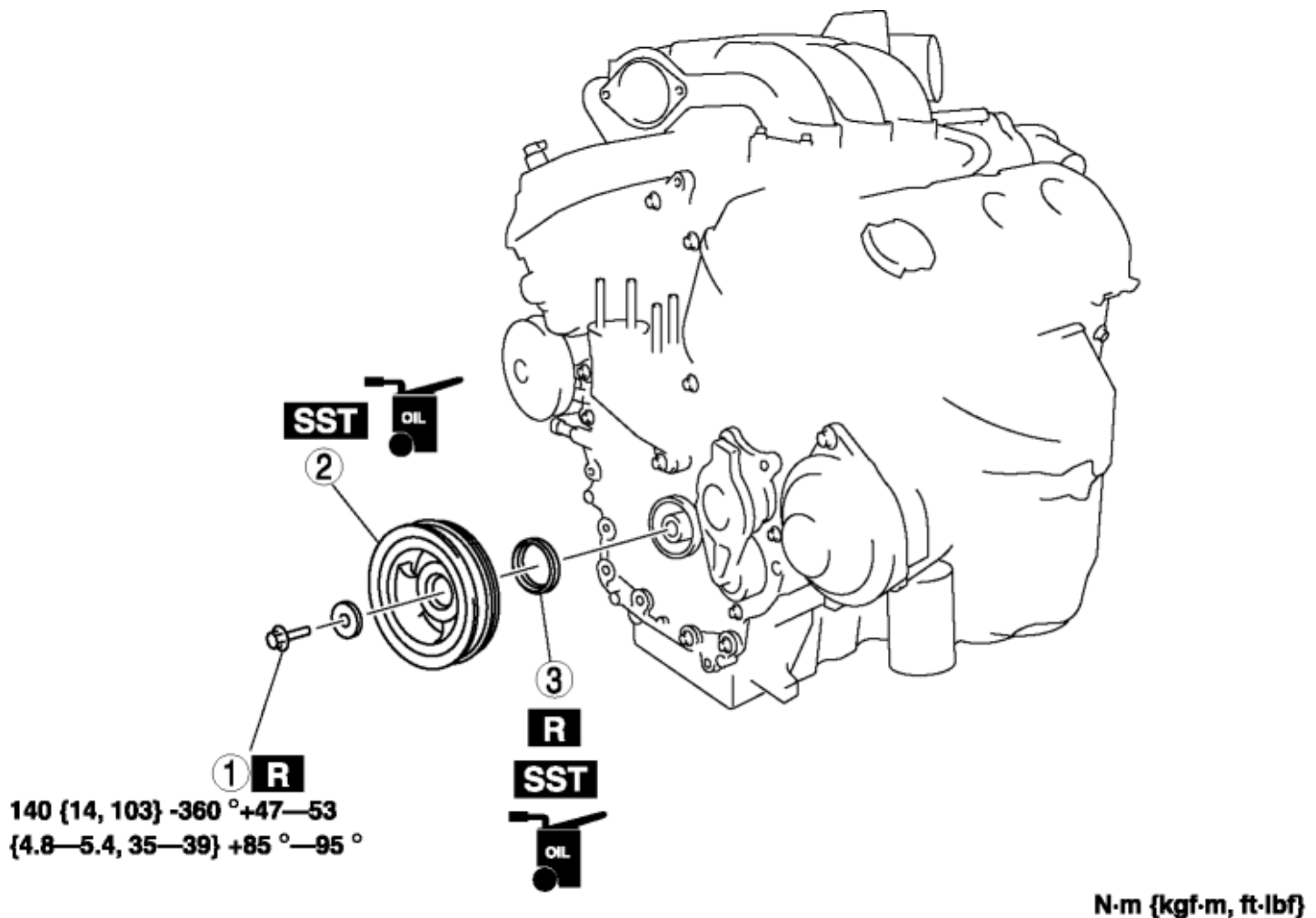


2012 - Mazda6 - Engine

FRONT OIL SEAL REPLACEMENT [MZI 3.7 V6]

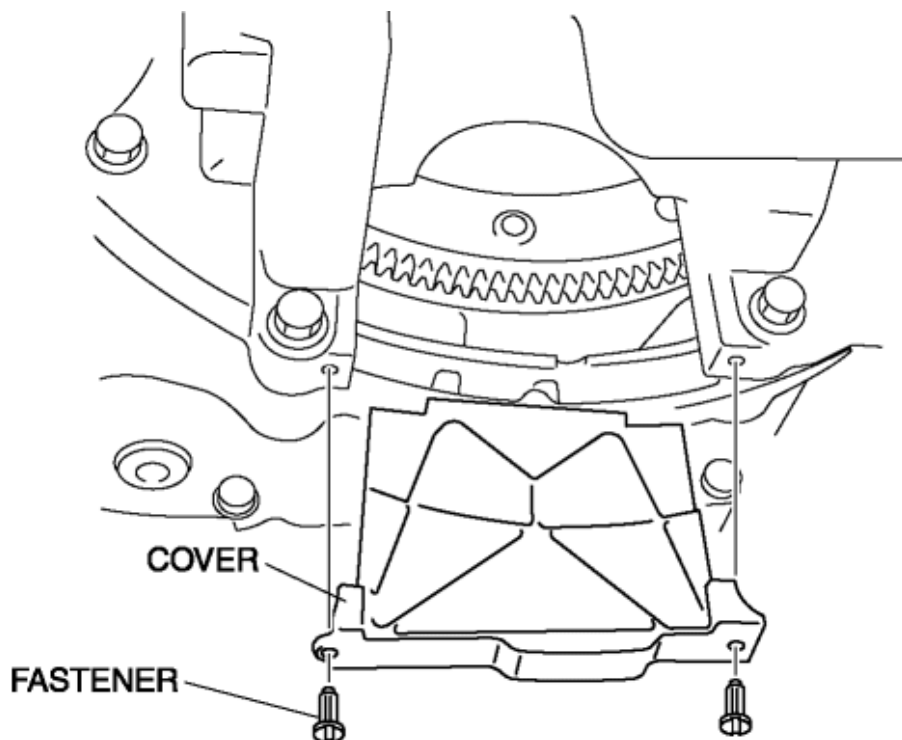
1. Disconnect the negative battery cable.
2. Remove the engine cover. (See [ENGINE COVER REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
3. Remove the both front wheels and tires (RH). (See [GENERAL PROCEDURES \(SUSPENSION\)](#).)
4. Remove the splash shield (RH).
5. Remove the generator and A/C drive belt. (See [DRIVE BELT REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
6. Remove the power steering oil pump drive belt. (See [DRIVE BELT REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
7. Remove in the order indicated in the table.
8. Install in the reverse order of removal.



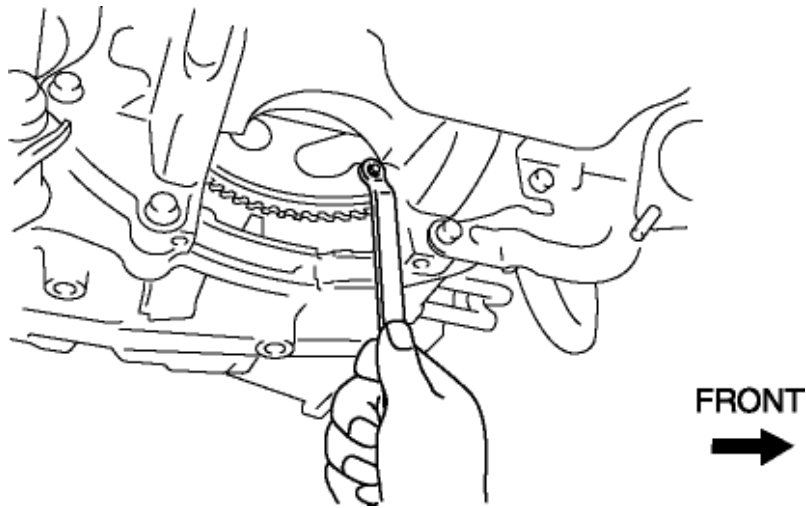
1	Crankshaft pulley lock bolt (See Crankshaft Pulley Lock Bolt Removal Note.) (See Crankshaft Pulley Lock Bolt Installation Note.)
2	Crankshaft pulley (See Crankshaft Pulley Removal Note.) (See Crankshaft Pulley Installation Note.)
3	Front oil seal (See Front Oil Seal Removal Note.) (See Front Oil Seal Installation Note.)

Crankshaft Pulley Lock Bolt Removal Note

1. Remove the cover as shown in the figure.



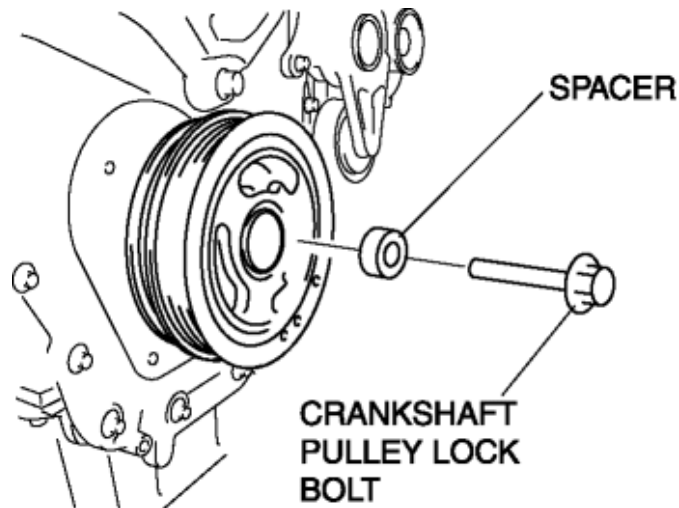
2. Set a wrench to the drive plate bolt at the position shown in the figure to lock the crankshaft rotation.



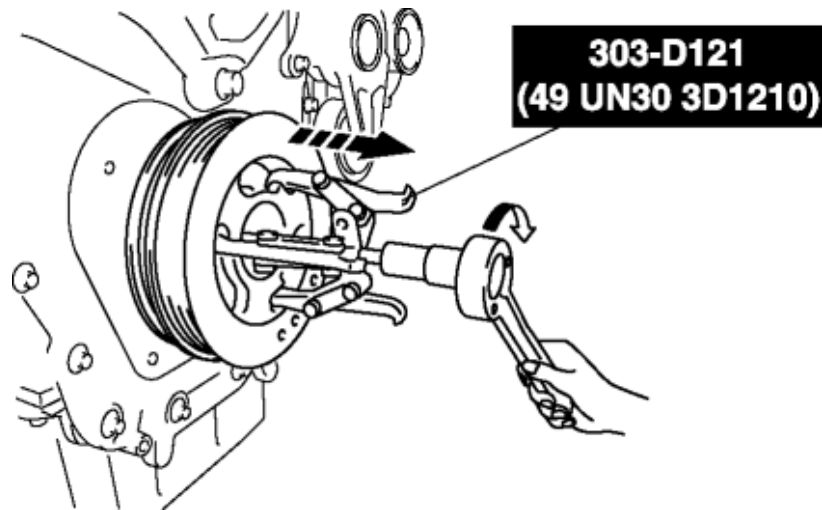
3. Remove the crankshaft pulley lock bolt and washer.

Crankshaft Pulley Removal Note

1. Slightly loosen the **SST (49 C017 5A0)** support and tilt the engine to the lower side slightly.
2. Remove the washer from the crankshaft pulley lock bolt, install a suitable spacer (thickness: **approx. 14 mm { 0.55 in }** , diameter: **approx. 30 mm { 1.2 in }**), (similar to front shock absorber lower nut) to the crankshaft pulley lock bolt, and install the crankshaft pulley lock bolt to the crankshaft.



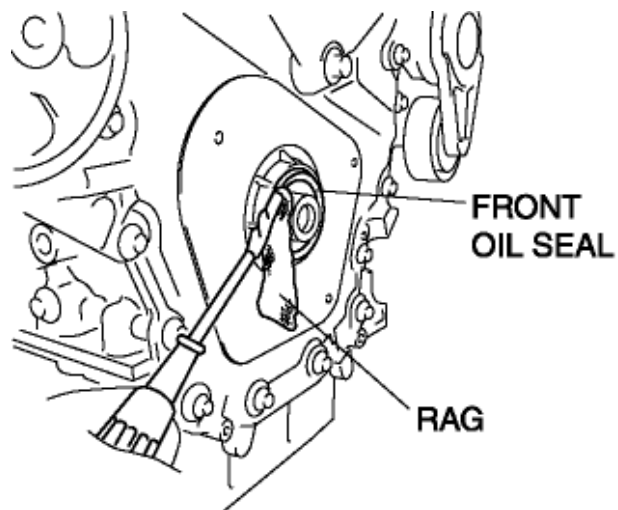
3. Remove the crankshaft pulley using the **SST**.



4. Remove the crankshaft pulley lock bolt and spacer.

Front Oil Seal Removal Note

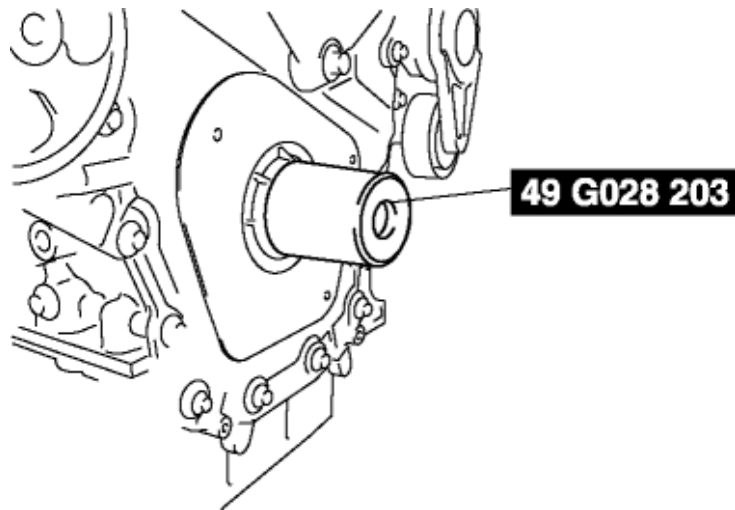
1. Remove the front oil seal using a flathead screwdriver as shown.



Front Oil Seal Installation Note

NOTE:

- Apply clean engine oil to the front oil seal bore in the engine front cover.
1. Push the front oil seal slightly in by hand.
 2. Tap the front oil seal in evenly using the **SST** and a hammer.



Substitution SST

- **49 G028 203**

Outer diameter: 58—70 mm {2.3—2.7 in}

Inner diameter: 56—58 mm {2.21—2.28 in}

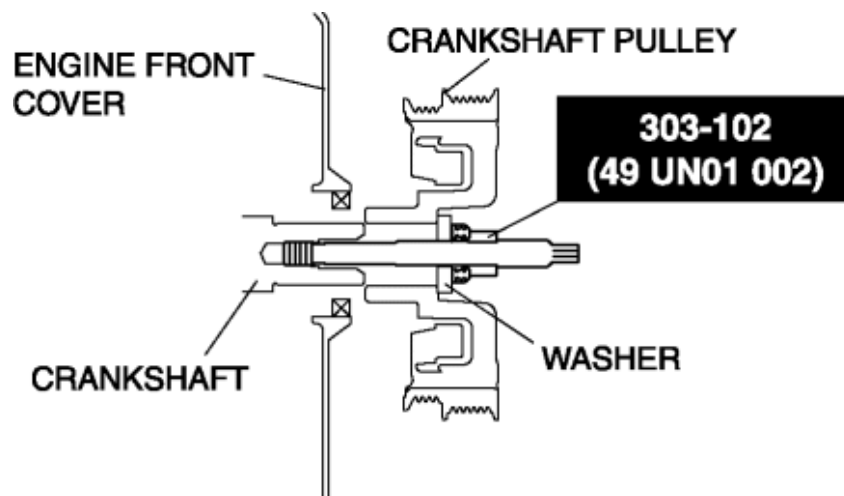
Tube with board thickness 2 mm {0.08 in} or more

Crankshaft Pulley Installation Note

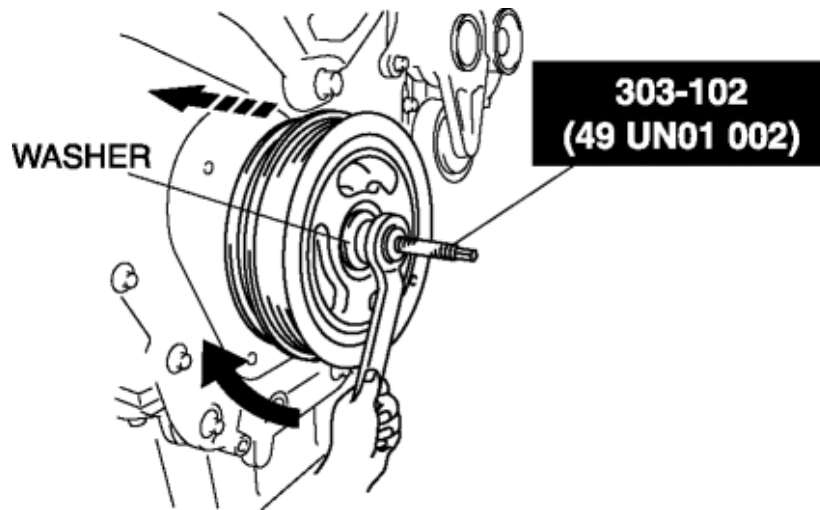
NOTE:

- Lubricate the contact surface (exterior area of inner diameter) of the front oil seal with clean engine oil.

1. Install the crankshaft pulley, washer, and **SST** to the crankshaft.

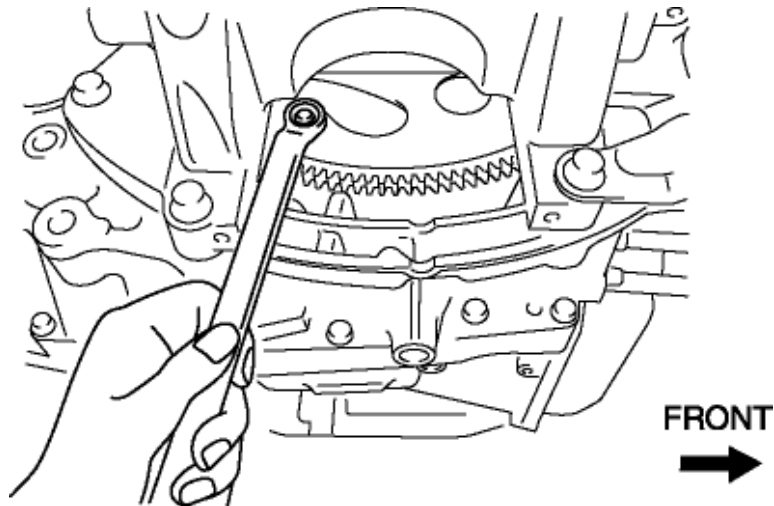


2. Tighten the **SST** nut and install the crankshaft pulley.

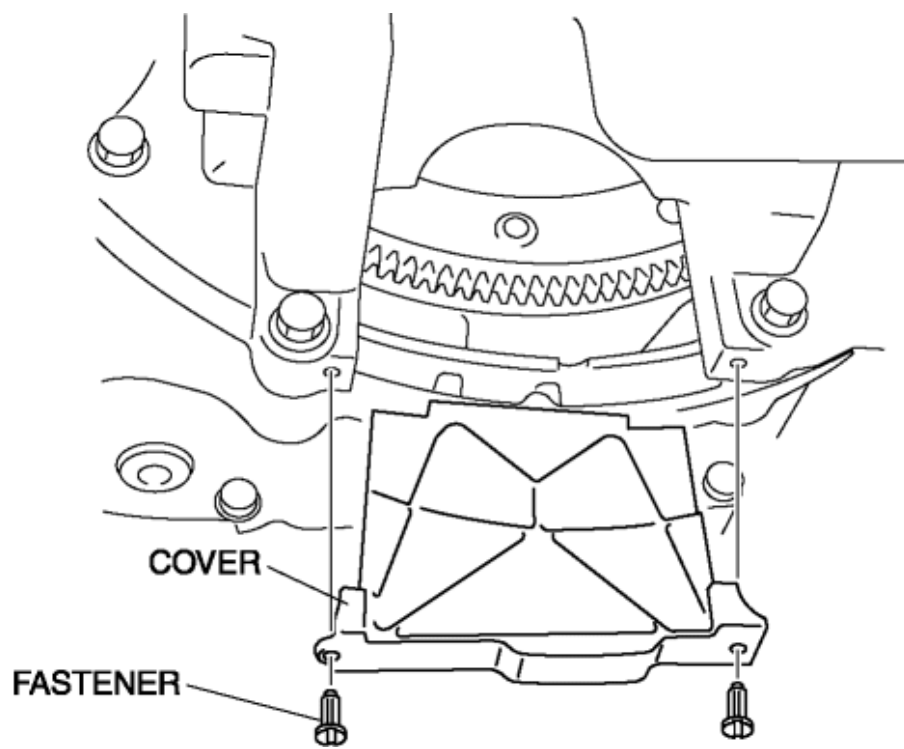


Crankshaft Pulley Lock Bolt Installation Note

1. Rotate the crankshaft clockwise, and set a wrench to the drive plate bolt at the position shown in the figure to lock the crankshaft rotation.



2. Tighten the new crankshaft pulley lock bolt in 4 steps.
 - a. Tighten to **140 N·m { 14 kgf·m, 103 ft·lbf }** .
 - b. Loosen **360 °** (one full turn) in reverse order.
 - c. Tighten to **47—53 N·m { 4.8—5.4 kgf·m, 35—39 ft·lbf }** .
 - d. Tighten **85 °—95 °** .
3. Verify the tightening torque for the drive plate bolt to which the wrench has been set.
4. Install the cover as shown in the figure.



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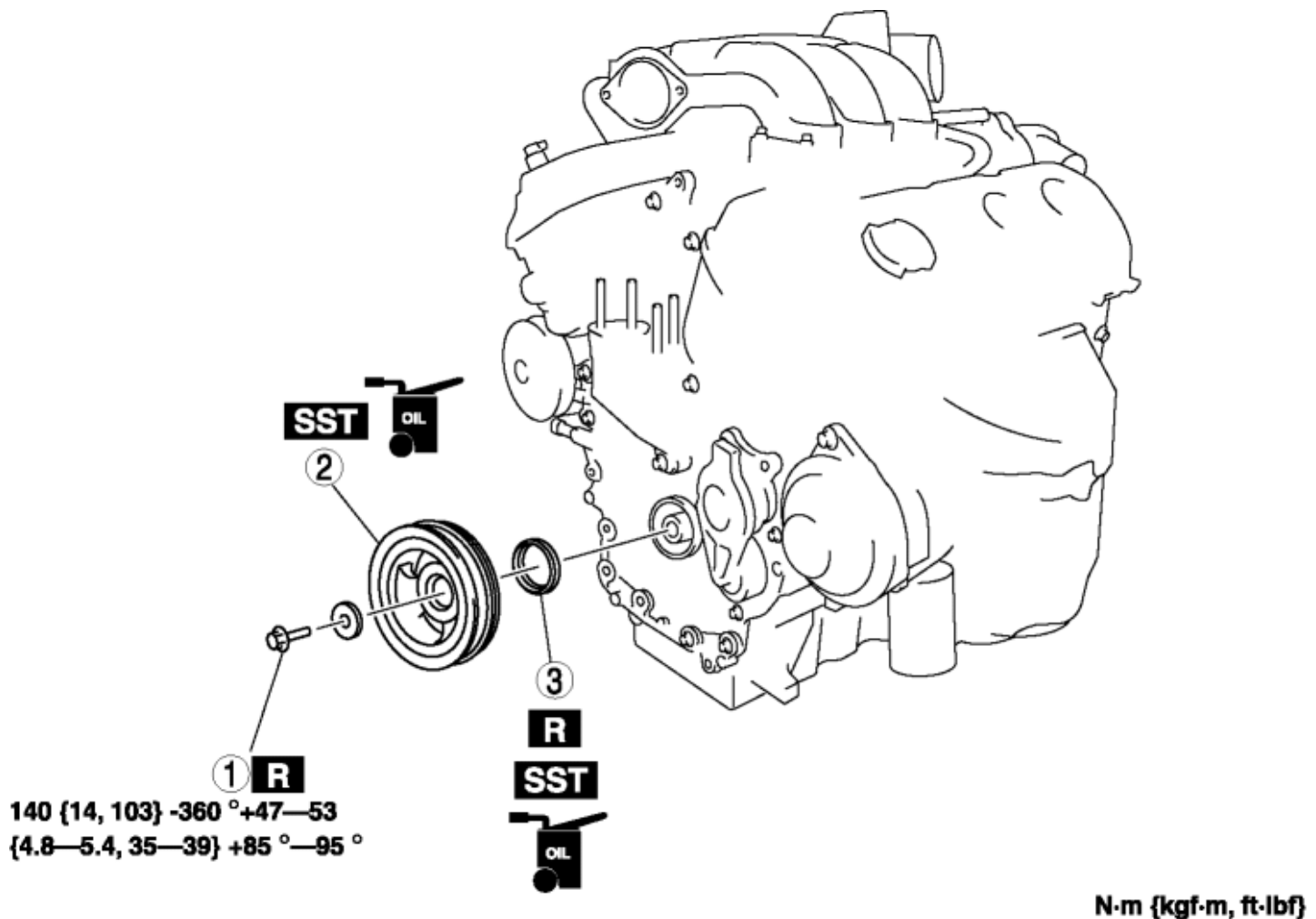
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2012 - Mazda6 - Engine

FRONT OIL SEAL REPLACEMENT [MZI 3.7 V6]

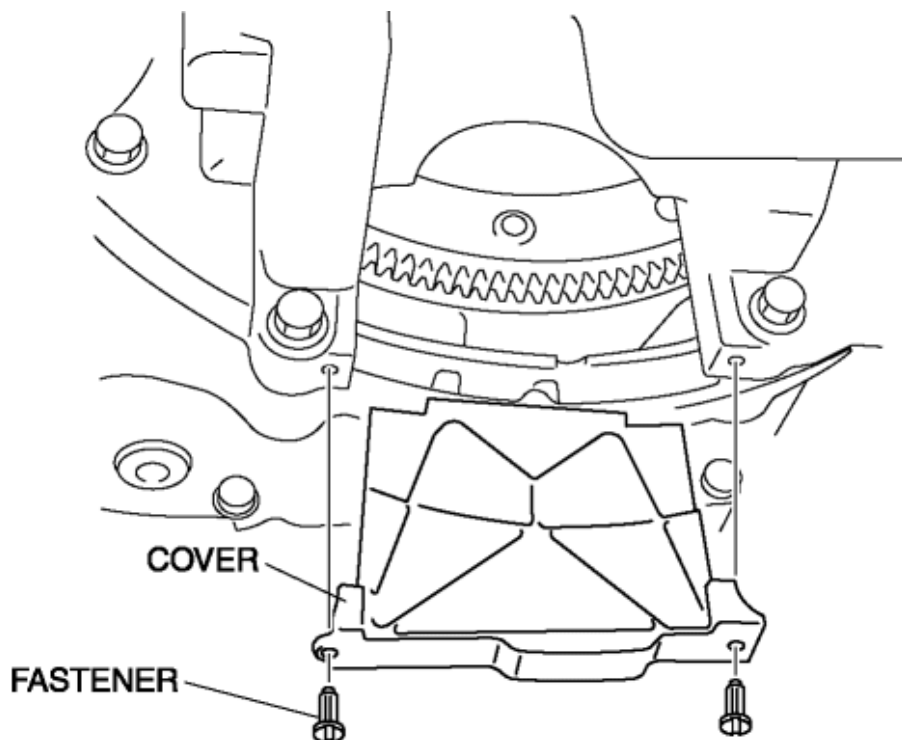
1. Disconnect the negative battery cable.
2. Remove the engine cover. (See [ENGINE COVER REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
3. Remove the both front wheels and tires (RH). (See [GENERAL PROCEDURES \(SUSPENSION\)](#).)
4. Remove the splash shield (RH).
5. Remove the generator and A/C drive belt. (See [DRIVE BELT REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
6. Remove the power steering oil pump drive belt. (See [DRIVE BELT REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
7. Remove in the order indicated in the table.
8. Install in the reverse order of removal.



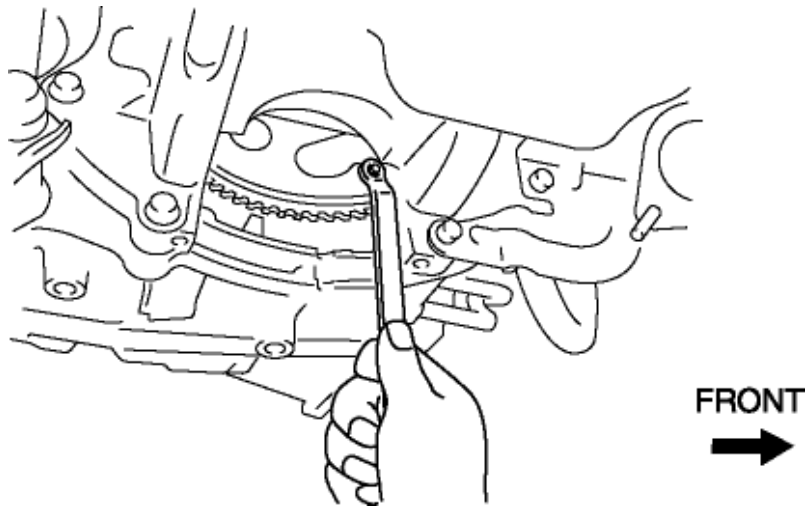
1	Crankshaft pulley lock bolt (See Crankshaft Pulley Lock Bolt Removal Note.) (See Crankshaft Pulley Lock Bolt Installation Note.)
2	Crankshaft pulley (See Crankshaft Pulley Removal Note.) (See Crankshaft Pulley Installation Note.)
3	Front oil seal (See Front Oil Seal Removal Note.) (See Front Oil Seal Installation Note.)

Crankshaft Pulley Lock Bolt Removal Note

1. Remove the cover as shown in the figure.



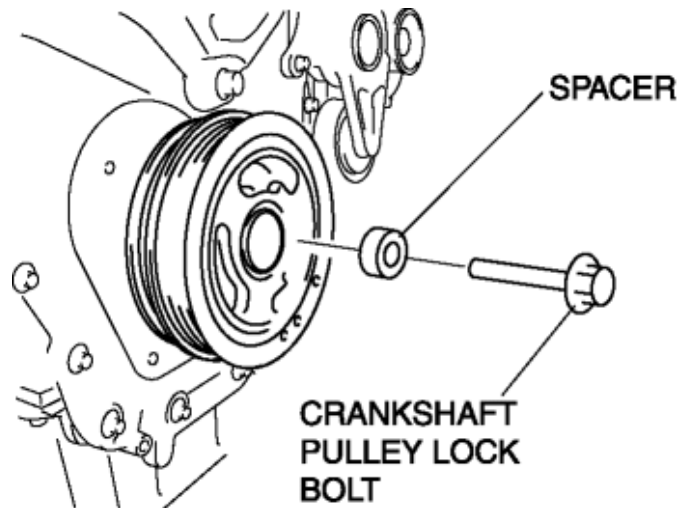
2. Set a wrench to the drive plate bolt at the position shown in the figure to lock the crankshaft rotation.



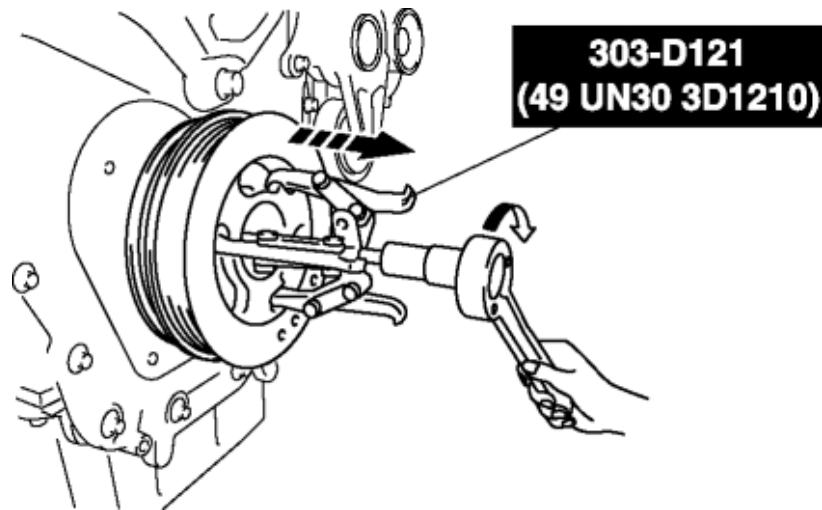
3. Remove the crankshaft pulley lock bolt and washer.

Crankshaft Pulley Removal Note

1. Slightly loosen the **SST (49 C017 5A0)** support and tilt the engine to the lower side slightly.
2. Remove the washer from the crankshaft pulley lock bolt, install a suitable spacer (thickness: **approx. 14 mm { 0.55 in }** , diameter: **approx. 30 mm { 1.2 in }**), (similar to front shock absorber lower nut) to the crankshaft pulley lock bolt, and install the crankshaft pulley lock bolt to the crankshaft.



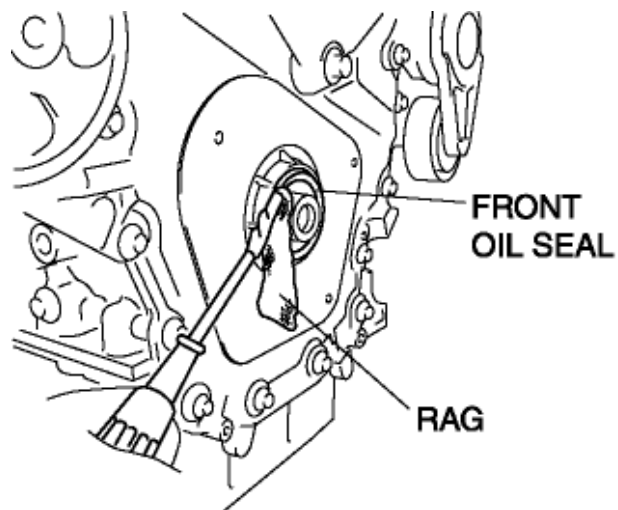
3. Remove the crankshaft pulley using the **SST**.



4. Remove the crankshaft pulley lock bolt and spacer.

Front Oil Seal Removal Note

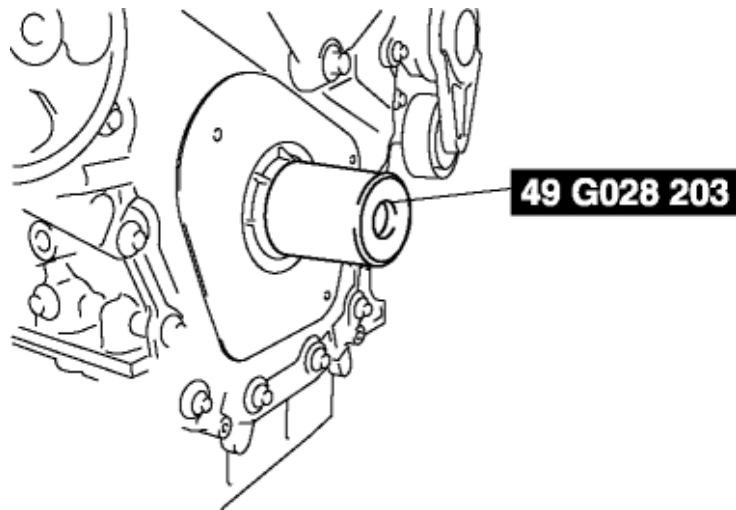
1. Remove the front oil seal using a flathead screwdriver as shown.



Front Oil Seal Installation Note

NOTE:

- Apply clean engine oil to the front oil seal bore in the engine front cover.
1. Push the front oil seal slightly in by hand.
 2. Tap the front oil seal in evenly using the **SST** and a hammer.



Substitution SST

- **49 G028 203**

Outer diameter: 58—70 mm {2.3—2.7 in}

Inner diameter: 56—58 mm {2.21—2.28 in}

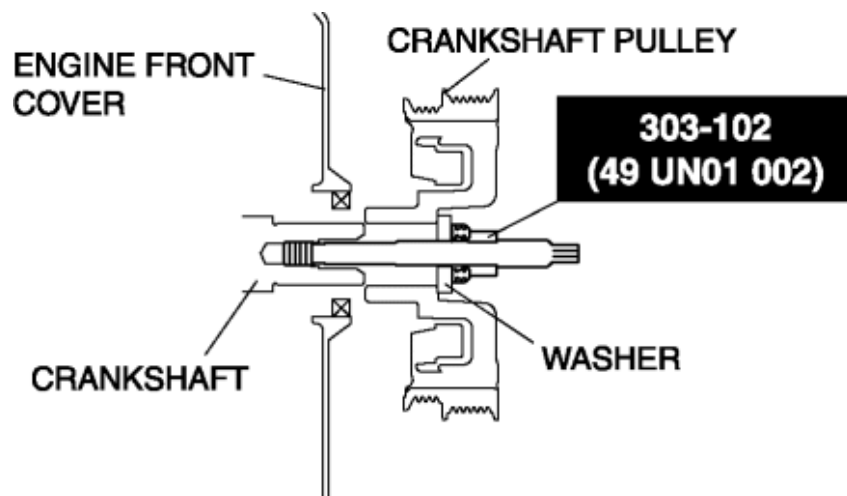
Tube with board thickness 2 mm {0.08 in} or more

Crankshaft Pulley Installation Note

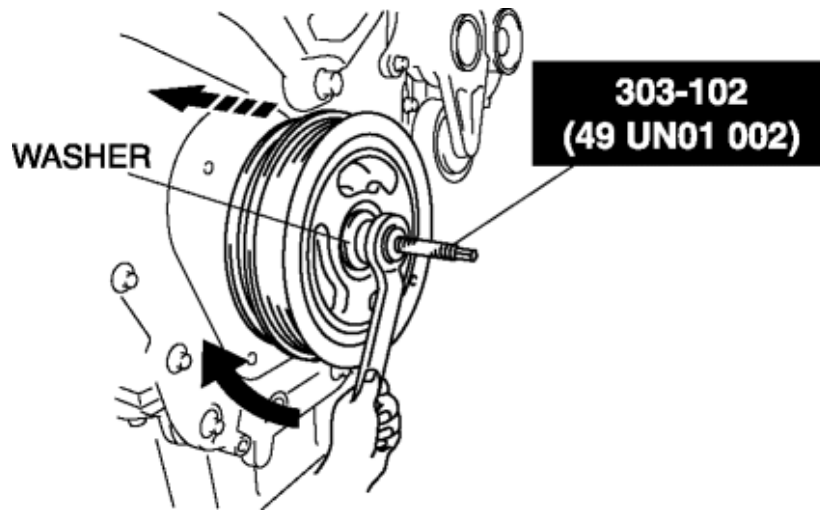
NOTE:

- Lubricate the contact surface (exterior area of inner diameter) of the front oil seal with clean engine oil.

1. Install the crankshaft pulley, washer, and **SST** to the crankshaft.

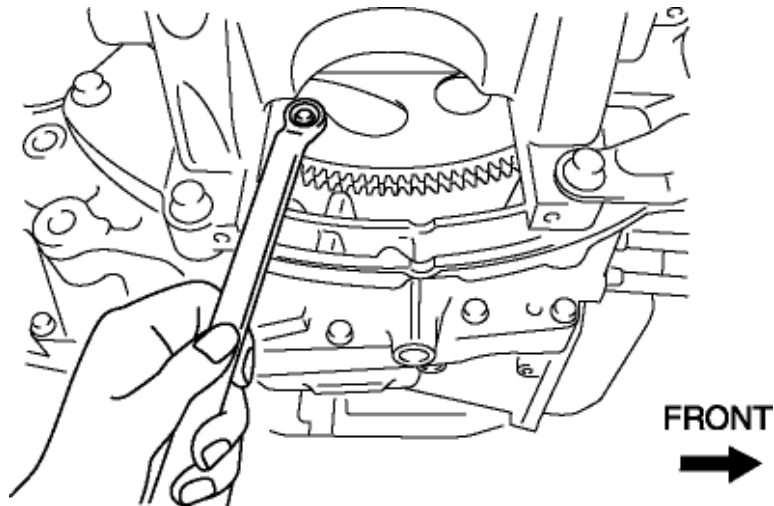


2. Tighten the **SST** nut and install the crankshaft pulley.

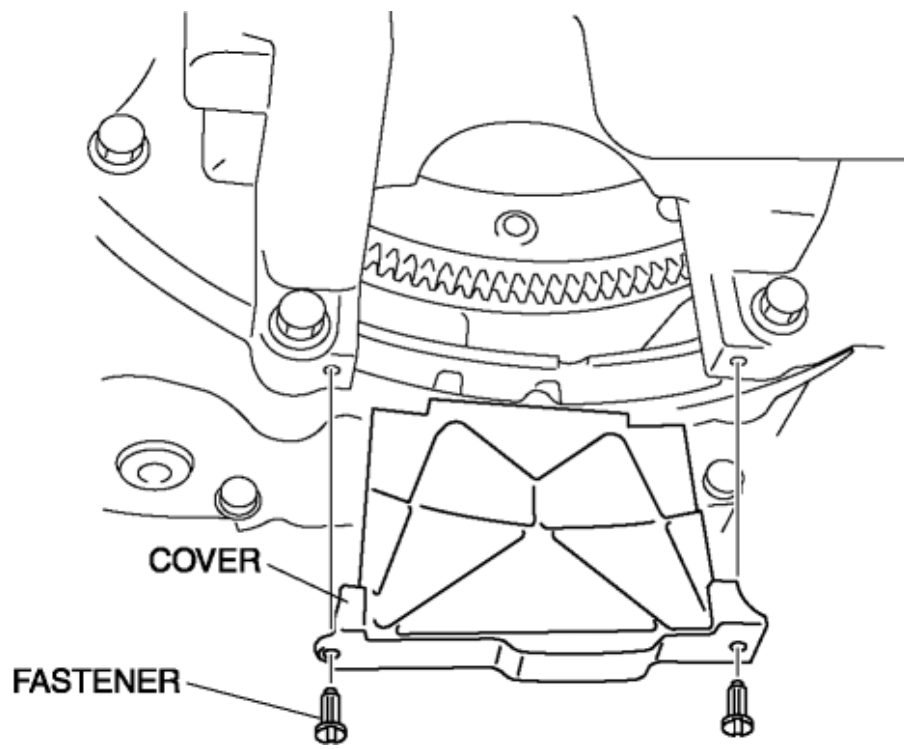


Crankshaft Pulley Lock Bolt Installation Note

1. Rotate the crankshaft clockwise, and set a wrench to the drive plate bolt at the position shown in the figure to lock the crankshaft rotation.



2. Tighten the new crankshaft pulley lock bolt in 4 steps.
 - a. Tighten to **140 N·m { 14 kgf·m, 103 ft·lbf }** .
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 - c. Tighten to **47—53 N·m { 4.8—5.4 kgf·m, 35—39 ft·lbf }** .
 - d. Tighten **85 °—95 °** .
3. Verify the tightening torque for the drive plate bolt to which the wrench has been set.
4. Install the cover as shown in the figure.



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