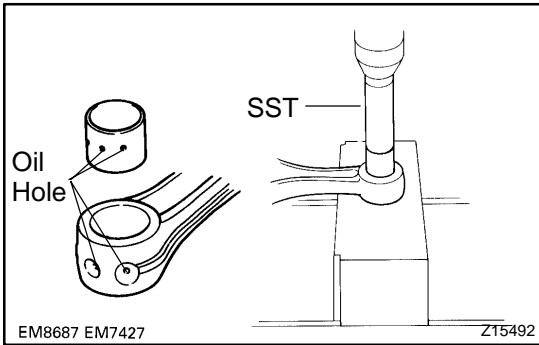


REPLACEMENT

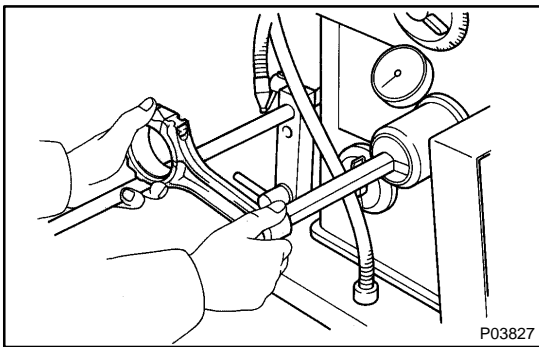
1. REPLACE CONNECTING ROD BUSHINGS

- (a) Using SST and a press, press out the bushing.
SST 09207-76010

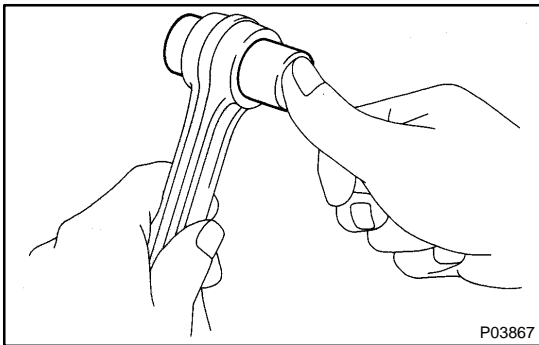


- (b) Align the oil holes of a new bushing and the connecting rod.

- (c) Using SST and a press, press in the bushing.
SST 09207-76010



- (d) Using a pin hole grinder, hone the bushing to obtain the standard specified clearance (see step 14 above) 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

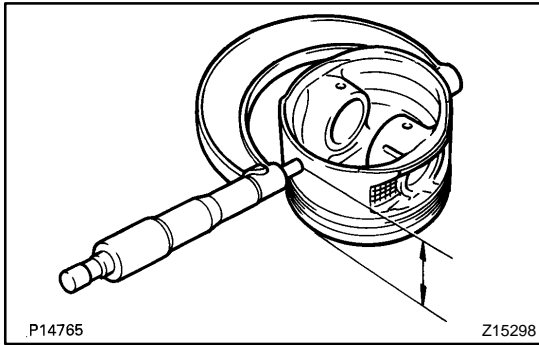
HINT:

- Bore all the 4 cylinders for the O/S piston outside diameter.
- Replace all the piston rings with ones to match the O/S pistons.

- (a) Select the O/S pistons.

O/S piston diameter:

2RZ-FE	95.423 – 95.433 mm (3.7568 – 3.7572 in.)
3RZ-FE	95.433 – 95.443 mm (3.7572 – 3.7576 in.)



- (b) Using a micrometer, measure the piston diameter at right angles to the piston pin center line, 35.5 mm (1.40 in.) for 2RZ-FE or 37.5 mm (1.47 in.) for 3RZ-FE 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 clearance:

2RZ-FE	0.057 – 0.080 mm (0.0022 – 0.0031 in.)
3RZ-FE	0.047 – 0.070 mm (0.0019 – 0.0028 in.)

H = Allowance for honing:

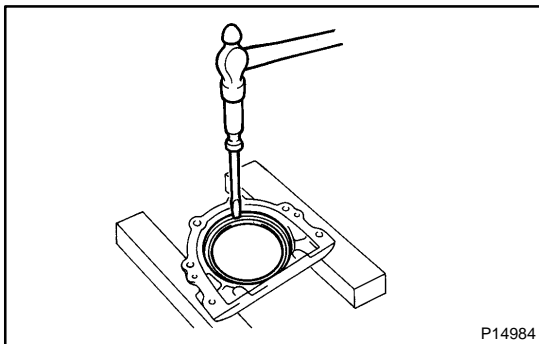
0.020 mm (0.0008 in.) or less

- (d) Bore and hone the cylinder 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 (See page [LU-12](#))

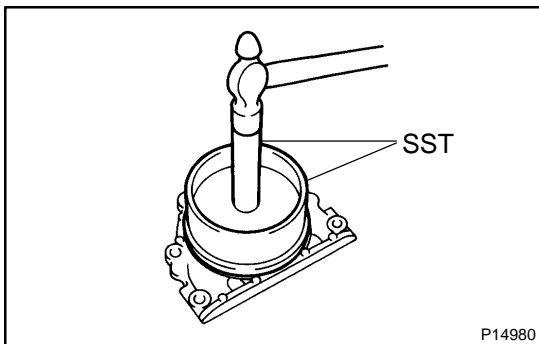


4. REPLACE CRANKSHAFT REAR OIL SEAL

HINT:

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

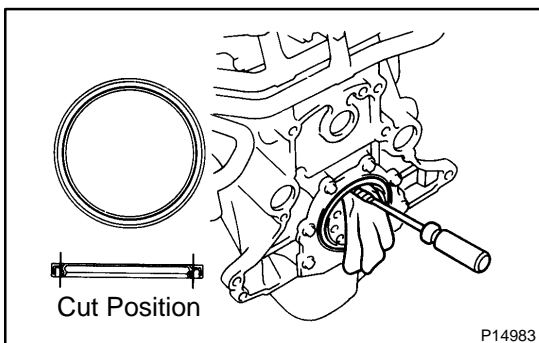
- (a) If rear oil seal retainer is removed from cylinder block:
- (1) Using a screwdriver and a hammer, tap out the oil seal.



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

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- (3) Apply MP grease to the oil seal lip.



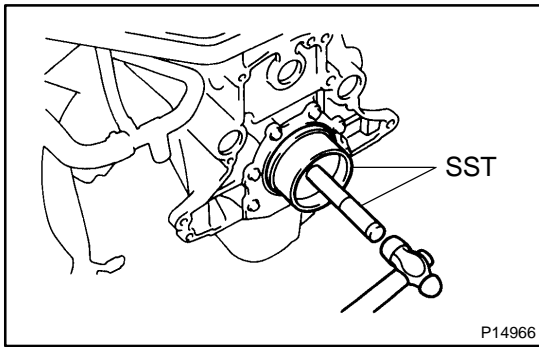
- (b) If rear oil seal retainer is installed to cylinder block:

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



- (4) Using SST and a hammer, tap in the oil seal until its surface is flush with the rear oil seal retainer edge.
SST 09223-15030, 09950-70010 (09951-07150)