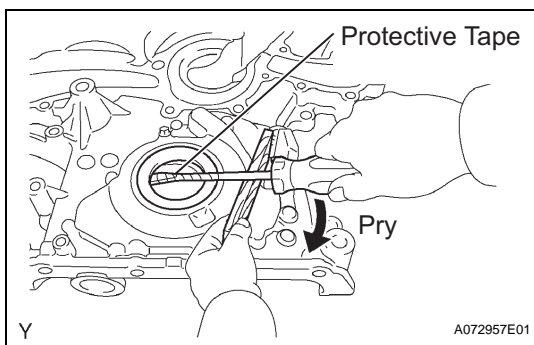


Item	Mark	mm (in.)
Crankshaft main journal diameter (B)	"00"	71.999 to 72.000 (2.8346 to 2.8346)
	"01"	71.998 to 71.999 (2.8346 to 2.8346)
	"02"	71.997 to 71.998 (2.8345 to 2.8346)
	"03"	71.996 to 71.997 (2.8345 to 2.8346)
	"04"	71.995 to 71.996 (2.8344 to 2.8345)
	"05"	71.994 to 71.995 (2.8344 to 2.8344)
	"06"	71.993 to 71.994 (2.8343 to 2.8344)
	"07"	71.992 to 71.993 (2.8343 to 2.8343)
	"08"	71.991 to 71.992 (2.8343 to 2.8343)
	"09"	71.990 to 71.991 (2.8343 to 2.8343)
	"10"	71.989 to 71.990 (2.8342 to 2.8343)
Standard bearing center wall thickness	"1"	2.488 to 2.491 (0.0980 to 0.0981)
	"2"	2.491 to 2.494 (0.0981 to 0.0982)
	"3"	2.494 to 2.497 (0.0982 to 0.0983)
	"4"	2.497 to 2.500 (0.0982 to 0.0984)
	"5"	2.500 to 2.503 (0.0984 to 0.0985)

EM



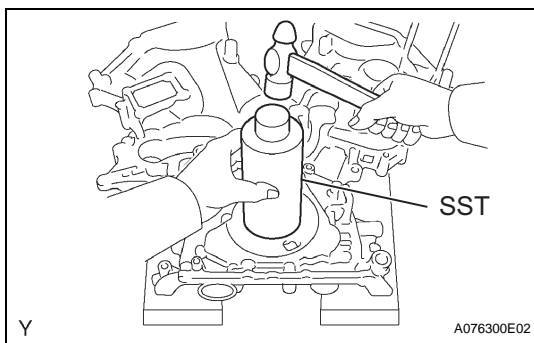
## REPLACEMENT

### 1. REMOVE TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL

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

#### NOTICE:

Be careful not to damage the oil pump assembly. Wrap a tip of the screwdriver with tape.

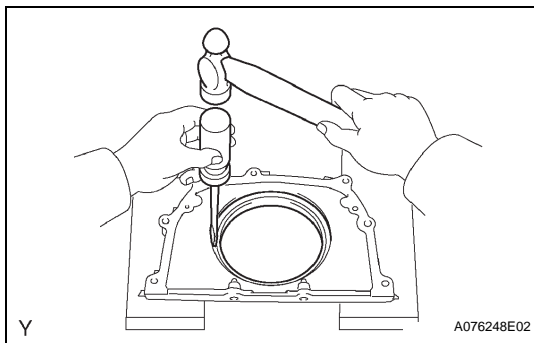


### 2. INSTALL TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL

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

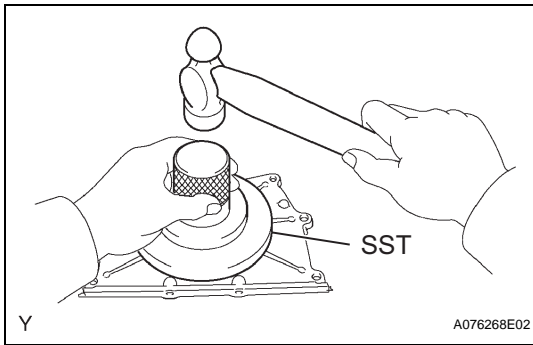
#### SST 09226-10010

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



### 3. REMOVE REAR ENGINE OIL SEAL

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

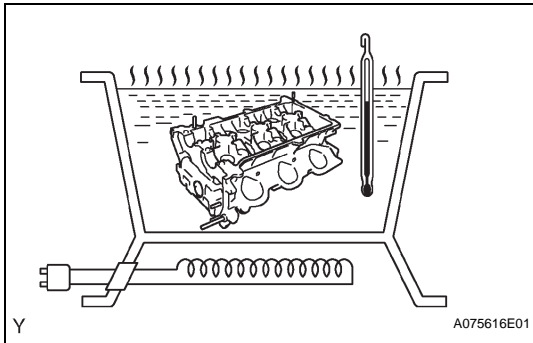


#### 4. INSTALL REAR ENGINE OIL SEAL

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

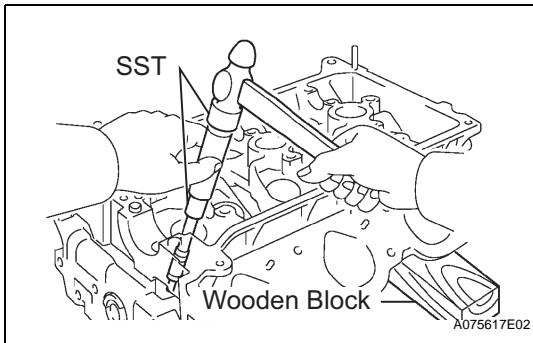
**SST 09223-78010**

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



#### 5. REMOVE VALVE GUIDE BUSH

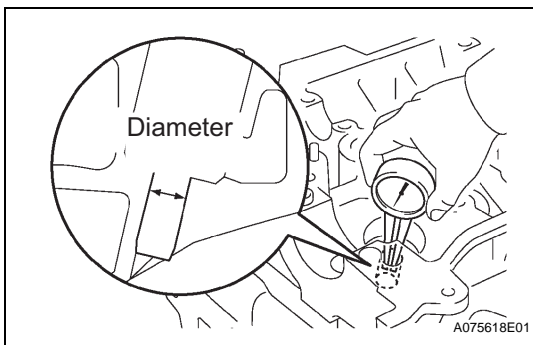
- (a) Gradually heat the cylinder head to 80 to 100°C (176 to 212°F).



- (b) Place the cylinder head on a wooden block.

- (c) Using SST, tap out the valve guide bush.

**SST 09201-10000, 09201-01055, 09950-70010 (09951-07100)**



#### 6. INSTALL VALVE GUIDE BUSH

- (a) Using a caliper gauge, measure the bush bore diameter of the cylinder head.

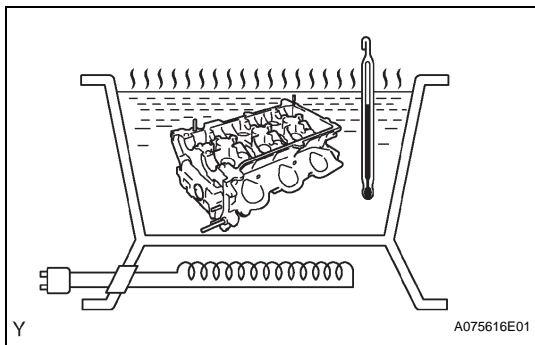
**Bush bore diameter:**

**10.295 to 10.315 mm (0.4053 to 0.4061 in.)**

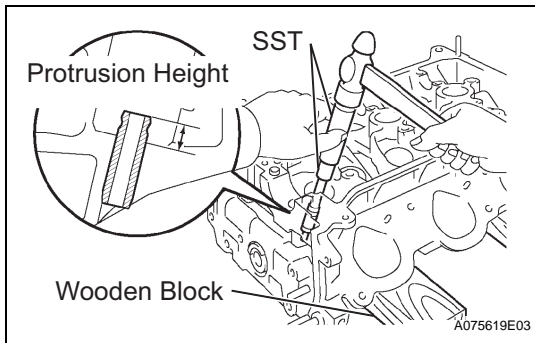
If the bush bore diameter of the cylinder head is greater than 10.315 mm (0.4061 in.), machine the bush bore to the dimension of 10.345 to 10.365 mm (0.4073 to 0.4081 in.).

**Valve guide bush diameter**

STD	10.333 to 10.344 mm (0.4068 to 0.4072 in.)
O/S 0.05	10.383 to 10.394 mm (0.4088 to 0.4092 in.)



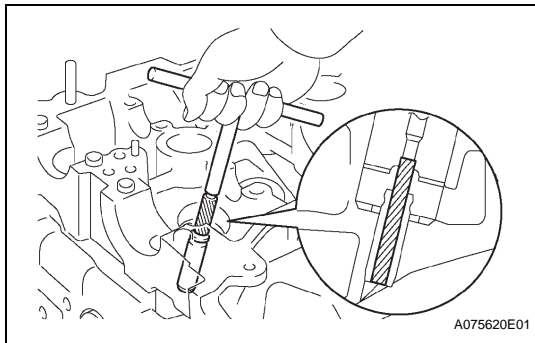
- (b) Gradually heat the cylinder head to 80 to 100°C (176 to 212°F).



- (c) Place the cylinder head on a wooden block.  
(d) Using SST, tap in a new valve guide bush to the specified protrusion height.

**SST 09201-10000, 09201-01055, 09950-70010 (09951-07100)**

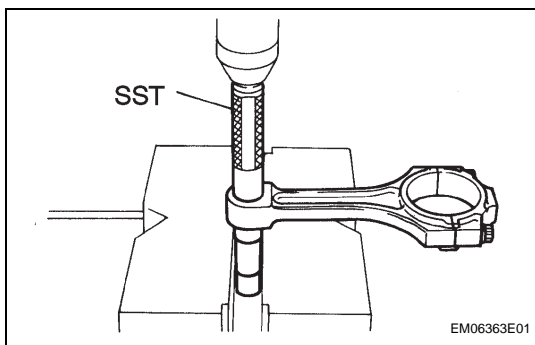
**Protrusion height:  
9.3 to 9.7 mm (0.366 to 0.382 in.)**



- (e) Using a sharp 5.5 mm reamer, ream the valve guide bush to the standard specified clearance between the valve guide bush and valve stem.

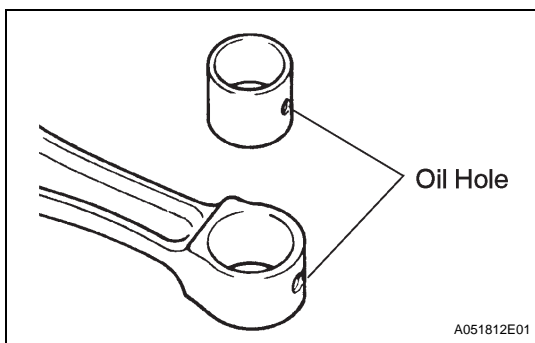
**Standard oil clearance:**

Intake	0.025 to 0.060 mm (0.0010 to 0.0024 in.)
Exhaust	0.030 to 0.065 mm (0.0012 to 0.0026 in.)



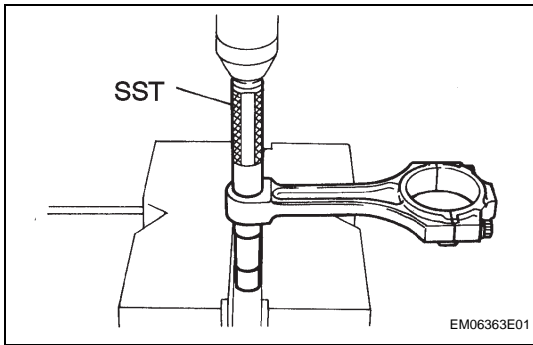
## 7. REMOVE CONNECTING ROD SMALL END BUSH

- (a) Using SST and a press, press out the bushing.  
**SST 09222-30010**

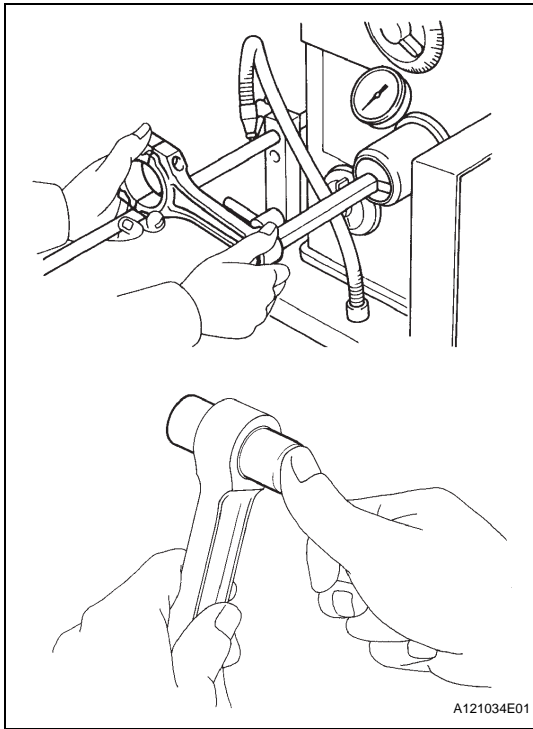


## 8. INSTALL CONNECTING ROD SMALL END BUSH

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



- (b) Using SST and a press, press in the bushing.  
**SST 09222-30010**



- (c) Using a pin hole grinder, hone the bushing to the standard specified clearance between the bushing and piston pin.

**Standard oil clearance:**

**0.005 to 0.011 mm (0.0002 to 0.0004 in.)**

**HINT:**

Check the measurement at room temperature. Coat the piston pin with engine oil, and push it into the connecting rod with a thumb.

**EM**