



DIESEL ENGINE TIPS & CHECKLIST

To perform the task of removing and installing a diesel engine, you should be A.S.E. certified in Automotive Engine Replacement or equivalent.

- Review all prior warranty history of the vehicle
- Review all Technical Service Bulletins and Special Service Messages pertaining to drivability and engine repair for the vehicle being serviced.
- Review engine removal and installation instructions in the appropriate Ford Workshop Manual. Determine the root cause of the engine failure.
- Remove failed engine
- Complete Step 1 of the Core Evaluation Form:
 1. First, check for block damage. Notate on form.
 2. Drain oil and coolant from used engine core

Inspect new engine for shipping damage, such as bent sheet metal, valve train damage, and debris of any kind.

IDENTIFICATION

Verify that you will be installing the correct engine.

- First, compare visually.
- Secondly, verify the part number you need in the application section of the Diesel Engine Reference Sales Manual.

A couple minutes spent double-checking what engine you will be installing for your customer could save you many hours of wasted labor.

ASSEMBLY TIPS

- Seal threads on flywheel bolts with red tread sealant.
- Use torque wrench on manifolds, oil cooler, water pump, and turbocharger, do not use power impact tools.

START-UP

- Monitor oil pressure and water temperature
- Check for any leaks, correct before road test.
- Drive 500-750 miles, then change oil and filter, recheck for leaks, retighten hoses and check belt adjustment.

COOLING SYSTEM

- Radiator flushed/rodded or replaced.
- Replace coolant if contaminated, over recommended age or weak in strength.
- Add FW-16 supplemental coolant additive to VC-4A, Ethylene Glycol (green color) engine coolant. Note: FW-16 is not used with Ford Premium Gold extended life coolant.
- Inspect the radiator pressure cap for wear and proper application
- Inspect coolant hoses and clamps; replace as necessary
- Ensure water pump installed is in good condition or replace it. (On base engines, 6009,6012, and 6006)

LUBRICATION SYSTEM

- Oil pan should be thoroughly cleaned and inspected for bent places that would cause poor sealing. (on base engines, 6009 and 6012)
- Oil pickup tube screen cleaned or replaced
- Install a new or remanufactured oil pump on all short block engines (6009)
- Install a new oil cooler bundle on all short block engines (6009)
- Use Motorcraft Super Duty SAE 15W-40 engine oil or an equivalent oil meeting API service specifications CI-4/SL.

INTAKE AND EXHAUST SYSTEM

- Exhaust system checked for damage and restrictions

If transferring old intake manifold from failed engine to new engine you must thoroughly clean manifold of any debris that could cause a second engine failure (trapped in the intake).

FUEL SYSTEM

- Replace all fuel filters and add fuel lubricity additive to fuel tank

**Enjoy your new Ford or
Motorcraft Reman Engine for
years to come.**