



READ THIS BEFORE PROCEEDING

Congratulations for purchasing a quality cylinder head from Kiwi Cylinder Heads. Please read the following notes carefully to ensure the installation goes smoothly and the repair is completed effectively.

If you have any further questions please call 0800 549 429 for assistance prior to fitting this head.

This kit contains

- Instructions & warranty information
- One bare cylinder head
- May contain associated parts, e.g. studs, heat shields, water pipes etc.

If the purchaser chooses to fit parts other than those supplied, this does not invalidate the Kiwi Cylinder Heads warranty other than to the extent that the replacement parts carry no warranty unless purchased from Kiwi Cylinder Heads. Additionally, any consequential damage to Kiwi Cylinder Heads products as a result of using these alternative parts is not warranted.

These are suggestions only and all normal professional standards must be observed by the repairer. This includes following any original manufacturers specific instructions for the replacement of cylinder heads on a particular vehicle.

If this product is being fitted as a replacement for a head which has failed in service it is critical that the cause of the original failure is identified and rectified. Failure to do so may result in this product also failing for the same reasons which will not be covered under any warranty.

Warranty

All Kiwi Cylinder Heads products are warranted for **12 months and unlimited kilometres** from the date of purchase.

All claims for failure are investigated by an independent component failure assessor, and the results of these findings will be made available to the claimant as part of the process.

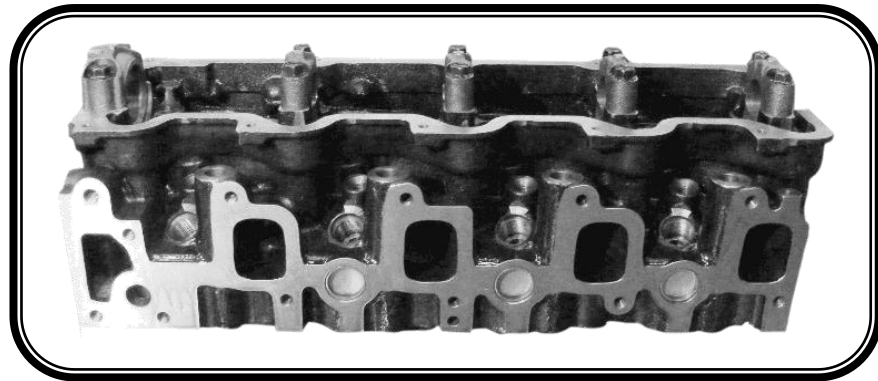
If the cause of the failure is due to faulty product, Kiwi Cylinder Heads will meet reasonable costs for repair. This includes standard labour times for the repair, gaskets, bolts and consumables associated with putting the engine into the same condition as it was prior to the failure. This excludes service items such as oil, coolant, filters etc as well as any vehicle recovery costs and the cost of any replacement vehicle.

For full details on the warranty and the claim process see the website
www.kiwicylinderheads.co.nz

ISUZU 4JX1 – P/N 10031091 – NOV.2011

SIX STEPS TO SUCCESS!

TO ENSURE A SUCCESSFUL INSTALLATION OF THIS CYLINDER HEAD



1. ENSURE BOTH MATING SURFACES ARE **CLEAN AND FREE OF DIRT AND OIL.**
2. **DO NOT** CLEAN BLOCK THREADS WITH A THREAD TAP. USE AN OLD HEAD BOLT WITH A CLEANING GROOVE CUT THE LENGTH OF THE THREAD TO THOROUGHLY CLEAN BLOCK THREADS.
3. MAKE SURE **NEW TORQUE TO YIELD** HEAD BOLTS ARE ALWAYS USED. ENSURE A LIGHT COVERING OF ENGINE OIL IS APPLIED TO THE THREADS AND UNDER THE BOLT HEAD AND WASHER.
4. ENSURE THE **CORRECT** TORQUE SETTINGS AND SEQUENCE IS EMPLOYED.
5. **MULTI-LAYER STEEL (MLS) HEAD GASKETS:** FLUSH BLOCK OF ANY REMAINING ANTI-FREEZE, **DO NOT** ADD ANY NEW ANTI-FREEZE TO COOLANT SYSTEM UNTIL ENGINE HAS TRAVELLED A **MINIMUM OF 600KMS.** TO ENSURE THE GASKET HAS THE BEST POSSIBLE CHANCE TO SEAL CORRECTLY.
6. **FUEL INJECTORS MUST** BE CHECKED FOR CORRECT OPERATION AND **SERVICED** IF REQUIRED.

IF YOU HAVE ANY QUERIES PLEASE CALL

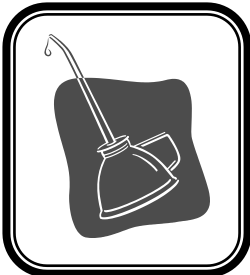
US ON 0800-549-429



CLEAN SURFACES



USE AN OLD BOLT TO CLEAN THREADS



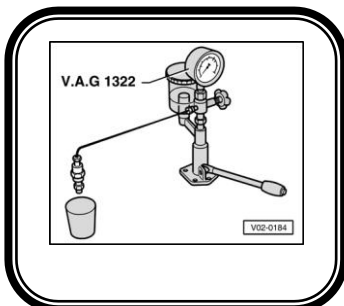
OIL HEAD BOLTS



CORRECT TORQUE PROCEDURE?



NO ANTI-FREEZE FOR MIN. 600KMS



SERVICE THE INJECTORS



Isuzu 4JX1

Important

In addition to the normal steps taken to prepare the cylinder head for fitting to a vehicle, ensure the following steps have been taken also.

1. Thoroughly clean the head to remove any swarf and casting material left in the head – this may require more than one cleaning pass.
2. **O.E injector sleeves & “O” rings MUST** be used or failure may occur.
3. When finally fitting the injector sleeves to the head it is recommended that a “Loctite 567” be added to the seating area of the sleeve, as per the Loctite instructions.
4. It is recommended that the fuel inlet ports on the injector sleeves should be lined up with inlet ports on the injector. This is primarily a north/south configuration. (see diagrams and pictures)
5. It is recommended that the “GM Tech2” diagnostic scanner be used before and after the repair to check for any existing or new fault codes recorded in the ECU.

Failure to take these steps may result in problems when in service which will not be covered by Kiwi Cylinder Heads Warranties.

ISUZU 4JX1 INJECTOR SLEEVE “O” RING PART NUMBERS.

ISUZU 4JX1 INJECTOR SLEEVE “O” RING PART NUMBERS.

SMALL SLEEVE “O” RING **9-09566119-0**

LARGE SLEEVE “O” RING **8-97240797-0**

SLEEVE AND “O”RINGS **8-97245185-0**

!ATTENTION!

THIS ISUZU **4JX1** BARE CYLINDER HEAD CARRIES A

12mth REPLACEMENT

WARRANTY ONLY.

DUE TO THE HISTORIC FAILURE RATE OF THIS ENGINE.

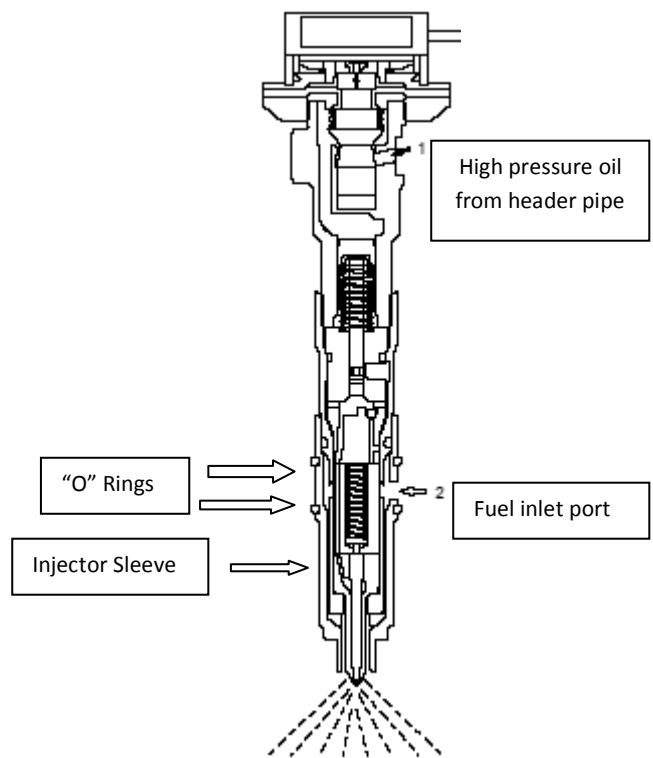
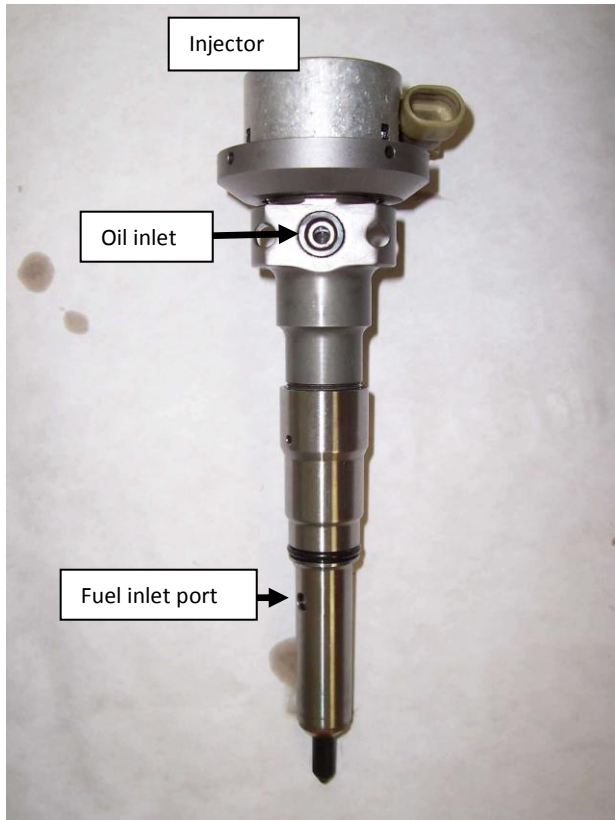
THIS IS A "SPECIALISTS" CYLINDER HEAD ONLY.

IF YOU HAVE NEVER DISASSEMBLED OR FITTED ONE
OF THESE IN THE PAST WE SUGGEST YOU CONTACT
US DIRECTLY ON:

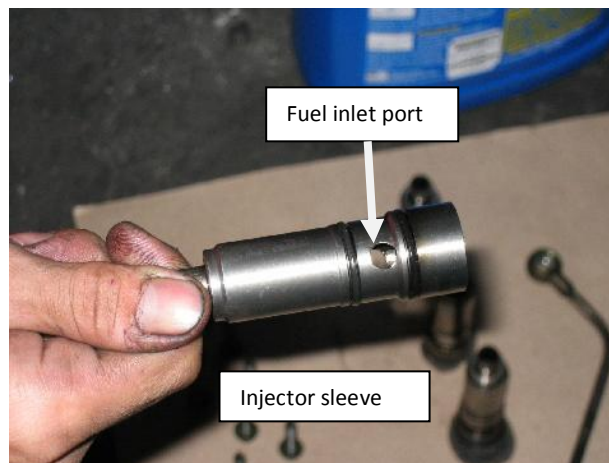
0800-549-429



Hydraulically controlled injector



O.E P/N - 8-97245185-0



4JX1 PROBLEMS

You are absolutely entitled to ask for information regarding recalls from any Holden dealership regarding any outstanding recalls for your vehicle and once asked the dealership is obliged to follow up. When the injector recall (as opposed to the injector seal recall) came out there were huge issues with supply from CAT who make the injectors. NB this was a world wide recall. In many cases it was only when customers raised hell that Holden would supply from a reserve stock.

Unfortunately even if the injectors have been replaced there can still be problems. I recall several cases where we had comebacks from faulty "new" injectors. If your problem is one of these then the dealer should be able to get approval to replace a faulty injector as a supplementary claim.

Going back to the oil- the high pressure pump operates from oil flow and pressure. If the [cold](#) rated viscosity is too high the pump will not work causing [cold](#) start issues.

FYI the first digit in an oil rating ie 5 in 5w30 is a measure of the oils ability to flow through a series of small holes at 0degC.

If you live in a [cold](#) climate area you could run the engine on 0w30. many modern engines run on this oil.

One of the issues with the 4JX1 is the bores in the cylinder head into which the injector sleeve is fitted. Sometimes even with new sleeves and injectors fitted there can still be fuel bypassing into the coolant or oil. It is the latter that triggered the recall because if the fuel fills up the sump the engine can feed directly off the fuel/oil mix through the pcv system and the result is the engine runaway situation. We had a few of these. Quite exciting on a [road test](#).

SO

keep an eagle eye on your coolant and oil levels. If either show an unexplained increase (NB only check when [cold](#)) find out if there is any fuel present. If there is talk to your local Holden dealer. If it can be demonstrated that the fault is still recall issue then it has to be done again and in some cases Holden have come partially to the party in replacing the cylinder head. But i did have to fight really hard!!!

There are also issues where the fuel pressure sensor and oil sensor can leak down the injector/engine harness corrupting the information to the ECU. this can cause all sorts of issues that can be hard to diagnose.

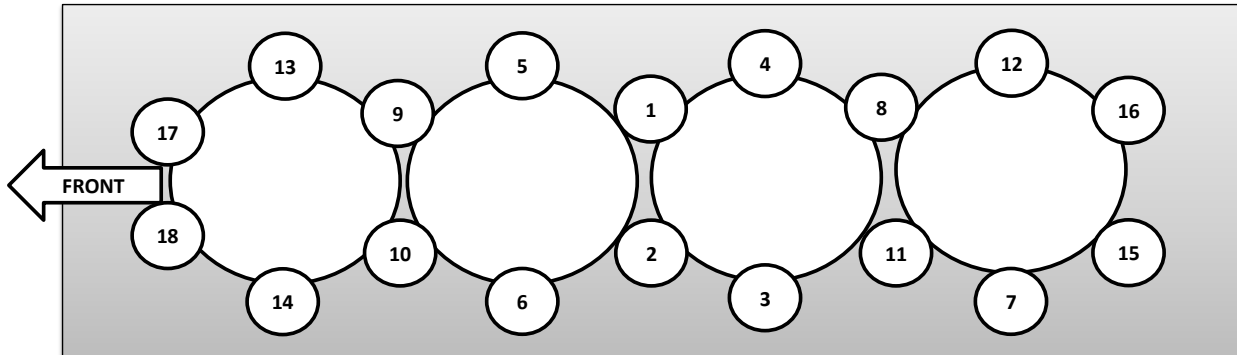
When the 4JX1 is going well they go really well. However there is always the threat of all these problems occurring or re occurring. You might want to consider changing to a 4WD with a simpler injection system.

Isuzu 4JX1/T Torque Sequence

- HEAD BOLT P/N QUANTITIES:
- HEAD BOLT TIGHTENING SEQUENCE.
- STEP ONE: 49Nm
- STEP TWO: +60*
- STEP THREE: +60*



- IMPORTANT: ALL BOLT THREADS, BOLTHEADS AND WASHERS MUST BE LIGHTLY OILED.
- USING AN OLD HEADBOLT WITH GROOVE CUT DOWN THREAD, CLEAN THE BLOCK HEADBOLT THREADS.



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