

## Changing Injection pump on ChangChai 390

- Drain antifreeze
- Remove bottom rad hose
- Remove inspection plate in front of pump on timing cover
- Turn engine over to align mark of timing gear to bottom drive gear...It does not matter if bottom gear mark is not present



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- Remove bolts that hold front drive plate on the front of timing gear...BE CAREFUL NOT TO ALLOW PUMP TO ROTATE
- Remove front plate and reinstall 3 bolts. This prevents the movement of gear and pump drive plate.
- Scribe mark on injection pump mount. This will help to align the new pump for correct timing.



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- Shut off fuel valve
- Remove all lines
- Remove control linkage
- Unbolt pump
- Unbolt nut inside timing gear that holds gear on pump shaft
- Leave nut on shaft, just flush with end
- Pull back on pump and strike the shaft inside timing gear with a small hammer. It is a tapered shaft and this should release the hub.
- Take note of the position of the key on OLD pump and set new pump to this position



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- Place new oring on pump mount and insert carefully into timing cover.....BE SURE key goes into the hub properly and tighten hub in gear—about 60 ft/lb
- Take note of scribe line on old pump and position new pump in about the same place.
- Remove blots from drive gear CAREFULLY and replace the front drive plate.....This is only used to drive an air compressor in some applications
- Attach lines and controls

- Turn fuel back on
- Bleed system
- Invert oil level screw and attach a hose to drain excess fluid on ground



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- PUT OIL in pump
- Replace hose and antifreeze
- Start engine.....If engine runs rough at higher RPM, advance pump timing by loosening mounting bolts and slightly moving pump top towards engine.