

[CB-23, CB-61 & CB-80]

SECTION 7 LUBRICATION SYSTEM

7

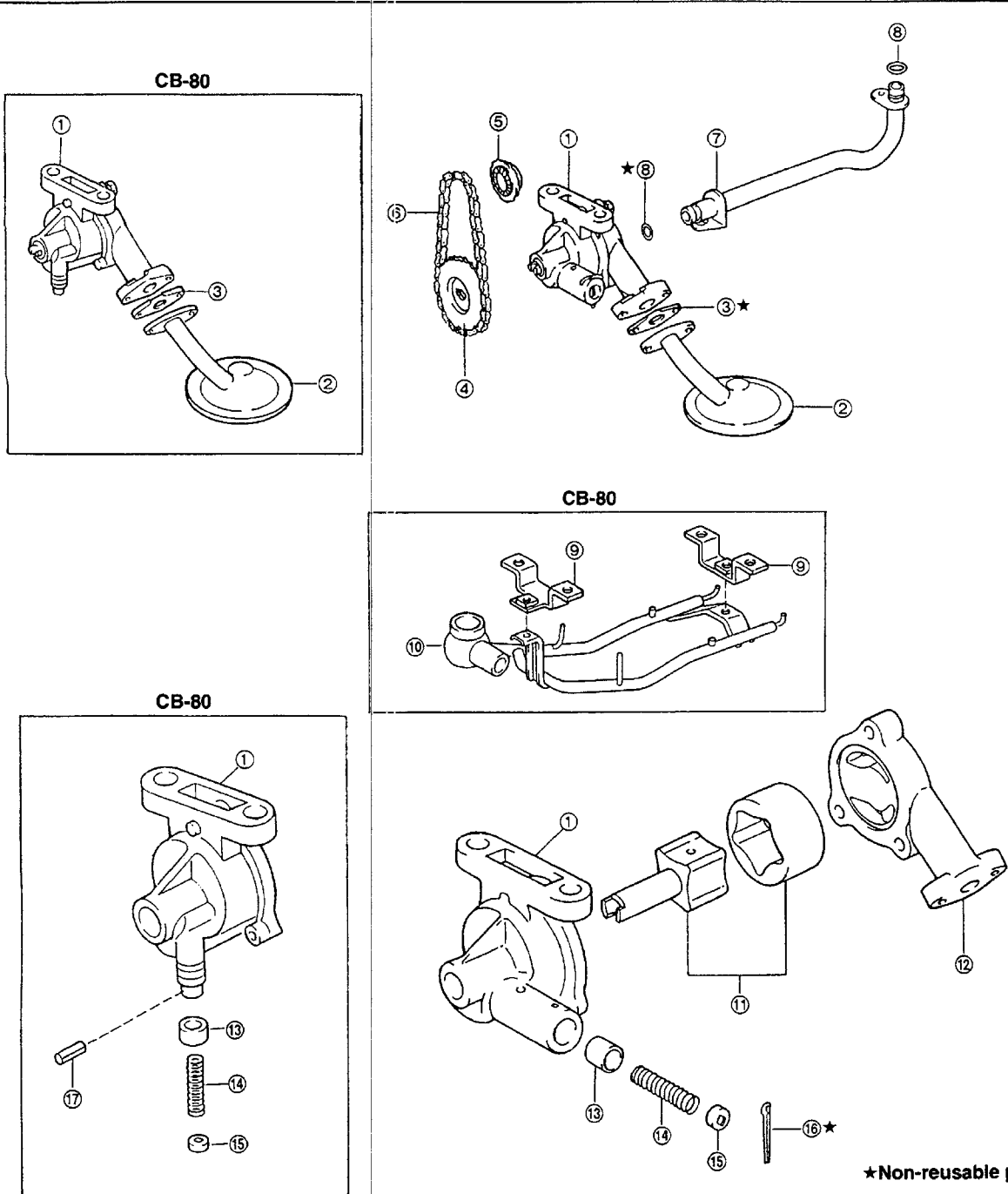
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WM-07001

LUBRICATION SYSTEM

OIL PUMP

COMPONENTS OF OIL PUMP



- ① Oil pump Ay less strainer
- ② Oil pump strainer Ay
- ③ Oil strainer flange gasket
- ④ Oil pump drive shaft sprocket
- ⑤ Oil pump drive sprocket
- ⑥ Oil pump drive chain Ay
- ⑦ Oil pump outlet pipe S/A
- ⑧ "O" ring
- ⑨ Oil nozzle bracket (CB-80 engine only)

- ⑩ Oil nozzle Ay (CB-80 engine only)
- ⑪ Oil pump rotor set
- ⑫ Oil pump cover
- ⑬ Oil pump relief valve
- ⑭ Compression spring
- ⑮ Oil pump relief valve spring retainer
- ⑯ Cotter pin
- ⑰ Slotted pin

★Non-reusable parts

Fig. 7-1

WM-07002

INSPECTION

1. Oil pump drive shaft sprocket Check for cracks and damage.

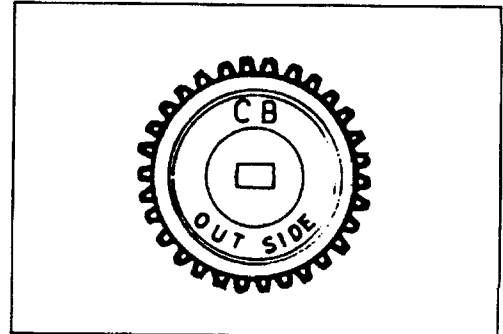


Fig. 7-2

WM-07004

2. Oil pump chain Check for damage.

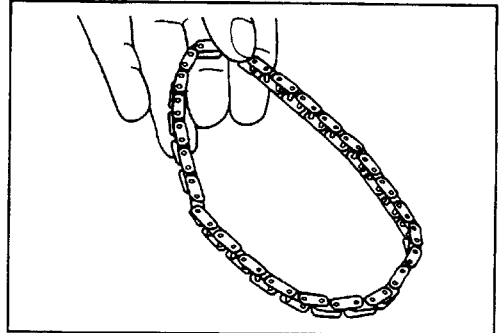


Fig. 7-3

WM-07005

3. Measurement of shaft clearance

Specified Clearance: 0.045 - 0.085 mm
(0.0018 - 0.0033 inch)
Limit: 0.10 mm (0.0039 inch)

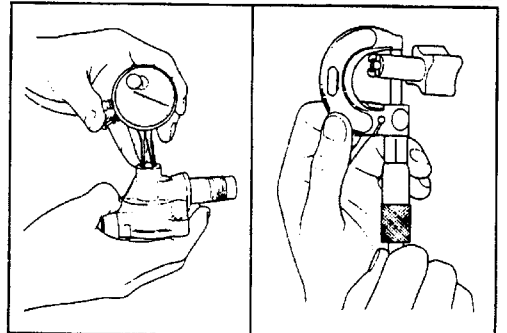


Fig. 7-4

WM-07006

4. Measurement of tip clearance

Specified Clearance: 0.15 mm (0.0059 inch) or less
Limit: 0.25 mm (0.0098 inch)

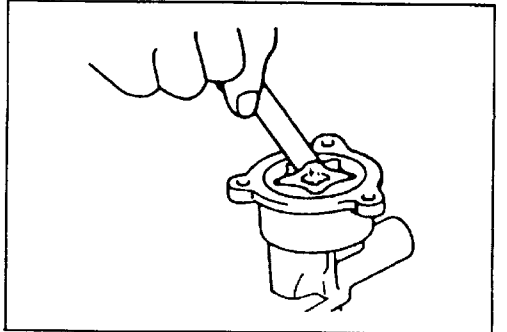


Fig. 7-5

WM-07007

5. Side clearance

Specified Clearance: 0.03 - 0.09 mm
(0.0012 - 0.0035 inch)
Limit: 0.20 mm (0.0079 inch)

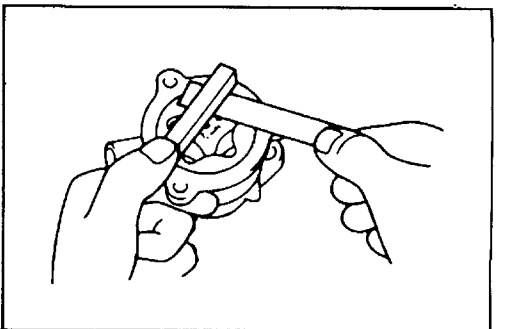


Fig. 7-6

WM-07008

LUBRICATION SYSTEM

6. Body clearance

Specified Clearance: 0.10 - 0.16 mm
(0.0039 - 0.0063 inch)
Limit: 0.30 mm (0.0118 inch)

7. Relief valve

Check the oil passage and sliding surface for damage.

ASSEMBLY

1. Assemble the relief valve in the numerical order shown in the figure.

2. Oil pump rotor set

Assemble the rotor in such a way that the punched marks point toward the same direction (facing toward you).

NOTE:

Coat each sliding part with engine oil.

3. Oil pump cover and body

Tightening Torque: 0.4 - 0.7 kg-m (2.9 - 5.1 ft-lb)

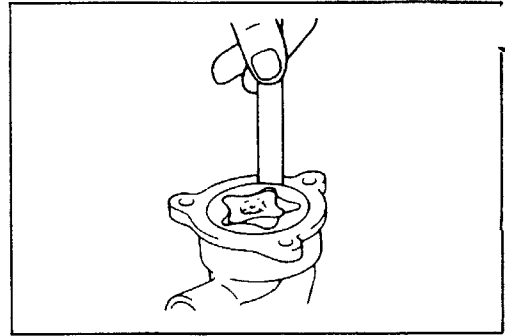


Fig. 7-7

WM-07009

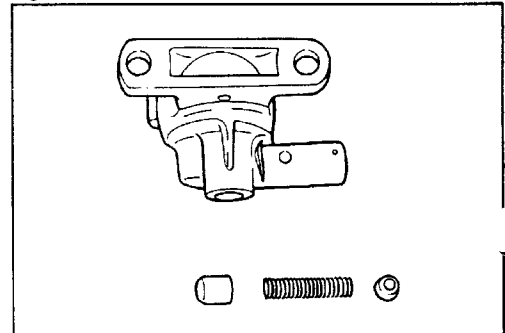


Fig. 7-8

WM-07010

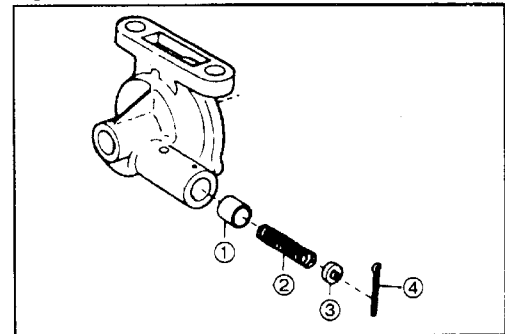


Fig. 7-9

WM-07011

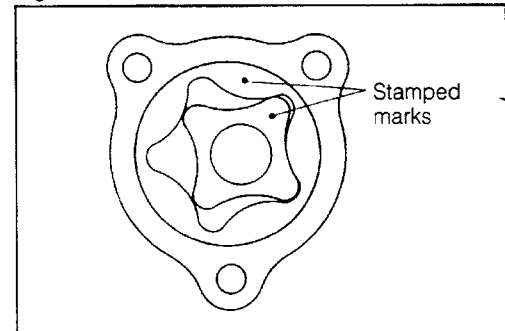


Fig. 7-10

WM-07012

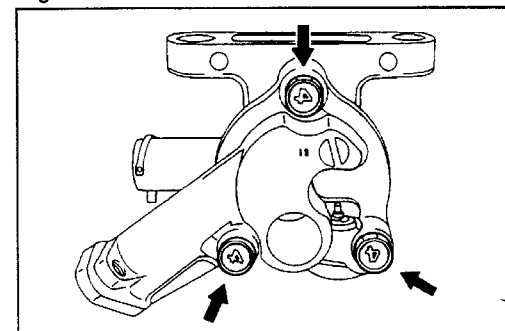


Fig. 7-11

WM-07013

4. Strainer
NOTE:
 Replace the gasket with new one.
 Tightening Torque: 0.4 - 0.7 kg-m (2.9 - 5.1 ft-lb)

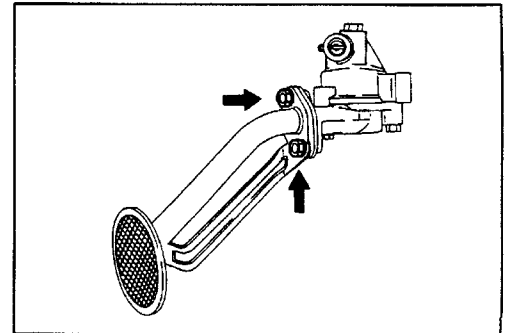


Fig. 7-12

WM-07014

Oil Pump Operation Check

5. After assembling, immerse the oil pump strainer into clean engine oil. Turn the sprocket counterclockwise. The oil should be discharged from the oil pump outlet pipe.

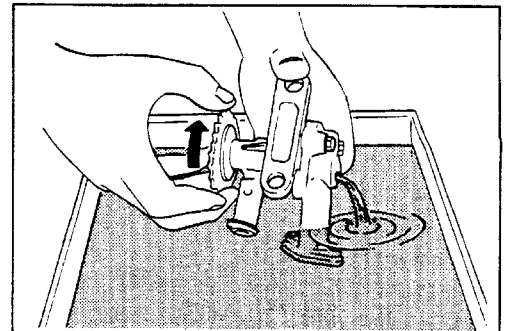


Fig. 7-13

WM-07015

6. Block the outlet port with your finger and perform the same test. Ensure that the oil pump shaft becomes harder to turn until it cannot be turned any longer.

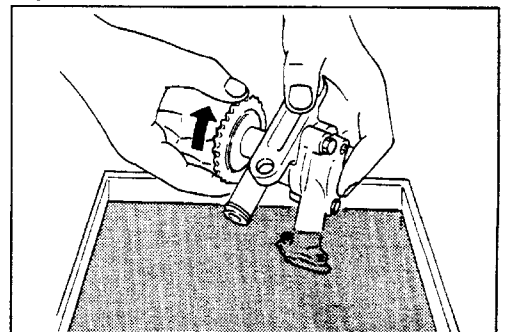


Fig. 7-14

WM-07016

7. Attach the oil pump assembly onto the cylinder block.
8. Install the oil pump outlet pipe subassembly.
NOTE:
 Apply engine oil to the "O" ring sections provided at both ends of the oil pump outlet pipe subassembly.

9. Install the oil pump drive shaft sprocket.
10. Inspection
 Check the deflection of oil pump chain.
 Measure the deflection when the center of the chain between the sprockets is pushed.

Deflection Limit: 7.0 mm (0.275 inch)

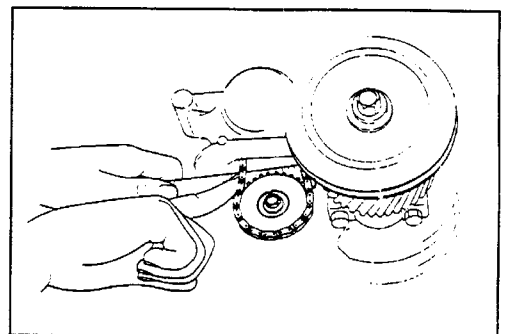


Fig. 7-15

WM-07017

LUBRICATION SYSTEM

11. Install the oil nozzle assembly. (CB-80 engine only)

NOTE:

The oil nozzle assembly can be distorted very easily. Hence, care must be exercised to ensure that the oil nozzle assembly is interfered with no other parts.

Tightening Torque: 3.0 - 3.5 kg-m (22 - 25 ft-lb)

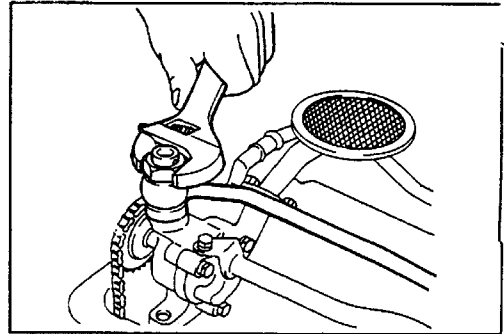
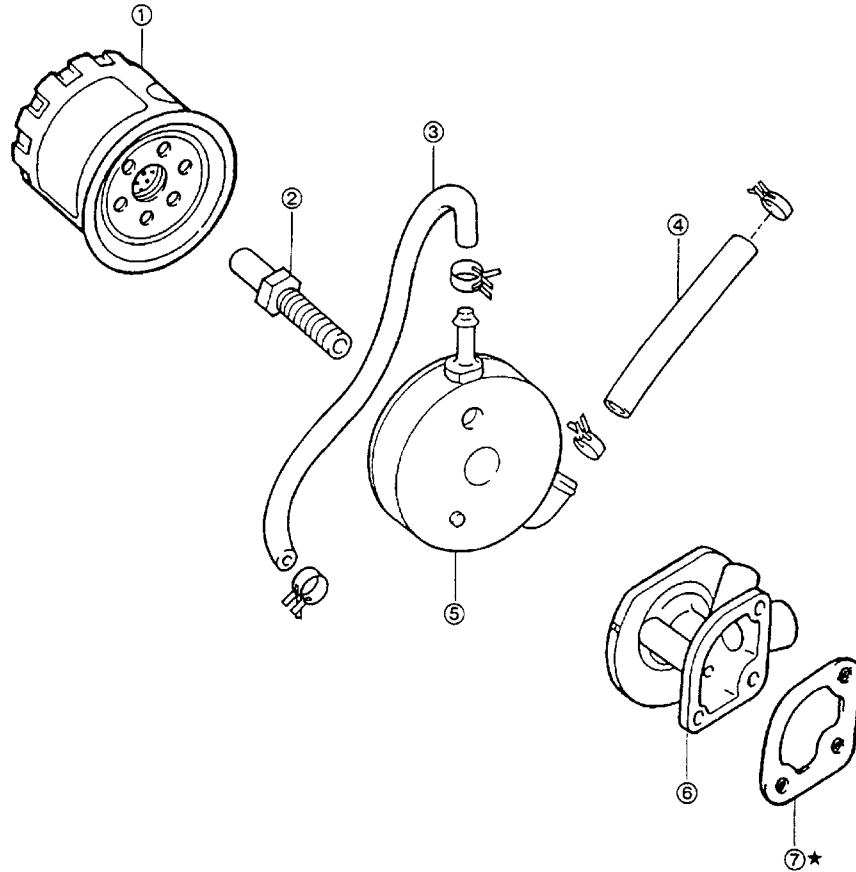


Fig. 7-16

WM-07018

OIL COOLER

COMPONENTS OF OIL COOLER [CB-61]



★: Non-reusable parts

- ① Oil filter element
- ② Oil cooler set bolt
- ③ Oil cooler hose
- ④ Oil cooler hose

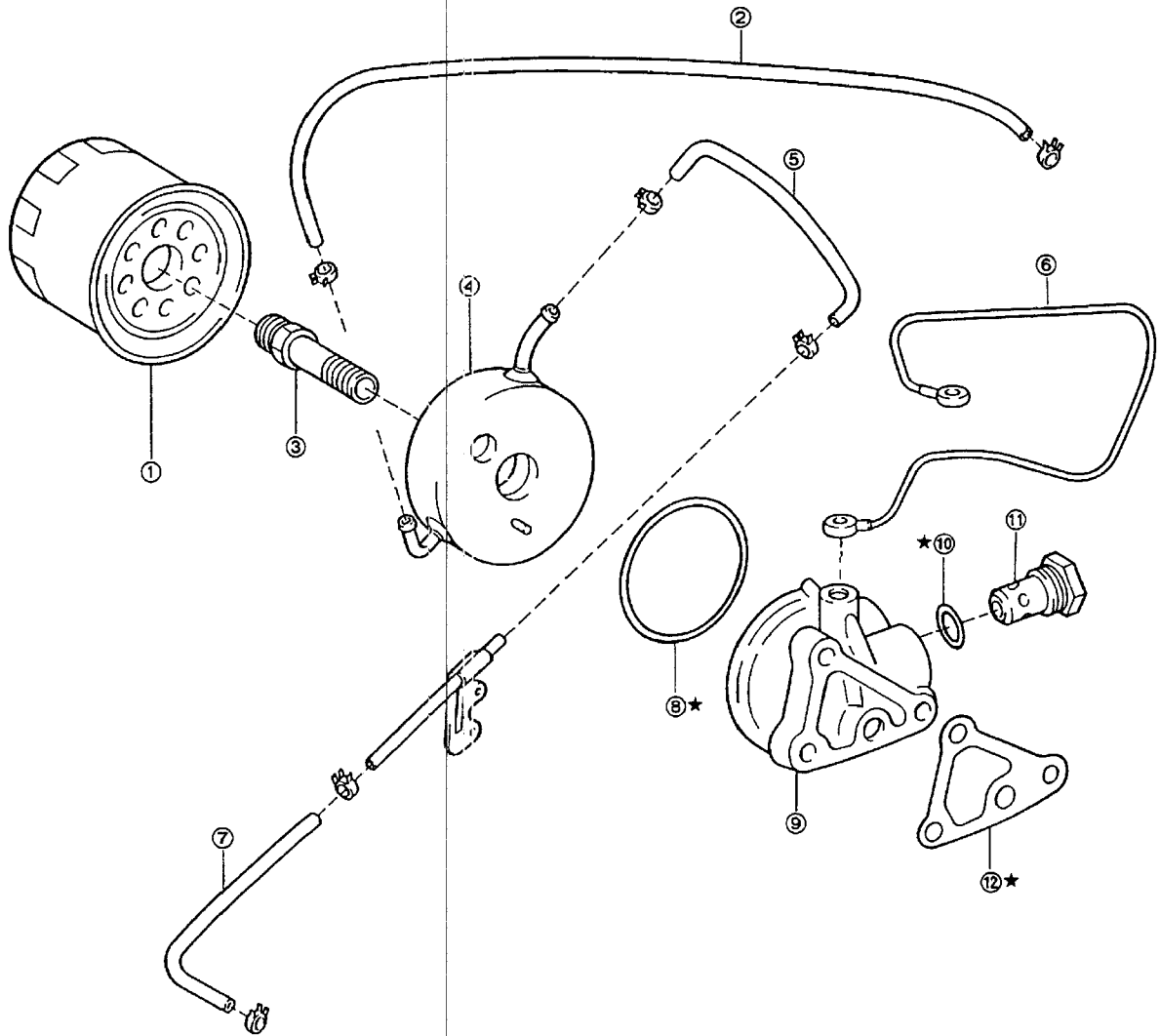
- ⑤ Oil cooler
- ⑥ Oil filter bracket
- ⑦ Gasket

Fig. 7-17

WM-07019

LUBRICATION SYSTEM

COMPONENTS OF OIL COOLER [CB-80]



★: Non-reusable parts

- ① Oil filter element
- ② Oil cooler hose
- ③ Oil cooler set bolt
- ④ Oil cooler
- ⑤ Oil cooler hose
- ⑥ Turbo oil outlet pipe

- ⑦ Turbo oil inlet pipe
- ⑧ "O" ring
- ⑨ Oil filter bracket
- ⑩ "O" ring
- ⑪ Gasket
- ⑫ Gasket

Fig. 7-18

WM-07020

INSTALLATION

Oil Cooler Assembly

- (1) Make sure that the oil filter bracket is fitted with the "O" ring.
Install the oil cooler pin into the pin hole provided in the oil filter bracket.
- (2) Align the projected section of the oil filter bracket with the arrow-headed mark of the oil cooler.
- (3) Install the oil cooler set bolt.

Tightening Torque: 3.0 - 4.0 kg-m (22 - 29 ft-lb)

NOTE:

Inasmuch as the gap between the oil cooler and the set bolt is very narrow, difficulty may be encountered in installing the set bolt. In such case, the application of a small amount of engine oil to the set bolt may facilitate the installation of the said bolt.

NOTE:

Be sure to replace the gasket with a new one

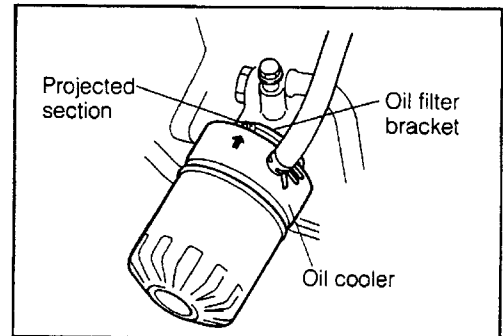


Fig. 7-19

WM-07021

INSPECTION

After the oil filter and cooler have been installed, start the engine. Make sure that the oil filter and oil cooler exhibit no oil leakage or water leakage.

WM-07022