## 16. Oil Pump Assembly

A: DISASSEMBLY

1) Remove the oil seal retainer.

Also remove the O-ring and oil seal (air breather).

(A) Oil seal retainer
(B) Oil seal housing
2) Remove O-rings from oil pump housing.

## CAUTION:

Be careful not to damage O-ring.
3) Remove the four seal rings.

CAUTION:
Be careful not to damage seal ring.

(A) Seal rings
4) Remove the oil pump cover.

NOTE:
Lightly tap the end of the stator shaft to remove the cover.

5) Remove the inner and outer rotor.

(A) Outer rotor
(B) Inner rotor

## B: INSPECTION

1) Check seal ring and O-ring oil seal for breaks or damage.
2) Check other parts for dents or abnormalities.
3) Selection of oil pump rotor assembly
(1) Tip clearance

Install inner rotor and outer rotor to oil pump. With rotor gears facing each other, measure crest-to-crest clearance.

## Tip clearance:

$$
0.02-0.15 \mathrm{~mm}(0.0008-0.0059 \mathrm{in})
$$


(2) Side clearance

Set a depth gauge to oil pump housing, then measure oil pump housing-to-rotor clearances.

## Side clearance:

$$
0.02-0.04 \mathrm{~mm}(0.0008-0.0016 \mathrm{in})
$$


(3) If depth and/or side clearances are outside specifications, replace rotor assembly.

| Oil pump rotor assembly |  |
| :---: | :---: |
| Part No. | Thickness mm (in) |
| 15008AA060 | $11.37-11.38(0.4476-0.4480)$ |
| 15008AA070 | $11.38-11.39(0.4480-0.4484)$ |
| 15008AA080 | $11.37-11.38(0.4476-0.4480)$ |

## C: ASSEMBLY

1) Install oil pump rotor assembly to oil pump housing.


B3M1836B
(A) Outer rotor
(B) Inner rotor
2) Install the oil pump cover.

Tightening torque:

## $25 \pm 2 \mathrm{~N} \cdot \mathrm{~m}$ (2.5 $\pm 0.2 \mathrm{~kg}-\mathrm{m}, 18.1 \pm 1.4 \mathrm{ft}-\mathrm{lb})$

NOTE:

- Align both pivots with the pivot holes of the cover, and install the cover being careful not to apply undue force to the pivots.
- After assembling, turn the oil pump shaft to check for smooth rotation of the rotor.

- Install the oil seal retainer and seal rings. After adjusting the drive pinion backlash and tooth contact.

(A) Seal rings

