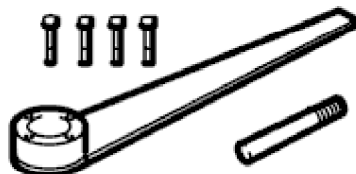


# 2001 S-TYPE - Engine - 4.0L - 303-01B

## Crankshaft Pulley 12.21.09

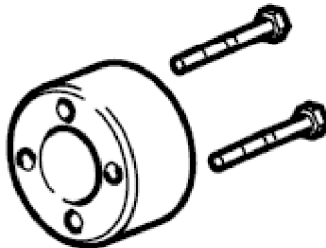
### Special Service tools



DWST038

Locking Tool, Crankshaft Pulley  
303-191

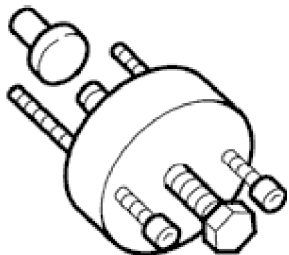
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DWST075

Adapter for 303-191/303-588  
303-191-02

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WST090

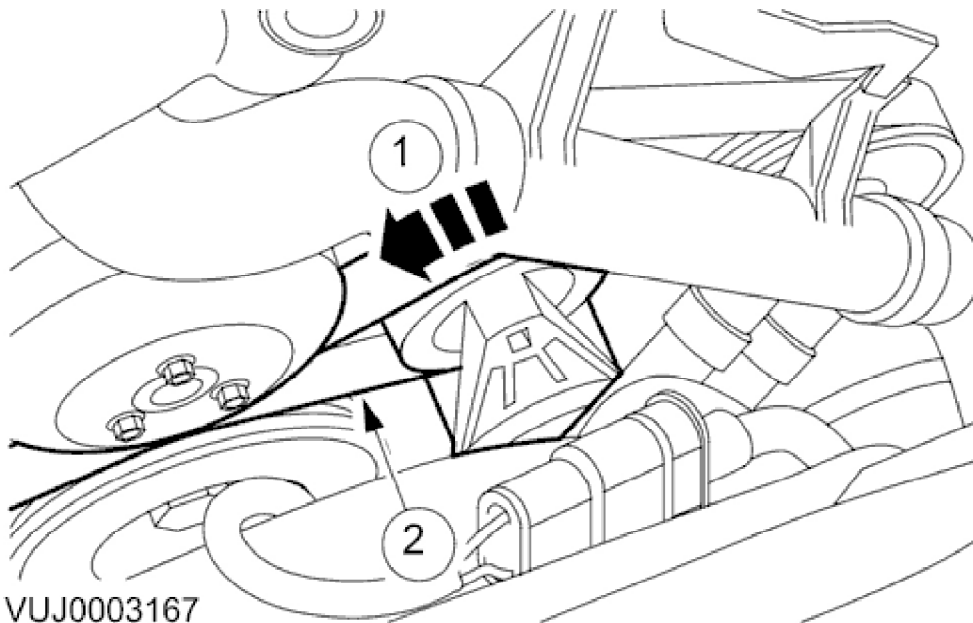
Remover, Crankshaft Pulley  
303-588

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### Removal

1. Remove the air cleaner outlet tube. For additional information, refer to <<303-12A>><<303-12B>> .

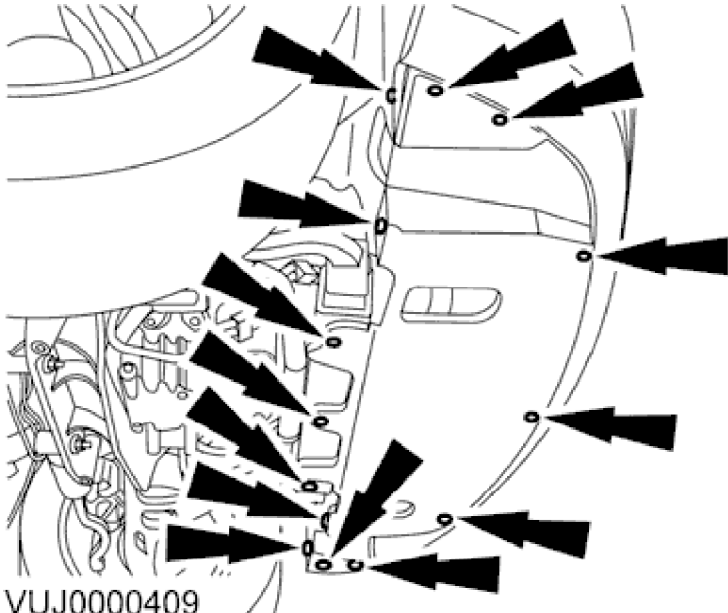
**2001 S-TYPE - Engine - 4.0L - 303-01B**



VUJ0003167

- 2. Detach the accessory drive belt from the crankshaft pulley.
- 1. Rotate the accessory drive belt tensioner counter-clockwise.
- 2. Detach the accessory drive belt from the crankshaft pulley.

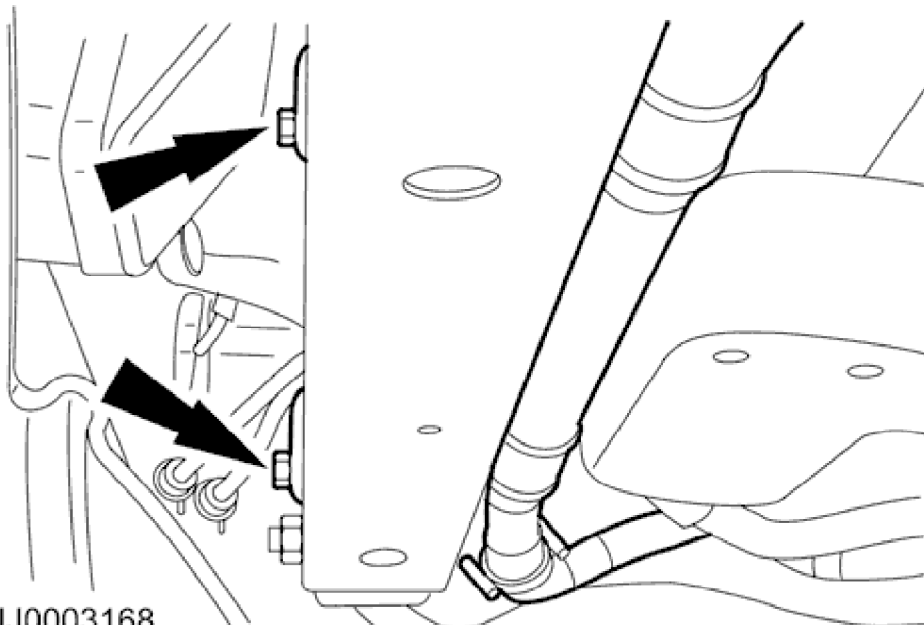
3. Raise and support the vehicle. For additional information, refer to<<100-02>>.



VUJ0000409

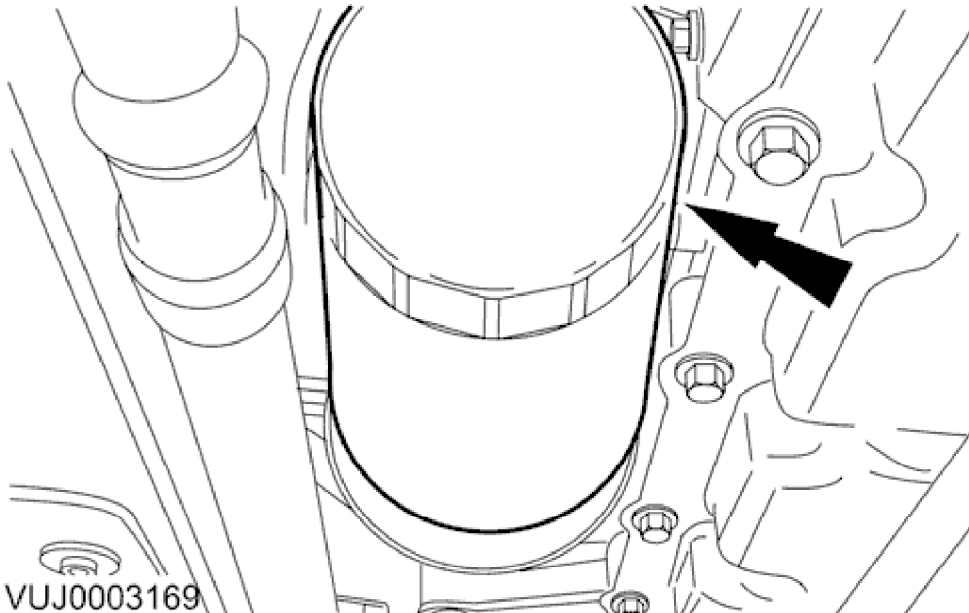
4. Remove the radiator lower splash shield.

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VUJ0003168

5. Detach and reposition the air conditioning pipe.

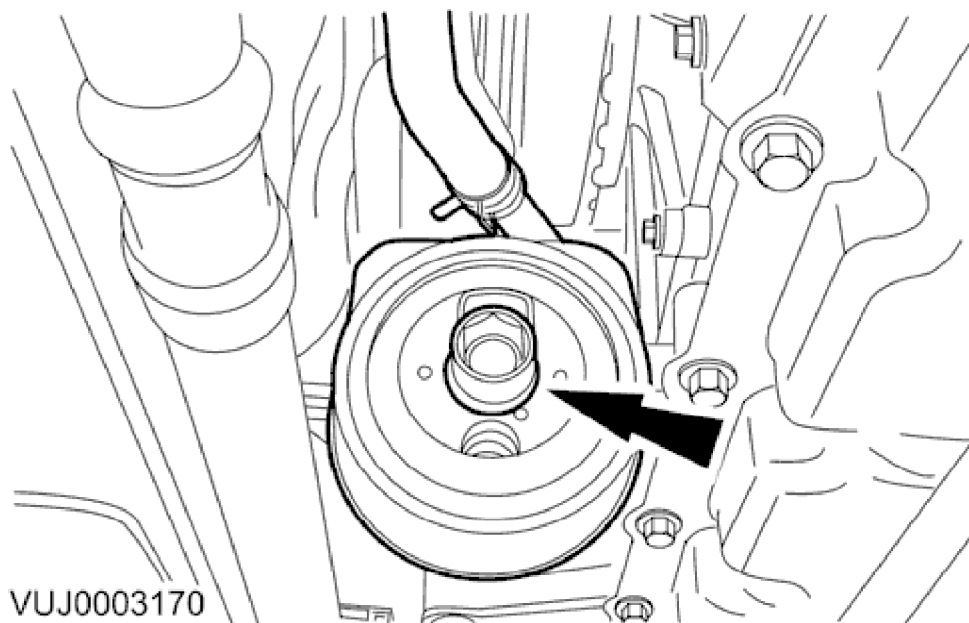


VUJ0003169

6. **NOTE:**

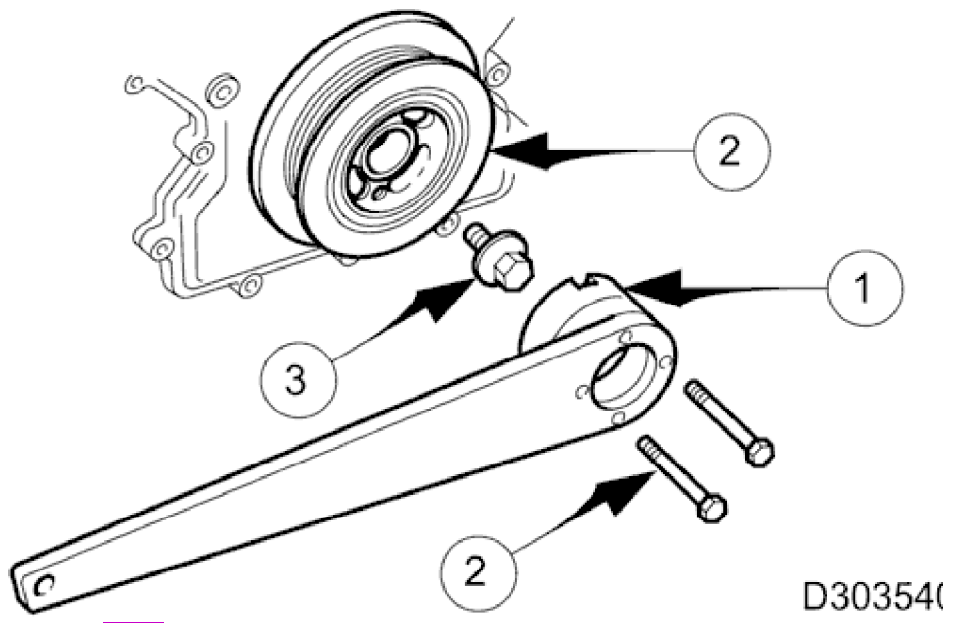
Place a suitable container underneath the oil filter and the oil cooler to prevent oil spillage.

Remove and discard the oil filter.



VUJ0003170

7. Detach and reposition the oil cooler.

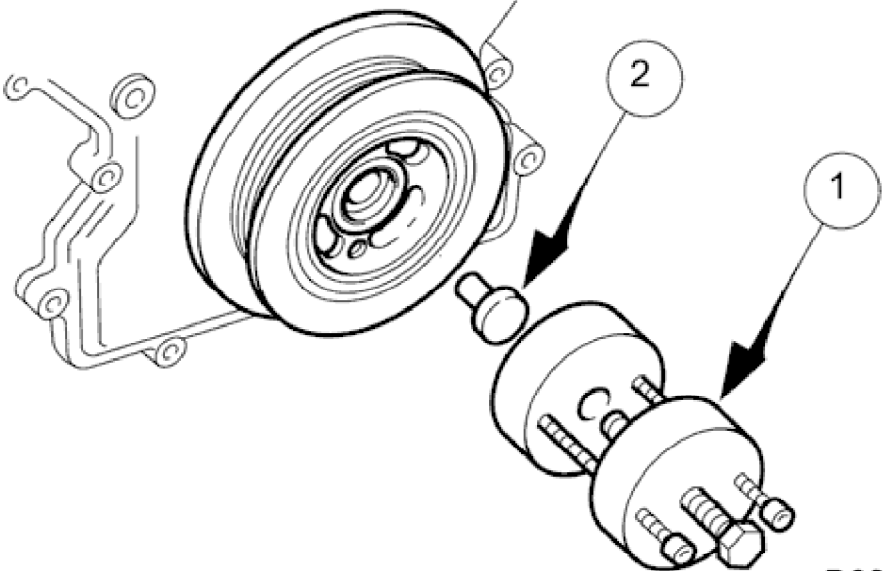


8. **CAUTION:**

**Under no circumstances should the crankshaft setting peg 303645 be used in the following operations to lock the crankshaft.**

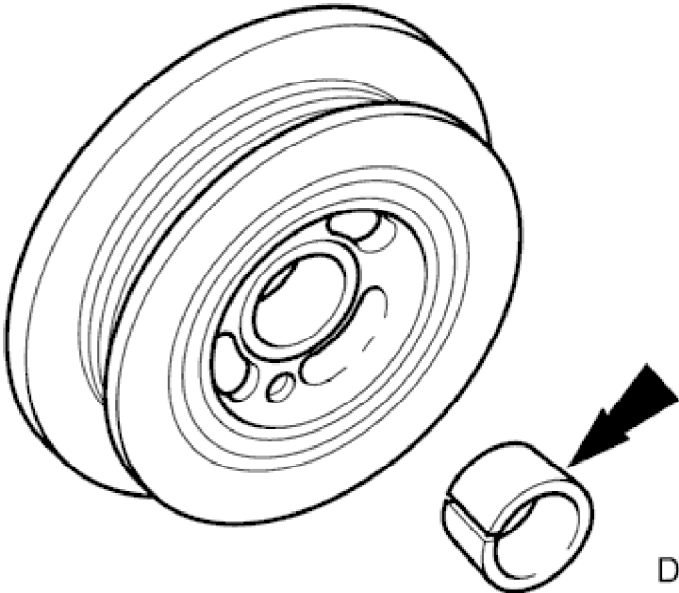
- Using the special tools, remove and discard the crankshaft pulley retaining bolt.
1. Install the adaptor 30319102 to the crankshaft pulley locking tool 303191.
  2. Reposition the crankshaft pulley to align the crankshaft pulley locking tool and adapter mounting holes and install the crankshaft pulley locking tool and adapter using the retaining bolts provided.
  3. Remove and discard the crankshaft pulley retaining bolt.

**2001 S-TYPE - Engine - 4.0L - 303-01B**



D303542

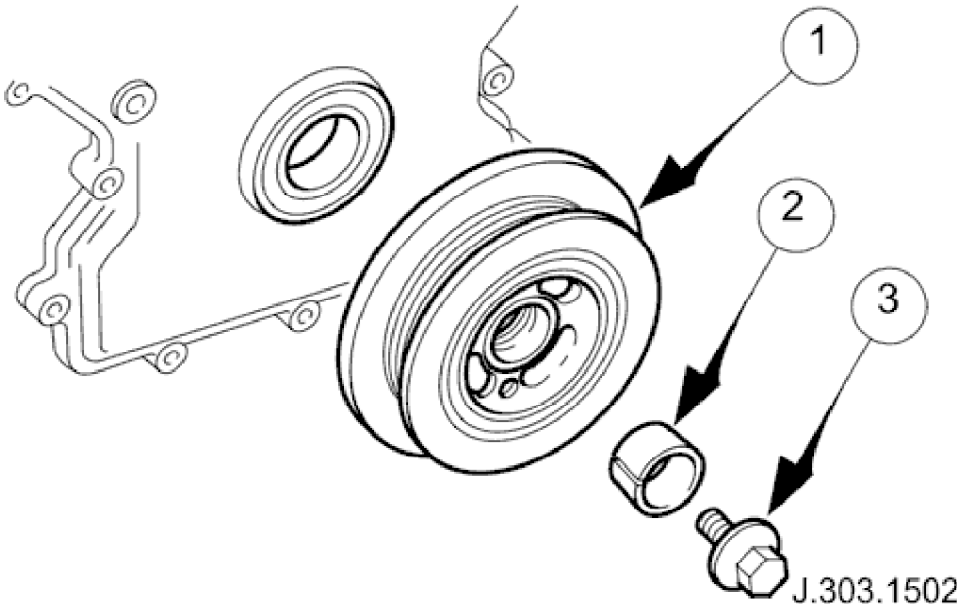
- 9. Using the special tools, remove the crankshaft pulley.
  - 1. Remove the adaptor 30319102 from the crankshaft pulley locking tool and install it to the crankshaft pulley remover 303588 (it is not retained to the crankshaft pulley remover by the retaining bolts).
  - 2. Install the thrust button to the end of the crankshaft, install the crankshaft pulley remover and adapter to the crankshaft pulley and remove the crankshaft pulley.
  
- 10. Remove the thrust button from the end of the crankshaft.
  
- 11. Remove the crankshaft pulley remover and adapter from the crankshaft pulley.



D303700

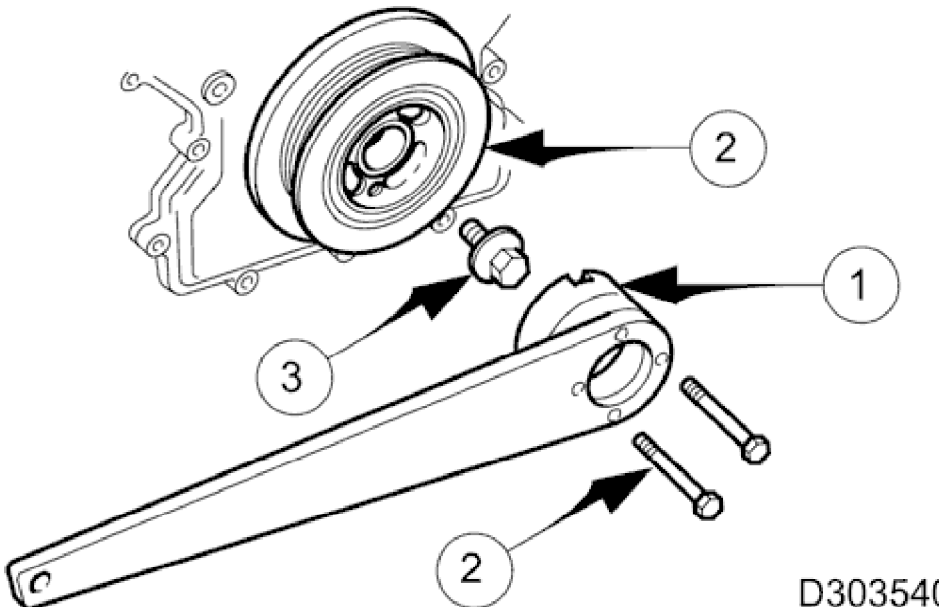
- 12. Remove the split locking ring.

Installation



1. **NOTE:**  
Apply a suitable amount of clean engine oil to lubricate the crankshaft pulley bore and the crankshaft front oil seal.

- Install, but do not tighten, a new crankshaft pulley retaining bolt.
- 1. Install the crankshaft pulley.
  - 2. Install the split locking ring.
  - 3. Install, but do not tighten, a new crankshaft pulley retaining bolt.



2.  **CAUTION:**

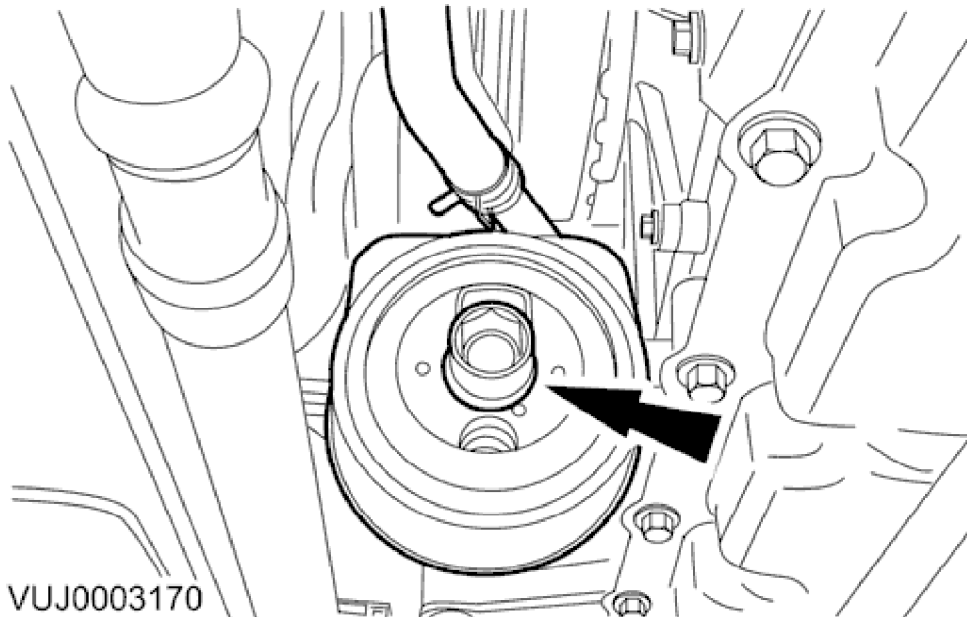
# 2001 S-TYPE - Engine - 4.0L - 303-01B

**Under no circumstances should the crankshaft setting peg 303645 be used in the following operations to lock the crankshaft.**

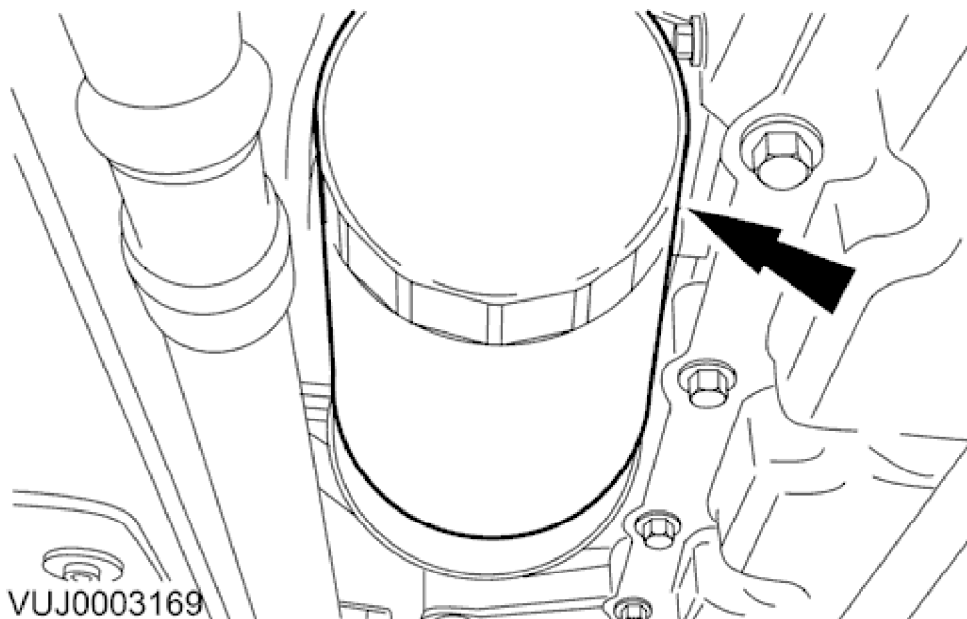
Tighten the crankshaft pulley retaining bolt to 375 Nm.

1. Install the adaptor 30319102 to the crankshaft pulley locking tool 303191.
2. Reposition the crankshaft pulley to align the crankshaft pulley locking tool and adapter mounting holes and install the crankshaft pulley locking tool and adapter using the retaining bolts provided.
3. Tighten the crankshaft pulley retaining bolt to 375 Nm.

3. Remove the crankshaft pulley locking tool and adapter from the crankshaft pulley.



4. Attach the oil cooler.
  - Tighten to 58 Nm.

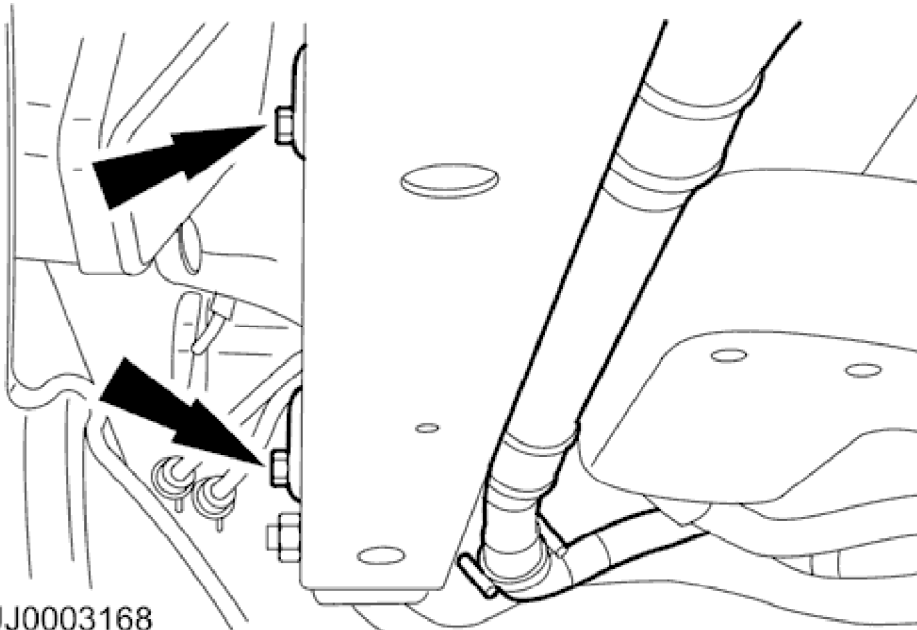


# 2001 S-TYPE - Engine - 4.0L - 303-01B

**5. NOTE:**

Apply a suitable amount of clean engine oil to lubricate the oil filter O-ring seal.

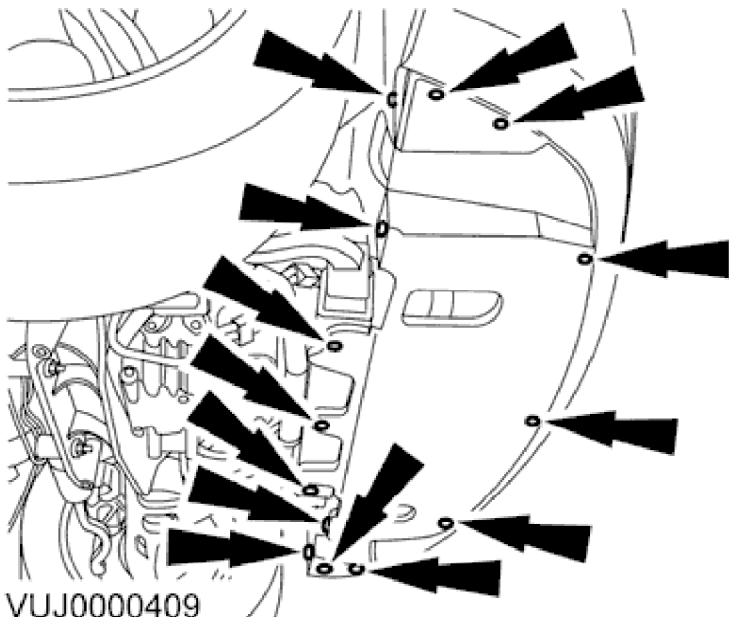
Install a new oil filter.



VUJ0003168

6. Attach the air conditioning pipe.

- Tighten to 10 Nm.



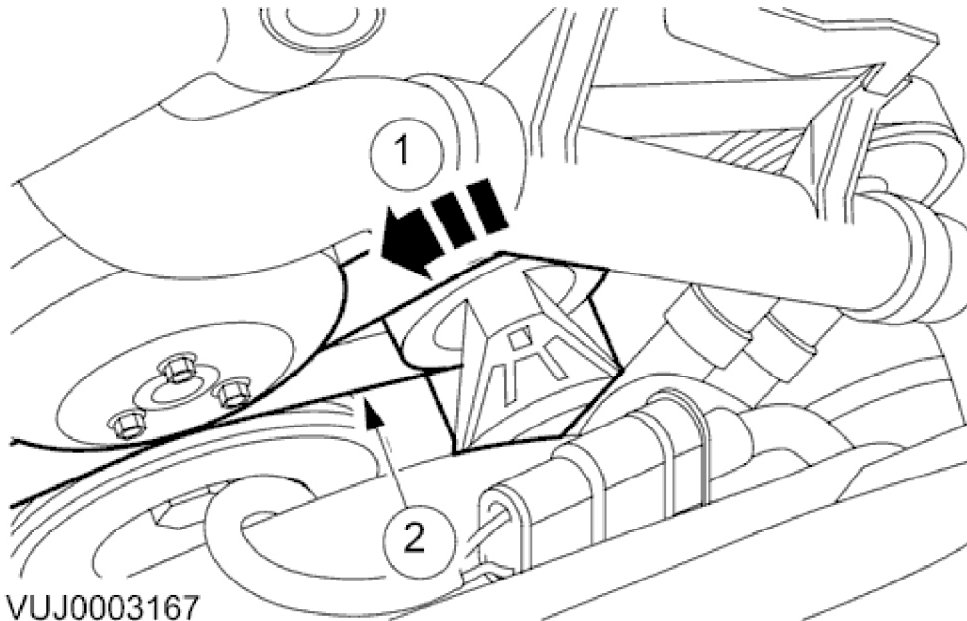
VUJ0000409

7. Install the radiator lower splash shield.

8. Lower the vehicle.



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9. Attach the accessory drive belt to the crankshaft pulley.
  1. Rotate the accessory drive belt tensioner counter-clockwise.
  2. Attach the accessory drive belt to the crankshaft pulley.
10. Install the air cleaner outlet tube. For additional information, refer to <<303-12A>><<303-12B>> .
11. Check the engine oil level, and if necessary, fill the engine with oil to the oil level indicator 'MAX' mark.
12. Start the engine to allow the oil cooler and the new oil filter to fill with oil.
13. Turn the engine off and allow the engine oil level to settle.
14. Check the engine oil level, and if necessary, fill the engine with oil to the oil level indicator 'MAX' mark.