

# **Component Procedures: Water Pump**

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# Component Procedures: Water Pump

## Parts and Labor (itype\_189)

### Parts

Qualifier	Part #	Name	Price	Note
Water Pump	12657499	9 - Water Pump	331.18	Included With Front Cover.

### Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Remove & Replace	Water Pump > Water Pump, R&R	B	1.8	1.2

## Water Pump Replacement (LFX) (Article 11908)

### Special Tools

EN 46104 - Water Pump Pulley Holder

For equivalent regional tools, refer to Special Tools

### Removal Procedure

- Drain the cooling system . Refer to Cooling System Draining and Filling .
- Remove the air cleaner outlet duct. Refer to Air Cleaner Outlet Duct Replacement .
- Remove the generator drive belt . Refer to Drive Belt Replacement .
- Use the EN 46104 - water pump pulley holder (1) to retain the pulley. Click for full-size image
- Remove the water pump pulley bolts. Click for full-size image
- Remove the water pump pulley.
- Remove the water pump bolts and DISCARD the bolts. Click for full-size image
- Remove the water pump.
- Remove and DISCARD the water pump seal.
- Carefully clean the water pump sealing surfaces.

### Installation Procedure

- Install a NEW water pump seal. Click for full-size image
- Install the water pump.
- Install the NEW water pump bolts and hand tighten the water pump bolts.
- Tighten the water pump bolts in sequence. Click for full-size image
- On the initial pass, tighten the bolts in sequence to 10 Nm (89 lb in) .
- On the second pass, tighten the bolts in sequence to 10 Nm (89 lb in) .
- On the final pass, tighten the bolts in sequence shown an additional 45 degrees.
- Install the water pump pulley and the water pump pulley bolts. Click for full-size image
- Use the EN 46104 - water pump pulley holder (1) to hold the pulley. Click for full-size image
- Install the water pump pulley bolts and tighten to 10 Nm (89 lb in) .
- Install the generator drive belt . Refer to Drive Belt Replacement .
- Install the air cleaner outlet duct. Refer to Air Cleaner Outlet Duct Replacement .
- Fill the cooling system. Refer to Cooling System Draining and Filling .