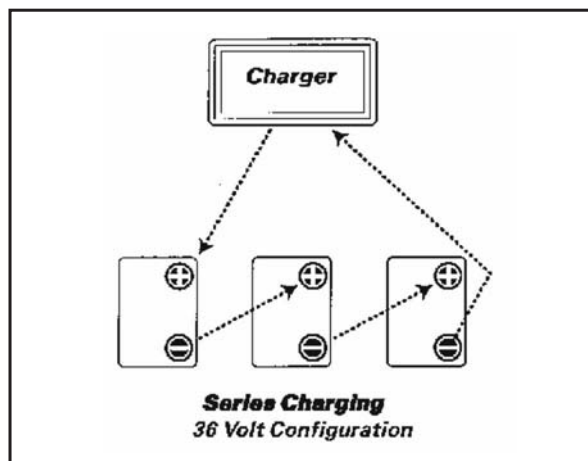
Safety Precautions

- / Before you attach, rock, or remove terminal clamps, you **MUST** turn the charger off.
- / Charge in well ventilated area away from open flames or sparks.
- / Ensure vent caps are in place.
- / Follow the battery charger manufacturer's instructions.

Charging Times

Charging rates or times will vary due to a number of other features such as:

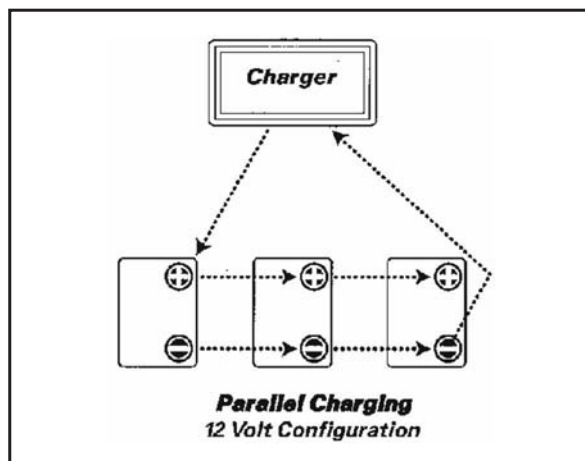
- / The electrical capacity of the battery.
- / Temperature of the electrolyte.
- / Battery state of charge at the start of the charging period.
- / Battery age and condition.



- / Set the charger to maintain a charging rate of 5 to 10 amps.
- / Monitor each battery every 30 to 60 minutes for spewing, gassing, temperatures above 61 °C or charging voltage above 16 volts. If any of these occur, remove and test the battery.
- / Check the charger indicator on each battery hourly for a green dot, gently shake the battery, as necessary. If a green dot is not visible, continue charging. When a green dot appears and remains, the battery is charged.
- / Turn off the charger and disconnect any recharged battery. Remove it from the series and load test it.
- / Reconnect the remaining batteries in series and continue charging.

Notice:

When batteries are removed from series charging, readjust the charger to maintain proper charging current rate for the remaining batteries.



- / Set the charger to the highest setting.
- / Adjust the charger so the measured voltage does not exceed 16 volts.
- / Monitor batteries every 30 to 60 minutes for spewing, gassing and temperatures above 52 °C; if any of them occur, remove the battery with this condition and test it.
- / Check the hydrometer on each battery hourly for a green charge indicator, gently shaking the battery, as necessary. If a green charge indicator is not visible, continue charging. When a green charge indicator appears and remains, the battery is charged.
- / Turn the charger off.

- / Disconnect all batteries when the charge indicator is green.
- / Continue recharging all remaining uncharged batteries.

*ACDelco recommends you wear appropriate protective clothing and safety glasses when handling batteries.

Battery

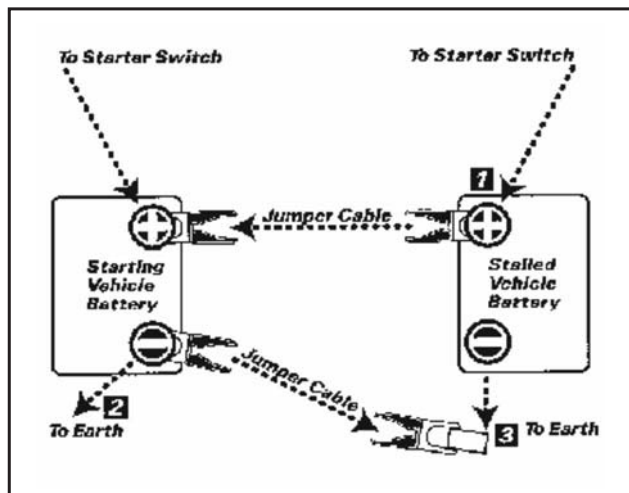
general jump starting procedure*

INITIAL CHECKLIST

- / Check batteries are the same voltage.
- / Turn off the engines and all electrical loads.
- / Make sure vehicles aren't touching.
- / Ensure vehicles are in park or neutral (with handbrake on).
- / Make sure vehicles have the same terminal earthed. If not, check manufacturers instructions.
- / Ensure cables aren't frayed or damaged.

Do the Following Steps in Sequence

1. On a negative grounded system, connect both ends of one cable to the positive (+) terminal on both batteries.
2. Connect an end of the other cable to the negative (-) terminal of the booster battery.
3. Connect the other end of the same cable away from the battery, to the engine block or frame of the vehicle to be started.
4. Make sure both cables are clear of fan blades and other moving parts.
5. Start the engine of the booster car.
6. Attempt to start the engine of the vehicle with flat battery.
7. If vehicle does not start within 30 seconds, call an auto electrician.
8. After starting, remove cables in reverse order, starting with the cable connected to engine block or frame.



Warning:

Do not jump start modern vehicles with electronic management systems without “protected” jump starter leads. You must also refer to the owner's handbook for vehicle-specific procedures.

*ACDelco recommends you wear appropriate protective clothing and safety glasses when handling batteries.



Battery Care

general guidelines*

The amount of care and maintenance required varies dramatically between maintenance free batteries and conventional filler cap batteries. Under normal operating conditions, ACDelco Sealed Maintenance Free Batteries should never require watering or similar maintenance. However it is a good idea to conduct through visual battery inspection at regular intervals. The following should be inspected.

Check Cable Connections

- / Check the cable connections from time to time to ensure they are secure, tight and clean. Corrosion tends to build up on terminals and cable clamps.
- / Disconnect the cables and clean the battery terminals and cable clamps separately, using a wire brush and baking soda / water solution [Avoid getting baking soda (sodium bicarbonate) / water solution into the battery].
- / If one or more of the cables is deteriorated from excessive corrosion, it should be replaced.

Check Battery Hold Downs and Tray

- / Make sure the hold down ramp is tightened to specifications. Normal vehicle vibration can loosen the hold down ramp over time.
- / Check the mechanical integrity of the under hood battery tray. It should be capable of supporting the battery in a level position.

Check if the Battery is Clean and Dry

- / Use a cloth with baking soda and water solution to regularly wipe the battery cover and case.
- / Avoid getting baking soda (sodium bicarbonate) / water solution into the battery.

*ACDelco recommends you wear appropriate protective clothing and safety glasses when handling batteries.



Batteries

possible failure causes

Overcharging

Caused by incorrect voltage setting, low voltage caused by heat or internal defects, or old batteries.

Poor Maintenance

Conventional and non sealed maintenance free batteries all require more care than a sealed maintenance free battery. Failure to maintain correct electrolyte levels will damage the battery and shorten its life.

Heat Defects

Battery damaging heat coming from both the environment and higher vehicle operating temperatures can cause conventional and non sealed maintenance free batteries in particular to suffer from:

- / Higher gassing and resultant water loss.
- / Higher grid corrosion or oxidation.
- / Overcharging, and plate failure.
- / Higher battery discharge capacity.
- / Higher self-discharge rate.

Old Age

All batteries have a limited lifespan and will naturally break down over time and use (ACDelco's Sealed Maintenance Free Batteries have features which make them one of the longest lasting batteries on the market).

Vibration

Batteries can fail due to prolonged vibration, usually caused by a loose tray and or broken hold-downs.

Mistreatment

- / Striking a battery terminal or cable end with a hammer to loosen it can totally ruin a battery.
- / Dropping a battery or tipping it on its end or upside down can also damage a battery.
- / Storing batteries near flames or sparks can cause the battery to explode.



Cars & Light Commercials

battery application listing

Information in this application listing section has been compiled from data published from Original Equipment Manufacturers and other parties. This data may change from time to time and ACDelco is unable to warrant the accuracy of this data and does not accept responsibility for loss or damage of any kind caused as a result of such data being inaccurate.

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
ALFA ROMEO					
All Models	1964-1983	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
33	1.3, 1.5, 1.7, Quadrafoglio, Station Wagon	1990-On	55457WC	S55457	
75, 75 3.3 V6, 90		1984-On	56318WC 56330WC	S56318	
Alfetta, Giulia, Giulietta		1984-On		S55458	
145, 146		1994-On	56318WC 56330WC	S56318	
147	2.0 Twin Spark, 147 2.0 GTA	2001-2003	55457WC	S55457	
	Ti, Selespeed, Ti Selespeed	2004	55457WC	S55457	
155	1.7, 1.8, 2.0, 56 Twin Spark Sedan A&M	1992-On	55457WC	S55457	
156	JTS, JTS Selespeed, MY2004, Ti, V6	2004	56318WC 56330WC	S56318	
	Twin Spark, Sportswagon, GTA	2000-On	55457WC	S55457	
164	1.8, 2.0, 2.0 V6 Turbo	1988-On	56318WC 56330WC	S56318	
166	3.0 V6	2001-On	56318WC 56330WC	S56318	
GT	3.2	2004	56318WC 56330WC	S56318	
GTV	GTV 6	1980-On		S55458	
	JTS	2004	56318WC 56330WC	S56318	
	2.0, 3.0, Twin Spark	2000-On	56318WC 56330WC	S56318	
Spider		1992-On	56318WC 56330WC	S56318	
	3.2 V6 24V	2004	56318WC 56330WC	S56318	
	Twin Spark 2.0, 3.0, Convertible 3.0 V6	2000-On	55457WC	S55457	
Sprint Coupe	Veloce	1977-1987	55457WC	S55457	
Zegatto Coupe	SZ	1990-1992	55457WC	S55457	
	RZ	1993-On	56318WC 56330WC	S56318	
ASIA					
Rocsta	Petrol	1992-1993	22F54WC	22F66WC	22F530SMFDF 22F600SMFDF
	Diesel	1992-1993	NX1207WC		S95D31RHD
		1994-On	55D23LWC	S55D23L	S70D23L
ASTON MARTIN					
All Models		1957-1987	NX1207WC	S95D31RHD	
AUDI					
All Models		1967-1973	22F66WC	22F530SMFDF	22F600SMFDF
701, 5+5		1979-On	56318WC 56330WC	S56318	
100, 200T & 90 Series	SE, Fox80, Est, GL, GLS, 100GL, LS, 5E, 100CD	1974-1989	55457WC	S55457	
80	2.4E, 2.3E, 2.6, Quattro, V8, 2.0E, SE, Fox	1986-1994	56318WC 56330WC	S56318	

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
AUDI					
80	4 Cylinder	1994-On	55457WC	S55457	
80 & 100	6 Cylinder	1994-On	56318WC 56330WC	S56318	
Audi 100		1985-1994	56318WC 56330WC	S56318	
Audi 200		1986-1991	56318WC 56330WC	S56318	
A3		1997-On	55457WC	S55457	
A4	A4 Avant	1995-2003	56318WC 56330WC	S56318	
		2003-On	56318WC 56330WC	S56318	
A6 & A8	A6 V8, Audi AWD	1994-On	56318WC 56330WC	S56318	
Avant	Quattro & Wagon	1983-1997	56318WC 56330WC	S56318	
Quattro turbo, TT Coupe, Roadster		1999-2003	56318WC 56330WC	S56318	
RS4		2006-On	56318WC 56330WC	S56318	
S3, S4		1993-On	55457WC	S55457	
S6 & S8	S6 Avant	2000-On		S58515	
Q7		2006-On	56318WC 56330WC	S56318	
AUSTIN					
All Models		1965-On	N3854WC		
BMW					
2000, 2002, 2500, 2800	2800, 3.0 L, 3.3 L	1967-1978	55457WC	S55457	
118i, 120i		2005-On	56318WC 56330WC	S56318	
316		1997-On	55457WC	S55457	
318, 320, 323, 325, 328, 330		1976-On	56318WC 56330WC	S56318	
8 Series		1990-On		2 x S56318	
5 Series	6 Cylinder	1973-On	56318WC 56330WC	S56318	
	8 Cylinder	1973-On	58827WC	S58515	
6 Series		1977-On	56318WC 56330WC	S56318	
7 Series	Under Bonnet	1987-On	56318WC 56330WC	S56318	
	Under Seat	1987-On		S58515	
M3 Series	Under Bonnet	1990-On	55457WC	S55457	
	In Boot	1990-On	56318WC 56330WC	S56318	
M5		1999-2003	56318WC 56330WC	S56318	
X3, X5		2001-On	58827WC	S58515 / S58827	
Z3	Coupe, Roadster	1997-On	56318WC 56330WC	S56318	
BUICK					
Most Models		1947-1989	NX1207WC	S95D31RHD	
		1990-On	NS70WC	NX1105WC S80D26R	
CADILLAC					
Most Models		1956-1984	NS70WC	NX1105WC S80D26R	
		1985-On	NX1207WC	S95D31RHD	
CHEVROLET					
Most Models		1956-1991	22FR54WC	22FR66WC 22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
300	Diesel	2005-On		S58515	
Crossfire		2003-On	56318WC 56330WC	S56318	

MAKE AND MODEL		YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
CHRYSLER						
Grand Voyager	LE, SE, LTD	1999-On			S56640	
	Limited, LWB, RG	2004-On			S56640	
	MPV SE, LX, LTD	2001-On			S78DT6MF	
Dodge Avenger		2007-On			S58R6MF (remove L/H inner wheel guard)	
Dodge Caliber	Petrol	2007-On			S58R6MF (requires bottom ledge)	
Neon		1995-1999			S58R6MF	
		2000-On			S586MF	
PT Cruiser		2000-On			S54316	
Prowler		2002-On			S78DT6MF	
Sebring		2007-2008			S58R6MF (remove L/H inner wheel guard)	
Voyager	SE, SWB	1997-On			S58R6MF	
	MPV SE	2001-On			S78DT6MF	
	SE, LWB, RG	2004-On			S56640	
CITROEN						
DS & D Series		1959-1978	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
GS	Club, 1200, 1220, Pallas	1972-1978	55457WC		S55457	
Diesel Models		1976-1988			S56318	S58515
AX All Models		1986-On	56318WC 56330WC		S56318	
Berlingo	Petrol	2000-On	55457WC		S55457	
	Petrol	2006-2007			S50D20L (requires ledge)	
	Diesel	2000-On	56318WC 56330WC		S56318	
BX 16 / 19 All Models		1986-On	55457WC		S55457	
BX1		1986-On	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
C2		2005-On	55457WC		S55457	
C3		2003-On	55457WC		S55457	
C4			56318WC 56330WC		S56318	
C5	Petrol	2000-On	55457WC		S55457	
	Petrol	2006-2007	56318WC 56330WC		S56318	
	Diesel	2000-On	56318WC 56330WC		S56318	
C6		2006-On	56318WC 56330WC		S56318	
CX2200, CX2400		1976-On	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
CX 2500, CX Pallas		1984-1985	55457WC		S55457	
Xantia		1994-1998	55457WC		S55457	
		1998-On	56318WC 56330WC		S56318	
Xsara		1998-On	55457WC		S55457	
XM V6		1990-On	55457WC		S55457	
DAEWOO						
1.5i		1994-1995	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
Cielo		1994-On	56318WC 56330WC		S56318	
Espero		1991-On	56318WC 56330WC		S56318	
Kalos		2003-On	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Korando		1998-On	NS70WC	NX1105WC	S80D26R	

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
DAEWOO					
Lacetti	2003-On	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Lanos	1997-On	55D23RWC		S55D23R	S70D23R
Leganza	1997-On	55D23RWC		S55D23R	S70D23R
Matiz	1999-On	NS40ZSWC		S40B20RS	
Nubira	1997-On	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Tacuma	2000-On	NS70WC	NX1105WC	S80D26R	
DAIHATSU					
Applause	1989-1997	NS40ZWC		S40B20R	
	1998-On	NS40ZLWC		S40B20L	
Charade	1978-1980	NS40ZWC		S40B20R	
	1981-On	NS40ZLWC		S40B20L	
	Centro	1989-On	NS40ZWC	S40B20R	
Duet	1989-1995	NS40ZLWC		S40B20L	
Cuore	2001-On	NS40ZLWC		S40B20L	
Feroza	1989-1995	NS40ZWC		S40B20R	
	Diesel	1989-1995		S31901MF	
	Series II	1993-On	NS40ZWC	S40B20R	
Mira	1990-1994	NS40ZWC		S40B20R	
	1994-On	NS40ZLWC		S40B20L	
Sirion, GTI, Terios, 4WD, YRV	1998-On	NS40ZLWC		S40B20L	
Pyzar	1998-On	NS40ZLWC		S40B20L	
Delta	Petrol	1977-On	NS40ZWC	S40B20R	
	Twin Cab	1978-On	NS40ZLWC	S40B20L	
Diesel	1978-1990	2 x 22FR66WC		2 x 22FR530SMF	2 x S85B60R 2 x 22FR600SMF 2 x 22FR660SMF
	1995-On			S31901MF	
Handivan, Hijet, 1000 Van	1981-1999	NS40ZLWC		S40B20L	
MAX 538, 540, 580	1971-1975	NS40ZWC		S40B20R	
Rocky	1984-On	NS40ZWC		S40B20R	
	Diesel	1984-On		S31901MF	
Scat	1982-1983	NS40ZWC		S40B20R	
F20JVN, JKBN, F25PN, F60JV, JKB, F65P	1979-1984			S1111	S1151 S31901MF
F50, F55L, F55P, V24T	1977-On			S1111	S1151 S31901MF
SV40 Cab Van, SV60C, S60T, F20	1977-On	NS40ZWC		S40B20R	
FERRARI					
All Models	330, 365, V12	1965-1993	NS70WC	NX1105WC	S80D26R
All Other Models		1974-1994	22FR66WC		22FR530SMF S85B60R 22FR600SMF 22FR660SMF
512, 512i		1993-On	55457WC		S55457
550 Maranello		1997-On			S58515
Testarossa	GT, 512, 355	1995-On	56318WC 56330WC		S56318
FIAT					
All Models		1958-1982	22FR54WC	22FR66WC	22FR530SMF S85B60R 22FR600SMF 22FR660SMF
All Models Except Super Brava & X 1-9		1983-1992	55457WC		S55457
Punto		2006-On	55457WC		S55457
Super Brava, X 1-9		1983-1992	22FR54WC	22FR66WC	22FR530SMF S85B60R 22FR600SMF 22FR660SMF

MAKE AND MODEL		YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
FORD						
Capri	English Build	1968-1972	N3854WC			
	Australian Build	1989-1992	NS40ZLSWC		S40B20LS	
		1992-1994	22F66WC		22F530SMFDF	22F600SMFDF
	V6, GT3000, RS3100	1968-1974	22F66WC		22F530SMFDF	22F600SMFDF
Corsair		1989-1992	22F66WC		22F530SMFDF	22F600SMFDF
Cortina		1972-1982	22F66WC		22F530SMFDF	22F600SMFDF
Cougar		1999-On	56318WC 56330WC		S56318	
Falcon, Fairlane, LTD	XA - XF	1972-1985	22F66WC		22F530SMFDF	22F600SMFDF
	XF - EA	1985-1991	22F66WC		22F530SMFDF	22F600SMFDF
	EB - ED	1991-1994	AU2266WC		AU22530SMFDF	AU22600SMFDF
	EF - EL	1994-1998	AU22R66WC		AU22R530SMF	AU22R600SMF
	AU - AU11 - BA - BF	1998-On	AU22R66WC		AU22R530SMF	AU22R600SMF
Escape		2001-2002	55D23LWC		S55D23L	S70D23L
		2003	NS70LWC	NX1105LWC	S80D26L	
	4 Cylinder	2004	55D23LWC		S55D23L	S70D23L
	V6	2000-On	NS70LWC	NX1105LWC	S80D26L	
Escort		1970-1975	N38L54WC			
		1975-1979	N38L54WC			
Explorer	V6 & V8	1996-2002			S656MF	
	V6	2003-2005	NS70LWC	NX1105LWC	S80D26L	
	V8	2003-2005			S656MF	S657MF
Festiva	WA	1991-1993	NS40ZLSWC		S40B20LS	
	WB	1994-1997	55D23LWC		S55D23L	S70D23L
Focus	ST170 includes GR200	2002-On	56318WC 56330WC		S56318	
		2003-On	55457WC		S55457	
Ford T Series	TE50	2000-On	AU22R66WC		AU22R530SMF	AU22R600SMF
Laser	KA - KF	1981-1991	NS40ZLSWC		S40B20LS (may require bottom terminal adapter)	
	KH	1991-1994	55D23LWC		S55D23L	S70D23L
	KJ	1994-1996			S50D20L	
	KL - KN	1996-2000	55D23LWC		S55D23L	S70D23L
	KQ	2001-On			S50D20L	
Meteor		1982-1987	NS40ZLSWC		S40B20LS	
Mondeo		1995-On	NS40ZLSWC		S40B20LS	
Mustang		1963-1987	22F66WC		22F530SMFDF	22F600SMFDF
		1987-On			S58R6MF	
	Cobra	2001-On			S58R6MF	
Probe		1994-1998			S58R6MF	
Sierra		1984-On	22F66WC		22F530SMFDF	22F600SMFDF
Taurus		1996-On			S58R6MF	
Telstar		1983-1989	NS40ZLSWC		S40B20LS	
		1990-1996	22F66WC		22F530SMFDF	22F600SMFDF
Territory	All Models	2004-On	AU22R66WC		AU22R530SMF	AU22R600SMF
Bronco		1980-1990	22F66WC		22F530SMF	S85B60L
Courier	4X4	1987-1996	22F66WC		22F530SMF	S85B60L
		1996-2000	55D23RWC		S55D23R	S70D23R
	2WD, 4X4 Petrol	2003-2004	55D23RWC		S55D23R	S70D23R
	Petrol (may require spacer)	2004-On	55457WC		S55457	
	4X4 Diesel	1987-On	NX1207WC		S95D31RHD	
F50	5.4 L V8 Petrol	2004-On			S656MF	
F100, 150, 250, 350	V6 & V8	1974-1994	22F66WC		22F530SMFDF	22F600SMFDF
F250, 350	V8 Diesel	2003-2005			2 x S656MF	2 x S657MF

MAKE AND MODEL		YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
FORD						
Falcon Longreach Ute	XH	1997-2000	AU2266WC		AU22530SMFDF	AU22600SMFDF
Falcon Ute & Panel Van	XG	1993-1996	AU2266WC		AU22530SMFDF	AU22600SMFDF
Econovan	Petrol	1985-1997	NS40ZLWC		S40B20L	
	JG Petrol	1997-1998	NS40ZWC		S40B20R	
	Petrol	2003-On	55D23LWC		S55D23L	S70D23L
	Diesel	1985-1997	NX1207WC		S95D31RHD	
	Maxi	1997-1998	NS40ZLSWC		S40B20LS	
Maverick	Petrol	1989-1995	22F66WC	NX1105LWC	22F530SMFDF	22F600SMFDF
	Diesel	1989-1995	NX1207LWC		S95D31LHD	
Raider		1991-1996	55D23LWC		S55D23L	S70D23L
Spectron	Petrol	1983-1995	NS40ZLWC		S40B20L	
	Diesel	1983-1995	NX1207WC		S95D31RHD	
Trader	D409	1997-On	2 x NX1105WC		2 x S80D26R	
Transit Van	4 Cylinder	1965-1973	N38L54WC			
		1991-1995	N38L54WC			
	6 Cylinder	1973-1981	22F66WC		22F530SMFDF	22F600SMFDF
	2.5 L Petrol & Diesel	1995-1998	55457WC		S55457	
		1999-On	2 x 56318WC 2 x 56330WC		2 x S56318	
	2.5 L Diesel	1994-1995			S56318	
	T350 Diesel	2006-On	2 x 56318WC 2 x 56330WC		2 x S56318	
HOLDEN						
Most Models	6 & 8 Cylinder	1956-1980	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Adventra	VZ 6 & 8 Cylinder	2004-2007	22F66WC		22F530SMF	S85B60L
Apollo	JK, JL	1989-1993	NS40ZLSWC		S40B20LS	
	JM, JP	1993-1997	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
Astra	LB, LC, LD	1984-1989	NS40ZLSWC		S40B20LS	
	TR	1996-1998	55457WC		S55457	
	TS-Convertible	1998-2005	56318WC 56330WC		S56318	
	TS All Models 1.8 L, 2.0 L Turbo, 2.2 L	1998-2005	56318WC 56330WC		S56318	
	AH All Petrol Models 1.8 L, 2.0 L Turbo, 2.2 L	2005-On	56318WC 56330WC		S56318	
	AH All Diesel Models	2006-On			S56820	
Barina	MB, ML, MF, MH	1985-1993	NS40ZSWC		S40B20RS	
	SB 1.2 L	1994-1997	55457WC		S55457	
	SB 1.4 L	1994-2000	55457WC		S55457	
	SB 1.6 L	1994-1997	55457WC		S55457	
	XC Series All Models	2001-2006	56318WC 56330WC		S56318	
	TK Series All Models	2006-On			S85B60R	22FR660SMF
Berlina	VK, VL, VN, VP, VR, VS 6 & 8 Cylinder	1988-8/1997	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	VT, VX, VY, 6 & 8 Cylinder	8/1997-2004	22F66WC		22F530SMF	S85B60L
	VZ 6 & 8 Cylinder	2005-2007	22F66WC		22F530SMF	S85B60L
		2006-On			S56638	
Calais	VK, VL, VN, VP, VR, VS 6 & 8 Cylinder	1984-8/1997	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	VT, VX, VY 6 & 8 Cylinder	8/1997-2004	22F66WC		22F530SMF	S85B60L
	VZ 6 & 8 Cylinder	2005-2006	22F66WC		22F530SMF	S85B60L
		2006-On			S56638	

MAKE AND MODEL		YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
HOLDEN						
Calibra	YE (excluding X20XEV)	1991-1997	56318WC 56330WC		S56318	
	YE X20XEV	1995-1997	55457WC		S55457	
Camira	JB, JD 1.6 L Excluding Trip Comp	1982-1987	NS40ZLSWC		S40B20LSDF	
	JB, JD 1.6 L Including Trip Comp	1982-1987	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	JD 1.8 L	1984-1987	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	JE	1987-On	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Captiva	CG All Petrol Models	2006-On			S56640	
	Maxx	2006-On			S56640	
Caprice	HJ, HX, HZ, WB, VQ, VR, VS	1971-5/1999	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	WH, WK, 6 & 8 Cylinder	6/1999-2004	22F66WC		22F530SMF	S85B60L
	WL 6 & 8 Cylinder	2005-2006	22F66WC		22F530SMF	S85B60L
	WM 6 & 8 Cylinder	2006-On			S56638	
Commodore	VB, VC, VH, VK, VL, VN, VP, VR, VS 4, 6 & 8 Cylinder	1978-8/1997	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	VT, VX, VY 6 & 8 Cylinder	8/1997-2004	22F66WC		22F530SMF	S85B60L
	VZ 6 & 8 Cylinder	2005-2007	22F66WC		22F530SMF	S85B60L
	VE Except Police Pack	2006-On			S56638	
Cruze AWD	YG	2002-2006	NS40ZLWC		S40B20L	
Epica	EP	2007-On			22FR660SMF	
Gemini	T Series Diesel	1975-1984	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
	RB Petrol	1985-1987	NS40ZWC		S40B20R	
Kingswood		1983-1985	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Monaro	V2 6 & 8 Cylinder	2002-2004	22F66WC		22F530SMFDF	22F600SMFDF
	V2 8 Cylinder	2005-2006	22F66WC		22F530SMFDF	22F600SMFDF
Nova	LG	1994-1996	AU2266WC		AU22530SMFDF	AU22600SMFDF
Piazza		1986-1987	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
Sandman		1974-1979	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Statesman	HQ, HJ, HX, HZ, WB, VQ, VR, VS	1971-5/1999	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	WH, WK, 6 & 8 Cylinder	6/1999-2004	22F66WC		22F530SMF	S85B60L
	WL 6 & 8 Cylinder	2005-2006	22F66WC		22F530SMF	S85B60L
	WM 6 & 8 Cylinder	2006-On			S56638	
Sunbird		1977-1980			22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Tigra	XCT	2005-2007	56318WC 56330WC		S56318	
Torana	4 & 6 Cylinder	1969-1979	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Vectra	JR, JS 4 & 6 Cylinder All Models	1999-2001	56318WC 56330WC		S56318	
	ZC All Models	2003-2006	56318WC 56330WC		S56318	
Viva	JF	2006-On			S85B60R	22FR660SMF

MAKE AND MODEL		YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
HOLDEN						
Zafira	TT	2001-2005	56318WC 56330WC		S56318	
Ambulance	GMH, TC, All	1992-2000			S786MF	
Combo Van	SB	1996-2001	55457WC		S55457	
	XC	2003-On	56318WC 56330WC		S56318	
Commodore Ute	VG, VP, VR, VS 6 & 8 Cylinder	1988-2000	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	VU, VX, VY 6 & 8 Cylinder	2001-2004	22F66WC		22F530SMFDF	22F600SMFDF
	VZ 6 & 8 Cylinder	2005-2007	22F66WC		22F530SMFDF	22F600SMFDF
	VE	2007-On			S56638	
Crewman - Including Cross 6 & 8	VZ 6 & 8 Cylinder	2005-2007	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Drover	QB	1985-1987	NS40ZSWC		S40B20RS	
Frontera	V6 UES	1999-2002	NS70LWC	NX1105LWC	S80D26L	
	Sport UT	1995-1998	55457WC		S55457	
Jackaroo (Petrol)	UBS 3.2 L V6	1992-1997	55D23RWC		S70D23R	
	UBS 3.5 L V6	1998-2003	55D23RWC		S70D23R	
Jackaroo (Diesel)		1982-1992	NX1207WC		S75D31R	S95D31RHD
	UBS 3.0 L	1998-2000	NS70WC	NX1105WC	S80D26R	
		2000-2003	2 x NX1105WC		2 x S80D26R	
	UBS 3.1 L	1992-1997	NS70WC	NX1105WC	S80D26R	
Jackaroo Monterey		2001-2003	55D23RWC		S70D23R	
One Tonner	HQ, HJ, HX, HZ, WB	1971-1985	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	VY 6 & 8 Cylinder	2003-2004	22F66WC		22F530SMFDF	22F600SMF
	VZ 6 & 8 Cylinder	2005-2006	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Rodeo (Petrol)	TF 2.2 L 4 Cylinder	2000-2002	55D23RWC		S70D23R	
	TF 2.6 L 4 Cylinder	1988-1995	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
		1996-1999	55D23RWC		S70D23R	
	TF 3.2 L V6	1997-2002			S55D23L	S70D23L
	RA 2.4 C24SE	2003-On			S55B24LS	
	RA V6 6VE1	2003-2007			S55D23L	S70D23L
	RA V6 HFV6	2003-On	NS70LWC	NX1105LWC	S80D26L	
Rodeo (Diesel)	KB	1981-1987	NX1207WC		S75D31R	S95D31RHD
	TF 2.8 L	1988-1995	NX1207WC		S75D31R	S95D31RHD
		1996-1999	NX1207LWC		S75D31L	S95D31LHD
	TF 3.0 L	2000-2002	NX1207LWC		S75D31L	S95D31LHD
	RA 3.0 L 4JH1	2003-2007	NX1207LWC		S95D31LHD	
Scurry		1985-1987	NS40ZWC		S40B20R	
Shuttle	Diesel	1983-1986	NX1207WC		S75D31R	S95D31RHD
		1986-1988			S55B24RS	
Suburban	CK	1998-1999			S786MF	
HONDA						
600, 1300, 20T, Life		1968-1974	NS40ZSWC		S40B20RS	
Accord	2 door, 4 door	1986-1993			S55B24RS	
	V6	1998-2002	NS70WC	NX1105WC	S80D26R	
		2003-On			S55D23L	S70D23L
	Vti	2003-On			S55B24LS	
	Euro	2003-On			S55B24LS	
Wagon		1992-1993			S55D23R	S70D23R

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY	
HONDA						
Accord	Exi, Vti, Wagon	1994-2002		S55D23L	S70D23L	
Civic	3 door, 4 door, 5 door, VTiR, Coupe	1988-On		S55B24RS		
	Hybrid	2004-2007	NS40ZLWC	S40B20L		
Concerto	5 door	1989-1991		S55B24R		
CRV		1998-2001		S55B24RS		
		2002-On		S55B24LS		
CRX		1988-1997		S55B24RS		
HRV	1.6 Sport, Wagon 4x4	1999-On		S55B24LS		
Insight Coupe		2001-On	NS40ZSWC	S40B20RS		
Integra	LS	1990-1993		S55D23R	S70D23R	
	SX, Gsi, VtiR, Type R	1986-2001		S55B24RS		
	Base, Type R, Type S	2002-2006		S55B24LS		
Jazz		2003-On	NS40ZLWC	S40B20L		
Legend	4 door, Coupe	1986-1990	NS70LWC	NX1105LWC	S80D26L	
		1991-On	NS70WC	NX1105WC	S80D26R	
MDX		2003-2006	NS70LWC	NX1105LWC	S80D26L	
NSX	MT (to 95), AT (to 94)	1991-1995		S55D23L	S70D23L	
	MT (from 96), AT (from 95)	1995-2004	NS70LWC	NX1105LWC	S80D26L	
	MT	2001		S55D23L	S70D23L	
Odyssey	6 Seater, 7 Seater	1995-1999		S55D23L	S70D23L	
	L4, 4 Cylinder	2000-On		S55B24LS		
	V6	2000-2003		S55D23R	S70D23R	
Prelude	4WS	1988-1991	NS70WC	NX1105WC	S80D26R	
		1992-1994			S55B24LS	
	Si, Si-SRS	1993-1995			S55D23R	S70D23R
	VTiR, ATTS	1994-2001	NS70LWC	NX1105LWC	S80D26L	
	S, Si	1995-2001			S55B24L	
S2000	MT	2001-On		S55B24LS		
Shuttle		1998-On		S55B24RS		
HUMMER						
H3	3.7 L	2007-On		22FR660SMF		
HYUNDAI						
Accent	GL, GLS	2000-On		S50D20L		
Coupe	SX, FX	1996-On	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
Elantra	GL, GLS	2000-On	55D23LWC		S55D23L	S70D23L
Excel	GL, GLS	1986-1987	NS40ZLSWC		S40B20LS	
	GL, GLS, L, LS, GS (Move Bracket Forward)	1988-1995	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
Getz		2003-On		S50D20L		
Grandeur	3.0 L, XG	1999-2005	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
		V6				
		1999-2005	22F66WC		22F530SMFDF	22F600SMFDF
Lantra		2006-On	NS70LWC	NX1105LWC	S80D26L	
		1991-1994	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
		1995-1997	N3854WC			
	SE, GL, GLS	1998-On	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
Lavita	MPV GLS	2001-On	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
S Coupe		1990-1997	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	SX, FX, SFX	1998-On	NS70LWC	NX1105LWC	S80D26L	
Santa Fe	GL, GL V6, GLS	2000-On	55D23LWC		S55D23L	S70D23L
Sonata		1989-1999	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	GLE	1994-1995			S55B24RS	

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
HYUNDAI					
Sonata GL, GL V6	2000-2005	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
	2006-On	NS70WC	NX1105WC	S80D26R	
Sportswagon	1999-On	55D23LWC		S55D23L	S70D23L
Stellar	1984-On	N3854WC			
Terracan	2002-On	55D23LWC		S55D23L	S70D23L
	Diesel	2004-On		NX1207WC	S95D31RHD
	Highlander	2004-On	NS70WC	NX1105WC	S80D26R
Tiburon	2002-On			S58R6MF	
Trajet GL, GLS	2000-On	NS70LWC	NX1105LWC	S80D26L	
Tucson	2004-On	55D23LWC		S55D23L	S70D23L
JAGUAR					
Sovereign	1987-1994	55457WC		S55457	
V12	1972-1994	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
X Type	2001-On	56318WC 56330WC		S56318	
XJ40	1987-1994	55457WC		S55457	
XJ6, Sovereign	1972-1994	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
XJ6, XJR, XJ12, XK8, XKR, XJ300, Coupe, Sovereign	1994-On	56318WC 56330WC		S56318	S58515
XJ8, 3.2, 4.0, Sport, S Type	2001-On	58827WC		S58515	
XJS V12, S Type	1991-2001	56318WC 56330WC		S56318	
JEEP					
Cherokee V8	1998-On	56318WC 56330WC		S56318	
Cherokee, Renegade	1979-1996	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Grande, Limited, Laredo, Sports, Wrangler	1994-On			S586MF	
Voyager	1997-On	56318WC 56330WC		S56318	
Commander V6 Diesel	2007-On	58827WC		S58515	
Patriot	2007-On			S586MF	
Wrangler	2006-2008			S586MF	
KIA					
Ceres	1992-1993	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
	1995-On	NX1207WC		S95D31RHD	
Cerato	2007-On			S55D23L	S70D23L
Credos GLX	1998-On	55457WC		S55457	
Mentor GLX, SLX	1996-On	55457WC		S55457	
Optima	2000-On	NS70LWC	NX1105LWC	S80D26L	
Rio	2000-On	55D23LWC		S55D23L	S70D23L
Shuma	2000-On	56318WC 56330WC		S56318	
Spectra	2001-On			S55458	
Sportage 4WD, GSE, SE	1996-1998			S586MF	
	1999-2001	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	2001-On	55457WC		S55457	
Sorento	2003	55457WC		S55457	
	2004-On	55D23RWC		S55D23R	S70D23R
	Diesel	2006-On		S95D31RHD (requires bottom ledge)	
Carnival	1999-On	NS70LWC	NX1105LWC	S80D26L	
Pregio Van Diesel	2003-On	NX1207LWC		S95D31LHD	

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY	
LADA						
Cabrioleet, Cevaro, Niva, Samara, Toro, Volante	1983-1995	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
LANCIA						
Most Models	1966-On	55457WC		S55457		
Gamma	1974-1985	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
LANDROVER						
110	Petrol & Diesel	1984-1989	2 x 22FR66WC	2 x 22FR530SMF	2 x S85B60R 2 x 22FR600SMF 2 x 22FR660SMF	
Defender	Petrol & Diesel	1984-1990	2 x 22FR66WC	2 x 22FR530SMF	2 x S85B60R 2 x 22FR600SMF 2 x 22FR660SMF	
		1992-1995	NX1207WC			
	TD 5 Diesel	1999-On			S31901MF	
	10 Extreme	2001-On	58827WC		S58515	
Diesel		1978-1984			S31901MF	
Discovery	Petrol	1991-1996	NS70WC	NX1105WC	S80D26R	
		1998-On			S31901MF	
	Diesel	1996-1998	NS70WC	NX1105WC	S80D26R	
Discovery & Defender	Diesel	1992-1996	2 x NX1105WC		2 x S80D26R	
Freelander	Petrol & Diesel	1998-On	56318WC 56330WC		S56318	
Landrover	Petrol	1977-1984	NX1207WC		S95D31RHD	
LEXUS						
ES300, ES300S, IS200, IS300	1990-On	55D23LWC		S55D23L	S70D23L	
GS300, LX470, LS430, 4WD, SC400	1997-On	NS70LWC	NX1105LWC	S80D26L		
LS400	1990-1999	NX1207LWC		S95D31LHD		
SC430	2001-On	56318WC		S56318		
LEYLAND						
Most Models	1970-On	N3854WC				
P76	1973-1975	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
LOTUS						
Eclat 522, Elan	1968-On	N3854WC				
Elise 111R Touring	2004-On	56318WC 56330WC		S56318		
MASERATI						
Most Models	1987-On	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
Quattroporte	2003-On	56318WC 56330WC		S56318		
Spyder	GT, Cambiocorsa	2001-On		S55458		
MAZDA						
121	121L	1976-1994	NS40ZLSWC	S40B20LS		
		1994-1995		S55B24LS		
	Metro	1996-1999		S50D20L		
	Revue	1996-1997	NS40ZLSWC	S40B20LS		
323		1977-1992	NS40ZLSWC	S40B20LS		
		1992-1994		S50D20L		
	Astina, Protegé	1994-1996	55D23LWC		S55D23L	S70D23L
		1996-2003			S50D20L	
	Astina	2003-On			S50D20L	
626	4 Cylinder	1978-1983	NS40ZLSWC	S40B20LS		
		1983-1987	NS40ZLSWC	S40B20LS		
		1987-1994	NS40ZLSWC	S40B20LS		

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
MAZDA					
626	4 Cylinder	2001-2002	55D23LWC		S55D23L S70D23L
	6 Cylinder	1992-1994	55D23LWC		S55D23L S70D23L
	Diesel	1984-1988	NS70LWC	NX1105LWC	S80D26L
1994-1999		55D23LWC		S55D23L	S70D23L
929	4 Cylinder	1973-1987	NS40ZLSWC		S40B20LS
	6 Cylinder	1987-1997	55D23LWC		S55D23L S70D23L
Capella	Capella RX2	1970-1976	22FR66WC		S85B60R 22FR600SMF 22FR660SMF
Eunos	500 V6	1993-1996	55D23LWC		S55D23L S70D23L
	800 V6	1993-1996	55D23LWC		S55D23L S70D23L
	30X V6	1992-1996	55D23LWC		S55D23L S70D23L
Mazda 2, 3		2003-2006			S50D20L
Mazda 2		2006-On	55D23LWC		S55D23L S70D23L
Mazda 3		2006-On			S50D20L
	Diesel	2006-On	NX1207LWC		S95D31LHD
Mazda 6, Wagon		2003-On			S50D20L
MPS 3		2006-On			S50D20L
MPS 6		2006-On	55D23LWC		S55D23L S70D23L
MPV		1993-1995	22FR66WC		22FR530SMF S85B60R 22FR600SMF 22FR660SMF
	4x4	1996-1997	55D23LWC		S55D23L S70D23L
		1998-On	55D23LWC		S55D23L S70D23L
	Including V6	2003-2004	55D23LWC		S55D23L S70D23L
MX6	4 Cylinder & Turbo	1987-1991	NS40ZLSWC		S40B20LS
	6 Cylinder	1990-On	55D23LWC		S55D23L S70D23L
Premacy		2003-On			S50D20L
Protegé		2003-On			S50D20L
RX3, RX4, RX5, RX7		1972-1995	22F66WC		22F530SMFDF 22F600SMFDF
RX7		1995-1998	55D23LWC		S55D23L S70D23L
RX8		2003-On			S50D20L
808 & 1600		1972-1976	NS40ZLSWC		S40B20LS
CX7		2007-On	55D23LWC		S55D23L S70D23L
CX9		2007-On	NX1105WC		S80D26R
B1600, B2200		1971-1988			S55D26R
B1800		1978-1982	NS40ZLSWC		S40B20LS
B2000, E1600		1982-1988	NS40ZSWC		S40B20RS
B2200 Diesel & E2000		1980-1995	NX1207WC		S95D31RHD
B2200	Petrol	1980-1995	NS40ZLSWC		S40B20LS
B Series	2500 Turbo Diesel	2003-On	NX1207WC		S95D31RHD
Bravo	Diesel	2006-On	NX1207WC		S95D31RHD
	V6	2006-On	55457WC		S55457
BT50		2007-On	NX1207WC		S95D31RHD
	Turbo Diesel	2007-On	NX1207WC		S95D31RHD
E1300, E1400, E1600		1978-1986	NS40ZLSWC		S40B20LS
E2000		1984-1995	NS40ZLWC		S40B20L
E2700, E3000		1974-1981	N120WC		SN120
E2200, B2200	Diesel	1980-1989	NX1207LWC		S95D31LHD
E Series	Petrol	2003-On	NS40ZLSWC		S40B20LS
SB 20		2003-On			S50D20L
Traveller		1983-1989	NS40ZLSWC		S40B20LS
		1995-1997	55D23LWC		S55D23L S70D23L
Tribute		2000-On	55D23LWC		S55D23L S70D23L
	V6	2003-On	55D23LWC		S55D23L S70D23L

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
MERCEDES					
180E, 190E, 190E 2.6, 230E, 250CE	1968-1995	56318WC 56330WC		S56318	
190D, 240D Diesel	1974-1986	58827WC		S58515	
260, 280CE, E, SE, SEL, TE	1974-1986	56318WC 56330WC		S56318	
300D, E, CE, GD, SE, SEL, 320, 380SEL, SL, SEC	1976-1996	58827WC		S58515	
400S, SE, 450S, SE, SEL, SLC	1973-1980	58827WC		S58515	
560SL, SEC, SEL, 600SEL	1986-1992	58827WC		S58515	
A160, A190	1999-On	56318WC 56330WC		S56318	
C180K, C200K, C240	1997-1998	56318WC 56330WC		S56318	
C200K, C40, C320	1994-On	56318WC 56330WC		S56318	
C220CDI	2001-On	58827WC		S58515	
CL500, CLK500, CL55AMG, CL600	1998-On	58827WC		S58515	
CLK200, CLK320	1998-1999	55457WC		S55457	
	2000-On	58827WC		S58515	
CLK240 Elegance, 240 Avantgarde	2004	56318WC 56330WC		S56318	S58515
C Class Petrol	2006-On	56318WC 56330WC		S56318	S58515
Diesel	2006-On	58827WC		S58515	
E200K, E240, E270, E320, E55AMG	2001-On	58827WC		S58515	
E220, E240, E320 (Under Seat)	1997-1998	58827WC		S58515	
E220, E280	1998-On	56318WC 56330WC		S56318	S58515
E500, Avantgarde, Elegance	2003-2004	58827WC		S58515	
S500L, S600L	1998-2000	58827WC		S58515	
S430, S500L, S600L	2001-On	58827WC		S58515	
SL280, SL500	1998-On	58827WC		S58515	
SL600	1998-On	56318WC 56330WC		S56318	S58515
SLK200K, SLK230, SLK320, SLK320AMG	2000-On	58827WC		S58515	
Smart Car	2006-On	55457WC		S55457	
ML270CDI, ML500 Luxury	2001-On	58827WC		S58515	
VITO	1998-On	56318WC 56330WC		S56318	
MG					
Midget	1968-1973	N3854WC			
MGF	1998-On	55457WC		S55457	
TF	2002-On	55457WC		S55457	
MG	2003-On	55457WC		S55457	
ZT 230	2003-On	55457WC		S55457	
MINI (BMW)					
All Models	2004-On	55457WC		S55457	
MITSUBISHI / CRYSLER (AUSTRALIA)					
380	2006-On	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
VRX	2006-On	55D23LWC		S55D23L	S70D23L
Centura 4 Cylinder	1975-1979	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
6 Cylinder	1975-1979	22F66WC		22F530SMFDF	22F600SMF
Chrysler Valiant	1971-1978	22F66WC		22F530SMFDF	22F600SMF
Colt	1981-1991	NS40ZSWC		S40B20RS	

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
MITSUBISHI / CRYSLER (AUSTRALIA)					
Colt	2007-On	55D23LWC		S55D23L	S70D23L
Cordia	1983-1989	NS40ZLSWC		S40B20LS	
Eclipse	1990-1995	NS40ZLSWC		S40B20LS	
Gallant	1971-1994	N3854WC			
4 Cylinder	1995	NS40ZLSWC		S40B20LS	
GSR 24 Valve	1994-On	55D23RWC		S55D23R	S70D23R
Grandis	V6	2004-2005	55D23RWC	S55D23R	S70D23R
		2006-2007	55D23LWC	S55D23L	S70D23L
Lancer	1971-1988	N3854WC			
	1989-2000	NS40ZLSWC		S40B20LS	
	2001-2003	NS40ZLSWC		S40B20LS	
	2005-On	55D23LWC		S55D23L	S70D23L
EVO	2007-On	55D23LWC		S55D23L	S70D23L
Magna	1985-On	N3854WC			
Elite, Advance, Solara, Altera, V6	1985-2003	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
VRX	2000-2003	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Verada	2003-On	55D23RWC		S55D23R	S70D23R
Mirage	1996-2003	NS40ZLSWC		S40B20LS	
	2006-2007			S55B24LS	
Nimbus	1984-1991	NS40ZLSWC		S40B20LS	
	1992-1995	N3854WC			
	1996-2003	NS40ZLSWC		S40B20LS	
Outlander	4X4	2003-2005	55D23LWC	S55D23L	S70D23R
		2006-2007	NX1105LWC	S80D26L	
Scorpion	1978-1980	N3854WC			
	1980-1985	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Sigma	1600, 1850	1977-1987	N3854WC		
	2000, 2600	1977-1987	22FR54WC	22FR66WC	22FR530SMF S85B60R 22FR600SMF 22FR660SMF
Starion		1982-1987	22FR54WC	22FR66WC	22FR530SMF S85B60R 22FR600SMF 22FR660SMF
Challenger	PA, 2000, 4X4	1998-2003	NS70WC	NX1105WC	S80D26R
Express, L200, L300	Petrol	1979-1987	NS40ZLSWC		S40B20LS
	Diesel	1979-On	NX1207WC		S95D31RHD
Express	Petrol	1998-On	NS40ZLSWC		S40B20LS
Pajero	Petrol	1983-1995	NS70WC	NX1105WC	S80D26R
		1999-2003	55D23LWC		S55D23L S70D23L
	Petrol, 3000, 3600	1997-1999	55D23LWC		S55D23L S70D23L
	V6	1996-On	NS70WC	NX1105WC	S80D26R
	V6 3500	1998-On	55D23LWC		S55D23L S70D23L
	Diesel	1983-1995	NS70WC	NX1105WC	S80D26R
		1996-2000	NS70LWC	NX1105LWC	S80D26L
		2001-On	NX1207LWC		S95D31LHD
	GLS Diesel	2003	NX1207LWC		S95D31LHD
Starwagon	2.0 L, 2.4 L	1985-1995	NS40ZLSWC		S40B20LS
	3.0 L	1994-On	NS70WC	NX1105WC	S80D26R
Triton		1987-1992	NS70WC	NX1105WC	S80D26R
		1993-On	22FR66WC		22FR530SMF S85B60R 22FR600SMF 22FR660SMF
	2.4 L Petrol	2003	55D23RWC		S55D23R S70D23R

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY	
MITSUBISHI / CRYSLER (AUSTRALIA)						
Triton	2.8 L Diesel	1996-On	NX1207WC		S95D31RHD	
	2.8 L Turbo Diesel	2003-On	NX1207WC		S95D31RHD	
	Petrol	2001-2002	55D23RWC		S55D23R S70D23R	
	V6	1996-2006	NS70WC	NX1105WC	S80D26R	
		2007-On	55D23LWC		S55D23L	S70D23L
3L Diesel	2006-2007	NX1207WC		S95D31RHD		
Verada	V6	1990-On	22FR66WC		22FR530SMF S85B60R 22FR600SMF 22FR660SMF	
NIKI						
All Models	1989-1994	55457WC		S55457		
NISSAN - DATSUN						
120Y, 1200	1967-1981	N3854WC				
1300, 1600, 180B, 200B	1967-1981	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
1800, 1900, 2000, 2300, 2400	1967-On	NS70WC	NX1105WC	S80D26R		
180SX	1988-On			S55B24L		
200SX	S14	1994-2000	55D23RWC	S55D23R	S70D23R	
	S15	2000-2002		S55B24R		
240, 260, 280, 300C	1967-On	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
300ZX	1984-On	NS70WC	NX1105WC	S80D26R		
350Z	2002-On	55D23LWC		S55D23L	S70D23L	
Bluebird, Stanza	1981-1986	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
Bluebird	SSS	1994-On	55D23LWC	S55D23L	S70D23L	
	V6, SGX, Turbo	1986-On	NS70WC	NX1105WC	S80D26R	
Dualis	4WD	2007-On	55457WC	S55457		
E20		1974-1980	NS70WC	NX1105WC	S80D26R	
EXA		1983-On	NS40ZLSWC	S40B20LS		
	Turbo	1983-On	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
Gazelle		1984-1988	NS40ZLSWC	S40B20LS		
Maxima		1994-On	55D23LWC	S55D23L	S70D23L	
Micra		1995-On		S55B24L		
Murano		2005-On	55D23LWC	S55D23L	S70D23L	
Nomad		1987-1993	NS40ZLSWC	S40B20LS		
NX Coupe		1991-1996	NS40ZLWC	S40B20L	S55B24L	
Pintara		1986-1989	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
		1989-1993	22F66WC	22F530SMFDF	22F600SMFDF	
Pulsar		1981-1994	NS40ZLSWC	S40B20LS		
	N15	1995-2000	NS40ZLSWC	S40B20LS		
	N16	2000-On	NS40ZLWC	S40B20L		
	N16E (Euro)	2000-On	55457WC	S55457		
	Vector	1986-1988	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	1989-On	NS40ZLSWC		S40B20LS		
Prairie		1983-1985		S55B24R		
Serena		1992-On	NS70WC	NX1105WC	S80D26R	
Skyline		1978-1990	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
Skyline		1990-On	NS40ZLWC	S40B20L		
Stanza		1978-1984	22FR54WC	22FR66WC	22FR530SMF S85B60R 22FR600SMF 22FR660SMF	

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
NISSAN - DATSUN					
Sunny, Sylvia	1967-1986	N3854WC			
Sylvia	1990-On	NS40ZLSWC		S40B20LS	
Tiida MR18	2006-On			S55B24L	
X-Trail	2001-On	55D23LWC		S55D23L	S70D23L
720	Petrol	1980-1985	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
	Diesel	1980-1985	NX1207WC	S95D31RHD	
Cab Star	Petrol, Cab All 1 & 2 Tonne	1971-1993		S55D26R	
	Diesel	1987-1992		SN100	
Navara	Petrol	1986-2005	55D23RWC	S55D23R	S70D23R
	Diesel	1986-2005	NX1207WC	S95D31RHD	
	Petrol & Diesel	2005-On	56318WC 56330WC	S56318	
Pathfinder		1988-1995	NS70WC	NX1105WC	S80D26R
		1995-2005	55D23RWC		S55D23R
		2005-On	56318WC 56330WC		S56318
Patrol	Petrol	1974-1989	NS70WC	NX1105WC	S80D26R
	Petrol & Diesel Y60 Series	1989-1999	NX1207LWC		S95D31LHD
	Non Turbo Petrol Y61 Series	1997-On	NS70LWC	NX1105LWC	S80D26L
	Turbo Petrol & Diesel Y61 Series	1997-On	NX1207LWC		S95D31LHD
	Diesel	1974-1989	NX1207WC		S95D31RHD
Terrano II	Petrol	1996-On	55457WC		S55457
	Diesel	1996-On	NX1207WC		S95D31RHD
Urvan	Petrol	1974-On	NS70WC	NX1105WC	S80D26R
	Diesel	1981-On	NX1207LWC		S95D31LHD
Vanette		1981-1993	NS40ZWC		S40B20R
		1993-On	NS40ZLSWC		S40B20LS
W40 Civilian Bus	1985-On	NS70WC	NX1105WC	S80D26R	
PEUGEOT					
205, 206 All Models	1987-On	55457WC		S55457	
207	2006-On	55457WC		S55457	
306 All Models	1997-On	55457WC		S55457	
307 All Models	1997-On	55457WC		S55457	
405		1989-1995	22FR54WC	22FR66WC	22FR530SMF
	SRDT	1996-On	56318WC 56330WC		S56318
406		1996-On	55457WC		S55457
	ST, SV, STDT	1996-On	56318WC 56330WC		S56318
407	Turbo	2006-On	56318WC 56330WC		S56318
504, 505	Petrol	1975-1976	22FR66WC		22FR530SMF
	GLD, Diesel & Turbo	1979-1989	NX1207WC		S95D31RHD
604, 605		1978-On	22FR66WC		22FR530SMF
607		2001-On	56318WC 56330WC		S56318
PORSCHE					
911	Most Models	1969-On	56318WC 56330WC		S56318
	GT2, GT3	2001-On	58827WC		S58515
924		1977-On	55457WC		S55457
928, 928C, 928S		1978-On	56318WC 56330WC		S56318

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY	
PORSCHE						
928 S4	1987-On	56318WC 56330WC		S56318		
944 All Models	1983-On	55457WC		S55457		
968	1992-On	55457WC		S55457		
Boxster	1997-On	56318WC 56330WC		S56318		
Cayenne	2003-On	58827WC		S58515		
PROTON						
Gen 2	2001-On			S55458		
Jumbuck	2003-On	55D23RWC		S55D23R	S70D23R	
	2006-2007			S55B24RS		
M21 Coupe	1997-On	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
Neo 1.6L	2006-2007	55457WC		S55457		
Persona GLi 1.3, 1.5, XLi	1996-On	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
Saga	1987-1989	NS40ZLSWC		S40B20LS		
Satria GL, GTi, XLi, XLS	1997-On	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
Waja	2001-On	55D23LWC		S55D23L	S70D23L	
Wira	1994-On	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
RANGE ROVER						
Range Rover Petrol	1974-1983	NX1207WC		S95D31RHD		
	1984-1995	NS70WC	NX1105WC	S80D26R		
	Diesel 4.0 L, 4.6 L	1990-1993	2 x NX1207WC		2 x S95D31RHD	
		1996-On			S31901MF	
RENAULT						
19	1993-On	55457WC		S55457		
14, Virage, 16, 16TL, 16TS, 17TL, 17TS, 18, 18GTS	1968-1983	N3854WC				
19RT, 19TXE, 21TSE, 21TXE, 25GTV, Fuego GTX	1982-1994	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
20TS	1979-1984	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF	
Clio, Laguna, Megane, Scenic, RX4	2001-On	55457WC		S55457		
Kangoo, Trafic	2005-On	56318WC 56330WC		S56318		
Master Diesel	2005-On	56318WC 56330WC		S56318	S58515	
ROLLS ROYCE						
Most Models	1955-1986	NX1207WC		S95D31RHD		
	1986-On	NS70WC	NX1105WC	S80D26R		
ROVER						
2000, 2000CT, 3.5	1965-1973	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
SD1-3500SE, Vanden Plas	1979-On	NS70WC	NX1105WC	S80D26R		
416i	1986-1987	N3854WC				
	1987-1989	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF	
825, 827, Quintet	1983-1992	N3854WC				
75	2001-On	56318WC 56330WC		S56318		
Series 2 SE	1983-On	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
SAAB						
Most Models	1972-1984	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
SAAB					
Most Models	1985-1994	55457WC		S55457	
900, 9000 Excluding V6	1994-On	55457WC		S55457	
2.5 V6	1995-On	55457WC		S55457	
9000 V6	1995-On	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
9-3	1997-On	55457WC		S55457	
9-5 S, SE	2001-On	56318WC 56330WC		S56318	
9-5 SE, Convertible	1998-On	56318WC 56330WC		S56318	
SEAT					
Most Models	1994-On	56318WC 56330WC		S56318	
SSANGYONG					
A200S		NX1207WC		S95D31RHD	
Korrando 4WD Petrol	1998-On	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Musso Diesel & Petrol	1996-On	NX1207WC		S95D31RHD	
Rexton	2006-On	NX1207WC		S95D31RHD	
Stavic SP270	2006-On	NX1207WC		S95D31RHD	
SUBARU					
1800 Series	1973-1990	NS40ZLWC		S40B20L	S55B24L
4WD Wagon	1983-1990	NS40ZLSWC		S40B20LS	
Brumby DL, 4WD	1983-1994	NS40ZLWC		S40B20L	S55B24L
Fiori	1989-1992	NS40ZLWC		S40B20L	
Forester	1997-2001			S50D20L	
	2002-On	55D23LWC		S55D23L	S70D23L
Impreza WRX, GX, LX, RX	1993-1999	NS40ZLWC		S40B20L	S55B24L
	2000-On			S55B24L	
	2004-On	NS40ZLWC		S40B20L	S55B24L
Leone, Liberty	1986-1995	NS40ZLWC		S40B20L	S55B24L
Liberty	2000-2003			S55B24L	
	Heritage	2000-On		S55B24L	
	2.0, 2.5	2004-On	NS40ZLWC	S40B20L	S55B24L
	GT, 3.0R, 3.0RB	2004-On	55D23LWC	S55D23L	S70D23L
Outback 4WD	1996-2003	NS40ZLWC		S40B20L	S55B24L
	2.5	2004-On	55D23LWC	S55D23L	S70D23L
	Wagon, Limited, H6	2001-On	55D23LWC	S55D23L	S70D23L
Sherpa	1983-1989	12N243WC			
	1989-On	NS40ZLWC		S40B20L	
SVX	1992-1995	22F54WC	22F66WC	22F530SMFDF	22F600SMFDF
Vortex	1987-1993	NS40ZLWC		S40B20L	
SUZUKI					
Alto	1983-On	NS40ZLSWC		S40B20LS	
Baleno	1995-On	NS40ZLWC		S40B20L	
Cino	1983-On	NS40ZWC		S40B20R	
Ignis	2000-On	NS40ZLWC		S40B20L	
Jimny	1999-On	NS40ZWC		S40B20R	
Liana	2000-On	NS40ZLWC		S40B20L	
Swift, Sierra	1983-2005	NS40ZWC		S40B20R	
Swift 4X4	2006-On			S55B24L	
Tribeca	2006-On	22F66WC		22F530SMF	S85B60L
Vitara	1986-1993	NS40ZWC		S40B20R	
	1994-1997	NS40ZLWC		S40B20L	S55B24L
	V6, GRAND	1998-2005	22F66WC	22F530SMFDF	22F600SMFDF
		2006-2007	55D23LWC	S55D23L	S70D23L

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
SUZUKI					
X90 TARGA	2000-On	NS40ZLWC		S40B20L	
Carry	1999-On	NS40ZLWC		S40B20L	
Hatch	1983-On	NS40ZWC		S40B20R	
Mighty Boy	1983-On	NS40ZLSWC		S40B20LS	
RT Wagon	1998-On	NS40ZWC		S40B20R	
LJ50, LJ80, LJ81, LJ80 FWD	1971-1982	NS40ZWC		S40B20R	
TATA					
Safari Turbo Diesel	2000-On	NX1207WC		S95D31RHD	
Telcoline 2.0 L Diesel 1 Tonne Ute	1996-On	NX1207WC		S95D31RHD	
TOYOTA					
Aurion	2000-On	55D23LWC		S55D23L	S70D23L
Avalon Conquest, Limited, Sorrento	2000-On	55D23LWC		S55D23L	S70D23L
Avante	1985-1987	NS40ZLSWC		S40B20LS	
Avensis	2003-On			S55B24LS	
Camry 4 Cylinder	1990-1992	NS40ZLSWC		S40B20LS	
SV20	1987-1992	NS40ZLSWC		S40B20LS	
SDV10, VDV10	1993-On	55D23LWC		S55D23L	S70D23L
VZV21 6 Cylinder	1988-On	55D23LWC		S55D23L	S70D23L
GLI	1983-1987	NS40ZLSWC		S40B20LS	
Conquest, SCI, 380N	1999-2005	55D23LWC		S55D23L	S70D23L
Conquest	2006-On			S55B24LS	
ACV36R, MCV36R Altise, Ateva, Sportivo	2002-On	55D23LWC		S55D23L	S70D23L
ACV40R Altise, Ateva, Sportivo	2006-On	55D23LWC		S55D23L	S70D23L
MCV36R Azura	2002-On	55D23LWC		S55D23L	S70D23L
Vienta	1993-On	55D23LWC		S55D23L	S70D23L
Celica	2000-On	N3854WC			
AWD GT4 Turbo	1990-On	NX1207WC		S95D31RHD	
ST184	1972-1991	N3854WC			
ST184, ST185	1991-On	55D23LWC		S55D23L	S70D23L
SX	1989-1998	NS40ZLSWC		S40B20LS	
	1999-On			S55B24RS	
Corolla	1974-1982	N3854WC			
1300, CS, CSX, S, SE	1983-1989	NS40ZLSWC		S40B20LS	
AE90, AE93, AE95	1990-On	NS40ZLSWC		S40B20LS	
AE92, AE94, AE96, AE101, AE102	1990-On	N3854WC			
AE112	1998-2001	N38L54WC			
ZZE122	2001-On	NS40ZLWC		S40B20L	
ZZE123	2003-2005	NS40ZLWC		S40B20L	
Ascent, Conquest, Levin	1999-2000	NS40ZLSWC		S40B20LS	
Ascent	2001-On	NS40ZWC		S40B20R	
Seca AE82	1985-1989	NS40ZLSWC		S40B20LS	
Seca AE92, AE94, AE96, AE101, AE102	1989-On	N3854WC			
Seca AE112	2000-On	NS40ZLSWC		S40B20LS	
Corona	1972-1983	N3854WC			
	1984-1987	NS40ZLSWC		S40B20LS	
Cressida	1977-1982	N3854WC			
	1983-1994	55D23LWC		S55D23L	S70D23L
Crown	1971-1983	NS70WC	NX1105WC	S80D26R	
Royal	1983-1988	NS70LWC	NX1105LWC	S80D26L	
Echo	1999-2000	NS40ZLSWC		S40B20LS	
	2001-On	NS40ZSWC		S40B20RS	
Kluger	2004-On	55D23LWC		S55D23L	S70D23L
Landcruiser Petrol	1987-1990	NS70WC	NX1105WC	S80D26R	
Fj70, HZJ70, PZJ70, FZJ75, FJ80, HZJ80 Petrol & Diesel	1989-On	NX1207WC		S95D31RHD	

MAKE AND MODEL		YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY	
TOYOTA							
Landcruiser	100 Series Petrol	1998-On	NS70LWC	NX1105LWC	S80D26L		
	100 Series Diesel	1996-On	NX1207LWC		S95D31LHD		
	GXL Petrol	1999-On	NS70LWC	NX1105LWC	S80D26L		
	HDJ80, HZJ80, FZJ80	1990-On	NX1207LWC		S95D31LHD		
	RJ70, FZJ105	1990-On	NS70LWC	NX1105LWC	S80D26L		
	4.2 L Diesel Troop Carrier		1999-2005	NX1207WC		S95D31RHD	
			2006-On	NX1207WC must fit drain tube		S95D31RHD must fit drain tube	
V8 Diesel	2006-On	NX1207WC must fit drain tube		S95D31RHD must fit drain tube			
Lexen		1989-On	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
MR2 SW20		1993-On			S55B24LS		
Paseo	EL44R	1983-On	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
		1999-On	55D23RWC		S55D23R	S70D23R	
Prado	4 & 6 Cylinder	1996-On	NS70LWC	NX1105LWC	S80D26L		
	Diesel	2001-On	NX1207WC		S95D31RHD		
	2.7 L	2003-On	NS70LWC	NX1105LWC	S80D26L		
Prius		2001-On	NS40ZLWC		S40B20L		
Rav4		1995-1998			S55B24RS		
	Cruiser	1999-On			S55B24RS		
	Extreme	2003-On	NS40ZSWC		S40B20RS		
Spacia	SR4CR	1998-On	NS40ZWC		S40B20R		
Starlet		1996-On	NS40ZSWC		S40B20RS		
Supra	MA70	1983-1988	NS70LWC	NX1105LWC	S80D26L		
	MA70 Non Turbo	1988-On	55D23LWC		S55D23L	S70D23L	
	MA70 Turbo	1988-On	NX1207WC		S95D31RHD		
Surf	Petrol	1990-On	NS70WC	NX1105WC	S80D26R		
	Diesel	1990-On	NX1207WC		S95D31RHD		
T18	SE Deluxe	1983-On	NS40ZSWC		S40B20RS		
Tarago	Petrol	1983-1990	NS40ZSWC		S40B20RS		
	4WD Diesel	1985-1990	NX1207WC		S95D31RHD		
	4WD Petrol, TCR10, TCR11, TCR20, TCR21	1990-On	55D23LWC		S55D23L	S70D23L	
	ACR50R Series 2	2006-On	55D23LWC		S55D23L	S70D23L	
Tercel	SR5	1983-1988			S55B24RS		
Yaris	1.3 L, 1.5 L	2005-2006			S55B24L		
4Runner	Petrol YN60, 63	1987-1992	NS40ZSWC		S40B20RS		
	Diesel	1984-1993	NS70WC	NX1105WC	S80D26R		
Bundera	Petrol	1985-1991	NS70WC	NX1105WC	S80D26R		
	Diesel	1985-1991	NX1207WC		S95D31RHD		
HiAce	Petrol	1984-1996	NS70WC	NX1105WC	S80D26R		
	Petrol LH103, 113, 125	2000-On	55D23RWC		S55D23R	S70D23R	
	Diesel LH103, 113, 125	1989-2000	NX1207WC		S95D31RHD		
	2.7 L TRH201	2005-On	55D23RWC		S55D23R	S70D23R	
HiLux	Diesel, LN85, 86, LN106, 111, 130	1989-On	NX1207WC		S95D31RHD		
	RN85, RN105, 106, 110	1989-On	NS70WC	NX1105WC	S80D26R		
	2.7 L	1998-On	55D23LWC		S55D23L	S70D23L	
	3.0 L Diesel	1999-On	NX1207WC		S95D31RHD		
	4.0 L	2005-On	NX1207LWC		S95D31LHD		
Lite Ace	CM36	1989-On	NS70WC	NX1105WC	S80D26R		
Town Ace	YR39	1992-On	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF	
	KR42	1997-On	NS40ZSWC		S40B20RS		

MAKE AND MODEL	YEAR	LMA	LMA HEAVY DUTY	SMF	SMF HEAVY DUTY
TRIUMPH					
2500S, TC, Dolomite, Sprint, 2000	1964-1978	N3854WC			
Stag, Herald, Spitfire, TR2-TR7	1954-1982	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
VOLKSWAGON					
Beetle	Petrol	1999-On	55457WC		S55457
	Diesel	1999-On	56318WC 56330WC		S56318
Bora	1999-On	55457WC		S55457	
Caravelle	1982-1997	55457WC		S55457	
	1998-On	56318WC 56330WC		S56318	
Golf	All Petrol Models	1975-On	55457WC		S55457
	All Diesel Models	1978-On	56318WC 56330WC		S56318
Kombi, Microbus	1974-1987	22FR66WC		22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Passat	Petrol	1974-1999	55457WC		S55457
	Diesel	1975-1983	56318WC 56330WC		S56318
	V6, 1.8T	2000-On	56318WC 56330WC		S56318
Polo	1998-On	55457WC		S55457	
Touareg	2003-On	58827WC		S58515	
VR6	1999-On	55457WC		S55457	
Transporter	1997-2003	55457WC		S55457	
	2004-On	56318WC 56330WC		S56318	
VOLVO					
1800, 142, 144, 145, 164	1962-1975	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
240, 242, 244, 245	1975-1986	56318WC 56330WC		S56318	
240, 242, 244, 245	1986-1991	22FR54WC	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
260	1975-1986	NS70WC	NX1105WC	S80D26R	
360	1984-1987	55457WC		S55457	
440	1993-1995	55457WC		S55457	
740, 850, 940	1985-1997	55457WC		S55457	
760, 960	1983-1995	55457WC		S55457	
C70		2001-On	56318WC 56330WC		S56318
	Coupe	1996-On	55457WC		S55457
S40	1996-On	55457WC		S55457	
S60	2000-On	56318WC 56330WC		S56318	
S70	1996-On	55457WC		S55457	
S80 Coupe, S90	1997-On	56318WC 56330WC		S56318	
V40	1996-On	55457WC		S55457	
V70		1997-On	56318WC 56330WC		S56318
	Cross Country	2000-On	56318WC 56330WC		S56318
XC90	Petrol	2003-On	56318WC 56330WC		S56318
	Diesel	2003-On	56318WC 56330WC		S56318 S58515



Trucks, Tractors & Industrial battery application listing

Information in this application listing section has been compiled from data published from Original Equipment Manufacturers and other parties. This data may change from time to time and ACDelco is unable to warrant the accuracy of this data and does not accept responsibility for loss or damage of any kind caused as a result of such data being inaccurate.

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
ACREMASTER				
WD Tractor 403, 405 Mercedes Engine	2		S31901MF	
ADRIENS				
Lawn Mower 2001 On Under Bonnet		12N244WC		
ALBION				
Most Models	2	NX1207WC	S75D31R	S95D31RHD
ALLIS CHALMERS				
Crawler-A.C. Engine HD21	2	N200WC	SN200	
Crawler-New Series DH19, HD20	2	N200WC	SN200	
Crawler-New Series HD15, GM Engines	2	N200WC	SN200	
Industrial Tractors-10B	2		S58515	
Industrial Tractors-16G	1	N150WC	SN150	
Industrial Tractors-460, T560, T650	1	N200WC	SN200	
Industrial Tractors-6E, 6EP, 7G	1	N150WC	SN150	
Industrial Tractors-HD 6A, 6B	1	N150WC	SN150	
Industrial Tractors-N5 Header	1	NX1207WC	S75D31R	S95D31RHD
Industrial Tractors-T160, 200, 260, 360	1	N200WC	SN200	
Industrial Tractors-TL-10D, 12D, 14G	1	N150WC	SN150	
Industrial Tractors-TL-16D, 20D, 30D	2	N150WC	SN150	
Industrial Tractors-TL400	1	N200WC	SN200	
Motor Graders-All except D & DD	2	N200WC	SN200	
Wheel-D15, D17, Dig, D270, D270D	1	NX1207WC	S75D31R	S95D31RHD
ARBOS				
Header	1	N200WC	SN200	
ARPIC COMPRESSOR				
185 PD-160	1	N200WC	SN200	
ATKINSON				
F4870	4		S75D31R	S95D31RHD
ATLAS COPCO				
DT5	2	NX1207WC	S75D31R	S95D31RHD
Pr365 RR	4	NX1207WC	S75D31R	S95D31RHD
PR600, CUD, PR600, RR, PR600 D/D	4	NX1207WC	S75D31R	S95D31RHD
VT5DD	2		S58515	
VT6DD, PR365	2	N120WC	SN120	
XAS120, XAS160 Deutz	2		S1111	S1150 S31901MF
AVELING BARFORD				
Dumpers-SA Perkins	2	N200WC	SN200	
Dumpers-SR	2	NX1105WC	S55D26R	S80D26R
Grader-ASGO1 2	2	NX1207WC	S75D31R	S95D31RHD
Grader-LG	2	N200WC	SN200	
Grader-MG	2	NX1105WC	S55D26R	S80D26R
Rollers-CC Ford, GCU	2	N150WC	SN150	
Rollers-GD, SA Perkins	2	N200WC	SN200	

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
BEDFORD				
Bedford / Isuzu	2	N150WC	SN150	
CAL Van Series, CF250	1	22F66WC	22F530SMFDF	S85B60L
CFS, CFL Series, HRE, HAV, Handivan	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
D1, D3, D5 Series	1	NX1207WC	S75D31R	S95D31RHD
KGLC3, KGM3, KGT3	1	NX1207WC	S75D31R	S95D31RHD
MJR(2BCO), (M1120)	1		S1111	S1150 S31901MF
TJ3, TK3, RLH, C3, S3	1	NX1105WC	S55D26R	S80D26R
BELARUS				
1500	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
7000, 7010, 7910, DON 1500, 1770	2	N200WC	SN200	
BOBCAT				
592 (2002 On)	2		S95D31RHD	
920 (2002 On)	2		S95D31RHD	
952 (2002 On)	1		S31901MF	
1025 (2002 On)	2		S31901MF	
610, 632	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
643, 743, 843	1	NX1207WC	S75D31R	S95D31RHD
N155	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
BOLANS				
Lawn Mower Pre 1998	1	12N244WC		
BRISTOL TRACTOR				
20-22, 25PC, 25VC	1	NX1207WC	S75D31R	S95D31RHD
25D	1	NX1207WC	S75D31R	S95D31RHD
BRISTAND				
Model 60 Grader	1	N150WC	SN150	
BROOMWADE				
SV398, WR250 Leyland	1		S58515	
WR120, Ford	1	NX1207WC	S75D31R	S95D31RHD
WR85, 100, 160	1	NX1207WC	S75D31R	S95D31RHD
CASE J I				
Agricultural-870, 970, 1070, 1200, 1470	2		S1111	S1150 S31901MF
Agricultural-1010, 1660 Combine Petrol	2	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Agricultural-1030	2		S58515	
Agricultural-1640, 2096, 7120, 9130	2		S1111	S1150 S31901MF
Agricultural-585, 885XL, 2140	1		S1111	S1150 S31901MF
Agricultural-600, 660, 900, 960	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Industrial-Bobcat Perkins	1	NX1207WC	S75D31R	S95D31RHD
Industrial-1150 Crawler, 1550 Dozer	2		S1111	S1150 S31901MF
Industrial-1526, 1530, 1537	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Industrial-2290	2		S1111	S1150 S31901MF
Industrial-350 Crawler	2	NX1207WC	S75D31R	S95D31RHD
Industrial-450 Angle Dozer & Loader	1	N150WC	SN150	

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
CASE J I				
Industrial-580 Front End Loader	1		S1111	S1150 S31901MF
Industrial-Trencher TF100	1		S1111	S1150 S31901MF
Industrial-Trencher TF1000	2		S1111	S1150 S31901MF
Industrial-W12 Terra Loader	2		S1111	S1150 S31901MF
Industrial-W24, W26	2	N150WC	SN150	
Industrial-W5 Terra Loader	1		S58515	
Industrial-W7, 8, 9, 10 F.R. Loader	2		S1111	S1150 S31901MF
CASE I H				
766, 866, 976 Tractors	1		SN120	
786, 886, 986 Tractors	2		S95D31RHD	
4240 Tractor	1		S31901MF	
7110, 72220, 8940 Tractors	2		S31901MF	
9250 4WD, 9350 4WD Tractors	3		S31901MF	
1420, 1440, 1460 Headers	2		S95D31RHD	
1480 Header	2		S31901MF	
1620, 1640, 1660, 1666 Headers	2		S95D31RHD	
1680 Header	2		S31901MF	
CATERPILLAR				
2166, 2188, 2366, 2388 Headers	2		S31901MF	
12 Grader 17K Series	2		S1111	S1150 S31901MF
140G 14 Graders	2	N150WC	SN150	
621, 631, 641, 651, 657, 769	2	N200WC	SN200	
722, 773, 980, 988	2	N200WC	SN200	
922 Traxcavator, Jap., 950	2	N150WC	SN150	
966 Traxcavator, Jap.	2	N150WC	SN150	
977, D6C, D6B, 57A Direct Electric Start	2	N150WC	SN150	
992	4	N200WC	SN200	
ALL 600 Range Scrapers	1	N150WC	SN150	
D4, D5, 922, 950, 955, 966	2	N150WC	SN150	
D4C 10hp	2	NX1207WC	S75D31R	S95D31RHD
D6B Petrol Start	1		S1111	S1150 S31901MF
D7, D8, D9 Direct Electric Start	2	N200WC	SN200	
G140 Grader, 55F Series, IT28B	2		S1111	S1150 S31901MF
MT565, MT665 Cat - front wheel assist	2		S31901MF	
55, 75, 85, 95 Cat Challenger - rubber trac	2		S31901MF	
Cat Lexion Header	1		SN150	
CHAMBLAIN				
306 / 354 / C670 / C6100 Tractor	2		S95D31RHD	
3380 / 1080 / 4280 / 4480	2		S95D31RHD	
CLAAS				
Dominator 105 (OM360 Mercedes)	1	N150WC	SN150	
Dominator 68S, 98SL, 88S	1	N120WC	SN120	
CLARK FORKLIFT				
C500 Series (HY) 40 55		Diesel	S1111	S1150 S31901MF
		Petrol	NX1105WC	S55D26R S80D26R
C500 Series Y60 (173 Motor)	1	NX1105WC	S55D26R	S80D26R
C500 Series Y80	1	N150WC	SN150	

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
CLARK FORKLIFT				
C500 Series Y80 Petrol	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
CF20,CF25,CY260,CY250	1	NS40ZWC	S40B20R	
Clark Lift 4000 & 5000lb Perkins P3	1	NX1207WC	S75D31R	S95D31RHD
Clarkton	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
CY400	1	N200WC	SN200	
CY80, CFY80, C60, C70	1	NX1105WC	S55D26R	S80D26R
Van Carrier	2	N200WC	SN200	
Yard Lift & Utilitrac 60, 6000	1	N150WC	SN150	
Yard Lift & Utilitrac 7000lb Ford Diesel	1	N150WC	SN150	
Yard Lift 40, 4000lb Holden 12 Volt	1	NX1207WC	S75D31R	S95D31RHD
CLETRAC				
DD	1	N150WC	SN150	
FD	1	N200WC	SN200	
COCKSHUTT				
Combines 12 Volt All Models	1		22FR350SMF	S85B60R 22FR600SMF 22FR660SMF
COLES CRANES				
H171 Diesel	1	N200WC	SN200	
CONVEYANCER FORKLIFT				
D4-24, TC4-24, TC5-24, TC6-24	1	NX1207WC	S75D31R	S95D31RHD
G4-24, MKN, MIB Petrol	1	NX1207WC	S75D31R	S95D31RHD
M2 Petrol & M16 Diesel	1	NX1207WC	S75D31R	S95D31RHD
PW4, PW5, PW6, PW8	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
TC7-24, TC6 & 7 Yard Model	1	NX1207WC	S75D31R	S95D31RHD
COUNTAX				
Lawn Mower Under Bonnet	1	12N244WC		
COX				
Lawn Mower - 2001 On Under Bonnet		12N244WC		
D.A.F.				
2300, 2800, 3300, 3600, FTT3300	2	N150WC	SN150	
FT2426, 2526	2	N150WC	SN150	
DAEDONG				
Tractors with Top Hold Down Clamps	2		S70D23L	
DATSUN FORKLIFT				
CF, FO, GFO, FD, PF, GF, QF, PFG, QGF Series	1	NX1105WC	S55D26R	S80D26R
DAVID BROWN				
1410, 1412 Diesel	1		S1111	S1150 S31901MF
770, 780, 880, 900, 990 Diesel	1		S1111	S1150 S31901MF
885, 995, 1200, 1212	1		S1111	S1150 S31901MF
Series 2 880, 990	1	N150WC	SN150	
DEUTZ				
35, 277, D4006, D5006, D6006	1	NX1207WC	S75D31R	S95D31RHD
9170, R50	2		S1111	S1150 S31901MF
D3006	1		S58515	S1150 S31901MF
D50	2		S75D31R	S1150 S31901MF

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
DEUTZ				
D7006, D8006, D1006, D13003	1		S1111	S1150 S31901MF
DX4.51, DX3.65, DX6.30	1	N150WC	SN150	
DODGE				
D3F, D5N	1	6 & 8 Cylinder Petrol	22FR66WC 22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
D5N	1	6 Cylinder Diesel	S75D31R	S95D31RHD
	1	8 Cylinder Diesel	S1111	S1150 S31901MF
DRM.CO				
Grader	2	N200WC	SN200	
EUCLID				
Earthmoving Dump Trucks	1	N200WC	SN200	
With Air Start	2	N150WC	SN150	
FABTEK (AIR LIFT PLATFORMS)				
M30	2		S1111	S1150 S31901MF
T30	1		S1111	S1150 S31901MF
V30, V36	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
FENDT				
240S, 250S / SA	1		S58515	
260S / SA, 275SA	1		S58515	
307LSA	1		S58515	
308LSA, 311LSA, 312LSA, 614LSA	1	N150WC	SN150	
310LSA 1	1	N120WC	SN120	
924, 926	2		S31901MF	
Farmer 200 Tool Carrier 300 Series	1		S58515	
Farmer 200 V, P & S Series	1		S58515	
Farmer 410	2		S31901MF	
Favorit 714	2		S31901MF	
Favorit 800 Series	2		S58515	
FIAT				
Crawlers-40CAFL4, 311C, 411C	1	NX1207WC	S75D31R	S95D31RHD
Crawlers-411C1, 60C1, (AUX ENG), 70C1 / 204	1	NX1207WC	S75D31R	S95D31RHD
Crawlers-50C1, 40C1	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Crawlers-70C1 / 205, 80C1	2		S1111	S1150 S31901MF
Crawlers-AB, BD, FL10, AD, BD	2	N150WC	SN150	
Crawlers-FL, 60C1 (Battery start)	2		S58515	
Crawlers-FL14AD12 (24 Volt), 555, KL10	2	N150WC	SN150	
Wheel Tractors-100-90 & DT Models	1	NX1207WC	S75D31R	S95D31RHD
Wheel Tractors-1000, 1000DT, 1000 Super	1	N150WC	SN150	
Wheel Tractors-130-90	1	N150WC	SN150	
Wheel Tractors-1300 Super, 115-90	1	N150WC	SN150	
Wheel Tractors-1380, 1580, 1880	1	N150WC	SN150	
Wheel Tractors-160 90, 180 90, 1180	1	N150WC	SN150	
Wheel Tractors-211RB, Laverda 3500	1	NX1207WC	S75D31R	S95D31RHD
Wheel Tractors-300, 450, 466 & DT	1		S1111	S1150 S31901MF
Wheel Tractors-411RB, 415, 422RB, 513R	2	NX1207WC	S75D31R	S95D31RHD
Wheel Tractors-4566, 5066	1		S58515	

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
FIAT				
Wheel Tractors-550, 600, 600DT, 600S	1	N150WC	SN150	
Wheel Tractors-566, 666, 766, 66 Series	1	N150WC	SN150	
Wheel Tractors-615, 650, 650S, 750, 750S	1	N150WC	SN150	
Wheel Tractors-70-90, 80-90, 90-90	1	NX1207WC	S75D31R	S95D31RHD
Wheel Tractors-780DT, 880, 880DT, 1180	1	N150WC	SN150	
Wheel Tractors-80R	2		S1111	S1150 S31901MF
Wheel Tractors-90 Series	1	N150WC	SN150	
Wheel Tractors-900	1	N200WC	SN200	
Wheel Tractors-DT Models	1	N150WC	SN150	
FORD COMMERCIAL				
D Series All petrol	1	22F66WC	22F530SMFDF	22F600SMFDF
F100, F150, F250, F350, F500, F600	1	22F66WC	22F530SMFDF	22F600SMFDF
F700, F750	1	22F66WC	22F530SMFDF	22F600SMFDF
F800	1	NX1207WC	S75D31R	S95D31RHD
LN700, LN900	1	NX1207WC	S75D31R	S95D31RHD
LN9000, LNT9000, LTL9000	2	N200WC	SN200	
Louisville	2	NX1207WC	S75D31R	S95D31RHD
Louisville 9000, LNT8000	4	NX1207WC	S75D31R	S95D31RHD
Louisville LN7000, LN8000	1	N200WC	SN200	
Trader 4 Cylinder Diesel 12V	1	N120WC	SN120	
6 Cylinder Diesel 24V		NX1105WC NX1207WC	S80D26R	S95D31RHD
			S55D26R	S75D31R
Trader 0409 Diesel	2	NX1105WC	S55D26R	S80D26R
FORD NEW HOLLAND				
Refer New Holland				
FORDSON				
1210	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
1520, 1910, 2100	1		S1111	S1150 S31901MF
1710	1	NX1207WC	S75D31R	S95D31RHD
2000, 3000	1		S58515	
276	1		S1111	S1150 S31901MF
876	3		S1111	S1150 S31901MF
TR Series	2		S1111	S1150 S31901MF
TX34	2	56318WC 56330WC	S56318	
FOWLER				
Challenger Mk111	1	NX1207WC	S75D31R	S95D31RHD
Challenger & Tractor (Meadows Engine)	2	N150WC	SN150	
GALION				
Road Grader Series 118	2	N200WC	SN200	
HANOMAG				
22C, 33C, 400C	1		S1111	S1150 S31901MF
45 Std	1	NX1207WC	S75D31R	S95D31RHD
D600D, L600D, Crawlers	1	N150WC	SN150	
R28	1	N150WC	SN150	
R40 Diesel, K55 Commer, K55E Commer	1	NX1207WC	S75D31R	S95D31RHD
HINIMOTO				
2 Cylinder Diesel	1	NX1207WC	S75D31R	S95D31RHD

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
HINO				
AC, BXN, FS270, GS221, RK, RR	2	N120WC	SN120	
GD, FC, FD, FF, KL, KL300, KL300E	2	NX1105WC	S55D26R	S80D26R
KL300, KL300E, KR360, KR360E	2	NX1207WC	S75D31R	S95D31RHD
LB500, LB560	2	NX1207WC	S75D31R	S95D31RHD
HOLMAN COMPRESSORS				
AT8D	1	55457WC	S54519	S55457
HUSQVARNA				
Lawn Mowers 2000 On Under Bonnet	1	12N243WC		
HYSTER FORKLIFT				
H110-130-150F	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
H165-250E Diesel, H300A, M500-600H	1	N120WC	SN120	
H165-250E Petrol, P125-180A		22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
H20-30E Diesel, P40-50A	1		S1111	S1150 S31901MF
H360-620B, H700-800A	1	N200WC	SN200	
H40-50-60H Diesel, H60-70-80H Petrol	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
INGERSOLL-RAND				
DR210, 250, 315, 365, 600, GR600	2	N120WC	SN120	
GRA-GRB 125 (1958 - 65)	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
IKQ415 (1952 - 65)	2	N120WC	SN120	
INTERNATIONAL				
ACCO 1630, 1650, 1810D	2	22F66WC	22F530SMFDF	22F600SMFDF
ACCO 2250	3	NX1207WC	S75D31R	S95D31RHD
ACCO All Models 1850 - 2650, 2670	2 to 4	NX1207WC	S75D31R	S95D31RHD
ACCO-A Cummins Engine, 3072 Eagle	4	NX1207WC	S75D31R	S95D31RHD
Cotton Pickers-622	1	N150WC	SN150	
Crawler & Loader-TD20C / 250CL	1	N120WC	SN120	
Crawler & Loader-TD20E, TD25C	2	N200WC	SN200	
Crawler & Loader-TD25B, TD30	2	N200WC	SN200	
Harvesters-275, 711	1	N120WC	SN120	
Harvesters-403, 503, 175	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Haulers / Scrapers-295B, E295B, 350, 340	2	N200WC	SN200	
Haulers / Scrapers-PH95, PH100, PH180	2	N200WC	SN200	
N1630, N1650	2	NX1207WC	S75D31R	S95D31RHD
Pay Loader / Loggers-3200B, 3300B	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Pay Loader / Loggers-D500	4	N200WC	SN200	
Pay Loader / Loggers-H400	4	N150WC	SN150	
Pay Loader / Loggers-H80A, H80B, FH65C	2	N120WC	SN120	
Pay Loader / Loggers-H90E	2	N200WC	SN200	
Pay Loader / Loggers-S7B, S7C, S9B	2		S1111	S1150 S31901MF
Power Units-AU264	1	NX1207WC	S75D31R	S95D31RHD
Power Units-UDT429, UDT573	2	N150WC	SN150	
Power Units-UDT817, UD817	2	N200WC	SN200	
S Line 2670, T Line, TF Line	3 or 4	NX1207WC	S75D31R	S95D31RHD
Scout, Terra, Traveller, Traveltop	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
INTERNATIONAL				
TF Line	4	NX1207WC	S75D31R	S95D31RHD
TK Line	3	NX1207WC	S75D31R	S95D31RHD
Two Wheel Drive Loaders-3434	1		S1111	S1150 S31901MF
Wheel Tractors-404, 414, 454, 484, 844	1		S1111	S1150 S31901MF
Wheel Tractors-5541	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Wheel Tractors-624	1	N150WC	SN150	
ISEKI				
4010, TS350	1		S58515	
4270, 4320, 4370, 4410, 4450	1	N120WC	SN120	
5000, 6000, 7000, 9000, SX95	1	N120WC	SN120	
T6500	2	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
TS, SX75, 4510	1		S1111	S1150 S31901MF
ISUZU				
CVR162TR, CXG166TR, CXY165	2	N150WC	SN150	
CXH16V	1	N150WC	SN150	
FSR12HRA	1	NX1105WC	S55D26R	S80D26R
FTR11LTA	1	NX1105WC	S55D26R	S80D26R
FTS700, FZV, NRP	2	NX1105WC	S55D26R	S80D26R
FUM1400, FUZ1400, FSS500, FTR800	1	NX1105WC	S55D26R	S80D26R
FUR12N, FUR11N, FS650, 450, 500	1	NX1105WC	S55D26R	S80D26R
FUR900, FST500	1	NX1105WC	S55D26R	S80D26R
JCR360, 420, 500	2	NX1105WC	S55D26R	S80D26R
JCS420, SCR370, 480, 480B, TSD45, TWD45	2	NX1105WC	S55D26R	S80D26R
NKR150, 200, 250, NPR200, 300, 400	2	NX1105WC	S55D26R	S80D26R
SBR372, 422	2	NX1105WC	S55D26R	S80D26R
JOHN DEERE				
1020, 1120, 2020, 2120, 2030, 2130	2	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
4840	2	22F66WC	22F530SMFDF	22F600SMFDF
Combine Harvester-1085	1		S58515	
Combine Harvester-40, 45, 55	2	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Combine Harvester-4400, 6600	1	N150WC	SN150	
Combine Harvester-4420, 6620, 7720, 8820	2	NX1105WC	S55D26R	S80D26R
Combine Harvester-5730	2	NX1207WC	S75D31R	S95D31RHD
Combine Harvester-5830 Self-Propelled	2	NX1207WC	S75D31R	S95D31RHD
Combine Harvester-6000 Hi-Cycle	1	NX1105WC	S55D26R	S80D26R
Combine Harvester-630,955,975,1065,1075	1		S1111	S1150 S31901MF
Combine Harvester-7700 Diesel	1	N150WC	SN150	
Combine Harvester-9400, 9500, 9600	2	NX1105WC	S55D26R	S80D26R
Cotton Pickers-9900	1	NX1105WC	S55D26R	S80D26R
Cotton Pickers-9910, 9920, 7440	1		S1111	S1150 S31901MF
Cotton Pickers-9930, 9940, 9960	1	NX1207WC	S75D31R	S95D31RHD
Cotton Strippers-484 (to 1976)	1	NX1207WC	S75D31R	S95D31RHD
Cotton Strippers-484 (1976 - 77)	1	NX1105WC	S55D26R	S80D26R
Cotton Strippers-484 (1978 - on)	1	NX1207WC	S75D31R	S95D31RHD
Cotton Strippers-7445	1	NX1207WC	S75D31R	S95D31RHD

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
JOHN DEERE				
Headers 9500, 9600, 9650	2		S31901MF	
Headers CTS Range	2		S31901MF	
Headers STS Range	2		S31901MF	
Japanese Tractors-850, 950, 1050	1		S1111	S1150 S31901MF
JD2040S2	1	N120WC	SN120	
JD300, 400, 400A, JD440 Skidder	2	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
JD350,450,3120,3130,1010,2010	2		S1111	S1150 S31901MF
JD540, 740 Skidder	2		S1111	S1150 S31901MF
JD544 & 644 Wheel Loader	2		S1111	S1150 S31901MF
JD780 Windrower	2	NX1105WC	S55D26R	S80D26R
JD860 Scraper	2	N120WC	SN120	
Ride on Mowers	1	12N244WC		
SP105, 670	2		S1111	S1150 S31901MF
Tractors-1040, 1140, 1640, 2040S, 2140	2	NX1207WC	S75D31R	S95D31RHD
Tractors-1750, 1850, 2345F	1		S58515	
Tractors-2250, 2450, 2650	2	55457WC	S55457	
Tractors-2850	2		S54519	
Tractors-3140, 3350	2		S58515	
Tractors-3650, 4055, 4255, 4455, 4555	2		S1111	S1150 S31901MF
Tractors-4440, 4640, 4755	2		S31901MF	
Tractors-5310, 5510, 5520	1		S31901MF	
Tractors-7820, 8300, 8320, 8420, 8520	2		S31901MF	
Tractors-8560, 9500	2		S1111	S1150 S31901MF
Tractors-8850	3	NX1105WC	S55D26R	S80D26R
Tractors-8960	3	NX1207WC	S75D31R	S95D31RHD
Tractors 4WD-9120, 9420, 9520	3		S31901MF	
Tractors-9400	3		S31901MF	
JONES MOBILE CRANES				
550	2		S1111	S1150 S31901MF
K.L. (KELLY & LEWIS)				
M40, N40, P48, S55	1	N150WC	SN150	
KENWORTH				
All other models excluding C500, K120, K140, L700 & W900	4	NX1207WC	S75D31R	S95D31RHD
L170	2		S1111	S1150 S31901MF
T400, T450, L700A	3		S1111	S1150 S31901MF
T600, T650, C500T, K100E, T600A, T400A	2	NX1207WC	S75D31R	S95D31RHD
KOMATSU				
D50, D55, D60, D65, D80	2	N150WC	SN150	
D80, D85, D150, D155, D355	2	N200WC	SN200	
Forklifts 25 / 5, 25 / 7	1	NS40ZWC	S40B20R	
WA100	1		SN100	
WAO350	1	N150WC	SN150	
KUBOTA				
4 Cylinder Gen. Sets, L4150, M7030DT	1		SN100	
550DT, 895DT, 3750, 4500, M4950	1		SN100	

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
KUBOTA				
6 Cylinder Gen. Sets	1	N150WC	SN150	
B6000 Petrol, 2400 Series Mowers	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
L185, L245, L275, B6000, 2435, L2550	1	NX1207WC	S75D31R	S95D31RHD
L295, L345, L285	1		S1111	S1150 S31901MF
L345SS, L405, M8970, M4050, M4500	1		S1111	S1150 S31901MF
M Series Tractors	1		SN100	
M7500, M5500	1	N150WC	SN150	
Tractors-4030, 5030, 6030	1	N150WC	SN150	
LANSING BAGNALL				
TD200, AMS16, FODR, FOPR, FOGR	1	NX1207WC	S75D31R	S95D31RHD
LANZ BULLDOG				
D1706, D2206, D2416	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
D2803, D2806, D3606, C, H, K, O	1	NX1207WC	S75D31R	S95D31RHD
Q, R, DR, TDT	1	NX1207WC	S75D31R	S95D31RHD
LE TOURNEAU WESTINGHOUSE (WABCO)				
B.T. Pull & C.T. Pull	1	N200WC	SN200	
CP, CP6, CFA30, CFA35, CFA50, CFA65	2	N200WC	SN200	
LEYLAND				
Buffalo, Comet, Mastiff	2	NX1207WC	S75D31R	S95D31RHD
Tractors 154, 245	1	NX1207WC	S75D31R	S95D31RHD
LINCOLN WELDERS				
400AS, 500AS	2	NX1105WC	S55D26R	S80D26R
400AS Perkins, AS1699	1	NX1207WC	S75D31R	S95D31RHD
AS1906 4 / 6 Generator	1	NX1207WC	S75D31R	S95D31RHD
AS2046 4 / 2 Generator	1	NX1207WC	S75D31R	S95D31RHD
DIS - GEN 20, 25, 31 SAM Diesel	1	NX1207WC	S75D31R	S95D31RHD
M.A.N.				
10.136FCA	2	N150WC	SN150	
15.168NCA, 16.192NCA	2	N150WC	SN150	
26.321NC, 26.342FC	2	N150WC	SN150	
30.321FCTS, 33.321FCTS	2	N150WC	SN150	
E2700, E1400	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Tilt Cab Forward Control	1	NX1207WC	S75D31R	S95D31RHD
MACK				
G260 Magnum	2	NX1207WC	S75D31R	S95D31RHD
MASSEY FERGUSON				
1085, 1105, 1135, 1155, 1505, 1805	2		S1111	S1150 S31901MF
154, 254 Italian Series	1		S1111	S1150 S31901MF
178, 1100 (mounting modification required)	2		S1111	S1150 S31901MF
203, 205, 203X, 205X, 2135, 3303	1		S1111	S1150 S31901MF
205 Mk11	1		S1111	S1150 S31901MF
2135, 2205, 2203, 3165R	1		S1111	S1150 S31901MF
3305 (Industrial)	2		S1111	S1150 S31901MF
335	1		S58515	

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
MASSEY FERGUSON				
350, 355, 360, 365, 373, 375, 390	1	56318WC 56330WC	S56318	
398, 399, 3090, 3535, 3630, 3650	1	56318WC 56330WC	S56318	
510, 585 Header, 587, 750 Header	1		S1111	S1150 S31901MF
65R, 65S, 3165S, 135, 165, 168	1		S1111	S1150 S31901MF
FE35D, FE135P, 135P, RED2, TEA20	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Late Model MF35	1		S1111	S1150 S31901MF
MF30, MF35FE, 550, 575	1		S1111	S1150 S31901MF
MF35 Petrol, MF35R	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
MF65D, MF85, 88, 90 Diesel	1		S1111	S1150 S31901MF
MF95 Diesel, 250 Tractor	1	NX1207WC	S75D31R	S95D31RHD
Spreader 760, Super 90, 3680	2		S1111	S1150 S31901MF
Tractor - 2225 Under Cab Floor	1		S31901MF	
Tractor - 435	1		S95D31RHD	
Tractor - 6480	1		S56640	
Tractor - 8280	2		S31901MF	
Header - 9790	2		S31901MF	
Header R75 Gleaner	2		S31901MF	
MAZDA COMMERCIAL				
E2500, E3800, T4000	2	NX1105WC	S55D26R	S80D26R
T3000, T3000 Bus, T3500, T3500 Bus	1	N120WC	SN120	
T4100	2	NX1207WC	S75D31R	S95D31RHD
McCORMACK				
Tractor - CX85	1		S31901MF	
Tractor - MTX140	2		S31901MF	
MCDONALD				
Road Roller, 24 Volt	2	NX1207WC	S75D31R	S95D31RHD
MERCEDES BENZ				
1217, 1419, 1625, 1626, 2219	2	N150WC	SN150	
1413, 1418, 1918, 1924, 2620, 2624	2		S58515	
1422, 1424	2	N150WC	SN150	
2222, 2226	2	N150WC	SN150	
2228, 2232, 2236, 2632	2	N150WC	SN150	
2224	2		S58515	
2244 30H, 2235K32, 3850A, FL 112	2	N120WC	SN120	
2244 30HH	2	N200WC	SN200	
230GE	1	56318WC 56330WC	S56318	
300GD	1		S58515	
508LD, D305	2		S1111	S1150 S31901MF
L911B / 48, L911B / 42, 1417C / 48	2	22F66WC	22F530SMFDF	22F600SMFDF
LA911B, 1217	2	22F66WC	22F530SMFDF	22F600SMFDF
LK, 2624 / 36, V Series 1425, 2223, 2236	4	22F66WC	22F530SMFDF	22F600SMFDF
V Series 2238, 2638	4	22F66WC	22F530SMFDF	22F600SMFDF
MICHIGAN (CLARK)				
125, 175, 180, Series 3 All Engines	2	N120WC N150WC	SN120	SN150

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
MICHIGAN (CLARK)				
125 Series 3A All Engines	2	N120WC N150WC	SN120	SN150
280 Series 3 All Engines	2	N200WC	SN200	
55R, 55AWS, 65R, 65AWS, 65A	1	N120WC	SN120	
75 and 85, Series 3, GM Engine	1	N150WC	SN150	
75 and 85 Series 3, Leyland Engine	2		S1111	S1150 S31901MF
85 Series - 85 - 111A	2	N120WC	SN120	
B12B Petrol	1	NS40ZWC	S40B20R	
Ranger V664, 666 Skidder	2		S1111	S1150 S31901MF
MILLER				
Nitro Self Propelled 2200 Sprayer	2		S656MF	
MINNEAPOLIS				
G900,G1000	2		S1111	S1150 S31901MF
MITSUBISHI COMMERCIAL				
Canter Petrol	1	NX1105WC	S55D26R	S80D26R
Canter Diesel	2	NX1105WC	S55D26R	S80D26R
FD20, FD25	1		S58515	
FE	2	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
FG / D30, FG / D35	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
FG14, FG15	1	NS40ZSWC	S40B20RS	
FG20, FG25	1	55457WC	S54519	S55457
FK102, T653	2	NX1105WC	S55D26R	S80D26R
FM104, 215	2		S1111	S1150 S31901MF
FN358	2	N120WC	SN120	
FP, FB, FX, FC, FE, FK, FM, FV Series	2	NX1105WC	S55D26R	S80D26R
FU, FP, FS Series	2	N150WC	SN150	
Fuso FP - FV 103	1	N150WC	SN150	
Fuso FP - FV 113	2	N150WC	SN150	
MURRAY				
Sential Lawn Mower	1	12N243WC		
NEW HOLLAND				
1550 Turbo & 360 CC	1	NX1207WC	S75D31R	S95D31RHD
261	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
40 Series	1		S1111	S1150 S31901MF
4135	1	58827WC	S58827	
L35 Series	1	N150WC	SN150	
M / 60 Series	1	56318WC 56330WC	S56318	
TX Series (Excluding TX34, TX66)	1	58827WC	S58827	
TR85, TR86, TR87, TR88, TR98, TR99 Headers	2		S31901MF	
TX34 Header	2		S56318	
TX66 Header	2		S58515	
CX860 Conventional Header, Belgium Built	2		S58515	
CX960 Rotary Machine, American Built	2		S31901MF	
TJ375 4WD Tractor	3		S31900MF	
Versatile 2210 Genesis Tractor	2		S31901MF	
TG210 Tractor	2		S31901MF	

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
NEW HOLLAND				
TS90 Tractor	1		S31901MF	
TL90F Tractor	1		SN100	
TL100 Tractor	1		S31901MF	
TN65 Tractor	1		SN100	
TS100 Tractor	1		S31901MF	
7840 Ford Tractor	1		S31901MF	
8772 Ford Genesis Tractor	2		S31901MF	
NISSAN-DATSUN COMMERCIAL				
120, 240 2Tonne, 620 1Tonne, 720, E20	1	NX1105WC	S55D26R	S80D26R
CGA, CKA, CLG, CMA, CMF87, CPB	2	N120WC	SN120	
Civilian Bus	1	NX1105WC	S55D26R	S80D26R
CK10, 30, CW40, L.I.D, CW50, TW50	2	N150WC	SN150	
CM Series except CM90	2	NX1105WC	S55D26R	S80D26R
CM90, CV Series	2	NX1207WC	S75D31R	S95D31RHD
CMA81F, CMA86F	2	NX1105WC	S55D26R	S80D26R
UD Series Diesel, CV, CW CWA, TW	2	N120WC	SN120	
NUFFIELD				
3DL, Nuffield 3, 3 / 42, 3 / 45, 10 / 42	1		S1111	S1150 S31901MF
M4, M, PM, M3V, PM4, PM3, Mini Tractor	1	NX1207WC	S75D31R	S95D31RHD
OLIVER				
55, 105, 155 Mobile Crane, 1564, 1566	1	NX1207WC	S75D31R	S95D31RHD
Combines-431	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Crawlers-DDH, 0C15	1	N120WC	SN120	
Crawlers-FDE, 0C12, 0C18	1	N200WC	SN200	
Forklift P50	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
Wheel Tractor-12, 90, 165	1	N120WC	SN120	
Wheel Tractor-1600	2	N120WC N150WC	SN120	SN150
SAME TRACTORS				
Buffalo 120, Dragon	1	N150WC	SN150	
Condor 55	1	NX1105LWC	S55D26L	S80D26L
Dolfinno 35, Aurora 45, Falcon	1		S1111	S1150 S31901MF
Leopard 85, Tiger 100, Centurion	1	N150WC	SN150	
Mini Taurus	1	N120WC	SN120	
SCANIA				
All 6 Cylinder Models	2	N120WC	SN120	
All 8 Cylinder Models	2	N150WC	SN150	
SHIBAURA				
1300, 1340, S320	1	NX1105WC	S55D26R	S80D26R
1600, 1640, 2500, 2540	1	NX1207WC	S75D31R	S95D31RHD
S330, SD5040T, 400, 4050, 3000, 3040	1		SN100	
S445	1		S58515	
U490F	1	N150WC	SN150	
STACA/STACATRUC				
All Models	1	NX1207WC	S75D31R	S95D31RHD
STEIGER				
Some Models	1		S1111	S1150 S31901MF
STEYR DAIMLER				
80 With Starter, 180	1	NX1207WC	S75D31R	S95D31RHD

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
T.C.M.				
FD100	2	N150WC	SN150	
FD35	2	N120WC	SN120	
FG20, FG25	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
TENNANT				
Scrubbers	1	NX1105WC	S55D26R	S80D26R
Sweepers 220, 240, 92, 92AA	1	NX1105WC	S55D26R	S80D26R
Sweepers 92SE210, 265, 280	1	NX1105WC	S55D26R	S80D26R
TOFT				
Mk111 Caterpillar	2	N200WC	SN200	
TORO				
Ride on Lawn Mower	1	12N244WC		
TOW MOTOR				
Mk.11 Pacemaker	1	NX1207WC	S75D31R	S95D31RHD
TOYOTA COMMERCIAL				
6000 Series Diesel	2	N150WC	SN150	
Bundera Diesel, Commuter Bus	1	NX1207LWC	S75D31L	S95D31LHD
Coaster Bus BB21, HB30, HZB30, BB40	1	NX1105WC	S55D26R	S80D26R
Coaster Bus HZB50	1	NX1105WC	S55D26R	S80D26R
DA115	2		S58515	
DA115 6000 Series	2	NX1105WC	S55D26R	S80D26R
Dyna 100, 150	1	NX1105WC	S55D26R	S80D26R
Dyna 100 Diesel, Auto Transmission	1	NX1207WC	S75D31R	S95D31RHD
Dyna 100, LY60 Diesel, Manual Transmission	1	NX1207WC	S75D31R	S95D31RHD
Dyna 200 BU60, 400 BU66	1	NX1207WC	S75D31R	S95D31RHD
Dyna 300 (BU61), 400 (BU88, BU91)	1		SN100	
Dyna 400 BU65	1	NX1207WC	S75D31R	S95D31RHD
Dyna 400 YU62	1	NX1105LWC	S55D26L	S80D26L
Dyna Diesel H1 / 15, SV15, 21, 2 TON	1		S1111	S1151 S31901MF
Dyna RU10, 12, 15, 19	1	NS40ZWC	S40B20R	
FD 176	1		S1111	S1151 S31901MF
FD Econo Diesel	2	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
TOYOTA FORKLIFTS				
2FGC30, FB5, 7, 9, FB20 - 25, FB30, FB40	2	NX1105LWC	S55D26L	S80D26L
FB1015, FDA5060, FD80	2	NX1105WC	S55D26R	S80D26R
FCG10, 15, 20, 2FG25, LC6, FG35	1	22F66WC	22F530SMFDF	22F600SMFDF
FD100, FD150, FDA150, FD250	2	NX1105WC	S55D26R	S80D26R
FD40, 2FD40 - 60, FDC20 - 25, FDC30	2	NX1105WC	S55D26R	S80D26R
FDT25, 2FD30, FD32 - 35	2	NX1105WC	S55D26R	S80D26R
FG30, 2FG32 - 35, 2FG40, 2FG50 - 60, FCG10 - 15, 3FGC20 - 25	2	NX1105LWC	S55D26L	S80D26L
SKD4 Loader	1		S1111	S1151 S31901MF
SKD6 Loader	2		S1111	S1151 S31901MF
TG10	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
All Others	1	NX1105LWC	S55D26L	S80D26L
TURNER				
Diesel, Mk11	1	58827WC	S58827	S58515
TUTT BRYANT				
Pacific Riller Truck	1	NX1207WC	S75D31R	S95D31RHD

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
TUTT BRYANT				
Pengo Earth Boring Machine	1	NX1105WC	S55D26R	S80D26R
TWIN CITY				
Baler, U. & G.	1	NX1207WC	S75D31R	S95D31RHD
G.B.D. 2		N200WC	SN200	
U.T.B. UNIVERSAL				
U650 M	1	N150WC	SN150	
UNIMOG (MERCEDES BENZ)				
1700 L	1	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
30D Mercedes Benz	1		S1111	S1151 S31901MF
800, 1000, 1500 Tractor	1	N120WC	SN120	
URSUS				
2812, 3512	1		S1111	S1151 S31901MF
VAL PADANA				
260, 330	1	22F66WC	22F540SMFDF	22F600SMFDF
330RS, 350, 450, 455, 545RS	1	NX1207WC	S75D31R	S95D31RHD
555RS, 7060RS, 7070RS	1	NX1207WC	S75D31R	S95D31RHD
VENDOR				
DR80	1	NX1207WC	S75D31R	S95D31RHD
VERSATILE				
4WD Tractor	1	N200WC	SN200	
VICTA				
20-12 Massey Lawn Mower	1	12N244WC		
Ride on Lawn Mower	1	12N244WC		
Vicking Ride on Lawn Mower	1	12N244WC		
VOLVO				
B10M	2	N200WC	SN200	
F10, F12, FL7F, FL10, N12	4	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
F10, F12, N10, N12	2	N150WC	SN150	
F12, FL7FD	2	NX1207WC	S75D31R	S95D31RHD
F12K, F12F, F12GT	2		S1111	S1151 S31901MF
F16F	2	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
F71, F7T, 10, 12C304	4	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
F717, F012, F1023 TURBO 6, E724	4	22FR66WC	22FR530SMF	S85B60R 22FR600SMF 22FR660SMF
F86 / 28	2		S1111	S1151 S31901MF
G88, G89	2	N150WC	SN150	
L50, L70 Loader	1	58827WC	S58515	
N7, N10T, N10F, N12F, N12T, N715	2		S1111	S1151 S31901MF
TAMD40	2	N150WC	SN150	
WABCO				
333F Scraper	2	N200WC	SN200	
Haulpak 170 Tonne	2		S1111	S1151 S31901MF
WALTANIA				
Trac 2000	1	N150WC	SN150	

MAKE AND MODEL	QTY	LMA	SMF	SMF ALTERNATIVE
WESTERN STAR				
Late Models	4	NX1207WC	S75D31R	S95D31RHD
WHITE				
2-155, 2-180, 4-120, 4-175	2		S1111	S1151 S31901MF
2 / 135	1		S1111	S1151 S31901MF
2150, 4250, 4280	2		S1111	S1151 S31901MF
285, 2105	1	N120WC	SN120	
YALE FORKLIFT				
D Diesel	1	58827WC	S58515	
YANMAR				
336	1	58827WC	S58515	
ZETOR				
10111, 10145, 12111, 12145, 14145, 16145	2		S1111	S1151 S31901MF
12011, 12045, 4712, 5711	1		S1111	S1151 S31901MF
2511, 3535, 3511	1	58827WC	S58515	
4511, 5511, 5545	2		S1111	S1151 S31901MF
5211, 5245, 6211, 6245	1	N150WC	SN150	
6745, 8011, 8045	1		S1111	S1151 S31901MF
7211, 7245, 7711, 7745	1	N150WC	SN150	
8111, 8145, 9111, 9145	2		S1111	S1151 S31901MF



Battery

cross reference lists

ACDelco SMF to ACDelco LMA

ACDelco SMF	ACDelco LMA
22F530SMF	22F66WC
22FR530SMF	22FR66WC
S80D26R	NX1105WC
S80D26L	NX1105LWC
S95D31RHD	NX1207WC
S95D31LHD	NX1207LWC
S55457	55457WC
S55D23L	55D23LWC
S55D23R	55D23RWC
S56318 / S56330	56630WC
S58827 / S58515	58827WC
AU22530SMFDF	AU2266WC
AU22R530SMF	AU22R66WC
S40B20L	NS40ZLWC
S40B20LS	NS40ZLSWC
S40B20R	NS40ZWC
S40B20RS	NS40ZSWC
SN200	N200WC
SN150	N150WC
SN120	N120WC
S95D31RHD	NX1207WC
S95D31LHD	NX1207LWC
S1111/ S1151 / S31901MF	30HL102WC
22F530SMFDF	22F66WC

CENTURY to ACDelco

CENTURY	ACDelco SMF	ACDelco LMA
M9612	S54316	
37A	S54519	
46		22FR54WC
47		22F54WC
55D23L	S55D23L	55D23LWC
	S70D23L	
55D23R	S55D23R	55D23RWC
	S70D23R	
57	S85B60R	22FR66WC
	22FR530SMF	
57EF	AU22R530SMF	AU22R66WC
58	22F530SMFDF	22F66WC
58EB	AU22530SMFDF	AU2266WC
58VT	22F530SMF	22F66WC
	S85B60L	
86	S1111/ S1151 / S31901MF	30HL102WC
86Z	S1111/ S1151 / S31901MF	30HL102WC
87	S1111/ S1151 / S31901MF	30H102WC
86ZMF	S31901MF	
86ZTMF	S31900MF	
DIN53L	S55457	55457WC
DIN53R	S55458	
DIN65L	S56318	56318WC / 56330WC
DIN65R	S56640	
DIN85L	S58515	58827WC
N100	SN100	
N120	SN120	N120WC
N150	SN150	N150WC
N200	SN200	N200WC
N70ZZ	S75D31R	NX1207WC
	S95D31RHD	
N70ZZL	S75D31L	NX1207LWC
	S95D31LHD	
N70ZZH	S75D31R	NX1207WC
	S95D31RHD	
N70ZZLH	S75D31L	NX1207LWC
	S95D31LHD	
NS40Z	S40B20R	NS40ZWC
NS40ZL	S40B20L	NS40ZLWC
NS40ZS	S40B20RS	NS40ZSWC
NS40ZLS	S40B20LS	NS40ZLSWC
NS60	S55B24R	
NS60L	S55B24L	
NS60LS	S55B24LS	
NS60S	S55B24RS	
NS70	S55D26R	NX1105WC
	S80D26R	
NS70L	S55D26L	NX1105LWC
	S80D26L	



Battery

cross reference list

DELKOR to ACDelco

DELKOR	ACDelco SMF	ACDelco LMA
8D1300	SN200	N200WC
22F520FD	22F530SMFDF	22F66WC
22F520	22F530SMF	22FR66WC
22FR520	AU22R530SMF	AU22R66WC
22NF330D		N3854WC / N38L54WC
27H710	S95D31RHD	NX1207WC
27HR710	S95D31LHD	NX1207LWC
90R500	S55457	55457WC
165 G51L	SN150	N150WC
657M850	S657MF	
2560	S55D23R	55D23RWC
3560	S55D23L	55D23LWC
31900	S31901MF	
90500	S55458	
50D20L	S50D20L	
50D20R	S50D20R	
51BR430	S55B24LS	
56530	S56318	56318WC / 56330WC
56633	S56323	
58515	S58515	
78DT790	S78DT6MF	
M24	M24SMF600	
M27 LHP	M27SMF730	
MF12N243		12N243WC
MF12N244		12N244WC
NS40ZMF	S40B20R	NS40ZWC
NS40ZLMF	S40B20L	NS40ZLWC
NS40ZSMF	S40B20RS	NS40ZSWC
NS40330D	S40B20RS	NS40ZSWC
NX1105MF	S80D26R	NX1105WC
NX1105LMF	S80D26L	NX1105LWC
N100ZL	SN100L	
N100Z	SN100	
N120	SN120	N120WC
N100Z	SN100	
N120	SN120	N120WC

EXIDE to ACDelco

EXIDE (OLD NUMBER)	EXIDE (NEW NUMBER)	ACDelco SMF	ACDelco LMA
37A	DIN44	S54316	
55D23L	55D23C	S55D23L S70D23L	55D23LWC
55D23R	55D23D	S55D23R S70D23R	55D23RWC
86A		S1111	30H102WC
86B		S1111	30H102WC
86BX		S1111	30H102WC
PDIN55	DIN55	S55457	55457WC
PDIN66	DIN66	S56318 S56820	56318WC / 56330WC
	DIN88	S58515	58827WC
E370C	X60C	S55B24LS	
E370D	X60D	S55B24RS	
LM380C			22F54WC
LM380D			22FR54WC
N100		SN100	
N120		SN120	N120WC
N150		SN150	N150WC
N200		SN200	N200WC
N50Z		S55D26R S80D26R	NX1105WC
N50ZL		S55D26L S80D26L	NX1105LWC
N50ZZ		S55D26R S80D26R	NX1105WC
N50ZZL		S55D26L S80D26L	NX1105LWC
N70EX		S75D31R S95D31RHD	NX1207WC
N70EXL		S75D31L S95D31LHD	NX1207LWC
N70Z		S75D31R S95D31RHD	NX1207WC
N70ZZ		S75D31R S95D31RHD	NX1207WC
N70ZZL		S75D31L S95D31LHD	NX1207LWC
P305A	40D	S40B20RS	NS40ZSWC
P305C	40CP	S40B20L	NS40ZLWC
P305D	40DP	S40B20R	NS40ZWC
P460C	53C	S85B60L 22F530SMFDF	22F66WC
P460D	52D	S85B60R 22FR530SMF	22FR66WC
P460E	54D	AU22R530SMF	AU22R66WC
P460F	52C	AU22530SMFDF	AU2266WC
P460G	54C	22F530SMFDF	22F66WC



Battery

cross reference list

R&J to ACDelco

R&J	ACDelco SMF	ACDelco LMA
MF24M	M24SMF600	
MF27M	M27SMF730	
MF40Z	S40B20R	NS40ZWC
MF40ZL	S40B20L	NS40ZLWC
MF40ZA	S40B20RS	NS40ZSWC
MF50EB	AU22530SMFDF	AU2266WC
MF50EF	AU22R530SMF	AU22R66WC
MF50D20L	S50D20L	
MF50D20R	S50D20R	
MF50P	22FR530SMF	22FR66WC
MF50PL	22F530SMFDF	22FR66WC
MF50VT	22F530SMF	22F66WC
MF50ZZ	S80D26R	NX1105WC
MF50ZZL	S80D26L	NX1105LWC
MF55	S55457	55457WC
MF55D23L	S55D23L	55D23LWC
MF55D23R	S55D23R	55D23RWC
MF58	S586MF	
MF58R	S58R6MF	
MF60	S55B24RS	
MF60L	S55B24LS	
MF60S	S55B24R	
MF60SL	S55B24L	
MF65D	S656MF	
MF66	S56318	56318WC / 56330WC
MF70ZZ	S95D31RHD	NX1207WC
MF70ZZL	S95D31LHD	NX1207LWC
MF86900	S31901MF	
MF120	SN120	N120WC
MF150	SN150	N150WC
MF200	SN200	N200WC
MF88	S58515	58827WC
MF50D23L	S50D20L	
MF66L	S56318	
MF65	S656MF	

SUPER CHARGE to ACDelco

SUPER CHARGE	ACDelco SMF	ACDelco LMA
55D23L	S55D23L	55D23LWC
	S70D23L	
55D23R	S55D23R	55D23RWC
	S70D23R	
MF1150	S1150	
MF1151	S1151	
MF31930	S31901MF	
MF31931	S31900MF	
MF40B20L	S40B20L	NS40ZLWC
MF50	22FR530SMF	22FR66WC
	S85B60R	
MF51	22F530SMFDF	22F66WC
	S85B60L	
MF52	AU22530SMFDF	AU2266WC
MF53	22FR530SMF	22F66WC
MF54	AU22R530SMF	AU22R66WC
MF55B24L	S55B24L	
MF55B24LS	S55B24LS	
MF55B24R	S55B24R	
MF55B24RS	S55B24RS	
MF75D23L	S70D23L	
MF75D23R	S70D23R	
MF80D26L	S80D26L	NX1105LWC
MF80D26R	S80D26R	NX1105WC
MF95D31L	S95D31LHD	NX1207LWC
MF95D31R	S95D31RHD	NX1207WC
N100	SN100	
N120	SN120	N120WC
N150	SN150	N150WC
N200	SN200	N200WC
N37A	S54316	
N55	S55457	55457WC
N55R	S55458	
N66R	S56640	
N66	S56318	56630WC
	S56820	
N70ZZ	S95D31RHD	NX1207WC
N70ZZL	S95D31LHD	NX1207LWC
N87LZ	S1111/ S1151 / S31901MF	30HL102
N88	S58827	58827WC
	S58515	
NS40Z	S40B20R	NS40ZWC
NS40ZA	S40B20RS	NS40ZSWC
NS40ZAL	S40B20LS	NS40ZLSWC
NS40ZL	S40B20L	NS40ZLWC
NS50P	S85B60R	22FR66WC
	22FR530SMF	
NS50PL	S85B60L	22F66WC
	22F530SMFDF	
NS50PLX	AU22530SMFDF	AU2266WC
NS50Z		22FR54WC
NS50ZL		22F54WC
NS60	S55B24R	
NS60L	S55B24L	
NS60LS	S55B24LS	
NS60S	S55B24RS	
NS70	S80D26R	NX1105WC
NS70L	S80D26L	NX1105LWC



Sealed Maintenance Free battery specifications (12 volt)

PART NO	JIS / DIN / BCI	AH / 20 HR	RESERVE CAPACITY (MINUTES @ 27 C)	CCA (@ -18 C)	LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)	TOTAL (MM) INCL. HEIGHT POSTS	BOTTOM HOLD-DOWNS	WEIGHT PER UNIT WITH ACID (KG)	TERMINAL TYPE	ASSEMBLY LAYOUT
22F530SMF	22F Series	60	95	530	240	174	183	205	B4	15.00	STD	A
22F530SMFDF	22F Series	60	95	530	240	174	183	211	B3	15.00	DF	A
22FR530SMF	22F Series	60	95	530	240	174	183	205	B3	15.00	STD	B
22F600SMFDF	22F Series	56	95	600	240	174	185	211	B3	15.00	DF	A
22FR600SMF	22F Series	56	95	600	240	174	183	205	B4	15.70	STD	B
22F660SMFDF	22F Series	60	100	660	240	174	185	211	B3	15.70	DF	A
22FR660SMF	22F Series	60	100	660	240	174	185	205	B3	15.70	STD	B
AU22530SMFDF	22F Series	60	95	530	231	169	183	211	B3	15.00	DF	A
AU22R530SMF	22F Series	60	95	530	231	169	183	205	B3	15.00	STD	B
AU22R600SMF	22F Series	56	95	600	240	174	183	205	B3	15.70	STD	B
AU22600SMFDF	22F Series	56	95	600	231	169	183	211	B3	15.00	DF	A
AU22660SMFDF	22F Series	60	100	660	230	171	185	211	None	15.70	DF	A
AU22R660SMF	22F Series	60	100	660	230	171	185	205	None	15.70	STD	B
S1110	JIS	100	182	830	330	173	217	240	None	25.00	Stud	G
S1111	JIS	100	182	830	330	173	217	240	None	25.00	STD	G
S1150	JIS	100	180	780	330	173	217	240	None	22.50	STD	G
S1151	JIS	100	180	780	330	173	217	240	None	22.50	Stud	G
S115D31L	JIS	94	170	780	304	173	202	225	None	22.00	STD	A
S115D31R	JIS	94	170	780	304	173	202	225	None	22.00	STD	B
S246MF	BCI	60	108	500	260	174	202	225	B1	16.50	STD	B
S24R6MF	BCI	60	108	500	260	174	202	225	B1	16.50	STD	A
S3190OMF	BCI	112	200	930	330	173	217	240	None	25.50	Stud	G
S3190IMF	BCI	112	200	930	330	173	217	240	None	25.50	STD	G
S346MF	BCI	50	74	500	260	171	185	205	B1	17.10	STD	B
S347MF	BCI	67	110	710	260	171	185	205	B1	18.20	STD	B
S356MF	BCI	60	100	500	232	173	217	225	B1	15.80	STD	A
S40B20L	JIS	35	52	330	197	129	202	224	None	11.00	SM	A
S40B20LS	JIS	35	52	330	197	129	202	224	None	11.00	STD	A
S40B20R	JIS	35	52	330	197	129	202	224	None	11.00	SM	B
S40B20RS	JIS	35	52	330	197	129	202	224	None	11.00	STD	B
S40B20LBH	JIS	35	52	330	197	129	202	224	None	11.00	SM	A
S416MF	BCI	54	100	510	280	175	175	175	B3/B4	14.60	STD	A
S48D26L	JIS	50	86	420	260	174	202	225	B1	15.00	STD	A
S48D26R	JIS	50	86	420	260	174	202	225	B1	15.00	STD	B
S50D20L	JIS	50	85	400	202	173	207	224	None	13.80	STD	A
S50D20R	JIS	50	85	400	202	173	207	224	None	13.80	STD	B
S53528	DIN	35	52	340	211	176	175	175	B3	12.00	STD	A
S53529	DIN	35	52	340	211	176	175	175	B3	12.00	Ford	A
S54316	DIN	43	70	380	211	176	175	175	B3	12.30	STD	A
S54317	DIN	43	70	380	211	176	175	175	B3	12.30	Ford	A
S54459	DIN	44	71	370	208	176	190	190	B3	13.00	STD	A
S54464	DIN	44	71	370	208	176	190	190	B3	13.00	STD	B
S54519	DIN	45	80	430	245	175	175	175	B3/B4	13.80	STD	A
S55414	DIN	54	94	500	280	175	175	175	B3/B4	14.60	STD	A
S55457	DIN	54	90	500	245	175	175	175	B3	14.10	STD	A
S55458	DIN	54	90	500	245	175	175	175	B3	14.10	STD	B
S55459	DIN	54	94	500	245	175	175	175	B3	13.80	Ford	A
S55523	DIN	55	94	500	245	175	190	190	B3	14.80	Ford	A
S55559	DIN	55	94	500	245	175	190	190	B3	14.80	STD	A
S55565	DIN	55	94	500	245	175	190	190	B3	14.80	STD	B
S55B24L	JIS	45	80	430	239	134	201	224	None	12.80	SM	A
S55B24LS	JIS	45	80	430	239	134	201	224	None	12.80	STD	A
S55B24R	JIS	45	80	430	239	134	201	224	None	12.80	SM	B

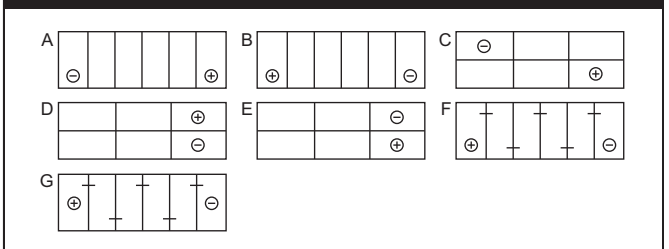
PART NO	JIS / DIN / BCI	AH / 20 HR	RESERVE CAPACITY (MINUTES @ 27 C)	CCA (@ -18 C)	LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)	TOTAL (MM) INCL. HEIGHT POSTS	BOTTOM HOLD-DOWNS	WEIGHT PER UNIT WITH ACID (KG)	TERMINAL TYPE	ASSEMBLY LAYOUT
S55B24RS	JIS	45	80	430	239	134	201	224	None	12.80	STD	B
S55D23L	JIS	60	100	500	232	173	205	225	None	15.80	STD	A
S55D23R	JIS	60	100	500	232	173	205	225	None	15.80	STD	B
S55D26L	JIS	60	108	525	260	174	202	225	B1	16.50	STD	A
S55D26R	JIS	60	108	525	260	174	202	225	B1	16.50	STD	B
S56318	DIN	63	105	580	280	175	175	175	B3/B4	16.30	STD	A
S56323	DIN	63	110	580	280	175	175	175	B3	16.30	Ford	A
S56330	DIN	63	110	580	280	175	175	175	B3	16.30	STD	A
S56638	DIN	66	110	580	280	175	190	190	B3	16.80	STD	A
S56639	DIN	66	110	580	280	175	190	190	B3	16.80	Ford	A
S56640	DIN	66	110	580	280	175	190	190	B3	16.80	STD	B
S56820	DIN	68	115	620	280	175	175	175	B3	16.70	STD	A
S56821	DIN	68	115	620	280	175	175	175	B3	16.70	Ford	A
S58515	DIN	85	158	780	353	176	175	190	B3	22.50	STD	A
S586MF	BCI	60	100	530	236	183	157	177	B1	15.00	STD	B
S58827	DIN	88	148	735	353	176	190	190	B3	23.50	STD	A
S58828	DIN	88	148	735	353	176	190	190	B3	23.50	STD	B
S59218	DIN	92	158	810	353	176	190	190	B3	23.50	STD	
S58R6MF	BCI	60	100	530	236	183	157	177	B1	15.00	STD	B
S656MF	BCI	72	128	650	292	189	170	191	B1	18.50	STD	B
S657MF	BCI		138	820	292	189	170	191	B1	18.50	STD	B
S65D31L	JIS	70	136	560	304	173	202	225	None	20.20	STD	A
S65D31R	JIS	70	136	560	304	173	202	225	None	20.20	STD	B
S70D23L	JIS	65	110	580	232	173	205	225	None	16.60	STD	C
S70D23R	JIS	65	110	580	232	173	205	225	None	16.60	STD	D
S755MF	BCI	54	84	550	231	179	185	185	B1	15.50	Side	F
S756MF	BCI	58	97	615	231	179	185	185	B1	15.80	Side	F
S75D31L	JIS	75	150	660	304	173	202	225	None	21.80	STD	A
S75D31R	JIS	75	150	660	304	173	202	225	None	21.80	STD	B
S786MF	BCI	72	120	760	260	179	185	185	B1	18.60	Side	F
S78DT6MF	BCI	72	120	760	260	179	185	205	B1	18.60	DF	F
S80D26L	JIS	70	130	600	260	174	202	225	B1	17.50	STD	A
S80D26R	JIS	70	130	600	260	174	202	225	B1	17.50	STD	B
S85B60L	JIS	55	84	550	231	174	185	206	B1	15.40	STD	B
S85B60R	JIS	55	84	550	231	174	182	205	B1	15.40	STD	A
S95D31L	JIS	90	160	730	304	173	202	225	None	22.00	STD	A
S95D31LHD	JIS	90	160	730	304	173	202	225	None	22.00	STD	A
S95D31R	JIS	90	160	730	304	173	202	225	None	22.00	STD	B
S95D31RHD	JIS	90	160	730	304	173	202	225	None	22.00	STD	B
SN100	HEAVY DUTY	100	182	740	408	175	211	233	None	25.50	STD	B
SN100L	HEAVY DUTY	100	182	740	408	175	211	233	None	25.50	STD	A
SN120	HEAVY DUTY	120	230	900	505	183	215	240	None	35.00	STD	E
SN120L	HEAVY DUTY	120	230	900	505	183	215	240	None	35.00	STD	D
SN150	HEAVY DUTY	150	300	1000	508	222	216	241	None	39.00	STD	E
SN150L	HEAVY DUTY	150	300	1000	508	222	216	241	None	39.00	STD	D
SN200	HEAVY DUTY	200	430	1200	523	279	224	250	None	55.00	STD	E
SN200L	HEAVY DUTY	200	430	1200	523	279	224	250	None	55.00	STD	D

PART NO	JIS / DIN / BCI	20HR NOMINAL CAPACITY (AH)	5HR NOMINAL CAPACITY (AH)	RC AT 75A (MIN)	LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)	THICKNESS (MM) INCL. POSTS	BOTTOM HOLD-DOWNS	WEIGHT PER UNIT W/ ACID (KG)	TERMINAL SHAPE	CELL LAYOUT
GC2105 (6 Volt)	GOLF CART	225	185	115	261	181	247	288	None	27.90	WING NUT	C

ABBREVIATIONS

B1	2 bottom hold-downs 10.5mm high on long sides
B3	4 bottom hold-downs 10.5mm high on all four sides
B4	2 bottom hold-downs 19mm high on long sides
B3/B4	B4 BHD available with adaptor on long sides.
BN	Bolt nut terminal
DF	Dual fit terminal
SM	Small terminal
STD	Standard terminal
TM	Twin marine

ASSEMBLY LAYOUT



Low Maintenance Accessible battery specifications (12 volt)

PART NO	JIS / DIN / BCI	AH / 20 HR	RESERVE CAPACITY (MINUTES @ 27 C)	CCA (@ -18 C)	LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)	BOTTOM HOLD-DOWNS	WEIGHT PER UNIT WITH ACID (KG)	TERMINAL TYPE	ASSEMBLY LAYOUT
12N243WC		26	38	240	186	126	181	None	7.80	BN	A
12N244WC		26	38	240	186	126	181	None	7.80	BN	B
22F54WC	22F Series	48	62	360	240	174	211	None	13.20	DF	A
22F66WC	22F Series	60	78	450	240	174	211	None	14.50	DF	A
22FR54WC	22F Series	48	62	360	240	174	211	None	13.20	STD	B
22FR66WC	22F Series	60	78	450	240	174	211	None	14.50	STD	B
30H102WC		100	180	780	330	173	230	None	25.00	STD	B
30HL102WC		100	180	780	330	173	230	None	25.00	STD	A
50D20RWC		50	80	400	202	173	225	None	13.50	STD	B
50D20LWC		50	80	400	202	173	225	None	13.50	STD	A
55457WC	DIN	54	85	440	245	175	175	B3	14.10	STD	A
55458WC		54	85	440	245	175	175	B3		STD	B
55D23RWC	JIS	60	100	500	232	173	225	None	15.70	STD	B
55D23LWC	JIS	60	100	500	232	173	225	None	15.70	STD	A
56318WC	DIN	63	110	580	280	175	175	B4	16.50	STD	A
56330WC	DIN	63	100	520	280	175	175	B3	16.50	STD	A
56638WC		66	110	580	278	175	190	B3		STD	A
58515WC		85	148	770	353	175	175	B3/B4		STD	A
58827WC	DIN	88	140	700	378	175	190	B3	22.50	STD	A
58828WC		88	140	700	353	175	190	B3		STD	B
60044WC		100	175	850	353	175	190	B3		STD	A
AU2266WC	22F Series	60	78	450	240	174	211	None	14.50	DF	A
AU22R66WC	22F Series	60	78	450	240	174	211	None	14.50	STD	B
AU22R54WC		48	62	360	240	174	211		13.20	STD	B
AU2254WC		48	62	360	240	174	211		13.20	STD	A
N100WC		100	165	680	408	175	223	None	23.50	STD	B
N120WC	HEAVY DUTY	115	215	800	505	183	236	None	33.20	STD	D
N150WC	HEAVY DUTY	143	280	950	508	222	238	None	33.50	STD	D
N200WC	HEAVY DUTY	195	400	1100	525	281	243	None	54.50	STD	D
N3854WC		33	52	300	240	135	208	None	12.80	STD	B
N38L54WC		33	52	300	240	135	208	None	12.80	STD	A
NS40ZLSWC	JIS	35	44	270	197	129	227	None	9.50	STD	A
NS40ZLWC	JIS	35	44	270	197	129	227	None	9.50	SM	A
NS40ZSWC	JIS	35	44	270	197	129	227	None	9.50	STD	B
NS40ZWC	JIS	35	44	270	197	129	227	None	9.50	SM	B
NS60WC		40	65	360	238	129	225	None		SM	B
NS60SWC		40	65	360	238	129	225	None		STD	B
NS60LWC		40	65	360	238	129	225	None		SM	A
NS60LSWC		40	65	360	238	129	225	None		STD	A
NS70LWC	JIS	60	100	500	260	170	225	None	16.50	STD	A
NS70WC	JIS	60	100	500	260	170	225	None	16.50	STD	B
NX1105LWC	JIS	70	115	600	260	170	225	None	18.00	STD	A
NX1105WC	JIS	70	115	600	260	170	225	None	18.00	STD	B
NX1207LWC	JIS	75	120	660	304	172	225	None	21.00	STD	A
NX1207WC	JIS	75	120	660	304	172	225	None	21.00	STD	B

ABBREVIATIONS

B3	4 bottom hold-downs 10.5mm high on all four sides
B4	2 bottom hold-downs 19mm high on long sides
BN	Bolt nut terminal
DF	Dual fit terminal
SM	Small terminal
STD	Standard terminal

ASSEMBLY LAYOUT



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