EM11J-01

# REPLACEMENT

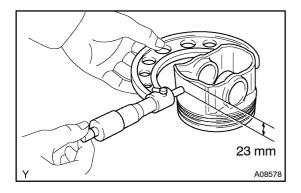
# 1. REPLACE OVERSIZED (O/S) PISTONS FOR CYLIN-DER BORING

#### 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 0.50 piston diameter:

75.43 – 75.44 mm (2.9697 – 2.9701 in.)



- (b) Using a micrometer, measure the piston diameter at a right angles to the piston pin center line, 23 mm (0.91 in.) below the skirt bottom edge.
- (c) Calculate the amount of each cylinder to be rebored as follows:

Size to be rebored = P + C - H

P = Piston diameter

C = Piston oil clearance

0.070 - 0.093 mm (0.0028 - 0.0037 in.)

H = Allowance for honing

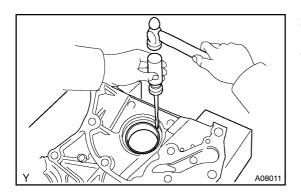
0.02 mm (0.0008 in.) or less

(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.



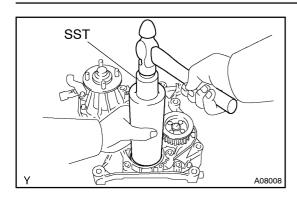
### LEXUS IS200 (RM684E)

# 2. REPLACE CRANKSHAFT FRONT OIL SEAL

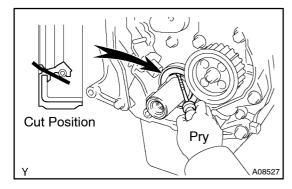
HINT:

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

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



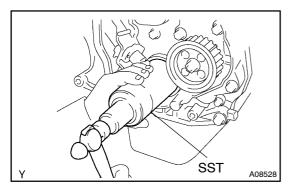
- (2) Using SST and a hammer, tap in a new oil seal until its surface is flush with the timing belt case edge.
- SST 09316-60011 (09316-00011)



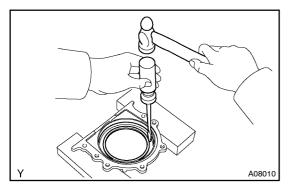
- (b) If the timing belt case is installed to the cylinder block:
  - (1) Using a knife, cut off the oil seal lip.
  - (2) Using a screwdriver, pry out the oil seal.

#### NOTICE:

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



- (3) Using SST and a hammer, tap in the oil seal until its surface is flush with the timing belt case edge.
- SST 09316-60011 (09316-00011)



### 3. REPLACE CRANKSHAFT REAR OIL SEAL

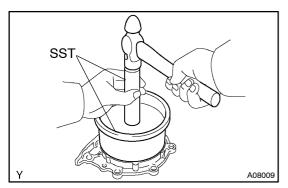
#### HINT:

(2)

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

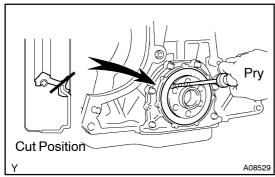
- (a) If the rear oil seal retainer is removed from the cylinder block:
  - (1) Using a screwdriver and hammer, tap out the oil seal.

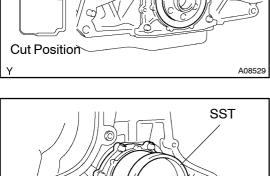
Using SST and a hammer, tap in a new oil seal until its surface is flush with the rear oil seal retainer



edge. SST 09223-15030, 09950-70010 (09951-07100)

LEXUS IS200 (RM684E)





- (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) 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 (09951-07100)