11-26 No Limit Fabrication Intercooler Installation

REMOVAL NOTE:

Do not use ultrasonic cleaning equipment on the Charge Air Cooler (CAC). Failure to follow these instructions may result in damage to the CAC and contamination of the engine intake airstream.

• 1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to Jacking and Lifting .

• 2. Drain the engine and the secondary cooling systems. For additional information, refer to Engine Cooling Diesel Engine and ENGINE COOLING -6.7L DIESEL POWERTRAIN SECONDARY COOLING .

• 3. Remove the secondary battery. For additional information, refer to Battery, Mounting and Cables .

• 4. Disconnect the upper radiator hose from the radiator and position the hose aside.

• 5. Disconnect the vacuum tube quick connect coupling and position the tube aside. For additional information, refer to the quick connect coupling procedure in Fuel System General Information Gasoline and Diesel .

• 6. Disconnect the coolant hose from the degas bottle.

• 7. Disconnect the Charge Air Cooler(CAC) coolant outlet hose from the CAC.

• 8. Depress the quick connect retainer tabs and disconnect the CAC coolant inlet hose from the CAC. Courtesy of FORD MOTOR COMPANY

• 9. Loosen the clamp and disconnect the CAC inlet tube from the CAC. o Position the tube aside.

• 10. Disconnect the Charge Air Cooler Temperature (CACT) sensor electrical connector and wiring harness retainer.

• 11. Loosen the CAC outlet tube-to-CAC clamp.

• 12. Loosen the clamp and disconnect the upper CAC outlet tube from the lower CAC outlet tube.

• 13. Remove the 2 bolts and the CAC. o Remove the lower CAC outlet tube from the CAC. o If the CAC has a suspected coolant leak, perform the Charge Air Cooler (CAC) Leak Test. o Inspect the CAC for metal particles and oil. For additional information, refer to Charge Air Cooler (CAC) Cleaning.

INSTALLATION

• 1. Connect the lower CAC outlet tube to the CAC. Do not tighten the clamp at this time. NOTE: Thoroughly clean the joint clamp areas as well as the turbocharger connection, engine connection and the CAC connections, using metal brake parts cleaner.

• 2. Install the CAC and the 2 bolts. o Tighten to 12 Nm (106 lb-in).

• 3. Connect the upper CAC outlet tube to the lower CAC outlet tube. o Tighten the clamp to 9 Nm (80 lb-in).

• 4. Tighten the CAC outlet tube-to-CAC clamp to 9 Nm (80 lb-in).

• 5. Connect theCharge Air Cooler Temperature(CACT) sensor electrical connector and wiring harness retainer.

• 6. Connect the CAC inlet tube to the CAC. NOTE: If there is any oil residue, clean the connecting port on the Charge Air Cooler(CAC) and the inside surface of the CAC inlet tube to prevent the tube from blowing off. o Tighten the clamp to 9 Nm (80 lb-in).

• 7. Connect the CAC coolant inlet hose to the CAC.

• 8. Connect the CAC coolant outlet hose to the CAC.

• 9. Connect the coolant hose to the degas bottle.

• 10. Connect the vacuum tube quick connect coupling. For additional information, refer to the quick connect coupling procedure in Fuel System General Information Gasoline and Diesel .

• 11. Connect the upper radiator hose to the radiator.

• 12. Install the secondary battery. For additional information, refer to Battery, Mounting and Cables .

• 13. Evaluate the engine and the secondary cooling systems condition. For additional information, refer to Cooling System Condition Evaluation in Engine Cooling Diesel Engine and ENGINE COOLING - 6.7L DIESEL POWERTRAIN SECONDARY COOLING .

NOTE: Evaluate the cooling system condition before filling the engine and the secondary cooling systems. Failure to follow these instructions can result in damage to the engine or the secondary cooling system.