SERVICE MANUAL
6WG1T ISUZU
ENGINES

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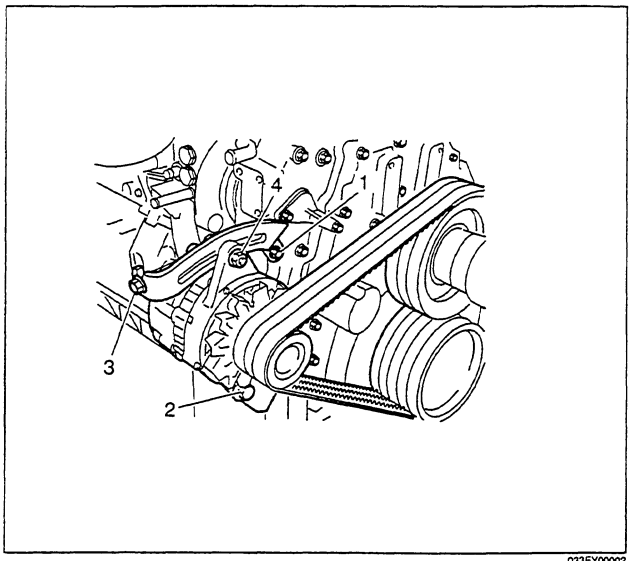
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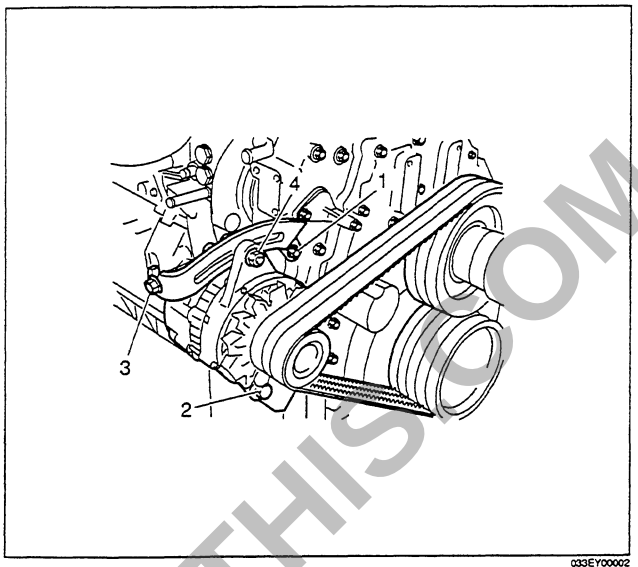
Alternator

Removal

1. Remove the sliding piece nut (4).
2. Remove the adjust plate fixing bolt (1).
3. Remove the alternator fixing bolt (2).
4. Remove the fan belt.
5. Remove the alternator.



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Installation

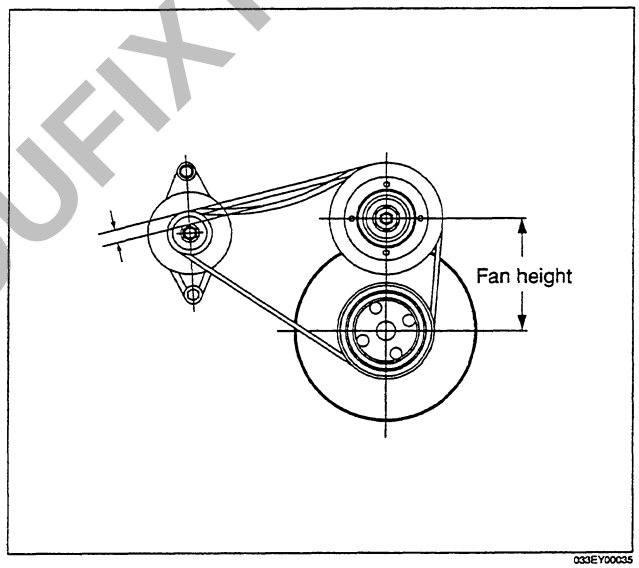
1. Install the alternator.
2. Install the adjusting plate.
3. Install the fan belt.
4. Adjust the belt tension by turning bolt (3).
   - Depress the fan belt midway between the alternator and fan pulley.

   Belt Deflection:

   Incase of the fan height from the crankshaft center: 8 – 12 mm (0.31 – 0.47 in)

   Incase of the fan height from the crankshaft center: 14 – 18 mm (0.55 – 0.71 in)
5. Tighten the alternator fixing bolt to the specified torque.

   Torque: 147 N·m (15.0 kgm/108 lbft)



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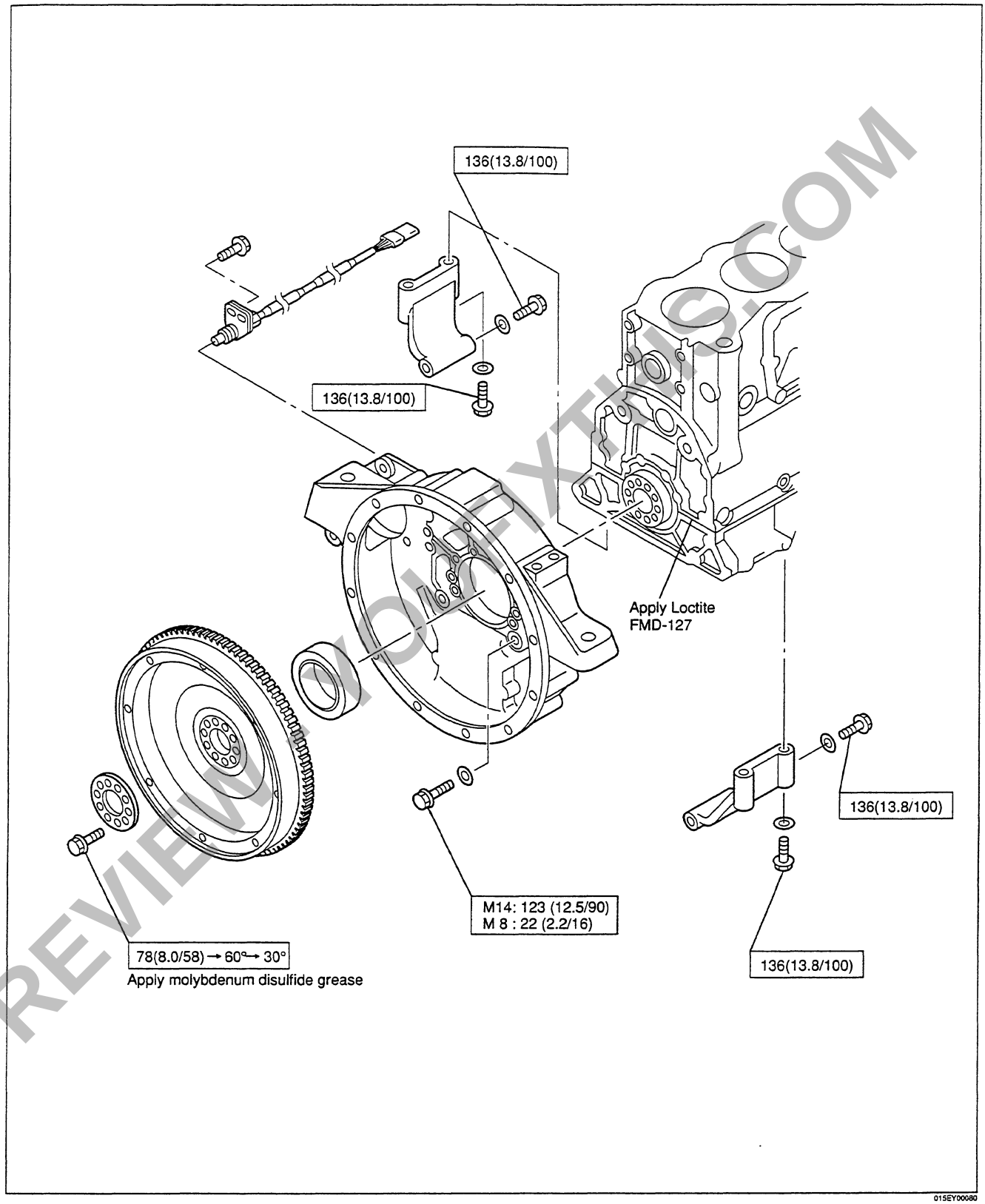
ITEMS		SERVICE STANDARD		SERVICE LIMIT
TIMING GEAR TRAIN				
Idler Gear Backlash	mm(in)	0.095 – 0.135 (0.0037 – 0.0053)		0.25 (0.0098)
Idler Gear End Play	mm(in)	"A"	0.155 – 0.220 (0.0061 – 0.0089)	0.35 (0.0138)
		"B"	0.050 – 0.140 (0.0020 – 0.0055)	0.25 (0.0098)
		"C"	0.050 – 0.140 (0.0020 – 0.0055)	0.25 (0.0098)
Idler Gear Spindle Outside Diameter	mm(in)	"A"	56.93 – 56.96 (2.2413 – 2.2425)	56.85 (2.2382)
		"B"	141.93 – 141.96 (5.5878 – 5.5890)	141.85 (5.5846)
		"C"	48.93 – 48.96 (1.9264 – 1.9286)	48.85 (1.9232)
Clearance Between Idler Gear and Spindle	mm(in)	"A" "B" "C"	0.040 – 0.105 (0.0015 – 0.0041)	0.20 (0.0079)
CRANKSHAFT				
Crankshaft End Play	mm(in)	0.10 – 0.28 (0.0039-0.0110)		0.35 (0.0138)
Crankshaft Journal Diameter	mm(in)	No.4	104.850 – 104.875 (4.1279 – 4.1289)	–
		Others	104.880 – 104.905 (4.1291 – 4.1309)	–
Crankpin Diameter	mm(in)	91.895 – 91.925 (3.6179 – 3.6191)		–
Crankshaft Run Out	mm(in)	0.120 (0.0005)		0.15 (0.0059)
Crankshaft End Play	mm(in)	0.10 – 0.28 (0.0039 – 0.0110)		0.30 (0.0121)
Crank Bearing Spread	mm(in)	–		111.5 (4.3898)
Clearance Crankshaft journal and Bearing	mm(in)	No.4 Journal	0.075 – 0.150 (0.0030 – 0.0059)	0.16 (0.0063)
		Others	0.045 – 0.120 (0.0018 – 0.0047)	

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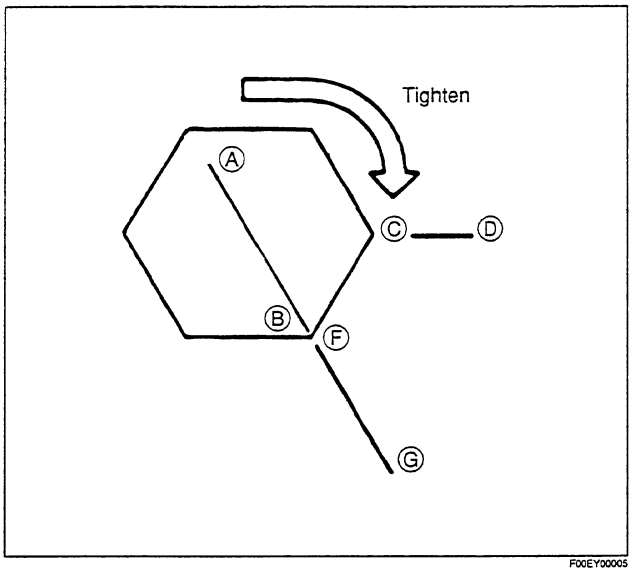
Flywheel

N·m (kgf·m/lb ft)



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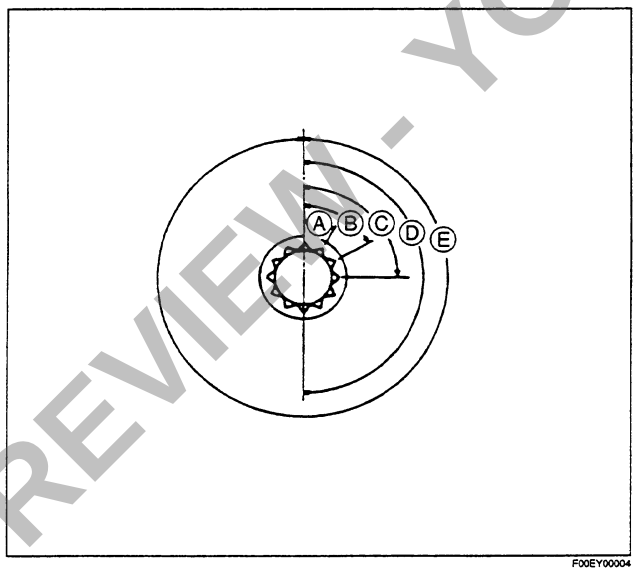
7. Use a socket wrench to tighten each nut or bolt to the point where the line Ⓐ – Ⓑ is aligned with the line Ⓕ – Ⓖ.



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Example: Specified Angle and Tightening Rotation

A	30°	1 / 12 of a turn
B	60°	1 / 6 of a turn
C	90°	1 / 4 of a turn
D	180°	1 / 2 of a turn
E	360°	One full turn



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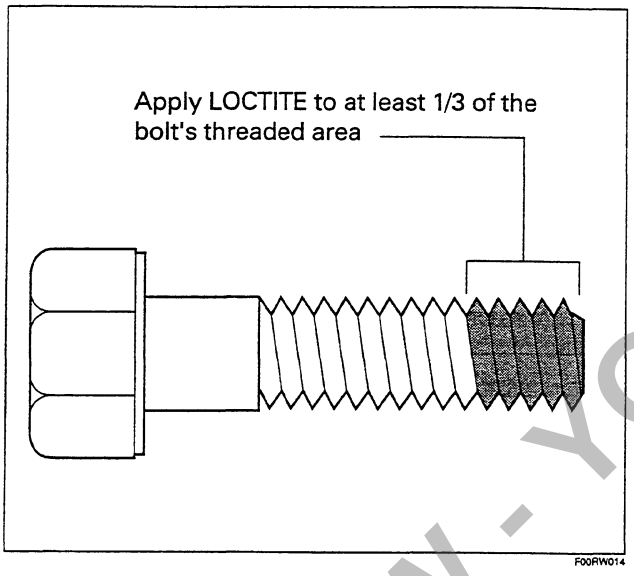
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Recommended Thread Locking Agents

LOCTITE Type	LOCTITE Color
LOCTITE 242	Blue
LOCTITE 262	Red
LOCTITE 271	Red

Application Steps

1. Completely remove all lubricant and moisture from the bolts and the female-threaded surfaces of the parts to be joined.
   The surfaces must be perfectly dry.
2. Apply LOCTITE to the bolts.



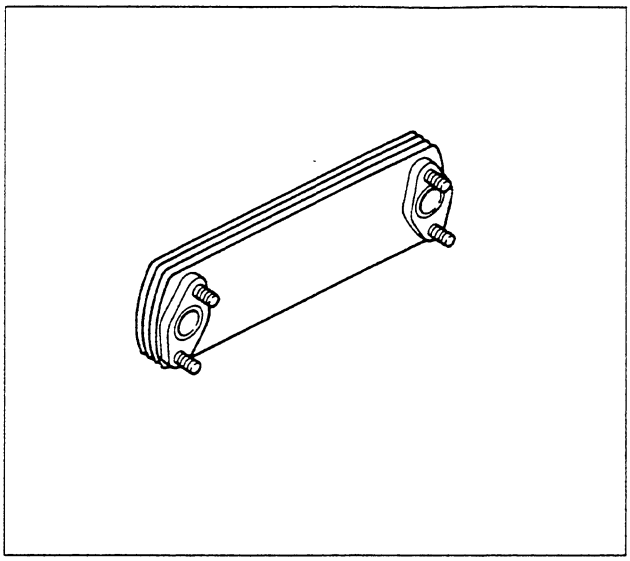
3. Tighten the bolts to the specified torque.
   After tightening, be sure to keep the bolts free from vibration and torque for at least an hour until the LOCTITE hardens.

NOTE: When the application procedures are specified in this manual, follow them.

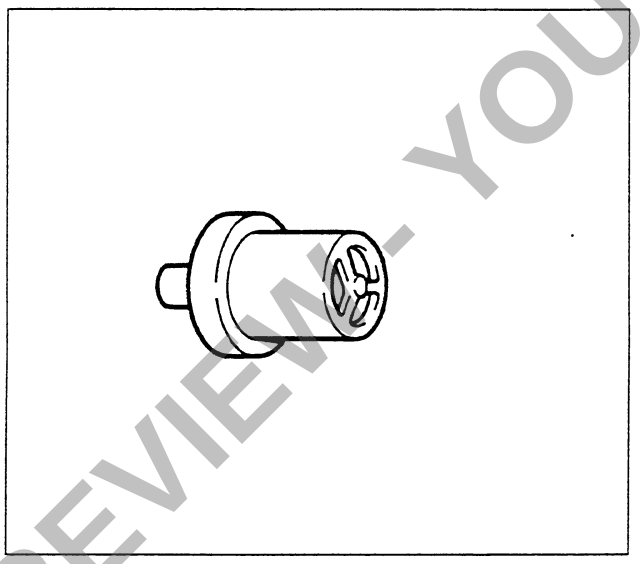
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1. Loosen the bolts to remove the water guide.
2. Loose the nuts to remove the oil cooler element with the gaskets.
3. Loosen the bolts to remove the oil pipe with the gasket.



4. Carefully remove the oil thermostat.



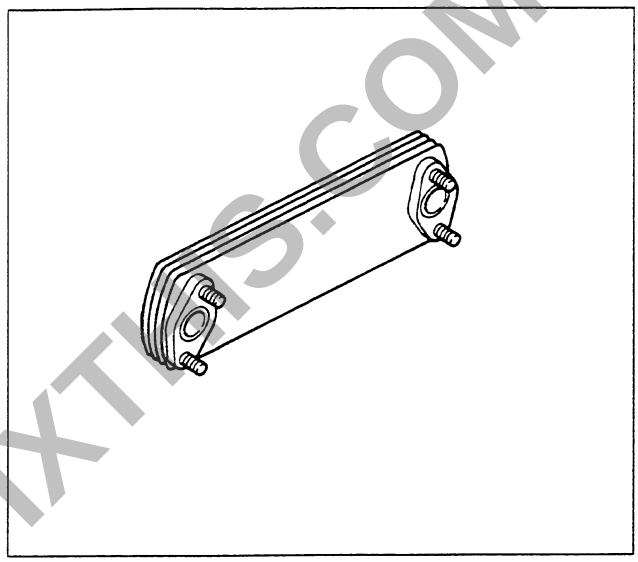
5. Remove the spacer, supporter and seal ring from the oil cooler body.

Inspection and Repair

Make the necessary adjustments, repairs and part replacements if excessive wear or damage is discovered during inspection.

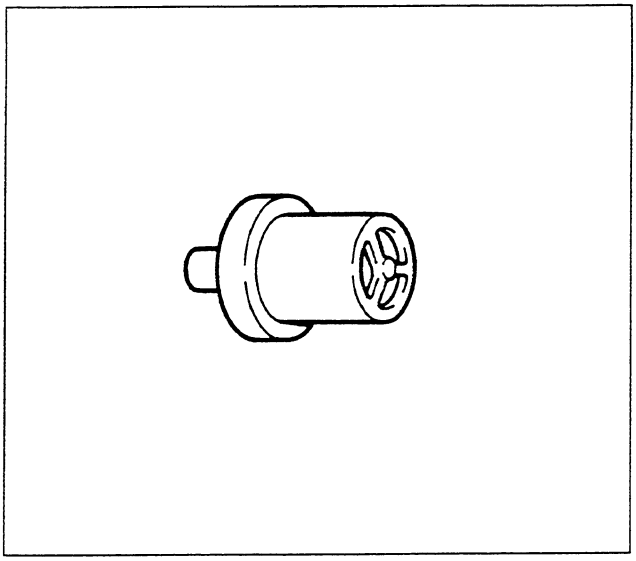
Oil Cooler Element

Inspect the oil cooler element for cracking or damage.



Oil Thermostat

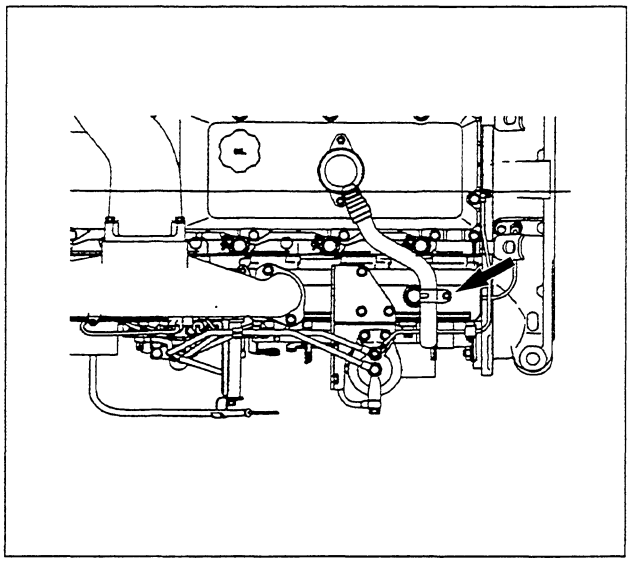
1. Inspect for wear or damage on the piston and valve seat.
2. Check for damage or decrease of the spring force.
3. Inspect opening temperature with oil heater.
   Opening temperature: 98.0°C (208.4°F)



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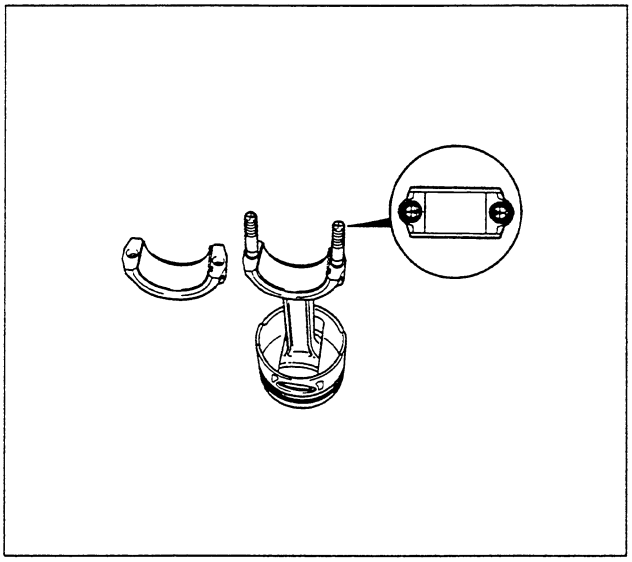
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8. Connect the breather hose to the breather and clamp the hose.



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- Tighten the connecting rod cap nuts in three steps using the angular tightening method.

Torque:

1st step: 98 N·m (10.0 kgm/72 lbft)

2nd step: 30 deg.

3rd step: 30 deg.

- Check the crankshaft rotates smoothly.

2. Install the oil pan to the cylinder block.
   Refer to "Oil Pan Installation" in this manual.
3. Install the cylinder head to the cylinder block.
   Refer to "Cylinder Head Installation" in this manual.

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Injection Volume and Governor Performance Diagram

Injection Pump Assembly Number

ISUZU No.	ZEXEL No.	Remarks
1-15603-341-0	106671-6440	

ISUZU No.	ZEXEL No.	Remarks

Injection Volume

Control rack position (mm)	Pump speed (min^{-1})	Injection volume (mm^3/1,000 strokes)	Variance (%)	Boost pressure (kPa)	Remarks
11.9	900	221 ± 2	± 3	more than 128	Basic
6.6	450	9 ± 3.2	± 13		

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