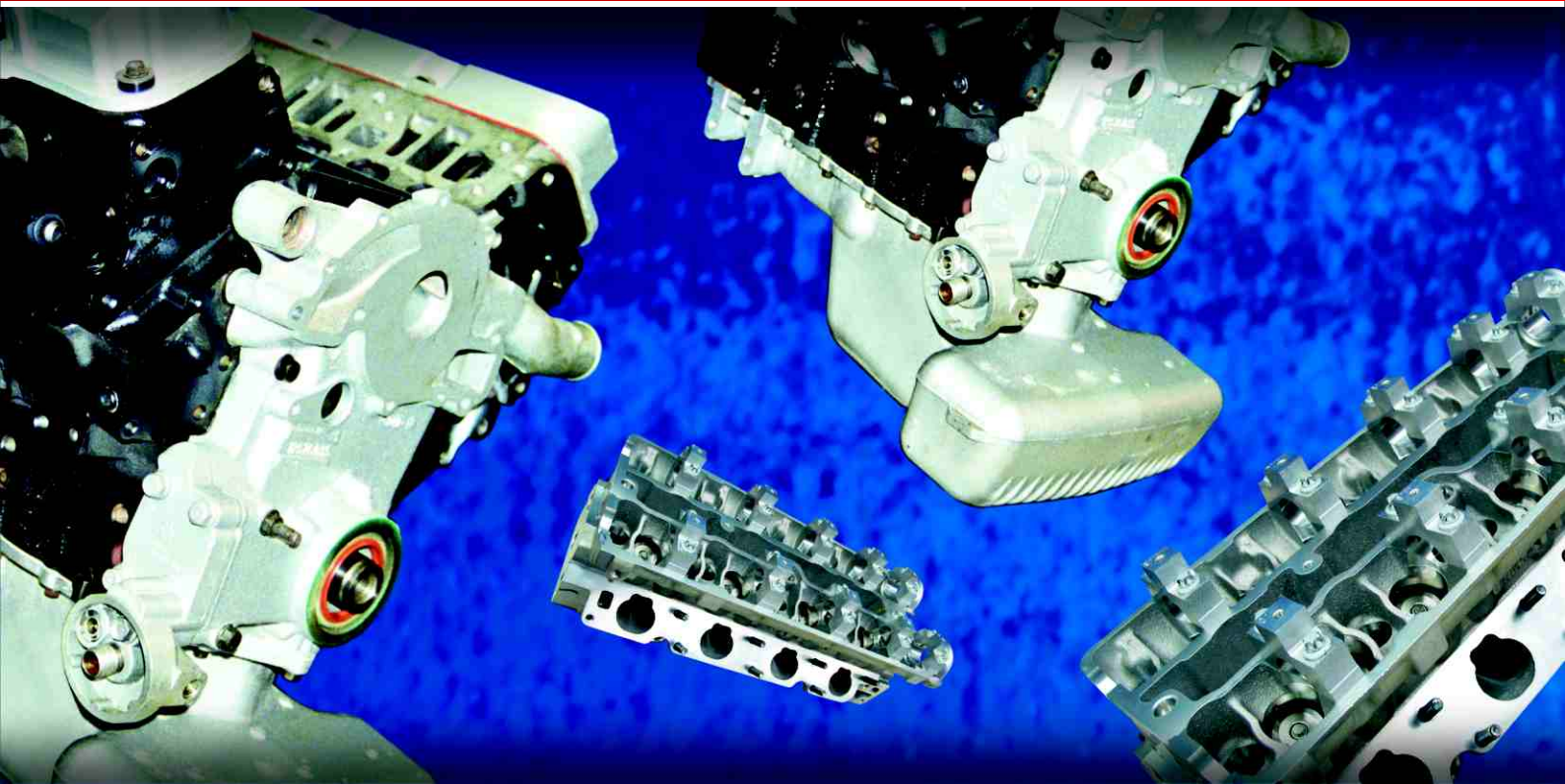


ACDelco[®]

Remanufactured
**ENGINES &
CYLINDER HEADS**
Australian Catalogue Issue 3



REAL CAR GUYS KNOW

ACDelco[®]
Automotive Parts

The ACDelco Story

ACDelco is a premium line of automotive parts sold throughout the world for practically any type of vehicle anywhere in the world...with 70,000 high quality parts covering over 30 product lines to fit most major auto manufacturers.

The extraordinary expertise in automotive technology gives ACDelco a distinct advantage over other suppliers.

Our resources enable ACDelco products to meet or exceed the most stringent original performance standards. When it comes to offering dependable replacement parts for a wide variety of product line and applications, our coverage spans the world.

With our 85-year tradition as an industry leader, ACDelco has acquired the resources, technical advancements and manufacturing processes to outperform the competition anywhere in the world.

ACDelco's resources and capabilities put us on the leading edge of automotive replacement part technology. Consumers and installers can be sure of getting parts to fit today's sophisticated automotive systems - with an emphasis on dependability, availability and quality.

All information contained in this catalogue is based on authoritative information available at the time of publication. However, while every precaution has been taken in the compilation of this information, we cannot accept responsibility for inaccuracies in print or specifications.

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The ACDelco logo is located in the bottom right corner of the page. It features the brand name "ACDelco" in a bold, italicized, sans-serif font. The letters "A", "C", and "D" are significantly larger and more prominent than the other letters. A registered trademark symbol (®) is positioned to the upper right of the "o". A thick, solid black horizontal line is drawn underneath the entire logo.

Issue No: 3

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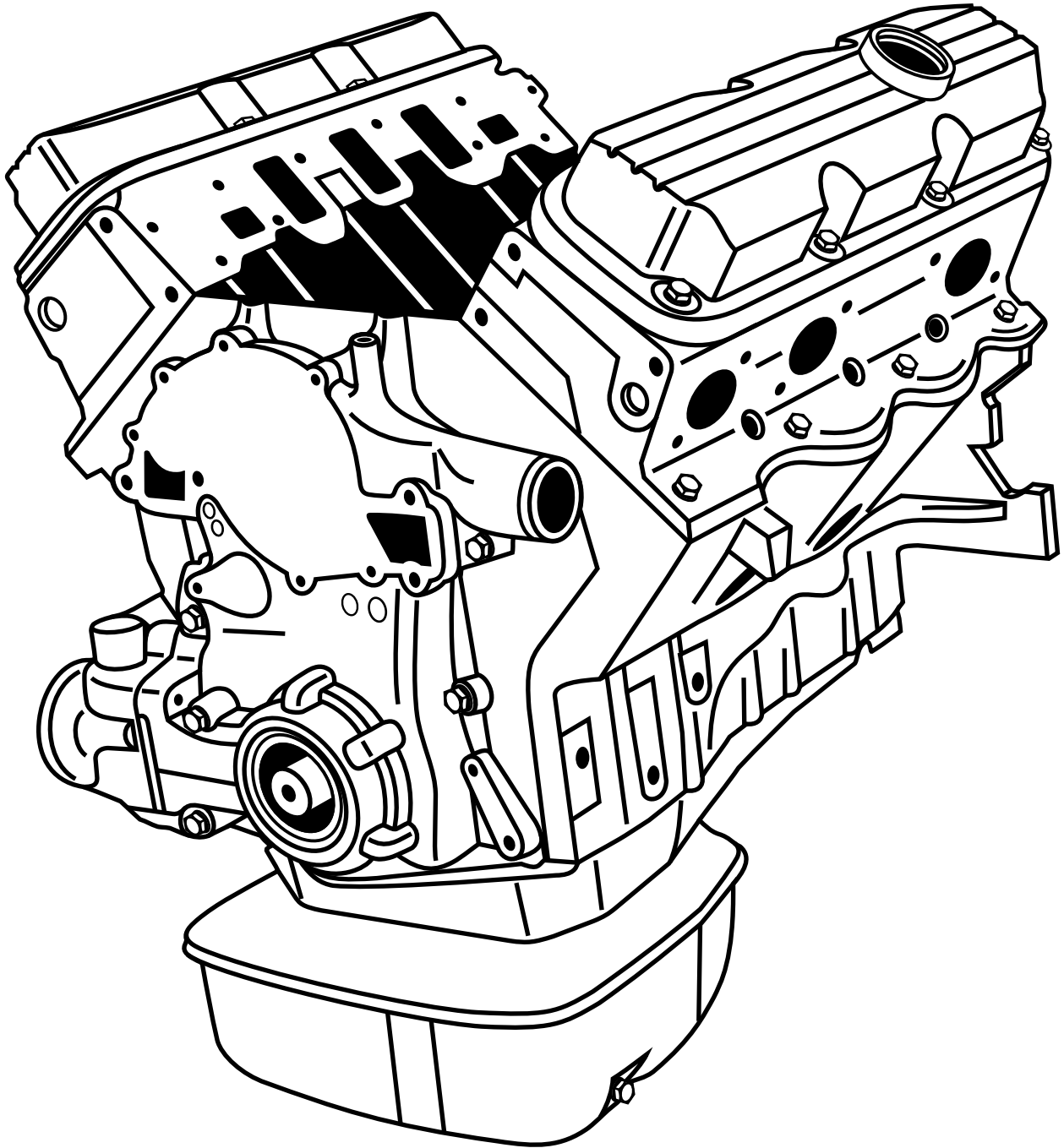
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About ACDelco Remanufactured Engines

Background

Repairing damaged engines is becoming an increasingly more difficult, time consuming and expensive task. But now ACDelco, a worldwide leader in new and remanufactured auto parts makes it easier to get your car moving again with its new generation of remanufactured engines.

Features and Benefits

With a remanufactured engine from ACDelco, there's no need to disassemble your customer's engine and spend hours tracking the faults and repairing or rebuilding it. You remove the old engine, drain the oil and send it us. In return, we give you a completely remanufactured engine, ready to drop in and run. An engine that's been completely stripped and rebuilt by specialists. An engine full of the new components and mandatory improvements to ensure long life and durability.

ACDelco Advantage

- Save hours in labour on an engine replacement.
- 12 Month Unlimited Kilometre Warranty on Remanufactured Engines, 12 Month / 20,000km on Remanufactured Heads.
- National Distribution and Warranty coverage.
- Comprehensive range of makes and models covered by the one trusted brand.

Manufacturing Process

- All ACDelco Remanufactured Engines are dismantled and remanufactured using state of the art technology.
- Premium quality engine components are used to replace all worn, discarded or mandatorily replaced parts
- Engines are rebuilt to exacting standards
- The latest technological updates are built into our remanufactured engines meaning your engine may even perform better than when originally supplied.

Components

- ACDelco remanufactured engines are long motors, come assembled and include:
- cylinder block
- crankshaft
- camshaft
- conrods
- pistons
- timing components and cover (where applicable)
- cylinder head
- rocker components
- oil pump
- sump
- side covers
- rocker cover (where applicable)

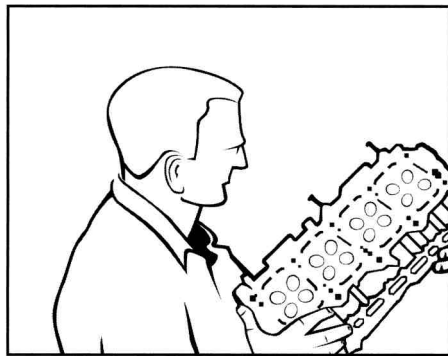
Product Testing

- Every single remanufactured engine is tested under simulated road conditions to ensure they pass the ACDelco performance standard.



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What's The Process Behind Every ACDelco Remanufactured Engine?

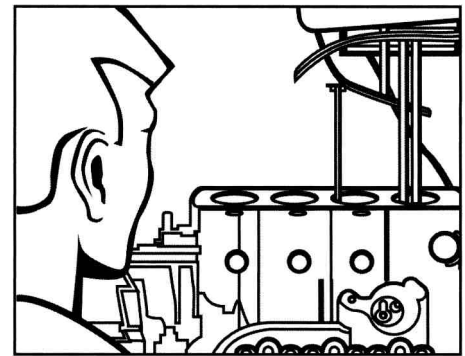


1. Clean & Assess

Our first look.

ACDelco Process:

- Engines accepted for remanufacture by ACDelco are completely disassembled.
- All parts are chemically cleaned.
- Parts are thoroughly inspected.
- Cracked, overworn, unserviceable and mandatorily replaced components are discarded.



2. Machining

Exact and precise.

ACDelco Process:

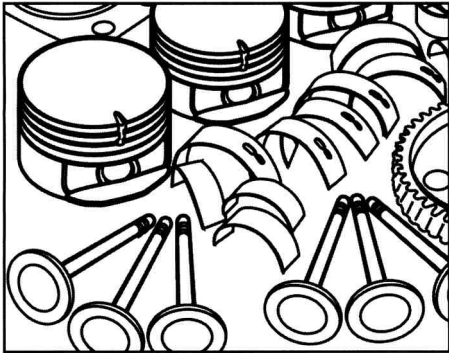
- Engine blocks, crankshafts, camshafts and cylinder heads are remachined using the latest technology.
- Exacting OEM tolerances are met everytime or the part is discarded

3. New For Old Parts

Discarded components are replaced by new premium quality parts.

ACDelco Process:

- New pistons.
- New rings.
- New bearings.
- New timing chains or gears.
- New timing chain guides.
- New timing chain tensioners.
- New oil pump components.
- New engine seals.
- New engine gaskets.
- New engine valves
- New water pump
- New timing belt on belt drive models
- Valve Seats
- Valve Lifts (most apps)

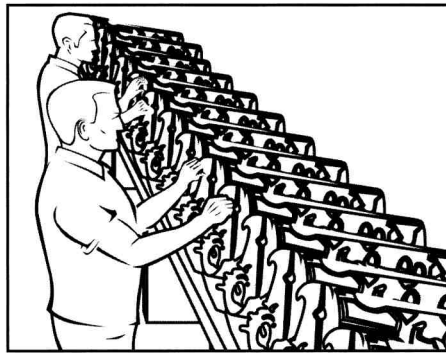


4. Reassembled By Experienced Hands

Experienced technicians reassemble every remanufactured ACDelco engine with the sort of precise fit and finish that only an experienced hand and exact machining can provide.

ACDelco Process:

- Hand Assembled
- Experienced Tradesmen.
- Precise Fit And Finish.
- Assembly Bolt Tensions and Specifications Are Exactly Maintained.

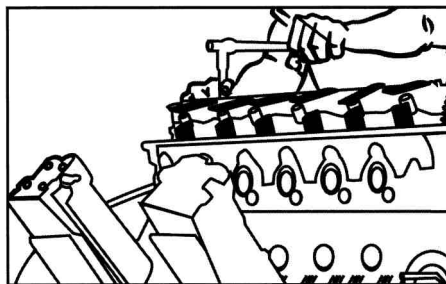


5. Thorough Testing

Every engine is tested to ensure it meets ACDelco's strict specifications and the manufacturers original performance standards.

ACDelco Process:

- Simulators are used to check engines against in-vehicle operational requirements.
- Detailed checks cover all engine functions.
- Passed engines are painted and delivered with ACDelco's 12 month warranty*.



* refer to specific warranty details on page 6.

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About ACDelco's Remanufactured Engines / Cylinder Heads Limited Warranty

Remanufactured Engines 12 Months / Unlimited Warranty

Remanufactured Cylinder Heads 12 Months / 20,000kms Warranty

- Sedans and Station Wagons.
- Commercial Vehicles.
- MPV's, Vans, Utilities, or similar.
- Taxi Vehicles.
- 4WD's.
- Turbo Assisted Passenger Vehicles– original standard equipment - if turbo is professionally reconditioned / renewed.
- Parts & Labour Warranty.

Authorisation

- ACDelco, General Motors Corporation, warrants to the purchaser for the time periods indicated above, that it will repair or replace, at its option, using new or remanufactured parts, any ACDelco Remanufactured Engine that fails due to a defect in material or workmanship.
- ACDelco also reserves the right to refund the money originally paid by the purchaser for the covered engine and related labour to install.

Limited Warranty

- This warranty covers the cost of parts and labour and begins on the date of purchase.
- Gaskets installed at the time of remanufacture at our facility are covered under this warranty.
- Gasket sets packaged with the remanufactured engine are warranted against defects in material and workmanship; however, leaks or other installation related failures are the responsibility of the installer.
- The authorised ACDelco Wholesaler or Retailer who initially sold/installed the engine assembly may perform the repairs or sublet it to an independent service facility.
- This warranty is transferable to subsequent owners provided the original owner properly registered the required warranty information with ACDelco at the time of original purchase.

The Purchaser's Obligation:

- Have the service facility complete and mail the ACDelco Powertrain Registration to ACDelco within ten (10) days of purchase.
- Return the engine/vehicle to the original place of purchase/installation. If not possible, contact the ACDelco Powertrain Centre for assistance at 1300-888-406.
- Allow a reasonable period of time for repairs following return of the alleged defective engine vehicle to the installer's place of business.
- Provide the GM Dealer, ACDelco Wholesaler or Retailer with the purchaser's copy of the original repair order or dated sales receipt and the purchaser's copy of the powertrain warranty registration.
- For technical or other assistance, contact the ACDelco Powertrain Centre at 1300-888-406.

This Warranty Doesn't Cover:

- Damage due to improper installation, negligence, alteration, accident or any use related to racing or competition.
- Towing, rental vehicles, loss of time, inconvenience, loss of use or other economic loss.
- ACDelco engines installed in applications not approved by ACDelco. Approved applications are contained in the ACDelco Remanufactured Engine Catalogue.
- Installations in class "A" motor homes or in marine applications.
- Installations in vehicles where the odometer is non-functional or the mileage reading has been altered.
- Damage caused by lack of proper maintenance as described in the vehicle's original maintenance schedule, failure to follow maintenance schedule intervals or failure to use or maintain proper types and levels of fluids, fuel, oil and lubricants recommended in the maintenance schedule.
- Proof of proper maintenance is the owner's responsibility. Keep all receipts and be prepared to make them available if questions arise about maintenance.

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Warranty Return Procedures

If the installed ACDelco Engine / Cylinder Head does not operate properly, follow these steps:

1. Gather Information

Gather the following information prior to calling the ACDelco Powertrain Centre at 1300-888-406

- ACDelco engine serial number.
- ACDelco engine / cylinder head part number.
- Vehicle Make / Model / Year / Registration No. / VIN.
- Original proof of purchase / Invoice No.
- Date original ACDelco engine / cylinder head was installed.
- Km at time of installation and current Kms.
- Name & phone number of ACDelco remanufactured engine supplier (The dealer, authorised ACDelco Wholesaler or Retailer who initially sold the engine assembly).
- Installation date.
- Engine symptoms.

2. Communication

The ACDelco Powertrain Centre will:

- Request the above information.
- Assess information provided.
- Recommend appropriate action.
- Recommend/authorise repair or replacement.
- Provide claim authorisation number (if applicable).
- Provide shipping instructions for return of engine (if applicable).

3. Authorisation

If engine repair/replacement is authorised by the ACDelco Powertrain Centre, ACDelco may provide an engine or parts to installer for warranty work.

- If engine / cylinder head is to be replaced, installer must provide the ACDelco engine supplier with claim number to procure replacement engine / cylinder head.
- If engine is to be repaired, installer must provide repair invoices for compensation to the ACDelco engine supplier.

4. Returns

Return replaced engine or parts to ACDelco engine supplier, or to a location designated by the ACDelco Powertrain Centre.

- Replaced engine must be returned with fluids drained and packed for shipment using shipping container from the ACDelco engine.

- Returned engine will be analysed for root cause of alleged defect(s) to verify warranty coverage.
- ACDelco reserves the right to deny a warranty claim due to improper installation, negligence, alteration or accident.

5. Claims

Provide all invoices for parts and labour to the ACDelco engine supplier, notating each document with the assigned claim number.

- All defective engines or components must be returned at owners expense for inspection within 7 days of repair being effected, otherwise, the claim will not be accepted.
- Payment of sublet labour for work carried out will be calculated at manufacturers standard time and will be paid directly to the customer at the ruling applicable Warranty rate.
- Unless you have ACDelco's prior consent, never supply an engine or component as "NO CHARGE" to a customer before a claim has been accepted.

6. Reimbursement

Warranty parts MUST be returned for vendor claims before any payment can be made. If parts are misplaced or lost a warranty claim will not be accepted.

- Authorised warranty reimbursement will be paid directly to the ACDelco engine supplier.
- Subsequent reimbursement to the installer/purchaser will be made by the ACDelco engine supplier.
- All parts will be invoiced at cost plus tax.
- All documentation should be forwarded to the ACDelco Engine Centre with claim number clearly shown.

Please Note

- With business vehicles, another engine may be supplied and charged to the customer pending the result of dismantled inspection. If claim is accepted, a full credit will be processed.
- Under no circumstances will payment for oil, oil filters, phone calls, towing fees, freight, loss of profit, and demurrage arising out of a claim, be accepted.

Serial Number & Part Number Locations

To find the Remanufactured Engine's Serial Number and Part Number (also known as Model Number), locate the ACDelco Engine Tag located on the ACDelco Engine. These two numbers are needed prior to calling the ACDelco Powertrain Centre in order to open a warranty claim.

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Exchange Policy

Credit Requirements

Your deposit will be credited when an exchanged engine / cylinder head meets the following requirements:

1. Is free of any external visual damage to the engine, eg. no hole in block.
2. The engine / cylinder head returned is identical to the engine sold and is fully assembled with a legible engine number.
3. There are no visible signs of an attempted repair being previously performed, eg. the cylinder head has not been removed previously.
4. All similar parts supplied with ACDelco remanufactured engine / cylinder head must be on the old exchanged engine / cylinder head. A cost charge will be debited for missing parts.
5. The old exchanged engine / cylinder head must be identical to the make and model of the remanufactured engine purchased. The deposit will not be refunded until it is established by inspection that the old engine / cylinder head is the same make, model, capacity and/or construction.
6. The old engine / cylinder head being exchanged must be assembled and complete within the cover or crate that the ACDelco Engines unit was supplied in and must be free from visible external damage. The sump oil must be removed.
7. The old engine / cylinder head being exchanged must be received within fourteen days of date of purchase of the ACDelco remanufactured engine / cylinder head.

Engine / Cylinder Head Return Inspection

It is critical that careful inspection occurs on all "deposit" engine / cylinder head returns to confirm that the unit is the correct model in exchange for the ACDelco remanufactured unit – and that it is suitable for remanufacture, otherwise penalties may be applied. A recommended inspection procedure is detailed later in this catalogue (see page 21) and should be followed.

Damaged Core Policy

Penalty charges apply to the refund of the deposit for exchange engine / cylinder head as follows:

- 80% of Deposit Value, if...
 - exchanged engine / cylinder head is not identical to the unit supplied and described on the purchase invoice.
 - exchanged engine / cylinder head is damaged beyond normal repair, eg. hole in block, cracked or broken crankshaft.
- 50% of Deposit Value, if...
 - exchanged engine / cylinder head has broken gearbox lug or similar damage.
- 10% of Deposit Value, if...
 - exchanged engine has damage to sump or timing cover and/or
 - exchanged engine / cylinder head is incomplete, ie: missing components which were supplied with ACDelco's remanufactured engine (eg. rocker cover or side plates, etc).

Please note

Above conditions are subject to change without notice.

Stock Returns

Units authorised for return to ACDelco may be subject to a 15% penalty charge to cover the costs of inspection and/or transit damage unless the reason for return is an error by ACDelco.

Lawful Registration Requirement

Vehicle owners must advise the relevant vehicle registration authority of their change in engine number. Failing to do so could result in prosecution.

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How To Get The Best Out Of Your ACDelco Remanufactured Engine / Cylinder Head

Engine Fluids

Lubricants and coolants are the lifeblood of an engine and only premium products should be used in ACDelco's remanufactured engines. Using low priced oils and coolants is false economy and ultimately will cost money instead of saving it.

Engine Oil

Engine oil lubricates engine components by acting as a barrier between the internal metal parts. It also cools by carrying away heat from the hotter parts of the engine. It must protect parts from corrosion and keep the engine clean by carrying wear particles, dirt and dust in suspension to the filtration system. And assist with good fuel economy. Some oils do this better than others because the additives used in the different oils can vary greatly, as does pricing. There are still oils in the market place with specifications that are decades old and priced accordingly.

ACDelco's Oils Are Preferable

To get the most out of your remanufactured engine, only premium "five star" quality oils should be used.

Check Your Application

Valve train components are very susceptible to problems from inadequate lubrication. LPG engines should use a specific LPG oil.

Oil's cheap, engines aren't

Many engine failures can be directly traced to inadequate lubrication, so please remember: oil is cheap, engines are not.

Coolants and Corrosion

Modern engine and cooling systems have a far greater mix of different metals, which promotes corrosion. Today's engines are also working harder under more difficult conditions, developing more heat which also contributes to corrosion. Many rust corrosion inhibitors have been taken off the market due to poor performance but unfortunately many low price, poor performers can still be purchased. Avoid at all cost. Unmanaged corrosion can destroy cylinder heads, engine blocks, water pumps, thermostat housings, timing covers, cylinder liners, radiators and welsch plugs in less than three months. Corrosion is almost impossible to stop, but it can be controlled by using only the best products which exceed the Australian Standard. Complete fill products are best - no water is added. Concentrates may be used as a second option, but should be mixed with demineralised (soft) water to very exact concentrations and never topped up with plain water. It is important to note that the concentration is critical - too little or too much can be more damaging than plain water in some circumstances.

Use ACDelco Fluids and Protect Your Investment

As distributors and resellers of ACDelco's remanufactured engines / cylinder heads, only use and promote lubricants or coolants of premium quality such as ACDelco to protect your engine and reputation.

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Installation Guidelines

Why Replaced Engines Fail And How To Prevent It Happening To You

Replaced engines can fail for the following reasons...

1. Contamination

- To prevent failure: Never use surface conditioning disks, i.e., Scotch Brite Discs, Scat Pads, Roloc-Bristle Brush Discs, etc.
- Always replace oil cooler if prior engine failed or if bearing failure is suspected.

2. Transferring Old Problems(s) To New Engine

- Qualify the performance and cleanliness of all components and systems, i.e., ignition, cooling, fuel & EGR.

3. Overheating

- Flush or replace radiator.
- Verify water pump is performing at peak efficiency or replace it.
- After coolant fill, purge all air from the engine block.

Guidelines For Installing An ACDelco Engine

- Read the engine installation instructions provided with each engine prior to removal of existing engine.
- Surface conditioning discs contain destructive abrasives and should not be used to clean gasket sealing surfaces or any transferred parts.
- Properly pre-lube engine (see Pre-Lube Guidelines).
- Thoroughly clean transferred parts (see detailed Engine Replacement instructions for specific component concerns).
- Contact 1300-888-406 for any questions.

Pre-Lubrication Guidelines

- If engine components do not receive proper lubrication, they will scuff and/or seize.

Required Methods to Pre-Lube an ACDelco Engine Procedures for Mechanical Distributor Applications

- Fill the crankcase with an A.P.I./S.A.E. certified engine oil. Refer to the owner's manual for recommended volume, seasonal viscosity, and grade.
- Insert an oil pump priming tool or an old distributor shaft in place of the distributor.
- Rotate the oil pump priming tool or distributor shaft with a drill at 200 to 500 RPM for two additional minutes after pressure builds up in the engine to ensure that critical remote areas are sufficiently lubricated.
- The distributor method is preferred because it also verifies the operation of the oil pump, pick up tube/screen and allows for extended oil re-circulation and filtration.

Pressurised Engine Pre-Lube Procedure

- A pre-lube provides pressurised oil to the engine. It reduces the chance of bearing damage which occurs due to lack of lubrication or oil dilution.
- A pressurised engine pre-lube is highly effective on non-distributor drive systems, as well as mechanical distributor drive systems.

REMANUFACTURED ENGINES / CYLINDER HEADS

- WORKSHOP GUIDE -

Installation Guidelines

Getting Started

- It is highly recommended that you read these installation instructions and the applicable service manual for your specific application before you begin the installation process.
- By preparing ahead you will minimise the time needed to complete the installation. More importantly, you will greatly increase the likelihood of a successful installation and extend the longevity of this engine.
- As you read these instructions, pay particular attention to the recommended tools, additional parts & specifications you will need to know before you begin.
- Even seasoned technicians can make mistakes or take risky short cuts. Please take the time to do it right because with ACDelco "The Right Way is the Only Way"

Introduction

- ACDelco Remanufactured Engines are put through a rigorous process of cleaning, inspection and machining in order to ensure the exceptional quality and traditional value you have come to expect from ACDelco.
- To keep that exceptional quality, the engine must be installed properly with great attention to even the smallest detail.
- The purpose of this guide is to give you an overview of how to properly replace the old engine for an ACDelco Remanufactured Engine.

Long Block Assembly

Your ACDelco Remanufactured Engine is a long block assembly with the applicable parts:

Remanufactured:

- Engine block, crankshaft, head(s), camshaft, connecting rods, rocker arms, & roller lifters.

Reclaimed and Revalidated:

- Push rods, valve springs, non torque-to-yield fasteners, balance shafts.

New or Reclaimed and Revalidated:

- Oil pan, rocker arm/valve cover(s), front cover, and fasteners for tinware. Some valve covers may have to be exchanged).
- Please note that certain ACDelco engines do not have these components and therefore will require transfer of these parts from the engine being removed.

New:

- Pistons, piston rings, flat lifters, freeze plugs, galley plugs, valves, valve seats, valve stem seals, dowel pins,

timing components, overhaul gasket set, all bearings and seals, torque-to-yield fasteners, hydraulic / Roller Lifters and water pumps on applicable applications.

Attention!

The Installer must identify and repair any problem(s) that may have caused the original engine to need replacing.

If the root cause of engine failure is not corrected, subsequent engines may fail & are not covered by the ACDelco warranty.

Root cause failure(s) are often found outside the base engine itself & therefore the attaching components & systems must be assessed & replaced as needed during the installation process.

Diagnoses related to the proper fit & function of the following items or systems include:

- Fuel, Lubrication, Cooling, (including thermostat and radiator cap),
- IGNITION TIMING (set the dwell and ignition timing, check mechanical, vacuum advance and total ignition advance),
- INDUCTION, EXHAUST (including plugged catalytic converters),
- E.F.E. VALVE, E.G.R., VACUUM and ELECTRICAL are MANDATORY.

Warning!

When cleaning gasket sealing surfaces on the ACDelco engine and/or when cleaning parts being transferred from the failed engine, the use of SURFACE CONDITIONING DISCS, which contain aggressive abrasives such as ALUMINIUM OXIDE, can cause immediate bearing failure.

THE USE OF SURFACE CONDITIONING DISCS IS STRICTLY FORBIDDEN and CAN VOID THE WARRANTY.

Some products known to contain abrasives are i.e. SCOTCH BRITE ABRASIVE DISCS, ROLOC BRISTLE DISCS, SCAT PADS.

Acceptable methods of removing gasket material from transferred components are:

1. Hand Scrapers
2. Aerosol Gasket Remover



Installation Guidelines

Engine Oil Cooler

If the engine being replaced has failed, the Engine Oil Cooler must be replaced and the oil lines and oil filter adaptor must be removed and thoroughly flushed or replaced.

Please note: the oil filter adaptor may be incorporated in the engine block, attached to the engine block or located in a remote location.

Engine Updates

This engine has been remanufactured subsequent to the model year of the vehicle, and as such may incorporate design refinements not included in the original service information.

For example, engines may incorporate design refinements contained in more current model year(s).

If future service is necessary for this ACDelco engine, call the ACDelco POWERTRAIN CENTRE at 1300-888-406, for proper service parts and service procedures necessary to accommodate any refinements incorporated in the ACDelco engine.

Before Installing an ACDelco Engine:

Verify that the engine is correct for the application, refer to the appropriate Vehicle Chassis Service Manual for proper repair procedures and specifications, if not covered in this installation guide (eg. Fastener torque, torque sequencing, ignition timing, and air purge during coolant fill).

Transferable Components

Take out the old engine, mount it on an engine stand, and carefully remove those components that are expected to be transferred to the ACDelco engine.

The following is a list of parts that need to be qualified prior to transfer and what to look for when inspecting them for wear and or damage. If they are damaged or were probable causes of the original engine failure, they should be replaced.

A. Intake Manifold

1. Inspect the intake manifold's machined surfaces for flatness using a straight edge. If the manifold is warped or the machined sealing surfaces are damaged, it may not seal properly, thus, allowing coolant, oil and other contaminants to enter the combustion chambers or crankcase.
2. Check for cavitation erosion or pitting.
3. Check for obstructions in the internal EGR or exhaust crossover passages, in addition, look for cracks at the bolt holes and sensor mounting holes.
4. Always clean the intake manifold before it is placed on the new engine (by removing the baffle if so equipped) and thoroughly clean the EGR passages. Any foreign material left in the intake manifold can be reintroduced into the replacement engine. This material can cause immediate piston and bearing damage or failure. Foreign material reintroduced or introduced, i.e., a loose bolt dropped into engine, are NOT covered by the ACDelco warranty
5. Do not use hostile blasting media i.e., sand, glass beads, steel shot or any type of hard media due to its propensity to contaminate the engine. In addition, Do not use surface conditioning discs, these types of cleaning media are associated with engine bearing failures.

B. Flywheel / Flex Plate / Ring Gear

1. Check the flywheel for flatness using a dial indicator; refer to manufacturer's published information regarding exact specifications. Check for damaged or worn teeth on the flex plate ring gear or flywheel. Replace if worn or damaged.
2. Inspect the mounting holes and the torque converter or pressure plate mounting holes for cracks or wear. Inspect the clutch contact surfaces for heat cracking and discoloration. As with the components listed above, if cracks are found, replace the plate with a new plate.
3. The crankshaft pilot bushing must be transferred or replaced as required. A pilot bushing does not come with the ACDelco engine.

REMANUFACTURED ENGINES / CYLINDER HEADS

- WORKSHOP GUIDE -

Installation Guidelines

C. Pressure Plate/ Release Bearing /Clutch Disc

1. Inspect the clutch contact surface for heat checking or cracks & the release fingers for wear & even height.
2. Check the release bearing for facial wear and smooth rotation and the pressure plate for flatness.
3. The clutch disc will need to be inspected for oil contamination and excessive wear such as heat cracking of friction material, worn friction material, loose rivets, and broken springs. If any of these conditions exist, replace the pressure plate, release bearing and/or clutch disc.

D. Exhaust Manifold(s)

1. Inspect the exhaust manifold(s) flanges for flatness and for carbon 'witness' marks. Witness marks may indicate a leak has occurred. If leaking is indicated or if the exhaust manifold(s) sealing surfaces are not flat, replace it with a new or qualified manifold.
2. Check the manifold(s) for cracks and shrinkage especially at the external EGR connections, the exhaust pipe flanges, and the manifold's mounting flanges. Compare the mounting hole spacing on individual runners to the new cylinder head for exhaust manifold shrinkage. If there is excessive shrinkage, it will hinder or prohibit its installation, therefore, replace it with a new or qualified exhaust manifold.

E. Water Pump

1. It is highly recommended that the water pump be replaced when installing an ACDelco engine. If the old water pump is reused, qualify it by checking for impeller looseness, front seal leakage and for smooth bearing feel. Water pumps exhibiting any sign of wear should be replaced.

F. Distributor

1. On engines that contain a distributor ignition system, it is critical that time be spent assessing any parts associated with the distributor and related components. The reuse of unqualified or failed distributor parts can negatively affect the engine timing, performance and driveability.
2. The drive gear should be checked for honed teeth, the shaft should rotate freely and have no side play. The body and block seals should be free from distortion and cuts. Replace seal if necessary.
3. The cap/rotor should be free of corrosion, cracks and

burrs. If these conditions are found, replace.

4. The distributor/oil pump drive should be free of nicks, burrs and chipped teeth. If any of these conditions are present, replace the distributor.

G. Other Transferable components

- Mechanical fuel pump - On high mileage vehicles with the original OEM FUEL PUMP, it is recommended that the fuel pump be replaced.
- Harmonic Balancer - Many times, the harmonic balancer's sealing surface has worn grooves from the front cover crankshaft seal. The balancer must be repaired or replaced to prevent a leak in the front cover seal.
- All pulleys and other brackets should be inspected for alignment and physical integrity.

• Cleaning Components

- Clean all of the components thoroughly, making sure that all the old gasket material is properly removed.
- Acceptable methods of removing gasket material from transferred components are:
 1. Hand Scrapers
 2. Aerosol Gasket Remover

• Don't Use Surface Conditioning Discs

- Do not use surface conditioning discs on any surfaces that will be exposed to oil, coolant, or fuel in your replacement engine.
- Any component that can not be cleaned or repaired to acceptable working order or is not within the manufacturer's specifications, should be replaced with a properly functioning service part.
- When cleaning aluminium components, be particularly careful not to nick or gouge the sealing surfaces.

• Component Re-use

- As a general rule, the re-use of transferred parts should be minimised.
- The greater the number of components replaced rather than re-used, the greater likelihood of a successful installation and long term satisfaction with the choice to repower with an ACDelco engine.
- While the engine is out of the vehicle, take advantage of the accessibility of the components and replace as many worn parts as possible. Parts transferred from the original engine may be beyond their design life or may be performing marginally at best. Questionable parts re-used will hinder the performance of the ACDelco engine. If they are not replaced, it may lead to customer dissatisfaction and cost more in time and money than replacing them up-front.



Installation Guidelines

• **Mandatory Replacements**

Components that should be considered automatic replacements are as follows:

- Thermostat.
- PCV valve and crankcase breather filter.
- Spark plugs and spark plug wires.
- Filters: oil, air, fuel, transmission.
- Hoses.
- Belts.
- EGR Valve.
- Oxygen Sensors.

• **Check Other Components**

Other components may need to be replaced in order for the ACDelco engine to function to its full potential.

Check the working condition of components such as the:

- Starter motor.
- Cooling fan motor.
- Battery.
- Battery cables.
- Fuel injectors.

Flushing The Cooling System

If the old engine is still running, flush the cooling system before exchanging engines.

If the engine is not running, remove the radiator and have it professionally flushed or replace it with a new radiator.

The cooling system enables heat to be transferred from the engine. Corrosion, improper coolant to water ratios & old coolant can hinder the transfer of heat.

Overheating can cause engine damage or failure. Refer to the service manual for the specific instructions for flushing the vehicle's cooling system.

For basic instructions on flushing the cooling system, refer to the section later in this guide describing flushing procedures.

Engine Installation Outline

The following is an outline of the steps involved in installing an engine.

They are provided as a general order in which the components should be transferred from the take-out engine and on to the ACDelco engine.

To begin, have the replacement ACDelco engine mounted on an engine stand. Position it so that the intake valley is on top.

1. Install the dampener using a dampener installation tool.

- Be sure to visually inspect the alignment of the dampener before proceeding.
- To prevent an oil leak, add RTV sealant in the dampener key slot to seal the key to the key way.

2. Install the water pump.

- When using the old pump, be sure to inspect the front shaft seal for leakage, the bearings for smooth bearing feel, and the impellers for looseness and wear.
- Coat the bolts that enter the water jackets with RTV sealant.
- Apply RTV sealant to the front cover and block joint.

3. Pre-lube the engine before continuing.

- Fill the crankcase with an A.P.I. certified engine oil. Refer to the owner's manual for recommended volume, seasonal viscosity, and grade.
- The easiest and most efficient way to pre-lube the engine (if working on an engine with a mechanical distributor), is with a hand-held drill via the distributor shaft oil pump interface.
- If the engine does not have a distributor driven oil pump, use a pressurised engine pre-luber. This will work on all applications.
- See pre-lubing instructions later in this section for detailed procedure.

4. Install selected gaskets & seals

- Once the engine is pre-lubed, install the intake manifold side gaskets and the end seals on the block and cylinder heads, placing RTV sealant at the corners.

Warning! Any exposed Block and Head Sealing Surfaces on the ACDelco engine DO NOT require any cleaning (i.e. Surface Conditioning Pads). The black colour of the surface is normal and is a result of the remanufacturing process and not paint over spray. It does not have a detrimental effect on the engine.

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Installation Guidelines

5. Install the intake manifold

- Install the intake manifold making sure to torque to spec the bolts in the proper sequence.
- Refer to the service manual for that vehicle and application for the specific sequence.
- As a rule of thumb, tighten the bolts from the inside out, alternating sides and crisscrossing front to back.
- If the intake manifold does not seal properly to the heads, water, oil and other contaminants can enter the combustion chambers and therefore can cause considerable damage.

6. Install the valve cover(s).

- If valve cover(s) are removed to facilitate intake manifold installation, be sure to re-torque to spec those fasteners in the proper sequence.
- As with the intake manifold, the valve covers need to seal properly to avoid damage to the engine.
- Refer to the applicable service manual for specific sequence and torque values.

7. Set the static ignition timing.

- After the valve covers have been replaced on the remanufactured engine, set the static ignition timing.
- Refer to the service manual for the proper procedure.

8. Install exhaust manifold

- After setting the timing, install the exhaust manifold

9. Install fuel pump & fuel lines

- Install the fuel pump and fuel lines being sure of the proper routing for the fuel lines.

10. Install the vacuum hoses.

- Install the vacuum hoses.
- Check hoses for cracks or damage.
- Replace them with new as necessary.

11. Install other components:

Install all other components (if applicable):

- Front end brackets
- Crankshaft pulley
- Water pump pulley
- Air conditioning compressor
- Air pump
- Alternator (generator)
- Power steering pump
- All sensors that were removed from the original engine
- Engine mounts (engine to frame) inspect for worn, cracked, loose or damaged mounts replacing with new as necessary
- External EGR components

12. Install flywheel and clutch

- Install the flywheel and clutch components

13. Remove from stand

- Remove the engine from the engine stand

14. Install engine

- Install the engine in the vehicle

15. Reconnect engine.

- Reconnect transmission, exhaust system and any other component disconnected when removing the original engine.



Installation Guidelines

About LPG Use

Agents selling reconditioned engines have the responsibility to establish whether the engine will be used for LPG fuel.

The following information is critical:

1. Oil consumption

- Oil consumption will in some cases be higher for an engine running on LPG. The cooling effect of the vaporising petrol is absent from the inlet valve and this combined with slightly higher combustion temperatures obtained with LPG can make the inlet valve run hotter, hence oil in the inlet guide region tends to flow more easily down the guide, despite there being the normal sealing arrangements.

2. Valve seat wear

- As LPG doesn't have the same lubrication properties found in petrol, it can have the unfortunate side effect of causing rapid valve seat wear, especially if the engine is subjected to hard work or prolonged high speed driving where exhaust valve temperatures are high. Therefore, the use of a high quality valve seat insert, as used in ACDelco engines, is essential.

3. Bearing corrosion

- Another area that can reduce the engine's life is the bearings which in some cases may suffer from a corrosive effect if the lubricating oil is left in the sump for too long.

4. Dual fuel vehicles

- It is strongly recommended that where an LPG engine is installed in a dual fuel vehicle, that it is run-in on petrol for a minimum of 10,000 kilometres, prior to changing to LPG constant use.

About Diesel Engines

- Check injector pump timing marks and remark if necessary.
- Replace or overhaul injector pump and injectors.
- Set injector pump timing with dial indicator, pulse timing light and/or spill timing.

Before Initial Start Up

Before the initial start-up:

1. Make sure of the following

- Make sure the battery is fully charged.
- Make sure the engine has been full and properly pre-lubed, the oil is at its proper level, and the engine is pressurised completely.
- Pressure check the cooling system, pressure should not exceed 20 psi (138 KPA).
- Check hoses.
- Check cylinder heads.
- Check freeze plugs.
- Radiator - Check the core, transmission oil cooler, and the drain cock.
- Radiator cap - be sure it is the correct cap for your application and it maintains pressure. (New cap recommended).

2. Check the routing

Check the routing of various other components such as:

- Belts - check the tension and adjust them accordingly, if needed.
- Electrical harnesses - Check the ignition wiring and firing order, the harnesses and wires to the alternator (generator), cooling fan, starter, sensors and the carburettor (if applicable).
- Intake system - check the ducts, filters and vacuum hoses for proper placement and condition.
- PCV system - check the hoses and clamps for proper placement and condition.
- Fuel lines - check for proper placement and condition. Replace if necessary.
- Refer to the Vehicle Emissions Control information label for the proper hose routings.

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Installation Guidelines

After Initial Start Up

1. Check for fluid leaks

Check for fluid leaks in the following areas:

- The entire fuel system.
- Valve/Camshaft cover gasket(s).
- Cylinder head gasket(s).
- Oil Filter.
- Oil level indicator (dipstick) tube.
- Oil pressure sending unit.
- Cup plugs or pipe plugs at the end of the oil passages.
- Oil pan gaskets.
- Oil pan front and rear end seals.
- Crankshaft front and rear seals.
- Side bolts.

Note: If any oil leaks are found, but the source of the leak is not detectable, use the "Black light & dye kit" or the "Pressure method" to pinpoint the source of the leak.

2. Check fluid levels & conditions

Check for fluid levels and conditions of the following:

- Engine Oil.
- Check for factory recommended pressure (see manual) at operational temperature.
- Verify oil level is at the manufacturer's recommended amount.
- Engine coolant.
- Make sure the thermostat is functioning properly.
- Be sure the coolant is flowing freely through the system and all air has been purged from the system.

3. Check fluid levels, colour & smell

Check the following fluids for level, colour and smell. If any are found to be darker in colour or smell burnt, drain and flush before refilling.

- Transmission fluid.
- Power steering fluid.
- Brake fluid.

4. With the engine running, listen for noises such as:

- Abnormal noises.
- Detonation.
- Exhaust leaks.
- Vacuum leaks.
- Tapping / Knocking.
- Loose or broken attaching components.
- Drive belts.

5. Set dynamic ignition timing

- Dynamic Ignition Timing should be set at this time, if applicable.
- Incorrect timing is a cause of engine failure. Be sure to check vehicle's timing is correct.
- To verify specifications or procedures used in adjusting the timing and the idle speed, check the manufacturer's published information. Also, refer to the Vehicle Emission Control Information label for specifications.

6. Check the engine vacuum.

To do this:

- Install a vacuum gauge at the intake manifold.
- The vacuum gauge should read steady at approximately 18 in Hg at idle or above depending on the altitude.
- A low vacuum reading may indicate a restricted exhaust system.
- A fluctuating vacuum may indicate internal engine concerns.

7. Check other items:

- Check belt tension if applicable.
- Check component routing.

Appendix

Pre-Lubing the Engine

One of the most crucial steps in installing a new remanufactured engine is to pre-lube the new engine before the initial start-up.

If the engine components do not receive proper lubrication, the engine bearings will be damaged or seize.

There are two preferred ways to pre-lube an engine. With each method, it is very important not to overfill the engine with oil. Only use the manufacturer's recommended amount for that application.

A. Distributor Method

The most common method of pre-lubing an engine is with a mechanical distributor. If this is possible with the particular engine application being replaced, use the procedure as follows:

1. It is recommended to fill the oil filter provided from an Engine Oil Supplement (E.O.S.), Pour the remainder over the camshaft if exposed or in the oil fill port to ensure that these areas are well lubricated. E.O.S. is a highly effective engine break in compound specifically designed to reduce scuffing during the initial break-in. Fill the crankcase with an A.P.I. certified engine oil. Refer to the owner's manual for recommended volume, seasonal viscosity and grade.
2. Insert an oil pump priming tool or an old distributor shaft in place of the distributor.
3. Rotate the oil pump priming tool or distributor shaft with a drill at 200 to 500 RPM for two additional minutes after pressure builds up in the engine. This is to flush any debris from the engine without placing a load on the bearings while maximum clearances are present and to ensure that critical remote areas are sufficiently lubricated.
 - Be sure to check in either the service manual for the engine/vehicle or the intake manifold for the direction of the distributor; either clockwise or counter-clockwise.
 - The oil has built up enough pressure in the engine when the oil flows freely over all the rocker arms.
 - The distributor method is preferred because it also verifies the operation of the oil pump, pick up tube/screen and allows for extended oil re-circulation and filtration.

B. Pressurised Engine Pre-Luber Method

Another method of pre-lubing the new remanufactured engine is to use a pressurised engine pre-luber.

These types of pre-lubers provide pressurised oil to the engine. It also reduces the chance of bearing damage, which occurs due to lack of lubrication or oil dilution.

Because there are so many engine oil prelubers on the market today, follow the manufacturer's instructions for use.

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Appendix

Flushing the Cooling System

Flushing the cooling system is probably one of the most important, yet one of the most overlooked procedures when installing a remanufactured engine.

It is important to rid the system of corrosion and other contaminants to ensure that the new engine has the proper heat transfer characteristics. Otherwise, the engine will overheat which may cause considerable damage.

In addition to flushing the system, take the time to verify the reliability and overall quality of the entire system including the radiator and hoses.

Besides checking the water pump, flush the radiator thoroughly and check for blockages.

Also, replace or inspect hoses and check for cracks, rips, brittleness and soft spots.

Because the engine is newly machined and the components are not fully broken in, the engine will run hotter.

Therefore, make sure that the entire cooling system is in very good working order so that the excess heat can be properly transferred and taken away from vital engine parts.

Flush the system before pulling out the old engine, provided the old engine is still running.

If this is not the case, remove the radiator and have it professionally flushed or **replace it**.

Before flushing the system, check with the service manual for that specific make and model of vehicle to determine if the system has any unique features, and which procedure is recommended for flushing the system.

Some models feature air bleed vents similar to those on a brake system.

They are used for basically the same function: to bleed air bubbles out of the system.

Because air pockets can cause the engine to overheat, it is very important that all air is out of the cooling system before the vehicle is driven.

A common method of flushing the cooling system, which does not require any special tools or equipment, is simply to flush the system with a garden hose as follows:

1. Remove the radiator cap

- Remove the radiator cap from the radiator by slowly turning it counter-clockwise.
- When all the pressure (indicated by the hissing sound) is released you may remove the cap.
- Do not take the cap off quickly. Since the coolant mixture is under pressure, it could splash up and cause injury if the pressure is released too quickly.

2. Open cylinder block drain valves

- Open the cylinder block drain valves, making sure to have the proper drainage containers to drain the coolant into for proper disposal.
- Do not dump the coolant down the drains.

3. Place hose inside the radiator

- Place a garden hose inside the radiator and let the water circulate while the engine is running. This will effectively flush the cooling system provided that there are no blockages in the system.

4. Check overall system is working

- Be sure to check the overall system to ensure it is in proper working condition.

5. Add cooling system tabs

- Add cooling system tabs if provided loose with engine (if not provided, tabs were installed internally at the factory).
- Cooling system tabs aid in sealing porosity in aluminium and remove silicates from the water pump shaft that form from the coolant. This extends water pump shaft seal life.

Appendix

Other considerations

Installing an engine properly requires a great amount of attention to details in order for the engine to function properly and continue to function properly.

Below are some things to check before returning the vehicle to normal service:

1. Is the Timing Set?

- Refer to the vehicle manufacturer's instructions for procedures and specifications.

2. Are bolts & fasteners torqued?

- Are all the bolts and fasteners torqued to the manufacturer's specifications and in the recommended sequence according to the service manual?

3. Replacements check

- Have the spark plugs, spark plug wires, fuel filters, air filters and hoses been replaced to ensure maximum performance and reliability?

4. Breaking-in

- Has the customer/driver been informed of the recommended 'break-in' period and procedures for this ACDelco engine (see After Installation Guidelines)?

5. Test drive

- Has the vehicle been test driven for a minimum of 50km of combined city and highway driving, not exceeding 80kph or using any fast throttle responses?

6. Maintenance Schedule

- Has the manufacturer's recommended maintenance schedule been relayed to the customer/driver emphasising that this is a remanufactured engine and will need to be serviced as a new engine?

7. Maintenance Schedule

- Has the customer/driver been informed to have the first filter and oil change between 500 and 800 km?

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Appendix

Engine Return Inspection Procedures

It is critical that careful inspection occurs on all “deposit” engine returns to confirm that the unit is the correct model in exchange for the ACDelco remanufactured unit – and that it is suitable for remanufacture, otherwise penalties may be applied.

A recommended inspection procedure is detailed below which should be followed:

1. Check Engine Number

- Check to ensure that it has not been altered, damaged or erased. Engines affected in this manner will not be acceptable for return.

2. Check Engine Model

- Check to ensure that the engine for return is the same as the ACDelco Engines remanufactured unit.

3. Check Damage

- Check the return engine for damage to rocker cover, sump, timing cover, and broken lugs on block.
- Also for cracks and other visible damage to block and cylinder head. Check that the crankshaft will rotate a full 360 degrees.

4. Drain Oil

- The oil from sump must be drained.

5. Assemble to Stand

- The return engine **must** be assembled to the engine stand and must be equipped with the lifting chain.

Appendix

Help for difficult to identify engines

Specific attention should be given to the following engines which are known to present difficulties in identifying their correct engine capacity.

Ford

- Ford Laser 1300cc and 1500cc

- The 1300cc model is identified with "E3" stamping on rear of block.
- A 1300cc worn engine should not be exchanged in lieu of a 1500cc which has its engine number identification "E5".

- Ford Cortina and Escort O.H.V. (1300cc and 1600cc)

- Correct capacity identification can be established by measuring distance from head gasket to oil pan gasket, and by measuring distance from top of block to water pump:

Head Gasket to Oil Pan Gasket Measurements

- 1300cc, 7&1/4 inch (approx. 184mm)
- 1600cc, 8&5/16 inch (approx. 211mm)

Top of Block to Water Pump Measurements

- 1300cc, 3/4 inch (approx. 19mm)
- 1600cc, 1&7/8 inch (approx. 47mm)

- Ford 6 Cylinder and V8 Long Motors

- Measure with probe through spark plug hole. Piston to be a bottom – dead centre. Measurement to be from edge of piston to top of spark plug hole.
200 CI = 51/4 inch (approx. 140mm)
302 CI = 6 inch (approx. 153mm)
250 CI = 53/4 inch (approx. 146mm)
351 CI = 61/2 inch (approx. 165mm)

Holden

- 6 Cylinder and V8

- Refer to casting number on block to establish correct capacity.

Mazda

- Refer to casting number of block and/or engine number stamping to establish correct capacity.

Engine Model	Capacity
F2	2200cc
F8	1800cc
FE	2000cc
MA	2000cc
NA	1600cc
TC	1300cc
UC	1400cc
VC	1800cc

Mitsubishi

- Refer to casting number on block and/or engine number stamping to establish correct capacity.

Engine Model	Capacity
Sigma M3 or 4G51	1850cc
Sigma M4 or 4G52	2000cc
Sigma M5 or 4G54	2600cc

- Mitsubishi Express/Nimbus

Imported motors with a G32B engine number prefix are not acceptable for return or credit. All Australian engines have engine no. prefix 4G. For example:

Engine Model	Capacity
4G12	1400cc
4G32	1600cc
4G37	1755cc
4G62	1800cc
4G63	2000cc

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Appendix

After Installation

After installation, fill in the ACDelco Warranty Registration form...

1. Complete Vehicle Owner Information

- Name and Address.

2. Complete Vehicle Information

- Vehicle Make/Model/Year (eg: Holden, Commodore VX, 1999).
- Kilometres on odometer at time of installation.
- VIN Number.

3. Complete Product Information

- Purchase/Installation Date.
- Serial Number & Part Number from installed engine.

4. Complete Installation Facility Information

- ACDelco Engine Supplier Name.
- Installation Facility Name & Address.

Please note

- The Installation Facility is responsible for completing the Powertrain Warranty Registration Form.

To extend the life of the ACDelco Engine:

- ACDelco recommends the first oil and filter change be performed between 500-800km of driving.
- Use of ACDelco Oil Filters are recommended.

The First 800 Kms

During the first 800kms, the vehicle.

- Should not be driven over 90 Km/h.
- Should not be driven for extended periods at any single speed.
- Should not tow a trailer or carry heavy loads.
- Driver should always vary speeds.
- Driver should not accelerate rapidly.



Remanufactured Engine Service Requirements

Preventative Maintenance Schedule

After 800 kilometres and then every 5,000 kilometres or 3 months (whichever occurs first), thereafter ensure that the following is undertaken:

800 Kilometre Service

1. Change engine oil to recommended grade, not friction modified oil and ensure oil level is correct.
2. Change oil filter.
3. Retension cylinder head bolts after initial warm up. Cast iron heads hot. Alloy heads cold if hot specification not available. Adjust tappets where applicable. Both operations to manufacturer's specifications except Magna/Sigma.
4. Check ignition setting.
5. Check fuel mixtures.
6. Check cooling system with analyser.
7. Tighten all external screws and bolts.
8. Check and note oil pressure:

At idle _____

At 2,000 rpm _____

5,000 Kilometre/3 Month Service (whichever occurs first)

1. Change engine oil.
2. Pressure test and check cooling system and fan belt.
3. Check radiator airflow, thermostat, thermatic or viscous fan.

10,000 Kilometre/6 Month Service (whichever occurs first)

1. Change engine oil.
2. Change oil filter.
3. Check ignition timing, distributor operation and advance.
4. Pressure test and check cooling system and fan belt.
5. Adjust tappet settings (where applicable).
6. Tighten all external screws and bolts.
7. Ensure that all pollution control/breathing equipment conforms to manufacturer's specifications and service air cleaner.
8. Check fuel system for correct operation. Includes diesel and E.F.I. applications.
9. Test coolant concentration and rectify any signs of stray current and/or incorrect mixture strength of coolant.
10. Change coolant if not long life specification.
11. Check radiator airflow, thermostat, thermatic or viscous fan.

Service Costs

- All service costs are the owners expense.

Manufacturers Recommendations

- Carry out further maintenance of the engine in accordance with manufacturer's recommendations.
- Failure to carry out servicing will render the warranty null and void.

Please Note:

- Oil level must be checked at manufacturer's recommended intervals, ie: at each fuel stop.
- Coolant levels should be checked cold weekly.

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About Oil And Your Remanufactured Engine

Oil function

Internal combustion engines need oil to lubricate and cool their moving components.

As a piston moves downwards in the cylinder bore, a thin film of oil is left on the walls of the bore which is burnt by the flame of combustion on the firing stroke.

Oil economy

All efficient engines use some oil or they would quickly wear out.

There is no standard rate of oil consumption because of the various conditions that can apply.

Some car makers claim that 1 litre/1600 km is acceptable. Higher consumption rates than this can be expected for truck engines.

During high speed operations or towing a load, increased oil consumption is not only inevitable but also essential to protect your engine.

At 120km/h, an engine may use up to seven times the amount of oil than it does at 50km/h.

Running in

New and remanufactured engines require considerable running before the piston rings and cylinder walls become bedded in.

Oil economy should not be judged until the vehicle has operated for a minimum of 10,000 kilometres.

Contaminants

The lubricating qualities of engine oil never wear out, but oil does become contaminated with harmful foreign materials.

This contamination may be in the form of carbon, water, dirt and dust, fuel or any byproducts of combustion.

This problem can be further compounded by the oil additives being depleted.

Oil change intervals

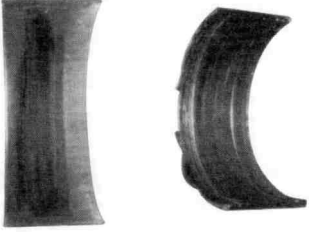

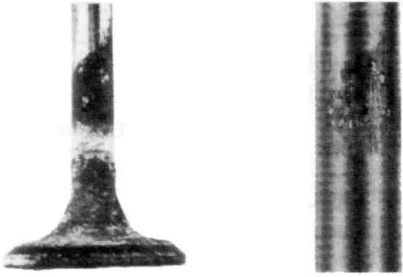
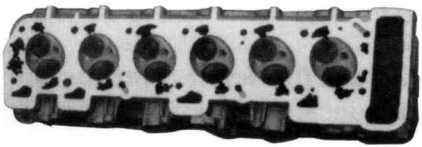
Oil change intervals should be shortened if the vehicle is operated under conditions such as driving on dusty roads, towing long distances, stop/start and/or short runs.

Oil stabilisation



It takes approximately 15-20 minutes under normal driving conditions for engine oil to reach stabilised temperature.

Poor lubrication

Poor lubrication and servicing will severely damage an engine. See ACDelco's 'Guide to engine problems' elsewhere in this catalogue for some typical examples.

Problems	Symptoms	Solution
<p>Bearing Scuffing Exhaust may appear bluer than normal.</p> 	<p>Bearing Scuffing caused by...</p> <ol style="list-style-type: none"> 1. Poor quality Lubricant. 2. Fuel dilution. 3. Overloading. 4. Breakdown of the Oil Film. 	<ol style="list-style-type: none"> 1. Repair or replace with new or remanufactured engine. 3. Use high quality lubricants. 4. Do not use diluted fuel. 5. Do not overload the engine.
<p>Worn Camshaft Obvious tapping and/or grinding noise.</p> 	<p>Worn camshaft caused by...</p> <ol style="list-style-type: none"> 1. Inadequate priming at start up procedure. 2. Incorrect Lubricant. 3. Extended Oil Changes. 4. Fuel Dilution. 5. Over use of Additives. 	<ol style="list-style-type: none"> 1. Repair or replace with new or remanufactured engine. 2. Follow correct start up procedures. 3. Use high quality lubricants. 4. Service engine according to the manufacturer's recommended schedule. 5. Do not use diluted fuel. 6. Do not overuse additives.
<p>Valve Stem Seizure Exhaust will appear bluer than normal.</p> 	<p>Valve Stem Seizure caused by...</p> <ol style="list-style-type: none"> 1. Lack of Lubricant. 2. Incorrect Lubricant. 3. Overloaded Engine 4. High Temperature Operation. 	<ol style="list-style-type: none"> 1. Repair or replace with new or remanufactured engine. 2. Use high quality lubricants in correct quantities. 3. Do not overload engine. 4. Do not operate engine at extreme temperatures.
<p>Corroded Cylinder Head Water on dipstick, rusty looking radiator water, discoloured underside of radiator cap.</p> 	<p>Corroded Cylinder Head caused by...</p> <ol style="list-style-type: none"> 1. Electrolysis. 2. Stray Current. 3. Heat Erosion. 4. Cavitation. 5. Incorrect Coolant. 6. Incorrect Concentration and/or mixing of different types of Coolants. 	<ol style="list-style-type: none"> 1. Repair or replace with new or remanufactured engine. 2. Check wiring. 3. Ensure correct water, fluid and lubrication levels are maintained. 4. Use coolant specified by manufacturer. 5. Do not mix coolants.

GUIDE TO ENGINE PROBLEMS

Problems	Symptoms	Solution
<p>Piston Skirt Scuffing Knocking noise within engine, blue exhaust, noticeable loss of performance.</p> 	<p>Bearing Scuffing caused by...</p> <ol style="list-style-type: none"> 1. Breakdown in Lubrication. 2. Breakdown in Overheating. 3. Breakdown in Detonation. 	<ol style="list-style-type: none"> 1. Repair or replace with new or remanufactured engine. 2. Maintain correct water, fluid and lubrication levels. 4. Service according to manufacturers specifications.
<p>Broken Ring Land And Loss Of Hardness Knocking noise within engine, blue exhaust, noticeable loss of performance.</p> 	<p>Worn camshaft caused by...</p> <ol style="list-style-type: none"> 1. Inadequate priming at start up procedure. 2. Incorrect Lubricant. 3. Extended Oil Changes. 4. Fuel Dilution. 5. Over use of Additives. 	<ol style="list-style-type: none"> 1. Repair or replace with new or remanufactured engine. 2. Maintain correct water, fluid and lubrication levels. 4. Service according to manufacturers specifications.

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Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine Ass. No.	Notes	Cyl. Head No.	Notes
CHEVROLET								
LUV PICK-UP KB-20	1600cc O.H.C. High compression model only	1973-1977	4	G161 cast below engine no. on left hand side at top of block, Isuzu shown on steel rocker cover.	89037600			
CHEVROLET	292 cu. in. Non compressor type Petrol	1975-1978	6	Side plates — 12" x 6". Mexican motor. Flywheel bolts — 1/2".	89037588			
	292 cu. in. Compressor type Petrol	1975-1978	6	Side plates — 12" x 6". Mexican motor. Flywheel bolts — 1/2".	89037587			
CHRYSLER								
VALIANT RV1 / SV1 / AP5/ AP6 / VC	225 cu. in. OHV C series engine Slant 6 225 cu. in. OHV	1962-1966	6	Flywheel — mounting boss 1.960" diameter., Torque converter — pilot bore in crankshaft, 1.555" diameter. Welsh plugs — 3.	89037602	M1		
VALIANT VE	225 cu. in. C series engine Slant 6 O.H.V.	1967-1968	6	Flywheel — mounting boss 1.960" diameter., Torque converter — pilot bore in crankshaft, 1.555" diameter. Welsh plugs — 5.	89037603	M1		
VALIANT VE / VF	225 cu. in. D series engine Slant 6 O.H.V.	1967-1970	6	Flywheel — mounting boss 2.159" diameter., Torque converter — pilot bore in crankshaft, 1.814" diameter. Welsh plugs — 5.	89037604			
VALIANT VH / CH / VJ / CJ	215 cu. in. Hemi engine O.H.V.	1971-1976	6	Engine no. prefix — D12.	89037605			
	245 cu. in. 1 BBL. Hemi engine O.H.V. Carburettor	1971-1976	6	Engine no. prefix — D22. Carburettor — single barrel.	89037606			
	265 cu. in. Hemi engine O.H.V.	1971-1976	6	Engine no. prefix — D31-C32.	89037607			
VALIANT VG / VJ / VH	245 cu. in. 2 B.B.L. Hemi engine O.H.V. Carburettor	1971-1976	6	Engine no. prefix — D23. Carburettor — double barrel.	89037608			
VALIANT VK / CL	245 cu. in. OHV Hemi engine Emission control High compression	1976-1978	6	Engine no. prefix — D23. ** Does not suit E.L.B. models **	89037609			
	245 cu. in. OHV Hemi engine Emission control Low compression	1976-1978	6	Engine no. prefix — D21. ** Does not suit E.L.B. models **	89037610			
VALIANT CM	4.0 Litre Hemi engine 245 cu. in. OHV E.L.B. High compression	1978-1981	6	Engine no. prefix — D24. Timing cover — large dimple on front.	89037611			
VALIANT VK / CL	265 cu. in. Hemi engine Emission control O.H.V.	1976-1978	6	Engine no. prefix — D33. ** Does not suit E.L.B. models **	89037612			
VALIANT CM	265 cu. in. Hemi engine 4.3 litre E.L.B.	1978-1981	6	Engine no. prefix — D34. Timing cover — large dimple on front. ** Suits E.L.B. models **	89037613			
CENTURA KB	215 cu. in. Hemi engine O.H.V.	1975-1977	6	Engine no. prefix — D1. Bell housing — 1 bolt hole and 1 dowel per side	89037614			
CENTURA KB / KC	245 cu. in. Hemi engine O.H.V.	1975-1978	6	Engine no. prefix — D2. Bell housing — 1 bolt hole and 1 dowel per side	89037615			
VALIANT VE / VK	318 cu. in. O.H.V.	1969-1980	V8	318 cast on left hand side of block above, nos. 2 & 3 welsch plugs. Sump — centre well. Timing mark — cast on cover.	89037616			
DAEWOO								
CIELO 1.5I	1.5 Litre S.O.H.C. E.F.I. Automatic.	1994-1997	4	Engine no. prefix — G15MF. Valves — 8.	17803554		19101052	H2
	1.5 Litre S.O.H.C. E.F.I. Manual	1994-1997	4	Engine no. prefix — G15MF. Valves — 8.	17803555		19101052	H2
CIELO	1.5 litre DOHC GLX engine E.F.I. Automatic.	1995-	4	Engine no. prefix — A15MF. Valves — 16.	17803557		19101053	H2
	1.5 litre DOHC GLX engine E.F.I. Manual.	1995-	4	Engine no. prefix — A15MF. Valves — 16.	17803556		19101053	H2
LEGANZA	2.0 litre D.O.H.C. Automatic.	1997- 1999	4	Engine no. prefix — C20SED. Valves — 16.	89038351		19101056	H2
	2.0 litre D.O.H.C. Manual.	1997- 1999	4	Engine no. prefix — C20SED. Valves — 16.	17803566		19101056	H2
	2.2 litre D.O.H.C. Automatic.	1999-	4	Engine no. prefix — T22SED.	19101179		19101056	H2
NUBIRA	2.0 litre D.O.H.C. Automatic	1998-	4	Engine no. prefix — X20SED. Valves — 16.	17803567		19101056	H2
	2.0 litre D.O.H.C. Manual	1998-	4	Engine no. prefix — X20SED. Valves — 16.	17803568		19101056	H2
	1.6 litre D.O.H.C. Automatic	1997-	4	Engine no. prefix — A16DMS. Valves — 16. Sump — rear well, tin.	17803564		19101054	H2
	1.6 litre D.O.H.C. Manual	1997-	4	Engine no. prefix — A16DMS. Valves — 16. Sump — rear well, tin.	17803565		19101054	H2
	1.6 litre D.O.H.C. Automatic	1997-	4	Engine no. prefix — A16DMS. Valves — 16. Sump — rear well, alloy.	17803559		19101054	H2
LANOS	1.6 litre D.O.H.C. Manual	1997-	4	Engine no. prefix — A16DMS. Valves — 16. Sump — rear well, alloy.	17803558		19101054	H2

NOTES:

M1: Due to design change of ventilation system (PVC valves) it may be necessary to use original rocker cover. Rocker cover must be thoroughly cleaned back to metal. LM701 & LM702 will interchange by changing oil pan and pick up pipe.

H2: Head bolts in kit.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
LANOS	1.5 litre S.O.H.C. Coil pack Automatic	1997-	4	Engine no. prefix — A15SMS. Cam box casting no. — 96183315. Ignition — coil pack.	17803561	M2	19101055	H2
	1.5 litre S.O.H.C. Coil pack Manual	1997-	4	Engine no. prefix — A15SMS. Cam box casting no. — 96183315. Ignition — coil pack.	17803560	M2	19101055	H2
	1.5 litre S.O.H.C. Distributor Automatic	1997-	4	Engine no. prefix — A15SMS. Cam box casting no. — 90234971. Ignition — distributor.	17803563	M2	19101055	H2
	1.5 litre S.O.H.C. Distributor Manual	1997-	4	Engine no. prefix — A15SMS. Cam box casting no. — 90234971. Ignition — distributor.	17803562	M2	19101055	H2
DAIHATSU								
CHARADE	993cc G10 series FWD	1980-1983	3	Engine no. prefix — CB. Water pump — inlet right hand side. Water pump mount on exhaust side.	89037640			
	993cc G11 series FWD Non turbo.	1983-1987	3	Engine no. prefix — CB. Water pump — inlet left hand side. Water pump mount on inlet side.	89037641			
	993cc G11 series FWD Turbo	1983-1987	3	Engine no. prefix — CB50. Water pump — inlet left hand side. Water pump mount on inlet side.	89037642			
	993cc G100 series FWD	1987-1989	3	Engine no. prefix — CB36/37.	89037643			
	993cc G100 series Turbo	1987-1990	3	Engine no. prefix — CB51T.	89037644			
	993cc G200/G202 series FWD	1993-1998	3	Engine no. prefix — CB24.	17803504			
CAB. VAN - HI JET	356cc S38 series	1972-1975	2	Engine no. prefix — ZM.	89037646			
	547cc S40-60-65 series	1976-1982	2	Engine no. prefix — AB20.	89037647			
	843cc S70 series	1982-1984	3	Engine no. prefix — CD.	89037648			
	993cc S75-S76 series	1984-1986	3	Engine no. prefix — CB. Water pump inlet — right hand side.	89037649			
	993cc S85 series	1987-	3	Engine no. prefix — CB. Water pump inlet — left hand side.	89037650			
SIRION		1998-	3	Engine no. prefix — EJ-DE. Valves — 12.	17803510			
HANDIVAN	550cc S50V	1981-1982	3	Engine no. prefix — AB.	89037651			
	617cc L60V	1982-1985	2	Engine no. prefix — AD.	89037652			
	846cc L80VK - VM	1986-1990	3	Engine no. prefix — ED10. VK — 4 speed., VM — 5 speed.	89037653			
		1990	3	Engine no. prefix — ED.	89037654			
MIRA	660cc L200 S.O.H.C.	1992-1995	3	Engine no. prefix — EF-EL. Valves — 12.	17803508			
MOVE	847cc L601	1997-	3	Engine no. prefix — ED20.	17803507			
SV17	1587cc O.H.V. Cab-over 12R engine (Toyota)	1973-1975	4	Early model. To engine no. 12R110336. Breather — in block below manifold. Side plate — has no breather. Sump — centre well 110mm deep.	89037660			
	1587cc O.H.V. Cab-over 12R engine (Toyota)	1975-1978	4	Late model. From engine no. 12R110337 to 12R1809409. Breather — right hand side has elbow pipe on side plate. Water pump — block has small vertical water jacket hole. Sump — centre well 110mm deep.	89037661			
SV23	1994cc O.H.V. Cab-over 5R engine (Toyota)	1975-1977	4	From engine no. 5R1602811 to 5R1747464. Crank pulley spigot — 29mm (if 25mm, use LM608). Rocker cover — tin. Dipstick — front right hand side. Sump — front well.	89037662			
SCAT	1587cc F20 O.H.V. Petrol	1977-1983	4	Toyota 12R engine. To engine no. 12R110336. Side plate — has no breather. Sump — centre well 110mm deep.	89037660			
	1587cc F20 O.H.V. Petrol	1977-1983	4	Toyota 12R engine. To engine no. 12R110336. Side plate — has no breather. Sump — centre well 110mm deep. From engine no. 12R110337 to 12R1809409	89037661			
	1587cc F20J - F25P O.H.V. Petrol	1978-1984	4	Toyota 12R engine. From engine no. 12R1809410. ** Specify sump shape. **	89037663			
ROCKY	1998cc F80 - 85 - 87 O.H.V. Petrol	1984-	4	Toyota 3Y engine. Non air injection.	89037664		19101091	
D24 / DV32 / SV24 / SV32	2530cc Diesel	1969-1977	4	Engine no. prefix — DG. Fuel pump mounting — 4 bolt. Oil filter — rear of block. Need casting no.	89037666			
	2530cc Diesel	1969-1977	4	Engine no. prefix — DG. Fuel pump mounting — 4 bolt. Fuel pump mounting — 2 bolt. Oil filter — front of block.	89038338			

NOTES:

M2: Sump change may be required.

H2: Head bolts in kit.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
DAIHATSU (CONT.)								
SCAT	2530cc F50 - F55 Diesel 4WD	1978-1982	4	Engine no. prefix — DG. Fuel pump mounting — 2 bolt. Oil filter — rear of block. Need casting no.	89037667			
ROCKY	2765cc Delta F70 / F75 / F77 Diesel 4WD	1984-	4	Engine no. prefix — DL. Fuel pump mounting — 2 bolt. Crank key — 6.5mm.	89037668			
	2765cc Delta F70 / F75 / F77 Diesel 4WD	1984-	4	Engine no. prefix — DL. Fuel pump mounting — 2 bolt. Crank key — 4.5mm.	89037672			
SCAT	2765cc F60 / F65 Diesel 4WD	1982-1984	4	Engine no. prefix — DL. Fuel pump mounting — 4 bolt. Crank key — 6.5mm.	89037673			
	2765cc F60 / F65 Diesel 4WD	1982-1984	4	Engine no. prefix — DL. Fuel pump mounting — 4 bolt. Crank key — 4.5mm.	89037669			
ROCKY	2765cc F70 / F75 / F77 Diesel Turbo 4WD	1985-	4	Engine no. prefix — DL.	89037670			
	2765cc Delta	1989-	4	Engine no. prefix — DL. Timing belt drive motor.	89037671			
FORD								
CAPRI 1600	1598cc O.H.V. Crossflow	1971-1974	4	Engine no. prefix — JA-JB. 2737E block cast no. on left hand side. Oil pump end cover — 3 bolts.	89037674	M3		
CAPRI 1600 GT	1598cc O.H.V. Crossflow	1969-1973	4	1600 G.T. label on rocker cover. Block height — 211mm (85/16"). Dipstick — in block right hand side.	89037675	M3		
CAPRI 1600 SA	1597cc Series 1 E.F.I. Fwd Non turbo	1989- Oct. 1990	4	Engine no. prefix — B6. Camshaft — belt drive. Valves — 8.	89037709		19101068	
CAPRI 1600 SA-SC	1597cc DOHC Series 2 Non turbo. E.F.I.	Nov. 1990-	4	Engine no. prefix — B6. Camshaft — belt drive. Valves — 16.	89037679			
FOCUS LR	2.0 litre D.O.H.C. Zetec engine	2002-	4	Engine no. prefix — EDDB., Valves — 16. Sump — front well. Two piece alloy with tin pan. Oil filter — on right hand side of block.	19101213			
CORSAIR UA	2.0 Litre E.F.I. FWD Automatic.	1989-1992	4	Engine no. prefix — CA20., Camshaft — belt drive. Oil filter — no thread. Oil relief — hole with plug. Oil cooler — yes.	89037681		19101129	
	2.4 Litre E.F.I. FWD	1985-1992	4	Engine no. prefix — KA24. East west engine. Camshaft — belt drive.	89037682			
MONDEO	2.0 litre HA-HB series D.O.H.C.	1995-1997	4	Engine no. prefix — NGA. ZETEC engine. Valves — 16. Oil filter — on timing cover. Sump — rear well. Alloy.	19101187			
CORTINA 1600	1598cc Cross flow OHV (Not GT motor) Mark II	1968-1972	4	Engine no. prefixes — CM, CO, CP, CR. 2737E block cast on left hand side. Block height — 211 mm (85/16") from pan rail to block face. Dipstick — in timing cover. Oil pump end cover — 4 bolts.	89037683	M3		
CORTINA 1600 GT	1598cc O.H.V. Mark II Cross flow	1968-1971	4	Engine no. prefix — CN. 2737E block cast on left hand side. Block height — 211mm (85/16") from pan rail to block face. Dipstick — in timing cover. Oil pump end cover — 4 bolts. 1600 GT label on rocker cover.	89037684	M3		
CORTINA 1600 TC	1598cc O.H.V.	1971-1974	4	Engine no. prefix — TC. Block height — 211mm (85/16") from pan rail, to block face. Dipstick — rear of block. Sump — well 195mm deep.	89037685			
CORTINA 2000	1993cc TC / TD O.H.C. Manual	1971-1976	4	Camshaft — belt drive. Sump — well 195mm deep, plug on left hand side, High compression motor.	89037686			
	1993cc TF / TD / TE O.H.C.	1976-1981	4	Camshaft — belt drive., Sump — well 195mm deep, plug on left hand side, High compression motor.	89037686			
	1993cc TC / TD O.H.C. Automatic	1971-1976	4	Camshaft — belt drive. Sump — well 195mm deep, plug on left hand side, High compression motor.	89037687			
CORTINA TC / TD	3.3 litre 200 cu. in. O.H.V. Sedan and wagon	1972-1976	6	Stroke — 3.13". Block height — 91/2" from pan rail to block face, Sump — rear well.	89037688			
	4.1 litre 250 cu. in. O.H.V. Sedan and wagon	1972-1976	6	Stroke — 3.910". Block height — 91/2" from pan rail to block face, Sump — rear well.	89037689			
CORTINA TE	3.3 litre 200 cu. in. Cross flow OHV Emission control	1977-1980	6	Engine prefix no. — JG. 76 DA prefix cast on block on left hand side. Stroke — 3.130". Cylinder head — cast iron. Distributor — spigot 13.4mm O.D. (below drive gear), Sump — rear well.	89037690	M4		
	4.1 litre 250 cu. in. Cross flow OHV Emission control	1977-1980	6	Engine prefix no. — JG. 76 DA prefix cast on block on left hand side. Stroke — 3.910". Cylinder head — cast iron. Distributor — spigot 13.4mm O.D. (below drive gear), Sump — rear well.	89037691	M4		
CORTINA TF	3.3 litre Cross flow 200 cu. in. O.H.V.	1980-1982	6	80-83 DA cast on block on left hand side. Stroke — 3.130". Cylinder head — aluminium. Sump — rear well.	89037692	M5		

NOTES:

M3: GT model can be used to replace standard engine without penalty if no visual damage, but timing specifications will need to be altered accordingly.

M4: Positive identification of spigot diameter is important for distributor drive.

M5: Correct stroke is required on return engine.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
CORTINA TF	4.1 litre 250 cu. in. O.H.V. Cross flow	1980-1982	6	80-83 DA cast on block on left hand side. Stroke — 3.910". Cylinder head — aluminium. Sump — rear well.	89037693	M5	19101148	
ESCORT 1300	1297cc O.H.V. Early crossflow	1970-1974	4	Engine prefix — EC, ED on top of left hand engine boss mount, Block to stud face is 1". Dipstick — rear of block. Narrow left hand engine mount.	89037694			
	1297cc O.H.V. Cross flow	1971-1978	4	Engine block casting no. 711M6015AA. Block height — 7.25". Dipstick — rear of block.	89037695			
ESCORT 1300 GT	1297cc O.H.V.	1970-1972	4	1300 GT label on rocker cover. Block height — 184mm. Dipstick — rear of block. Carburettor — 2 barrel type.	89037696			
ESCORT 1600	1598cc O.H.V. Cross flow	1975-1981	4	Engine block no. 711M6015BA or, 711M6015DA on left hand side above pan rail at read, Block height — 211mm (85/16") from pan rail to block face, Dipstick — in block at rear. Sump — rear well.	89037697			
ESCORT 2000	1993cc O.H.C.	1979-1981	4	No. 20 casting on engine block. Camshaft — belt drive. Sump — well 170mm deep.	89037698			
FESTIVA WA	1323cc B3 engine S.O.H.C. Carburettor	1991-April 1994	4	Engine no. prefix — B3. Belt drive. Valves — 8. Crankshaft snout diameter — 22mm.	89037699		19101070	
	1323cc B3 engine S.O.H.C. Carburettor	1991-April 1994	4	Engine no. prefix — B3. Belt drive., Valves — 8. Crankshaft snout diameter — 27mm.	89037700			
FESTIVA WB / WB II	1323cc B3 engine S.O.H.C.	1994-Feb. 1997	4	Engine no. prefix — B3. Valves — 16. Crankshaft snout diameter — 22mm.	89037701		19101071	
	1323cc B3 engine S.O.H.C.	1994-Feb. 1997	4	Engine no. prefix — B3. Valves — 16. Crankshaft snout diameter — 27mm.	17803590			
FESTIVA WF	1323cc B3 engine S.O.H.C. E.F.I.	1998-	4	Engine no. prefix — B3. Belt drive. Valves — 8.	17803591			
FESTIVA WD / WB II	1500cc B5 engine S.O.H.C.	Mar 1997-Oct. 1997	4	Engine no. prefix — B5., Valves — 16. Cylinder head casting no. — 541. Crank angle sensor — no.	17803589		19101069	
	1500cc B5 engine S.O.H.C.	Nov. 1997-	4	Engine no. prefix — B5. Valves — 16. Cylinder head casting no. — 541. Crank angle sensor — on oil pump.	17803588		19101069	
FESTIVA WF	1500cc B5 engine S.O.H.C.	1998-	4	Engine no. prefix — B5. Cylinder head casting no. — B61K. Valves — 8.	89037702			
LASER KA / KB / E3	1296cc O.H.V. Leaded fuel E.G.R. equipped	1981-1985	4	East west engine., Camshaft — chain drive. Distributor — rear of head. Sump — front well. E.G.R. — port in front of no. 1 cyl. ** Same as Mazda 323 E3 series. **	89037703			
LASER KA / KB / E3 METOER	1296cc O.H.C. Leaded fuel Non E.G.R.	1981-1985	4	E3 stamped on pad on right hand side rear of block, East west engine. Camshaft — chain drive. Sump — front well.	89037704			
LASER KA / KB / E5	1490cc O.H.C. E.G.R. equipped	1981-1985	4	Engine no. prefix — E5 on rocker cover and, may be stamped on right hand side rear of block. Confirmation of model per stroke. Stroke — 80mm., East west engine. Camshaft — chain drive. E.G.R. — port in front of no.1 cylinder on inlet side.	89037705			
LASER KA / KB / E5 -	1490cc Meteor GA / GB E5 engine OHC Non E.G.R.	1981-1985	4	Engine no. prefix — E5 on rear of block and rocker cover, Stroke — 80mm. East west engine. Camshaft — chain drive. Distributor — rear of cylinder head. Sump — front well. ** Same as Mazda 323 E5 series. **	89037706	M6	19101060	
LASER KB	1490cc E5 engine OHC Non E.G.R. Turbo	1985	4	Engine no. prefix — E5 on rear of block and rocker cover, and rocker cover. Camshaft — chain drive. Distributor — rear of cylinder head. East west engine. Stroke — 80mm. Sump — front well.	89037707			
LASER	1490cc Meteor Sports E5 Engine OHC Non E.G.R.	1982-	4	Engine no. prefix — E5 on rear of block, and rocker cover. Camshaft — chain drive. Dipstick — left hand side. Distributor — rear of cylinder head. East west engine. Stroke — 80mm.	89037708	M6		
LASER KC / KE	1591cc Meteor GC O.H.C. Carburettor	1985-	4	Engine no. prefix — B6. Camshaft — belt drive. East west engine. Crankshaft snout diameter — 22mm.	89037676		19101067	
	1591cc Meteor GC O.H.C. Carburettor	1985-	4	Engine no. prefix — B6. Camshaft — belt drive. East west engine. Crankshaft snout diameter — 27mm.	89037677		19101067	
	1591cc Meteor GC O.H.C. E.F.I.	1985-	4	Engine no. prefix — B6. East-west engine. Hydraulic lash adjusters — yes.	89037709		19101068	
LASER KE / TX3	1597cc D.O.H.C. Turbo 4WD	1987-1989	4	Engine no. prefix — B6. Camshaft — belt drive. Valves — 16.	89037678			
LASER KF / KH	1597cc S.O.H.C. Carburettor	1990-	4	Engine no. prefix — B6. Camshaft — belt drive. Valves — 16. Cylinder Casting no. 541, Crankshaft snout diameter — 22mm.	89037710		19101069	
	1597cc S.O.H.C. Carburettor	1990-	4	Engine no. prefix — B6. Camshaft — belt drive. Valves — 16. Cylinder Casting no. 541, Crankshaft snout diameter — 27mm.	89037711		19101069	
LASER KJ	1597cc D.O.H.C.	1994	4	Engine no. prefix — B6. Valves — 16. Rocker cover cam gears — yes. Casting no. on block — BF. Casting no. on cylinder head — B551.	17803598			

NOTES:

M5: Correct stroke is required on return engine.

M6: Due to variations in cylinder heads, exhaust port liner genuine part no. E504-20-740 should be used if exhaust port measures 31mm in diameter.



Make and Model Details	Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
FORD (CONT.)							
LASER KN / KQ 1597cc D.O.H.C.	1999-	4	Engine no. prefix — ZM. Valves — 16. Sump — front well tin. 2L cast on block.	17803599		19101079	H2
LASER KF / KH	1839cc BP engine SOHC Unleaded fuel Automatic only	1989-	4	Camshaft — belt drive. East west engine. Valves — 16. Crankshaft snout diameter — 22mm.	89037712		19101076
	1839cc BP engine SOHC Unleaded fuel Automatic only	1989-	4	Camshaft — belt drive. East west engine. Valves — 16. Crankshaft snout diameter — 27mm.	89037713		19101076
	1839cc BP engine Unleaded fuel Manual only	1989-	4	Camshaft — belt drive. East west engine. Valves — 16. Crankshaft snout diameter — 22mm.	89037714		19101076
	1839cc BP engine SOHC Unleaded fuel Manual only	1989-	4	Camshaft — belt drive. East west engine. Valves — 16. Crankshaft snout diameter — 27mm.	89037715		19101076
LASER KF / KH / KJ	1839cc BP engine Cylinder head casting no. — BP06. D.O.H.C.	1989-April 1994	4	Engine no. prefix — BP. Valves — 16. Crankshaft snout diameter — 22mm. Automatic.	89037716		19101077
	1839cc BP engine Cylinder head casting no. — BP06. D.O.H.C.	1989-April 1994	4	Engine no. prefix — BP. Valves — 16. Crankshaft snout diameter — 22mm. Manual.	89037718		19101077
	1839cc BP engine D.O.H.C.	May 1994-	4	Engine prefix no. — BP. Valves — 16. Crankshaft snout diameter — 27mm. Cylinder head casting no. — BP05. Rocker cover cam gears — yes. Automatic.	89037717		19101078
	1839cc BP engine D.O.H.C.	May 1994-	4	Engine prefix no. — BP. Valves — 16. Crankshaft snout diameter — 27mm. Cylinder head casting no. — BP05. Rocker cover cam gears — yes. Manual.	89037719		19101078
LASER KQ 1839cc D.O.H.C. FP engine	2001-	4	Engine prefix no. — FP. Valves — 16. Sump — front well. Two piece alloy with tin pan. Cylinder head casting no. — FS9. O.H.C.	17803600		19101075	
TELSTAR AR / AS	1988cc FE engine O.H.C. Manual and automatic	1983-1987	4	Engine no. prefix — UG at lower left hand side of block, Camshaft — belt drive. Distributor — rear of cylinder head. East west engine. Sump — w/centre well. Crankshaft pulley — 4 bolt.	89037720		
	1988cc FE engine O.H.C. Manual and automatic	1983-1987	4	Engine no. prefix — UG at lower left hand side of block, Camshaft — belt drive. Distributor — rear of cylinder head. East west engine. Sump — w/centre well. Crankshaft pulley — 6 bolt.	89037721		
	1988cc FE engine O.H.C. TX5	1986-1987	4	Engine no. prefix — UG at lower left hand side of block, Camshaft — belt drive. Distributor — rear of cylinder head. East west engine. Sump — w/centre well. Turbo drain — back in sump.	89037722		
TELSTAR AT 1988cc FE engine O.H.C. Manual and automatic	1987-1992	4	Engine no. prefix — UG at lower left hand side of block, East west engine. Camshaft — belt drive. Distributor — rear of cylinder head. Water pump — the inlet is cast into the block on the right hand side, Sump — w/centre well.	89037723	M7		
TELSTAR AT / AV	2184cc F2 engine S.O.H.C. Unleaded fuel	1987-1992	4	Engine no prefix — F2. F2 cast on block at No. 1 cylinder. East west engine. Valves — 12.	89037724		19101072
	TX5 F2 engine SOHC 2184cc Unleaded	1987-1992	4	Engine no prefix — F2. F2 cast on block at No. 1 cylinder. East west engine. Valves — 12.	89037725		
TELSTAR AX / AY	1991cc D.O.H.C. FS engine	1992-Jun 1994	4	Engine no. prefix — FS. Ignition — distributor. Sump — front well. Two piece alloy with tin pan. Valves — 16. Cylinder head casting no. — FS2.	89037726		19101074
	1991cc D.O.H.C. FS engine	Jul 1994-	4	Engine no. prefix — FS. Cylinder head casting no. — FS9. Ignition — coil pack. Sump — front well. Two piece alloy with tin pan. Valves — 16.	17803592		19101075
	2497cc Probe D.O.H.C. KL Engine E.F.I.	1992-1993	V6	Engine no. prefix — KL. Valves — 24. Water pump — flat hub.	89037727		
	2497cc Probe D.O.H.C. KL Engine E.F.I.	1993- 1997	V6	Engine no. prefix — KL. Valves — 24. Water pump — stepped hub.	17803595		
COURIER B1800 2289cc Manual only 1 Tonne Pick-up O.H.C.	1978-1981	4	VC cast on side of block below No. 1 plug hole. Exhaust ports — 27mm round. Distributor — front right hand side of cylinder head. outlet. Rocker cover — alloy, with front breather	89037728			
COURIER B2000	1769cc O.H.C. 1 Tonne Pick-up Manual only	1982-1985	4	MA cast on side of block below No. 1 plug hole. Exhaust ports — 33mm round. Sump — deep front well.	89037729		
	1988cc FE engine 1 Tonne Pick-up	1985-1987	4	Engine no. prefix — FE. Distributor — at front. Sump — rear well. Water inlet bolts to water pump. Crankshaft pulley — 4 bolt.	89037730		19101063
	1988cc FE engine 1 Tonne Pick-up	1985-1987	4	Engine no. prefix — FE. Distributor — at front. Sump — rear well. Water inlet bolts to water pump. Crankshaft pulley — 6 bolt.	89037731		19101063
COURIER B2200 1970cc F2 engine 1 Tonne Pick-up	1987-1993	4	Engine no. prefix — F2. Valves — 8. Sump — rear well.	89037732		19101073	

NOTES:

M7: Oil gauge sender unit position can be either right hand side of block at centre or lower front — customer should advise when ordering.

H2: Head bolts in kit.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
COURIER B2000	1988cc FE engine 1 Tonne Pick-up	1987-	4	Engine no. prefix — FE. Distributor — at front. Sump — rear well. Water inlet bolts to block.	89037733		19101063	
COURIER B2600	2600cc 4G54 Astron 4WD Carburettor	1987-1990	4	4G54 cast on block. Modified Mitsubishi Pajero. Camshaft — chain drive. Sump — rear well.	89037734		19101107	
	2600cc G6 engine E.F.I. 2WD.	1991-	4	Engine no. prefix — G6. Valves — 12.	89037735		19101059	
	2600cc G6 engine E.F.I. 4WD.	1991-	4	Engine no. prefix — G6. Valves — 12.	89037736		19101059	
COURIER B2500	2.5 litre Diesel WL engine Turbo	1996-	4	Engine no. prefix — WL AT. Dual water pipe on cylinder head on left hand side (front), Turbo drain back hole on left hand side behind dip stick hole.	17803584			
	2.5 litre Diesel WL engine Non turbo	1996-	4	Engine no. prefix — WL. Valves — 12. Single water pipe on cylinder head left hand side.	17803583			
ECONOVAN	1586cc O.H.C.	1979-1984	4	NA cast on block below No. 1 plug hole. Exhaust ports — 27mm round. Sump — shallow front well.	89037737			
	1415cc UC engine O.H.C.	1984-1987	4	UC cast on block. Camshaft — chain drive. Sump — centre well.	89037738			
	1800cc F8 engine O.H.C. Spectron	1984-1987	4	F8 stamped on pad left hand side on block. Camshaft — belt drive. Distributor — bolts to timing cover. Sump — front well. Water inlet — to water pump not to block. Crankshaft pulley — 4 bolt.	89037739		19101065	
	1800cc F8 engine O.H.C. Spectron	1984-1987	4	F8 stamped on pad left hand side on block. Camshaft — belt drive. Distributor — bolts to timing cover. Sump — front well. Water inlet — to water pump not to block. Crankshaft pulley — 6 bolt.	89037740		19101065	
	1800cc F8 engine Maxi - Spectron - Spacer O.H.C.	1987-	4	F8 stamped on pad left hand side on block. Camshaft — belt drive. Distributor — at front. Sump — front well. Water inlet — to block.	89037741		19101065	
	1988cc FE engine Maxi, Spectron and Spacer O.H.C.	1984-1987	4	FE cast on block. Camshaft — belt drive. Distributor — at front. Sump — front well. Crankshaft pulley — 4 bolt.	89037742		19101063	
	1988cc FE engine Maxi, Spectron and Spacer O.H.C.	1984-1987	4	FE cast on block. Camshaft — belt drive. Distributor — at front. Sump — front well. Crankshaft pulley — 6 bolt.	89037743		19101063	
	1988cc FE engine Maxi, Spectron and Spacer O.H.C.	1987-	4	FE cast on block. Camshaft — belt drive. Distributor — at front. Sump — front well. Water inlet — to block not to water pump. Cylinder head casting no. — FE. No E.G.R.	89037744		19101063	
	1988cc FE engine Maxi, Spectron and Spacer O.H.C.	1987-	4	FE cast on block. Camshaft — belt drive. Distributor — at front. Sump — front well. Water inlet — to block not to water pump. Cylinder head casting no. — F8. E.G.R.	19101190		19101065	
FALCON XR , FAIRLANE ZA	200 cu. in. O.H.V. Sedan, wagon, utility, panel van Manual and automatic	1966-1968	6	200 casting on left hand side of block. Water core plugs — 5.	89037746			
FALCON XT / XW / XB, FAIRLANE ZC	221 cu. in. O.H.V. Sedan, wagon and panel van	1968-1971	6	Engine no. prefix — BA, BB, BC, BD, GV,GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HP, TC, TG, TH, WD, WE. Block height — 8.500" from pan rail to block face, Stroke — 3.460".	89037747	M5		
FALCON XA / XB / XY FAIRLANE ZD / ZF	200 cu. in. O.H.V. Sedan, wagon and panel van	1970-1976	6	Engine prefix no. — PC, PD, PE, PF, PG,PN, PW, PX, PY, Block height — 9.500" from pan rail to block face, Stroke — 3.130".	89037748	M5		
	250 cu. in. O.H.V. Sedan, wagon and panel van	1970-1976	6	Engine prefix no. — PJ, PK, PL, PM, PO,, JG, PP, PR, PT, PU, PV. Block height — 9.500" from pan rail to block face, Stroke — 3.910".	89037749	M5		
FALCON XC FAIRLANE ZH	Cross flow OHV Emission control XC Commercial	1976-1979	6	Engine no. prefix — JG. 76DA block cast no. on fuel pump side. Distributor — spigot diameter 13.40mm (below drive gear), Stroke — 3.130". 200 cu. in.	89037750	M5		
	Cross flow OHV Emission control XC Commercial	1976-1979	6	Engine no. prefix — JG., 76DA block cast no. on fuel pump side. Distributor — spigot diameter 13.40mm (below drive gear), Stroke — 3.910". 250 cu. in.	89037751	M5		
FALCON XD FAIRLANE ZH / ZG	XC Commercial 200 cu. in. Cross flow OHV	1979-1981	6	78DA prefix cast on left hand side of block. Cylinder head — cast iron. Distributor — spigot diameter 12.50mm. Stroke — 3.130".	89037752	M5		
FALCON XD, FAIRLANE ZH / ZG	250 cu. in. OHV XC Commercial 4.1 litre Crossflow Emission control	1979-1981	6	78DA prefix cast on left hand side of block. Cylinder head — cast iron. Distributor — spigot diameter 12.50mm. Stroke — 3.910".	89037753	M5		
FALCON XD / XE FAIRLANE ZK	Carburettor Cross flow OHV Leaded and unleaded fuel	1980-	6	80 or 83DA prefix cast on left hand side of block, Crankshaft — wick type seal. Cylinder head — aluminium. Stroke — 3.130". 200 cu. in.	89037754	M5		
	Carburettor Cross flow OHV Leaded and unleaded fuel	1980-	6	80 or 83DA prefix cast on left hand side of block, Crankshaft — wick type seal. Cylinder head — aluminium. Stroke — 3.910". 250 cu. in.	89037755	M5	19101148	
FALCON XE / XF FAIRLANE ZL	200 cu. in. Cross flow OHV 3.3 litre	1984	6	84DA prefix cast on block. Cylinder head — aluminium. Distributor — spigot diameter 12.50mm. Crankshaft — full circle seal. Stroke — 3.130".	89037756	M5		

NOTES:

M5: Correct stroke is required on return engines.



Make and Model Details	Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
FORD (CONT.)							
FALCON XE / XF, FAIRLANE ZK / ZL, LTD FE	250 cu. in. 4.1 litre Leaded and unleaded fuel Carburettor Cross flow OHV	1984-1988	6	84DA prefix cast on block. Cylinder head — aluminium. Flywheel bolts — 7/16", Distributor — spigot diameter 12.50mm. Crankshaft — full circle seal. Stroke — 3.910".	89037757		19101149
	250 cu. in. 4.1 litre Leaded and unleaded fuel EFI Cross flow OHV	1980-1984	6	Aluminium rocker cover. Flywheel bolts — 7/16", 80 - 83DA block.	89037758		
	250 cu. in. 4.1 litre Leaded and unleaded fuel EFI Cross flow OHV	1980-1984	6	Aluminium rocker cover. Flywheel bolts — 7/16", 84DA block.	89037759		
FALCON XF, FAIRLANE ZL	200 cu. in. Leaded and unleaded fuel Non E.F.I. O.H.V.	1987	6	86DA prefix cast on block. Crankshaft — full circle seal. Flywheel bolts — 10mm.	89037760		
	250 cu. in. O.H.V. Unleaded fuel Non E.F.I.	1984-1992	6	86DA prefix cast on block. Crankshaft — full circle seal. Cylinder head — alloy. Flywheel bolts — 10mm. Rear seal — full circle. Stroke — 3.910".	89037761	M5	19101151
	250 cu. in. O.H.V. Unleaded fuel E.F.I.	1984-1992	6	86DA prefix cast on block. Crankshaft — full circle seal. Cylinder head — alloy. Flywheel bolts — 10mm. Rear seal — full circle. Stroke — 3.910".	89037762	M5	19101152
FALCON EA / EB, FAIRLANE NA	3.9 litre E.F.I.	Up to Feb. 1992	6	87DA cast on block. 3.9 cast on head. Overhead camshaft.	89037763		19101153 H2
FALCON EB / ED (SERIES 1), FAIRLANE NC	4.0 litre	Feb. 1992-Feb. 1994	6	91DA cast on block. 91AB cast on head. 91DA cast on timing cover.	89038337		19101154 H2
FALCON ED (SERIES 2) XG UTE VAN	4.0 litre	Mar 1993-	6	94DA cast on block. 91DA cast on timing cover. 94DA cast on head.	89037765		19101155 H2
FALCON EF FAIRLANE NF XH UTE /VAN	4.0 litre	1994-	6	94DA cast on block. 94DA cast on head. 94DA cast on timing cover. Coil pack — yes.	89037766		19101155 H2
	4.0 litre Tickford XR6	1994	6	94DA cast on block. 94DA cast on timing cover. T94DA cast on head.	17803683		19101158 H2
FALCON EL (SERIES 1) FAIRLANE DF	4.0 litre	Sep. 1996-Jan. 1998	6	94DA/95DA cast on head. 94DA/96DA cast on block. 95DA cast on timing cover. Distributor — yes.	89037767		19101156 H2
FALCON EL (SERIES 2)	4.0 litre	Feb. 1998-	6	96DA/VR2A cast on block. 95DA cast on timing cover. 96DA cast on head.	17803682		19101157 H2
FALCON AU FAIRLANE NU	4.0 litre	1998-Aug. 2000	6	WR2A cast on block. WR2A cast on timing cover. WR2A cast on head. Knock sensor — 8mm bolt.	89037768	M8	19101159 H2
	4.0 litre Tickford XR6	1998-Aug. 2000	6	WR2A cast on block. WR2A cast on timing cover. WR2T cast on head. Knock sensor — 8mm bolt.	19101214	M8	19101161 H2
	4.0 litre Tickford XR6	Aug. 2000-	6	WR2A cast on block. WR2A cast on timing cover. WR2T cast on head. Knock sensor — 12mm stud.	17803684	M8	19101161 H2
	4.0 litre XR6 V.C.T.	1998-Aug. 2000	6	WR2A cast on block. WR2A cast on timing cover. WR2T cast on head. Rocker cover — red. Valve timing — variable. Knock sensor — 8mm bolt.	17803684	M8	
FALCON BA	182Kw Tickford XR6 4.0 litre D.O.H.C.	Sept. 2002-	6	3R23 6090-AA cast on head. 3R23 cast on block. 3R23 cast on timing cover. Rocker cover — grey. Valves — 24.	19101215		
FALCON XR FAIRLANE FD / ZA	Windsor engine 289 cu. in. O.H.V.	Falcon 1966-1967 Fairlane 1963-1967	V8	Bore — 4.000". Stroke — 2.875". Sump — plug on left hand side. Bell housing — 5 studs.	89037769		
	Windsor engine 289 cu. in. O.H.V.	Falcon 1966-1967 Fairlane 1963-1967	V8	Bore — 4.000". Stroke — 2.875". Sump — plug on left hand side. Bell housing — 6 studs.	89037770		
FALCON XT / XW FAIRLANE ZB / ZC / ZD	Windsor engine 302 cu. in. O.H.V.	1966-1971	V8	Engine no. prefixes — GD, GH, GG. Timing cover — aluminium. Sump — plug left hand side. Stroke — 3.000". Cylinder head — HCH961 "A" to suit adjustable rockers, Cylinder head — HCH961 "N" to suit non-adjustable rockers	89037771	M5	
FALCON XW FAIRLANE ZC	Windsor engine 351 cu. in. O.H.V.	1969-1970	V8	351-W cast on top of lifter valley at front of block, Stroke — 3.500". Manifold inlet — 6 bolt.	89037772	M5	
	Windsor engine 351 cu. in. O.H.V.	1969-1970	V8	351-W cast on top of lifter valley at front of block, Stroke — 3.500". Manifold inlet — 8 bolt.	89037773	M5	

NOTES:

M5: Correct stroke is required on return engine.

M8: Knock sensor stud Genuine Part No. 800316S100. Knock sensor bolt Genuine Part No. 705214S309.

H2: Head bolts in kit.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
FALCON XA / XB / XC FAIRLANE ZF / ZG / ZJ / ZK	Cleveland engine 302 cu. in. O.H.V.	1971-1979	V8	Full emission control. Inlet port — height 52mm. Distributor — spigot diameter 13.4mm. Points ignition. Sump — plug on left hand side.	89037774		19101140	H1
	LTD Cleveland engine 302 cu. in. O.H.V.	1979-1984	V8	Full emission control. Inlet port — height 52mm. Distributor — spigot diameter 12.5mm. Electronic ignition. Sump — plug on left hand side.	89037775		19101140	
FALCON XW / XY / XB / XC FAIRLANE ZC / ZD / ZF / ZG	Cleveland engine 351 cu. in. O.H.V.	1970-1979	V8	Inlet port — height 52mm. Distributor — spigot diameter 13.4mm. Points ignition. Sump — plug on left hand side. Check distributor reference.	89037776		19101141	H1
FALCON XD / XE FAIRLANE ZH / ZJ / ZK	LTD 351 cu. in. Cleveland engine O.H.V.	1979-1984	V8	Full emission control. Inlet port — height 52mm. Distributor — spigot diameter 12.5mm. Electronic ignition. Sump — plug on left hand side. Check distributor reference.	89037777		19101141	
FALCON EB / ED / EF / EL FAIRLANE NC / NF / NL	Windsor engine 5.0 litre E.F.I.	1990- Sep. 1998	V8	Sump — front well. Roller cam — yes. Knock sensor — no.	89037778		19101142	H1 H2
	Windsor engine 5.0 litre E.F.I.	1990- Sep. 1998	V8	Sump — front well. Roller cam — yes. Knock sensor — yes.	89037779		19101142	H1 H2
FALCON EF FAIRLANE NF	5.0 litre E.F.I.	1994	V8	Roller cam — yes. Sump — front well.	89037780		19101142	
FALCON EL FAIRLANE DF	5.0 litre	1996-	V8	Roller cam — yes. Sump — front well.	89037781		19101142	
FALCON AU FAIRLANE NU	5.0 litre	1998-	V8	Roller cam — yes. Sump — front well.	17803679		19101146	H1 H2
F100A / F250A / F350A	250 cu. in. 4.1 litre O.H.V.	1974-1978	6	Conventional engine. Dipstick — rear of block. Engine no. — above oil filter boss. Stroke — 3.910". Sump — rear well.	89037689	M5	19101148	
F100 / F150 / F350	250 cu. in. 4.1 litre Cross flow alloy O.H.V.	1981-1984	6	80DA cast on block. Cylinder head — aluminium. Dipstick — in block. Stroke — 3.910". Sump — front well.	89037693	M5		
	5.0 litre E.F.I. Windsor engine	1985- May 1987	V8	302 Windsor. Cylinder head bolt holes — 12.5mm. Motor has knock sensor in inlet manifold. Timing cover — three bolt holes on right- hand side of water pump	89037783		19101142	H1 H2
	5.0 litre E.F.I. Windsor engine	May 1987-	V8	302 Windsor. Motor has knock sensor in block rear of valley. Timing cover — three bolt holes on right- hand side of water pump	89037784		19101142	H1 H2
	5.8 litre Windsor engine E.F.I.	1987- Sept. 1990	V8	351 Windsor cast in valley. Cylinder head bolt holes — 14.5mm. Dipstick — in sump.	17803680		19101147	H1 H2
	5.8 litre Windsor engine E.F.I.	Oct. 1990- 1993	V8	351 Windsor cast in valley. Cylinder head bolt holes — 14.5mm. Dipstick — in block.	17803681		19101147	
MAVERICK DA	4169cc TB42 engine Petrol 4WD	1987-1993	6	Engine no. prefix — TB42.	89037785		19101124	
	4169cc TD42 engine Diesel 4WD	1987-1993	6	Engine no. prefix — TD42.	89037786			
RAIDER	2600cc G6 engine E.F.I. 2WD.	1991-	4	Engine no. prefix — G6. Valves — 12.	89037735			
	2600cc G6 engine E.F.I. 4WD.	1991-	4	Engine no. prefix — G6. Valves — 12.	89037736		19101059	
TRANSIT VAN V SERIES	3.3 litre 200 cu. in. 100/115/150 O.H.V.	1973-1978	6	Engine no. — above oil filter boss. Conventional engine. Stroke — 3.130". Sump — rear well.	89037688	M5	19101059	
TRANSIT VAN	250 cu. in. O.H.V. 4.1 litre Cross flow	1978-	6	76DA cast on block. Cylinder head — cast iron and cross flow. Stroke — 3.910". Sump — front well. Distributor spigot diameter — 13.4mm.	89037691	M5		
	2.0 litre E.F.I. Petrol	1997-2001	4	NSJ engine. 2.0 cast on left hand side of block. Chain drive., Valves — 8.	17803678			
	2.5 litre Diesel Turbo	1994-2001	4	4EB or 4EC. Valves — 8.	17803582			
ECONOVAN	E2200 engine O.H.V.	To 1984	4	Overhead valves — push rods. Dipstick — in block. S2 cast on block.	89037787			
	E2200 engine O.H.C.	1984-	4	Camshaft — overhead. R2 cast on block.	89037788			
TRADER	3.0 litre O.H.V. T3000 HA engine	1980-	4	Overhead valves — push rods. Glo-plugs — provision. Rocker cover — alloy.	89037790			
	3455cc O.H.V. SL engine T3500 SL engine	Up to Nov. 1984	4	Early model. SL cast on block. Flywheel — 14mm bolts.	89038333			
	3455cc O.H.V. SL engine T3500 SL engine	Dec. 1984- Jul. 1987	4	Early model. SL cast on block. Flywheel — 15mm bolts.	89038020			
	3455cc T3500 SL engine O.H.V.	Jul. 1987- Mar. 1992	4	Late model. SL cast on block. Sump — deep well. Flywheel — 15mm bolts.	89038021			
	O.H.V. T4000 engine	1992-	6	TF cast on block. Engine no. at right hand rear.	89037792			

NOTES:

M5: Correct stroke is required on return engine.

H1: Pair of heads.

H2: Head bolts in kit.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
FORD (CONT.)								
TRADER	4169cc T4100 ZB engine	1987-	6	ZB engine.	89037791			
	4.6 litre T4600 engine	Sep. 1996	6	TM engine.	89037793			
FORD	240 cu. in. Conventional cabin F series Petrol	1965-1973	6	Oil filler — in rocker cover (not sump).	89037794			
	240 cu. in. D series Cab-over cabin Petrol	1965-1973	6	Oil filler — in sump (not rocker cover).	89037795			
	300 cu. in. F series Conventional cabin Petrol	1965-1973	6	Oil filler — in rocker cover.	89037796			
	300 cu. in. Cab-over cabin D series Petrol	1965-1973	6	Oil filler — in sump.	89037797			
	360 cu. in. Cab-over cabin D series	1965-	6	360 stamped on right hand side of block. Timing cover — tin.	89037799	M9		
FORD (BLACK DORSET)	360 cu. in. D series Cab-over cabin Turbo	1965-	6	360T stamped on right hand side of block. Timing cover — tin. Timing gears — helical.	89037800	M9		
FORD (RED CARGO)	360 cu. in. Cargo series Turbo	1965-	6	360T stamped on right hand side of block. Timing cover — alloy. Timing gear — straight.	89037801	M9		
FORD	365 cu. in. D series	1965	6	365 stamped on right hand side of block. Timing cover — tin.	89037802	M9		
FORD (BLACK DORSET)	380 cu. in. D series Cab-over cabin	1965-	6	380 stamped on right hand side of block. Timing cover — tin. Timing gears — helical.	89037803	M9		
FORD (RED CARGO)	380 cu. in. Cargo series Normally aspirated	1965-	6	380 stamped on right hand side of block. Timing cover — alloy. Timing gears — straight.	89037804	M9		
FORD (RED DOVER)	380 cu. in. Dover series Normally aspirated	1965-	6	380 stamped on right hand side of block. Timing cover — alloy. Timing gears — straight.	89037805	M9		
FORD	361 cu. in. Louisville Petrol	1966-1973	V8	0	89037806			
	391 cu. in. Louisville Petrol	1966-1973	V8	0	89037807			
	477 cu. in. Louisville Petrol and Gas (LPG)	1958-1981	V8	Gas (LPG). One large inlet port.	89037809			
HOLDEN								
APOLLO JK / JL	2.0 litre 3SFC engine DOHC Carburettor Unleaded	1989-1991	4	Engine prefix — 3S. Camshaft — belt drive. Valves — 16. Flywheel — 6 bolts.	89037816		19101093	H2
	2.0 litre 3SFC engine DOHC Carburettor Unleaded	1989-1991	4	Engine prefix — 3S. Camshaft — belt drive. Valves — 16. Flywheel — 8 bolts.	89037817		19101093	H2
	2.0 litre 3SFE engine D.O.H.C. E.F.I.	1989-1991	4	Engine prefix — 3S., Camshaft — belt drive. Valves — 16. Flywheel — 6 bolts.	89037818		19101094	H2
	2.0 litre 3SFE engine D.O.H.C. E.F.I.	1989-1991	4	Engine prefix — 3S. Camshaft — belt drive. Valves — 16. Flywheel — 8 bolts.	89037819		19101094	H2
APOLLO JM / JP	3.0 litre 3VZFE engine E.F.I.	1993-	V6	Engine prefix — 3VZ.	89037820		19101097	H1 H2
	2164cc 5SFE engine E.F.I.	1993-	4	Engine prefix — 5S. Engine has balancer shaft in sump.	89037821		19101095	H2
ASTRA LB	1.5 litre OHC 76mm bore E15 engine Leaded fuel	1984-1985	4	Engine no. prefix — E15 on rear of left hand side of block. Camshaft — belt drive. Distributor — rear of cylinder head. East-west engine. MZ cast on left hand side of block.	89037822		19101133	
ASTRA LC	1.6 litre OHC 76mm bore E16S engine Unleaded fuel	1986-1987	6	Engine no. prefix — E16. East-west engine. Sump — front well. Camshaft — belt drive.	89037823		19101132	
ASTRA LD / SL	1.6 litre OHC 16LE engine 80mm bore Unleaded fuel	1987-	4	Engine no. prefix — 16LF. Camshaft — belt drive. East-west engine. Throttle body injection.	89037824		19101050	H2
ASTRA KD / SLEX	1.8 litre OHC 18LE engine 84.8mm bore Unleaded fuel	1987	4	Engine no. prefix — 18LE. Camshaft — belt drive. East-west engine. Port fuel injection. 1.8E cast on cylinder head. High inlet ports.	89037825		19101051	H2
ASTRA TR	1.6 litre S.O.H.C.	1996- Sept. 1998	4	Engine no. prefix — C16SE. Valves — 8.	17803578		19101058	H2
	1.8 litre D.O.H.C.	1996- Sept. 1998	4	Engine no. prefix — C18SE. Valves — 16.	17803574			
	2.0 litre D.O.H.C.	1996-	4	Engine no. prefix — X20XE. Valves — 16.	17803577			

NOTES:

M9: Industrial applications normally have "flat" type sump and require relevant oil pick-up and pipe.

H1: Pair of heads.

H2: Head bolts in kit.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
ASTRA TS	1.8 litre D.O.H.C.	1998-	4	Engine no. prefix — X18XE. Valves — 16.	17803575		19101057	H2
	1.8 litre D.O.H.C.	2000-	4	Engine no. prefix — Z18XE.	17803576			
	2.2 litre Zafira D.O.H.C.	2002-	4	Engine no. prefix — Z22SE. Chain drive. Up to engine no. Z22SE 11048623.	19101184			
BARINA MB / ML	1.3 litre G13A engine S.O.H.C. Manual	1985-1986	4	Engine no. prefix — G13A. Camshaft — belt drive. East-west engine. Water pump — 40mm bolt centres on pulley hub, Sump — front hump.	89037826			
	1.3 litre G13A engine S.O.H.C. Automatic	1986-1989	4	Engine no. prefix — G13A. Camshaft — belt drive. East-west engine. Water pump — 60mm bolt centres on pulley hub, Sump — front hump.	89037827			
BARINA MF / MH	1.3 litre FWD G13BA engine S.O.H.C.	1989-1994	4	Engine no. prefix — G13BA. Camshaft — belt drive. East-west engine. Sump — front hump. Water pump — 60mm bolt centre on pulley hub. Crank gear — 4 bolts. Timing belt — square tooth.	89037828		19101009	
	1.3 litre FWD G13BA engine S.O.H.C.	1989-1994	4	Engine no. prefix — G13BA. Camshaft — belt drive. East-west engine. Sump — front hump. Water pump — 60mm bolt centre on pulley hub. Crank gear — 5 bolts. Timing belt — round tooth.	89037829		19101009	
DROVER 4 X 4	1.3 litre G13A engine QB - QT16 S.O.H.C.	1985-1989	4	Engine no. prefix — G13A. Camshaft — belt drive. Large body water pump. NOT east-west engine. Sump — rear well.	89038207		19101007	
BARINA SB	1.2 litre S.O.H.C.	1994-1997	4	Engine no. prefix — C12NZ.	17803514		19101012	H2
	1.6 litre D.O.H.C.	1995-2000	4	Engine no. prefix — X16XE.	17803517			
	1.6 litre D.O.H.C.	1994-1995	4	Engine no. prefix — C16XE.	17803518			
VECTRA JR / JS	2.5 litre Calibra D.O.H.C.	1997-	V6	Engine no. prefix — X25XE. Valves — 24.	17803569			
	2.0 litre D.O.H.C.	1997-2000	4	Engine no. prefix — C20SEL. Valves — 16. Oil level sensor in sump — no.	17803570		19101056	H2
	2.0 litre D.O.H.C.	1997-2000	4	Engine no. prefix — C20SEL. Valves — 16. Oil level sensor in sump — yes.	17803571		19101056	H2
VECTRA JS	2.2 litre D.O.H.C.	1998-2003	4	Engine no. prefix — C22SEL. Valves — 16. Oil level sensor in sump — no.	17803572		19101056	H2
	2.2 litre D.O.H.C.	1998-2003	4	Engine no. prefix — C22SEL. Valves — 16. Oil level sensor in sump — yes.	17803573		19101056	H2
CALIBRA YE	2.0 litre SOHC 8YE 77 model Automatic LE4 Engine E.F.I. (port fuel injection)	1991-	4	Engine no. prefix — C20NE. Camshaft — belt drive.	89037831			
	2.0 litre DOHC LJ1 Engine E.F.I. (port fuel injection) 8YE 77 model Manual	1991-1993	4	Engine no. prefix — C20XE. Camshaft — belt drive. Belt tensioner — single.	89037832			
	2.0 litre DOHC LJ1 Engine E.F.I. (port fuel injection) 8YE 77 model Manual	1993-	4	Engine no. prefix — C20XE. Camshaft — belt drive. Belt tensioner — double.	17803581			
CAMIRA JB	1598cc Camtech 4 engine OHC Early camshaft Manual and automatic	1982-1984	4	Engine no. prefix — 16JH. Distributor — "tang" driven off camshaft up to engine no. 16JH25065438, to engine no. 16JH25065438. Check distributor drive type, Sump — rear well. Manual Transmission — 8 bolt at rear of block.	89037833			
	1598cc Camtech 4 engine OHC Early camshaft Manual and automatic	1982-1984	4	Engine no. prefix — 16JH. Distributor — "tang" driven off camshaft up to engine no. 16JH25065438, to engine no. 16JH25065438. Check distributor drive type, Sump — rear well. Automatic Transmission — 6 bolt at rear of block.	89037834			
	1598cc Camtech 4 engine OHC Late camshaft Manual	1982-1984	4	Engine no. prefix — 16JH. Distributor — "pin" driven off camshaft from engine no. 16JH25065439 Check distributor drive type, Sump — rear well. Camshaft — belt drive. Transmission — 8 bolt at rear of block.	89037835			
	1598cc Automatic Camtech 4 engine OHC Late camshaft	1982-1984	4	Engine no. prefix — 16JH. Distributor — "pin" driven off camshaft from engine no. 16JH25065439 Check distributor drive type, Camshaft — belt drive. Transmission — 6 bolt at rear of block.	89037836			
CAMIRA JD	1796cc Camtech 4 engine OHC E.F.I. (throttle body injection) Unleaded fuel	1984-	4	Engine no. prefix — 18JU. 1.8M cast on left hand side of cylinder head. Camshaft — belt drive. Distributor — tang drive. Check distributor drive type, Sump — rear well. Transmission — 7 bolt at rear of block. Manual.	89037837		19101021	H2
	1796cc Camtech 4 engine OHC E.F.I. (throttle body injection) Unleaded fuel	1984-	4	Engine no. prefix — 18JU. 1.8M cast on left hand side of cylinder head. Camshaft — belt drive. Distributor — tang drive. Check distributor drive type, Sump — rear well. Transmission — 6 bolt at rear of block. Automatic.	89037838		19101021	H2
	1796cc Camtech 4 engine OHC E.F.I. (port body injection) Leaded fuel	1984-	4	Engine no. prefix — 18JU. 1.8M cast on left hand side of cylinder head. Camshaft — belt drive. Sump — rear well. Distributor — pin drive. Check Distributor Drive Type, Transmission — 7 bolt at rear of block. Manual.	89037839		19101022	H2

NOTES:

H2: Head bolts in kit.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
HOLDEN (CONT.)								
CAMIRA JD	1796cc Camtech 4 engine OHC E.FI. (port body injection) Leaded fuel	1984-	4	Engine no. prefix — 18JU. 1.8M cast on left hand side of cylinder head. Camshaft — belt drive. Sump — rear well. Distributor — pin drive. Check Distributor Drive Type, Transmission — 7 bolt at rear of block. Manual.	89037839		19101022	H2
	1796cc Camtech 4 engine OHC E.FI. (port body injection) Leaded fuel	1984-	4	Engine no. prefix — 18JU. 1.8M cast on left hand side of cylinder head. Camshaft — belt drive. Sump — rear well. Distributor — pin drive. Check Distributor Drive Type, Transmission — 6 bolt at rear of block. Automatic.	89037840		19101022	H2
CAMIRA JE	1998cc O.H.C. Manual and automatic	1987-89	4	G2 engine. Engine no. prefix — 20JD. Camshaft — belt drive. Transmission — 8 bolt at rear of block. Manual.	89037841		19101020	H2
	1998cc O.H.C. Manual and automatic	1987-89	4	G2 engine. Engine no. prefix — 20JD. Camshaft — belt drive. Transmission — 6 bolts at rear of block. Automatic.	89037842		19101020	H2
GEMINI TC / TD / TE / TF / TG	1584cc O.H.C.	1975-1985	4	G-161 cast on block below engine no. Steel rocker cover — has "Isuzu" identification. ** Suits both mechanical and electrical fuel pump models, but may require eccentric fitment to cam for mechanical pump from old motor. **	89037843		19101019	H2
GEMINI RB	1471cc 4XC1. O.H.C.	1985-	4	Engine no. shown on left hand side of rear of block. Sump — front well. Oil filter — horizontal on right hand side. Camshaft — belt drive. Dipstick — left hand side. Flywheel — 6 bolts.	89037844			
	1471cc 4XC1. O.H.C.	1985-	4	Engine no. shown on left hand side of rear of block. Sump — front well. Oil filter — horizontal on right hand side. Camshaft — belt drive. Dipstick — left hand side. Flywheel — 8 bolts.	89037845			
GEMINI TE / TF / TG	1817cc Diesel	1981-1986	4	4FB1 cast on block. Flywheel — 6 bolts.	89037846			
	1817cc Diesel	1981-1986	4	4FB1 cast on block. Flywheel — 8 bolts.	89037847			
NOVA LE	1.4 litre 6AFC engine Carburettor D.O.H.C.	1989-1991	4	Engine no. prefix — 6A. Camshaft — belt drive. East-west engine. Valves — 16.	89037848			
	1.6 litre 4AFC engine Carburettor D.O.H.C.	1989-1994	4	Engine no. prefix — 4A. Camshaft — belt drive. East-west engine. Valves — 16.	89037849		19101083	H2
	1.6 litre 4AFE engine D.O.H.C. E.FI.	1991-1994	4	Engine no. prefix — 4A. Camshaft — belt drive. East-west engine. Valves — 16.	89037850			
NOVA LF	1.4 litre 6AFC engine E.FI. O.H.C.	1991-1994	4	Engine no. prefix — 6A. Camshaft — belt drive. East-west engine.	89037851			
NOVA LG	1.6 litre 4AFE engine D.O.H.C.	1994-1997	4	Engine no. prefix — 4A. Valves — 16. Rocker cover — covers cam gears.	17803624		19101085	H2
NOVA LF / LG	1.8 litre 7AFE engine D.O.H.C.	1991-	4	Engine no. prefix — 7A. Valves — 16. Rocker cover — covers cam gears.	89037852			
RODEO	1600cc G161 engine OHC KB40 - KB41 Petrol	Jan. 1981- Dec. 1982	4	** Can use Part No. 417 if sump is changed **, G161 cast on block below engine no. Rocker cover — has "Isuzu" identification.	89037600		19101019	
	1800cc KB42 - KB27	1977-83	4	G180 cast on block.	89037853			
KB RODEO, JACKAROO	1949cc OHC G200Z engine KB28- KB43 Petrol	1981-	4	G200 cast on left hand side of block and in front of cylinder head, Air injection — nil. Dipstick — left hand side of sump. Fuel pump — mechanical. Rocker cover — steel. 2WD sump — rear well.	89037854		19101027	
	1949cc OHC G200Z engine KB28- KB43 Petrol	1981-	4	G200 cast on left hand side of block and in front of cylinder head, Air injection — nil. Dipstick — left hand side of sump. Fuel pump — mechanical. Rocker cover — steel. 4WD sump.	89037855		19101027	
RODEO, JACKAROO	2254cc 2WD and 4WD O.H.C. Petrol	1984-	4	Engine no. prefix — 4ZD1. Camshaft — belt drive. Sump — rear well. 4WD use original.	89037858	M10	19101028	
	2599cc	1988- Sep. 1993	4	4ZE1 cast on block. Dip stick tube — 14.6mm.	89037859		19101030	
RODEO TF	2599cc	Sep. 1993- 1998	4	4ZE1 cast on block. Dip stick tube — 15.4mm.	17803537		19101030	
	2.2 litre	1998-	4	Engine no. prefix — C22NE. Valves — 8. Sump — rear well wing, alloy.	17803538			
JACKAROO	3.2 litre S.O.H.C.	1992- Oct. 1995	V6	Engine no. prefix — 6VD1. Cam gears — steel. Exhaust manifold — 7 studs. Sump — rear well, tin. Valves — 24.	89038344		19101033	H1
	3.2 litre S.O.H.C.	Oct. 1995- 1998	V6	Engine no. prefix — 6VD1. Cam gears — plastic. Cylinder head cast no. — 96. Exhaust manifold — 8 studs. Valves — 24.	17803539		19101032	H1

NOTES:

M10: 4WD application — use original oil pan. Pan must be cleaned back to bare metal.

H1: Pair of heads.

H2: Head bolts in kit.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details	Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
3.5 litre D.O.H.C.	1998-	V6	Engine no. prefix — 6VE1. Sump — rear well, two piece alloy with tin pan. Valves — 24.	19101177			
RODEO TF 3.2 litre Frontera D.O.H.C.	1998-	V6	Engine no. prefix — 6VD1. Valves — 24. Sump — rear well, two piece alloy with tin pan.	17803540		19101034	H1
FRONTERA UT 2.0 litre S.O.H.C.	1995-1999	4	Engine no. prefix — X20SE. Valves — 8.	17803541			
2.2 litre D.O.H.C.	1999-	4	Engine no. prefix — X22SE. Valves — 16.	17803542		19101056	H2
RODEO C190 1951cc Diesel	1980-1982	4	C190 cast on left hand side of block. Engine mount — 4 bolt.	89037998			
RODEO C223 2238cc Diesel	1983-1988	4	C223 cast on left-hand side of block. 2WD.	89038000			
2238cc Diesel	1983-1988	4	C223 cast on left-hand side of block. 4WD.	89038001			
JACKAROO C223T 2238cc Diesel Turbo	1988-1992	4	C223 cast on left-hand side of block.	89038002			
RODEO 2499cc 4JA1	1985-	4	4JA1 cast on left-hand side rear of block.	89037985			
2771cc Jackaroo 4JB1	1985-	4	4JB1 cast on left-hand side rear of block.	89037986			
2771cc Jackaroo 4JB1	1985-	4	4JB1 cast on left-hand side rear of block.	89037986			
2771cc SOHC Jackaroo 4JB1 Turbo	1988- Oct. 1996	4	4JB1 cast on left-hand side rear of block. Square dish combustion piston.	89037987			
2771cc SOHC Jackaroo 4JB1 Turbo	Nov. 1996-	4	4JB1 cast on left-hand side rear of block. Round dish combustion piston.	17803528			
JACKAROO 3059cc 4JG2T S.O.H.C. Turbo	1992- July 1993	4	4JG2 cast on left-hand side of block.	17803529			
PIAZZA YB 1994cc 4ZC1 engine O.H.C. Unleaded fuel	1986	4	4ZC1 cast on block., Turbo intercooler. Camshaft — belt drive.	89037861			
SHUTTLE 1817cc ohc 4ZB1 engine head.	1982-1983	4	Engine no. prefix — 4ZB1 cast on left hand side on block and rear of cylinder head. Air injection on exhaust ports. Camshaft — belt drive. Distributor — right hand side rear of cylinder, Sump — rear well. Suits 6 bolt flywheel	89037856			
1817cc ohc 4ZB1 engine head.	1982-1983	4	Engine no. prefix — 4ZB1 cast on left hand side on block and rear of cylinder head. Air injection on exhaust ports. Camshaft — belt drive. Distributor — right hand side rear of cylinder, Sump — rear well. Suits 8 bolt flywheel.	89037857			
1994cc 4ZC1 engine O.H.C.	1981-	4	4ZC1 cast on block. Camshaft — belt drive. Bore 88mm (not Piazza 87mm).	89037860			
1995cc 4FC1 engine Diesel	1982-1986	4	4FC1 cast on block.	89037976			
SUNBIRD UC Torana UC 1.9 litre O.H.V. Starfire engine	1978-1980	4	Engine no. prefix — UN., Sump — rear well. O.H.V.	89037862			
TORANA 186 cu. in. Red motor	1969-1972	6	186, 179 or HP cast on block. Water core plugs — 5. Sump — rear well.	89037867		19101131	
202 cu. in. 3300 series OHV Red motor Emission control	1971-1979	6	202 cast on block. Water core plugs — 5. Cylinder head — has sender on right hand side.	89037868		19101018	
173 cu. in. 2850 series O.H.V. Pre-emission and emission control	1975-1979	6	161 or 173 cast on block. Cylinder head — has sender on right hand side. Sump — rear well. Water core plugs — 5.	89037869			
TORANA LH 253 cu. in. 4.2 litre O.H.V. Pre-emission	1974-1976	V8	253 cast on block. Sump — rear well.	89037870		19101039	H1
308 cu. in. OHV 5.0 litre Not L34 Manual and trimatic Pre-emission	1974-1976	V8	308 cast on block. Bell housing dowels — 1/2". Sump — rear well.	89037871		19101039	H1
TORANA LX 253 cu. in. 4.2 litre O.H.V. Emission control	1976-1980	V8	253 cast on block. EGR — U-shape port centre position. Sump — rear well.	89037872		19101041	H1
308 cu. in. OHV 5.0 litre Not L34 Emission control Turbo-hydrumatic	1976-1980	V8	308 cast on block. Bell housing dowels — 5/8". EGR — U-shape port centre position. Sump — rear well.	89037873		19101041	H1
308 cu. in. 5.0 litre O.H.V. Emission control	1976-1977	V8	308 cast on block. Bell housing dowels — 1/2". EGR — U-shape port centre position. Sump — rear well.	89037874		19101041	H1
FX / FJ / FE / EK 138 cu. in. Grey motor O.H.V.	1948-1962	6	Sump — E stamped in base. Engine mounting bolts — 5/16" at front towards, radiator.	89037875			
138 cu. in. Grey motor O.H.V.	1948-1962	6	Sump — E stamped in base. Engine mount — faces gear box.	89037876			
EJ SERIES 138 cu. in. Grey motor	1962-1963	6	Engine mounting bolts — 3/8" at front. Water core plugs — 3. Harmonic balancer — bore 1", (outside, diameter vee — 55/8").	89037877			

NOTES:

H1: Pair of heads.

H2: Head bolts in kit.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
HOLDEN (CONT.)								
EH	179 cu. in. / 186 cu.in. O.H.V.	1963-1967	6	186, 179 or HP cast on block. Water core plugs — 5.	89038332		19101131	
	149 cu. in. / 161 cu. in. O.H.V.	1965-1966	6	Plain block — no casting no. Water core plugs — 3.	89037878			
HD / HR	149 cu. in. / 161 cu. in. O.H.V.	1966-1971	6	Plain, 149 or 161 cast on block.	89037879			
	179 cu. in. / 186 cu. in. O.H.V.	1966-1971	6	179 or 186 cast on block. Water core plugs — 5.	89037880		19101131	
HK / HT / HG	161 cu. in. O.H.V. Red motor	1968-1971	6	161 cast on block. Sump — centre well with steps at rear. Water core plugs — 5.	89037881			
	186 cu. in. O.H.V. Red motor	1968-1971	6	186, 179 or HP cast on block. Sump — centre well with steps at rear. Water core plugs — 5.	89037882		19101131	
HQ / HJ	173 cu. in. O.H.V.	1971-1976	6	161 or 173 cast on block. Water core plugs — 5. Sump — rear well.	89037883			
HQ / HX / HZ	202 cu. in. O.H.V.	1971-1980	6	202 casting on block.	89037884		19101018	
COMMODORE VC	1892cc O.H.C. Starfire engine	1980-1981	4	1.9 cast on block. Engine no. prefix — VN. No air injection. Sump — front well.	89037885			
COMMODORE VH	1892cc O.H.V. Starfire engine	1981-1983	4	Air conditioner on cylinder head. Air pump bracket per 2 cast on lugs on left, Engine no. prefix — VN. hand side of block. Has air injection. Sump — front well.	89037886			
COMMODORE VB	173 cu. in. 2850 series O.H.V. Red motor	1979-1980	6	173 or 2.8 cast on block. Engine no. prefix — VD. NOT 12 port cylinder head. Sump — front well.	89037887			
	202 cu. in. 3300 series O.H.V. Red motor	1979-1980	6	202 or 3.3 cast on block. Engine no. prefix — VL. NOT 12 port cylinder head. Sump — front well.	89037888		19101018	
COMMODORE VC	173 cu. in. 2850 series Blue motor O.H.V.	1980-1981	6	2.8 cast on block. Air injection — no. Dipstick — in sump. Sump — front well.	89037889			
COMMODORE VC / VH	202 cu. in. 3300 series Blue motor O.H.V.	1980-1984	6	3.3 cast on block. Air conditioning — mounted on block.	89037890	M12	19101024	
	202 cu. in. 3300 series Blue motor O.H.V.	1980-1984	6	3.3 cast on block. Air conditioning — no.	89037891	M12	19101023	
COMMODORE VH	173 cu. in. 2850 series OHV Air injected Blue motor	1981-1984	6	2.8 cast on block. Air conditioning — mounted to cylinder head. Has air injection. Has extra lug cast on block for air pump.	89037892		19101025	
COMMODORE VK CALAIS	202 cu. in. 3.3 litre OHV Black motor E.F.I.	1984-	6	12 port cylinder head. alternator bracket. Engine no. prefix — VL / VK. Mounting lug — left hand side of block for, Rocker cover — has bracket right hand side.	89037893	M11	19101026	
COMMODORE VK	202 cu. in. 3300 series OHV Black motor Carburettor	1984-	6	12 port cylinder head. Air injection — cylinder head provision. Engine no. prefix — VL / VK. Mounting lug — left hand side of block for air, pump bracket.	89037894	M12	19101029	
COMMODORE VL	RB30 engine O.H.C. E.F.I.	1986-	6	Engine no. suffix — A6. Nissan RB30 engine. Camshaft — belt drive.	89037895		19101043	
	E.F.I. O.H.C. RB30 Engine Turbo	1986-	6	Camshaft — belt drive. Engine no. suffix — A8. Nissan RB30 engine.	89037896		19101043	
COMMODORE VN	3.8 litre Manual and automatic VN Series 1 and 2, and VG Utility	1988-1990	V6	Engine no. prefix — VH. Flywheel — 6 bolts. Cylinder head — 3/8" rocker studs/bolts. Dipstick — driver side. Crankshaft — flange at rear end. Two piece wick seal, Manual.	89037897		19101045	H1 H2
	3.8 litre Manual and automatic VN Series 1 and 2, and VG Utility	1988-1990	V6	Engine no. prefix — VH. Flywheel — 6 bolts. Cylinder head — 3/8" rocker studs/bolts. Dipstick — driver side. Crankshaft — NO flange at rear end. Two piece wick seal, Automatic.	89037898		19101045	H1 H2
COMMODORE VN / VP	3.8 litre Manual and automatic VN Series 3, VP, and VG Utility	1990-1993	V6	Engine no. prefix — VH. EV6 cast on block. Crankshaft — full circle seal. Flywheel — 8 bolt. Cylinder head — 3/8" rocker studs/bolts. Dipstick — driver side.	89037899		19101046	H1 H2
	3.8 litre Manual and automatic VN Series 3, VP, and VG Utility	1990-1993	V6	Engine no. prefix — VH. EV6 cast on block. Crankshaft — full circle seal. Flywheel — 8 bolt. Cylinder head — 3/8" rocker studs/bolts. Dipstick — passenger side.	89037900		19101046	H1 H2
COMMODORE VR	3.8 litre Manual.	July 1993-April 1995	V6	Dipstick — passenger side. Cylinder head — 5/16" rocker studs/bolts. NO electronic timing sensor in timing cover. Manual.	89037901		19101047	H1 H2
	3.8 litre Automatic.	July 1993-April 1995	V6	Dipstick — passenger side. Cylinder head — 5/16" rocker studs/bolts. Electronic timing sensor mounted on front of timing cover, Automatic.	89037902		19101047	H1 H2
COMMODORE VS / VT	3.8 litre Manual and automatic	May 1995-June 1999	V6	Has external main bearing side bolts. Sump — alloy. Manual and automatic. Manual has manual clutch.	89037903		19101048	H1 H2

NOTES:

M11: Dowel hole in the centre at rear of top face of block for locating sensor. Dowel hole also in crankshaft flange.

M12: May require rocker cover change. Must be cleaned back to bare metal.

H1: Pair of heads.

H2: Head bolts in kit.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details	Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
COMMODORE VS / VT 3.8 litre Manual and automatic	May 1995- June 1999	V6	Has external main bearing side bolts. Sump — alloy. Getrag transmission. Manual with hydraulic clutch.	89037904		19101048	H1 H2
COMMODORE VT 3.8 litre E.G.R.	July 1999-	V6	From engine no. VH699660. Automatic.	89037905		19101048	H1 H2
3.8 litre E.G.R.	July 1999-	V6	From engine no. VH699660. Getrag transmission - manual.	89037906		19101048	H1 H1
COMMODORE VS / VT / VX 3.8 litre Supercharged	1995-2002	V6	Engine no. prefix — VS. Sump — front well, alloy.	17803548		19101049	H1 H2
COMMODORE VY 3.8 litre Supercharged	2002-	V6	Engine no. prefix — VS. Sump — front well, alloy with large flange at rear for gear box to bolt on.	17803549		19101049	H1 H2
COMMODORE VX 3.8 litre	Oct. 2000-	V6	Engine no. prefix — VA. Sump — front well, alloy., Automatic.	17803550		19101048	H1 H2
3.8 litre	Oct. 2000-	V6	Engine no. prefix — VA. Sump — front well, alloy., Getrag transmission - manual.	17803551		19101048	H1 H2
COMMODORE VY 3.8 litre	Oct. 2002-	V6	Engine no. prefix — VA. Sump — front well, alloy with large flange at rear for gear box to bolt on., Automatic.	17803552		19101048	H1 H2
3.8 litre	Oct. 2002-	V6	Engine no. prefix — VA. Sump — front well, alloy with large flange at rear for gear box to bolt on. Getrag transmission - manual.	17803553		19101048	H1 H2
MONARO HT 327 cu. in.	1968-1969	V8	Engine no. prefix — 327.	89037907			
MONARO HT / HQ 350 cu. in.	1969-1974	V8	Engine no. prefix — 350.	89037908			
HT / HG 253 cu. in. Red motor O.H.V. Pre-emission control	1968-1971	V8	Engine no. prefix — 253L, 252H. 253 cast on block. Sump — rear well. Oil filter tube — in timing cover.	89037909		19101039	H1 H2
308 cu. in. O.H.V. Manual and trimatic Pre-emission control Red motor	1967-1971	V8	308 cast on block. Bell housing dowels — 1/2". Oil filter tube — in timing cover. Sump — centre well.	89037910		19101039	H1 H2
HQ / HJ 253 cu. in. Red motor O.H.V. Pre-emission control	1971-1976	V8	253 cast on block. Sump — rear well. EGR — no port in cylinder heads. Oil filler — in rocker cover.	89037870		19101039	H1 H2
308 cu. in. Red motor O.H.V. Manual and trimatic	1971-1976	V8	308 cast on block. Bell housing dowels — 1/2". Sump — rear well. EGR — no port in cylinder heads. Oil filler — in rocker cover.	89037871		19101039	H1 H2
COMMODORE VB Red Motor 4.2 litre 253 cu. in. O.H.V. E.G.R. Turbo hydramatic	1978-1980	V8	Engine no. prefix — VR or ZR. 253 cast on block. Bell housing dowels — 1/2". Sump — front well. E.G.R. — U-shape port in centre position on manifold face.	89037914		19101041	H1
5.0 litre Red Motor 308 cu. in. O.H.V. E.G.R. Turbo hydramatic	1978-1983	V8	Engine no. prefix — VT. 308 cast on block. Bell housing dowels — 5/8". Sump — front well. E.G.R. — U-shape port in centre position on manifold face.	89037915		19101041	H1
5.0 litre Red Motor 308 cu. in. O.H.V. E.G.R. Manual and trimatic	1978-1983	V8	Engine no. prefix — VT. 308 cast on block. Bell housing dowels — 1/2". Sump — front well. E.G.R. — U-shape port in centre position on manifold face.	89037916		19101041	H1
COMMODORE VC / VH 4.2 litre Blue Motor 253 cu. in. O.H.V. E.G.R. Manual and trimatic	1980-1984	V8	253 cast on block. Bell housing dowels — 1/2". Sump — front well. E.G.R. — This shape port (see opposite) centre position with 2 studs on manifold face.	89037917		19101042	H1
5.0 litre Blue Motor 308 cu. in. O.H.V. E.G.R. Manual	1981-	V8	308 cast on block. Bell housing dowels — 1/2". Sump — front well. E.G.R. — This shape port (see opposite) centre position with 2 studs on manifold face.	89037918		19101042	H1
5.0 litre Blue Motor 308 cu. in. O.H.V. E.G.R. Turbo hydramatic	1980	V8	308 cast on block. Bell housing dowels — 5/8". Sump — front well. E.G.R. — This shape port (see opposite) centre position with 2 studs on manifold face.	89037919		19101042	H1
COMMODORE VK 308 cu. in. O.H.V. 5.0 litre Black motor Manual and trimatic	1984-1986	V8	308 cast on block. Bell housing dowels — 1/2". Sump — front well.	89037920		19101040	H1
5.0 litre 304 cu. in. Carburettor	1986-1988	V8	Engine no. prefix — VJ. 308 cast on block. Bell housing dowels — 1/2", Sump — front well. L34 valves — yes.	89037921		19101035	H1
COMMODORE VN / VS 5.0 litre 304 cu. in. O.H.V. E.F.I.	1988-1999	V8	Engine no. prefix — VU or SV. 5LT cast on block. Bell housing dowels — 5/8", Manual and turbo hydramatic	89037926		19101037	H1
COMMODORE VT 5.0 litre 304 cu. in. O.H.V. E.F.I.	1999	V8	Engine no. prefix — VU or SV. Roller camshaft. 5LT cast on block. Bell housing dowels — 5/8"	89038341		19101037	H1
COMMODORE VT / VY SERIES I 5.7 litre Monaro Generation III	1999- July 2003	V8	Engine no. prefix — VF.	89038339		19101036	H1 H2
COMMODORE VY SERIES II 5.7 litre Generation III	Aug. 2003-	V8	Engine no. prefix — VF. Breather pipe — out of valley cover.	17803543		19101036	H1 H2

NOTES:

H1: Pair of heads.

H2: Head bolts in kit.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
HOLDEN (CONT.)								
HQ / HJ	308 cu. in. OHV Pre-emission control Red motor Turbo hydramatic	1971-1976	V8	308 cast on block. Bell housing dowels — 5/8". E.G.R. — no port in cylinder heads. Oil filler — in rocker cover.	89037911		19101039	H1
HX / HZ	253 cu. in. OHV Red motor E.G.R. Emission control	1976-1978	V8	253 cast on block. Bell housing dowels — 1/2". E.G.R. — U-shape port centre position on manifold face.	89037872		19101041	H1
	308 cu. in. OHV Red motor E.G.R. Emission control	1976-1978	V8	308 cast on block. E.G.R. — U-shape port centre position on manifold face. Bell housing dowels — 1/2". Manual and trimatic.	89037874		19101041	H1
	186 cu. in. Red motor E.G.R. Emission control	1976-1978	V8	308 cast on block. Bell housing dowels — 5/8". Turbo hydramatic.	89037873		19101041	H1
WB SERIES UTES - VANS -	3.3 litre O.H.V. 202 cu. in. 1 Tonne Blue motor	1980-1984	6	3.3 cast on block. 12 port cylinder head. Sump — rear well. Air conditioner — compressor located under alternator or right hand side of cylinder head	89037923		19101024	
	3.3 litre O.H.V. 202 cu. in. 1 Tonne Blue motor	1980-1984	6	3.3 cast on block. 12 port cylinder head. Sump — rear well. Airconditioner — no.	89037924		19101023	
WB SERIES UTES - VANS - 1 TONNE	253 cu. in. OHV 4.2 litre Blue motor Full emission control	1980-1984	V8	253 cast on block. Bell housing dowels - 1/2". Sump — rear well.	89037925		19101042	H1
	308 cu. in. OHV 5.0 litre Blue Motor Full emission control Turbo hydramatic	1980-1984	V8	308 cast on block. Sump — rear well. Bell housing dowels - 1/2".	89037912		19101042	H1
	308 cu. in. OHV 5.0 litre Blue Motor Full emission control Turbo hydramatic	1980-1984	V8	308 cast on block. Sump — rear well. Bell housing dowels — 5/8".	89037913		19101042	H1
VG SERIES UTILITY	5.0 litre E.F.I. Manual and automatic	1990-	V8	Engine no. prefix — VU or SV.	89037926		19101037	H1
HONDA								
ACCORD PRELUDE	1599cc EG engine Leaded fuel O.H.C.	1977-1978	4	Engine no. prefix — EG.	89037927			
	1602cc EL engine Leaded fuel O.H.C.	1979-1983	4	Engine no. prefix - EL. Up to engine no. 1250299.	89037928			
	1602cc EL engine Leaded fuel O.H.C.	1979-1983	4	Engine no. prefix - EL. From engine no. 1250230 - 160001.	89037929			
	1602cc EL engine Leaded fuel O.H.C.	1979-1983	4	Engine no. prefix - EL. From engine no. 160001 on.	89037930			
	1829cc ET engine Leaded fuel O.H.C.	1984-1985	4	Engine no. prefix — ET.	89037931			
ACCORD	1955cc A20 A2 engine S.O.H.C. Unleaded fuel	1986-1989	4	Engine no. prefix — A20 A2. Valves — 12.	89037932			
	1955cc A20 A4 engine O.H.C. Unleaded fuel	1987-1989	4	Engine no. prefix — A20 A4.	89037933			
CIVIC	1488cc EC engine O.H.C. Leaded	1974-1979	4	Engine No. prefix — EC. From engine no. 1000000 to 1050000.	89037941			
	1488cc EC engine O.H.C. Leaded	1974-1979	4	Engine No. prefix — EC. From engine no. 1050001 to 1200000.	89037942			
ACCORD PRELUDE	2156cc SOHC E.F.I. F22 A5 engine Unleaded fuel	1989-1993	4	Engine no. prefix — F22 A5. Valves — 16.	89037934			
CIVIC	1170cc EB1 engine Leaded fuel O.H.C.	1973-1978	4	Engine no. prefix — EB1.	89037935			
	1237cc EB2 engine Leaded fuel O.H.C.	1973-1979	4	Engine no. prefix — EB2.	89037936			
	1237cc EB3 engine O.H.C. Leaded fuel	1977-1979	4	Engine no. prefix — EB3.	89037937			
	1335cc EJ engine O.H.C. Leaded fuel	1979-1980	4	Engine no. prefix — EJ.	89037938			
	1335cc OHC EN engine Series 1 Leaded fuel	1980-1982	4	Engine no. prefix — EN. Series 1 — alloy rocker cover.	89037939			
	1335cc OHC EN engine Leaded fuel Series 2	1982-1983	4	Engine no. prefix — EN. Series 2 — tin rocker cover.	89037940			
	1493cc OHC EW2 engine Sedan and hatch Unleaded fuel	1987-1993	4	Engine no. prefix — EW2. Valves — 16.	89037943			
	1493cc SOHC D15 B4 engine Sedan, hatch and wagon Unleaded fuel	1987-1993	4	Engine no. prefix — D15 B4. Valves — 16. Twin carburettor.	89037944			
	1343cc D13 engine S.O.H.C.	1991-1993	4	Engine no. prefix — D13. Valves — 16.	89037945			
	1493cc D15 B7 engine Multi Point E.F.I.	1993-1995	4	Engine no. prefix — D15 B7. Valves — 16.	89037946			
CRX COUPE	1590cc DOHC D16 A8 engine E.F.I. Unleaded fuel	1988-1991	4	Engine no. prefix — D16 A8. Valves — 16.	89037947			
	1595cc B16 A2 engine D.O.H.C.	1992-	4	Engine no. prefix — B16 A2. Valves — 16.	89037948			
INTEGRA	1590cc D16 A3 engine D.O.H.C. Unleaded fuel	1986-1988	4	Engine no. prefix — D16 A3. Valves — 16.	89037949			

NOTES:

H1: Pair of heads.

REMANUFACTURED ENGINES / CYLINDER HEADS

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Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
	1834cc B18 A1 engine D.O.H.C. Unleaded fuel	1989-1991	4	Engine no. prefix — B18 A1. Valves — 16.	89037950			
CONCERTO	1590cc D16 engine S.O.H.C.	1989-1991	4	Engine no. prefix — D16 Z2.	89037952			
LEGEND	2675cc 4 door C27 A1 engine Unleaded fuel	1986-1987	V6	Engine no. prefix — K20 A3.	89037953			
	2675cc 2 door C27 A1 engine Unleaded fuel	1988-1990	V6	Engine no. prefix — C27 A1.	89037954			
HYUNDAI								
EXCEL X1	1468cc Carburettor G4AJ engine S.O.H.C.	1986-1990	4	East-west engine. Engine no. prefix — G4AJ. Valves — 8.	89037955			
EXCEL X2, COUPE	1468cc SOHC E.F.I. (Multi point injection) G4DJ engine	1990-1994	4	Engine no. prefix — G4DJ. Tear drop inlet ports. Valves — 8. Dipstick hole — 12mm.	89037956			
EXCEL X3, COUPE	1.5 litre G4EK engine S.O.H.C.	1994-May 1996	4	Bell housing — 130 mm. Top bolt holes. Engine mounts from block. Engine no. prefix — G4EK. Sensor mounts in block above engine, mount at rear of block. Valves — 12.	17803519			
EXCEL X3	1.5 litre G4EK engine S.O.H.C.	June 1996-	4	Engine no. prefix — G4EK. Bell housing — 130 mm. Top bolt holes. Valves — 12. Engine mounts from gear box.	17803520			
	1.5 litre G4FK engine D.O.H.C.	1998-	4	Engine no. prefix — G4FK. Valves — 16.	17803521			
LANTRA	1596cc D.O.H.C. G4CR engine	1991-1993	4	Engine no. prefix — G4CR. Valves — 16.	89037957			
	1836cc E.F.I. G4CN engine	1992-Aug. 1995	4	Engine no. prefix — G4CN. Valves — 16.	89037958			
LANTRA, COUPE	1.8 litre D.O.H.C. G4GM engine	1995-	4	Engine no. prefix — G4GM. Sump — front well, tin. Casting no. on block — RD18.	17803525			
ELANTRA	1.8 litre G4GB engine D.O.H.C.	Oct. 2000-	4	Engine no. prefix — G4GB. Valves — 16.	17803526			
TERRACAN	3.5 litre G6CU engine D.O.H.C.	2002-	V6	Engine no. prefix — G6CU.	17803522			
SONATA	2351cc G4CS engine (4G64 Mitsubishi engine) E.F.I.	1989-1992	4	Engine no. prefix — G4CS. East-west engine. Bell housing width — 310mm.	89037959			
	2972cc G6AT engine (6G72 Mitsubishi engine) S.O.H.C.	1990-Oct. 1993	V6	Engine no. prefix — G6AT. East-west engine.	89037960		19101121	H1
	2972cc G6AT engine (6G72 Mitsubishi engine) S.O.H.C.	Oct. 1993-Mar. 1998	V6	Engine no. prefix — G6AT. East-west engine.	17803522		19101121	H1
	2.0 litre G4CP engine D.O.H.C.	1993-98	4	Engine no. prefix — G4CP.	17803523			
	2.0 litre D.O.H.C. G4JP engine	1998-	4	Engine no. prefix — G4JP.	17803524			
	2.5 litre G6BV engine D.O.H.C.	1998-	V6	Engine no. prefix — G6BV. Sump — front well, two piece alloy with tin pan.	19101175			
GETZ	1.3 litre G4EA engine S.O.H.C.	2002-	4	Engine no. prefix — G4EA. Valves — 12.	19101174			
KIA								
MENTOR	1498cc B5 engine S.O.H.C.	1996-	4	Engine no. prefix — B5. Valves — 8.	89037702			
CARNIVAL	2.5 litre K5 engine D.O.H.C.	1999-	V6	Engine no. prefix — K5. Valves — 24.	17803587			
SORENTO	3.5 litre G6CU engine D.O.H.C.	2003-	V6	Engine no. prefix — G6CU. Valves — 24.	19101176			
OPTIMA	2.5 litre D.O.H.C. G6BV engine	2001-2003	V6	Engine no. prefix — G6BV. Valves — 24.	19101175			
MAZDA								
MAZDA 121	1769ccc OHC Coupe Manual and automatic VC engine	1976-1978	4	VC cast on block under no. 1 plug hole. Exhaust ports — square. Distributor — front right hand side. Sump — front well.	89038334	M13		
MAZDA 121L	1970cc OHC Automatic Coupe MA engine	1978-1980	4	MA cast on block under no. 1 plug hole. Exhaust port — square. Distributor — front right hand side. Sump — front well.	89038010	M13		
MAZDA 121	1323cc SOHC B3 engine Carburettor FWD	1987-1990	4	Engine no. prefix — B3. Camshaft — belt drive. Valves — 8. Crankshaft snout diameter — 22mm.	89037699		19101070	
	1323cc SOHC B3 engine Carburettor FWD Hatch	1987-1990	4	Engine no. prefix — B3. Camshaft — belt drive. Valves — 8. Crankshaft snout diameter — 27mm.	89037700		19101070	
	1323cc SOHC B3 engine E.F.I. FWD Sedan	1990-	4	Engine no. prefix — B3. Valves — 16. Crankshaft snout diameter — 22mm.	89037701		19101071	

NOTES:

M13: If "automatic", space plate from rear of crankshaft to be retained from old motor and installed on replacement unit.

H1: Pair of heads.



Make and Model Details	Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
MAZDA (CONT.)							
MAZDA 121	1323cc SOHC B3 engine E.F.I. FWD Sedan	1990-	4	Engine no. prefix — B3. Valves — 16. Crankshaft snout diameter — 27mm.	17803590		
	1500cc B5 engine S.O.H.C.	1993-Oct. 1997	4	Engine no. prefix — B5. Valves — 16. Has crank angle sensor on oil pump.	89037710		19101069
	1500cc B5 engine S.O.H.C.	Oct. 1997-	4	Engine no. prefix — B5. Valves — 16. No crank angle sensor.	17803589		19101069
MAZDA 323	1490cc OHC D5 engine Manual and automatic RWD Wagon	1980-1982	4	D5 cast on right hand side of block. Sump — front well.	89038009		
	1296cc OHC E3 engine Manual and automatic E.G.R.	1980-1984	4	E3 (sometimes) stamped on pad on right hand side of rear of block. East-west engine. Stroke — 69.6mm (positive identification). Sump — front well. E.G.R. — port in front of no. 1 cylinder.	89037703		
	1296cc OHC E3 engine Manual and automatic Non E.G.R.	1980-1984	4	E3 (sometimes) stamped on pad on right hand side of rear of block. East-west engine. Stroke — 69.6mm (positive identification). Sump — front well. E.G.R. — no.	89037704		
	1490cc OHC E.G.R. E5 engine Sedan and wagon	1980-1984	4	E5 (sometimes) stamped on pad on right, hand side of rear of block. Carburettor, Sump — front well. (Does not suit SS engine). E.G.R. — port in front of no. 1 cylinder.	89037705	M14	
	1490cc OHC E.G.R. E5 engine Sedan and wagon	1980-1984	4	E5 (sometimes) stamped on pad on right, hand side of rear of block. Carburettor, Sump — front well. (Does not suit SS engine). E.G.R. — in manifold, not cylinder head.	89037706	M14	19101060
MAZDA 323SS	1490cc E5 engine Sports Twin carburettor	1980-1984	4	Camshaft — chain drive. Distributor — rear of head. side rear of block. Stroke — 80mm (check). Sump — front well.	89037708	M14	
MAZDA 323	1597cc SOHC B6 engine Carburettor Unleaded fuel	1985-1987	4	Camshaft — belt drive. East west engine. Engine no. prefix — B6. Mechanical tappits. Crankshaft snout diameter — 22mm.	89037676		19101067
	1597cc SOHC B6 engine Carburettor Unleaded fuel	1985-1987	4	Camshaft — belt drive. East west engine. Engine no. prefix — B6. Mechanical tappits. Crankshaft snout diameter — 27mm.	89037677		19101067
	1597cc SOHC B6 engine E.F.I. Unleaded fuel	1986-1987	4	Engine no. prefix — B6 near starter motor. Camshaft — belt drive. Hydraulic tappits.	89037709		19101068
	1597cc S.O.H.C. Carburettor	1989-1996	4	Engine no. prefix — B6. Camshaft — belt drive. Valves — 16. Crankshaft snout diameter — 22mm.	89037710		19101069
	1597cc S.O.H.C. Carburettor	1989-1996	4	Engine no. prefix — B6. Camshaft — belt drive. Valves — 16. Crankshaft snout diameter — 27mm.	89037711		19101069
	1597cc 4WD D.O.H.C. Turbo	1987-1989	4	Engine no. prefix — B6. Camshaft — belt drive. Valves — 16.	89037678		
	2.0 litre Astina Premany D.O.H.C.	2001-	4	Engine no. prefix — FS. Cylinder head casting no. — FS9. Ignition — coil pack. Valves — 16.	17803593		19101075
MAZDA 323, ASTINA	1839cc SOHC BP engine Unleaded fuel Automatic only	1989-	4	Engine no. prefix — BP. Camshaft — belt drive. East west engine. Valves — 16. Crankshaft snout diameter — 22mm.	89037712		19101076
	1839cc SOHC BP engine Unleaded fuel Automatic only	1989-	4	Engine no. prefix — BP. Camshaft — belt drive. East west engine. Valves — 16. Crankshaft snout diameter — 22mm.	89037712		19101076
	1839cc SOHC BP engine Unleaded fuel Automatic only	1989-	4	Engine no. prefix — BP. Camshaft — belt drive. East west engine. Valves — 16. Crankshaft snout diameter — 27mm.	89037713		19101076
	1839cc SOHC BP engine Unleaded fuel Manual only	1989-	4	Engine no. prefix — BP. Camshaft — belt drive. East west engine. Valves — 16. Crankshaft snout diameter — 22mm.	89037714		19101076
	1839cc SOHC BP engine Unleaded fuel Manual only	1989-	4	Engine no. prefix — BP. Camshaft — belt drive. East west engine. Valves — 16. Crankshaft snout diameter — 27mm.	89037715		19101076
	1839cc BP engine D.O.H.C. Automatic.	1989-April 1994	4	Engine no. prefix — BP. Valves — 16. Crankshaft snout diameter — 22mm. Cylinder head casting no. — BP06. Automatic.	89037716		19101077
	1839cc BP engine D.O.H.C. Manual.	1989-April 1994	4	Engine no. prefix — BP. Valves — 16. Crankshaft snout diameter — 22mm. Cylinder head casting no. — BP06. Manual.	89037718		19101077
	1839cc BP engine D.O.H.C. Automatic.	May 1994-	4	Engine no. prefix — BP. Valves — 16. Crankshaft snout diameter — 27mm. Cylinder head casting no. — BP05. Rocker cover cam gears. Automatic.	89037717		19101078
	1839cc BP engine D.O.H.C. Manual.	May 1994-	4	Engine no. prefix — BP. Valves — 16. Crankshaft snout diameter — 27mm. Cylinder head casting no. — BP05. Rocker cover cam gears. Manual.	89037719		19101078
	MAZDA 323	1.8 litre Premany D.O.H.C. FP engine	1989-	4	Engine no. prefix — FP. Sump — front well, two piece alloy with tin pan. Cylinder head casting no. — FS9. FP cast on block.	17803600	

NOTES:

M14: Due to variations in cylinder heads, exhaust port liner genuine part no. E504-20-740 should be used if exhaust port measures 31mm in diameter.

REMANUFACTURED ENGINES / CYLINDER HEADS

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Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
	1.6 litre D.O.H.C. ZM engine	1998-	4	Engine no. prefix — ZM. 2L cast on block. Sump — front well, tin.	17803599		19101079	H2
MAZDA 626, 929	1970cc OHC MA engine Manual. RWD	Late 1978-1982	4	MA cast on block under no. 1 plug hole. Distributor — front right hand side. Sump — front well. Exhaust ports — round 33mm diameter. Manual.	89037729	M15		
	1970cc OHC MA engine Automatic. RWD	Late 1978-1982	4	MA cast on block under no. 1 plug hole. Distributor — front right hand side. Sump — front well. Exhaust ports — square. Automatic.	89038010	M15		
	1998cc OHC FE engine RWD Sedan and wagon	1983-1987	4	Engine no. prefix — FE on left hand side of rear of block, Camshaft — belt drive. Dipstick — left hand side. Distributor — from left hand side. Sump — rear well. Crankshaft pulley — 4 bolts.	89037730	M15	19101063	
	1998cc OHC FE engine RWD Sedan and wagon	1983-1987	4	Engine no. prefix — FE on left hand side of rear of block, Camshaft — belt drive. Dipstick — left hand side. Distributor — from left hand side. Sump — rear well. Crankshaft pulley — 6 bolts.	89037731	M15	19101063	
	1998cc OHC FE engine FWD Manual and automatic	1983-1987	4	Engine no. prefix — FE on left hand side rear of block, Camshaft — belt drive. Dipstick tube — left hand side. Distributor — rear of cylinder head. Sump — centre well. Crankshaft pulley — 4 bolts.	89037720	M15		
	1998cc OHC FE engine FWD Manual and automatic	1983-1987	4	Engine no. prefix — FE on left hand side rear of block, Camshaft — belt drive. Dipstick tube — left hand side. Distributor — rear of cylinder head. Sump — centre well. Crankshaft pulley — 6 bolts.	89037721	M15		
	1998cc FE engine FWD Manual and automatic	1987-	4	Engine no. prefix — FE. Camshaft — belt drive. East-west engine. Water inlet — to block not water pump.	89037723			
MAZDA 626	2.0 litre Diesel RF engine		4	Engine no. prefix — RF. Supercharged — no.	17803586			
MAZDA 626, 929	1998cc OHC FE engine FWD Turbo	1987-	4	Engine no. prefix — FE. Camshaft — belt drive. Distributor — rear of cylinder head. East-west engine. Sump — front well, baffled.	89038011			
MAZDA 626, MX6	2184cc OHC E.F.I. F2 - GD engine FWD	1987-1991	4	Camshaft — belt drive. Engine no. prefix — F2. F2 cast on block next to exhaust manifold. Sump — front well, baffled. Valves — 12. Non turbo.	89037724		19101072	
	2184cc OHC E.F.I. F2 - GD engine FWD	1987-1991	4	Camshaft — belt drive. Engine no. prefix — F2. F2 cast on block next to exhaust manifold. Sump — front well, baffled. Valves — 12. Turbo.	89037725			
MAZDA 626	MPV	1991	V6	Engine no. prefix — KL. Water pump — flat hub.	89037727			
	1991cc FS engine D.O.H.C. E.F.I.	1992-June 1994	4	Engine no. prefix — FS., Valves — 16. Ignition — distributor. Sump — front well, two piece alloy. FS2 cast on cylinder head.	89037726		19101074	
	1991cc FS engine D.O.H.C. E.F.I.	July 1994-	4	Engine no. prefix — FS. Valves — 16. Ignition — coil pack. Sump — front well, two piece alloy. FS9 cast on cylinder head.	17803592		19101075	
MAZDA 929	3.0 litre MPV JE engine S.O.H.C.	1987-1990	V6	Engine no. prefix — JE. Valves — 18.	17803594			
	3.0 litre JE engine D.O.H.C.	1990-Aug. 1991	V6	Engine no. prefix — JE or ZE. Valves — 24. Cast on cylinder head — JE26.	17803597			
	3.0 litre JE engine D.O.H.C.	Aug. 1991-	V6	Engine no. prefix — JE or ZE. Valves — 24. Cast on cylinder head — JE48.	17803596			
B1600 UTILITY	1586cc NA engine O.H.C.	1971-	4	NA cast on block under no. 1 plug hole. Exhaust ports — square. Rocker cover — aluminium. Sump — front well.	89038012	M16		
B1800 UTILITY	1796cc VC engine O.H.C.	1977-1979	4	VC cast on block under no. 1 plug hole. Exhaust ports — square. Rocker cover — aluminium with front Breather, Sump — plain front well.	89038013			
	1796cc O.H.C. VC engine	1977-1982	4	VC cast on block. Exhaust ports — round 27mm diameter. Distributor — front right hand side. Sump — plain front well.	89037728			
B2000 UTILITY	1970cc MA engine O.H.C.	1982-1985	4	MA cast on block under no. 1 plug hole. Exhaust ports — round 33mm diameter. Distributor — front right hand side. Sump — front well.	89037729			
	1998cc FE engine O.H.C. RWD	1983-1987	4	Engine no. prefix — FE left hand side of rear of block, Camshaft — belt drive. Distributor — from left hand side. Dipstick tube — left hand side. Sump — rear well. Crankshaft pulley — 4 bolts.	89037730		19101063	
	1998cc FE engine O.H.C. RWD	1983-1987	4	Engine no. prefix — FE left hand side of rear of block, Camshaft — belt drive. Distributor — from left hand side. Dipstick tube — left hand side. Sump — rear well. Crankshaft pulley — 6 bolts.	89037731		19101063	
	1998cc FE engine O.H.C.	1987-1989	4	FE engine. Water pump — offset to right hand side. Water inlet — cast into right hand side of, block at bottom - not water pump.	89037733		19101063	
B2200 UTILITY	2184cc F2 engine O.H.C.	1987-1989	4	Engine no. prefix — F2 cast on block near exhaust manifold, Distributor — at front. Sump — rear well. Valves — 8.	89037732		19101073	
B2600 UTILITY	2555cc 4G54 engine O.H.C. Carburettor	1987-1990	4	Astron engine. Engine no. prefix — 4G54. Sump — rear well. Valves — 8.	89037734		19101107	

NOTES:

M15: If "automatic", space plate from rear of crankshaft to be retained from old motor and installed on replacement unit.

M16: Advise whether mechanical or hydraulic timing chain tensioner.

H2: Head bolts in kit.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
MAZDA (CONT.)								
B2600 UTILITY	2555cc E.F.I. G6 engine O.H.C.	1991-	4	Engine no. prefix — G6. Sump — rear well. Valves — 12. 2WD.	89037735		19101059	
	2555cc E.F.I. G6 engine O.H.C.	1991-	4	Engine no. prefix — G6. Sump — rear well. Valves — 12. 4WD.	89037736		19101059	
E1400 VAN	1415cc O.H.C. UC engine	1980-1984	4	UC cast on block. cylinder head. Distributor — right hand side of front of, Sump — centre well.	89037738			
E1600 VAN, ECONOVAN, EASY LOADER	1586cc NA engine O.H.C.	May 1978-	4	NA cast on block. Exhaust ports — round 27mm diameter. Distributor — right hand side. Sump — shallow front well.	89037737			
E1800 VAN	1789cc O.H.C. VC engine	1977-1982	4	VC cast on block. Exhaust ports — round 27mm diameter. Distributor — right hand side. Sump — plain front well.	89037728			
	1789cc F8 engine O.H.C.	1984-1987	4	F8 stamped on front left hand side of block. Camshaft — belt drive. Sump — front well. Distributor — bolts to timing cover. Water inlet — to water pump. Crankshaft pulley — 4 bolts.	89037739		19101065	
	1789cc F8 engine O.H.C.	1984-1987	4	F8 stamped on front left hand side of block. Camshaft — belt drive. Sump — front well. Distributor — bolts to timing cover. Water inlet — to water pump. Crankshaft pulley — 6 bolts.	89037740		19101065	
	1789cc F8 engine O.H.C.	1987-	4	Engine no. prefix — F8 below no. 1 spark plug. Camshaft — belt drive. Sump — front well. Distributor — bolts to timing cover. Water inlet — to block not water pump.	89037741		19101065	
E2000 VAN	1998cc FE engine O.H.C. RWD	1984-1987	4	Engine no. prefix — FE left hand side of, rear block. Camshaft — belt drive. Dipstick — front left hand side. Distributor — front left hand side. Sump — front well. Crankshaft pulley — 4 bolts.	89037742		19101063	
	1998cc FE engine O.H.C. RWD	1984-1987	4	Engine no. prefix — FE left hand side of, rear block. Camshaft — belt drive. Dipstick — front left hand side. Distributor — front left hand side. Sump — front well. Crankshaft pulley — 6 bolts.	89037743		19101063	
	1998cc FE engine Non E.G.R. O.H.C.	1987-1997	4	Engine no. prefix — FE below no. 1 spark plug. block at bottom - not water pump. Water inlet — cast into right hand side of, Water pump — offset to right hand side.	89037744		19101063	
	1985cc VA engine O.H.V.	1981-1982	4	Engine no. prefix — VA.	89038015			
	1998cc FE engine O.H.C. E.G.R.	1997-	4	Engine no. prefix — FE. Water pump — offset to right hand side. Water inlet — cast into right hand side of, block at bottom. Not water pump. E.G.R. — in cylinder head in front on no. 1, inlet port.	19101190		19101065	
B2200	2184cc S2 engine	1979-1984	4	Dipstick — in sump. Crankshaft pulley keyway — 6mm wide.	89038016			
	2184cc S2 engine	1979-1984	4	Dipstick — in sump. Crankshaft pulley keyway — 5mm wide.	17803585			
	2209cc S2 engine O.H.V. Truck and van	To 1984	4	Overhead valves — push rods. Cylinder head — cast iron. Dipstick — in block. Crankshaft pulley keyway — 6mm wide.	89037787			
	2209cc S2 engine O.H.V. Truck and van	To 1984	4	Overhead valves — push rods. Cylinder head — cast iron. Dipstick — in block. Crankshaft pulley keyway — 5mm wide.	89038017			
E2200, B2200	2184cc O.H.C. R2 engine Truck and van	1984-	4	Overhead camshaft. Cylinder head — alloy.	89037788			
T3000	2977cc HA engine O.H.V. Truck and van	1980-1983	4	Overhead valves — push rods. Glo plugs — provision. Rocker cover — alloy.	89037790			
B2500, BRAVO, E2500	2.5 litre Diesel Duel water pipe — on cylinder head left hand side. Turbo.	1996-	4	Engine no. prefix — WL AT, Turbo drain — back hole on left hand side behind dipstick, WL engine	17803584			
	2.5 litre Diesel Duel water pipe — on cylinder head left hand side. Turbo.	1996-	4	Engine no. prefix — WL. Single water pipe — on cylinder head left hand side, WL engine, Turbo — no.	17803583			
T3500	3455cc O.H.V. SL engine Truck and van	Up to Nov. 1984	4	Early model. SL cast on block. Flywheel — 14mm bolts.	89038333			
	3455cc O.H.V. SL engine Truck and van	Dec. 1984-July 1987	4	Early model. SL cast on block. Flywheel — 15mm bolts.	89038020			
	3455cc O.H.V. SL engine Truck and van	1987-April 1992	4	Late model. SL cast on block. Flywheel — 15mm bolts. Sump — deep.	89038021			
T4000	4021cc TF engine O.H.V.	1989-	4	TF cast on block.	89037792			
T4100	4052cc ZB engine O.H.V. Truck and van	1980-	6	Overhead valves — push rods. Glo plugs — provision. Rear main seal — full circle.	89037791			
T4600	TM engine 4600cc	1995-	4	TM cast on block.	89037793			
MITSUBISHI								
CANTER	2384cc O.H.C. Petrol T217 (1975-77) / FC211 (1977-80)	1975-1980	4	4G53 cast or stamped on cylinder block. Bore — 88mm. Exhaust port — square. Not balance shaft engine. Stroke — 98mm.	89038028			
	2555cc FC212 O.H.C. Petrol	1981-1986	4	Block casting no. 4G54. Bore — 91.1mm. Not balance shaft engine. Stroke — 98mm.	89038029			

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
	2555cc FC432 O.H.C. Petrol	1986-1990	4	Block casting no. 4G54. ** Cylinder head different to above model. **, Bore — 91.1mm. Not balance shaft engine. Stroke — 98mm.	89038030			
	3298cc FC434 / FC444 / FC334 4D31 engine Diesel	1986-1992	4	Engine no. prefix — 4D31. Timing gears — course. Dipstick — in sump.	89038031			
	3298cc FE444 4D31 engine Turbo Diesel	1986-1994	4	Engine no. prefix — 4D31T.	89038032			
	3298cc FE439 / FE449 / FE339 4D34 engine Diesel	1991-April 1995	4	Engine no. prefix — 4D34. Oil pump — external. Oil cooler — external. Injector pump mounting hole — 132mm.	89038033			
	2.8 litre FB511 4M40 engine Turbo Diesel	1998-	4	Engine no. prefix — 4M40. Dipstick — rear of block. Sump — rear well.	17803637			
	2659cc 4DR5 engine Jeep		4	4DR5 cast on block.	89038089			
	4D30 engine	Early	4	4D30 cast on block. Thermostat — housing at side of cylinder, head.	89038090			
	4D30 engine	Late	4	4D30 cast on block. Thermostat — housing at front of cylinder Head	89038091			
6D14-1A		1980-84	6	Engine no. prefix — 6D14. Water rail — on cylinder head. Dipstick — sump.	89038093			
6D14-2A		1985-	6	Engine no. prefix — 6D14. Water rail — nil. Dipstick — block.	89038094			
COLT RA	1410cc 4G12 engine Leaded fuel O.H.C.	1980-1982	4	Camshaft — belt drive. Engine mounts — vertical, rear of block. Engine no prefix — 4G12. Rocker cover — pressed steel. Sump — front well.	89038034			
COLT RB / RC	1439cc 4G33 engine O.H.C. Leaded fuel	1982-1984	4	Engine no. prefix — 4G33. Camshaft — belt drive. Sump — front well. Rocker cover — alloy.	89038035			
COLT RB / RC / RD / RE	1597cc 4G32 engine O.H.C.	1982-1990	4	Engine no. prefix — P32. Engine mounts — horizontal. Camshaft — belt drive. Sump — front well. Extra lug and threaded hole at right hand front of block. Engine to support torque rod (total 3 holes). Rocker cover — alloy.	89038036			
COLT RC / RD / RE	1439cc 4G33 engine O.H.C. Unleaded fuel	1986-1990	4	Engine no. prefix — P27. Camshaft — belt drive. Rocker cover — alloy. Sump — front well.	89038037			
CORDIA AA	1597cc 4G32 engine Leaded fuel O.H.C.	1983-1984	4	Engine no. prefix — 4G32. Camshaft — belt drive. Cylinder head has 16 cast front right hand, Engine mounts — vertical, rear of block. Sump — front well.	89038036			
CORDIA AB	1755cc OHC 4G37 engine Non turbo Leaded fuel	1984-1989	4	Engine no. prefix — 4G37. Camshaft — belt drive.	89038038			
B2600 UTILITY	1795cc OHC 4G62 engine Leaded fuel Turbo	1983-1989	4	Engine no. prefix — 4G62. Balance shaft engine, Camshaft — belt drive. Crankshaft — snout 38mm. Engine mounts — vertical, rear of block. Sump — front well.	89038039			
EXPRESS 4G32	1597cc OHC 2WD L300 (Van) Saturn engine	1979-1980	4	4G32 cast on cylinder block. Bore — 76.9mm. Stroke — 86.0mm. Engine mounts — horizontal. Sump — front well. Does not suit 4WD models, Camshaft — chain drive.	89038040			
	1597cc OHC 2WD L300 (Van) Saturn engine	1980-1984	4	** May have 4G32 or =< cast on block. **, Engine mounts — horizontal. Sump — front well. Balance shafts — no. Chamshaft — belt drive.	89038041			
	1597cc OHC 2WD L300 (Van) Saturn engine	1980-1984	4	** May have 4G32 or =< cast on block. **, Engine mounts — horizontal. Sump — front well. Chamshaft — belt drive. (Imported motor), 4G32B balance shafts. Does not suit 4WD models	89038042			
EXPRESS 4G52	1995cc Astron engine O.H.C. 2WD	1979-1980	4	Block casting no. 4G52. Bore — 84.0mm. Stroke — 90.0mm. Camshaft — chain drive. Sump — to suit 2WD. Does not suit 4WD models	89038043		19101104	
	1995cc Astron engine O.H.C. 4WD	1980-1982	4	Block casting no. 4G52. Bore — 84.0mm. Stroke — 90.0mm. Camshaft — chain drive. Fuel pump — bent arm. Sump — to suit 4WD.	89038044			
EXPRESS L200	2346cc 4D55 engine Diesel	1982-	4	Engine no. prefix — 4D55. Injector holes — 20mm.	89038066			
	2346cc 4D55 engine Diesel	1982-	4	Engine no. prefix — 4D55. Injector holes — 24mm. ** Check tin wear before fitting. **	89038067			
EXPRESS L300	2477cc 4D56 engine Diesel	1989-	4	Engine no. prefix — 4D56. Injector holes — 20mm.	89038070			
	2477cc 4D56 engine Diesel	1989-	4	Engine no. prefix — 4D56. Injector holes — 24mm. ** Check tin wear before fitting. **	89038071			
EXPRESS, STARWAGON	2.0 litre SOHC 2WD 4G63 engine	1983-Aug. 1991	4	Engine no. prefix — 4G63. Valves — 8. 6 bolt flywheel, Bellhousing — 310mm. Crank nose length — 28mm.	17803641		19101106	
	2.0 litre SOHC 2WD 4G63 engine	1983-Aug. 1991	4	Engine no. prefix — 4G63. Valves — 8. 6 bolt flywheel, Bellhousing — 310mm. Crank nose length — 38mm.	89038340		19101106	
	2.0 litre 2WD 4G63 engine S.O.H.C.	1983-Aug. 1991	4	Engine no. prefix — 4G63. Valves — 8. 6 bolt flywheel, Bellhousing — 330mm. Crank nose length — 38mm.	17803643		19101106	
	2.0 litre 4G63 engine 4WD S.O.H.C.	1983-Aug. 1991	4	Engine no. prefix — 4G63. 6 bolt flywheel, Sump — centre well. Valves — 8. Bellhousing — 330mm.	19101206		19101106	
	2.0 litre 4G63 engine 4WD S.O.H.C.	Sep. 1991-Sep. 1994	4	Engine no. prefix — 4G63. Valves — 8. 7 bolt flywheel, Bellhousing — 310mm.	17803642		19101106	



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
mitsubishi (CONT.)								
EXPRESS, STARWAGON	2.0 litre 4G63 engine 4WD S.O.H.C.	Sep. 1991-Sep. 1994	4	Engine no. prefix — 4G63. Valves — 8. 7 bolt flywheel, Bellhousing — 330mm.	89038346		19101106	
	2.4 litre 4G64 engine S.O.H.C.	1986-April 1992	4	Engine no. prefix — 4G64. Valves — 8. Bellhousing — 330mm. Flywheel bolts — 6.	89038343		19101114	
	2.4 litre 4G64 engine S.O.H.C.	May 1992-May 1994	4	Engine no. prefix — 4G64. Valves — 8. Bellhousing — 330mm. Flywheel bolts — 7.	17803655			
	2.0 litre 4G63 engine S.O.H.C.	Sep. 1994-	4	Engine no. prefix — 4G63. Valves — 16. Bellhousing — 310mm. Manual.	17803658			
	2.0 litre 4G63 engine S.O.H.C.	Sep. 1994-	4	Engine no. prefix — 4G63. Valves — 16. Bellhousing — 330mm. Automatic.	17803659			
	2.4 litre 4G64 engine S.O.H.C.	June 1994-	4	Engine no. prefix — 4G64. Valves — 16. Bellhousing — 330mm. Inlet manifold — left hand side. Sump — front well, tin with oil level sensor.	17803657		19101115	
	3.0 litre 6G72 engine S.O.H.C.	1996-	4	Engine no. prefix — 6G72. Valves — 24.	17803649		19101110	
GALANT GA / GB / GC	1597cc 4G32 engine O.H.C.	1973-1975	4	4G32 cast on left hand side rear of block. Block width at head gasket 118 - 120mm. Camshaft — chain drive. Engine mounts — vertical. Exhaust port — square.	89038045			
	1597cc 4G32 engine O.H.C.	1973-1975	4	4G32 cast on left hand side rear of block. Block width at head gasket 118 - 120mm. Camshaft — chain drive. Engine mounts — vertical. Exhaust port — round.	89038047			
GALANT GA / GB	1439cc 4G33 engine O.H.C.	1973-1976	4	Engine no. prefix — 4G33. Camshaft — chain drive. Engine mounts — vertical. Exhaust port — square.	89038046			
	1439cc 4G33 engine O.H.C.	1973-1976	4	Engine no. prefix — 4G33. Camshaft — chain drive. Engine mounts — vertical. Exhaust port — round.	89038048			
GALANT HG / HH	2.0 litre 4G63 engine S.O.H.C.	1989-1992	4	Engine no. prefix — 4G63. Valves — 8. Bellhousing — 310mm. Fuel pump hole — no.	19101207			
	2.0 litre 4G63 engine D.O.H.C.	1989-1992	4	Engine no. prefix — 4G63. Valves — 8. Bellhousing — 310mm.	19101208			
LANCER LA / LB	1439cc 4G33 engine O.H.C. Sedan	1978-1980	4	4G33 cast on block. Camshaft — chain drive. Engine mounts — horizontal. Exhaust ports — round.	89038050			
LANCER LB	1597cc O.H.C. Hatchback	1977-1979	4	4G32 cast on block. Engine mounts — horizontal. Exhaust ports — round. Camshaft — chain drive.	89038040			
LANCER LB / LC	1597cc Hatchback O.H.C.	1979-1980	4	Engine no. prefix — 4G32. Camshaft — belt drive. Engine mounts — horizontal. Exhaust ports — round. No balance shaft.	89038036			
LANCER CA	1468cc OHC 4G15 engine Carburettor. Sedan and hatch	1988-1990	4	Engine no. prefix — 4G15. Camshaft — belt drive. Valves — 8. Carburettor.	89038051			
	1468cc OHC 4G15 engine E.F.I. Sedan and hatch	1988-1990	4	Engine no. prefix — 4G15. Camshaft — belt drive. Valves — 8. E.F.I.	89038052			
LANCER CB / CC	1468cc 4G15 engine Carburettor and E.F.I. O.H.C.	1990-June 1996	4	Engine no. prefix — 4G15. Valves — 12. Inlet ports — left hand side.	89038053		19101101	
	1468cc 4G15 engine Carburettor and E.F.I. O.H.C.	1990-June 1996	4	Engine no. prefix — 4G15. Oil filter faces grille. Water pump mount in centre of block. Power steering — three bolt hole on exhaust side in front of No. 1 port.	89038054		19101102	
LANCER CE, MIRAGE	1468cc 4G15 engine	July 1996	4	Engine no. prefix — 4G15. Valves — 12. Inlet port — right hand side. Oil filter faces ground. Water pump mounts off set to block.	17803640		19101103	H2
LANCER CC	1.8 litre 4G93 engine S.O.H.C.	1992-1996	4	Engine no. prefix — 4G93. Head casting no. — G9. Oil filter — on block. Spark plug tubes — point toward left hand side. Valves — 16.	17803652			
LANCER CE	1.8 litre 4G93-S4 engine S.O.H.C.	1996-	4	Engine no. prefix — 4G93. Head casting no. — G910. Oil filter — on timing cover. Spark plug tubes — point toward right hand side. Valves — 16.	17803653			
LANCER CC	1.6 litre 4G92 engine S.O.H.C.	1992-1996	4	Engine no. prefix — 4G92. Valves — 16.	17803650			
MAGNA TM	2555cc OHC 4G54B engine Carburettor and E.F.I. Unleaded	1986-1987	4	Engine no. prefix — V561 - 562 - 571 - 572. Engine mounts — vertical, at rear of block. Sump — front well. Water pump — 3 bolts, driven from rear of camshaft	89038055		19101112	
MAGNA TN / TP	2555cc 4G54B engine Carburettor and E.F.I. O.H.C.	1987-1991	4	Engine no. prefix — V561 - 562 - 571 - 572. Engine mounts — vertical, at rear of block. Sump — front well. Water pump — 3 bolts, driven from rear of camshaft	89038056		19101112	
MAGNA TR	2555cc OHC 4G54B engine Carburettor and E.F.I. Unleaded fuel	1991-1994	4	Engine no. prefix — W532 - 532. Carburettor.	89038057		19101117	

NOTES:

H2: Head bolts in kit.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details	Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
2555cc O.H.C. 4G54B engine Carburettor and E.F.I. Unleaded fuel	1991-1994	4	Engine no. prefix — W532 - 532. E.F.I.	89038058		19101117	
MAGNA TS	2555cc 4G54 engine O.H.C. Carburettor and E.F.I.	1994-1996	4	Engine no. prefix — W53.	89038059		
MAGNA TE / TF	2351cc 4G64 S4 engine S.O.H.C. E.F.I.	1996-1999	4	Engine no. prefix — 4G64. Valves — 16. Crankshaft — 7 bolt. Sump — front well. Inlet manifold — right hand side. Bellhousing — 330mm.	17803656		
MAGNA TR / TS, VERADA KR / KS	2977cc OHC 6G72-S2 engine E.F.I. Unleaded fuel	1993-1996	V6	Engine no. prefix — Y72. Knock sensor mounted in valley area. Valves — 12. Sump — front well, tin.	89038061	19101121	H1
MAGNA TE / TF	2977cc 6G72-S4 engine S.O.H.C.	1996-	V6	Engine no. prefix — 6G72. G7S4FF cast on cylinder head. Sump — front well, two piece alloy with tin pan. Valves — 24.	17803661	19101122	H1
MAGNA, VERDA	3.5 litre 6G74-S4 engine S.O.H.C.	1999-	V6	Engine no. prefix — 6G74 on rear left hand side, G7S4FF cast on cylinder head. pan that extends past crank gear. Sump — front well, two piece alloy with tin, Valves — 24.	17803662	19101122	H1
NIMBUS UC	2.0 litre 4G63 engine	1987-1991	4	Engine no. prefix — 4G63. Valves — 8. Bell housing — 310mm wide.	17803644	19101106	
NIMBUS UF	2.4 litre 4G64 engine	1992- July 1992	4	Engine no. prefix — 4G64. Valves — 8. Bellhousing — 310mm.	17803654	19101114	
NIMBUS UF / UG	2.4 litre 4G64 engine S.O.H.C.	Aug. 1992-	4	Engine no. prefix — 4G64. Bellhousing — 310mm. Inlet manifold — left hand side. Sump — front well, tin. Valves — 16.	89038060		
PAJERO NA / NH	2555cc OHC 4G54 engine 4WD Petrol Astron 1 engine	1983-1993	4	Engine no. prefix — 4G54. Balance shaft engine. Camshaft — chain drive. Engine mounts — vertical. Sump — rear well.	89038063	19101107	
PAJERO NF / NK	2972cc OHC 6G72 engine Petrol 4WD	1988- Sep. 1997	V6	Engine no. prefix — 6G72. No knock sensor in valley. Sump — centre well. Valves — 12.	89038064	19101108	H1
PAJERO NJ / NK	3479cc 6G74-D4 engine D.O.H.C.	1993- Sep. 1997	V6	Engine no. prefix — 6G74 on rear right hand side. Sump — centre well, two piece alloy with tin pan. Valves — 24.	89038065	19101109	H1
PAJERO NL	3479cc 6G74-S4 engine S.O.H.C.	Sep. 1997- May 2000	V6	Engine no. prefix — 6G74 on rear right hand side. Valves — 24. G7S4FR cast on cylinder head. Oil filter housing — left hand side. Sump — centre well, two piece alloy with tin pan.	17803647	19101110	H1
PAJERO NM	3479cc 6G74-S4 engine S.O.H.C.	May 2000-	V6	Engine no. prefix — 6G74 on rear right hand side. Valves — 24. G7S4FR cast on cylinder head. Oil filter housing — right hand side. Sump — centre well, alloy.	17803648	19101110	H1
PAJERO, TRITON	2346cc 4D55 engine Diesel Non turbo	1986-	4	Engine no. prefix — 4D55. Injector holes — 20mm.	89038066		
	2346cc 4D55 engine Diesel Non turbo	1986-	4	Engine no. prefix — 4D55. Injector holes — 24mm.	89038067		
	2346cc 4D55 engine Diesel Turbo	1983-1987	4	Engine no. prefix — 4D55. Injector holes — 20mm.	89038068		
	2346cc 4D55 engine Diesel Turbo	1983-1987	4	Engine no. prefix — 4D55. Injector holes — 24mm.	89038069		
	2477cc 4D56 engine Diesel Non turbo	1987-	4	Engine no. prefix — 4D56. Injector holes — 20mm.	89038070		
	2477cc 4D56 engine Diesel Non turbo	1987-	4	Engine no. prefix — 4D56. Injector holes — 24mm.	89038071		
	2477cc 4D56T engine Diesel Turbo	1986-	4	Engine no. prefix — 4D56. Injector holes — 20mm.	89038072		
	2477cc 4D56T engine Diesel Turbo	1986-	4	Engine no. prefix — 4D56. Injector holes — 24mm.	89038073		
PAJERO NJ / NK / NL	2835cc 4M40 engine S.O.H.C. Turbo.	April 1993- May 1999	4	Cylinder head casting no. — 4M40. Sump — rear well. Dipstick — in block. Crank nose pulley bolt — 16mm. Turbo drain back — in block, left hand side. Oil filter — on oil cooler. Exhaust ports — 28mm x 30mm.	17803638		
	2835cc 4M40 engine S.O.H.C. Non turbo	April 1993- May 1999	4	Cylinder head casting no. — 4M40. Sump — rear well. Dipstick — in block. Crank nose pulley bolt — 16mm. Exhaust ports — 38mm x 31mm. Turbo drain back — no. Oil filter — on oil cooler.	17803637		
PAJERO NL / NM	2835cc 4M40 engine S.O.H.C. Turbo	June 1999- 2002	4	Cylinder head casting no. — 4M40. Crank nose pulley bolt — 18mm. Dipstick — in block. Exhaust ports — 28mm x 30mm. Oil filter — on oil cooler. Sump — rear well. Turbo drain back — in block, left hand side.	17803639		
TRITON ME	2555cc OHC Astron 2 engine 4G54 Unleaded fuel 2WD	1986-1996	4	Engine no. prefix — 4G54. Manifold studs — diagonal. Camshaft — chain drive. Rocker cover — hump in rear. 2WD.	89038078	19101107	
	2555cc OHC Astron 2 engine 4G54 Unleaded fuel 4WD	1986-1996	4	Engine no. prefix — 4G54. Manifold studs — diagonal. Camshaft — chain drive. Rocker cover — hump in rear. 4WD.	89038079	19101107	
TRITON MH - J	2972cc 6G72-S2 engine	1991-1996	V6	Engine no. prefix — 6G72. Sump — front well. Valves — 12.	89038080	19101108	H1
TRITON MK, CHALLENGER	2972cc 6G72-S4 engine S.O.H.C.	1996- April 1999	V6	Engine no. prefix — 6G72. G7S4FR cast on cylinder head. pan. Sump — front well, two piece with long tin, Valves — 24.	17803645	19101110	H1

NOTES:

H1: Pair of heads.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
MITSUBISHI (CONT.)								
TRITON MK, CHALLENGER	2972cc 6G72-S4 engine S.O.H.C.	May 1999-	V6	Engine no. prefix — 6G72. 67S4FR cast on cylinder head. Sump — front well, alloy. Valves — 24.	17803646		19101110	H1
TRITON MK	2.4 litre 4G64 engine S.O.H.C.	1996-	4	Engine no. prefix — 4G64. Sump — front well. Bellhousing — 330mm. Inlet manifold — left hand side. Valves — 16.	17803660		19101115	
	2835cc 4M40 engine S.O.H.C. Turbo.	1996-May 1999	4	Cylinder head casting no. — 4M40. Sump — front well. Oil filter — on timing cover. Dipstick — in timing cover. Turbo drain drain — in block, left hand side. Exhaust ports — 28mm x 30mm. Crank nose pulley bolt — 16mm.	89038074			
	2835cc 4M40 engine S.O.H.C. Non turbo.	1996-May 1999	4	Cylinder head casting no. — 4M40. Sump — front well. Dipstick — in timing cover. Oil filter — on oil cooler. Turbo drain back — no. Exhaust ports — 38mm x 31mm.	17803634			
	2835cc 4M40 engine S.O.H.C. Turbo.	June 1999-	4	Cylinder head casting no. — 4M40. Sump — front well. Oil filter — on timing cover. Dipstick — in timing cover. Turbo drain back — in block, left hand side. Exhaust ports — 28mm x 30mm. Crank nose pulley bolt — 18mm.	17803636			
	2835cc 4M40 engine S.O.H.C. Non turbo.	June 1999-	4	Cylinder head casting no. — 4M40. Sump — front well. Dipstick — in timing cover. Oil filter — on oil cooler. Turbo drain back — no. Exhaust ports — 38mm x 31mm.	17803635			
SCORPION GE	1995cc O.H.C.	1978-1981	4	4G52 block casting on left hand side rear. Manifold studs are diagonal on cylinder head. Camshaft — chain drive. Fuel pump — bent arm. Block/head face — width 148mm.	89038075			
SCORPION GH / GJ / GK / GL	2555cc Astron 2 engine O.H.C. Automatic.	1979-1984	4	4G54 block casting on left hand side rear. Manifold studs are diagonal on cylinder head. Block — width 135mm. Camshaft — chain drive. Rocker cover — rear hump. Bell housing dowels are 310mm centre to centre	89038076			
	2555cc Astron 2 engine O.H.C. Automatic.	1979-1984	4	4G54 block casting on left hand side rear. Manifold studs are diagonal on cylinder head. Block — width 135mm. Camshaft — chain drive. Rocker cover — rear hump. Bell housing dowels are 310mm centre to centre	89038076			
	2555cc Astron 2 engine O.H.C. Manual.	1979-1984	4	4G54 block casting on left hand side rear. Manifold studs are diagonal on cylinder head. Block — width 135mm. Camshaft — chain drive. Rocker cover — rear hump. Bell housing dowels are 335mm centre to centre	89038077			
SIGMA GH / GJ / GK	1597cc Saturn engine 4G32 O.H.C.	1977-1978	4	May have 4G32 or = < cast on left hand side of, block. Horizontal engine mounts. Exhaust ports — round. Camshaft — chain drive. No balance shaft.	89038040			
	1597cc Saturn engine 4G32 O.H.C.	1978-1985	4	May have 4G32 or = < cast on left hand side of, block. Horizontal engine mounts. Exhaust ports — round. Camshaft — belt drive. No balance shaft.	89038041			
SIGMA GE / GH / GJ / GK	1995cc Astron engine G52B O.H.C. Manual and automatic	1977-1984	4	Engine no. prefix — 52 or M4 stamped on right hand side of block or 4G52 stamped above engine no. or 4G52 block casting left hand side rear. Balance shaft engine. Block — width 148mm. Camshaft — chain drive. Manifold studs are vertical on cylinder head. Vertical engine mounts.	89038043		19101104	
SIGMA GN	1995cc OHC Astron engine G52B Unleaded fuel Manual and automatic	1985-1986	4	Engine no. prefix — M46. 4G52 cast on block. Camshaft — chain drive. Manifold studs are vertical on cylinder head. Block — width 135mm. Water pump — 2 bolts to timing cover.	89038081			
SIGMA 2600 GH / GJ / GK	2555cc OHC Astron 1 engine 4G54 No power steering Automatic	1980-1984	4	Engine no. prefix — M531. 4G54 cast on block. Camshaft — chain drive. Manifold studs — vertical on cylinder head. Bell housing — 310mm C/C dowels. Water pump — to T/cover.	89038082	M17	19101105	
	2555cc OHC Astron 1 engine 4G54 Manual No power steering	1980-1984	4	Engine no. prefix — M532. 4G54 cast on block. Bell housing — 335mm C/C dowels. Camshaft — chain drive. Manifold studs — vertical on cylinder head. Water pump — to T/cover.	89038083	M17	19101105	
	2555cc OHC Astron 1 engine 4G54 Power steering Automatic	1980-1984	4	Engine no. prefix — M531. 4G54 cast on block. Camshaft — chain drive. Manifold studs — vertical on cylinder head. Bell housing — 310mm C/C dowels. Water pump — to T/cover.	89038084	M17	19101105	
	2555cc OHC Astron 1 engine 4G54 Power steering Manual	1980-1984	4	Engine no. prefix — M532. 4G54 cast on block. Camshaft — chain drive. Manifold studs — vertical on cylinder head. Bell housing — 335mm C/C dowels. Water pump — to T/cover.	89038085	M17	19101105	
SIGMA 2600 GN	2555cc OHC Astron 2 engine 4G54 Automatic. Unleaded fuel	1985-1986	4	Hydraulic lash adjusters. 4G54 cast on block. Manifold — water ports. Bell housing — 310mm C/C dowels. Automatic.	89038086		19101113	
	2555cc OHC Astron 2 engine 4G54 Manual. Unleaded fuel	1985-1986	4	Hydraulic lash adjusters. 4G54 cast on block. Bell housing — 335mm C/C dowels. Manifold — water ports. Manual.	89038087		19101113	
	2555cc OHC Astron 2 engine 4G54 Unleaded fuel Manual	1986-1987	4	Hydraulic lash adjusters. 4G54 cast on block. Manifold — water ports. Bell housing — 335mm C/C dowels. Manual.	89038088		19101112	

NOTES:

M17: Engines to suit leaded fuel only.

H1: Pair of heads.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
NISSAN								
DATSUN 1200	1171cc A12 engine B110 series O.H.V.	1970-1976 Sedan and Van 1970-74 Utility and Pickup 1971-76	4	Distributor — next to no. 1 cylinder. Engine no. prefix — A12 on horizontal face. Flywheel bolts — 3/8" U.N.F.	89038095			
DATSUN 120Y, SUNNY	1171cc A12 engine B210 series O.H.V.	1974-1981	4	Distributor — next to no. 3 cylinder. Engine no. prefix — A12 on vertical face next to engine Number, Flywheel bolts — 10 x 1.25mm. Manifold studs — 9.	89038096			
SUNNY	1397cc OHV A14 engine B310 series Station wagon	1979-1981	4	Engine no. prefix — A14. Manifold studs — 13. Round ports.	89038098			
PULSAR	1397cc OHV A14 engine B310 series Station wagon	1980-1981	4	Breather — horizontal rear left hand side of block, Dipstick tube — right hand side. East-west engine. Engine no. prefix — A14. Oval ports. Sump — front well.	89038099			
VANETTE SGL	1488cc A15 engine O.H.V.	1984-	4	Dipstick tube — right hand side of front of block., Engine no. prefix — A15 located on right hand side of front of block, Sump — front well.	89038100			
DATSUN 1500	1483cc OHV 520/521 series J15 engine Van	1972-1975	4	Engine no. prefix — J15. B30 or T01 at right hand side above pan rail. Cylinder head — cast no. B82 and two water holes are below thermostat. Engine block casting numbers — 1483CC, Engine mountings — bolt to front plate.	89038101	M18		
	1483cc OHV J15 engine 620 series Pick-up	1975-1977	4	Cylinder head — two water holes below thermostat. Engine block casting number — B52 at right hand side above pan rail. Engine mounting bosses — toward middle of block. Engine no. prefix — J15. Sump — rear well, plug at bottom.	89038102	M18		
	1483cc OHV 620 series Breather pipe — front side plate. J15 engine	1977-1979	4	Engine no. prefix — J15. Engine block casting number — B52 at right hand side above pan rail. Engine mounting bosses — toward middle of block. Sump — rear well, plug at front right hand side.	89038103	M18		
DATSUN 1600	1567cc OHV E20 Van 1974-78 J16 engine T20 Homer 1973-75	1973-1978	4	Engine no. prefix — J16. ** See below for side engine mounts. **, Cylinder head — cast no. B82 and two water holes below thermostat. Distributor. Engine block casting number - T01 engine mount plate. Stroke — 82mm.	89038104	M18		
	1567cc OHV E20 Van 1974-78 J16 engine T20 Homer 1973-75	1973-1978	4	Side engine mounts. Distributor.	89038105	M18		
PULSAR	1270cc OHC E13 engine Leaded fuel N10 / N12 series	1983-1985	4	Engine no. prefix — E13. Cylinder head casting no. — 41M. Camshaft — belt drive. East-west engine.	89038106			
PULSAR, PRARIE	1488cc OHC E15 engine Leaded fuel Non EGR N10 / N12 series	1982-1985	4	Engine no. prefix — E15 on rear of left hand side of block, Camshaft — belt drive. Cylinder head casting no. — M11, 11M, B03. Dipstick — left hand side front. East-west engine. MZ cast on left hand side of block. Sump — front well.	89037822		19101133	
PULSAR, EXA	1488cc OHV E15T engine, N10 Series Leaded and unleaded fuel Turbo	1983-1991	4	Engine no. prefix — E15 on rear of left hand side of block, Camshaft — belt drive. Cylinder head casting no. — M25, M15, M31. Dipstick — left hand side front. East-west engine. MZ cast on left hand side of block. Sump — front well.	89038107			
	1597cc OHV E16 engine N12 series Unleaded fuel	1987-1991	4	Engine no. prefix — E16. Cylinder head casting no. — M33. East-west engine. Sump — front well.	89037823		19101132	
PULSAR, VECTOR	1600cc SOHC 16LF engine, N13 Series Manual and automatic Unleaded fuel	1987-1991	4	Engine no. prefix — 16LF. East-west engine. Throttle body injection (T.B.I.)	89037824		19101050	H2
	1800cc SOHC 18LE engine N13 Series Manual and automatic Unleaded fuel	1987-1991	4	Engine no. prefix — 18LE. Cylinder head casting no. — 1.8E. East-west engine.	89037825		19101051	H2
PULSAR	1596cc GA16DE engine D.O.H.C. Unleaded fuel	1991-Sept. 1995	4	Engine no. prefix — GA16DE. N14 series. Rocker cover — alloy. Inlet manifold — round, tear drop ports.	89038108		19101125	H2
	1596cc GA16DE engine D.O.H.C. Unleaded fuel	Oct. 1995-Sept. 2000	4	N15 series. Rocker cover — black plastic. Inlet manifold — square tear drop ports.	17803672		19101126	H2
PULSAR, NX COUPE	1998cc DOHC F.W.D. SR20DE engine, N14 Series Unleaded fuel	1991-Sept. 1995	4	Engine no. prefix — SR20. Block and head casting no. — 53J, Inlet manifold — angled with tear drop ports. Sump — front well, two piece alloy with tin pan. N14 series. Rocker cover — alloy. Variable valve timing — No	89038109			
	1998cc DOHC F.W.D. SR20DE engine, N14 Series Unleaded fuel	Oct. 1995-Sept. 2000	4	Engine no. prefix — SR20. Block and head casting no. — 53J, Inlet manifold — angled with tear drop ports. Sump — front well, two piece alloy with tin pan. N15 series. Rocker cover — black plastic. Variable valve timing — yes.	17803673			
EXA COUPE	1598cc DOHC CA16 engine N14 series E.F.I.	1986-1987	4	Engine no. prefix — CA16. Valves — 16. East-west engine.				

NOTES:

M18: Distributor drive shaft to be retained from old motor and installed in replacement unit.

H2: Head bolts in kit.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
NISSAN (CONT.)								
EXA COUPE	1809cc DOHC CA18 engine N14 series E.F.I.	1987-1991	4	Engine no. prefix — CA18. Valves — 16. East-west engine.	89038111			
SERENA	1998cc SR20DE engine D.O.H.C. R.W.D.	1992-1995	4	Engine no. prefix — SR20. Sump — front well, two piece alloy with tin pan. Two lugs above drain plug. Cylinder head casting no. — OC8 on rear of head, Block casting no. — 52F on left hand side. Oil filter housing — under no. 2 cylinder. Drain plug — centre right hand side. Inlet manifold — flat oval ports.	89038112			
STANZA	1595cc L16 engine O.H.C.	1978-1983	4	Breather hole — vertical on left hand side. Engine no. prefix — L16 at right hand side of Block.	89038113			
DATSUN 1600	1595cc OHC L16 engine 510 Series (Not SSS Model) Carburettor	1968-1972	4	Engine no. prefix — L16 at right hand side of, block next to cylinder head. Breather hole — horizontal on left hand side block, Carburettor — single type. Cylinder head casting no. — 210.	89038114			
DATSUN 180B	1770cc OHC L18 engine (Early) (Not SSS Model) 610 series sedans	1972-1975	4	Engine no. prefix — L18. 10mm bolt holes for transmission brackets — no. Breather hole — horizontal on left hand side of block, Cylinder head casting no. — A87 between 1 and 2 spark plugs. Refer transmission brackets.	89038335			
	1770cc OHC L18 engine (Early) (Not SSS Model) 610 series sedans	1972-1975	4	Engine no. prefix — L18. 10mm bolt hole for transmission brackets — yes. Breather hole — horizontal on left hand side of block, Cylinder head casting no. — A87 between 1 and 2 spark plugs. Refer transmission brackets.	89038116			
	1770cc OHC L18 engine Late 610 series Sedans, Station Wagons	1974-1977	4	Engine no. prefix — L18. Breather hole — vertical on left hand side of block. Cylinder head casting no. — A87 between 1 and 2 spark plugs. Sump — drain plug at rear.	89038117			
DATSUN 200B	1952cc OHC L20B engine (Does not suit Bluebird) 810 series	1977-1981	4	Engine no. prefix — L20B. Suits both mechanical and electrical fuel pump models, but may require eccentric fitment to cam for mechanical pump. Oil filter — horizontal. Sump — has small boss around drain hole. Breather — vertical on left hand side of block.	89038118	M19 M20		
BLUEBIRD L20B	1952cc L20B engine O.H.C. Series 1 and 2	1981-1984	4	Engine no. prefix — L20B. ** Suits both mechanical and electrical fuel pump models, but may require eccentric fitment to cam for mechanical pump. **, Breather — vertical on left hand side of block. Oil filter — vertical. Sump — front well with 3 steps at rear.	89038119	M19 M20		
BLUEBIRD 910	1974cc OHC CA20 engine Series 3 Carburettor Leaded fuel	1985-	4	Engine no. prefix — CA20. Camshaft — belt drive. Cylinder head — dual fire. Dipstick — in timing cover. Distributor — front left hand side. Fuel pump — mechanical. Sump — front well.	89038120		19101128	
BLUEBIRD, PINTARA, GAZELLE	1974cc OHC CA20 engine Series 3 E.F.I. Unleaded Fuel R.W.D.	1985-	4	Engine no. prefix — CA20. Camshaft — belt drive. Dipstick in timing cover. Distributor — front left hand side. Dual fire cylinder head. Fuel pump — electric. Sump — front well.	89038121		19101134	
PINTARA U12	1974cc OHC CA20E engine U12 E.F.I. Unleaded Fuel F.W.D.	1989-	4	Engine no. prefix — CA20E. Camshaft — belt drive. Cylinder head — dual fire. Distributor — rear of cylinder head.	89037681		19101129	
	2389cc OHC E.F.I. Unleaded Fuel F.W.D. KA24E engine	1989-	4	Engine no. prefix — KA24E. Camshaft — belt drive. Distributor — rear of cylinder head. Oil pump — internal.	89037682			
BLUEBIRD U13	2389cc D.O. H.C. KA24DE engine	1993	4	Engine no. prefix — KA24. Valves — 16.	17803675			
240Z	2393cc OHC L24 engine Sports	1973-1981	6	Engine no. prefix — L24. Cylinder head casting no. — E31 between 1 and 2 spark plugs. Dipstick — right hand side front of engine mounts, Sump — front well.	89038122			
2400	2393cc OHC G130 series Sedan / Wagon	1970-1971	6	Engine no. prefix — L24. Dipstick — behind oil filter. Cylinder head casting no. — E30 between 1 and 2 spark plugs. Sump — centre well with drain plug at rear.	89038123			
2400C	2393cc OHC G130 series Sedan / Wagon	1970-1973	6	Engine no. prefix — L24. Dipstick — behind oil filter. Sump — centre well with drain plug at rear, Cylinder head casting no. — E30 between 1 and 2 spark plugs.	89038123			
240K	2393cc OHC Carburettor L24 engine Skyline	1973-1981	6	Engine no. prefix — L24. Cylinder head casting no. — E30 between 1 and 2 spark plugs. Dipstick — right hand side front of engine mounts, Sump — front well.	89038124			
260C	2565cc OHC L26 engine 230/330 series Sedan / Hard Top	1975-1978	6	Engine no. prefix — L26. Compression ratio 8.3:1, 8.6:1. Pistons — dished. Sump — centre well with drain plug at rear. Cylinder head casting no. — E31 or E88 between 1 and 2 spark plugs.	89038125			
280C	2753cc OHC 330, 430 series Carburettor or E.F.I. L28E engine	1978-1983	6	Engine no. prefix — L28. Sump — centre well. 330 Series — carburettor.	89038127			
	2753cc OHC 330, 430 series Carburettor or E.F.I. L28E engine	1978-1983	6	Engine no. prefix — L28. Sump — centre well. 430 Series — E.F.I.	89038128			

NOTES:

M19: Oil feed to timing chain. Check design variance — it is important to use timing chain tensioner with oil feed hole if oil feed pipe type not incorporated in block.

M20: Important: LM870 has no fuel pump lobe on cam - refer identification notes.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
280ZX	2753cc OHC E.F.I. L28E engine S130 series	1979-1984	6	Engine no. prefix — L28. Cylinder head casting no. — N42. Breather — horizontal. Oil filter — vertical.	89038129			
SKYLINE R30	2393cc OHC E.F.I. Sedan	1981-1982	6	Engine no. prefix — L24. Dipstick — right hand side front of engine Mounts, Cylinder head casting no. — E30 between 1 and 2 spark plugs. Sump — front well.	89038126			
SKYLINE R31	RB30 engine O.H.C. E.F.I.	1986-1990	6	Engine no. prefix — A6. Camshaft — belt drive.	89037895		19101043	
300ZX	2960cc OHC E.F.I. Leaded fuel VG30E engine	1984-1985	V6	Engine no. prefix — VG30E. Camshaft — belt drive. Crank nose length — 15mm. Dipstick — middle left hand side. Distributor — front left hand side. Oil filter housing — 2 bolt. Sump — rear well.	89038130			
	2960cc OHC Turbo E.F.I. Unleaded fuel VG30E engine	1985-1989	V6	Engine no. prefix — VG30T.	89038131			
	2960cc DOHC Carburettor Unleaded fuel VG30D engine	1989-	V6	Engine no. prefix — VG30D.	89038132			
	2960cc DOHC E.F.I. Unleaded fuel VG30DE engine	1989-	V6	Engine no. prefix — VG30DE.	89038133			
MAXIMA	2960cc OHC FWD Unleaded fuel VG30E engine	1990-1995	V6	Engine no. prefix — VG30E. East-west engine. Crank nose length — 34mm. Oil filter housing — 4 bolt. Knock sensor — in between 1 and 2 cylinders on right hand side. Dipstick hole — front left hand side on sump rail.	89038134			
720 UTILITY	1770cc OHC L18 engine 720 Series Petrol Pick-up and Utility	1980-	4	Engine no. prefix — L18. Breather — vertical on left hand side of block. Oil filter — horizontal. Sump — deep centre well with drain plug at right hand front corner. 2WD.	89038135			
	1770cc OHC L18 engine 720 Series Petrol Pick-up and Utility	1980-	4	Engine no. prefix — L18. Breather — vertical on left hand side of block. Oil filter — horizontal. 4WD.	89038136			
	2187cc OHC King and Crew Cab Petrol Z22 engine	1983-	4	Engine no. prefix — Z22 on right hand side of block, Dipstick tube — rear left hand side. Spark plugs — single. 2WD.	89038137			
	2187cc OHC King and Crew Cab Petrol Z22 engine	1983-	4	Engine no. prefix — Z22 on right hand side of block, Dipstick tube — rear left hand side. Spark plugs — duel. 4WD.	89038138			
	2164cc SD22 engine 1Tonne Diesel	Dec. 1981-	4	Engine no. prefix — SD22 on block under no. 1 injector. Injector pump — in-line with 4 bolts. Main bearings — 5. Crankshaft — 80mm. 2WD.	89038139			
	2164cc SD22 engine 1Tonne Diesel	Dec. 1981-	4	Engine no. prefix — SD22 on block under no. 1 injector. Injector pump — in-line with 4 bolts. Main bearings — 5. Crankshaft — 80mm. 4WD.	89038140			
	2289cc SD23 engine 1Tonne Diesel	1981-	4	Engine no. prefix — SD23 on block.	89038141			
	2488cc 1Tonne Diesel SD25 engine	1981-	4	Engine no. prefix — SD25 on block under No 1 injector, Oil pump — internal. 2WD.	89038142			
	2488cc 1Tonne Diesel SD25 engine	1981-	4	Engine no. prefix — SD25 on block under No 1 injector, Oil pump — internal. 4WD.	89038143			
NAVARA, PATHFINDER	1952cc OHC D21 Pick-up Z20 engine	1988-	4	Z20 identification between spark plugs 2 and 3. Fuel pump— manual. Spark plugs — 4. Sump — rear well.	89038144			
	1952cc OHC D21 Pick-up Z20 engine	1988-	4	Z20 identification between spark plugs 2 and 3. Fuel pump— manual. Spark plugs — 8. Sump — rear well.	89038145			
	2399cc D21 - WD21 Pick-up Z24 engine 2WD	1986-	4	Engine no. prefix — Z24. Sump — rear well. Spark plugs — 4.	89038146		19101139	
	2399cc D21 - WD21 Pick-up Z24 engine 2WD	1986-	4	Engine no. prefix — Z24. Sump — rear well. Spark plugs — 8.	17803674		19101127	
	2389cc D21 - WD21 Pick Up Z24 engine 4WD	1986-	4	Engine no. prefix — Z24. Sump — rear well winged. Spark plugs — 4.	89038148		19101139	
	2389cc D21 - WD21 Pick Up Z24 engine 4WD	1986-	4	Engine no. prefix — Z24. Sump — rear well winged. Spark plugs — 8.	89038149		19101127	
	2389cc D21 - WD21 Pick Up KA24 engine 2WD and 4WD	1992-	4	Engine no. prefix — KA24. Oil pump — external.	89038151	M21		
PATHFINDER	3274cc VG33 engine	Nov. 1995-	V6	Engine no. prefix — VG33. Valves — 18.	19101212			
	2960cc VG30 engine	July 1992-Oct. 1995	V6	Engine no. prefix — VG30. Crank nose length — 34mm. Crank nose OD — 25mm. Knock sensor — in valley. Timing cover — large V shape. Valves — 12.	17803677			
NAVARA	2960cc VG30 engine	1992-Aug. 1995	V6	Engine no. prefix — VG30. Crank nose length — 34mm. Crank nose OD — 25mm. Dipstick — rear left hand side. Knock sensor — in valley. Sump — rear well. Valves — 12.	89038152			

NOTES:

M21: Distributor drive shaft to be retained from old motor and installed in replacement unit



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
NISSAN (CONT.)								
NAVARA	2960cc VG30 engine	Aug. 1995-	V6	Engine no. prefix — VG30. Valves — 12. Crank nose length — 34mm. Crank nose OD — 35mm. Knock sensor — in valley. Sump — rear well. Dipstick — rear left hand side.	17803676			
	2488cc 1Tonne D21 Utility SD25 engine	1983-1987	4	Engine no. prefix — SD25 on block under no 1 injector, Oil pump — internal. 2WD.	89038154			
	2488cc 1Tonne D21 Utility SD25 engine	1983-1987	4	Engine no. prefix — SD25 on block under no 1 injector, Oil pump — external. Timing gears — fine. 4WD.	89038155			
	2494cc TD25 engine D21 Utility	1986-	4	Engine no. prefix — TD25.	89038156			
NAVARA, URVAN	2633cc TD27 engine	1986-	4	Engine no. prefix — TD27. Sump — centre well, square. 2WD.	89038157			
	2633cc TD27 engine	1986-	4	Engine no. prefix — TD27. Sump — rear well, wing. 4WD.	17803663			
NAVARA	3.2 litre QD32 engine	1997-	4	Engine no. prefix — QD32.	17803670			
	2389cc KA24DE engine D.O.H.C.	1997-2001	4	Engine no. prefix — KA24DE. Valves — 16.	19101211			
	3.0 litre ZD30 engine D.O.H.C. Turbo	2001-	4	Engine no. prefix — ZD30. Valves — 16. Sump — rear well, tin. Rocker cover — black plastic. Oil return pipe — from back of cylinder head, to back of right hand balance shaft. Bottom bell housing bolts — 360mm centre to centre.	19101210			
TERRANO	2.7 litre Diesel TD27 engine Turbo Intercooled	1997-	4	Engine no. prefix — TD27. Block casting no. — 7F440. Cylinder head casting no. — TD27T. Sump — rear well, wing. Vacuum / power steering pump — under Injector pump	17803664			
2000	1982cc OHV C240 / C340 Caball, E20 Series Van H20 engine T20 Series - F20 Series -	1967-1968	4	Engine no. prefix — H20 next to no. 2 cylinder, (E.G.R. valve — nil). Cylinder head — 3 bolt thermostat housing. Engine mounting — 3 bolts. Non-emission engine.	89038158			
	1982cc H20 engine O.H.V. Homer - E20 Van	1986-1988	4	Engine no. prefix — H20 next to no. 3 cylinder. Cylinder head — 2 bolt thermostat housing. Heat riser valve in exhaust manifold. Inlet manifold — plain. No water holes below inlet ports.	89038159			
URVAN	1982cc OHV H20 engine E23 series Nissan Urvan	1981-1984	4	Engine no. prefix — H20. Water heated inlet manifold. Two water holes below inlet ports. Cylinder head — 2 bolt thermostat housing.	89038160			
URVAN, CABSTAR	1952cc O.H.C. Z20 engine	1983-	4	Engine no. prefix — Z20. Crossflow cylinder head. Dipstick tube at front left hand side. Sump — front well. Spark plugs — 4.	89038161			
	1952cc O.H.C. Z20 engine	1983-	4	Engine no. prefix — Z20. Crossflow cylinder head. Dipstick tube at front left hand side. Sump — front well. Spark plugs — 8.	89038162			
URVAN, NOMAD	2389cc O.H.C. Z24 engine	1987-1990	4	Engine no. prefix — Z24. Sump — front well. Spark plugs — 4.	89038163		19101139	
	2389cc O.H.C. Z24 engine	1987-1990	4	Engine no. prefix — Z24. Sump — front well. Spark plugs — 8.	89038164		19101127	
E23 URVAN	2164cc 1Tonne SD22 engine Van	1980-1982	4	Engine no. prefix — SD22 on block under no 1 injector, Crank flange — 110mm. Injector pump — rotary with 3 bolts. Main bearings — 3. Sump — rear well.	89038165			
PATROL P	3956cc 4WD G60 - G61 O.H.V.	1960-1980	6	Engine mounts on side of block.	89038166			
	3956cc G61 - G160 O.H.V. 4WD	1980-1985	6	Engine mounts on front plate.	89038167			
PATROL MQ	2753cc L28 engine O.H.C. 4WD	1983-	6	Engine no. prefix — L28. Cylinder head cast no. — N42. Oil filter — horizontal. Breather — horizontal. Dipstick tube on right hand side. Sump — large centre well.	89038168		19101130	
PATROL GQ	4169cc TB42S engine Carburettor	1988-1992	6	Engine no. prefix — TB42S. Oil cooler — no. Oil filter — screws on block. Inlet ports — round.	89037785		19101124	H2
	4169cc TB42E engine E.F.I.	1992-1997	6	Engine no. prefix — TB42. Oil cooler — suits. Oil filter — onto oil cooler.	89037785		19101124	H2
	RB30S engine 2692cc Carburettor Unleaded fuel	1990-	6	Engine no. prefix — RB30S. Different oil pump, sum and pick up to LM480.	89038169		19101043	
PATROL GU	4.5 litre TB45 engine	1997-	6	Engine no. prefix — TB45.	17803671			
PATROL MQ	3246cc 4WD Non turbo SD33 engine	To Aug. 1983	6	Tacho — no provision. Cylinder head — has K-4D on top. Timing gears — course.	89038170			
	3246cc 4WD Non turbo SD33 engine	From Aug. 1983	6	Tacho — provision on timing case for sensor. Cylinder head — has K-4B on top. Timing gears — fine.	89038171			
	3246cc SD33 engine Turbo 4WD	1983-	6	Turbo — has provision for oil drainage. Cylinder head — has letter "T" above, no. 6 exhaust port. Rocker cover — alloy. Timing gears — fine.	89038172			
PATROL GQ	4200cc TD42 engine Y60 series	1988-Aug. 1995	6	Engine no. prefix — TD42. Crank nose — thread 23mm.	89037786			

NOTES:

H2: Head bolts in kit.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
PATROL	4200cc Civilian Bus TD42 engine	Sep. 1995-	6	Engine no. prefix — TD42. Crank nose — thread 23mm. Turbo — no. Vacuum pump mount — under injector pump.	17803665			
PATROL GU	4200cc Y61 series TD42 engine Turbo	1999-	6	Engine no. prefix — TD42. Crank nose — thread 43mm. Vacuum pump mount — under injector pump.	17803666			
	2.8 litre RD28T engine Turbo Y61 series	1995-Aug. 1995	6	Engine no. prefix — RD28. Vacuum pump — no. Lifters — bucket and shim.	17803667			
	2.8 litre RD28T engine Turbo Y61 series	1995-Aug. 1995	6	Engine no. prefix — RD28. Vacuum pump — yes. Lifters — hydraulic.	17803668			
	RD28ET1 engine Turbo Intercooled	Dec. 1997	6	Engine no. prefix — RD28. Crank angle sensor — on crank nose. Lifters — bucket and shim.	17803669			
	3.0 litre ZD30 engine D.O.H.C. Turbo Intercooled	2000-	6	Engine no. prefix — ZD30. Valves — 16. Sump — rear well, two piece alloy. Rocker cover — alloy. Oil return — from back of cylinder head to, right hand side of sump. Bottom bell housing bolts — 425mm centre to centre.	19101209			
E23 URVAN	2164cc 1Tonne Van Diesel	1980-1982	4	Engine no. prefix — SD22 on block under no 1 injector, Crank flange — 110mm. Injector pump — rotary with 3 bolts. Main bearings — 3. Sump — rear well. Timing gears — fine.	89038165			
720 UTILITY	2164cc Diesel 1Tonne (Not 4WD)	To Dec. 1981	4	Engine no. prefix — SD22 on block under, no. 1 injector. Injector pump — in-line with 4 bolts. Main bearings — 3. Crank flange — 110mm. Timing gears — course.	89038173			
NISSAN (CONT.)								
720 UTILITY	2164cc Diesel 1Tonne (Not 4WD)	From Dec. 1981	4	Engine no. prefix — SD22 on block under no 1 injector, Injector pump — in-line with 4 bolts. Main bearings — 5. Sump — change required for 4WD. Timing gears — course.	89038139			
	2164cc Diesel 1Tonne 4WD	1980-	4	Engine no. prefix — SD22 on block under no 1 injector, Injector pump — in-line with 4 bolts. Main bearings — 5. Sump — is only difference to above engine. Timing gears — course.	89038140			
NISSAN VAN	2289cc	To Dec. 1983	4	Engine no. prefix — SD23 on block under no 1 injector, Injector pump — rotary.	89038174			
NISSAN 720 UTILITY	Diesel 1 Tonne	1984-	4	Engine no. prefix — SD23 on block under no 1 injector, Injector pump — in-line. Timing gears — course. Sump — rear well with division (2 drain plugs), (Not 4WD).	89038141			
NISSAN ED30	341 Caball 2956cc	1973-1982	4	Rocker cover — identified ED30.	89038178			
NISSAN SD25	2488cc Cabstar F22 1.5 Tonne Truck	From Aug. 1983	4	Engine no. prefix — SD25 on block under no 1 injector, Oil pump — internal.	89038179	M22		
PROTON								
PERSONA, SATRIA, WIRA	1468cc 4G15-S3 engine S.O.H.C.	1995-	4	Engine no. prefix — 4G15. Valves — 12.	89038054		19101102	
	1597cc 4G92-S4 engine S.O.H.C.	1995-	4	Engine no. prefix — 4G92. Valves — 16.	17803651			
SUBARU								
EJ22	2.2 litre Liberty	1989-	4	Engine no. prefix — EJ22. Valves — 16.	89038196			
SUZUKI								
F5A	543cc FWD Leaded	1980-1985	3	Engine no. prefix — F5A. Camshaft — belt drive.	89038197			
	543cc Alto Van Unleaded fuel RWD	1985-1988	3	Engine no. prefix — F5A. Camshaft — belt drive.	89038198			
F8A	797cc Leaded fuel LJ80 - 81, ST80 - 90 RWD	1981-1983	4	Engine no. prefix — F8A. Camshaft — belt drive.	89038199			
F8B	796cc FWD Leaded fuel SS80V	1981-1984	3	Early model. Engine no. prefix — F8B. Camshaft — belt drive.	89038200			
	796cc Alto Van Unleaded fuel FWD	1987-1989	3	Later model. Engine no. prefix — F8B. Camshaft — belt drive.	89038201			
F10A	970cc Sierra Leaded fuel 4WD	1981-1988	4	Engine no. prefix — F10A. Camshaft — belt drive. Sump — rear well. Distributor — gear drive.	89038202			
	970cc Super Carry - SK410 Unleaded fuel RWD.	1985-1987	4	Engine no. prefix — F10A. Camshaft — belt drive.	89038203			
G10	993cc Swift - SA310 Leaded and unleaded fuel FWD.	1985-1986	3	Early model. Engine no. prefix — G10. Camshaft — belt drive. Leaded fuel. Rocker cover — tin.	89038204			
	993cc Swift - SA310 Leaded and unleaded fuel FWD.	1986-1988	3	Late model, but not 1989. Unleaded fuel. Rocker cover — tin. Adjustable rockers — yes.	89038205			

NOTES:

M22: Cabstar models may have possible sump variance between models.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
SUZUKI (CONT.)								
G10	993cc Swift - SA310 Leaded and unleaded fuel FWD.	1989-	3	Unleaded fuel. Rocker cover — alloy. Lifters — bucket and shim.	89038206			
G13A	1324cc Swift - SA413 Unleaded fuel FWD.	1985-1987	4	Engine no. prefix — G13A. Camshaft — belt drive. Water pump — 40mm bolt centres on, pulley hub. Manual.	89037826			
	1324cc Swift - SA413 Unleaded fuel FWD.	1985-1987	4	Engine no. prefix — G13A. Camshaft — belt drive. Water pump — 60mm bolt centres on, pulley hub. Automatic.	89037827			
G16B	1.6 litre Swift S.O.H.C. Single point injection	1985-1995	4	Engine no. prefix — G16B. Inlet ports — oval. Distributor — tang drive off camshaft. Valves — 16.	17803511			
	1.6 litre Baleno S.O.H.C.	1995-2002	4	Engine no. prefix — G16B. Distributor — tang drive. Inlet ports — tear drop. Valves — 16. Crank angle sensor — no. Sump — front well.	17803512		19101011	
	1.6 litre Baleno S.O.H.C.	1995-2002	4	Engine no. prefix — G16B. Distributor — tang drive. Inlet ports — tear drop. Valves — 16. Crank angle sensor — in front of oil pump. Sump — front well with dimple in front.	19101171		19101011	
G13BB	1.3 litre Jimmy S.O.H.C.	1998-2002	4	Engine no. prefix — G13BB. Valves — 16.	19101170			
G13BA	1289cc S.O.H.C. Sierra 4 X 4	1990-1999	4	Engine no. prefix — G13BA. Water pump — 40mm, bolt centre on pulley hub. Crank gear — 4 bolt. Timing belt — square.	89038209		19101009	
	1289cc S.O.H.C. Sierra 4 X 4	1990-1999	4	Engine no. prefix — G13BA. Water pump — 40mm, bolt centre on pulley hub. Crank gear — 5 bolt. Timing belt — round.	17803513		19101009	
G16A	1590cc SOHC 4WD Unleaded fuel Vitara	1989-1994	4	Engine no. prefix — G16A. Camshaft — belt drive. Valves — 8.	89038210		19101010	
G16B	1.6 litre SOHC 4WD Multi Point Injection Vitara	1991-2002	4	Engine no. prefix — G16B. Distributor — gear drive. Inlet ports — tear drop. Valves — 16. Crank angle sensor — no. Sump — rear well.	89038211		19101011	
H20A	2.0 litre 4WD D.O.H.C. Vitara	1995-1999	V6	Engine no. prefix — H20A. Valves — 24.	89038212			
J20A	2.0 litre D.O.H.C. Vitara	1997-	4	Engine no. prefix — J20A. Valves — 16. Sump — rear well, tin.	19101172			
H25A	2.5 litre D.O.H.C. Vitara	1998-	V6	Engine no. prefix — H25A. Valves — 24.	19101173			
G13B	1298cc DOHC F.W.D. Swift SA413-3 GTI Unleaded fuel	1986-1999	4	Engine no. prefix — G13B. Hydraulic lash adjusters — yes. Camshaft — belt drive.	89038208		19101008	
G13BA	1298cc SOHC F.W.D. Swift SF413 GTI, Cino Unleaded fuel	1989-	4	Engine no. prefix — G13BA. Hydraulic lash adjusters. Camshaft — belt drive. Water pump — 60mm bolt, centre on pulley hub. Crank gear — 4 bolt.	89037828		19101009	
	1298cc SOHC F.W.D. Swift SF413 GTI, Cino Unleaded fuel	1989-	4	Engine no. prefix — G13BA. Hydraulic lash adjusters. Camshaft — belt drive. Water pump — 60mm bolt, centre on pulley hub. Crank gear — 5 bolt.	89037829		19101009	
TOYOTA								
BUNDERA	2366cc Carburettor O.H.C. RJ70 series	1985-1986	4	Engine no. prefix — 22R located behind Alternator, Camshaft — chain drive. Sump — rear well.	89038213		19101088	
BUNDERA 4 X 4	2366cc RJ70 series O.H.C. Carburettor	1986-1989	4	Engine no. prefix — 22R located behind Alternator, Camshaft — chain drive. Sump — rear well.	89038214		19101088	
CAMRY SV11	1995cc OHC 2SE engine E.F.I. Leaded fuel	1983-1987	4	Engine no. prefix — 2S on left hand side. Camshaft — belt drive., Distributor — middle left hand side. Sump — front well.	89038215			
CAMRY SV20	1832cc OHC 1S Engine Carburettor Unleaded fuel	1987-1989	4	Engine no. prefix — 1S on front of block at centre.	89038216			
CAMRY SV22	1998cc DOHC 3SFC engine Carburettor Unleaded fuel	1989-1992	4	Engine no. prefix — 3S located below, distributor. Camshaft — belt drive single pulley. Valves — 16. Flywheel — 6 bolt.	89037816		19101093	H2
	1998cc DOHC 3SFC engine Carburettor Unleaded fuel	1989-1992	4	Engine no. prefix — 3S located below, distributor. Camshaft — belt drive single pulley. Valves — 16. Flywheel — 8 bolt.	89037817		19101093	H2
CAMRY SV21	1998cc DOHC 3SFE engine E.F.I. Unleaded fuel	1987-1993	4	Engine no. prefix — 3S located below, distributor. Camshaft — belt drive single pulley. Valves — 16. Flywheel — 6 bolt.	89037818		19101094	H2
	1998cc DOHC 3SFE engine E.F.I. Unleaded fuel	1987-1993	4	Engine no. prefix — 3S located below, distributor. Camshaft — belt drive single pulley. Valves — 16. Flywheel — 8 bolt.	89037819		19101094	H2
CAMRY VZV21	2.5 Litre 2VZFE engine D.O.H.C.	1988-1993	V6	Engine no. prefix — 2VZ on right hand side, of front of block. Camshaft — belt drive. Valves — 24.	89038219			
CAMRY, VIENTA	3.0 litre 3VZFE engine D.O.H.C. V10 series	Nov. 1992-1997	V6	Engine no. prefix — 3VZ-FE. Valves — 24.	89037820		19101097	H1 H2

NOTES:

H1: Pair of heads.

H2: Head bolts in kit.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
CAMRY	2164cc 5SFE engine E.F.I. SDV10 series	1993-1997	4	Engine no. prefix — 5S. Distributor. Balance shaft pack — in sump.	89037821		19101095	H2
	2164cc SXV20R series 5SFE engine E.F.I.	1997-2003	4	Engine no. prefix — 5S. Coil pack ignition. Cam and crank sensor.	17803627		19101096	H2
CAMRY, AVALON, VIENTA	2995cc 1MZ-FE engine D.O.H.C. MCV20, MCV36 series	Aug. 1997	V6	Engine no. prefix — 1MZ-FE. Valves — 24.	17803632			
CAMRY	2.4 litre 2AZ-FE engine ACV36 series D.O.H.C.	2002-	4	Engine no. prefix — 2AZ. Valves — 16.	19101203			
AVENSIS	2.0 litre 1AZ-FE engine D.O.H.C.	2001-	4	Engine no. prefix — 1AZ. Valves — 16.	19101201			
CELICA	1588cc OHV 2T engine TA22 series	1971-1975	4	Engine no. prefix — 2T on left hand side of block at front, Dipstick — next to engine no. Exhaust ports — square. Spark plugs in top centre of cylinder head. Sump — front well.	89038220			
CELICA 2000	1968cc OHC 18RC engine	1976-1981	4	Engine no. prefix — 18R. Injector plugs — over no. 2, 3 and 4 exhaust ports. Non-commercial. Round exhaust gas hole immediately above inlet port no. 4. Sump — centre well. Two 8mm bolts diagonally opposed at left hand side of cylinder head.	89038221			
	1968cc 18R engine O.H.C.	1976-1981	4	Engine no. prefix — 18R. Injector plugs — no provision. Oil gallery plugs — at front right hand corner of cylinder head. Sump — centre well. Three water holes at front left hand (manifold) side of cylinder head.	89038222	M23		
CELICA T18	1770cc 3TC engine O.H.V.	1981-1983	4	Engine no. prefix — 3T on left hand side of block at dipstick.	89038223			
CELICA	1972cc OHC RA60 series 21RC engine Coupe	1981-1983	4	Engine no. prefix — 21R on left hand side of block front, Oil filter — horizontal right hand side. Sump — front well.	89038224		19101088	
	1995cc OHC 2S engine R.W.D. SA63 series	Oct. 1981-1983	4	Engine no. prefix — 2S on left hand side of Block, Camshaft — belt drive. Distributor — middle left hand side. Sump — front well.	89038215		19101094	H2
	22RE engine RA65 Series 2366cc OHC E.F.I. Super Responsive R.W.D.	1984-1985	4	Engine no. prefix — 22RE on left hand side. Camshaft — chain drive. Cylinder head — aluminium. Distributor — front left hand side. Engine mounts — midway on block. Sump — front well.	89038225		19101094	H2
	1998cc DOHC 3SFE engine E.F.I. ST162 series	1986-1989	4	Engine no. prefix — 3S. Flywheel — 6 bolt.	89037818			
	1998cc DOHC 3SFE engine E.F.I. ST162 series	1986-1989	4	Engine no. prefix — 3S. Flywheel — 8 bolt.	89037819			
	1998cc DOHC 3SGE engine E.F.I. ST162 series	1986-1989	4	Engine no. prefix — 3S on block below distributor, Camshaft — belt drive. E.G.R. — in rear or cylinder head. Valves — 16. Flywheel — 6 bolts.	89038226			
	1998cc DOHC 3SGE engine E.F.I. EGR ST162 series	1986-1989	4	Engine no. prefix — 3S on block below distributor, Camshaft — belt drive. E.G.R. — in rear or cylinder head. Valves — 16. Flywheel — 8 bolts.	89038227			
	1998cc DOHC 3SGE engine E.F.I. Non EGR ST162 series	1986-1989	4	Engine no. prefix — 3S on block below distributor, Camshaft — belt drive. E.G.R. — in manifold, Valves — 16. Flywheel — 6 bolts.	89038217			
	1998cc DOHC 3SGE engine E.F.I. Non EGR ST162 series	1986-1989	4	Engine no. prefix — 3S on block below distributor, Camshaft — belt drive. E.G.R. — in manifold, Valves — 16. Flywheel — 8 bolts.	89038218		19101095	H2
	1998cc DOHC 3SGTE engine ST185 series Turbo 4WD	1990-	4	Engine no. prefix — 3S on left hand side of block below distributor. Camshaft — belt drive. Flywheel — 8 bolts. Valves — 16.	89038228			
	2164cc 5SFE engine D.O.H.C. E.F.I.	1989-1994	4	Engine no. prefix - 5S on block below distributor, Camshaft — belt drive. East-west engine. ST184 series.	89038229			
2164cc 5SFE engine D.O.H.C. E.F.I.	1994-	4	Engine no. prefix - 5S on block below distributor, Camshaft — belt drive. East-west engine. ST204 series.	17803629		19101095		
COROLLA 3K	1166cc O.H.V.	1970-1975	4	Engine no. prefix — 3K on pad at right hand front block, Bore — 75mm. Stroke — 66mm.	89038230			
COROLLA 3K - H	1166cc O.H.V. Sedan 1975-76 Van 1975-77	1975-1977	4	Engine no. prefix — 3K-H on pad at right, hand rear of block. 3K-H label on rocker cover. Sump — oil pan 182mm deep.	89038231			
COROLLA 3K - C	1166cc 3K engine O.H.V. Emission control	1976-1977	4	Engine no. at right hand rear of block. 3K-H label on rocker cover. Engine no. 3K2072791 on, are locally produced	89038232			
COROLLA 4K - C	1290cc O.H.V.	1978-1983	4	Engine no. prefix — 4K. 4K-C label on rocker cover.	89038233			
COROLLA 4K	1290cc O.H.V. Hi-Cam	April 1983-	4	Engine no. prefix — 4K.	89038234			
COROLLA 5K	1486cc	1983	4	Engine no. prefix — 5K.	89038235			
SECA	1295cc 2A engine Carburettor O.H.C.	Sep. 1985-1988	4	Engine no. prefix — 2A. East-west engine. Camshaft — belt drive.	89038236			

NOTES:

M23: LM623 only available per special order due to limited release of this model. However, LM620 (refer Hi-Ace and Hi-Lux) can be fitted using original sump.

H2: Head bolts in kit.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
TOYOTA (CONT.)								
SECA	1587cc 4A engine O.H.C. Carburettor	Sep. 1985-	4	Engine no. prefix — 4A below distributor. East-west engine. Camshaft — belt drive.	89038237		19101090	
	1587cc DOHC 4AGE engine E.F.I. Unleaded fuel	1986-1988	4	Engine no. prefix — 4A below distributor. East-west engine. Camshaft — belt drive. Valves — 16.	89038238			
COROLLA SX	1587cc DOHC 4AGE engine E.F.I. Unleaded fuel	1989	4	Engine no. prefix — 4A on front left hand side of block, Camshaft — belt drive. East-west engine. Inlet ports — 64mm. OE power output — 86Kw. Valves — 16.	89038239			
COROLLA	1587cc DOHC 4AGE engine E.F.I. Unleaded fuel	1989-	4	Engine no. prefix — 4A on front left hand side of block, AE 93 series model. Camshaft — belt drive. East-west engine. Inlet ports — 50mm. OE power output — 100Kw. Valves — 16.	17803625			
	1587cc 4AFC engine D.O.H.C. Unleaded fuel	1989	4	Engine no. prefix — 4A on front left hand side of block, AE 92 series model. Camshaft — belt drive. Valves — 16.	89037849		19101083	H2
	1587cc 4AFE engine D.O.H.C. E.F.I.	1989- Sep. 1994	4	Engine no. prefix — 4A on pad near bell housing, AE 92 series model. Camshaft — belt drive. Valves — 16.	89037850			
	1587cc 4AFE engine D.O.H.C. Unleaded fuel	1988-1995	4	Engine no. prefix — 4A on pad near bell housing, AE 95 series model. Camshaft — belt drive.	89038240		19101084	H2
	1587cc 4AFE engine D.O.H.C.	1994- Nov. 1999	4	Engine no. prefix — 4A. Rocker cover — covers cam gears. AE101 series model.	17803624		19101085	H2
SECA	1397cc DOHC 6AF engine Carburettor FW.D.	1989- Nov. 1992	4	Engine no. prefix — 6A on front left hand side of block, AE90 series model. Camshaft — belt drive. Valves — 16.	89037848			
COROLLA	1.8 litre 7AF engine D.O.H.C.	1992-	4	Engine no. prefix — 7A. Valves — 16. Rocker cover — covers cam gears.	89037852			
	1.8 litre 1ZZ-FE engine D.O.H.C.	2001-	4	Engine no. prefix — 1ZZ. Sump — front well, two piece alloy with tin pan. Oil filter — on left hand side of sump. ZZE122 series model.	19101205			
CORONA	1587cc 12R engine O.H.V.	1971-1973	4	Early model. Up to engine no. 12R1100336. Breather — left hand side in block below manifold.	89037660			
CORONA 2000	1968cc 18R engine O.H.C.	1973-1975	4	Up to engine no. 18R-1010347. Oil gallery plugs on cylinder head — no. Water holes — 2 at left hand front (manifold), side of cylinder head. Sump — front well.	89038243			
	1968cc 18R engine O.H.C.	1973-1976	4	From engine no. 18R-1010348 to 18R-1394869. of cylinder head. Oil gallery plugs — at right hand front corner, Sump — front well. Water holes — 3 at left hand side of cylinder head.	89038244			
	1968cc OHC 18RC engine 4 door sedan Does not suit 2 door	1976-1980	4	From engine no. 18R-1394870. Injection plugs — over nos. 2, 3 and 4 exhaust ports, Round exhaust gas hole immediately above inlet port no 4, Sump — front well. Two 8mm bolts diagonally opposed at left hand side of cylinder head.	89038245			
	1968cc OHC 18RC engine 2 door hatchback Emission model	1976-1980	4	From engine no. 18R-1394870. Injection plugs — over nos. 2, 3 and 4 exhaust ports, Round exhaust gas hole immediately above inlet port no 4, Sump — front well. Sump plug — right hand side. Two 8mm bolts diagonally opposed at left hand side of cylinder head.	89038221			
CORONA	1829cc Starfire engine O.H.V.	Oct. 1979- 1981	4	Engine no. prefix — IXN., Sump — centre well. Not air injection model.	89038246			
	1829cc O.H.V. Starfire engine	Feb. 1982- 1983	4	Engine no. prefix — IXN. Air injection — cylinder head has provision. Air conditioner — mounts on cylinder head. Sump — centre well. Two lugs cast on left hand side of block for air pump bracket	89038247			
	1972cc 21R-C engine O.H.C.	1981-1983	4	Engine no. prefix — 21R on left hand side of block at front, Oil filter — horizontal right hand side. Sump — centre well.	89038248			
CORONA, AVANTE	1995cc 2S engine O.H.C.	1983-1987	4	Engine no. prefix — 2S. Camshaft — belt drive.	89038249		19101086	
	22RE engine 2366cc E.F.I. O.H.C.	1984-1987	4	Engine no. prefix — 22R under no. 2 spark plug, Camshaft — chain drive.	89038250		19101088	
CROWN 2000	1994cc 5R engine O.H.V.	1968-1971	4	Early model. Up to engine no. 5R1201000. Camshaft — gear driven. Water pump — on cylinder head.	89038256			
	1994cc 5R engine O.H.C.	1971-1975	4	Late model. From engine no. 5R1201001 to 5R1602810. Camshaft — chain drive. Water pump — on block. Pulley spigot diameter — 25mm. Rocker cover — tin.	89038257			
LEXCEN VN	3.8 litre VN19 - VN35 Manual and automatic	1989	V6	Early model. Engine no. prefix — VH. Crankshaft — flange at rear end. Two piece, wick seal. Flywheel — 6 bolt. Manual.	89037897		19101045	H2
	3.8 litre VN19 - VN35 Manual and automatic	1989	V6	Early model. Engine no. prefix — VH. Crankshaft — flange at rear end. Two piece, wick seal. Flywheel — 6 bolt. Automatic.	89037898		19101045	H2

NOTES:

H2: Head bolts in kit.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
LEXCEN VN - VP	3.8 Litre Manual and Automatic	1992	V6	Engine no. prefix — VH. EV6 cast on block. Crankshaft — full circle seal. Flywheel — 8 bolt.	89037900		19101046	H2
ECHO	1.3 litre 2NZ-FE engine E.F.I.	1999-	4	Engine no. prefix — 2NZ-FE left hand side, centre under inlet manifold. Camshaft — chain drive.	19101196			
STARLET	1.3 litre 4E-FE engine D.O.H.C. E.F.I.	1996-	4	Engine no. prefix — 4E-FE. Valves — 16.	17803626			
SPRINTER COUPE	1587cc 4AC engine O.H.C. Super Responsive	1983-	4	Engine no. prefix — 4AC. 4A identification on rocker cover. Distributor — rear left hand side. Camshaft — belt drive. Sump — front well.	89038237		19101090	
TERCEL WAGON	1452cc 3AC engine O.H.C.	1983-1986	4	Engine no. prefix — 3AC near left hand side. Distributor — rear left hand side. Oil filter — horizontal left hand side. Dipstick — in timing cover. Sump — front well.	89038264			
MR2 AW11	1587cc 4AGEL engine D.O.H.C. E.F.I.	1987-1989	4	Engine no. prefix — 4A on front top left hand, side of block. Camshaft — belt drive.	89038263			
MR2 SW20	1998cc 3SGE engine D.O.H.C. E.F.I.	1990-	4	Engine no. prefix — 3S below distributor. Camshaft — belt drive.	19101197			
DYNA , MICROBUS	1994cc 5R engine O.H.V.	1968-1971	4	Early model. Up to engine no. 5R1201000. Camshaft — gear driven. Rocker cover — aluminium. Water pump — on cylinder head.	89038256			
	1994cc 5R engine O.H.V.	1971-1975	4	Late model. From engine no. 5R1201001 to 5R16002810. C/pulley spigot diameter — 25mm. Camshaft — chain driven. Rocker cover — tin. Sump — front well. Water pump — on block.	89038257			
DYNA 2000, COASTER, TOYO-ACE	1994cc 5R engine O.H.V.	1975-1977	4	Late, late engine. From engine no. 5R1602811 to 5R1747464. C/pulley spigot diameter — 29mm. Dipstick — front right hand side. Rocker cover — tin. Sump — front well.	89037662			
	1994cc 5R engine O.H.V.	1977-1980	4	From engine no. 5R1747465. 5R stamped on front of distributor. C/pulley spigot diameter — 29mm. Dipstick — rear at side plate. Rocker cover — tin. Sump — rear well. Air injection — no.	89037655			
	1994cc 5R engine O.H.V.	1980-1984	4	From engine no. 5R1747465. 5R stamped on front of distributor. C/pulley spigot diameter — 29mm. Dipstick — rear at side plate. Rocker cover — tin. Sump — rear well. Air injection — yes.	89038268			
DYNA, STOUT	1994cc 2.0 litre 5R engine O.H.V.	1975-1977	4	5R identification at front of distributor. Cast no. on block — 11411-44011, 44021 or 44022. C/pulley spigot diameter — 29mm. Camshaft — chain drive. Sump — front well with plug at centre.	89038269			
COASTER	22R engine 2366cc O.H.V.	1984-	4	Engine no. prefix — 22R. Cast no. on block — 11411-35020.	89038270			
DYNA YU60	1998cc 3YC engine 100 - 150 series O.H.V.	1985-1986	4	Engine no. prefix — 3Y. Sump — rear well.	89037658		19101091	
DYNA YH81	1812cc OHV 2YC engine 100 - 150 series Unleaded fuel	1986-1990	4	Engine no. prefix — 2Y on block above oil Filter, Sump — rear well.	89037657		19101089	
DYNA YU62	2237cc OHV 4YC engine Carburettor Unleaded fuel	1987-1990	4	Engine no. prefix — 4Y on block above oil Filter, Sump — rear well.	89037659		19101092	
HI-ACE	1587cc 12R engine O.H.V.	June 1971-1975	4	Early model. Up to engine no. 12R1100336. Breather — left hand side in block below manifold	89037660			
	1587cc 12R engine O.H.V.	1975-Aug. 1978	4	Late model. From engine no. 12R1100337 to, 12R1809409. Breather — right hand side has elbow pipe on side plate. Water pump — block has small vertical water Jacket hole. No air injection.	89037661			
	1587cc 12R engine O.H.V.	Aug. 1978-1984	4	Late, late model. 31022 no. cast on left hand side of block in front of filter. From engine no. 12R1809410. Water pump — block has large diagonal water jacket hole. Air injection.	89037663			
	2.0 litre 18R engine 1968cc O.H.C.	1978-1979	4	From engine no. 18R1010348 to 18R1394869, Oil gallery plugs — at right hand side front corner of cylinder head, Sump — centre well. Water holes — 3 at front left hand side of cylinder head	89038272			
	1968cc 18R engine 2.0 litre O.H.C.	1980-1982	4	Two 8mm bolts holes diagonally opposed at left hand side of cylinder head. Round exhaust gas hole immediately above inlet port no. 4. From engine no. 18R1394870. Sump — centre well. Injector plugs — over nos. 2, 3 and 4 exhaust ports	89038273			
	1812cc 2Y engine O.H.V.	Feb. 1983-1985	4	Engine no. prefix — 2Y. Cylinder head — aluminium. Rocker cover — steel. Sump — rear well.	89037657		19101089	
	1998cc 2WD 3Y engine O.H.V.	1983-1986	4	Engine no. prefix — 3Y. Rocker cover — steel. Sump — rear well.	89037658		19101091	
	2237cc 4YC engine O.H.V.	1986-1989	4	Engine no. prefix — 4Y.	89037659		19101092	
	2438cc 2RZ engine S.O.H.C.	1989	4	Engine no. prefix — 2RZ on left hand side of, block at lower section. Valves — 8. Carburettor model.	89038274		19101080	H2
	2438cc 2RZ engine S.O.H.C.	1989	4	Engine no. prefix — 2RZ on left hand side of, block at lower section. Valves — 8. E.F.I. model.	17803601		19101080	H2

NOTES:

H2: Head bolts in kit.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
TOYOTA (CONT.)								
HI-LUX	1587cc 12R engine O.H.V.	1971-1975	4	Early model. Up to engine no. 12R1100336. Breather — left hand side in block below manifold.	89037660			
	1587cc 12R engine (Not Hi-Lux 4x4) O.H.V.	1975-Aug. 1978	4	Late model. From engine no. 12R1100337 to 12R1809409, 11411-31021 no. cast on left hand side of block. Breather — right hand side with elbow pipe on side plate. No air injection. Water pump — block has small vertical water jacket hole.	89037661			
	1587cc OHV 12R engine (Not Hi-Lux 4x4) Air injection	Aug. 1974-1984	4	Late, late model. From engine no. 1809410. 31022 no. cast on left hand side of block in front of oil filter, Air injection. Water pump — block has large diagonal water jacket hole.	89037663			
HI-LUX, SR5 UTILITY	1968cc 18R engine 2.0 litre O.H.C.	1978-1979	4	From engine no. 18R1010348 to 18R1394869, No air injection. Oil gallery plugs — at right hand front corner of cylinder head, Sump — centre well. Water holes — 3 at front left hand side of cylinder head.	89038272	M24		
HI-LUX	1968cc OHC 18R-C engine Commercial type, 2.0 litre	1980-1984	4	From engine no. 18R1394870. Injector plugs — over nos. 2, 3 & 4 exhaust ports. Round exhaust gas hole immediately above port 4, Sump — centre well. Sump plug — left hand side. Two 8mm bolt holes diagonally opposed at left hand side of cylinder head.	89038273	M24		
HI-LUX 4WD	1968cc OHC 18R engine 2.0 litre 4WD	1981-1984	4	Engine mount — 3 bolt left hand side. Sump — rear well with protection plate. Injector plugs — over nos. 2, 3 and 4 exhaust ports. Round exhaust gas hole immediately above port 4. Two 8mm bolt holes diagonally opposed at left hand side of cylinder head.	89038275			
HI-LUX UTILITY	1812cc OHV 2Y engine Unleaded fuel 2WD	1978-1988	4	Engine no. prefix — 2Y on block above oil filter, Sump — rear well with square shape.	89037657		19101089	
	1998cc OHV 2WD 3Y engine Leaded fuel	1983-1986	4	Engine no. prefix — 3Y. Sump — rear well with square shape.	89037658		19101091	
HI-LUX, 4 RUNNER	1998cc OHV 3Y engine 4WD Leaded fuel	1983-1986	4	Engine no. prefix — 3Y. Sump — rear well with oval shape.	89038277		19101091	
	2237cc OHV 4WD 4YC engine Unleaded	1986-1989	4	Engine no. prefix — 4Y on block above oil filter, Sump — rear well with square shape.	89038278		19101092	
	22R engine 2366cc OHC Unleaded fuel	1988	4	Engine no. prefix — 22R on block behind alternator, Camshaft — chain drive. Sump — rear well with oval shape. 4WD.	89038279		19101088	
4 RUNNER	2959cc 3VZ-E engine	1990-Aug. 1992	V6	Engine no. prefix — 3VZ-E. Adjustable tensioner.	17803630		19101098	H1 H2
	2959cc 3VZ-E engine	Sep. 1992-1996	V6	Engine no. prefix — 3VZ-E. Hydraulic tensioner.	17803631		19101098	H1 H2
HI-LUX	2.7 litre 3RZ-FE engine D.O.H.C.	1997-	4	Block casting no. — 3RZ. Valves — 16. Dipstick — in block. Inlet ports — round. Coil pack. Cam angle sensor. Sump — rear well, two step. 2WD.	17803602			
	2.7 litre 3RZ-FE engine D.O.H.C.	1997-	4	Block casting no. — 3RZ. Valves — 16. Dipstick — in block. Inlet ports — round. Coil pack. Cam angle sensor. Sump — rear well, single step. 4WD.	17803603			
PRADO	2.7 litre 3RZ-FE engine D.O.H.C.	1996-Aug. 2002	4	Block casting no. — 3RZ. Valves — 16. Dipstick — in timing cover. Sump — front well, two bowl. Distributor type.	17803605			
	2.7 litre DOHC 3RZ-FE engine Inlet ports — oval.	Sep. 2002-	4	Block casting no. — 3RZ. Valves — 16. Cam angle sensor in cylinder head. Coil pack. Dipstick — in timing cover. Sump — front well, two bowl.	17803604		19101081	H1
	3.0 litre 1KZ-TE engine Turbo Diesel	2000	4	Block casting no. — 1KZ. Intercooled.	17803614			
	5VZ-FE engine D.O.H.C.	July 1996	V6	Engine no. prefix — 5VZ-FE. Valves — 16.	17803633		19101100	H1 H2
RAV 4	1998cc 3SFE engine D.O.H.C. E.F.I.	July 1994	4	Engine no. prefix — 3SFE. Valves — 16. Different to Camry.	19101199			
	2.0 litre 1AZ-FE engine D.O.H.C.	July 2000-2003	4	Engine no. prefix — 1AZ on left hand side, rear of bell housing. Valves — 16. Sump — front well, two piece alloy with tin pan. Oil filter — front left hand side of sump.	19101200			
	2.4 litre 2AZ-FE engine D.O.H.C.	2003-	4	Engine no. prefix — 2AZ on left hand side of bell housing, Valves — 16.	19101204			
LITE-ACE	1290cc 4K engine O.H.V.	1980-1984	4	Engine no. prefix — 4K. 4KC identification on rocker cover. Air injection provision on cylinder head. Sump — well 182mm deep.	89038281			
	1812cc 2Y engine	1984-1986	4	Engine no. prefix — 2Y on right hand side of, centre of block. Sump — front well.	89038282		19101089	

NOTES:

M24: Does not suit Hi-Lux 4x4 with different sump. 4x4 has three bolt mount.

H1: Pair of heads.

H2: Head bolts in kit.

REMANUFACTURED ENGINES / CYLINDER HEADS

- CARS & LIGHT COMMERCIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
LITE-ACE, TOWN ACE	1998cc 3Y engine O.H.V. Unleaded fuel	1986-1988	4	Engine no. prefix — 3Y on right hand side of centre of block, Sump — front well.	89037664		19101091	
LITE-ACE	1486cc 5K-C engine O.H.V. Unleaded fuel	1986-1989	4	Engine no. prefix — 5K behind distributor. Sump — front well.	89038283			
TOWN-ACE	1.8 litre 7K-C engine	1997-	4	Engine no. prefix — 7K.	19101193			
TARAGO	1812cc 2Y engine O.H.V.	1982-1984	4	Engine no. prefix — 2Y above oil filter. cylinder head — aluminium. Rocker cover — steel. Sump — front well.	89038282		19101089	
	1998cc 3Y engine O.H.V.	1984-1989	4	Engine no. prefix — 3Y above oil filter. Cylinder head — aluminium. Sump — front well.	89037664		19101091	
	2237cc 4YEC engine O.H.V.	1985-1989	4	Engine no. prefix — 4YE above oil filter. Cylinder head — aluminium. Sump — front well.	89038284		19101092	
	2438cc 2TZ engine	1990-2000	4	Engine no. prefix — 2TZ.	89038285		19101087	H2
	2.4 litre 2AZ-FE engine D.O.H.C.	2000-	4	Engine no. prefix — 2AZ on left hand side rear of bell housing, Oil filter — front left hand side of sump. Sump — front well, two piece alloy with tin pan. Valves — 16.	19101202			
F SERIES	3873cc Landcruiser 155hp O.H.V. Petrol	1959-1972	6	Engine no. F294920 - F500001. Overhead oil fee pipe. Oil filter — left hand side. Side plates — rocker cover may vary.	89038286			
	3878cc Landcruiser 155hp O.H.V. Petrol	1972-1975	6	Engine no. F500002 - on. Overhead oil feed pipe. Oil filter — right hand side. Side plates — rocker cover may vary.	89038287			
2F SERIES	4230cc Landcruiser FJ40 / 45 / 55 / 60 Petrol	1975-1985	6	Engine no. prefix — 2F behind distributor. Non-power steering. Oil filter — right hand side.	89038288			
	4230cc Landcruiser FJ40 / 45 / 55 / 60	1975-1985	6	Engine no. prefix — 2F behind distributor. Power steering. Oil filter — right hand side.	89038289			
3F SERIES	3955cc OHV Carburettor and E.F.I. Landcruiser FJ62 / 70 / 73 / 75 / 80	1986- July 1989	6	Engine no. prefix — 3F behind distributor. Carburettor. Sump — one step. Flywheel bolts — 10 mm.	89038290			
	3955cc OHV Carburettor and E.F.I. Landcruiser FJ62 / 70 / 73 / 75 / 80	Aug. 1989- 1992	6	Engine no. prefix — 3F behind distributor. Two lugs cast along sump rail at rear of block each side. Sump — two step. Flywheel bolts — 11 mm.	17803623			
	3955cc Landcruiser FJ80 O.H.V.	1990-1992	6	Engine no. prefix — 3F. Two lugs along sump rail at rear of block each side. Air injected. Flywheel bolts — 11 mm. Inlet ports — tear drop. Sump — two step. E.F.I.	89038291			
H SERIES	3576cc Diesel Dyna - Landcruiser	1969-1972	6	Early model. Engine mount — 4 bolt holes in block. Injectors — screw in type.	89038292			
	3576cc Dyna - Landcruiser Diesel	1979-1982	6	Late model. Engine mount — 6 bolt holes in block. Injectors — screw in type.	89038293			
2H SERIES	3980cc Dyna - Landcruiser Diesel	Up to 1985	6	Engine no. prefix — 2H. Block casting no. 68010.	89038294			
	3980cc Diesel Landcruiser - Coaster Bus	1985-	6	Engine no. prefix — 2H. Block casting no. 68020.	89038295			
	3980cc Diesel Landcruiser - Coaster Bus	1985-	6	Engine no. prefix — 2H. Block casting no. 68030.	89038296			
L SERIES	2188cc Blizzard (4WD) Hi-Ace, Hi-Lux 1 Tonne Toyo-Ace 1.3 and 2 Tonne	1979-1982	4	Engine no. prefix — L on block face. Timing belt — square tooth. Flywheel — 6 bolts. Sump — variations apply. Water pump — 5 bolt.	89038297			
	2188cc Blizzard (4WD) Hi-Ace, Hi-Lux 1 Tonne Toyo-Ace 1.3 and 2 Tonne	1981-1983	4	Engine no. prefix — L on machined pad front left hand side of block. Timing belt — round tooth. Sump — variations apply. Flywheel — 6 bolts. Water pump — 5 bolt.	89038298			
	2188cc Blizzard (4WD) Toyo-Ace 1.3 and 2 Tonne Hi-Ace, Hi-Lux 1 Tonne	1983-1984	4	Engine no. prefix — L on machined pad front left hand side of block. Injector pump — mounts onto additional bolt holes below no. 2 welsh plug. Flywheel — 6 bolts. Sump — variations apply. Timing belt — round tooth. Water pump — 5 bolt.	89038299			
HI-ACE	2L / 3L / 5L engine	1984- Aug. 1998	4	Early model 2L. Engine no. prefix — 2L. Sump — centre well with a wing pan. Rocker cover — alloy. Flywheel — 6 bolts.	89038297			
HI-LUX 2WD	2L / 3L / 4L engine	1984- Aug. 1988	4	Early model 2L. Engine no. prefix — 2L. Sump — rear well, winged. Rocker cover — alloy. Flywheel — 6 bolts.	89038300			
	2L / 3L / 4L engine	1987- Aug. 1988	4	Early model 2L. Engine no. prefix — 2L. Sump — rear well, winged. Rocker cover — alloy. Flywheel — 8 bolts.	89038301			
	2L / 3L / 4L engine	Sep. 1988 -	4	Late model 2L. Engine no. prefix — 2L. Sump — rear well, winged. Rocker cover — tin. Flywheel — 8 bolts.	89038302			
	2L / 3L / 4L engine	1989-	4	Model 3L. Engine no. prefix — 3L. Sump — rear well, winged. Rocker cover — tin.	89038303		19101082	H2
	2L / 3L / 4L engine	1997- Aug. 2000	4	Model 5L. Engine no. prefix — 5L. Sump — rear well, winged. Crank angle sensor — no.	17803609			

NOTES:

H2: Head bolts in kit.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
TOYOTA (CONT.)								
HI-LUX 2WD	2L / 3L / 4L engine	Sep. 2000 -	4	Engine no. prefix — 5L. Sump — rear well, winged. Crank angle sensor — left hand side behind dipstick hole	17803610			
HI-LUX 4WD, 4 RUNNER, SURF	2L / 3L / 5L / 1KZ engine With independent front suspension	1988-	4	Late model 2L. Engine no. prefix — 2L. Rocker cover — tin. Sump — centre well, winged on left hand side. Turbo — yes., Crank angle sensor — no.	17803608			
	2L / 3L / 5L / 1KZ engine With independent front suspension	1988-	4	Turbo — yes. Crank angle sensor — left hand side behind dipstick hole.	17803607			
HI-LUX	3.0 litre 1KZ engine Turbo	Dec. 1999 -	4	Model 1KZ. Sump — rear well, two stepped with little front wing on left hand side and with oil level sensor, Engine no. prefix — 1KZ. Dipstick — left hand side of block.	17803612			
SURF	3.0 litre 1KZ engine Turbo	1997-	4	Model 1KZ. Engine no. prefix — 1KZ., Sump — rear well, two stepped with little front wing left hand side.	17803613			
1HZ	4164cc Coaster Bus Landcruiser S.O.H.C.	1990- April 1998	6	Engine no. prefix — 1HZ. Spring tensioner. Indirect injection.	17803618			
	4164cc Coaster Bus Landcruiser	May 1998-	6	Engine no. prefix — 1HZ. Hydraulic tensioner. Indirect injection.	17803617			
1HD-T	4164cc Landcruiser Turbo	1990- April 1998	6	Engine no. prefix — 1HD. Direct injection. Spring tensioner.	17803616			
	4164cc Landcruiser Turbo	May 1998-	6	Engine no. prefix — 1HD. Direct injection. Hydraulic tensioner.	17803615			
1FZ-FE	4477cc D.O.H.C. Landcruiser	1992-1997	6	Engine no. prefix — 1FZ. Valves — 24. 80 series. Distributor type.	17803619			
	4477cc D.O.H.C. Landcruiser	1998-	6	Engine no. prefix — 1FZ. Valves — 24. 100 series. Coil pack.	17803620			
B SERIES	2977cc OHV 6 bolt crank Coaster BU19, Landcruiser BJ40-43 Dyna BU-10 - 12 - 15 - 20 - 30	1972- Aug. 1988	4	Block casting no. — B on rear left hand side. Casting no. 56010. Flywheel bolts — 12mm. Timing gears — course.	89038304			
	2977cc OHV 6 bolt crank Coaster BU19, Landcruiser BJ40-43 Dyna BU-10 - 12 - 15 - 20 - 30	1972- Aug. 1988	4	Block casting no. — B on rear left hand side. Casting no. 56020. Flywheel bolts — 12mm. Timing gears — course.	89038305			
	2977cc OHV 6 bolt crank Coaster BU19, Landcruiser BJ40-43 Dyna BU-10 - 12 - 15 - 20 - 30	1972- Aug. 1988	4	Block casting no. — B on rear left hand side. Casting no. 56030. Flywheel bolts — 12mm. Timing gears — course.	89038306			
	2977cc OHV 6 bolt crank Coaster BU19, Landcruiser BJ40-43 Dyna BU-10 - 12 - 15 - 20 - 30	1972- Aug. 1988	4	Block casting no. — B on rear left hand side. Casting no. 56040. Flywheel bolts — 13mm. Timing gears — course.	89038307			
	2977cc OHV 6 bolt crank Coaster BU19, Landcruiser BJ40-43 Dyna BU-10 - 12 - 15 - 20 - 30	1972- Aug. 1988	4	Block casting no. — B on rear left hand side. Casting no. 56050. Flywheel bolts — 13mm. Timing gears — course.	89038308			
	2977cc OHV 6 bolt crank Coaster BU19, Landcruiser BJ40-43 Dyna BU-10 - 12 - 15 - 20 - 30	1972- Aug. 1988	4	Block casting no. — B on rear left hand side. Casting no. 56060. Flywheel bolts — 13mm.	89038309	M25		
	2977cc Dyna BU60 O.H.V.	Aug. 1988- 1995	4	Block casting no. — B on rear left hand side. Parent bore engine. Crank — 8 bolt. Roller cam.	17803606			
2B SERIES	3168cc Dyna B31 - Coaster BB10 - Landcruiser BJ41 - 44 O.H.V.	1977-1983	4	Block casting no. — 2B on rear left hand side. Casting no. 56010.	89038310			
	3168cc Dyna B31 - Coaster BB10 - Landcruiser BJ41 - 44 O.H.V.	1977-1983	4	Block casting no. — 2B on rear left hand side. Casting no. 56020.	89038311			
	3168cc Dyna B31 - Coaster BB10 - Landcruiser BJ41 - 44 O.H.V.	1977-1983	4	Block casting no. — 2B on rear left hand side. Casting no. 56030.	89038312			
	3168cc Dyna B31 - Coaster BB10 - Landcruiser BJ41 - 44 O.H.V.	1977-1983	4	Block casting no. — 2B on rear left hand side. Casting no. 56040.	89038313			
	3168cc OHV Coaster BB10 Dyna B31 Landcruiser BJ41-44	1977-1983	4	Casting no. 56050.	89038314			
	3168cc OHV Coaster BB10 Dyna B31 Landcruiser BJ41-44	1977-1983	4	Casting no. 56060.	89038315			
3B SERIES	3431cc OHV 6 bolt crank Coaster BB-20 , Landcruiser BJ-60 Dyna BU21-36	1980- Aug. 1988	4	Block casting no. — 3B on rear left hand side. Casting no. 56010. Timing gears — course.	89038316	M26		
	3431cc OHV 6 bolt crank Coaster BB-20 , Landcruiser BJ-60 Dyna BU21-36	1980- Aug. 1988	4	Block casting no. — 3B on rear left hand side. Casting no. 56020. Timing gears — course.	89038317	M26		

NOTES:

M25: Must quote course or fine tooth timing gears.

M26: Must quote 2 or 3 bolt injector pump mounting.



Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine Ass. No.	Notes	Cyl. Head No.	Notes
ASIA								
ROCSTA	1800cc F8 engine	1994-	4	Engine no. prefix — F8. Valves — 8. Flywheel bolts — 8.	19101186		19101065	
	2200cc R2 engine Diesel	1993-	4	Cast on block — HW (same as a R2 Mazda).	89037788			
BEDFORD								
CF CFL	202 cu. in. O.H.V.	1978-1981	6	202 or 3.3 cast on near side of cylinder block, Sump — rear well.	89037578			
ED EF	308 cu. in. O.H.V.	1979-1981	V8	Bell housing dowels 5/8". E.G.R. — U-shape port centre position. Sump — rear well.	89037579			
	253 cu. in. O.H.V.	1980-	V8	Bell housing dowels 5/8". E.G.R. — U-shape port centre position. Sump — rear well.	89037580			
BEDFORD	250 cu. in. Non-compressor type Petrol	1973-1978	6	Side plates - 12" x 4". Mexican Chev. motor. *Some 214 cu. in. models are "cab-over" type and require threaded holes on right-hand side at front of cylinder head to accept gear change mechanism.*	89037586			
	292 cu. in. Compressor type Petrol	1973-1978	6	Side plates — 12" x 6". Mexican Chev. motor.	89037587			
	292 cu. in. Non-compressor type Petrol	1973-1978	6	Side plates — 12" x 6". Mexican Chev. motor.	89037588			
CHRYSLER								
AT4	225 cu. in. C series engine O.H.V. Standard - 145 hp	1962-1966	6	Flywheel — mounting box 1.960" diameter. Torque converter — pilot bore in crankshaft, 1.555" diameter.	89037617			
	225 cu. in. D series engine O.H.V. Standard - 145 hp	1966-1970	6	Flywheel — mounting box 2.159" diameter. Torque converter — pilot bore in crankshaft, 1.814" diameter.	89037618			
AT4 TRUCK	Phase 11-D3F-DFN 245 cu. in. OHV Low compression Hemi series	1970-	6	Engine no. prefix — D6. Bell housing — 1 bolt hole and 1 dowel per side. Other variations per left hand side as below, 3 bolt holes and 1 dowel = LM734. 2 bolt holes and 1 dowel = LM733.	89037619			
DODGE	318 cu. in. AT4 Petrol	1965-1967	V8	Offset valve. Valve lifters — solid. Rocker cover — 2 bolts.	89037620			
	318 cu. in. Petrol	1968-1980	V8	In-line valve. Rocker cover — 5 bolts. Inlet manifold — has large exhaust ports. Entry Shape.	89037621	M27		
	318 cu. in. Petrol	1968-1980	V8	In-line valve. Rocker cover — 5 bolts. Inlet manifold — has small exhaust ports. Entry Shape.	89037622	M27		
	361 cu. in. Petrol	1959-1978	V8	Camshaft — gear drive. Crank flange (rear) — 6 bolts.	89037623			
	361 cu. in. Petrol	1959-1978	V8	Camshaft — chain drive. Crank flange (rear) — 8 bolts.	89037624			
	361 cu. in. Petrol	1959-1978	V8	Engine no. prefix — H&I. Camshaft — chain drive. Crank flange (rear) — 8 bolts.	89037625			
	361 cu. in. Petrol	1959-1978	V8	Engine no. prefix — H&I. Camshaft — gear drive. Crank flange (rear) — 6 bolts.	89037626			
HINO								
HINO EC100	5010 cu. in. Diesel	1969-	6	EC100 cast on block. Injector pump — either pressure-fed or non-pressure-fed (customer to advise).	89037810			
HINO EH100	5871 cu. in. Diesel	1972	6	Injector pump — either pressure-fed or non-pressure-fed (customer to advise).	89037811			
HINO EH300	3211 cu. in. Diesel		6	Injector pump — non-pressure-fed.	89037812			
HINO (FD17 SERIES)	7982 cu. in. EH700 Diesel		6	Early model. Brake — vacuum pump. Direct injection.	89037813			
	7982 cu. in. EH700 Diesel		6	Late model. Direct injection. Brake — air compressor mounted on timing cover. Heater element in inlet manifold.	89037814			
HINO (FD16 SERIES)	H07CE	1985	6		89037815			
INTERNATIONAL								
INTERNATIONAL 264	Petrol Tilt valve	1950-	6	Engine no. prefix — ABD or AGD264. Filter — full flow.	89037961	M28		
INTERNATIONAL 282	Tilt valve Petrol	1950-	6	Engine no. prefix — 6-281, 6-282 or AGD282. Filter — full flow.	89037962	M28		
INTERNATIONAL 345	ACCO series C line Petrol	1959-1980	V8	Cylinder head — has shallow curvature and almost heart-shaped chamber. Inlet port — approx. 350mm x 600mm. ** Scout has 304-type chamber and must be fitted to flat-top pistons. Sump change required **.	89037963	M29		

NOTES:

M27: If 318 engine is to suit industrial application (eg. forklift, etc), then identification of crankshaft flange (6 or 8 bolt) is required.

M28: Check if oil filter is fitted to engine block or to manifold.

M29: Check if breather is in rocker cover or valley cover. Check if sump has oil return line in side.

REMANUFACTURED ENGINES / CYLINDER HEADS

- TRUCK & INDUSTRIAL -

Make and Model Details		Year	Cyl.	OEM Engine Identification	Engine No.	Notes	Cyl. Head No.	Notes
	510A - 610 series Petrol Scout	1959-1980	V8	Sump and oil pump different to ACCO model 510A and 610A]	89037964	M29		
	510A - 610 series Petrol Scout	1959-1980	V8	Scout — flat top pistons only. Sump — rear well.	89037965			
INTERNATIONAL 392	Petrol		V8	Early model. Water pipe comes out of front of block and, connects to cylinder heads.	89037966			
	Petrol		V8	Late model. Waterpipe comes out of front of block and, connects back into block. (Some early models have "by-pass" system).	89037967			
INTERNATIONAL D358	Neuss Diesel Turbo	1966-	6		89037972			
ISUZU								
ISUZU 4BA1	2775cc	1981-1983	4	TLD 24, 34, 44, 54, 64. 4BA1 cast on left hand side of block at centre. Thermostat — 4 bolt at front of head.	89037977			
	2775cc	1981-1983	4	Thermostat — 6 bolts at front of head.	89037978			
ISUZU 4BB1	3595cc	1973-1979	4	4BB1 cast on left hand side of block. ELF — BE20.	89037979			
ISUZU 4BC1	3268cc	1980-1982	4	4BC1 cast on block at front left hand side, next to engine mount.	89037980			
ISUZU 4BC2	3268cc	1982-1987	4	4BC2 cast on block. Bell housing — 8 bolts.	89037981			
	3268cc	1982-1987	4	Bell housing — 6 bolts.	89037982			
ISUZU 4HF1	4334cc	1992- Dec. 1993	4	4HF1 cast on block. Course gears. Casting no. — 104479.	17803530			
	4334cc	Dec. 1993- April 1996	4	Fine gears. Casting no. — 491515.	17803531			
ISUZU C190	1951cc Diesel Elf	1971-	4	C190 cast on left hand side of block. Engine mount — 2 bolt.	89037999			
ISUZU C240	2369cc Diesel Elf	1970-	4		89038003			
ISUZU 4BD1	3856cc	1979-	4	Engine no. prefix — 4BD1.	89037983			
ISUZU 4BD1T	3856cc Turbo	1980-	4	Engine no. prefix — 4BD1T.	89037984			
ISUZU 4BE1	3636cc	1987-	4	4BE1 cast on block.	17803527			
ISUZU 6BB1		1972-1976	6	Early model. Engine no. prefix — 6BB1. Crankshaft — splined nose. Thermostat housing — 8 bolts.	89037988			
		1976-	6	Late model. Engine no. prefix — 6BB1. Crankshaft — tapered nose. Thermostat housing — 6 bolts. Crankshaft nose — 42mm.	89037989	M30		
		1976-	6	Late model. Engine no. prefix — 6BB1. Crankshaft — tapered nose. Thermostat housing — 6 bolts. Crankshaft nose — 52mm.	89037990	M30		
ISUZU 6BD1	Non compressor type Non turbo	1976-	6	Crankshaft — tapered nose. Thermostat housing — 6 bolt. Vacuum pump. Crankshaft nose — 42mm.	89037991	M30		
	Non compressor type Non turbo	1976-	6	Crankshaft — tapered nose. Thermostat housing — 6 bolt. Vacuum pump. Crankshaft nose — 52mm.	89037992	M30		
	Compressor type Non turbo	1976-	6	Power steering — equipped. Crankshaft — tapered nose. Thermostat — 8 bolt. Crankshaft nose — 42mm.	89037993	M30		
	Compressor type Non turbo	1976-	6	Power steering — equipped. Crankshaft — tapered nose. Crankshaft nose — 52mm.	89037994			
ISUZU 6BD1T	Compressor type Turbo	1983-	6	Power steering — equipped. Crankshaft — tapered nose. Roller lifters.	89037995			
ISUZU 6BG1	Non turbo.	1984-	6	Roller lifters. Engine no. prefix — 6BG1. Non turbo.	89037996			
	Turbo.	1984-	6	Roller lifters. Engine no. prefix — 6BG1T. Turbo.	89037997			
MERCEDES								
MERCEDES OM355	11.6 litre Diesel		6	Engine no. prefix — 355910 or 355914. Water pump — side mounted.	89038025			
	11.6 litre Diesel		6	Engine no. prefix — 355960 or 355962. Water pump — front mounted., Not balance shaft engine.	89038026			
MERCEDES OM360	8.72 litre Diesel		6		89038027			

NOTES:

M29: Check if breather is in rocker cover or valley cover. Check if sump has oil return line in side.

M30: Crankshaft nose distance measured from timing cover to end of nose. Timing cover variations may exist requiring old.



Part No.	Make	Model	Year	Cyl.
17803504	DAIHATSU	CHARADE	93-98	3
17803507	DAIHATSU	MOVE	97-	3
17803508	DAIHATSU	MIRA	92-95	3
17803510	DAIHATSU	SIRION	98-	3
17803511	SUZUKI	G16B	85-95	4
17803512	SUZUKI	G16B	95-02	4
17803513	SUZUKI	G13BA	90-99	4
17803514	HOLDEN	BARINA SB	94-97	4
17803517	HOLDEN	BARINA SB	95-20	4
17803518	HOLDEN	BARINA SB	94-95	4
17803519	HYUNDAI	EXCEL X3, COUPE	94-May96	4
17803520	HYUNDAI	EXCEL X3	Jun96-	4
17803521	HYUNDAI	EXCEL X4	98-	4
17803522	HYUNDAI	TERRACAN	02-	V6
		SONATA	Oct.93-Mar.98	V6
17803523	HYUNDAI	SONATA	93-98	4
17803524	HYUNDAI	SONATA	98-	4
17803525	HYUNDAI	LANTRA, COUPE	95-	4
17803526	HYUNDAI	ELANTRA	Oct.00-	4
17803527	ISUZU	ISUZU 4BE1	80-	4
17803528	HOLDEN	RODEO	Nov.96-	4
	HOLDEN	EJ SERIES	Nov.96-	4
17803529	HOLDEN	JACKAROO	92-Jul.93	4
		JACKAROO	92-Jul.93	4
17803530	ISUZU	ISUZU 4HF1	92-	4
17803531	ISUZU	ISUZU 4HF1	Dec.93	4
17803537	HOLDEN	RODEO TF	Sep.93-98	4
17803538	HOLDEN	RODEO TF	98-	4
17803539	HOLDEN	JACKAROO	Oct.95-98	V6
17803540	HOLDEN	RODEO TF	98-	V6
17803541	HOLDEN	FRONTERA UT	95-99	4
17803542	HOLDEN	FRONTERA UT	99-	4
17803543	HOLDEN	COMMODORE VY SERIES II	99-Jul.03	V8
17803548	HOLDEN	COMMODORE VS / VT / VX	95-02	V6
17803549	HOLDEN	COMMODORE VY	02-	V6
17803550	HOLDEN	COMMODORE VX	Oct.00-	V6
17803551	HOLDEN	COMMODORE VX	Oct.00-	V6
17803552	HOLDEN	COMMODORE VY	Oct.02-	V6
17803553	HOLDEN	COMMODORE VY	Oct.02-	V6
17803554	DAEWOO	CIELO 1.5I	94-97	4
17803555	DAEWOO	CIELO 1.5I	94-97	4
17803556	DAEWOO	CIELO	95-	4
17803557	DAEWOO	CIELO	95-	4
17803558	DAEWOO	LANOS	97-	4
17803559	DAEWOO	NUBIRA	97-	4
17803560	DAEWOO	LANOS	97-	4
17803561	DAEWOO	LANOS	97-	4
17803562	DAEWOO	LANOS	97-	4
17803563	DAEWOO	LANOS	97-	4
17803564	DAEWOO	NUBIRA	97-	4
17803565	DAEWOO	NUBIRA	97-	4
17803566	DAEWOO	LEGANZA	97-99	4
17803567	DAEWOO	NUBIRA	98-	4
17803568	DAEWOO	NUBIRA	98-	4
17803569	HOLDEN	VECTRA JR / JS	97-	V6
17803570	HOLDEN	VECTRA JR / JS	97-00	4

Part No.	Make	Model	Year	Cyl.
17803571	HOLDEN	VECTRA JR / JS	97-00	4
17803572	HOLDEN	VECTRA JS	98-03	4
17803573	HOLDEN	VECTRA JS	98-03	4
17803574	HOLDEN	ASTRA TR	96-Sep.98	4
17803575	HOLDEN	ASTRA TS	98-	4
17803577	HOLDEN	ASTRA TR	96-	4
17803578	HOLDEN	ASTRA TR	96-Sep.98	4
17803581	HOLDEN	CALIBRA YE	93-	4
17803582	FORD	TRANSIT VAN	94-01	4
17803583	FORD	COURIER B2500	96-	4
	MAZDA	B2500, BRAVO, E2500	96-	4
17803584	FORD	COURIER B2500	96-	4
	MAZDA	B2500, BRAVO, E2500	96-	4
17803585	MAZDA	B2200	79-84	4
17803586	MAZDA	MAZDA 626		4
17803587	KIA	CARNIVAL	99-	V6
17803588	FORD	FESTIVA WD / WB II	Nov.97-	4
17803589	FORD	FESTIVA WD / WB II	Mar.97-Oct.97	4
	MAZDA	MAZDA 121	Oct.97-	4
17803590	FORD	FESTIVA WB / WB II	94-Feb.97	4
	MAZDA	MAZDA 121	90-	4
17803591	FORD	FESTIVA WF	98-	4
17803592	FORD	TELSTAR AX / AY	Jul.94-	4
	MAZDA	MAZDA 626	Jul.94-	4
17803593	MAZDA	MAZDA 323	01-	4
17803594	MAZDA	MAZDA 929	87-90	V6
17803595	FORD	TELSTAR AX / AY	93-97	V6
17803596	MAZDA	MAZDA 929	Aug.91-	V6
17803597	MAZDA	MAZDA 929	90-Aug.91	V6
17803598	FORD	LASER KJ	94	4
17803599	FORD	LASER KN / KQ	99-	4
	MAZDA	MAZDA 323	98-	4
17803600	FORD	LASER KQ	01-	4
	MAZDA	MAZDA 323	89-	4
17803601	TOYOTA	HI-ACE	89	4
17803602	TOYOTA	HI-LUX	97-	4
17803603	TOYOTA	HI-LUX	97-	4
17803604	TOYOTA	PRADO	Sep.02-	4
17803605	TOYOTA	PRADO	96-Aug.02	4
17803606	TOYOTA	B SERIES	Aug.88-95	4
17803607	TOYOTA	HI-LUX 4WD, 4 RUNNER, SURF	88-	4
17803608	TOYOTA	HI-LUX 4WD, 4 RUNNER, SURF	88-	4
17803609	TOYOTA	HI-LUX 2WD	97-Aug.00	4
17803610	TOYOTA	HI-LUX 2WD	Sep.00-	4
17803611	TOYOTA	11B SERIES	Aug.88-	4
17803612	TOYOTA	HI-LUX	Dec.99-	4
17803613	TOYOTA	SURF	97-	4
17803614	TOYOTA	PRADO	0	4
17803615	TOYOTA	1HD-T	May98-	6
17803616	TOYOTA	1HD-T	90-Apr.98	6
17803617	TOYOTA	1HZ	May98-	6
17803618	TOYOTA	1HZ	90-Apr.98	6
17803619	TOYOTA	1FZ-FE	92-97	6
17803620	TOYOTA	1FZ-FE	98-	6
17803623	TOYOTA	3F SERIES	Aug.89-92	6
17803624	HOLDEN	NOVA LG	94-97	4

REMANUFACTURED ENGINES

- NUMERICAL LISTINGS -

Part No.	Make	Model	Year	Cyl.	Part No.	Make	Model	Year	Cyl.
17803624	TOYOTA	COROLLA	94-Nov.99	4	17803680	FORD	F100 / F150 / F350	87-Sep.90	V8
17803625	TOYOTA	COROLLA	89-	4	17803681	FORD	F100 / F150 / F350	Oct.90-93	V8
17803626	TOYOTA	STARLET	96-	4	17803682	FORD	FALCON EL (S2)	Feb.98-	6
17803627	TOYOTA	CAMRY	97-03	4	17803683	FORD	FALCON EB / ED (S1), FAIRLANE NC	94	6
17803629	TOYOTA	CELICA	94-	4	17803684	FORD	FALCON AU	Aug.00-	6
17803630	TOYOTA	4 RUNNER	90-Aug.92	V6			FALCON AU	98-Aug.00	6
17803631	TOYOTA	4 RUNNER	Sep.92-96	V6	19101170	SUZUKI	G13BB	98-02	4
17803632	TOYOTA	CAMRY, AVALON, VIENTA	Aug.97	V6	19101171	SUZUKI	G16B	95-02	4
17803633	TOYOTA	PRADO	Jul-96	V6	19101172	SUZUKI	J20A	97-	4
17803634	MITSUBISHI	TRITON MK	96-May99	4	19101173	SUZUKI	H25A	98-	V6
17803635	MITSUBISHI	TRITON MK	Jun.99-	4	19101174	HYUNDAI	GETZ	02-	4
17803636	MITSUBISHI	TRITON MK	Jun.99-	4	19101175	HYUNDAI	SONATA	98-	V6
17803637	MITSUBISHI	CANTER	98-	4		KIA	SORENTO	Jan-03	V6
		PAJERO NJ / NK / NL	Apr.93-May99	4	19101176	KIA	SORENTO	03-	V6
17803638	MITSUBISHI	PAJERO NJ / NK / NL	Apr.93-May99	4	19101177	HOLDEN	JACKAROO	98-	V6
17803639	MITSUBISHI	PAJERO NL / NM	Jun.99-02	4	19101179	DAEWOO	LEGANZA	99-	4
17803640	MITSUBISHI	LANCER CE, MIRAGE	Jul-96	4	19101184	HOLDEN	ASTRA TS	02-	4
17803641	MITSUBISHI	EXPRESS, STARWAGON	83-Aug.91	4	19101186	ASIA	ROCSTA	94-	4
17803642	MITSUBISHI	EXPRESS, STARWAGON	Sep.91-Sep.94	4	19101187	FORD	MONDEO	95-97	4
17803643	MITSUBISHI	EXPRESS, STARWAGON	83-Aug.91	4	19101190	FORD	ECONOVAN	87-	4
17803644	MITSUBISHI	NIMBUS UC	87-91	4		MAZDA	E00 VAN	97-	4
17803645	MITSUBISHI	TRITON MK, CHALLENGER	96-Apr.99	V6	19101193	TOYOTA	TOWN-ACE	97-	4
17803646	MITSUBISHI	TRITON MK, CHALLENGER	May99-	V6	19101194	TOYOTA	3B SERIES	Aug.88-	4
17803647	MITSUBISHI	PAJERO NL	Sep.97-May00	V6	19101196	TOYOTA	ECHO	99-	4
17803648	MITSUBISHI	PAJERO NM	May00-	V6	19101197	TOYOTA	MR2 SW20	90-	4
17803649	MITSUBISHI	EXPRESS, STARWAGON	96-	4	19101199	TOYOTA	RAV 4	Jul-94	4
17803650	MITSUBISHI	LANCER CC	92-96	4	19101200	TOYOTA	RAV 4	Jul.00-03	4
17803651	PROTON	PERSONA, SATHIA, WIRA	95-	4	19101201	TOYOTA	AVENSIS	01-	4
17803652	MITSUBISHI	LANCER CC	92-96	4	19101202	TOYOTA	TARAGO	00-	4
17803653	MITSUBISHI	LANCER CE	96-	4			CAMRY	02-	4
17803654	MITSUBISHI	NIMBUS UF	92-Jul.92	4	19101204	TOYOTA	RAV 4	03-	4
17803655	MITSUBISHI	EXPRESS, STARWAGON	May92-May94	4	19101205	TOYOTA	COROLLA	01-	4
17803656	MITSUBISHI	MAGNA TE / TF	96-99	4	19101206	MITSUBISHI	EXPRESS, STARWAGON	83-Aug.91	4
17803657	MITSUBISHI	EXPRESS, STARWAGON	Jun.94-	4	19101207	MITSUBISHI	GALANT HG / HH	89-92	4
17803658	MITSUBISHI	EXPRESS, STARWAGON	Sep.94-	4	19101208	MITSUBISHI	GALANT HG / HH	89-92	4
17803659	MITSUBISHI	EXPRESS, STARWAGON	Sep.94-	4	19101209	NISSAN	PATROL GU	00-	6
17803660	MITSUBISHI	TRITON MK	96-	4	19101210	NISSAN	NAVARA	01-	4
17803661	MITSUBISHI	MAGNA TE / TF	96-	V6	19101211	NISSAN	NAVARA	97-01	4
17803662	MITSUBISHI	MAGNA, VERDA	99-	V6	19101212	NISSAN	PATHFINDER	Nov.95-	V6
17803663	NISSAN	NAVARA, URVAN	86-	4	19101213	FORD	FOCUS LR	02-	4
17803664	NISSAN	TERRANO	97-	4	19101214	FORD	FALCON AU	98-Aug.00	6
17803665	NISSAN	PATROL	Sep.95-	6	19101215	FORD	FALCON BA	Sep.02-	6
17803666	NISSAN	PATROL GU	99-	6	89037578	BEDFORD	CF CFL	78-81	6
17803667	NISSAN	PATROL GU	95-Aug.95	6	89037579	BEDFORD	ED EF	79-81	V8
17803668	NISSAN	PATROL GU	95-Aug.95	6	89037580	BEDFORD	ED EF	80-	V8
17803669	NISSAN	PATROL GU	Dec.97	6	89037586	BEDFORD	BEDFORD	73-78	6
17803670	NISSAN	NAVARA	97-	4	89037587	CHEVROLET	CHEVROLET	75-78	6
17803671	NISSAN	PATROL GU	97-	6		BEDFORD	BEDFORD	73-78	6
17803672	NISSAN	PULSAR	Oct.95-Sep.00	4	89037588	CHEVROLET	CHEVROLET	75-78	6
17803673	NISSAN	PULSAR, NX COUPE	Oct.95-Sep.00	4		BEDFORD	BEDFORD	73-78	6
17803674	NISSAN	NAVARA, PATHFINDER	86-	4	89037600	CHEVROLET	LUV PICK-UP KB-20	73-77	4
17803675	NISSAN	BLUEBIRD U13	93	4		HOLDEN	RODEO	Jan.81-Dec.82	4
17803676	NISSAN	NAVARA	Aug.95-	V6	89037602	CHRYSLER	VALIANT RV1 / SV1 / AP5 / AP6 / VC	62-66	6
17803677	NISSAN	PATHFINDER	Jul.92-Oct.95	V6	89037603	CHRYSLER	Valiant VE	67-68	6
17803678	FORD	TRANSIT VAN	97-01	4	89037604	CHRYSLER	Valiant VE / VF	67-70	6
17803679	FORD	FALCON AU	98-	V8	89037605	CHRYSLER	VALIANT VH / CH / VJ / CJ	71-76	6

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Part No.	Make	Model	Year	Cyl.	Part No.	Make	Model	Year	Cyl.
89037606	CHRYSLER	VALIANT VH / CH / VJ / GJ	71-76	6	89037663	TOYOTA	HI-ACE	Aug.78-84	4
89037607	CHRYSLER	VALIANT VH / CH / VJ / GJ	71-76	6			HI-LUX	Aug.74-84	4
89037608	CHRYSLER	VALIANT VG / VJ / VH	71-76	6	89037664	DAIHATSU	ROCKY	84-	4
89037609	CHRYSLER	VALIANT VK / CL	76-78	6		TOYOTA	LITE-ACE, TOWN ACE	86-88	4
89037610	CHRYSLER	VALIANT VK / CL	76-78	6			TARAGO	84-89	4
89037611	CHRYSLER	VALIANT CM	78-81	6	89037666	DAIHATSU	D24 / DV32 / SV24 / SV32	69-77	4
89037612	CHRYSLER	VALIANT CM	76-78	6	89037667	DAIHATSU	SCAT	78-82	4
89037613	CHRYSLER	VALIANT VK / CL	78-81	6	89037668	DAIHATSU	ROCKY	84-	4
89037614	CHRYSLER	CENTURA KB	75-77	6	89037669	DAIHATSU	SCAT	82-84	4
89037615	CHRYSLER	CENTURA KB / KC	75-78	6	89037670	DAIHATSU	ROCKY	85-	4
89037616	CHRYSLER	VALIANT VE / VK	69-80	V8	89037671	DAIHATSU	ROCKY	89-	4
89037617	CHRYSLER	AT4	62-66	6	89037672	DAIHATSU	ROCKY	84-	4
89037618	CHRYSLER	AT4	66-70	6	89037673	DAIHATSU	SCAT	82-84	4
89037619	CHRYSLER	AT4 TRUCK	70-	6	89037674	FORD	CAPRI 1600 SA	71-74	4
89037620	CHRYSLER	DODGE	65-67	V8	89037675	FORD	CAPRI 1600 GT	69-73	4
89037621	CHRYSLER	DODGE	68-80	V8	89037676	FORD	LASER KC / KE	85-	4
89037622	CHRYSLER	DODGE	68-80	V8		MAZDA	MAZDA 323	85-87	4
89037623	CHRYSLER	DODGE	59-78	V8	89037677	FORD	LASER KC / KE	85-	4
89037624	CHRYSLER	DODGE	59-78	V8		MAZDA	MAZDA 323	85-87	4
89037625	CHRYSLER	DODGE	59-78	V8	89037678	FORD	LASER KE / TX3	87-89	4
89037626	CHRYSLER	DODGE	59-78	V8		MAZDA	MAZDA 323	87-89	4
89037640	DAIHATSU	CHARADE	80-83	3	89037679	FORD	CAPRI 1600 SA-SC	Nov.90-	4
89037641	DAIHATSU	CHARADE	83-87	3	89037681	FORD	CORSAIR UA	89-92	4
89037642	DAIHATSU	CHARADE	83-87	3		NISSAN	PINTARA U12	89-	4
89037643	DAIHATSU	CHARADE	87-89	3	89037682	FORD	CORSAIR UA	85-92	4
89037644	DAIHATSU	CHARADE	87-90	3		NISSAN	PINTARA U12	89-	4
89037646	DAIHATSU	CAB. VAN - HI JET	72-75	2	89037683	FORD	CORTINA 1600	68-72	4
89037647	DAIHATSU	CAB. VAN - HI JET	76-82	2	89037684	FORD	CORTINA 1600 GT	68-71	4
89037648	DAIHATSU	CAB. VAN - HI JET	82-84	3	89037685	FORD	CORTINA 1600 TC	71-74	4
89037649	DAIHATSU	CAB. VAN - HI JET	84-86	3	89037686	FORD	CORTINA 00	71-76	4
89037650	DAIHATSU	CAB. VAN - HI JET	87-	3			CORTINA 00	76-81	4
89037651	DAIHATSU	HANDIVAN	81-82	3	89037687	FORD	CORTINA 00	71-76	4
89037652	DAIHATSU	HANDIVAN	82-85	2	89037688	FORD	CORTINA TC / TD	72-76	6
89037653	DAIHATSU	HANDIVAN	86-90	3			TRANSIT VAN V SERIES	73-78	6
89037654	DAIHATSU	HANDIVAN	90	3	89037689	FORD	CORTINA TC / TD	72-76	6
89037655	TOYOTA	DYNA 00, COASTER, TOYO-ACE	77-80	4			F100A / F250A / F350A	74-78	6
		DYNA YH81	86-90	4	89037690	FORD	CORTINA TE	77-80	6
		HI-ACE	Feb.83-85	4	89037691	FORD	CORTINA TE	77-80	6
		HI-LUX UTILITY	78-88	4			TRANSIT VAN	78-	6
89037658	TOYOTA	DYNA YU60	85-86	4	89037692	FORD	CORTINA TF	80-82	6
		HI-ACE	83-86	4	89037693	FORD	CORTINA TF	80-82	6
		HI-LUX UTILITY	83-86	4			F100 / F150 / F350	81-84	6
89037659	TOYOTA	DYNA YU62	87-90	4	89037694	FORD	ESCORT 1300	70-74	4
		HI-ACE	86-89	4	89037695	FORD	ESCORT 1300	71-78	4
89037660	DAIHATSU	SV17	73-75	4	89037696	FORD	ESCORT 1300 GT	70-72	4
		SCAT	77-83	4	89037697	FORD	ESCORT 1600	75-81	4
	TOYOTA	CORONA	71-73	4	89037698	FORD	ESCORT 00	79-81	4
		HI-ACE	Jun.71-75	4	89037699	FORD	FESTIVA WA	91-Apr.94	4
		HI-LUX	71-75	4		MAZDA	MAZDA 121	87-90	4
89037661	DAIHATSU	SV17	75-78	4	89037700	FORD	FESTIVA WA	91-Apr.94	4
		SCAT	77-83	4		MAZDA	MAZDA 121	87-90	4
	TOYOTA	HI-ACE	75-Aug.78	4	89037701	FORD	FESTIVA WB / WB II	94-Feb.97	4
		HI-LUX	75-Aug.78	4		MAZDA	MAZDA 121	90-	4
89037662	DAIHATSU	SV23	75-77	4	89037702	FORD	FESTIVA WF	98-	4
	TOYOTA	DYNA 00, COASTER, TOYO-ACE	75-77	4		KIA	MENTOR	96-	4
89037663	DAIHATSU	SCAT	78-84	4	89037703	FORD	LASER KA / KB / E3	81-85	4

REMANUFACTURED ENGINES

- NUMERICAL LISTINGS -

Part No.	Make	Model	Year	Cyl.	Part No.	Make	Model	Year	Cyl.
89037703	MAZDA	MAZDA 323	80-84	4	89037730	FORD	COURIER B00	85-87	4
89037704	FORD	LASER KA / KB / E3 METOR	81-85	4		MAZDA	MAZDA 626, 929	83-87	4
	MAZDA	MAZDA 323	80-84	4			B00 UTILITY	83-87	4
89037705	FORD	LASER KA / KB / E5	81-85	4	89037731	FORD	COURIER B00	85-87	4
	MAZDA	MAZDA 323	80-84	4		MAZDA	MAZDA 626, 929	83-87	4
89037706	FORD	LASER KA / KB / E5 -	81-85	4			B00 UTILITY	83-87	4
	MAZDA	MAZDA 323	80-84	4	89037732	FORD	COURIER B2200	87-93	4
89037707	FORD	LASER KB	85	4		MAZDA	B2200 UTILITY	87-89	4
89037708	FORD	LASER	82-	4	89037733	FORD	COURIER B2600	87-	4
	MAZDA	MAZDA 323SS	80-84	4		MAZDA	B00 UTILITY	87-89	4
89037709	FORD	CAPRI 1600	89-Oct.90	4	89037734	FORD	COURIER B00	87-90	4
		LASER KC / KE	85-	4		MAZDA	B2600 UTILITY	87-90	4
	MAZDA	MAZDA 323	86-87	4	89037735	FORD	COURIER B00	91-	4
89037710	FORD	LASER KF / KH	90-	4			RAIDER	91-	4
	MAZDA	MAZDA 121	93-Oct.97	4		MAZDA	B2600 UTILITY	91-	4
		MAZDA 323	89-96	4	89037736	FORD	COURIER B00	91-	4
89037711	FORD	LASER KF / KH	90-	4			RAIDER	91-	4
	MAZDA	MAZDA 323	89-96	4		MAZDA	B2600 UTILITY	91-	4
89037712	FORD	LASER KF / KH	89-	4	89037737	FORD	ECONOVAN	79-84	4
	MAZDA	MAZDA 323, ASTINA	89-	4		MAZDA	E1600 VAN, ECONOVAL, EASY LOADER	May78-	4
		MAZDA 323, ASTINA	89-	4	89037738	FORD	ECONOVAN	84-87	4
89037713	FORD	LASER KF / KH	89-	4		MAZDA	E1400 VAN	80-84	4
	MAZDA	MAZDA 323, ASTINA	89-	4	89037739	FORD	ECONOVAN	84-87	4
89037714	FORD	LASER KF / KH	89-	4		MAZDA	E1800 VAN	84-87	4
	MAZDA	MAZDA 323, ASTINA	89-	4	89037740	FORD	ECONOVAN	84-87	4
89037715	FORD	LASER KF / KH	89-	4		MAZDA	E1800 VAN	84-87	4
	MAZDA	MAZDA 323, ASTINA	89-	4	89037741	FORD	ECONOVAN	87-	4
89037716	FORD	LASER KF / KH / KJ	89-Apr.94	4		MAZDA	E1800 VAN	87-	4
	MAZDA	MAZDA 323, ASTINA	89-Apr.94	4	89037742	FORD	ECONOVAN	84-87	4
89037717	FORD	LASER KF / KH / KJ	May94-	4		MAZDA	E00 VAN	84-87	4
	MAZDA	MAZDA 323, ASTINA	May94-	4	89037743	FORD	ECONOVAN	84-87	4
89037718	FORD	LASER KF / KH / KJ	89-Apr.94	4		MAZDA	E00 VAN	84-87	4
	MAZDA	MAZDA 323, ASTINA	89-Apr.94	4	89037744	FORD	ECONOVAN	87-	4
89037719	FORD	LASER KF / KH / KJ	May94-	4		MAZDA	E00 VAN	87-97	4
	MAZDA	MAZDA 323, ASTINA	May94-	4	89037746	FORD	FALCON XR / FAIRLANE ZA	66-68	6
89037720	FORD	TELSTAR AR / AS	83-87	4	89037747	FORD	FALCON XT / XW / XB, FAIRLANE ZC	68-71	6
	MAZDA	MAZDA 626, 929	83-87	4	89037748	FORD	FALCON XA / XB / XY	70-76	6
89037721	FORD	TELSTAR AR / AS	83-87	4	89037749	FORD	FALCON XA / XB / XY	70-76	6
	MAZDA	MAZDA 626, 929	83-87	4	89037750	FORD	FALCON XC	76-79	6
89037722	FORD	TELSTAR AR / AS	86-87	4	89037751	FORD	FALCON XC	76-79	6
89037723	FORD	TELSTAR AT	87-92	4	89037752	FORD	FALCON XD	79-81	6
	MAZDA	MAZDA 626, 929	87-	4	89037753	FORD	FALCON XD, FAIRLANE ZH / ZG	79-81	6
89037724	FORD	TELSTAR AT / AV	87-92	4	89037754	FORD	FALCON XD / XE	80-	6
	MAZDA	MAZDA 626, MX6	87-91	4	89037755	FORD	FALCON XD / XE	80-	6
89037725	FORD	TELSTAR AT / AV	87-92	4	89037756	FORD	FALCON XE / XF	84	6
	MAZDA	MAZDA 626, MX6	87-91	4	89037757	FORD	FALCON XE/XF, FAIRLANE ZK/ZL, LTD FE	84-88	6
89037726	FORD	TELSTAR AX / AY	92-Jun94	4	89037758	FORD	FALCON XE/XF, FAIRLANE ZK/ZL, LTD FE	80-84	6
	MAZDA	MAZDA 626	92-Jun.94	4	89037759	FORD	FALCON XE/XF, FAIRLANE ZK/ZL, LTD FE	80-84	6
89037727	FORD	TELSTAR AX / AY	92-93	V6	89037760	FORD	FALCON XF, FAIRLANE ZL	87	6
	MAZDA	MAZDA 626	91	V6	89037761	FORD	FALCON XF, FAIRLANE ZL	84-92	6
89037728	FORD	COURIER B1800	78-81	4	89037762	FORD	FALCON XF, FAIRLANE ZL	84-92	6
	MAZDA	B1800 UTILITY	77-82	4	89037763	FORD	FALCON EA / EB, FAIRLANE NA	UptoFeb.92	6
		E1800 VAN	77-82	4	89037765	FORD	FALCON EF	Mar.93-	6
89037729	FORD	COURIER B00	82-85	4	89037766	FORD	FALCON EB / ED (S1), FAIRLANE NC	94-	6
	MAZDA	MAZDA 626, 929	Late78-82	4	89037767	FORD	FALCON EL (S1)	Sep.96-Jan.98	6
		B00 UTILITY	82-85	4	89037768	FORD	FALCON AU	98-Aug.00	6



Part No.	Make	Model	Year	Cyl.
89037769	FORD	FALCON XR	Falcon66-67	V8
		FALCON XR	Fairlane63-67	V8
89037770	FORD	FALCON XR	Falcon66-67	V8
		FALCON XR	Fairlane63-67	V8
89037771	FORD	FALCON XT / XW	66-71	V8
89037772	FORD	FALCON XW	69-70	V8
89037773	FORD	FALCON XW	69-70	V8
89037774	FORD	FALCON XA / XB / XC	71-79	V8
89037775	FORD	FALCON XA / XB / XC	79-84	V8
89037776	FORD	FALCON XW / XY / XB / XC	70-79	V8
89037777	FORD	FALCON XD / XE	79-84	V8
89037778	FORD	FALCON EB / ED / EF / EL	90-Sep.98	V8
89037779	FORD	FALCON EB / ED / EF / EL	90-Sep.98	V8
89037780	FORD	FALCON EF	94	V8
89037781	FORD	FALCON EL	96-	V8
89037783	FORD	F100 / F150 / F350	85-May87	V8
89037784	FORD	F100 / F150 / F350	May87-	V8
89037785	FORD	MAVERICK DA	87-93	6
	NISSAN	PATROL GQ	88-92	6
		PATROL GQ	92-97	6
89037786	FORD	MAVERICK DA	87-93	6
	NISSAN	PATROL GQ	88-Aug.95	6
89037787	FORD	ECONOVAN	To84	4
	MAZDA	B2200	To84	4
89037788	FORD	ECONOVAN	84-	4
	MAZDA	E2200, B2200	84-	4
	ASIA	ROCSTA	93-	4
89037790	FORD	TRADER	80-	4
	MAZDA	T3000	80-83	4
89037791	FORD	TRADER	87-	6
	MAZDA	T4100	80-	6
89037792	FORD	TRADER	92-	6
	MAZDA	T4000	89-	4
89037793	FORD	TRADER	Sep.96	6
	MAZDA	T4600	95-	4
89037794	FORD	FORD	65-73	6
89037795	FORD	FORD	65-73	6
89037796	FORD	FORD	65-73	6
89037797	FORD	FORD	65-73	6
89037799	FORD	FORD	65-	6
89037800	FORD	FORD (BLACK DORSET)	65-	6
89037801	FORD	FORD	65-	6
89037802	FORD	FORD (RED CARGO)	65	6
89037803	FORD	FORD (BLACK DORSET)	65-	6
89037804	FORD	FORD (RED CARGO)	65-	6
89037805	FORD	FORD (RED DOVER)	65-	6
89037806	FORD	FORD	66-73	V8
89037807	FORD	FORD	66-73	V8
89037809	FORD	FORD	58-81	V8
89037810	HINO	HINO EC100	69-	6
89037811	HINO	HINO EH100	72	6
89037812	HINO	HINO EH300		6
89037813	HINO	HINO (FD17 SERIES)		6
89037814	HINO	HINO (FF17 SERIES)		6
89037815	HINO	HINO (FD16 SERIES)	85	6
89037816	HOLDEN	APOLLO JK / JL	89-91	4

Part No.	Make	Model	Year	Cyl.
89037816	HOLDEN	APOLLO JK / JL	89-91	4
	TOYOTA	CAMRY SV22	89-92	4
89037817	HOLDEN	APOLLO JK / JL	89-91	4
	TOYOTA	CAMRY SV22	89-92	4
89037818	HOLDEN	APOLLO JK / JL	89-91	4
	TOYOTA	CAMRY SV21	87-93	4
		CELICA	86-89	4
89037819	HOLDEN	APOLLO JK / JL	89-91	4
	TOYOTA	CAMRY SV21	87-93	4
		CELICA	86-89	4
89037820	HOLDEN	APOLLO JM / JP	93-	V6
	TOYOTA	CAMRY, VIENTA	Nov.92-97	V6
89037821	HOLDEN	APOLLO JM / JP	93-	4
	TOYOTA	CAMRY	93-97	4
89037822	HOLDEN	ASTRA LB	84-85	4
	NISSAN	PULSAR, PRARIE	82-85	4
89037823	HOLDEN	ASTRA LC	86-87	6
	NISSAN	PULSAR, EXA	87-91	4
89037824	HOLDEN	ASTRA LD / SL	87-	4
	NISSAN	PULSAR, VECTOR	87-91	4
89037825	HOLDEN	ASTRA KD / SLEX	87	4
	NISSAN	PULSAR, VECTOR	87-91	4
89037826	HOLDEN	BARINA MB / ML	85-86	4
	SUZUKI	G13A	85-87	4
89037827	HOLDEN	BARINA MB / ML	86-89	4
	SUZUKI	G13A	85-87	4
89037828	HOLDEN	BARINA MF / MH	89-94	4
	SUZUKI	G13BA	89-	4
89037829	HOLDEN	BARINA MF / MH	89-94	4
	SUZUKI	G13BA	89-	4
89037831	HOLDEN	CALIBRA YE	91-	4
89037832	HOLDEN	CALIBRA YE	91-93	4
89037833	HOLDEN	CAMIRA JB	82-84	4
89037834	HOLDEN	CAMIRA JB	82-84	4
89037835	HOLDEN	CAMIRA JB	82-84	4
89037836	HOLDEN	CAMIRA JB	82-84	4
89037837	HOLDEN	CAMIRA JD	84-	4
89037838	HOLDEN	CAMIRA JD	84-	4
89037839	HOLDEN	CAMIRA JD	84-	4
		CAMIRA JD	84-	4
89037840	HOLDEN	CAMIRA JD	84-	4
89037841	HOLDEN	CAMIRA JE	87-89	4
89037842	HOLDEN	CAMIRA JE	87-89	4
89037843	HOLDEN	GEMINI TC / TD / TE / TF / TG	75-85	4
89037844	HOLDEN	GEMINI RB	85-	4
89037845	HOLDEN	GEMINI RB	85-	4
89037846	HOLDEN	GEMINI TE / TF / TG	81-86	4
89037847	HOLDEN	GEMINI TE / TF / TG	81-86	4
89037848	HOLDEN	NOVA LE	89-91	4
	TOYOTA	SECA	89-Nov.92	4
89037849	HOLDEN	NOVA LE	89-94	4
	TOYOTA	COROLLA	89	4
89037850	HOLDEN	NOVA LE	91-94	4
	TOYOTA	COROLLA	89-Sep.94	4
89037851	HOLDEN	NOVA LF	91-94	4
89037852	HOLDEN	NOVA LF / LG	91-	4

REMANUFACTURED ENGINES

- NUMERICAL LISTINGS -

Part No.	Make	Model	Year	Cyl.	Part No.	Make	Model	Year	Cyl.
89037852	TOYOTA	COROLLA	92-	4	89037891	HOLDEN	COMMODORE VC / VH	80-84	6
89037853	HOLDEN	RODEO	77-83	4	89037892	HOLDEN	COMMODORE VH	81-84	6
89037854	HOLDEN	KB RODEO	81-	4	89037893	HOLDEN	COMMODORE VK CALAIS	84-	6
89037855	HOLDEN	KB RODEO	81-	4	89037894	HOLDEN	COMMODORE VK	84-	6
89037856	HOLDEN	SHUTTLE	82-83	4	89037895	HOLDEN	COMMODORE VL	86-	6
		SHUTTLE	82-83	4		NISSAN	SKYLINE R31	86-90	6
89037857	HOLDEN	SHUTTLE	82-83	4	89037896	HOLDEN	COMMODORE VL	86-	6
		SHUTTLE	82-83	4	89037897	HOLDEN	COMMODORE VN	88-90	V6
89037858	HOLDEN	RODEO, JACKAROO	84-	4		TOYOTA	LEXCEN VN	89	V6
89037859	HOLDEN	RODEO	88-Sep.93	4	89037898	HOLDEN	COMMODORE VN	88-90	V6
89037860	HOLDEN	SHUTTLE	81-	4		TOYOTA	LEXCEN VN	89	V6
		SHUTTLE	81-	4	89037899	HOLDEN	COMMODORE VN / VP	90-93	V6
89037861	HOLDEN	PIAZZA YB	86	4	89037900	HOLDEN	COMMODORE VN / VP	90-93	V6
		PIAZZA YB	86	4		TOYOTA	LEXCEN VN - VP	92	V6
89037862	HOLDEN	SUNBIRD UC	78-80	4	89037901	HOLDEN	COMMODORE VR	Jul.93-Apr.95	V6
		SUNBIRD UC	78-80	4	89037902	HOLDEN	COMMODORE VR	Jul.93-Apr.95	V6
89037867	HOLDEN	TORANA	69-72	6	89037903	HOLDEN	COMMODORE VS / VT	May95-Jun.99	V6
		TORANA	69-72	6	89037904	HOLDEN	COMMODORE VS / VT	May95-Jun.99	V6
89037868	HOLDEN	TORANA	71-79	6	89037905	HOLDEN	COMMODORE VT	Jul.99-	V6
		TORANA	71-79	6	89037906	HOLDEN	COMMODORE VT	Jul.99-	V6
89037869	HOLDEN	TORANA	75-79	6	89037907	HOLDEN	MONARO HT	68-69	V8
		TORANA	75-79	6	89037908	HOLDEN	MONARO HT / HQ	69-74	V8
89037870	HOLDEN	TORANA LH	74-76	V8	89037909	HOLDEN	HT / HG	68-71	V8
		TORANA LH	74-76	V8	89037910	HOLDEN	HT / HG	90-	V8
		HQ / HJ	67-71	V8	89037911	HOLDEN	HQ / HJ	Aug.03-	V8
89037871	HOLDEN	TORANA LH	74-76	V8	89037912	HOLDEN	WB SERIES UTES - VANS - 1 TONNE	80-84	V8
		TORANA LH	74-76	V8	89037913	HOLDEN	WB SERIES UTES - VANS - 1 TONNE	80-84	V8
		HQ / HJ	71-76	V8	89037914	HOLDEN	COMMODORE VB	71-76	V8
89037872	HOLDEN	TORANA LX	76-80	V8	89037915	HOLDEN	COMMODORE VB	78-80	V8
		TORANA LX	76-80	V8	89037916	HOLDEN	COMMODORE VB	78-83	V8
		HX / HZ	71-76	V8	89037917	HOLDEN	COMMODORE VC / VH	78-83	V8
89037873	HOLDEN	TORANA LX	76-80	V8	89037918	HOLDEN	COMMODORE VC / VH	80-84	V8
		TORANA LX	76-80	V8	89037919	HOLDEN	COMMODORE VC / VH	81-	V8
		HX / HZ	76-78	V8	89037920	HOLDEN	COMMODORE VK	80	V8
89037874	HOLDEN	TORANA LX	76-77	V8	89037921	HOLDEN	COMMODORE VK	84-86	V8
		TORANA LX	76-77	V8	89037922	HOLDEN	WB SERIES UTES - VANS -	76-78	V8
		HX / HZ	76-78	V8	89037923	HOLDEN	WB SERIES UTES - VANS -	80-84	6
89037875	HOLDEN	FX / FJ / FE / EK	48-62	6	89037924	HOLDEN	WB SERIES UTES - VANS -	80-84	6
		FX / FJ / FE / EK	48-62	6	89037925	HOLDEN	WB SERIES UTES - VANS - 1 TONNE	80-84	6
89037876	HOLDEN	FX / FJ / FE / EK	48-62	6	89037926	HOLDEN	COMMODORE VN / VS	86-88	V8
		FX / FJ / FE / EK	48-62	6			VG SERIES UTILITY	80-84	V8
89037877	HOLDEN	EJ SERIES	62-63	6	89037927	HONDA	ACCORD PRELUDE	77-78	4
		EJ SERIES	62-63	6	89037928	HONDA	ACCORD PRELUDE	79-83	4
89037878	HOLDEN	EH	65-66	6	89037929	HONDA	ACCORD PRELUDE	79-83	4
89037879	HOLDEN	HD / HR	66-71	6	89037930	HONDA	ACCORD PRELUDE	79-83	4
89037880	HOLDEN	HD / HR	66-71	6	89037931	HONDA	ACCORD PRELUDE	84-85	4
89037881	HOLDEN	HK / HT / HG	68-71	6	89037932	HONDA	ACCORD	86-89	4
89037882	HOLDEN	HK / HT / HG	68-71	6	89037933	HONDA	ACCORD	87-89	4
89037883	HOLDEN	HQ / HJ	71-76	6	89037934	HONDA	ACCORD PRELUDE	89-93	4
89037884	HOLDEN	HQ / HX / HZ	71-80	6	89037935	HONDA	CIVIC	73-78	4
89037885	HOLDEN	COMMODORE VC	80-81	4	89037936	HONDA	CIVIC	73-79	4
89037886	HOLDEN	COMMODORE VH	81-83	4	89037937	HONDA	CIVIC	77-79	4
89037887	HOLDEN	COMMODORE VB	79-80	6	89037938	HONDA	CIVIC	79-80	4
89037888	HOLDEN	COMMODORE VB	79-80	6	89037939	HONDA	CIVIC	80-82	4
89037889	HOLDEN	COMMODORE VC	80-81	6	89037940	HONDA	CIVIC	82-83	4
89037890	HOLDEN	COMMODORE VC / VH	80-84	6	89037941	HONDA	CIVIC	74-79	4
					89037942	HONDA	CIVIC	74-79	4



Part No.	Make	Model	Year	Cyl.
89037943	HONDA	CIVIC	87-93	4
89037944	HONDA	CIVIC	87-93	4
89037945	HONDA	CIVIC	91-93	4
89037946	HONDA	CIVIC	93-95	4
89037947	HONDA	CRX COUPE	88-91	4
89037948	HONDA	CRX COUPE	92-	4
89037949	HONDA	INTEGRA	86-88	4
89037949	HONDA	INTEGRA	89-91	4
89037950	HONDA	INTEGRA	89-91	4
89037952	HONDA	CONCERTO	89-91	4
89037953	HONDA	LEGEND	86-87	V6
89037954	HONDA	LEGEND	88-90	V6
89037955	HYUNDAI	EXCEL X1	86-90	4
89037956	HYUNDAI	EXCEL X2, COUPE	90-94	4
89037957	HYUNDAI	LANTRA	91-93	4
89037958	HYUNDAI	LANTRA	92-Aug.95	4
89037959	HYUNDAI	SONATA	89-92	4
89037960	HYUNDAI	SONATA	90-Oct.93	V6
89037961	INTERNATIONAL	INTERNATIONAL 264	50-	6
89037962	INTERNATIONAL	INTERNATIONAL 282	50-	6
89037963	INTERNATIONAL	INTERNATIONAL 345	59-80	V8
89037964	INTERNATIONAL	INTERNATIONAL 345	59-80	V8
89037965	INTERNATIONAL	INTERNATIONAL 345	59-80	V8
89037966	INTERNATIONAL	INTERNATIONAL 392		V8
89037967	INTERNATIONAL	INTERNATIONAL 392		V8
89037972	INTERNATIONAL	INTERNATIONAL D358	66-	6
89037976	HOLDEN	SHUTTLE	82-86	4
		SHUTTLE	82-86	4
89037977	ISUZU	ISUZU 4BA1	81-83	4
89037978	ISUZU	ISUZU 4BA1	81-83	4
89037979	ISUZU	ISUZU 4BB1	73-79	4
89037980	ISUZU	ISUZU 4BC1	80-82	4
89037981	ISUZU	ISUZU 4BC2	82-87	4
89037982	ISUZU	ISUZU 4BC2	82-87	4
89037983	ISUZU	ISUZU 4BD1	70-	4
89037984	ISUZU	ISUZU 4BD1T	79-	4
89037985	HOLDEN	RODEO	85-	4
89037986	HOLDEN	RODEO	85-	4
		RODEO	85-	4
		EJ SERIES	85-	4
89037987	HOLDEN	RODEO	88-Oct.96	4
		EJ SERIES	88-Oct.96	4
89037988	ISUZU	ISUZU 6BB1	87-	6
89037989	ISUZU	ISUZU 6BB1	72-76	6
89037990	ISUZU	ISUZU 6BB1	76-	6
89037991	ISUZU	ISUZU 6BD1	76-	6
89037992	ISUZU	ISUZU 6BD1	76-	6
89037993	ISUZU	ISUZU 6BD1	76-	6
89037994	ISUZU	ISUZU 6BD1	76-	6
89037995	ISUZU	ISUZU 6BD1T	76-	6
89037996	ISUZU	ISUZU 6BG1	83-	6
89037997	ISUZU	ISUZU 6BG1	84-	6
89037998	HOLDEN	RODEO C190	80-82	4
89037999	ISUZU	ISUZU C190	Dec.93-Apr.96	4
89038000	HOLDEN	RODEO C223	83-88	4
89038001	HOLDEN	RODEO C223	83-88	4
89038002	HOLDEN	JACKAROO C223T	88-92	4

Part No.	Make	Model	Year	Cyl.
89038003	ISUZU	ISUZU C240	71-	4
89038009	MAZDA	MAZDA 323	80-82	4
89038010	MAZDA	MAZDA 121L	78-80	4
		MAZDA 626, 929	Late78-82	4
89038011	MAZDA	MAZDA 626, 929	87-	4
89038012	MAZDA	B1600 UTILITY	71-	4
89038013	MAZDA	B1800 UTILITY	77-79	4
89038015	MAZDA	E00 VAN	81-82	4
89038016	MAZDA	B2200	79-84	4
89038017	MAZDA	B2200	To84	4
89038020	FORD	TRADER	Dec.84-Jul.87	4
	MAZDA	T3500	Dec.84-Jul.87	4
89038021	FORD	TRADER	Jul.87-Mar.92	4
	MAZDA	T3500	87-Apr.92	4
89038025	MERCEDES	MERCEDES OM355	84-	6
89038026	MERCEDES	MERCEDES OM355		6
89038027	MERCEDES	MERCEDES OM360		6
89038028	MITSUBISHI	CANTER	75-80	4
89038029	MITSUBISHI	CANTER	81-86	4
89038030	MITSUBISHI	CANTER	86-90	4
89038031	MITSUBISHI	CANTER	86-92	4
89038032	MITSUBISHI	CANTER	86-94	4
89038033	MITSUBISHI	CANTER	91-Apr.95	4
89038034	MITSUBISHI	COLT RA	80-82	4
89038035	MITSUBISHI	COLT RB / RC	82-84	4
89038036	MITSUBISHI	COLT RB / RC / RD / RE	82-90	4
		CORDIA AA	83-84	4
		LANCER LB / LC	79-80	4
89038037	MITSUBISHI	COLT RC / RD / RE	86-90	4
89038038	MITSUBISHI	CORDIA AB	84-89	4
89038039	MITSUBISHI	B2600 UTILITY	83-89	4
89038040	MITSUBISHI	EXPRESS 4G32	79-80	4
		LANCER LB	77-79	4
		SIGMA GH / GJ / GK	77-78	4
89038041	MITSUBISHI	EXPRESS 4G32	80-84	4
		SIGMA GH / GJ / GK	78-85	4
89038042	MITSUBISHI	EXPRESS 4G32	80-84	4
89038043	MITSUBISHI	EXPRESS 4G52	79-80	4
		SIGMA GE / GH / GJ / GK	77-84	4
89038044	MITSUBISHI	EXPRESS 4G52	80-82	4
89038045	MITSUBISHI	GALANT GA / GB / GC	73-75	4
89038046	MITSUBISHI	GALANT GA / GB	73-76	4
89038047	MITSUBISHI	GALANT GA / GB / GC	73-75	4
89038048	MITSUBISHI	GALANT GA / GB	73-76	4
89038050	MITSUBISHI	LANCER LA / LB	78-80	4
89038051	MITSUBISHI	LANCER CA	88-90	4
89038052	MITSUBISHI	LANCER CA	88-90	4
89038053	MITSUBISHI	LANCER CB / CC	90-Jun.96	4
89038054	MITSUBISHI	LANCER CB / CC	90-Jun.96	4
	PROTON	PERSONA, SATHIA, WIRA	95-	4
89038055	MITSUBISHI	MAGNA TM	86-87	4
89038056	MITSUBISHI	MAGNA TN / TP	87-91	4
89038057	MITSUBISHI	MAGNA TR	91-94	4
89038058	MITSUBISHI	MAGNA TR	91-94	4
89038059	MITSUBISHI	MAGNA TS	94-96	4
89038060	MITSUBISHI	NIMBUS UF / UG	Aug.92-	4

REMANUFACTURED ENGINES

- NUMERICAL LISTINGS -

Part No.	Make	Model	Year	Cyl.	Part No.	Make	Model	Year	Cyl.
89038061	mitsubishi	MAGNA TR / TS, VERADA KR / KS	93-96	V6	89038112	NISSAN	SERENA	92-95	4
89038063	mitsubishi	PAJERO NA / NH	83-93	4	89038113	NISSAN	STANZA	78-83	4
89038064	mitsubishi	PAJERO NF / NK	88-Sep.97	V6	89038114	NISSAN	DATSUN 1600	68-72	4
89038065	mitsubishi	PAJERO NJ / NK	93-Sep.97	V6	89038116	NISSAN	DATSUN 180B	72-75	4
		PAJERO NJ / NK	93-Sep.97	V6	89038117	NISSAN	DATSUN 180B	74-77	4
89038066	mitsubishi	EXPRESS L200	82-	4	89038118	NISSAN	DATSUN 200B	77-81	4
		PAJERO, TRITON	86-	4	89038119	NISSAN	BLUEBIRD L20B	81-84	4
89038067	mitsubishi	EXPRESS L200	82-	4	89038120	NISSAN	BLUEBIRD 910	85-	4
		PAJERO, TRITON	86-	4	89038121	NISSAN	BLUEBIRD, PINTARA, GAZELLE	85-	4
89038068	mitsubishi	PAJERO, TRITON	83-87	4	89038122	NISSAN	240Z	73-81	6
89038069	mitsubishi	PAJERO, TRITON	83-87	4	89038123	NISSAN	2400	70-71	6
89038070	mitsubishi	EXPRESS L300	89-	4			2400C	70-73	6
89038071		mitsubishi	PAJERO, TRITON	87-	4	89038124	NISSAN	240K	73-81
	EXPRESS L300		89-	4	89038125	NISSAN	260C	75-78	6
89038072	mitsubishi	PAJERO, TRITON	86-	4	89038126	NISSAN	SKYLINE R30	81-82	6
		PAJERO, TRITON	86-	4	89038127	NISSAN	280C	78-83	6
89038073	mitsubishi	PAJERO, TRITON	86-	4	89038128	NISSAN	280C	78-83	6
89038074	mitsubishi	TRITON MK	96-May99	4	89038129	NISSAN	280ZX	79-84	6
89038075	mitsubishi	SCORPION GE	78-81	4	89038130	NISSAN	300ZX	84-85	V6
89038076	mitsubishi	SCORPION GH / GJ / GK / GL	79-84	4	89038131	NISSAN	300ZX	85-89	V6
		SCORPION GH / GJ / GK / GL	79-84	4	89038132	NISSAN	300ZX	89-	V6
89038077	mitsubishi	SCORPION GH / GJ / GK / GL	79-84	4	89038133	NISSAN	300ZX	89-	V6
89038078	mitsubishi	TRITON ME	86-96	4	89038134	NISSAN	MAXIMA	90-95	V6
89038079	mitsubishi	TRITON ME	86-96	4	89038135	NISSAN	720 UTILITY	80-	4
89038080	mitsubishi	TRITON MH - J	91-96	V6	89038136	NISSAN	720 UTILITY	80-	4
89038081	mitsubishi	SIGMA GN	85-86	4	89038137	NISSAN	720 UTILITY	83-	4
89038082	mitsubishi	SIGMA 2600 GH / GJ / GK	80-84	4	89038138	NISSAN	720 UTILITY	83-	4
89038083	mitsubishi	SIGMA 2600 GH / GJ / GK	80-84	4	89038139	NISSAN	720 UTILITY	Dec.81-	4
89038084	mitsubishi	SIGMA 2600 GH / GJ / GK	80-84	4			720 UTILITY	FromDec.81	4
89038085	mitsubishi	SIGMA 2600 GH / GJ / GK	80-84	4	89038140	NISSAN	720 UTILITY	Dec.81-	4
89038086	mitsubishi	SIGMA 2600 GN	85-86	4			720 UTILITY	80-	4
89038087	mitsubishi	SIGMA 2600 GN	85-86	4	89038141	NISSAN	720 UTILITY	81-	4
89038088	mitsubishi	SIGMA 2600 GN	86-87	4			NISSAN 720 UTILITY	84-	4
89038089	mitsubishi	CANTER		4	89038142	NISSAN	720 UTILITY	81-	4
89038090	mitsubishi	CANTER	Early	4			89038143	NISSAN	720 UTILITY
89038091	mitsubishi	CANTER	Late	4	89038144	NISSAN	NAVARA, PATHFINDER	88-	4
89038093	mitsubishi	6D14-1A	80-84	6	89038145	NISSAN	NAVARA, PATHFINDER	88-	4
89038094	mitsubishi	6D14-2A	85-	6	89038146	NISSAN	NAVARA, PATHFINDER	86-	4
89038095	NISSAN	DATSUN 1200	70-76Sedan	4	89038148	NISSAN	NAVARA, PATHFINDER	86-	4
		DATSUN 1200	Van70-74	4	89038149	NISSAN	NAVARA, PATHFINDER	86-	4
		DATSUN 1200	Ute&Pickup71-76	4	89038151	NISSAN	NAVARA, PATHFINDER	92-	4
89038096	NISSAN	DATSUN 120Y, SUNNY	74-81	4	89038152	NISSAN	NAVARA	92-Aug.95	V6
89038098	NISSAN	SUNNY	79-81	4	89038154	NISSAN	NAVARA	83-87	4
89038099	NISSAN	PULSAR	80-81	4	89038155	NISSAN	NAVARA	83-87	4
89038100	NISSAN	VANETTE SGL	84-	4	89038156	NISSAN	NAVARA	86-	4
89038101	NISSAN	DATSUN 1500	72-75	4	89038157	NISSAN	NAVARA, URVAN	86-	4
89038102	NISSAN	DATSUN 1500	75-77	4	89038158	NISSAN	0	67-68	4
89038103	NISSAN	DATSUN 1500	77-79	4	89038159	NISSAN	0	86-88	4
89038104	NISSAN	DATSUN 1600	73-78	4	89038160	NISSAN	URVAN	81-84	4
89038105	NISSAN	DATSUN 1600	73-78	4	89038161	NISSAN	URVAN, CABSTAR	83-	4
89038106	NISSAN	PULSAR	83-85	4	89038162	NISSAN	URVAN, CABSTAR	83-	4
89038107	NISSAN	PULSAR, EXA	83-91	4	89038163	NISSAN	URVAN, NOMAD	87-90	4
89038108	NISSAN	PULSAR	91-Sep.95	4	89038164	NISSAN	URVAN, NOMAD	87-90	4
89038109	NISSAN	PULSAR, NX COUPE	91-Sep.95	4	89038165	NISSAN	E23 URVAN	80-82	4
89038110	NISSAN	EXA COUPE	86-87	4			E23 URVAN	80-82	4
89038111	NISSAN	EXA COUPE	87-91	4	89038166	NISSAN	PATROL P	60-80	6

ACDelco®

Part No.	Make	Model	Year	Cyl.	Part No.	Make	Model	Year	Cyl.
89038167	NISSAN	PATROL P	80-85	6	89038237	TOYOTA	SECA	Sep.85-	4
89038168	NISSAN	PATROL MQ	83-	6	89038237	TOYOTA	SPRINTER COUPE	83-	4
89038169	NISSAN	PATROL GQ	90-	6	89038238	TOYOTA	SECA	86-88	4
89038170	NISSAN	PATROL MQ	ToAug.83	6	89038239	TOYOTA	COROLLA SX	89	4
89038171	NISSAN	PATROL MQ	FromAug.83	6	89038240	TOYOTA	COROLLA	88-95	4
89038172	NISSAN	PATROL MQ	83-	6	89038243	TOYOTA	CORONA 00	73-75	4
89038173	NISSAN	720 UTILITY	ToDec.81	4	89038244	TOYOTA	CORONA 00	73-76	4
89038174	NISSAN	NISSAN VAN	ToDec.83	4	89038245	TOYOTA	CORONA 00	76-80	4
89038178	NISSAN	NISSAN ED30	73-82	4	89038246	TOYOTA	CORONA	Oct.79-81	4
89038179	NISSAN	NISSAN SD25	FromAug.83	4	89038247	TOYOTA	CORONA	Feb.82-83	4
89038180	PERKINS	PERKINS 3-152 ENGINE	60-	3	89038248	TOYOTA	CORONA	81-83	4
89038181	PERKINS	PERKINS 4-203 ENGINE	60-	4	89038249	TOYOTA	CORONA, AVANTE	83-87	4
89038182	PERKINS	PERKINS 4-236 ENGINE	60-78	4	89038250	TOYOTA	CORONA, AVANTE	84-87	4
89038196	SUBARU	EJ22	89-	4	89038256	TOYOTA	CROWN 00	68-71	4
89038197	SUZUKI	F5A	80-85	3	89038256	TOYOTA	DYNA , MICROBUS	68-71	4
89038198	SUZUKI	F5A	85-88	3	89038257	TOYOTA	CROWN 00	71-75	4
89038199	SUZUKI	F8A	81-83	4			DYNA , MICROBUS	71-75	4
89038200	SUZUKI	F8B	81-84	3	89038263	TOYOTA	MR2 AW11	87-89	4
89038201	SUZUKI	F8B	87-89	3	89038264	TOYOTA	TERCEL WAGON	83-86	4
89038202	SUZUKI	F10A	81-88	4	89038268	TOYOTA	DYNA 00, COASTER, TOYO-ACE	80-84	4
89038203	SUZUKI	F10A	85-87	4	89038269	TOYOTA	DYNA, STOUT	75-77	4
89038204	SUZUKI	G10	85-86	3	89038270	TOYOTA	COASTER	84-	4
89038205	SUZUKI	G10	86-88	3	89038272	TOYOTA	HI-ACE	78-79	4
89038206	SUZUKI	G10	89-	3			HI-LUX, SR5 UTILITY	78-79	4
89038207	HOLDEN	DROVER 4 X 4	85-89	4	89038273	TOYOTA	HI-ACE	80-82	4
89038208	SUZUKI	G13B	86-99	4			HI-LUX	80-84	4
89038209	SUZUKI	G13BA	90-99	4	89038274	TOYOTA	HI-ACE	89	4
89038210	SUZUKI	G16A	89-94	4	89038275	TOYOTA	HI-LUX 4WD	81-84	4
89038211	SUZUKI	G16B	91-02	4	89038277	TOYOTA	HI-LUX, 4 RUNNER	83-86	4
89038212	SUZUKI	H20A	95-99	V6	89038278	TOYOTA	HI-LUX, 4 RUNNER	86-89	4
89038213	TOYOTA	BUNDERA	85-86	4	89038279	TOYOTA	HI-LUX, 4 RUNNER	88	4
89038214	TOYOTA	BUNDERA 4 X 4	86-89	4	89038281	TOYOTA	LITE-ACE	80-84	4
89038215	TOYOTA	CAMRY SV11	83-87	4	89038282	TOYOTA	LITE-ACE	84-86	4
		CELICA	Oct.81-83	4			TARAGO	82-84	4
89038216	TOYOTA	CAMRY SV20	87-89	4	89038283	TOYOTA	LITE-ACE	86-89	4
89038217	TOYOTA	CELICA	86-89	4	89038284	TOYOTA	TARAGO	85-89	4
89038218	TOYOTA	CELICA	86-89	4	89038285	TOYOTA	TARAGO	90-00	4
89038219	TOYOTA	CAMRY VZV21	88-93	V6	89038286	TOYOTA	F SERIES	59-72	6
89038220	TOYOTA	CELICA	71-75	4	89038287	TOYOTA	F SERIES	72-75	6
89038221	TOYOTA	CELICA 00	76-81	4	89038288	TOYOTA	2F SERIES	75-85	6
		CORONA 00	76-80	4	89038289	TOYOTA	2F SERIES	75-85	6
89038222	TOYOTA	CELICA 00	76-81	4	89038290	TOYOTA	3F SERIES	86-Jul.89	6
89038223	TOYOTA	CELICA T18	81-83	4	89038291	TOYOTA	3F SERIES	90-92	6
89038224	TOYOTA	CELICA	81-83	4	89038292	TOYOTA	H SERIES	69-72	6
89038225	TOYOTA	CELICA	84-85	4	89038293	TOYOTA	H SERIES	79-82	6
89038226	TOYOTA	CELICA	86-89	4	89038294	TOYOTA	2H SERIES	Upto85	6
89038227	TOYOTA	CELICA	86-89	4	89038295	TOYOTA	2H SERIES	85-	6
89038228	TOYOTA	CELICA	90-	4	89038296	TOYOTA	2H SERIES	85-	6
89038229	TOYOTA	CELICA	89-94	4	89038297	TOYOTA	L SERIES	79-82	4
89038230	TOYOTA	COROLLA 3K	70-75	4			HI-ACE	84-Aug.98	4
89038231	TOYOTA	COROLLA 3K - H	75-77	4	89038298	TOYOTA	L SERIES	81-83	4
89038232	TOYOTA	COROLLA 3K - C	76-77	4	89038299	TOYOTA	L SERIES	83-84	4
89038233	TOYOTA	COROLLA 4K - C	78-83	4	89038300	TOYOTA	HI-LUX 2WD	84-Aug.88	4
89038234	TOYOTA	COROLLA 4K	Apr.83-	4	89038301	TOYOTA	HI-LUX 2WD	87-Aug.88	4
89038235	TOYOTA	COROLLA 5K	83	4	89038302	TOYOTA	HI-LUX 2WD	Sep.88-	4
89038236	TOYOTA	SECA	Sep.85-88	4	89038303	TOYOTA	HI-LUX 2WD	89-	4

ACDelco®

Part No.	Make	Model	Year	Cyl.	Part No.	Make	Model	Year	Cyl.
ACD101	DAIHATSU	APPLAUSE	89-99	4	ACD4832	TOYOTA	LEXGEN VN - VP	92	V6
		PYZAR	98-01	4	ACD4835	HOLDEN	COMMODORE VR	Jul.93-Apr.95	V6
ACD165	HOLDEN	DROVER 4 X 4	85-89	4	ACD4836	HOLDEN	COMMODORE VT	Jul.99-	V6
ACD167	HOLDEN	BARINA MF / MH	89-94	4			COMMODORE VS / VT	May95-Jun.99	V6
		SUZUKI	G13BA	89-99			4	COMMODORE VX	Oct.00-
ACD168	SUZUKI	G16A	89-94	4			COMMODORE VY	Oct.02-	V6
ACD170	SUZUKI	G16B	91-02	4	ACD48362	HOLDEN	COMMODORE VY	02-	V6
ACD175	HOLDEN	BARINA SB	94-97	4			COMMODORE VS / VT / VX	95-02	V6
ACD1752	HOLDEN	BARINA SB	94-96	4	ACD485	HOLDEN	ASTRA LD / SL	87-	4
ACD1753	HOLDEN	BARINA SB	94-95	4	ACD486	HOLDEN	ASTRA KD / SLEX	87	4
ACD1754	HOLDEN	BARINA SB	96-00	4		NISSAN	PULSAR, VECTOR	87-91	4
ACD412	BEDFORD	CF CFL	78-81	6	ACD487	DAEWOO	CIELO 1.5I	94-97	4
ACD412	HOLDEN	TORANA	71-79	6	ACD4875	DAEWOO	CIELO	95-	4
		HQ / HX / HZ	71-80	6	ACD488	DAEWOO	LANOS	97-	4
		COMMODORE VB	79-80	6			NUBIRA	97-	4
		ACD417	HOLDEN	GEMINI TC / TD / TE / TF / TG	75-85	4	ACD489	DAEWOO	LEGANZA
RODEO	Jan.81-Dec.82	4		NUBIRA	98-	4			
ACD425	HOLDEN	CAMIRA JE	87-89	4	LEGANZA	99-			4
ACD429P	HOLDEN	CAMIRA JD	84-	4	HOLDEN	VECTRA JR / JS		97-00	4
ACD433	HOLDEN	COMMODORE VC / VH	80-84	6		VECTRA JS	98-2003	4	
		WB SERIES UTES - VANS -	80-84	6		FRONTERA UT	99-	4	
ACD434	HOLDEN	COMMODORE VC / VH	80-84	6	ACD4962	HOLDEN	ASTRA TS	98-	4
		WB SERIES UTES - VANS -	80-84	6	ACD497	HOLDEN	ASTRA TR	96-Sep.98	4
ACD436	HOLDEN	COMMODORE VH	81-84	6	ACD531	FORD	COURIER B2600	91-	4
ACD438	HOLDEN	COMMODORE VK CALAIS	84-	6			RAIDER	91-	4
ACD444	HOLDEN	KB RODEO	81-	4		MAZDA	B2600 UTILITY	91-	4
ACD445	HOLDEN	RODEO, JACKAROO	84-	4	ACD585	FORD	LASER KA / KB / E5 -	81-85	4
ACD446	HOLDEN	COMMODORE VK	84-	6		MAZDA	MAZDA 323	80-84	4
ACD448	HOLDEN	RODEO	88-Sep.93	4	ACD587	FORD	TELSTAR AR / AS	83-87	4
		RODEO TF	Sep.93-98	4		MAZDA	MAZDA 626, 929	83-	4
ACD4501	HOLDEN	JACKAROO	Oct.95-98	V6	ACD587T	FORD	TELSTAR AR / AS	86-87	4
ACD4502	HOLDEN	JACKAROO	92-Oct.95	V6	ACD588	FORD	ECONOVAN	84-	4
ACD4503	HOLDEN	RODEO TF	98-	V6			COURIER B2000	85-	4
ACD456	HOLDEN	COMMODORE VK	86-88	V8		MAZDA	MAZDA 626, 929	83-87	4
ACD457	HOLDEN	COMMODORE VT / VY SERIES I	99-Jul.2003	V8			B2000 UTILITY	83-89	4
		COMMODORE VY SERIES II	Aug.2003-	V8	E2000 VAN	84-97	4		
ACD458	HOLDEN	COMMODORE VT	99	V8	ACD592	FORD	LASER KC / KE	85-	4
		COMMODORE VN / VS	88-99	V8			LASER KC / KE	85-	4
		VG SERIES UTILITY	90-	V8		MAZDA	MAZDA 323	85-87	4
ACD460	HOLDEN	HT / HG	67-71	V8		ACD5922	FORD	LASER KC / KE	85-
		HQ / HJ	71-76	V8	CAPRI 1600 SA			89-Oct.90	4
		HQ / HJ	71-76	V8	MAZDA	MAZDA 323	86-87	4	
		TORANA LH	74-76	V8		ACD593	FORD	LASER KF / KH	90-
ACD463	HOLDEN	COMMODORE VK	84-86	V8	LASER KF / KH			90-	4
		ACD466	HOLDEN	HX / HZ	76-78			V8	FESTIVA WD / WB II
				TORANA LX	76-80	V8	MAZDA	MAZDA 121	93-
COMMODORE VB	78-83	V8	ACD5935	FORD	FESTIVA WA	91-Apr.94	4		
ACD474	HOLDEN	COMMODORE VC / VH		80-84	V8	MAZDA	MAZDA 121	87-90	4
		WB SERIES UTES - VANS - 1 TONNE	80-84	V8	ACD5936	FORD	FESTIVA WB / WB II	94-Feb.97	4
		WB STATESMAN SERIES 2 AND 3	80-84	V8		MAZDA	MAZDA 121	90-	4
ACD480	HOLDEN	COMMODORE VL	86-	6	ACD595	FORD	TELSTAR AT / AV	87-92	4
ACD480	NISSAN	SKYLINE R31	86-90	6		MAZDA	MAZDA 626, MX6	87-91	4
		PATROL GQ	90-	6	ACD5955	FORD	COURIER B2200	87-93	4
ACD482	HOLDEN	COMMODORE VN	88-90	V6		MAZDA	B2200 UTILITY	87-89	4
	TOYOTA	LEXGEN VN	89	V6	ACD5956	FORD	TELSTAR AX / AY	92-Jun.94	4
ACD4832	HOLDEN	COMMODORE VN / VP	90-93	V6		MAZDA	MAZDA 626	92-Jun.94	4

CYLINDER HEADS

- NUMERICAL LISTINGS -

Part No.	Make	Model	Year	Cyl.	Part No.	Make	Model	Year	Cyl.
ACD59562	FORD	LASER KQ	01-	4	ACD672	TOYOTA	4 RUNNER	90-96	V6
		TELSTAR AX / AY	Jul.94-	4	ACD674	TOYOTA	CAMRY, AVALON, VIENTA	Aug.97	V6
	MAZDA	MAZDA 323	89-	4	ACD675	TOYOTA	PRADO	Jul-96	V6
		MAZDA 626	Jul.94-	4	ACD723	MITSUBISHI	LANCER CB / CC	90-Jun.96	4
ACD5962	FORD	LASER KF / KH	89-	4	ACD724	PROTON	PERSONA, SATHIA, WIRA	95-	4
	MAZDA	MAZDA 323, ASTINA	89-	4	ACD725	MITSUBISHI	LANCER CE, MIRAGE	Jul-96	4
ACD5963	FORD	LASER KF / KH / KJ	89-Apr.94	4	ACD774	MITSUBISHI	SIGMA GE / GH / GJ / GK	77-84	4
	MAZDA	MAZDA 323, ASTINA	89-Apr.94	4	EXPRESS 4G52		79-80	4	
ACD5964	FORD	LASER KF / KH / KJ	May94-	4	ACD776	MITSUBISHI	SIGMA 2600 GH / GJ / GK	80-84	4
	MAZDA	MAZDA 323, ASTINA	May94-	4	ACD781	MITSUBISHI	EXPRESS, STARWAGON	83-94	4
ACD5965	FORD	LASER KN / KQ	99-	4	ACD784	FORD	COURIER B2600	87-90	4
	MAZDA	MAZDA 323	98-	4		MAZDA	B2600 UTILITY	87-90	4
ACD6044	TOYOTA	HI-ACE	89	4	MITSUBISHI	PAJERO NA / NH	83-93	4	
ACD6048	TOYOTA	PRADO	Sep.02-	4	TRITON ME		86-96	4	
ACD60783	TOYOTA	HI-LUX 4WD, 4 RUNNER, SURF	83-	4	ACD7845	MITSUBISHI	PAJERO NF / NK	88-Sep.97	V6
		DYNA LY61 / LY211 / LY125	88-	4	TRITON MH - J		91-96	V6	
		HI-LUX 2WD	89-	4	ACD7847	MITSUBISHI	PAJERO NJ / NK	93-Sep.97	V6
		HI-ACE	89-	4	ACD7848	MITSUBISHI	TRITON MK, CHALLENGER	96-	V6
ACD626	HOLDEN	NOVA LE	89-94	4	EXPRESS, STARWAGON		96-	4	
TOYOTA		SECA	89	4	PAJERO NM		May00-	V6	
ACD6263	TOYOTA	SECA	88-95	4	PAJERO NL		Sep.97-May00	V6	
ACD6267	HOLDEN	NOVA LG	94-97	4	ACD790	MITSUBISHI	MAGNA TM	86-87	4
	TOYOTA	COROLLA	94-Nov.99	4	MAGNA TN / TP		87-91	4	
ACD627	TOYOTA	CORONA, AVANTE	83-87	4	ACD791	MITSUBISHI	SIGMA 2600 GN	85-87	4
ACD6294	TOYOTA	TARAGO	90-00	4	ACD793	MITSUBISHI	EXPRESS, STARWAGON	86-Apr.92	4
ACD634	TOYOTA	HI-LUX, 4 RUNNER	88	4	NIMBUS UF		92-Jul.92	4	
		CELICA	84-85	4	ACD7937	MITSUBISHI	EXPRESS, STARWAGON	Sep.94-	4
		CORONA, AVANTE	84-87	4	ACD795	MITSUBISHI	MAGNA TR	91-94	4
		BUNDERA	85-86	4	ACD797	MITSUBISHI	MAGNA TS	94-96	4
		BUNDERA 4 X 4	86-89	4	ACD798	HYUNDAI	SONATA	90-Mar.98	V6
ACD644	TOYOTA	HI-LUX UTILITY	78-88	4	MITSUBISHI		MAGNA TR / TS, VERADA KR / KS	93-96	V6
TARAGO		82-84	4	ACD799	MITSUBISHI	MAGNA TE / TF	96-	V6	
LITE-ACE		84-86	4	MAGNA, VERDA		99-	V6		
DYNA YH81		86-90	4	ACD816	FORD	MAVERICK DA	87-93	6	
HI-ACE		Feb.83-85	4	NISSAN	PATROL GQ	88-97	6		
ACD647	TOYOTA	SPRINTER COUPE	83-	4	ACD821	NISSAN	PULSAR	91-Sep.95	4
		SECA	Sep.85-	4	ACD8212	NISSAN	PULSAR	Oct.95-Sep.00	4
ACD651	DAIHATSU	ROCKY	84-	4	ACD824	NISSAN	NAVARA, PATHFINDER	86-	4
		TOYOTA	HI-ACE	83-	4		URVAN, NOMAD	87-90	4
	HI-LUX UTILITY	83-86	4	ACD873	NISSAN	BLUEBIRD 910	85-	4	
	HI-LUX, 4 RUNNER	83-89	4	ACD875	FORD	CORSAIR UA	89-92	4	
	TARAGO	84-89	4	NISSAN		PINTARA U12	89-	4	
	DYNA YU60	85-86	4	ACD885	NISSAN	PATROL MQ	83-	6	
	LITE-ACE, TOWN ACE	86-88	4	ACD8850	HOLDEN	EH	63-67	6	
ACD652	TOYOTA	DYNA YU62	87-90	4		HD / HR	66-71	6	
ACD655	HOLDEN	APOLLO JK / JL	89-91	4		HK / HT / HG	68-71	6	
	TOYOTA	CAMRY SV22	89-92	4		TORANA	69-72	6	
ACD657	HOLDEN	APOLLO JK / JL	89-91	4		ACD890	HOLDEN	ASTRA LC	86-87
	TOYOTA	CELICA	86-89	4	NISSAN	PULSAR, EXA		87-91	4
		CAMRY SV21	87-93	4	ACD891	HOLDEN	ASTRA LB	84-85	4
ACD661	HOLDEN	APOLLO JM / JP	93-	4	NISSAN		PULSAR, PRARIE	82-85	4
TOYOTA		CELICA	89-	4	ACD892	NISSAN	BLUEBIRD, PINTARA, GAZELLE	85-	4
CAMRY		93-97	4	ACD893	NISSAN	URVAN, CABSTAR	83-	4	
ACD6612	TOYOTA	CAMRY	97-2003	4	ACD899	NISSAN	NAVARA, PATHFINDER	86-	4
ACD670	HOLDEN	APOLLO JM / JP	93-	V6	URVAN, NOMAD		87-90	4	
	TOYOTA	CAMRY, VIENTA	Nov.92-97	V6					



HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco
LM102	89037640	LM204	89037928	LM31702	89037815	LM426	89037853	LM471	89037915
LM103	89037641	LM20446	89037961	LM320	19101176	LM427	89037833	LM472	89037916
LM104T	89037642	LM205	89037929	LM3350	89037875	LM427A	89037834	LM473	89037917
LM105	89037643	LM20526	89037964	LM401	89037883	LM428	89037835	LM474	89037925
LM10614	89038025	LM20527	89037965	LM40425	89037991	LM428A	89037836	LM475	89037912
LM106T	89037644	LM20535	89037963	LM40426T	89037995	LM429	89037837	LM476	89037913
LM1075	17803504	LM206	89037931	LM40427	89037988	LM429A	89037838	LM477	89037919
LM10766	89038026	LM207	89037932	LM40428	89037989	LM429AP	89037840	LM478	89037918
LM108	89037646	LM20721E	89037966	LM40429	89037993	LM429P	89037839	LM480	89037895
LM109	89037647	LM20721L	89037967	LM40430	89037990	LM430	89037887	LM481	89037896
LM110	89037648	LM208	89037933	LM40431	89037992	LM431	89037888	LM482	89037897
LM111	89037649	LM209	89037934	LM40432	89037994	LM432	89037889	LM482A	89037898
LM112	89037650	LM210	89037935	LM40433	89037996	LM433	89037891	LM4831	89037899
LM114	89037651	LM211	89037936	LM40433T	89037997	LM434	89037890	LM4832	89037900
LM115	89037652	LM212	89037937	LM40512	89037979	LM435	89037923	LM4834	89037901
LM1150	89037876	LM213	89037938	LM40514	89037983	LM436	89037892	LM4835	89037902
LM116	89037653	LM214	89037939	LM40514T	89037984	LM437	89037924	LM4836	89037903
LM117	89037654	LM215	89037940	LM40515	89037980	LM438	89037893	LM48362	17803548
LM1172	17803507	LM217	89037941	LM40516	89037981	LM440	89037844	LM48364	17803549
LM11780	89038027	LM218	89037942	LM40517	89037982	LM441	89037845	LM4837	89037904
LM119	17803508	LM219	89037943	LM40520	17803527	LM442	89037860	LM4838	89037905
LM122	17803510	LM221	89037944	LM40550	89037846	LM442T	89037861	LM4839	89037906
LM151	89038197	LM222	89037945	LM40552	89037847	LM443	89037856	LM484	89037580
LM152	89038198	LM225	89037952	LM40555	89037976	LM444	89037854	LM4842	17803550
LM154	89038199	LM226	89037946	LM40561	89037857	LM4442	89037855	LM4843	17803551
LM155	89038200	LM227	89037947	LM406	89037867	LM445	89037858	LM4845	17803552
LM156	89038201	LM228	89037949	LM40660	89037998	LM4450	89037877	LM4846	17803553
LM158	89038202	LM229	89037948	LM40661	89037999	LM446	89037894	LM485	89037824
LM159	89038203	LM230	89037950	LM40662	89038003	LM448	89037859	LM486	89037825
LM160	89038204	LM232	89037930	LM40663	89038001	LM4482	17803537	LM487	17803554
LM161	89038205	LM240	89037953	LM40663T	89038002	LM450	17803538	LM4872	17803555
LM162	89038206	LM242	89037954	LM40664	89038000	LM4501	17803539	LM4875	17803556
LM163	89037826	LM30080	89038181	LM40665	89037986	LM4502	89038344	LM4876	17803557
LM164	89037827	LM30090	89038182	LM40665T	89037987	LM4503	17803540	LM488	17803558
LM165	89038207	LM30362	89038180	LM40665TL	17803528	LM4504	19101177	LM4881	17803559
LM166	89038208	LM304	89037955	LM40666	89037985	LM450N	19101178	LM4882	17803560
LM167	89037828	LM308	89037956	LM40667T	17803529	LM451	17803541	LM4883	17803561
LM1672	89037829	LM310	89037959	LM40671	17803530	LM452	17803542	LM4884	17803562
LM1677	19101170	LM311	17803519	LM40672	17803531	LM453	89037908	LM4885	17803563
LM168	89038210	LM31100	89037811	LM411	89037578	LM456	89037921	LM4886	17803564
LM1685	17803511	LM3112	17803520	LM412	89037884	LM457	89038339	LM4887	17803565
LM1687	19101171	LM3113	17803521	LM41280	89037586	LM4572	17803543	LM489	89038351
LM1688	17803512	LM3117	19101174	LM414	89037869	LM458	89037926	LM4891	17803566
LM169	89038209	LM312	89037960	LM415	89037868	LM4581	89038341	LM4892	17803567
LM1692	17803513	LM3121	17803522	LM41510	89037977	LM459	89037579	LM4893	17803568
LM170	89038211	LM3122	19101175	LM41511	89037978	LM460	89037909	LM4895	19101179
LM1712	19101172	LM313	17803523	LM41640	89037588	LM461	89037910	LM495	17803569
LM172	89038212	LM31300	89037812	LM41640C	89037587	LM462	89037907	LM4952	17803570
LM1722	19101173	LM3132	17803524	LM417	89037843	LM463	89037920	LM4953	17803571
LM175	17803514	LM314	89037957	LM418	89037600	LM464	89037870	LM4954	17803572
LM1756	17803517	LM315	89037958	LM420	89037862	LM465	89037871	LM4955	17803573
LM1758	17803518	LM31500	89037810	LM421	89038246	LM466	89037872	LM496	17803574
LM187	89038196	LM316	17803525	LM422	89037885	LM467	89037874	LM4961	19101180
LM20066T	89037972	LM3162	17803526	LM423	89037886	LM468	89037911	LM4962	17803575
LM20292	89037962	LM31700	89037814	LM425	89037841	LM469	89037873	LM4963B	19101181
LM203	89037927	LM31701	89037813	LM425A	89037842	LM470	89037914	LM4963C	19101182

REMANUFACTURED ENGINES / CYLINDER HEADS

- HM GEM CROSS REFERENCES -

HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco
LM4963D	19101183	LM591	89037705	LM6044	89038274	LM60796	17803613	LM641	89038282
LM4964	17803577	LM592	89037676	LM6045	17803601	LM60797	17803614	LM642	89038247
LM4966	19101184	LM5922	89037709	LM6046	17803602	LM608	89038257	LM643	89037664
LM497	17803578	LM5923	89037677	LM6047	17803603	LM609	89037660	LM644	89037657
LM498	89037831	LM593	89037710	LM6048	17803604	LM610	89037661	LM6450	89037878
LM499	89037832	LM5932	89037711	LM6049	17803605	LM61046E	89038292	LM646	89038236
LM4991	17803581	LM5933	17803588	LM60664	89038338	LM61046L	89038293	LM647	89038237
LM50088	89037791	LM5934	89037702	LM60665	89037666	LM61048	89038294	LM6473	89038238
LM50090	89037793	LM59342	17803589	LM60668	89037667	LM61049	89038296	LM6474	89038263
LM50100	19101185	LM5935	89037699	LM60670	89037668	LM61050	89038295	LM6475	89038239
LM50110	17803582	LM5936	89037701	LM60671	89037672	LM61051	17803615	LM6476	17803625
LM50200	17803583	LM59362	17803590	LM60672	89037669	LM61052	17803616	LM6477	89037852
LM50210	17803584	LM5937	89037700	LM60673	89037673	LM61053	17803617	LM648	17803626
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LM50270	89037792	LM5955	89037732	LM607752	89038305	LM611	89037662	LM6522	89038278
LM50336	89037787	LM5956	89037726	LM607753	89038306	LM612	89037655	LM653	89038284
LM50336A	89038017	LM59562	17803592	LM607754	89038307	LM6122	89038268	LM654	89038217
LM50337	89038016	LM59563	17803593	LM607755	89038308	LM613	89038269	LM6542	89038218
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LM50338	89037788	LM59572	19101188	LM607757	17803606	LM615	89038281	LM6544	89038227
LM50339	17803586	LM5958	89037727	LM607761	89038310	LM616	89038234	LM6545	19101197
LM520	17803587	LM59581	17803595	LM607762	89038311	LM617	89038243	LM654T	89038228
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LM571	89038013	LM5961M	89037715	LM60779	19101194	LM61822	17803623	LM6586	19101199
LM572	89038334	LM5962A	89037712	LM607791	89038316	LM61870N	19101195	LM659	89038216
LM5750	89038332	LM5962M	89037714	LM607792	89038317	LM619	89038245	LM661	89037821
LM577	89037737	LM5963A	89037716	LM607793	89038318	LM620	89038272	LM6612	17803627
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LM587T	89037722	LM5983	19101191	LM607851	89038322	LM628	89038224	LM6774	19101201
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LM5884	89037742	LM600	89038235	LM60786	89038324	LM6294	89038285	LM6788	19101204
LM5886	89037743	LM6002	89038283	LM60787	89038325	LM634	89038225	LM685	19101205
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LM5906	89037740	LM602C	89038232	LM60792	89038329	LM637	89038264	LM701	89037603
LM5908	19101186	LM602H	89038231	LM60795	17803612	LM638	89038223	LM702	89037602



HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco
LM703	89037604	LM7650	89037879	LM7936	17803657	LM854	89038096	LM898	89038138
LM70325	89038033	LM767	89038034	LM7937	17803658	LM8542	89038097	LM899	89038146
LM70330	89038089	LM7692	89038038	LM79372	17803659	LM855	89038100	LM8991	89038148
LM70335	89038090	LM770	89038040	LM7939	17803660	LM858	89038101	LM8992	89038163
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LM70619	89037622	LM7844	89038079	LM80324	17803664	LM883	89038122	LM938	89037688
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LM708	89037614	LM7846	89038080	LM80326	17803665	LM885	89038168	LM940	89037751
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LM759	89038037	LM7923	17803653	LM825	89037682	LM8933	89038144	LM965	89037776
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REMANUFACTURED ENGINES / CYLINDER HEADS

- HM GEM CROSS REFERENCES -

HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco	HM Gem	ACDelco
LM9694	89037780	HCH4503	19101034	HCH647	19101090	HCH9696	19101146		
LM9695	89037781	HCH456	19101035	HCH651	19101091	HCH9697	19101147		
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LM9698	17803681	HCH4581	19101038	HCH657	19101094	HCH976	19101150		
LM970	89037754	HCH460	19101039	HCH661	19101095	HCH978	19101151		
LM971	89037755	HCH463	19101040	HCH6612	19101096	HCH982	19101152		
LM972	89037692	HCH466	19101041	HCH670	19101097	HCH990	19101153		
LM973	89037693	HCH474	19101042	HCH672	19101098	HCH991	19101154		
LM974	89037756	HCH480	19101043	HCH674L	19101099	HCH9912	19101155		
LM975	89037757	HCH481	19101044	HCH675L	19101100	HCH9914	19101156		
LM976	89037759	HCH482	19101045	HCH723	19101101	HCH9916	19101157		
LM9761	89037758	HCH4832	19101046	HCH724	19101102	HCH9917	19101158		
LM977	89037760	HCH4835	19101047	HCH725	19101103	HCH992	19101159		
LM978	89037761	HCH4836	19101048	HCH774	19101104	HCH9922	19101160		
LM980	89037698	HCH48362	19101049	HCH776	19101105	HCH993	19101161		
LM982	89037762	HCH485	19101050	HCH781	19101106				
LM990	89037763	HCH486	19101051	HCH784	19101107				
LM991	89038337	HCH487	19101052	HCH7845	19101108				
LM9912	89037766	HCH4875	19101053	HCH78462	19101110				
LM9913	89037765	HCH488	19101054	HCH7847	19101109				
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LM9916	17803682	HCH489	19101056	HCH790	19101112				
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LM993	19101214	HCH531	19101059	HCH7936	19101116				
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HCH101	19101006	HCH587L	19101062	HCH795	19101118				
HCH165	19101007	HCH588E	19101063	HCH797C	19101120				
HCH166	19101008	HCH588E	19101065	HCH797E	19101119				
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HCH168	19101010	HCH588L	19101066	HCH799	19101122				
HCH170	19101011	HCH592	19101067	HCH7992	19101123				
HCH175	19101012	HCH5922	19101068	HCH816	19101124				
HCH1752A	19101013	HCH593	19101069	HCH821	19101125				
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HCH1754	19101017	HCH5955	19101073	HCH875	19101129				
HCH412	19101018	HCH5956	19101074	HCH885	19101130				
HCH417	19101019	HCH59562	19101075	HCH8850	19101131				
HCH425	19101020	HCH5962	19101076	HCH890	19101132				
HCH429	19101021	HCH5963	19101077	HCH891	19101133				
HCH429P	19101022	HCH5964	19101078	HCH892	19101134				
HCH433	19101023	HCH5965	19101079	HCH893A	19101136				
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HCH4502	19101033	HCH644	19101089	HCH9693	19101145				

REMANUFACTURED ENGINES / CYLINDER HEADS

- ABBREVIATIONS -

Tensr	Tensioner
Therm	Thermostat
Throt	Throttle Body Injection
Tmg	Timing
Trans	Transmission
Turbo	Turbocharger
V/Cvr	Valve Cover
Vac	Vacuum
Veh	Vehicle
VIN	Vehicle Identification Number
Vlv	Valve Cover
W/	With
W/O	Without
W/Pmp	Water Pump
Wat	Water
Wot	Wide Open Throttle
A/Trans	Automatic Transmission

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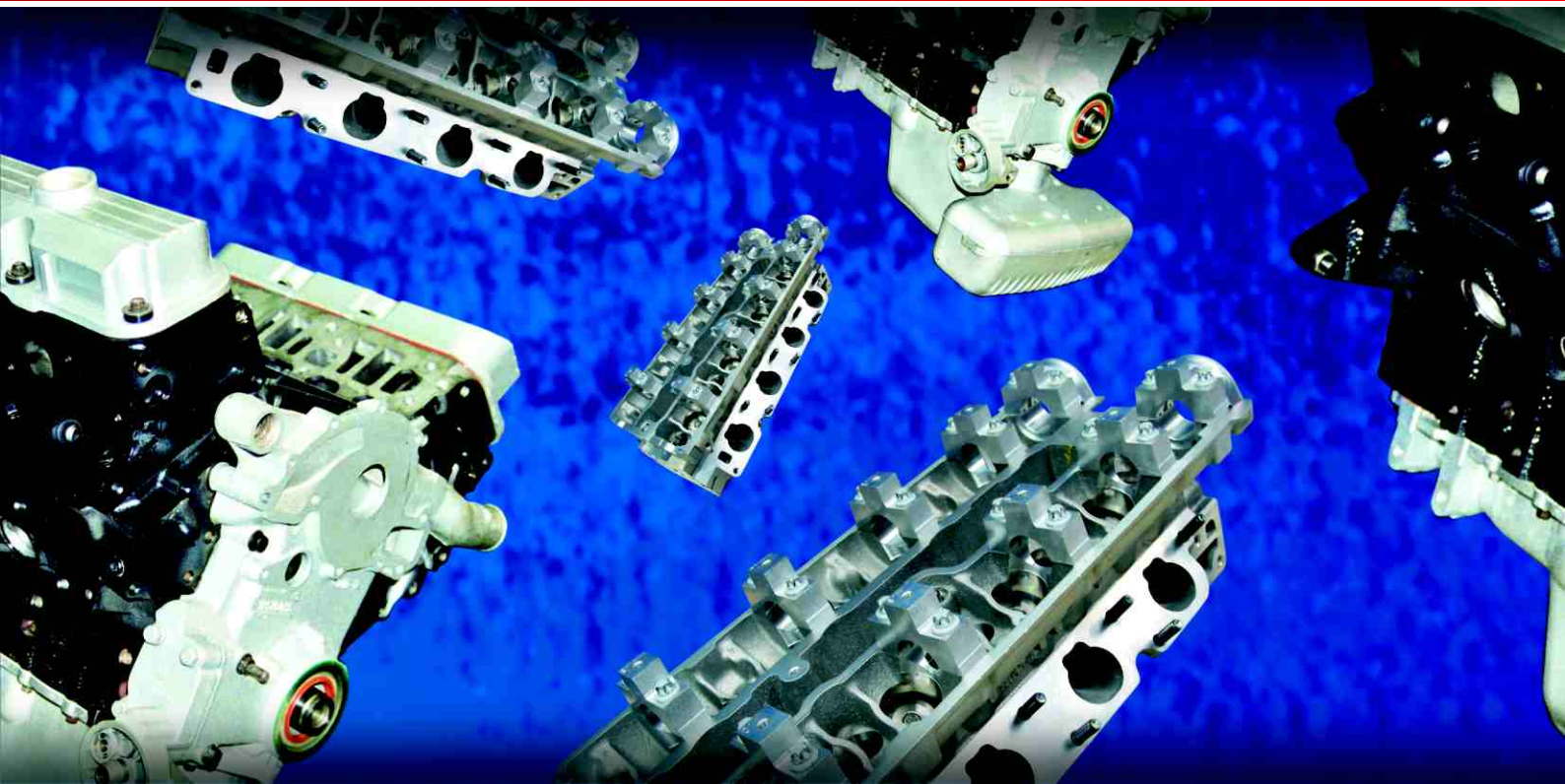
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