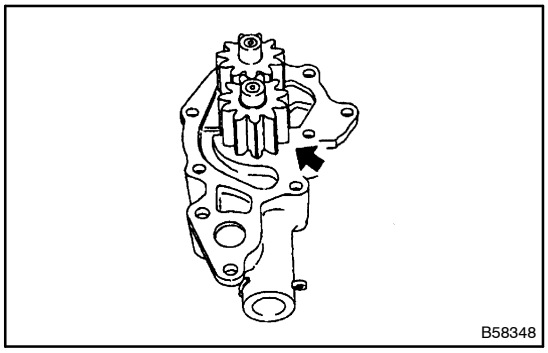
170EJ–01

OVERHAUL

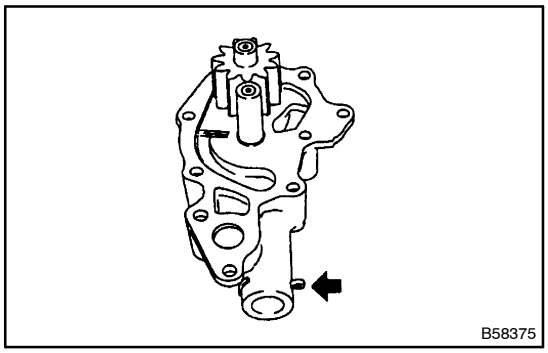


1. REMOVE OIL PUMP DRIVEN GEAR

(a) Remove the driven gear from the oil pump.

NOTICE:

Since the drive gear is a press–fit type, it can not be disassembled.



2. REMOVE OIL PUMP RELIEF VALVE

(a) Pull out the cotter pin, and remove the 2 seats, relief valve spring and safety valve.

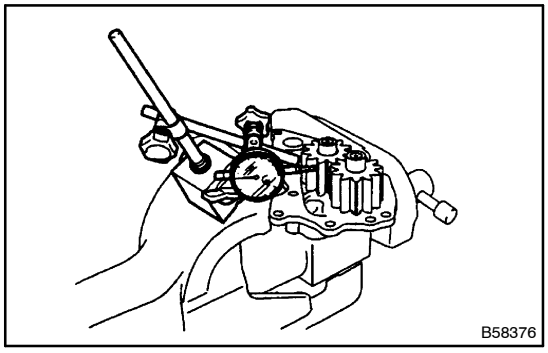
NOTICE:

Removing the cotter pin may cause the 2 seats and the relief valve spring to spring out. Be sure to wear protective goggles.

3. INSPECT OIL PUMP ASSY

(a) Visually check each part of the oil pump for damage or wear.

If damage or wear is excessive, replace the oil pump assembly with a new one.



(b) Inspect the backlash between the drive gear and driven gear.

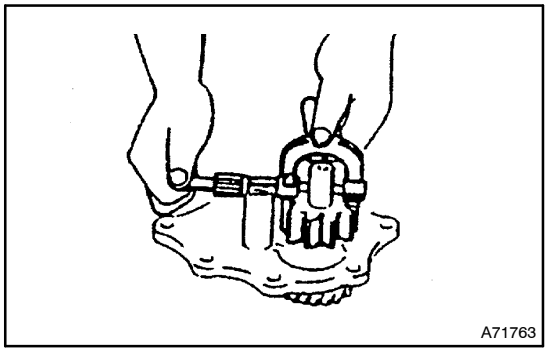
(1) Using a vise, fix the oil pump assembly.

(2) Using a dial gauge, measure the backlash between the drive gear and driven gear.

Backlash:

Standard	0.073 – 0.207 mm (0.0029 – 0.0081 in.)
Maximum	0.3 mm (0.0118 in.)

If the backlash is greater than the maximum, replace the oil pump assy with a new one.

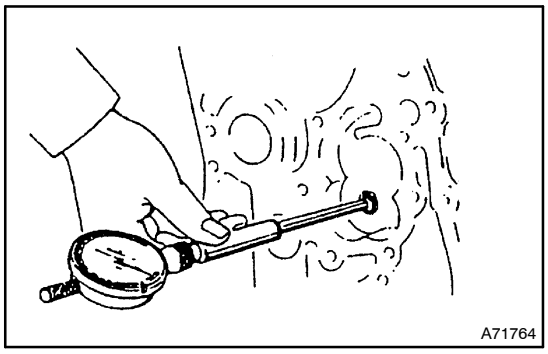

A71763

(c) Inspect the clearance between the drive gear shaft and driven gear bush.

(1) Using a micrometer, measure the diameter of the drive gear shaft.

Diameter:

Standard	18.088 – 18.106 mm (0.7121 – 0.7128 in.)
Minimum	18.062 mm (0.7111 in.)


A71764

(2) Using a dial gauge, measure the inside diameter of the drive gear bush.

Diameter:

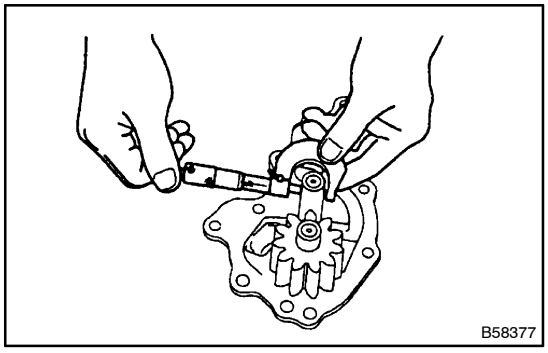
Standard	18.146 – 18.187 mm (0.7144 – 0.7160 in.)
Maximum	18.20 mm (0.7165 in.)

(3) Subtract the diameter measurement of the drive gear shaft from the inside diameter measurement of the drive gear bush.

Clearance:

Standard	0.040 – 0.099 mm (0.0016 – 0.0039 in.)
Maximum	0.15 mm (0.0059 in.)

If the clearance is greater than the maximum, replace the oil pump assy or drive gear bush.

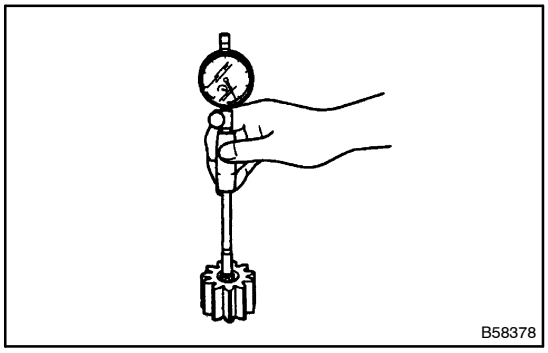

B58377

(d) Inspect the clearance between the diameter of the driven gear shaft and the inside diameter of the driven gear bush.

(1) Using a micrometer, measure the diameter of the driven gear shaft.

Shaft diameter:

18.064 – 18.082 mm (0.7112 – 0.7119 in.)


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(2) Using a dial gauge, measure the inside diameter of the driven gear bush.

Inside diameter:

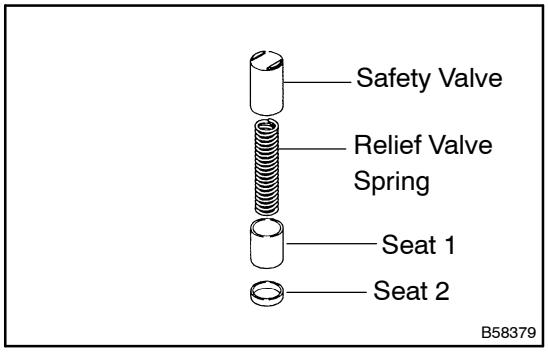
18.122 – 18.147 mm (0.7135 – 0.7144 in.)

(3) Calculate the difference between the diameter of the driven gear shaft and the inside diameter of the driven gear bush.

Clearance:

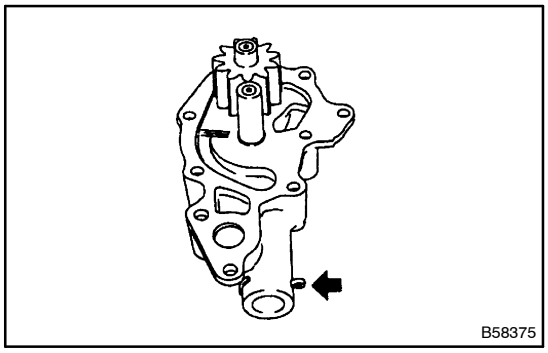
Standard	0.040 – 0.083 mm (0.0016 – 0.0032 in.)
Maximum	0.15 mm (0.0059 in.)

If the oil clearance is greater than the maximum, replace the oil pump assy or the driven gear bush.

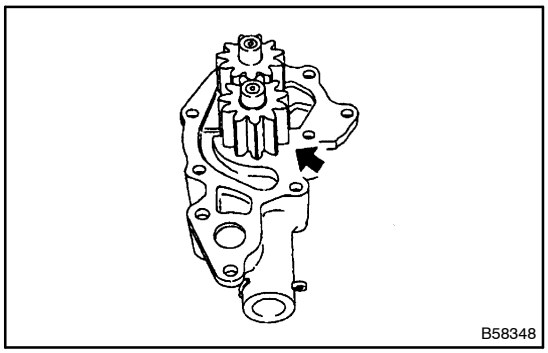


4. INSTALL OIL PUMP RELIEF VALVE

(a) Attach the relief valve, relief valve spring and 2 seats onto the oil pump assembly.

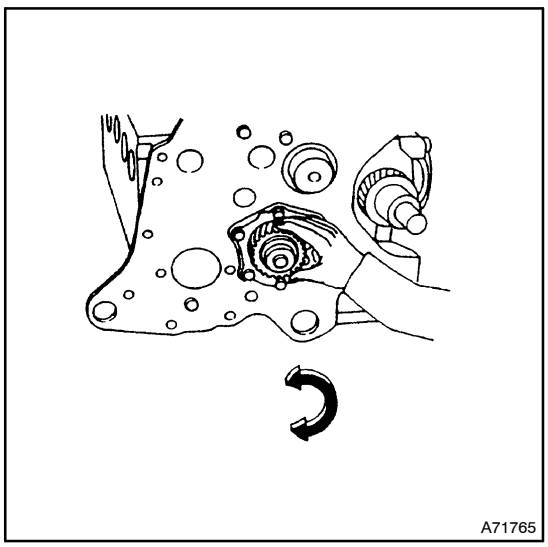


(b) Using a plastic–faced hammer, lightly tap the cotter pin.



5. INSTALL OIL PUMP DRIVEN GEAR

(a) Install the driven gear to the oil pump.



6. INSTALL OIL PUMP ASSY

(a) Apply oil liberally to the cylinder block case and bearing before installing the oil pump.

(b) Tighten the 9 bolts.
Torque: 22.5 N·m (230 kgf·cm, 17 ft·lbf)

(c) Confirm smooth rotation of the oil pump.