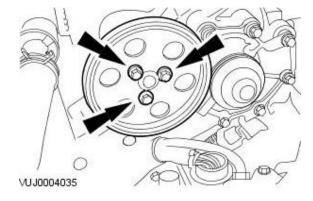
Published: 11-May-2011

# Engine Cooling - 2.0L NA V6 - AJV6/2.5L NA V6 - AJV6/3.0L NA V6 - AJ27 - Water Pump Housing

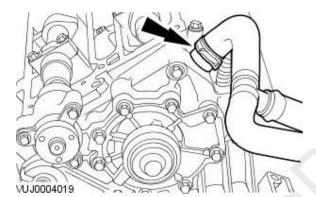
Removal and Installation

# Removal

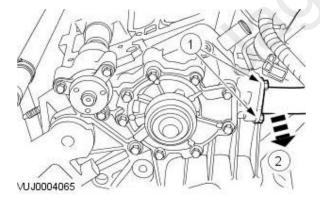
- 1. Drain the cooling system. For additional information, refer to <u>Cooling System Draining</u>, Filling and Bleeding.
- 2. Lower the vehicle.
- **3.** Remove the water pump belt tensioner. For additional information, refer to Section 303-05 Accessory Drive.
- **4.** Remove the left-hand valve cover. For additional information, refer to Section 303-01A Engine Section 303-01B Engine.
- 5. Remove the water pump drive pulley.



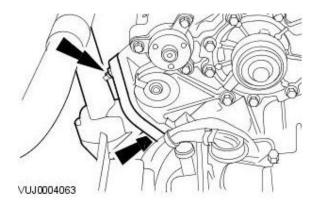
**6.** Detach the coolant expansion tank outlet hose from the water pump housing.

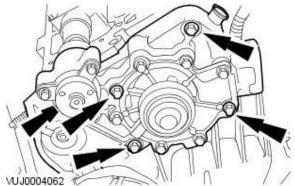


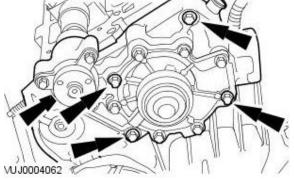
- 7. Remove the water pump coolant outlet pipe.
  - Remove and discard the seals.

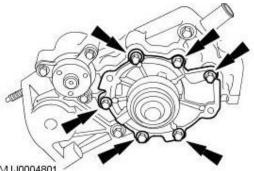


- 8. Detach the coolant inlet pipe from the water pump housing.
  - Remove and discard the gasket.





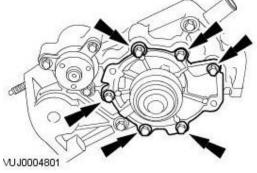




- Remove and discard the gasket.

9. Remove the water pump housing.

- $\textbf{10.} \ \ \text{Remove the water pump from the water pump housing.}$ 
  - Remove and discard the gasket from the water pump.

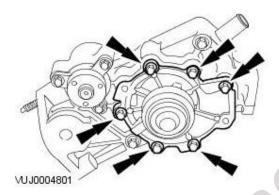


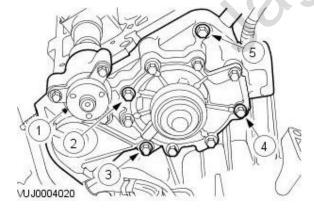
# **Installation**

1. NOTE: Install a new gasket.

To install, reverse the removal procedure.

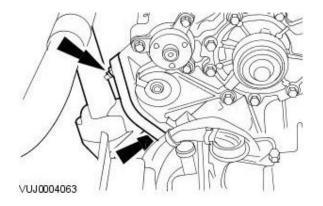
Tighten to 10 Nm.

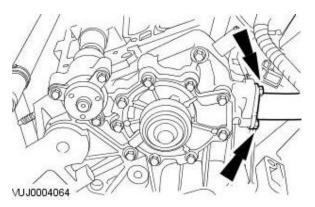


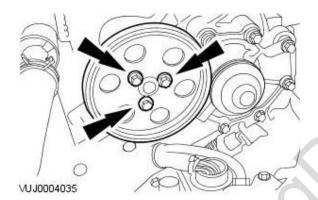


- 2. CAUTION: Make sure that the water pump housing is tightened in the sequence shown. Failure to follow this instruction may result in damage to the water pump drive pulley bearings.
- NOTE: Install a new gasket.

Tighten in the sequence shown to 10 Nm.







- **3.** NOTE: Install a new gasket.
- Tighten to 9 Nm.

- **4.** NOTE: Install new O-ring seals to the water pump coolant outlet pipe.
- NOTE: Prior to installation of the water pump outlet pipe, lubricate the O-ring seal of the water pump outlet pipe at the joint with the engine coolant inlet tube with lubricant ESE-M99B176-A.

Tighten to 12 Nm.

5. Tighten to 11 Nm.

**6.** Fill the cooling system. For additional information, refer to <u>Cooling System Draining</u>, <u>Filling and Bleeding</u>.

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# Engine Cooling - 2.0L Duratorq-TDCi/2.2L Duratorq-TDCi (110kW/150PS) - Puma -

#### Fluids and Lubricants

Tudo una Eabricano				
Description	Specification			
Jaguar Premium Cooling System Fluid	ESE-M97B44-A			
Premium Cooling System Flush	EGR-M14P7-A			
O-Ring Lubricant	ESE-M99B176-A			

### **Cooling System Capacities**

dooming System capacities		
Engine	Capacity	
2.0L & 2.2 Diesel	10.0L (initial fill)	

### **Antifreeze**

Specific Gravity (providing no other additive is in coolant)	Approximate percentage of Anti-Freeze (by volume)	Remains Fluid to	Solidifies at
1.061 at +15°C	50%	-25°C (-13°F)	-30°C
			(-22°F)

**Cooling System Pressure Specification** 

Description	Pressure kpa (psi)
Radiator pressure test	138 kpa (20 PSI)
Coolant expansion tank cap release pressure	130 to 150kpa (18 to 21)

**Torque Specifications** 

· · · · · · · · · · · · · · · · · · ·			
Description	Nm	lb-ft	lb-in
Radiator support bracket retaining bolts	25	18	
Thermostat housing retaining bolt x 1	23	17	-
Thermostat housing retaining bolts x 3	10	-	89
Water pump retaining bolts	23	17	-
Water pump cover	10	-	89
Water pump bleed screw	10	-	89
Engine oil temperature control thermostat retaining bolt	10	-	89