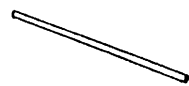
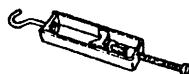


CYLINDER HEAD GASKET

PREPARATION

SST

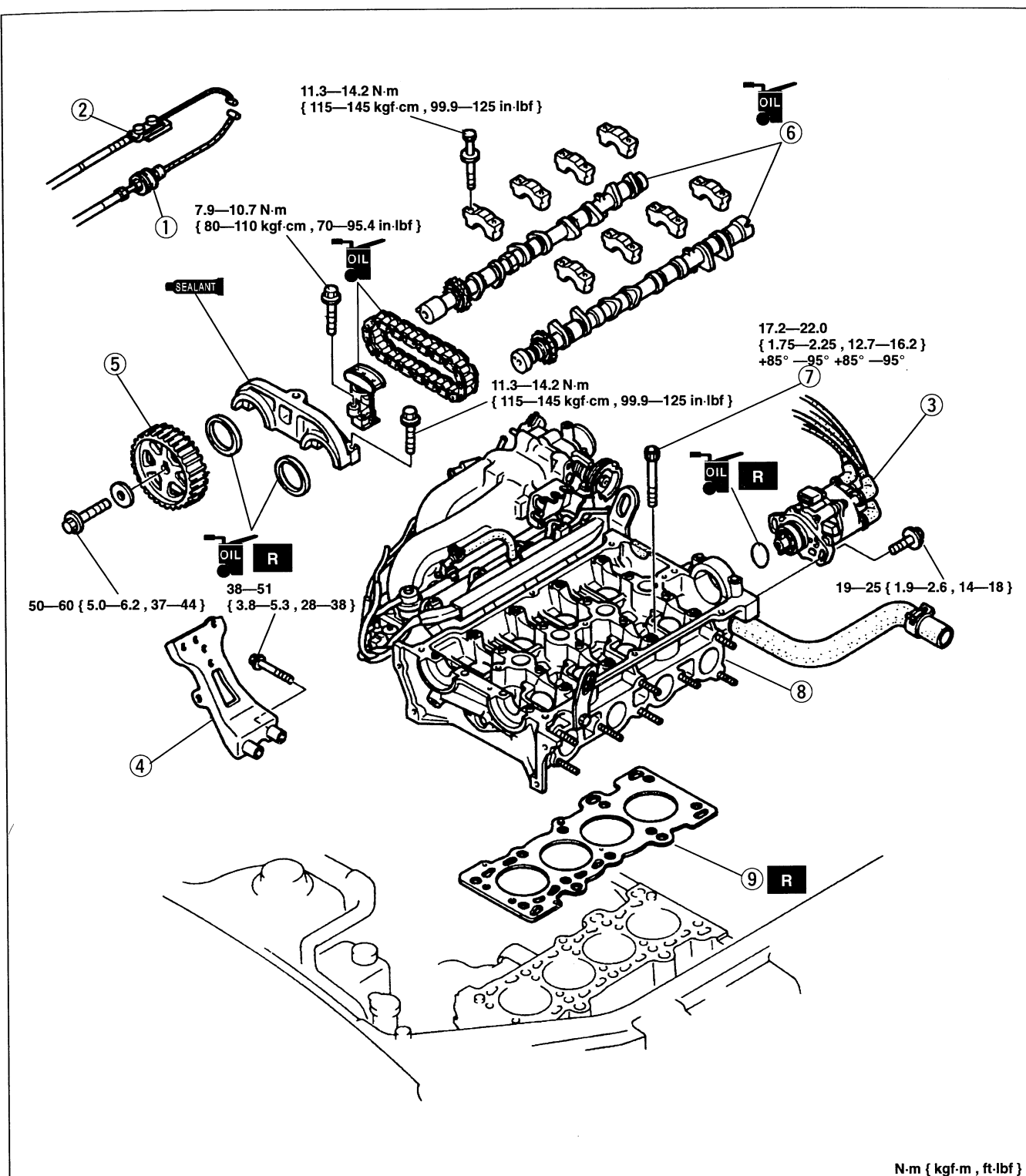
49 G017 5A0 Support, engine 	For support of engine	49 G017 501 Bar (Part of 49 G017 5A0) 	For support of engine
49 G017 502 Support (Part of 49 G017 5A0) 	For support of engine	49 G017 503 Hook (Part of 49 G017 5A0) 	For support of engine

REPLACEMENT

Warning

- **Fuel vapor is hazardous. It can very easily ignite, causing serious injury and damage. Always keep sparks and flames away from fuel.**
- **Fuel line spills and leaks are dangerous. Fuel can ignite and cause serious injuries or death and damage. Fuel can also irritate skin and eyes. To prevent this, always complete the “Fuel Line Safety Procedures” on section F1.**

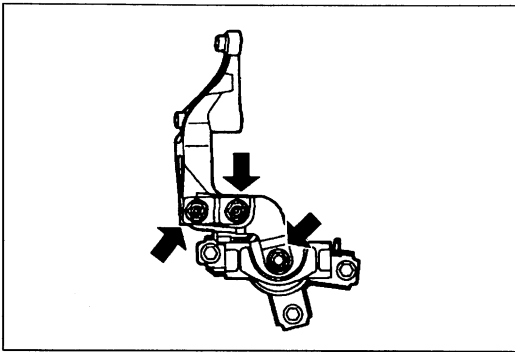
1. Disconnect the negative battery cable.
2. Drain the engine coolant. (Refer to section E.)
3. Remove the timing belt. (Refer to page B1–8.)
4. Remove the air cleaner and front pipe. (Refer to section F1.)
5. Remove the exhaust manifold. (Refer to section F1.)
6. Remove in the order shown in the figure, referring to **Removal Note**.
7. Install in the reverse order of removal, referring to **Installation Note**.
8. Install the exhaust manifold. (Refer to section F1.)
9. Install the front pipe and air cleaner. (Refer to section F1.)
10. Install the timing belt. (Refer to page B1–8.)
11. Fill the radiator and radiator reservoir with the specified amount and type of engine coolant. (Refer to section E.)
12. Connect the negative battery cable.
13. Start the engine and
 - (1) check the engine oil and engine coolant leakage.
 - (2) check the ignition timing and idle speed. (Refer to section F1.)
14. Check the compression. (Refer to page B1–7.)



N·m { kgf·m, ft·lbf }

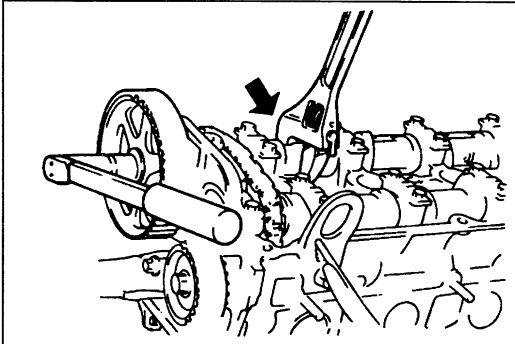
1. Accelerator cable
Adjustment section F1
2. Throttle cable (ATX)
Adjustment section K
3. Distributor
4. Intake manifold stay
5. Camshaft pulley
Removal Note page B1-16
Installation Note page B1-18

6. Camshaft
Removal Note page B1-16
Installation Note page B1-17
7. Cylinder head bolt
Removal Note page B1-16
Installation Note page B1-17
8. Cylinder head assembly
9. Cylinder head gasket

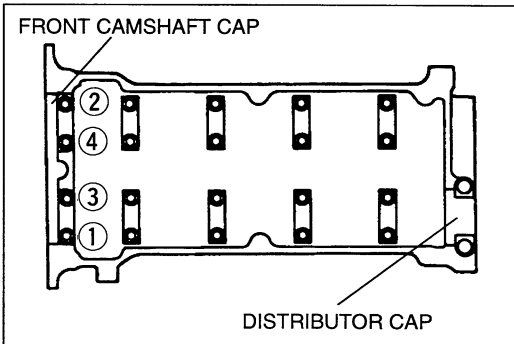


Removal Note Camshaft pulley

1. Temporarily install the No.3 engine mount bracket to support the engine.
2. Remove the **SST** (Support, engine).

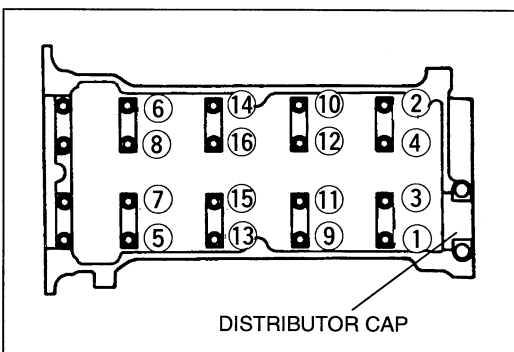


3. Hold the camshaft by using a wrench on the cast hexagon as shown, and loosen the camshaft pulley lock bolt.
4. Remove the camshaft pulley.

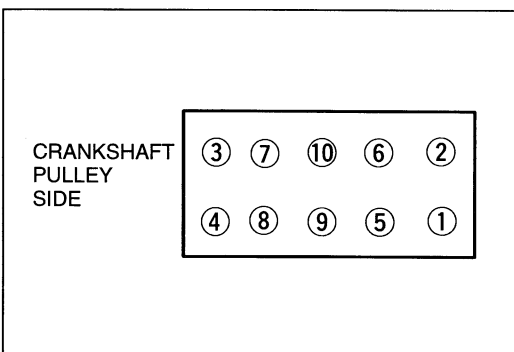


Camshaft

1. Turn the camshaft clockwise so that cams do not pressing on the tappets.
2. Loosen the front camshaft cap bolts in five or six steps in the order shown.
3. Remove the front camshaft cap bolts and the front camshaft cap.

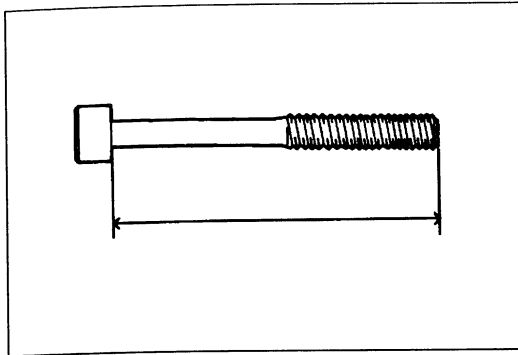


4. Loosen the camshaft cap bolts in five or six steps in the order shown.
5. Remove the camshaft cap bolts and camshaft caps.
6. Remove the camshafts.
7. Remove the camshaft oil seals.



Cylinder head bolt

1. Loosen the cylinder head bolts in two or three steps in the order shown.
2. Remove the cylinder head bolts.



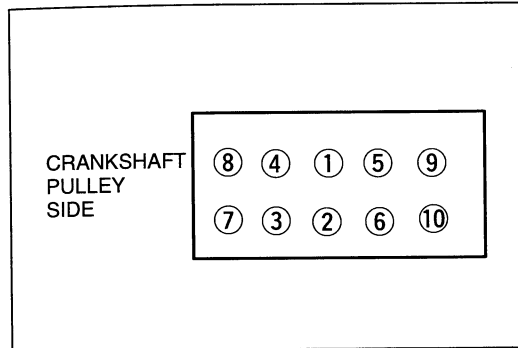
Installation Note

Cylinder head bolt

1. Before installation, measure the length of each bolt. Replace any that exceed the maximum length.

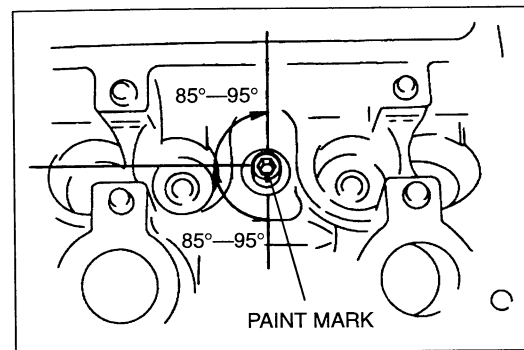
Length: 99.2—99.8 mm { 3.91—3.92 in }

Maximum: 100.5 mm { 3.957 in }

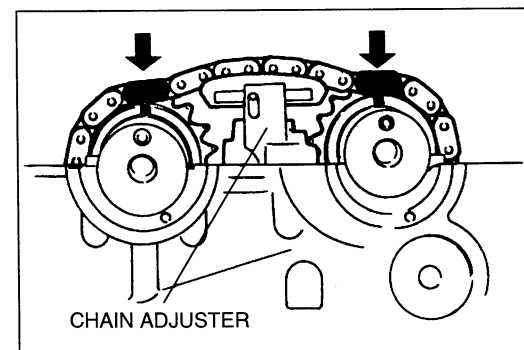


2. Tighten the cylinder head bolts in two or three steps in the order shown.

Tightening torque: 17.2—22.0 N·m
{ 1.75—2.25 kgf·m , 12.7—16.2 ft·lbf }

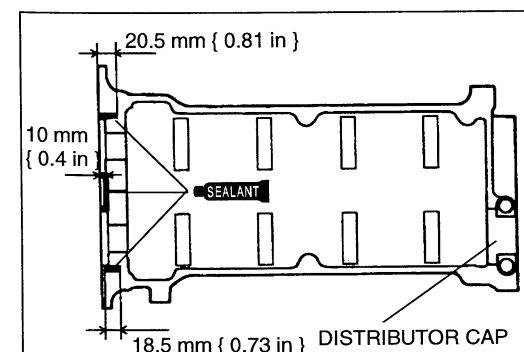


3. Put a paint mark on each bolt head.
4. Using the marks as a reference, tighten the bolts by turning each 85° — 95° in the sequence shown.
5. Further tighten each bolt by turning another 85° — 95° in the sequence shown.



Camshaft

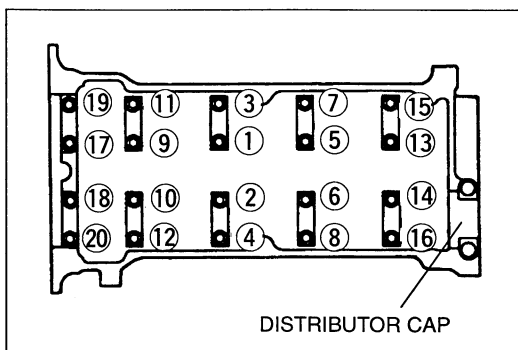
1. Before installation, insert the chain adjuster between camshafts.
2. Install the camshafts onto the cylinder head, aligning marks on the camshaft gear and the timing chain.



3. Apply silicone sealant to the shaded areas shown.

Thickness: $\phi 1$ mm { 0.04 in }

4. Install the camshaft caps to the positions from which they were removed.



5. Hand tighten the camshaft cap bolts marked ⑤, ⑦, ②, and ④.
6. Tighten the camshaft cap bolts in five or six steps in the order shown.

Tightening torque: 11.3—14.2 N·m
{ 115—145 kgf·cm , 99.9—125 in·lbf }

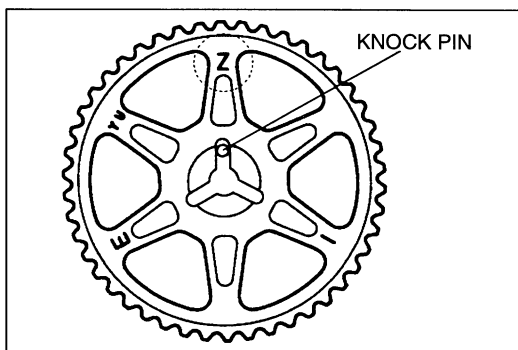
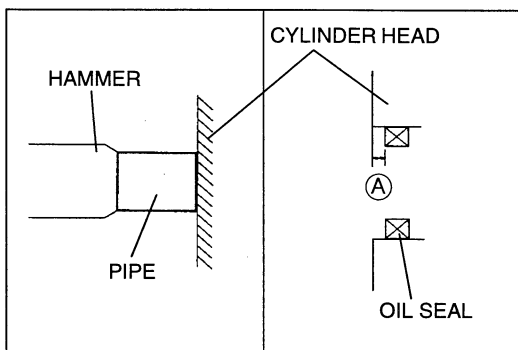
7. Apply clean engine oil to the lip of the new camshaft oil seal.
8. Push the oil seal slightly in by hand.
9. Tap the oil seal in evenly by using a pipe and a hammer.

Note

- Oil seal outer diameter : 48.0 mm { 1.89 in }
- Oil seal inner diameter : 34.2 mm { 1.35 in }

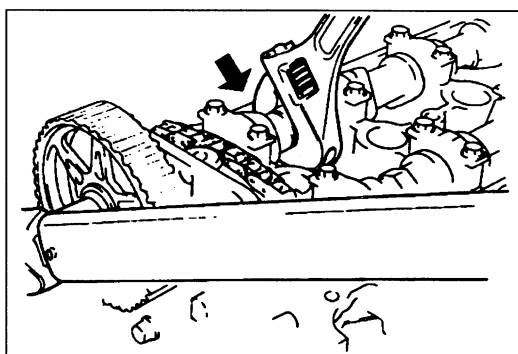
①

IN: 0—0.7 mm { 0—0.02 in }
EX: 1—1.7 mm { 0.04—0.06 in }



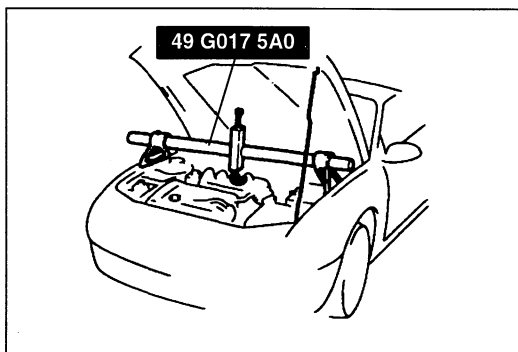
Camshaft pulley

1. Align the "Z" mark with the camshaft knock pin and install the camshaft pulley.



2. Hold the camshaft by using a wrench on the cast hexagon, and tighten the lock bolt.

Tightening torque:
50—60 N·m { 5.0—6.2 kgf·m , 37—44 ft·lbf }



3. Support the engine by using the **SST**.
4. Remove the No.3 engine mount bracket.