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2005 MAZDA 6/Atenza Wagon OEM Service and Repair Workshop Manual

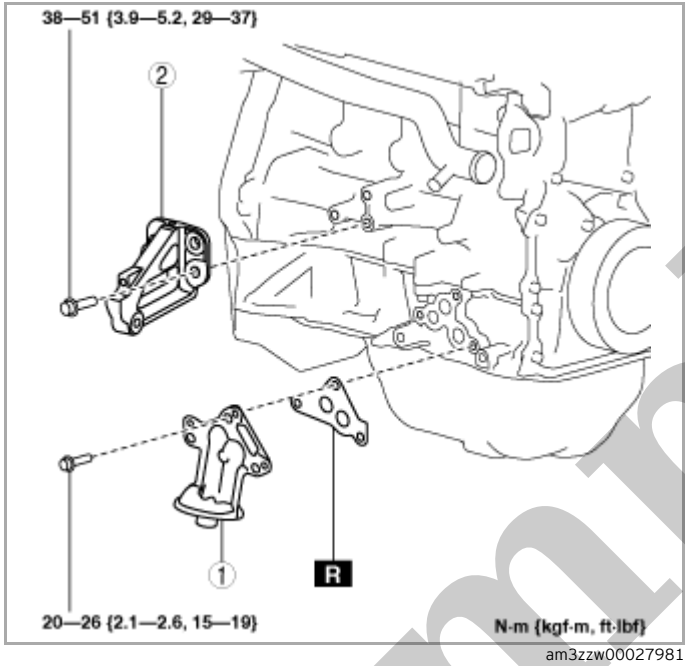
[Go to manual page](#)

35.Remove the short cord of the engine oil level sensor. (See **ENGINE OIL LEVEL SENSOR REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)]**.)

36.Remove in the order indicated in the table

37.Assemble in the reverse order of disassembly.

Exhaust side



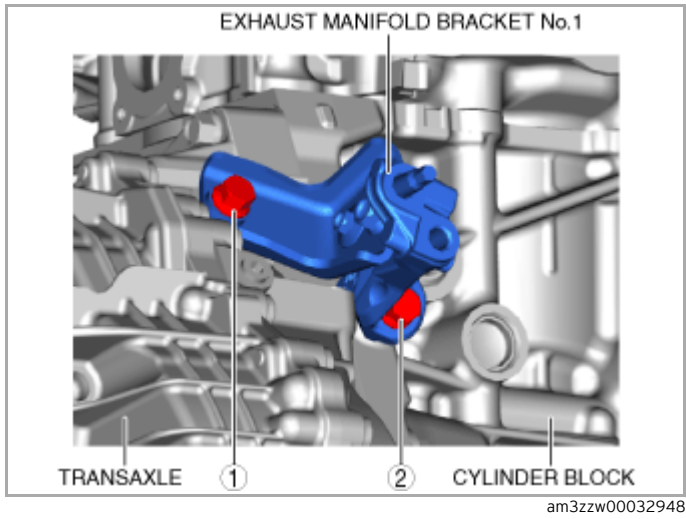
1	Oil filter body (See Exhaust Manifold Bracket Installation Note .)
2	Exhaust manifold bracket (See Exhaust Manifold Bracket No.1 Removal Note .)

Engine rear side

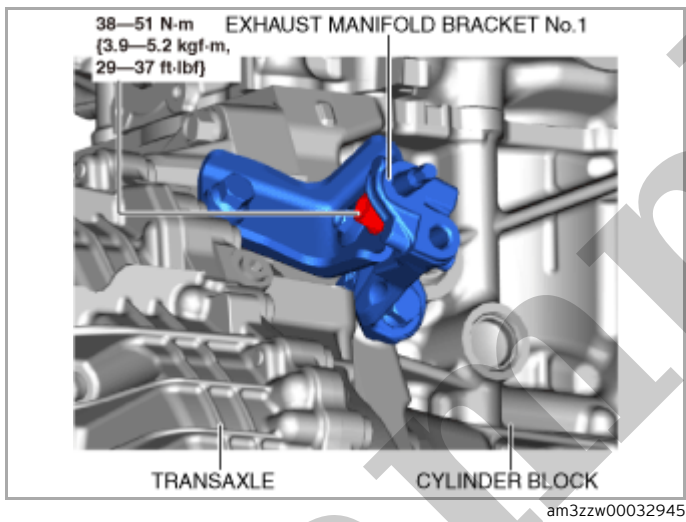
1.Remove the Thermostat. (See **THERMOSTAT REMOVAL/INSTALLATION [SKYACTIV-G (WITH EGR COOLER)]**.)

2.Remove in the order indicated in the table.

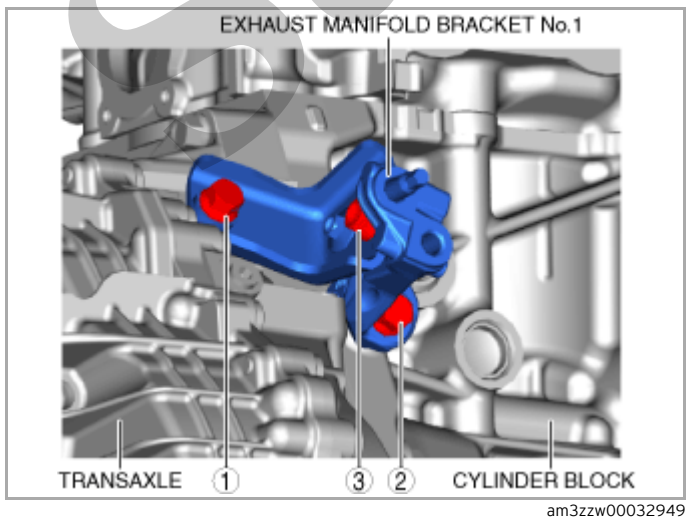
3.Install in the reverse order of removal.



2.Loosen the bolt shown in the figure until it is no longer seated on the surface.



3.Tighten the bolts in the order shown in the figure.



- The idle speed cannot be adjusted.
- The M-MDS is required to verify the idle speed.

1. Prepare for the engine tune-up. (See [Engine Tune-up Preparation](#).)

2. Verify that the idle speed according to each load (M-MDS PID: RPM) is within the specification using the PID/data monitor function of the M-MDS (except idle speed decrease after applying load). (See [PCM INSPECTION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\]](#).)

- If the engine speed is not within the specification when a specified load is applied, inspect the related input parts, wiring harnesses, and connectors.

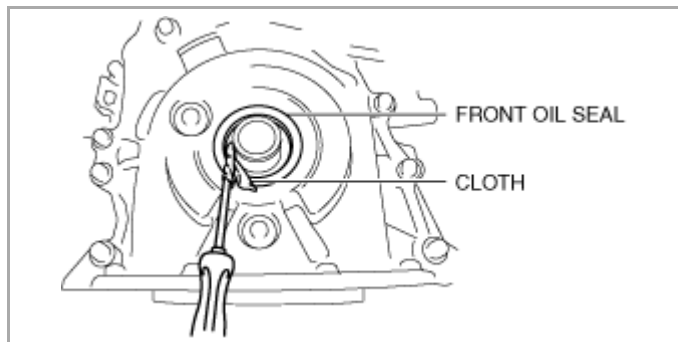
Idle-up speed (P position or N position)

A/C on: 650–800 rpm

Electrical loads on: 600–750 rpm

Front Oil Seal Removal Note

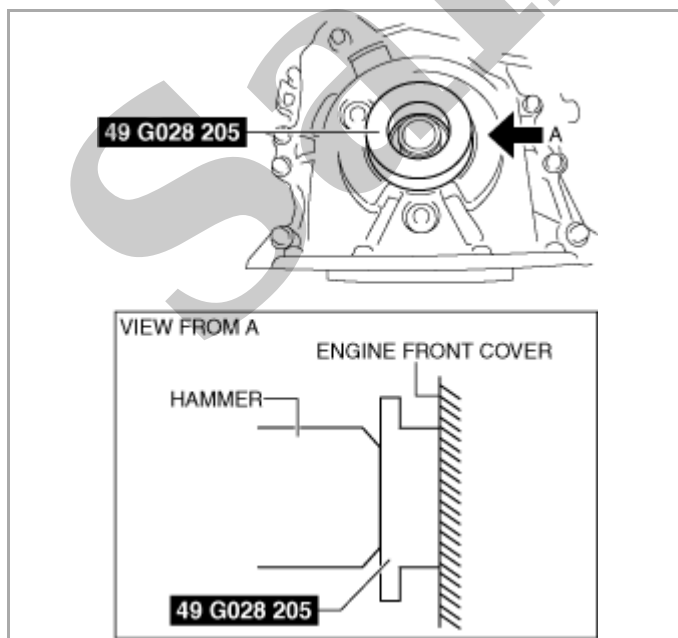
1. Cut the front oil seal lip using a utility knife.
2. Remove the front oil seal using a flathead screwdriver with the tip protected by a clean cloth to prevent damage to the crankshaft.



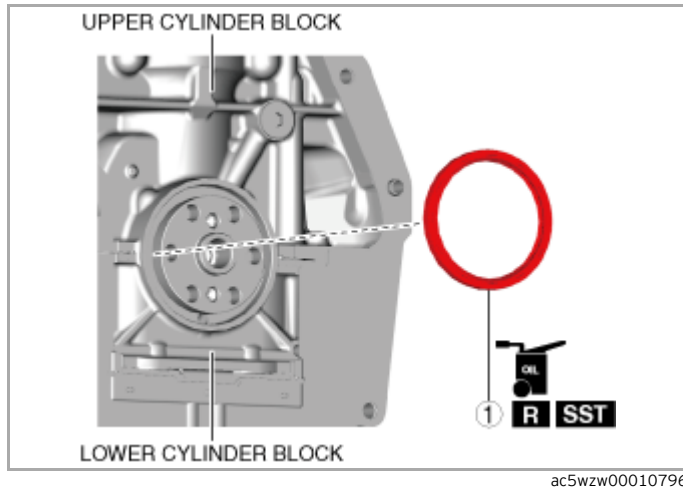
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Front Oil Seal Installation Note

1. Apply clean engine oil to the inner surface of a new front oil seal.
2. Insert the front oil seal into the engine front cover by hand.
3. Tap the front oil seal in evenly using the SST and a hammer.



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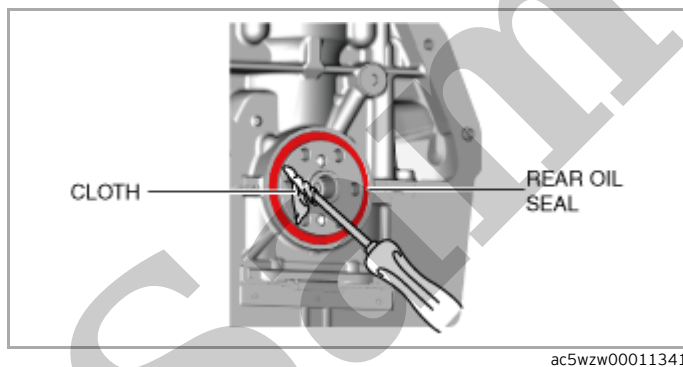


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Rear oil seal
(See [Rear Oil Seal Installation Note.](#))
(See [Rear Oil Seal Installation Note.](#))

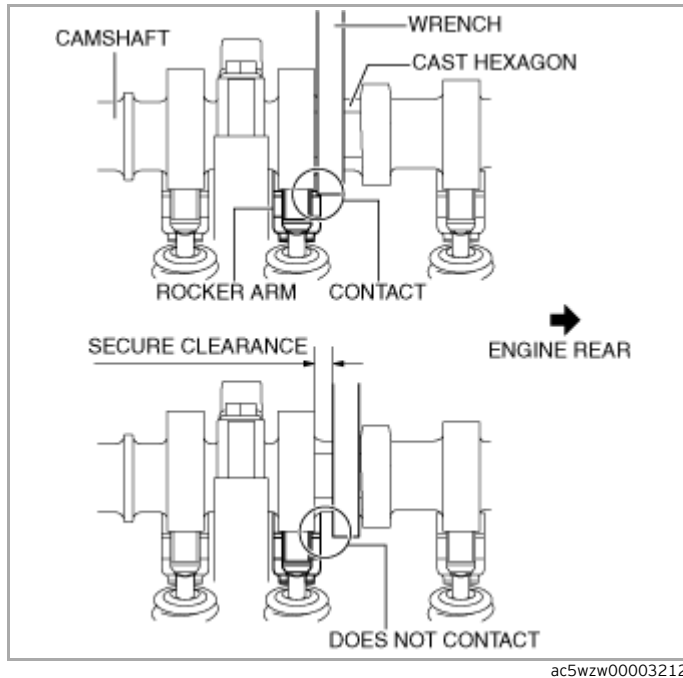
Rear Oil Seal Removal Note

- 1.Cut the rear oil seal lip using a utility knife.
- 2.Remove the rear oil seal using a flathead screwdriver with the tip protected by a clean cloth to prevent damage to the crankshaft.



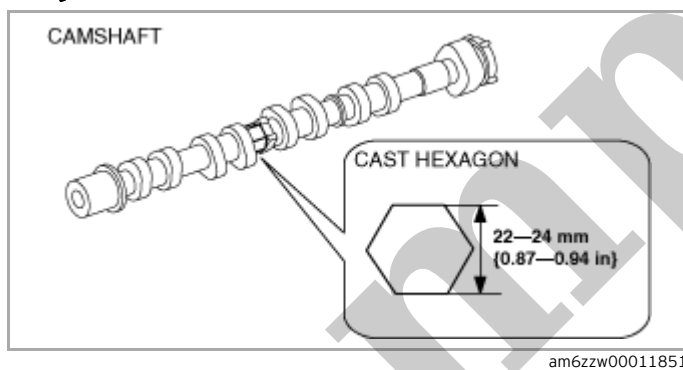
Rear Oil Seal Installation Note

- 1.Apply clean engine oil to the inner surface of a new rear oil seal.
- 2.Insert the rear oil seal into the cylinder block by hand.
- 3.Tap the rear oil seal in evenly using the SST and a hammer.



Note

- Width at the cast hexagon of the camshaft is 22–24 mm {0.87–0.94 in}.

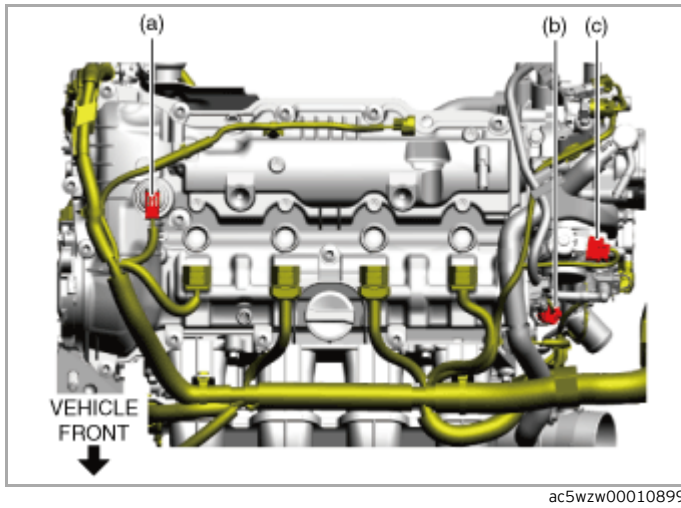


1. Disconnect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))
2. Remove the plug hole plate. (See [PLUG HOLE PLATE REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\].](#))
3. Remove the ignition coil/ion sensors. (See [IGNITION COIL/ION SENSOR REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\].](#))
4. Remove the front under cover No.2. (See [FRONT UNDER COVER No.2 REMOVAL/INSTALLATION.](#))
5. Remove the front splash shield (RH). (See [SPLASH SHIELD REMOVAL/INSTALLATION.](#))
6. Remove the drive belt. (See [DRIVE BELT REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\].](#))
7. Remove the OCV for No.1 cylinder deactivation. (See [OIL CONTROL VALVE \(OCV\) FOR CYLINDER DEACTIVATION REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\].](#))

7	Crankshaft pulley (See FRONT OIL SEAL REPLACEMENT [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)] .)
8	Front oil seal (See FRONT OIL SEAL REPLACEMENT [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)] .)
9	No.3 engine mount (See No.3 Engine Mount Removal Note .) (See No.3 Engine Mount Installation Note .)
10	Electric variable valve timing motor/driver (See ELECTRIC VARIABLE VALVE TIMING MOTOR/DRIVER REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)] .)
11	Engine front cover (See Engine Front Cover Removal Note .) (See Engine Front Cover Installation Note .)
12	Chain tensioner (See Timing Chain Removal Note .) (See Timing Chain Installation Note .)
13	Tensioner arm (See Timing Chain Removal Note .) (See Timing Chain Installation Note .)
14	Chain guide (No.1) (See Timing Chain Removal Note .) (See Timing Chain Installation Note .)
15	Timing chain (See Timing Chain Removal Note .) (See Timing Chain Installation Note .)
16	Chain guide (No.2)
17	Crankshaft sprocket
18	Oil pump chain tensioner (See Oil Pump Chain Removal Note .) (See Oil Pump Chain Installation Note .)
19	Balancer shaft sprocket (See Oil Pump Chain Removal Note .) (See Oil Pump Chain Installation Note .)
20	Oil pump chain (See Oil Pump Chain Removal Note .) (See Oil Pump Chain Installation Note .)
21	Oil pump driven sprocket (See Oil Pump Chain Removal Note .) (See Oil Pump Chain Installation Note .)
22	Oil pump chain guide
23	Oil pump drive sprocket
24	Key

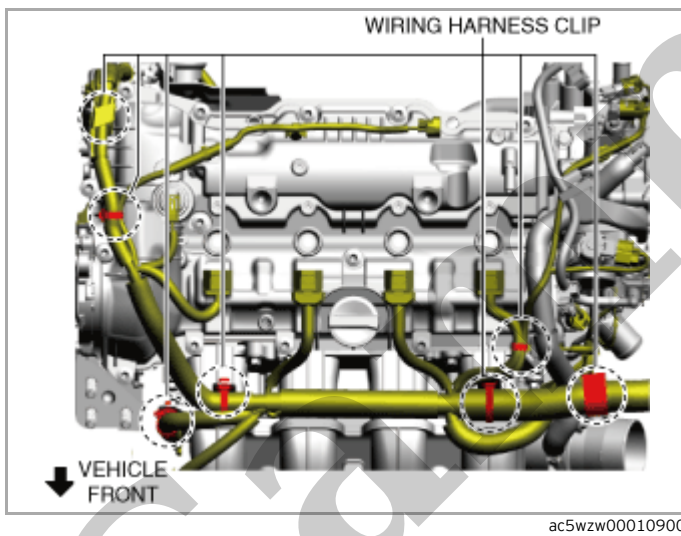
Cylinder Head Cover Removal Note

1.Disconnect the ventilation hose from the cylinder head cover.



- a. OCV for hydraulic variable valve timing system
- b. OCV for No.4 cylinder deactivation
- c. High pressure fuel pump

5.Remove the wiring harness clips shown in the figure.

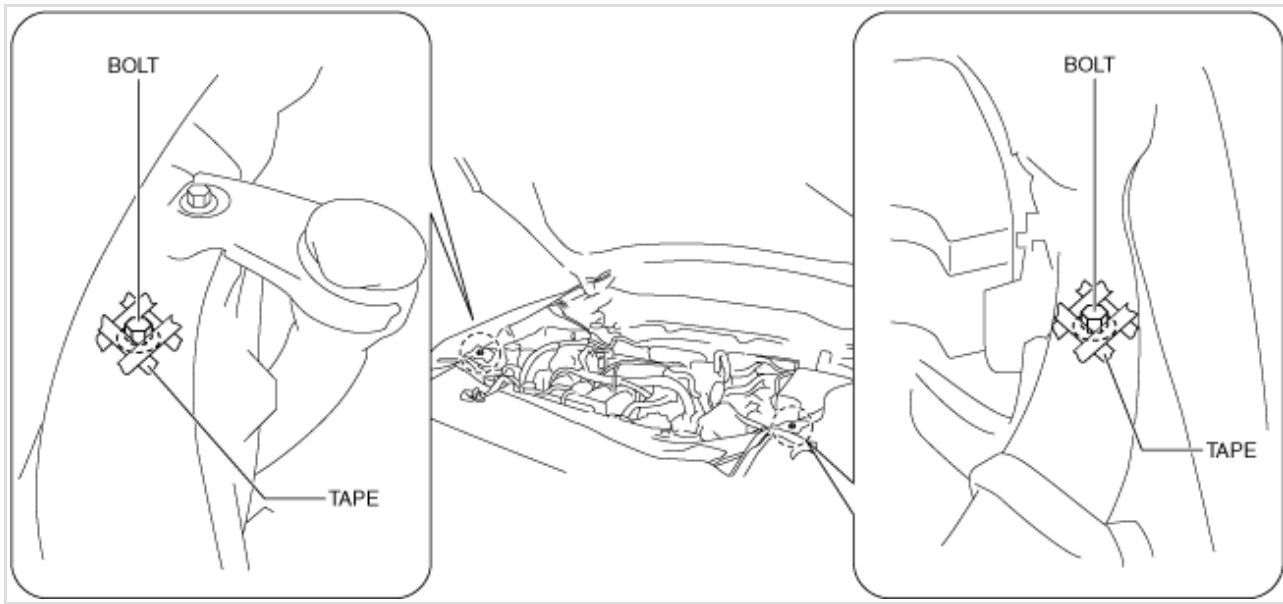


6.Remove the vacuum hose. (See [VACUUM HOSE REMOVAL/INSTALLATION \[SKYACTIV-G 2.5 \(WITH CYLINDER DEACTIVATION\)\]](#).)

7.Remove the cylinder head cover.

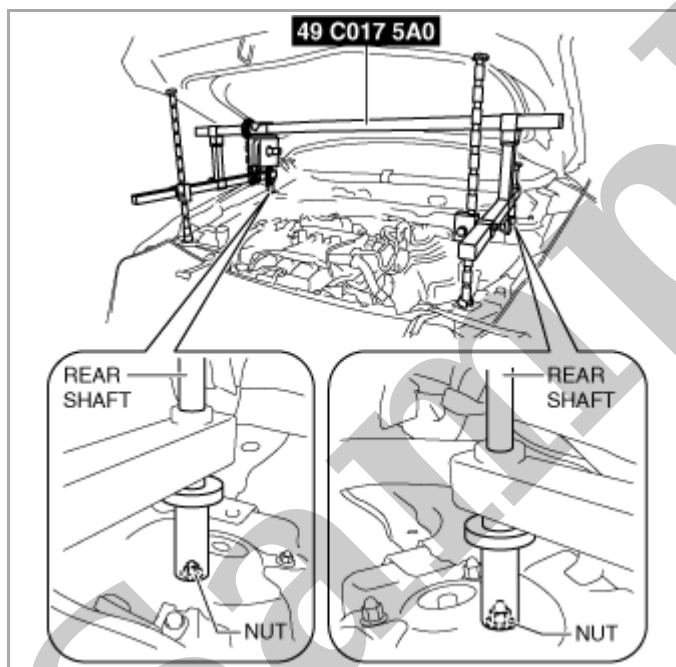
No.3 Engine Mount Removal Note

1.Remove the clips shown in the figure and set the ground cable aside.



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(2)As shown in the figure, set the rear shafts of the SST to the left and right shock absorber nuts.



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(3)As shown in the figure, set the front shafts of the SST to the left and right bolts.