

## 2012 - Mazda6 - Engine

### WATER PUMP REMOVAL/ INSTALLATION [MZI 3.7 V6]

#### 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 leakage 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 Procedure". (See [BEFORE SERVICE PRECAUTION \[MZI 3.7 V6\]](#).)
- Continuous exposure to USED engine oil has caused skin cancer in laboratory mice. Protect your skin by washing with soap and water immediately after working with engine oil.

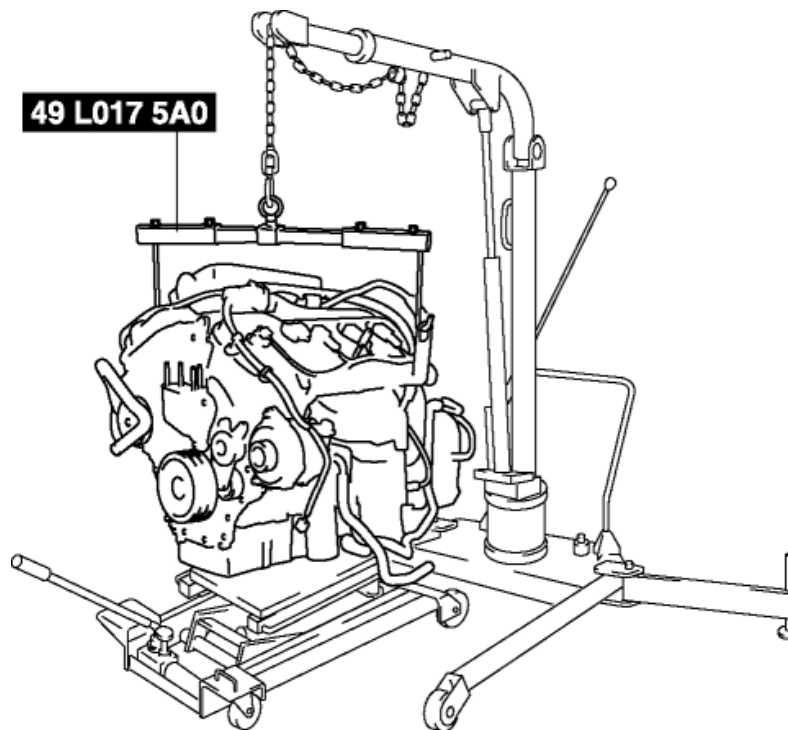
#### NOTE:

- The following procedure "WATER PUMP REMOVAL/INSTALLATION" is performed after the engine and transaxle component is removed from the vehicle.

1. Drain the engine oil. (See [ENGINE OIL REPLACEMENT \[MZI 3.7 V6\]](#).)
2. Remove the engine and transaxle component. (See [ENGINE REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
3. Secure the engine and transaxle component using a hoist and the **SST**.

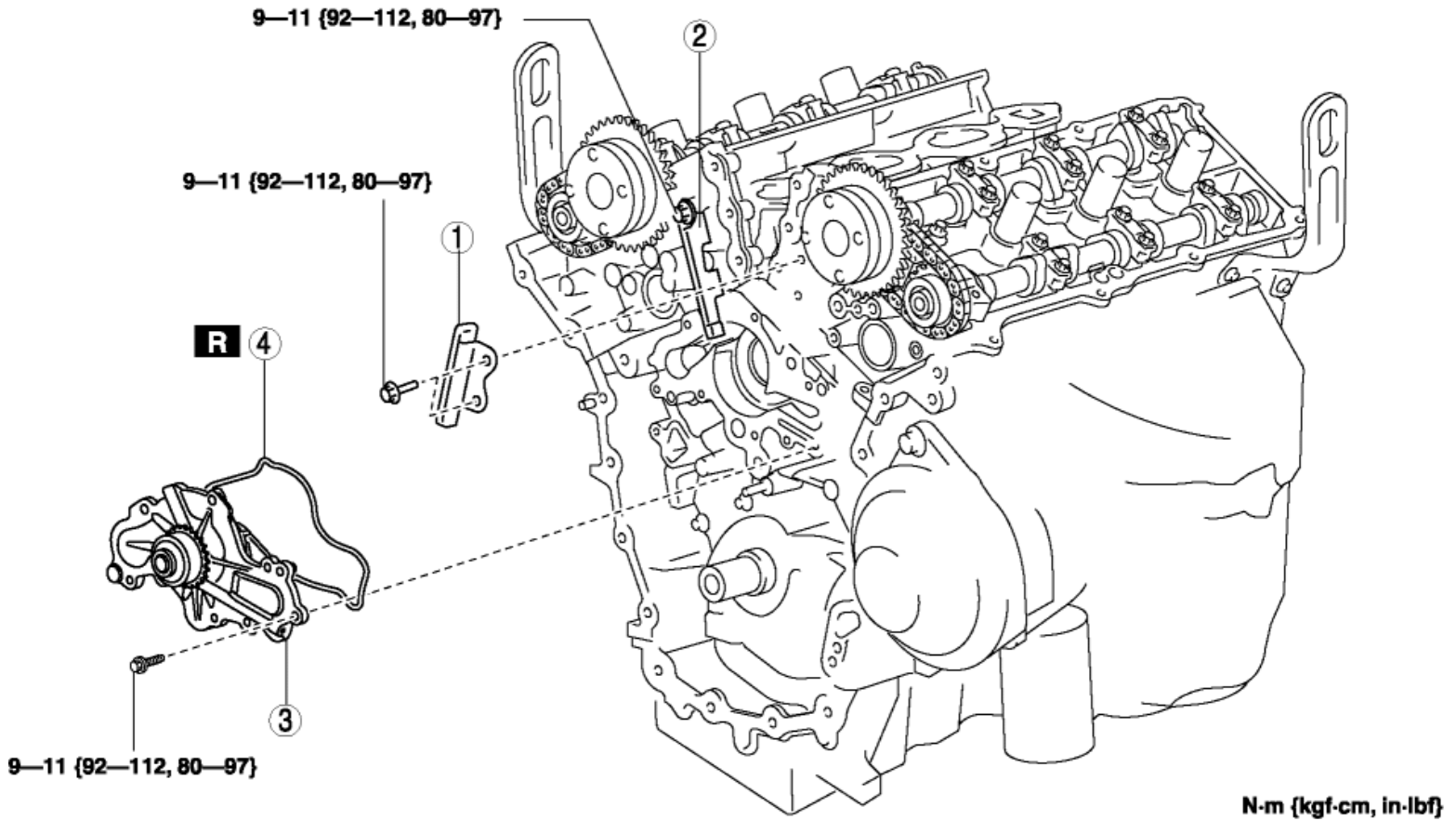
#### WARNING:

- Protect and stabilize the lowered engine and transaxle component with crossties to prevent injury or damage due to roll over.



4. Remove the dynamic chamber and throttle body as a single unit. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
5. Remove the ignition coils. (See [IGNITION COIL REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
6. Remove the dipstick.
7. Remove the power steering oil pump drive belt. (See [DRIVE BELT REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)

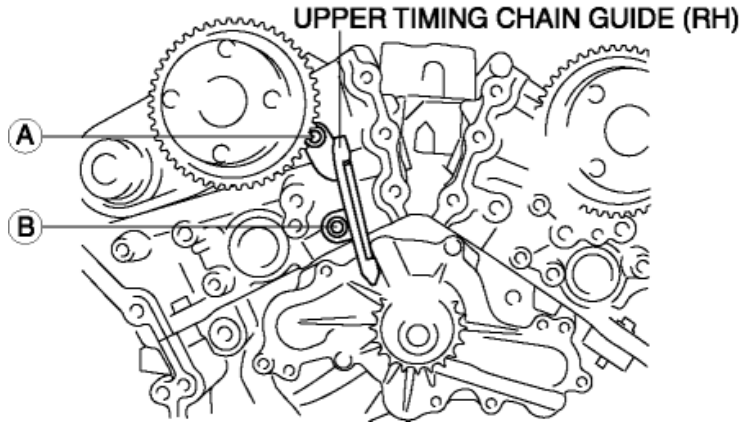
8. Remove the power steering oil pump. (See [POWER STEERING OIL PUMP REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
9. Remove the timing chain component. (See [TIMING CHAIN REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
10. Remove in the order indicated in the table.
11. Install in the reverse order of removal.
12. Start the engine and:
  - a. Inspect the runout and contact on the pulley and belt.
  - b. Inspect for engine oil, engine coolant, ATF, power steering fluid and fuel leakage.
  - c. Verify the ignition timing, idle speed and idle mixture. (See [ENGINE TUNE-UP \[MZI 3.7 V6\]](#).)
  - d. Engine accessories operation.
13. Perform a road test.



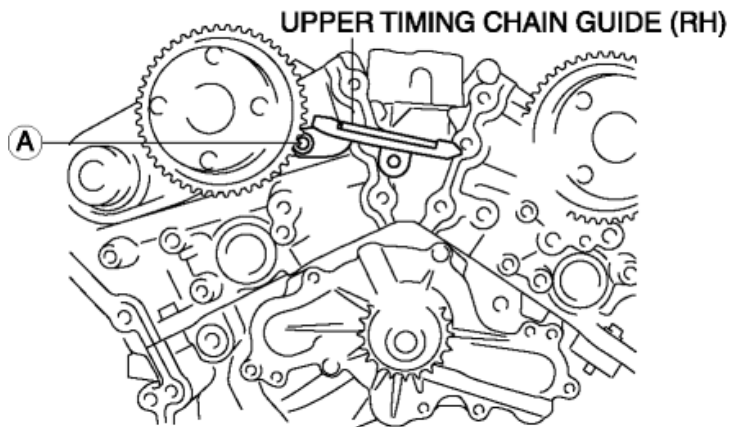
|   |                                                                                                                       |
|---|-----------------------------------------------------------------------------------------------------------------------|
| 1 | Upper timing chain guide (LH)                                                                                         |
| 2 | Upper timing chain guide (RH)<br>(See <a href="#">Upper Timing Chain Guide (RH) Removal Note.</a> )                   |
| 3 | Water pump<br>(See <a href="#">Water Pump Removal Note.</a> )<br>(See <a href="#">Water Pump Installation Note.</a> ) |
| 4 | Gasket                                                                                                                |

### Upper Timing Chain Guide (RH) Removal Note

1. Loosen the upper timing chain guide (RH) bolt A.



2. Remove the upper timing chain guide (RH) bolt B.
3. Move the upper timing chain guide (RH) as shown.



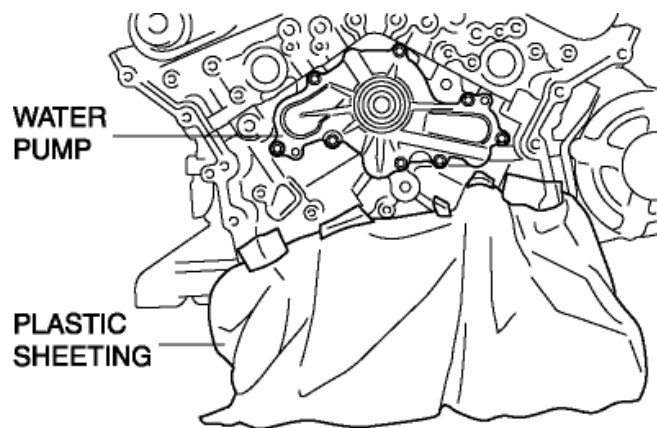
4. Retighten the bolt A.

### Water Pump Removal Note

#### NOTE:

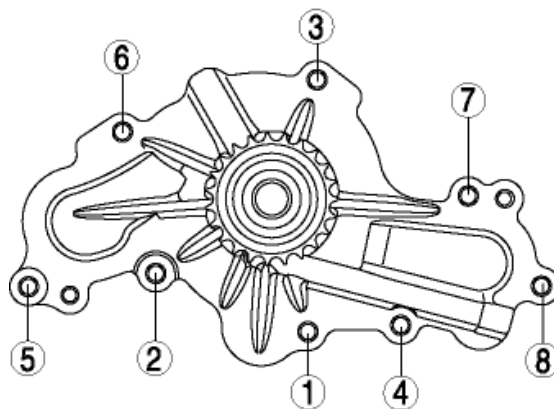
- When the water pump is removed, the engine coolant may flow through the cylinder block and penetrate the oil pan. To prevent the engine coolant from accumulating in the oil pan, remove the oil pan drain plug before removing the water pump.

1. Remove the oil pan drain plug. (See [ENGINE OIL REPLACEMENT \[MZI 3.7 V6\]](#).)
2. To prevent engine coolant from penetrating the oil pan, line the cylinder block with plastic sheeting as shown in the figure before removing the water pump.



### Water Pump Installation Note

1. Tighten the water pump bolts in the order shown in the figure.



### Tightening torque

1. 9—11 N·m {92—112 kgf·cm, 80—97 in·lbf}

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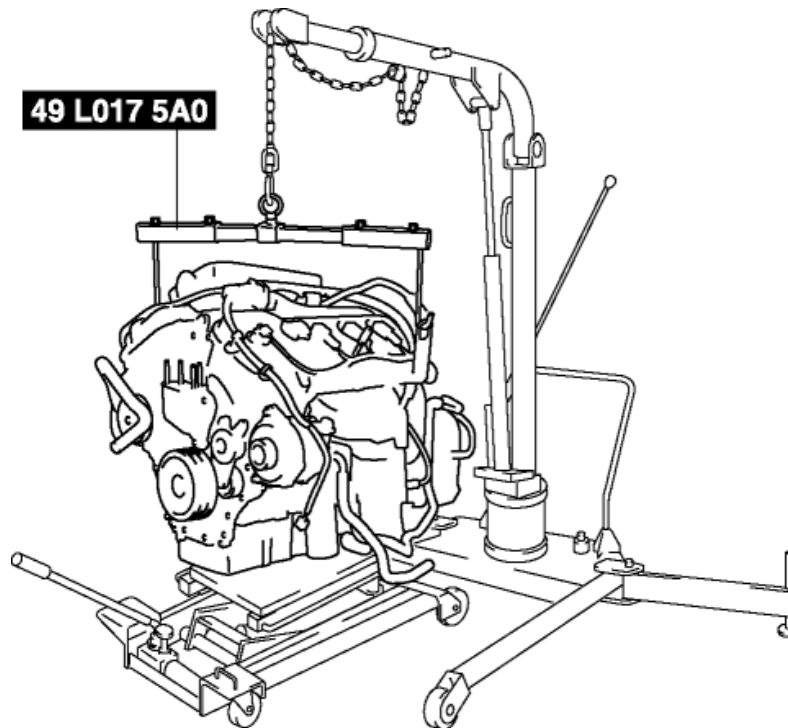
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- The following procedure "WATER PUMP REMOVAL/INSTALLATION" is performed after the engine and transaxle component is removed from the vehicle.

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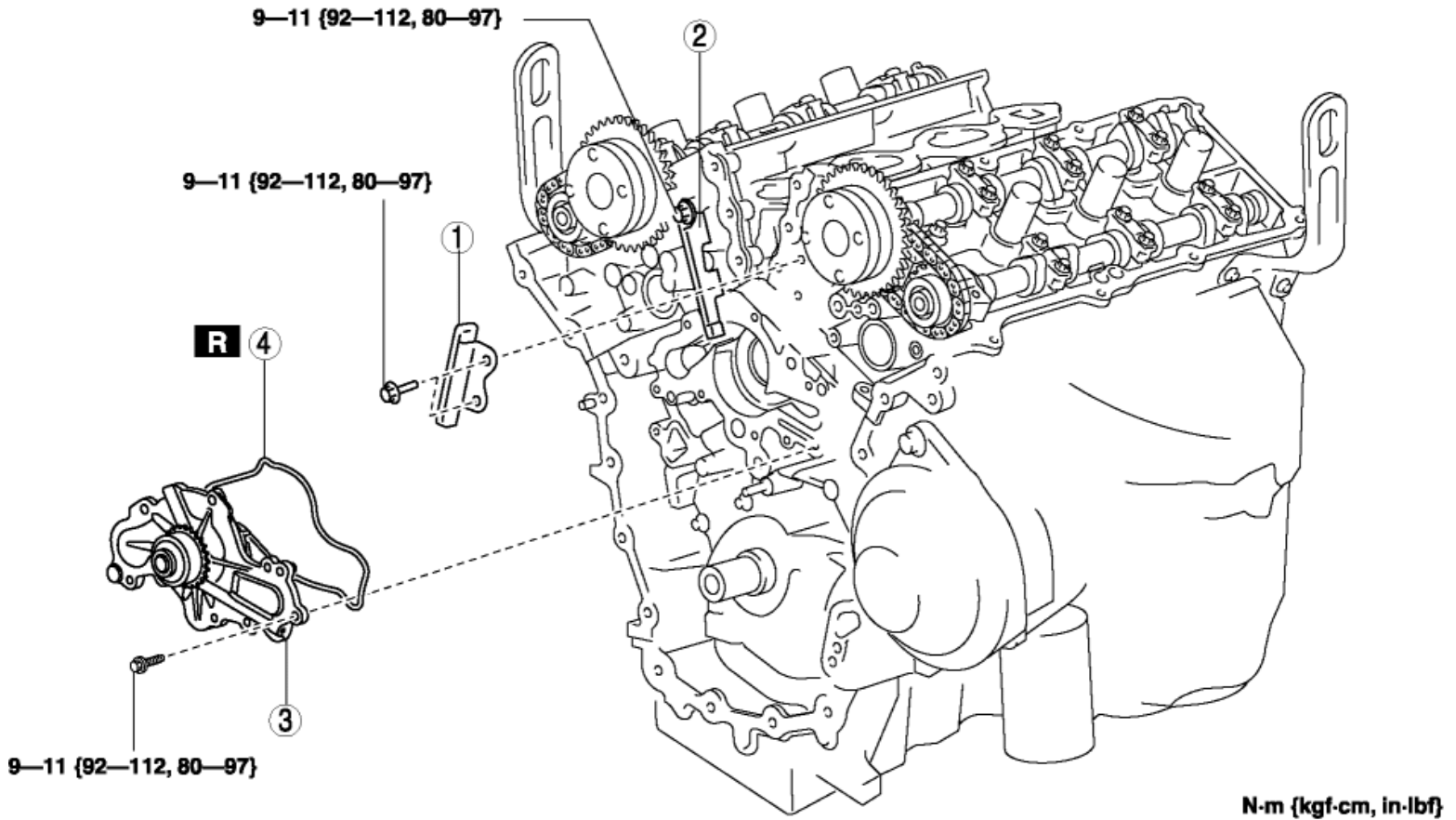
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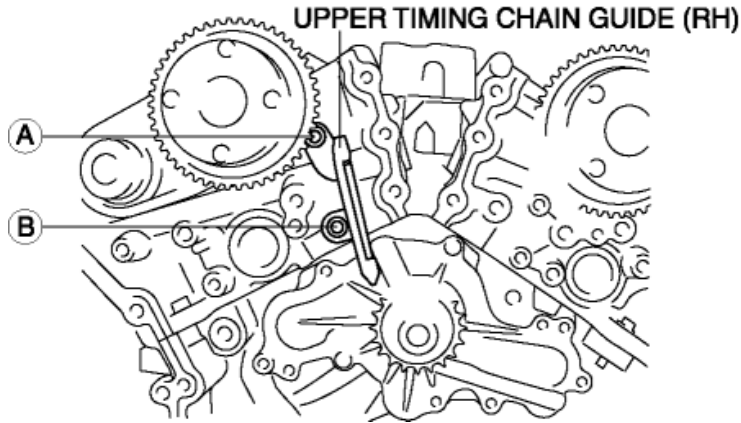
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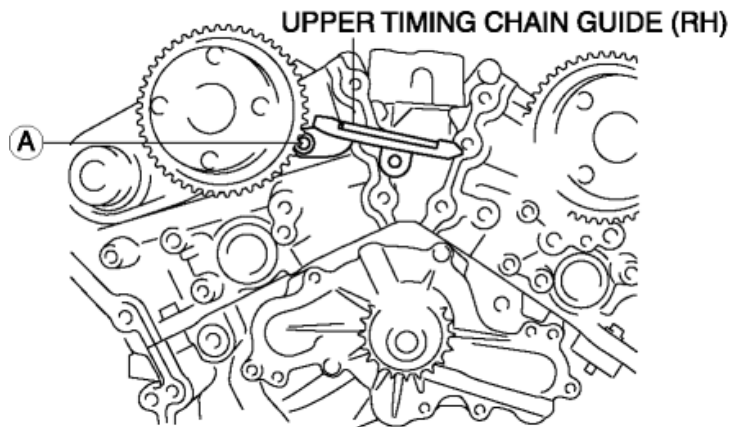
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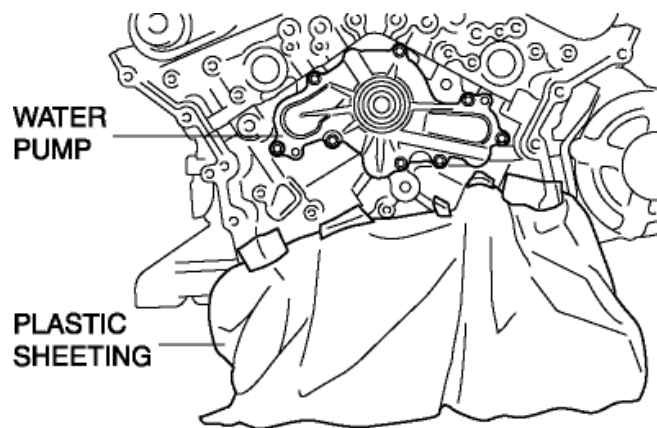
4. Retighten the bolt A.

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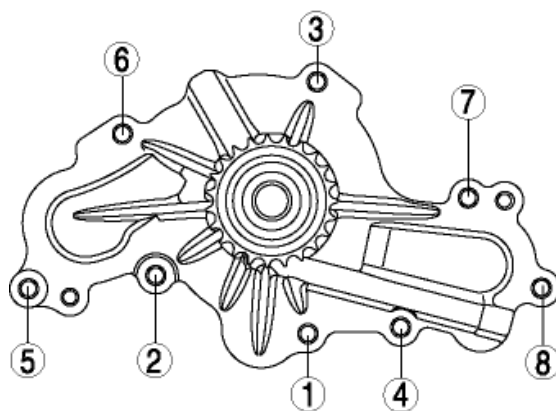
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