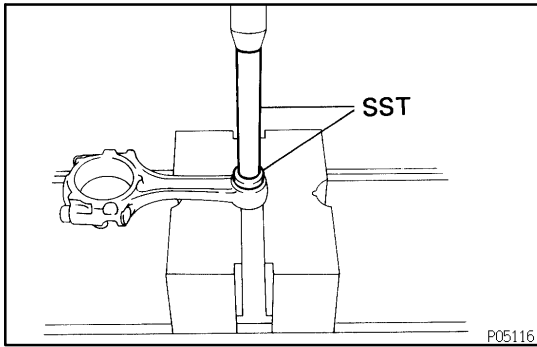


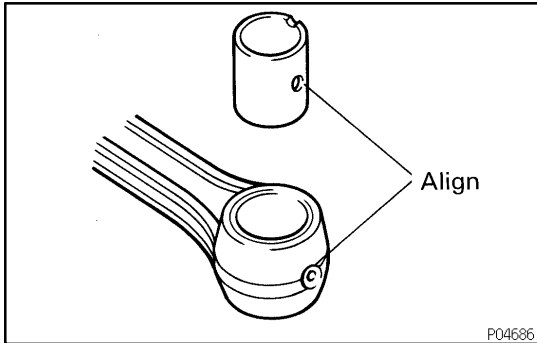


REPLACEMENT

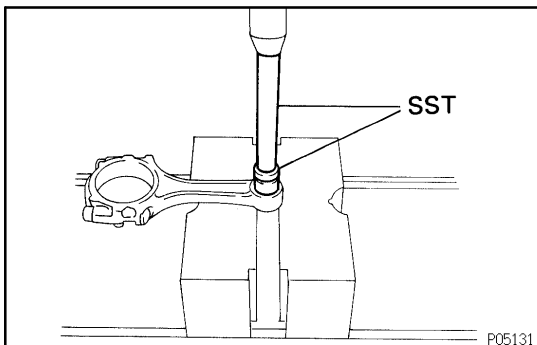
1. REPLACE CONNECTING ROD BUSHING

- (a) Using SST and a press, press out the bushing.

SST 09950-60010 (09951-00280), 09950-70010 (09951-07100)

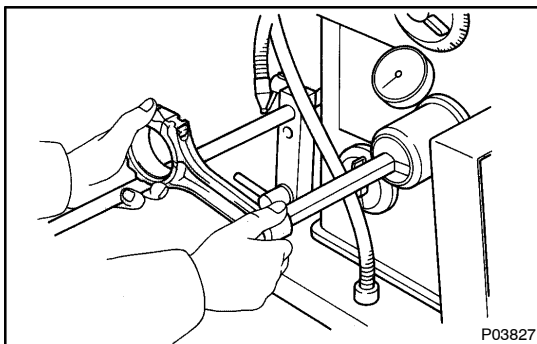


- (b) Align the oil holes of a new bushing and the connecting rod.

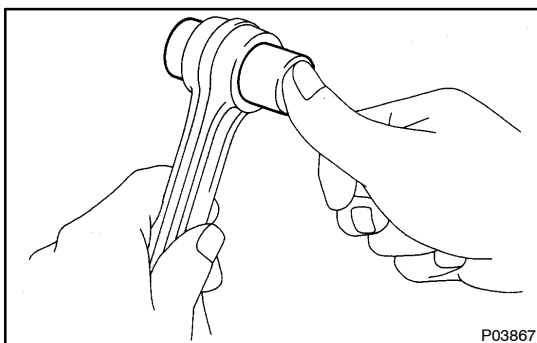


- (c) Using SST and a press, press in the bushing.

SST 09950-60010 (09951-00280), 09950-70010 (09951-07100)



- (d) Using a pin hole grinder, hone the bushing to obtain the standard specified clearance (See page [EM-92](#)) between the bushing and piston pin.

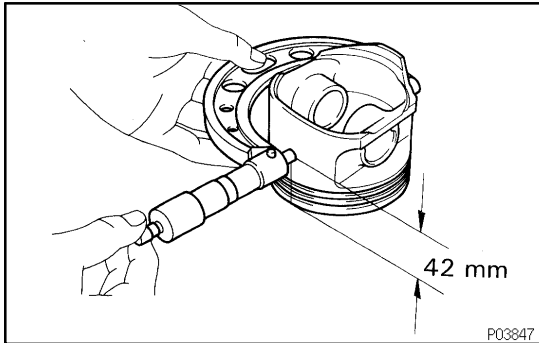


- (e) Check the piston pin fit at normal room temperature. Coat the piston pin with engine oil, and push it into the connecting rod with your thumb.

2. REPLACE OVERSIZED (O/S) PISTONS FOR CYLINDER BORING

HINT:

- Bore all the 6 cylinders for the O/S piston outside diameter.
- Replace all the piston rings with ones to match the O/S pistons.



- (a) Keep 6 new O/S pistons.

O/S piston diameter:

O/S 0.50	100.450 – 100.480 mm (3.9547 – 3.9559 in.)
O/S 1.00	100.950 – 100.980 mm (3.9744 – 3.9756 in.)

- (b) Using a micrometer, measure the piston diameter at right angles to the piston pin center line, 42 mm (1.65 in.) from the piston head.
- (c) Calculate the amount of each cylinder is to be rebored as follows:

$$\text{Size to be rebored} = P + C - H$$

P = Piston diameter

C = Piston oil clearance

0.040 – 0.060 mm (0.0016 – 0.0024 in.)

H = Allowance for honing

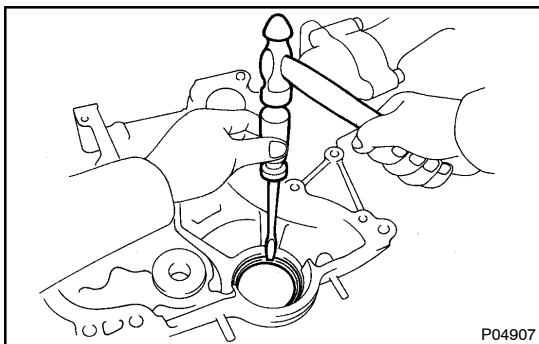
0.02 mm (0.0008 in.) or less

- (d) Bore and hone the cylinders to calculated dimensions.

Maximum honing: 0.02 mm (0.0008 in.)

NOTICE:

Excess honing will destroy the finished roundness.



3. REPLACE CRANKSHAFT FRONT OIL SEAL

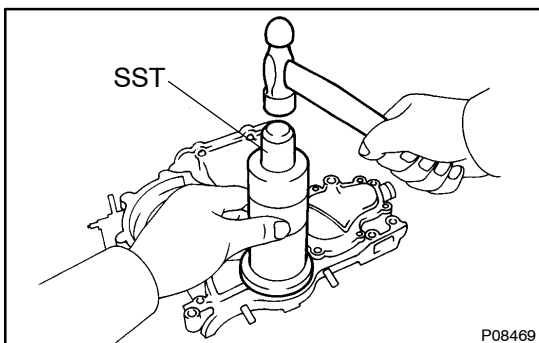
HINT:

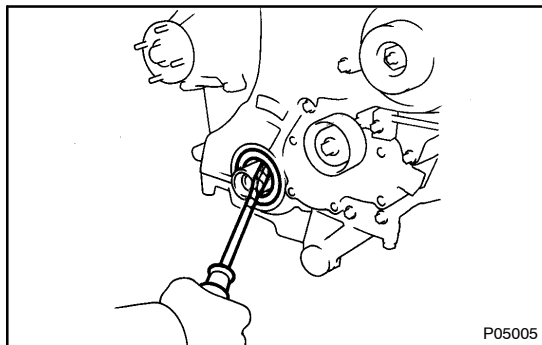
There are 2 methods ((a) and (b)) to replace the oil seal.

- (a) If the timing chain cover is removed from the cylinder block:
- (1) Using a screwdriver and a hammer, tap out the oil seal.
 - (2) Using SST and a hammer, tap in a new oil seal until its surface is flush with the timing chain cover edge.
SST 09316-60011 (09316-00011, 09316-00051)
 - (3) Apply MP grease to the oil seal lip.

NOTICE:

Do not let foreign matter get onto the lip of the oil seal.

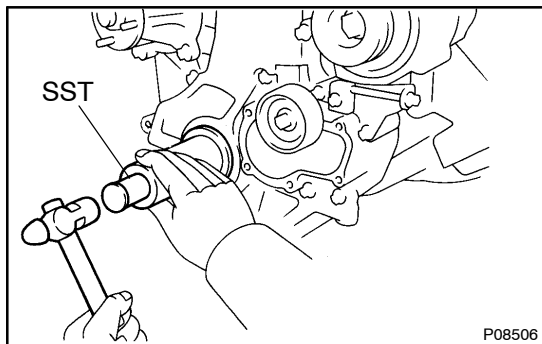




- (b) If the timing chain cover is installed to the cylinder block:
 (1) Using a screwdriver, pry out the oil seal.

NOTICE:

Be careful not to damage the crankshaft. Tape the screwdriver tip.



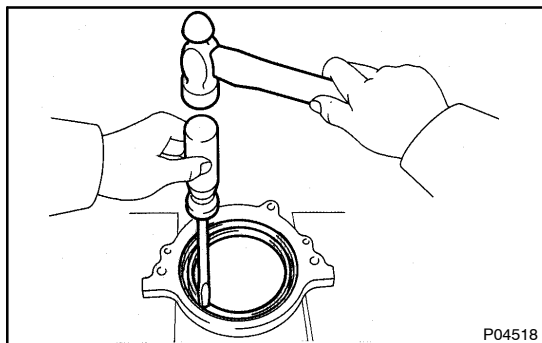
- (2) Apply MP grease to a new oil seal lip.

NOTICE:

Do not let foreign matter get onto the lip of the oil seal.

- (3) Using SST and a hammer, tap in the oil seal until its surface is flush with the timing chain cover edge.

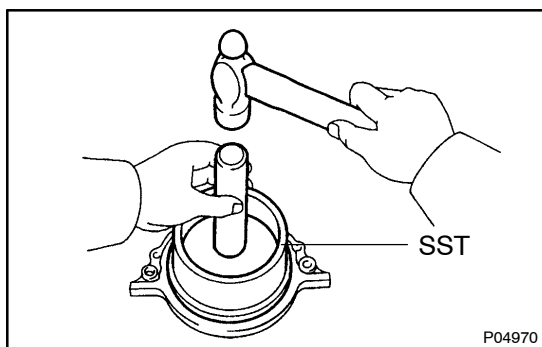
SST 09316-60011 (09316-00011, 09316-00051)

**4. REPLACE CRANKSHAFT REAR OIL SEAL****HINT:**

There are 2 methods ((a) and (b)) to replace the oil seal.

- (a) If the rear oil seal retainer is removed from the cylinder block:

- (1) Using a screwdriver and a hammer, tap out the oil seal.

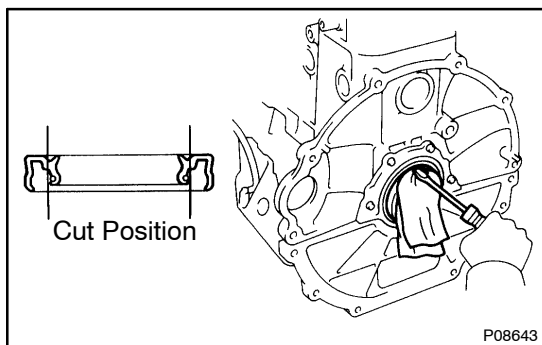


- (2) Using SST and a hammer, tap in a new oil seal until its surface is flush with the rear oil seal edge.

SST 09223-15030, 09950-70010 (09951-07150)

NOTICE:

Do not let foreign matter get onto the lip of the oil seal.



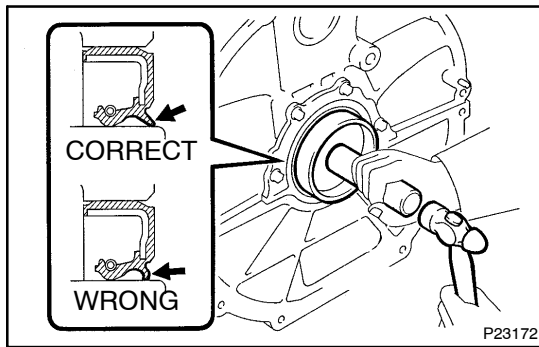
- (b) If the rear oil seal retainer is installed to the cylinder block:

- (1) Using a knife, cut off the oil seal lip.

- (2) Using a screwdriver, pry out the oil seal.

NOTICE:

Be careful not to damage the crankshaft. Tape the screwdriver tip.



- (3) Using SST and a hammer, tap in a new oil seal until its surface is flush with the rear oil seal retainer edge.

SST 09223-15030, 09950-70010 (09951-07150)

NOTICE:

Do not let foreign matter get onto the lip of the oil seal.

- (4) Check that the lip of the oil seal is not bent inward.