

Cooling Module

Special Tool(s) / General Equipment

Hose Clamp Remover/Installer

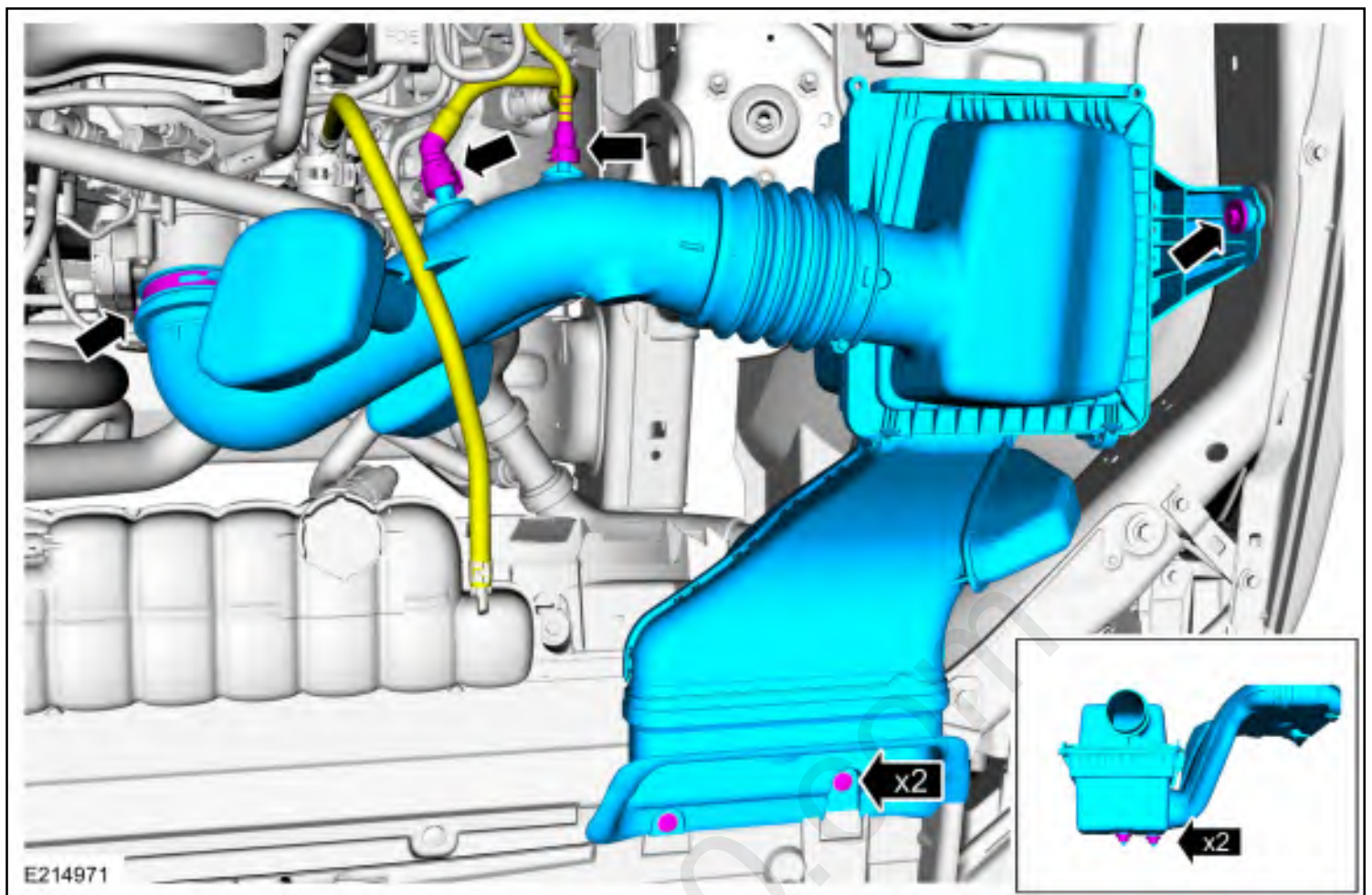
Materials

Name	Specification
Motorcraft® R-1234yf Refrigerant PAG Oil YN-35	WSS-M2C300-A2

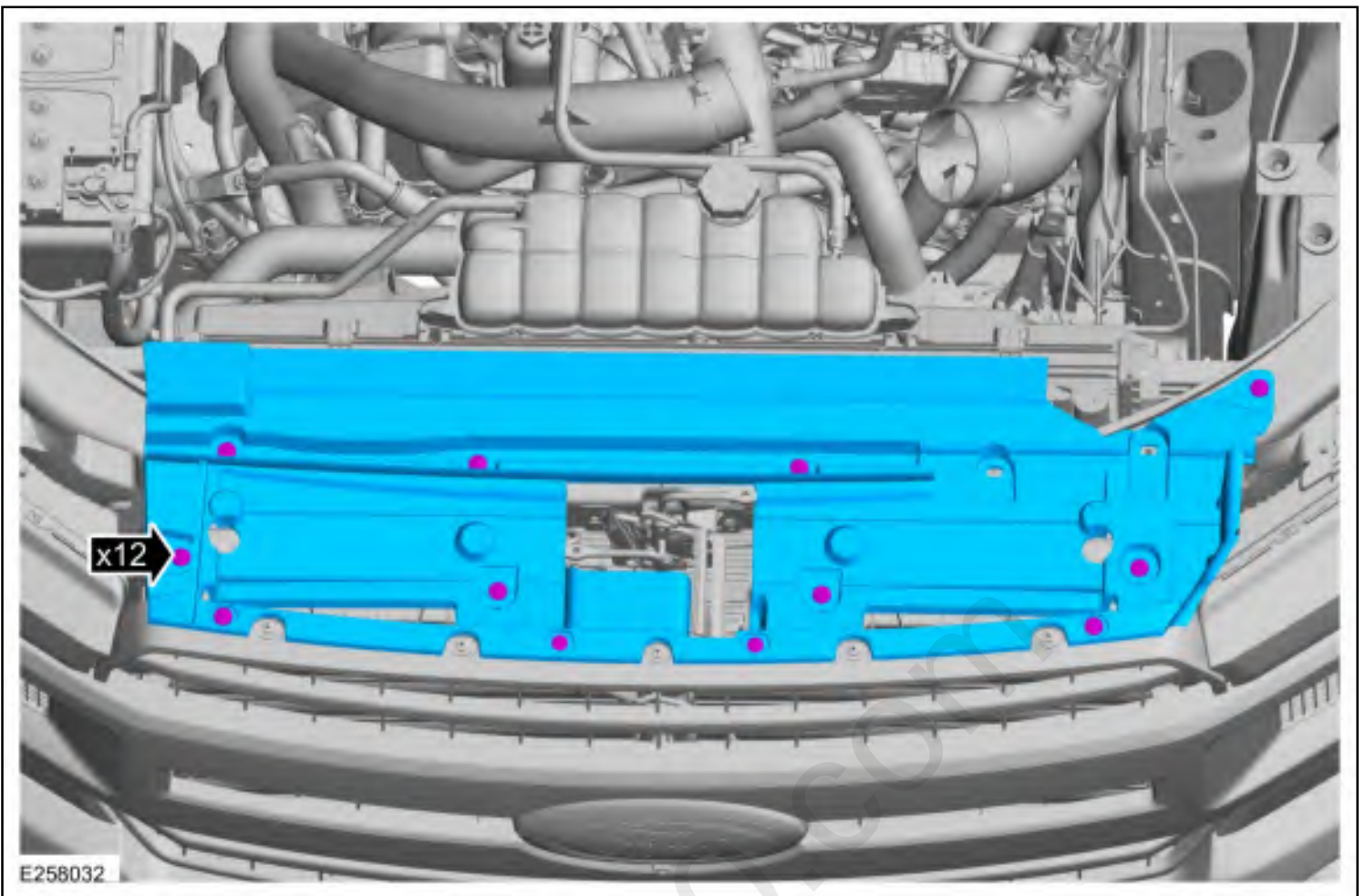
Removal

NOTE: Removal steps in this procedure may contain installation details.

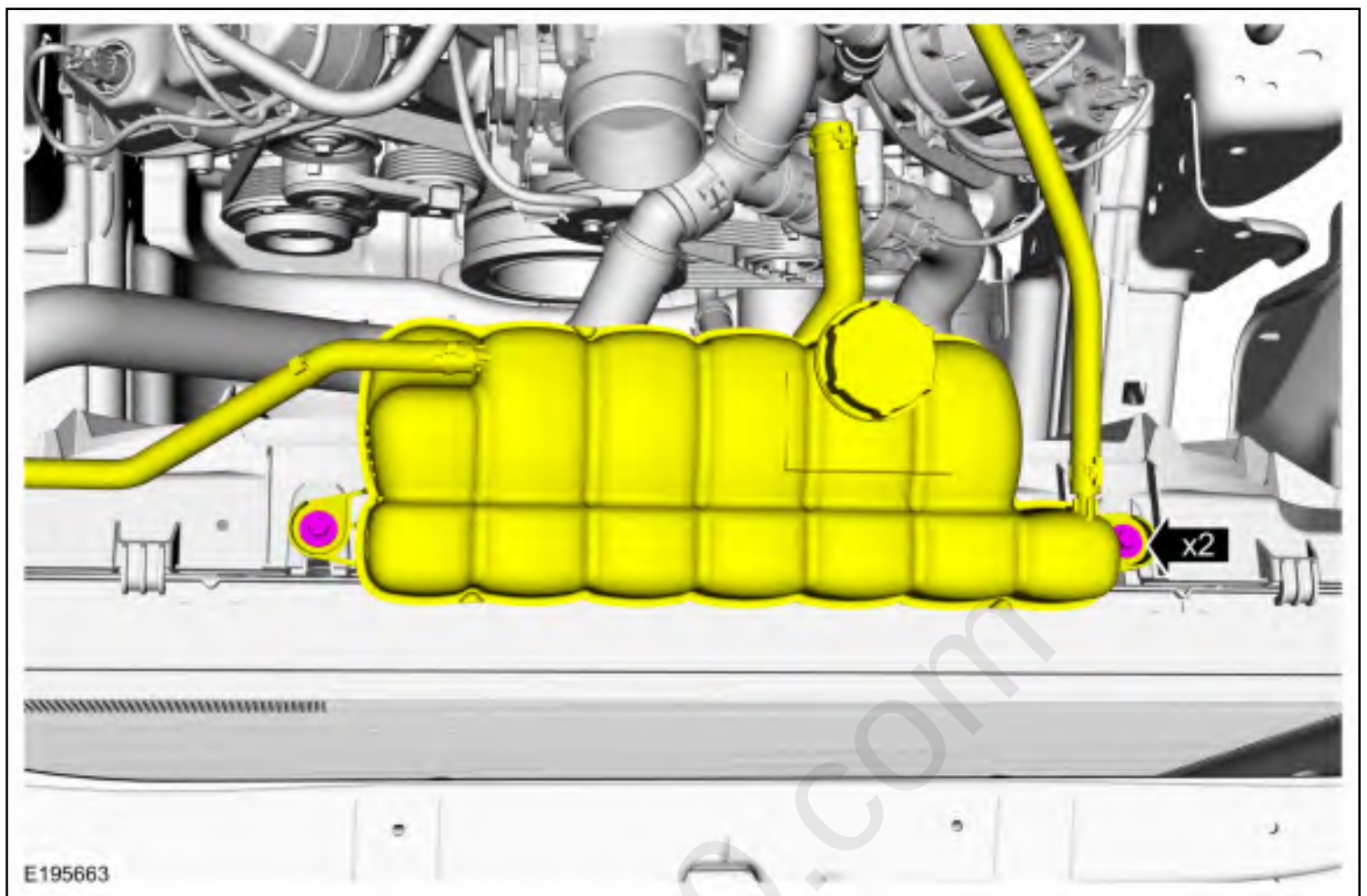
1. With the vehicle in NEUTRAL, position it on a hoist.
Refer to: [Jacking and Lifting - Overview](#) (100-02 Jacking and Lifting, Description and Operation).
2. Drain the cooling system.
Refer to: [Cooling System Draining, Vacuum Filling and Bleeding](#) (303-03D Engine Cooling - 5.0L 32V Ti-VCT, General Procedures).
3. Evacuate the A/C system.
Refer to: [Air Conditioning \(A/C\) System Recovery, Evacuation and Charging - Vehicles With: R1234YF Refrigerant](#) (412-00 Climate Control System - General Information, General Procedures).
4. Position aside the coolant tube. Disconnect and position aside the brake booster and the crankcase ventilation tubes. Loosen the clamp and remove the retainers and the air cleaner and outlet pipe assembly.
Torque:
Clamp: 35 lb.in (4 Nm)
Bolt: 150 lb.in (17 Nm)



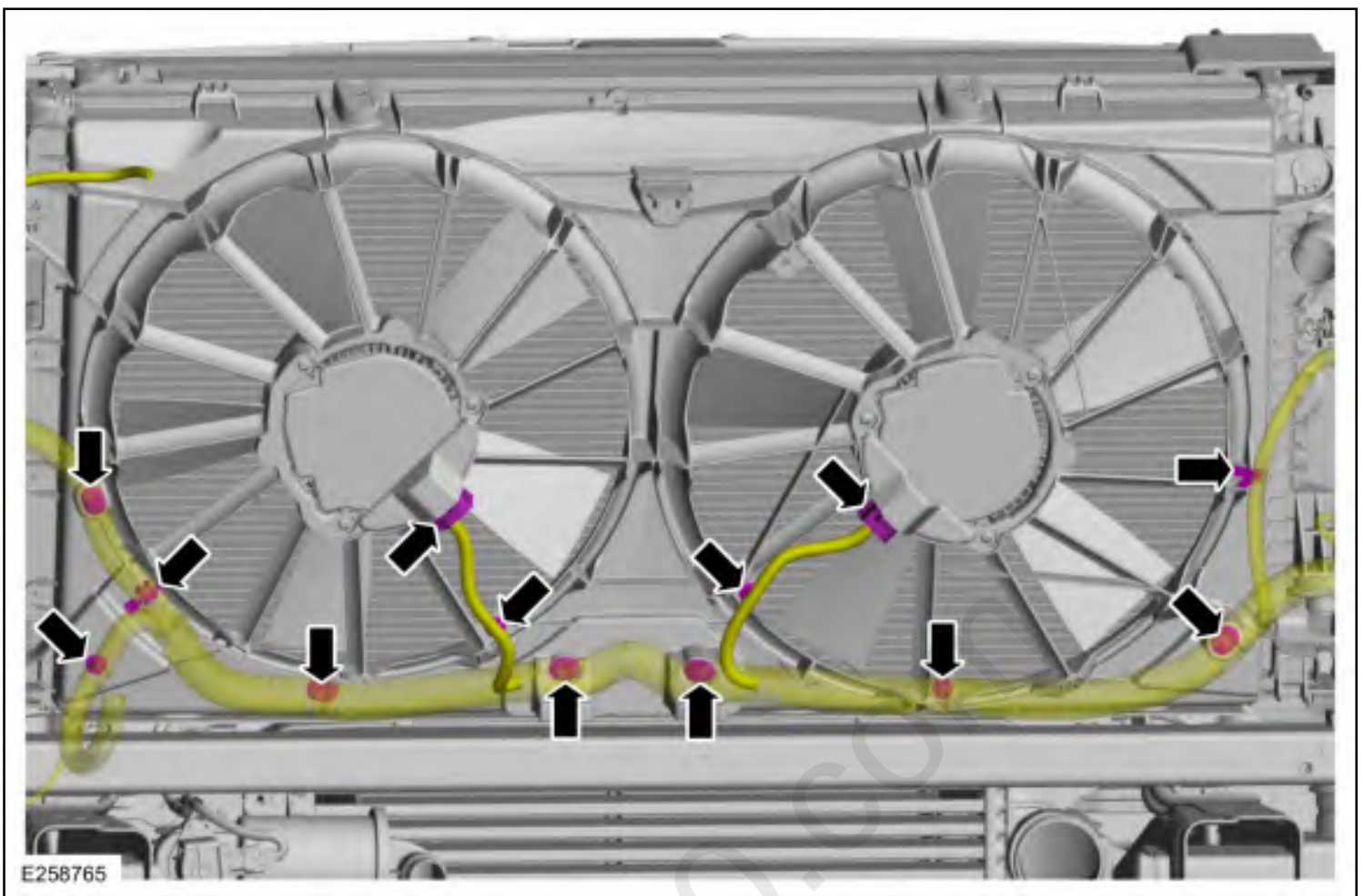
5. Remove the pin-type retainers and the upper radiator air deflector.



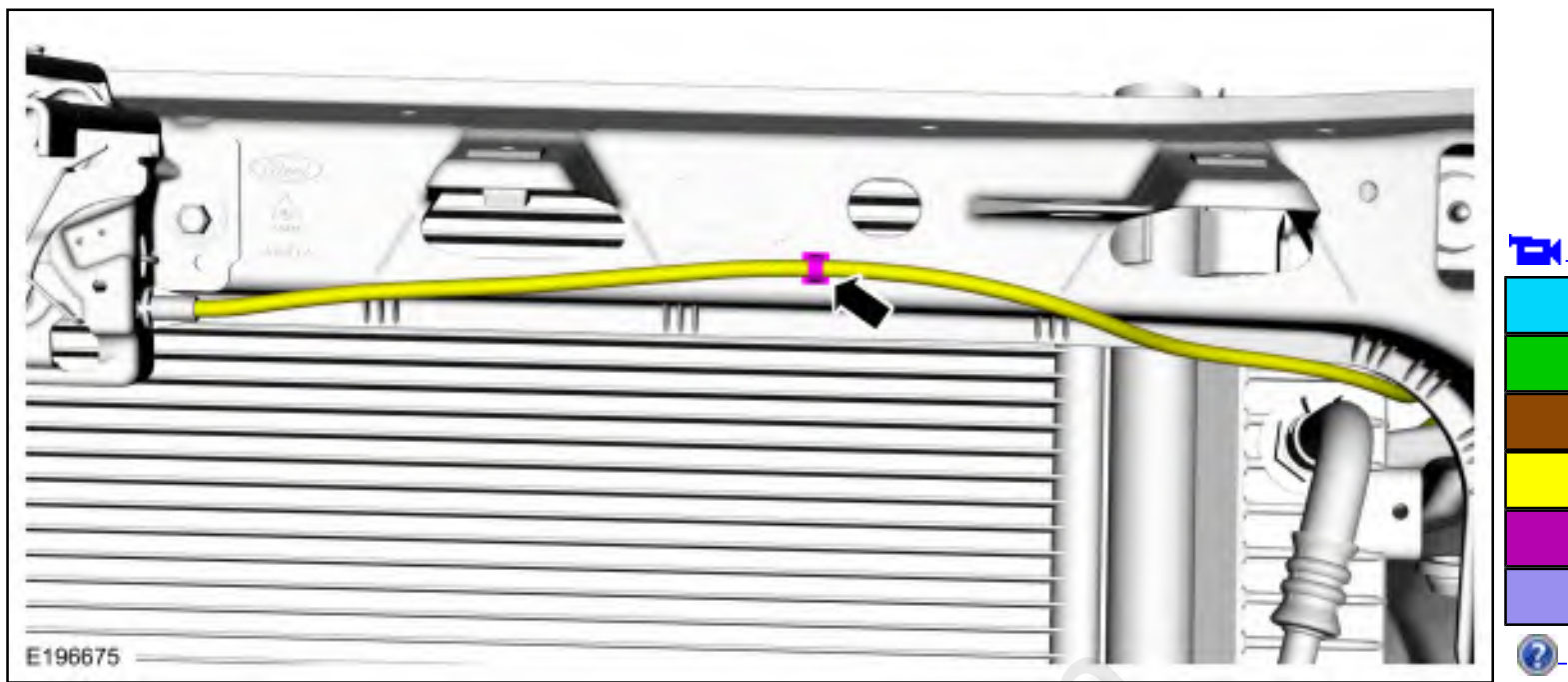
6. Remove the bolts and position the degas bottle aside.
Torque: 62 lb.in (7 Nm)



7. Disconnect the electrical connectors, detach the pin-type retainers and position the wiring harness aside.



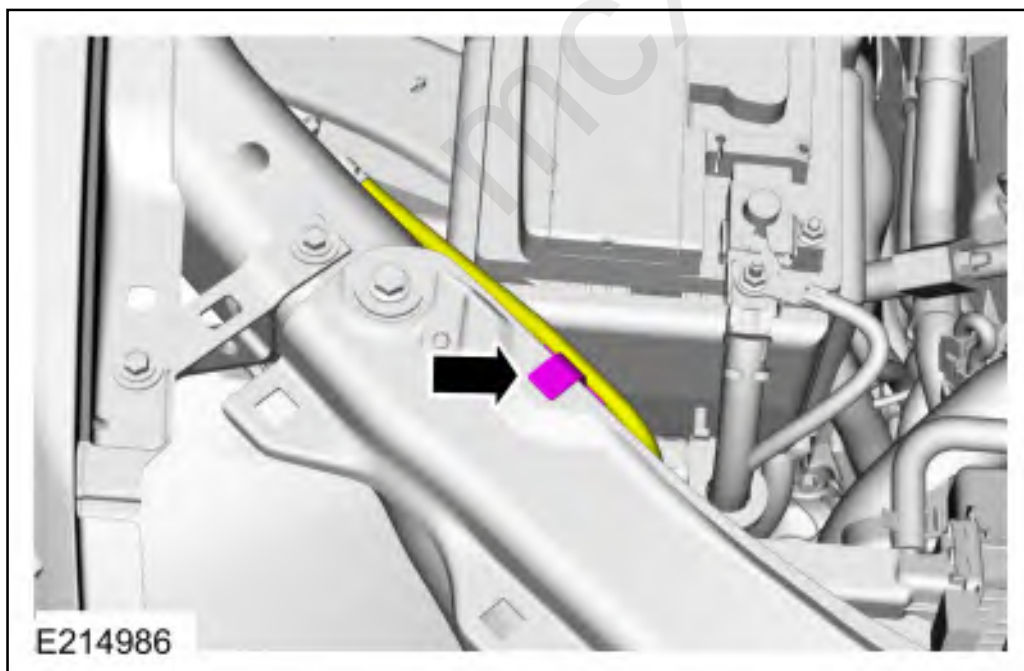
8. Remove both headlamp assemblies.
Refer to: [Headlamp Assembly](#) (417-01 Exterior Lighting, Removal and Installation).
9. Remove the radiator grille.
Refer to: [Radiator Grille](#) (501-08 Exterior Trim and Ornamentation, Removal and Installation).
10. Detach the hood latch cable retainer.



11. Remove the hood latch assembly.
Refer to: [Hood Latch](#) (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).
12. Remove the pin-type retainers and position the air deflector aside.

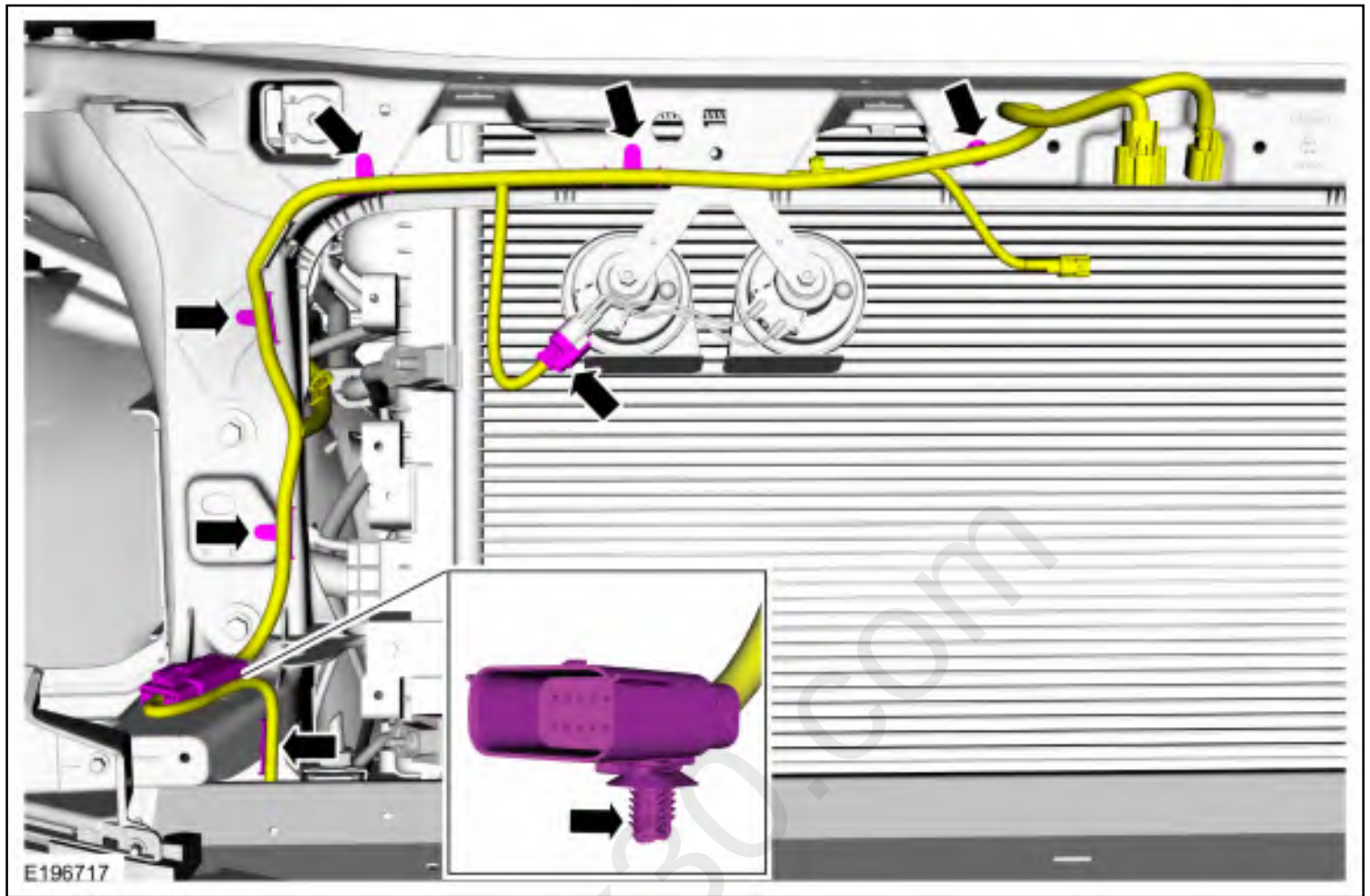


13. Detach the battery cable pin-type retainer.



14. Disconnect the electrical connectors. Detach the electrical connector and wiring harness retainers.

Position the wiring harness between the radiator and the radiator grille support.



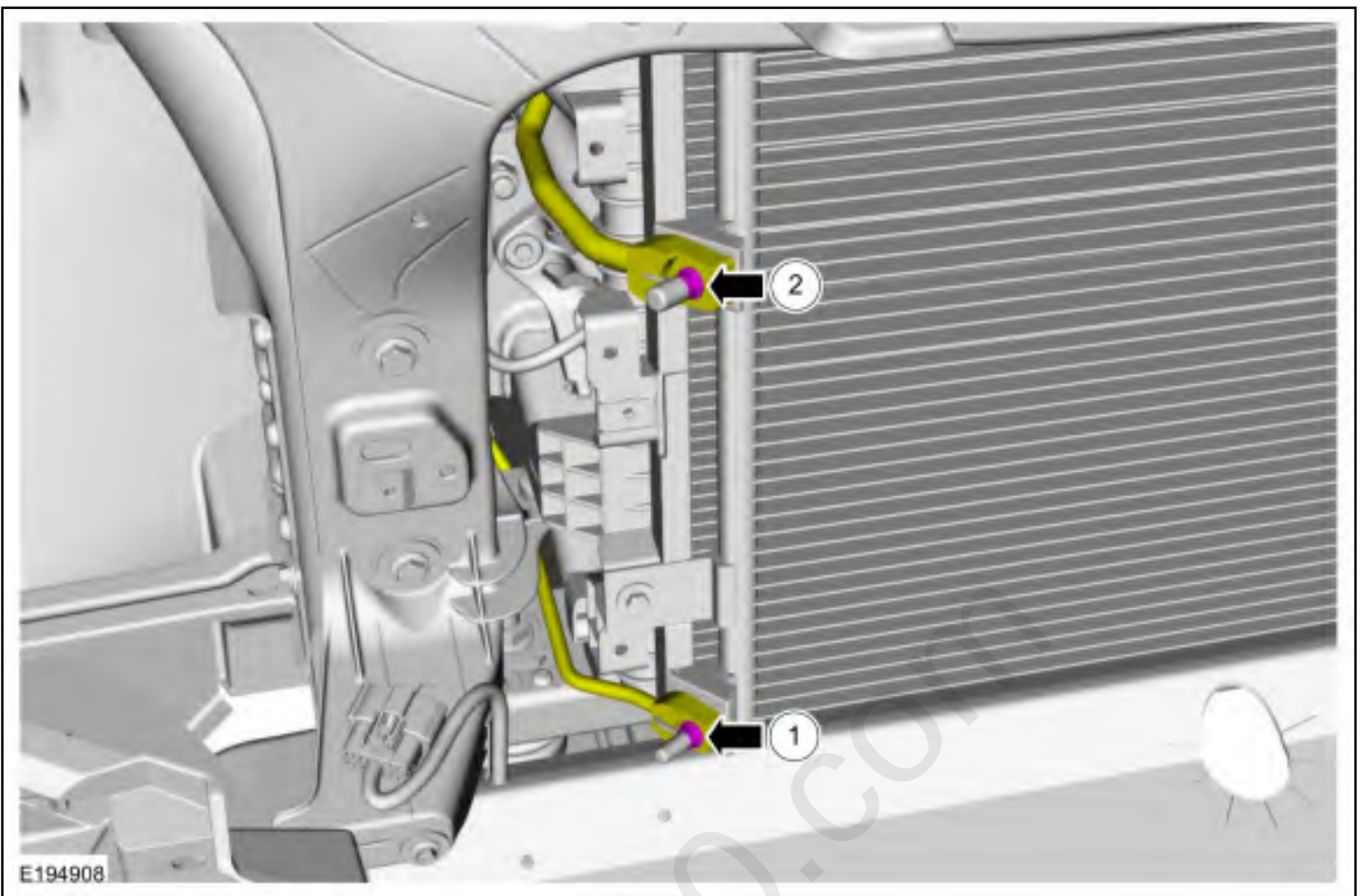
15. **NOTICE:** Make sure that all openings are sealed.

Remove the condenser inlet and outlet nuts and disconnect the fittings.

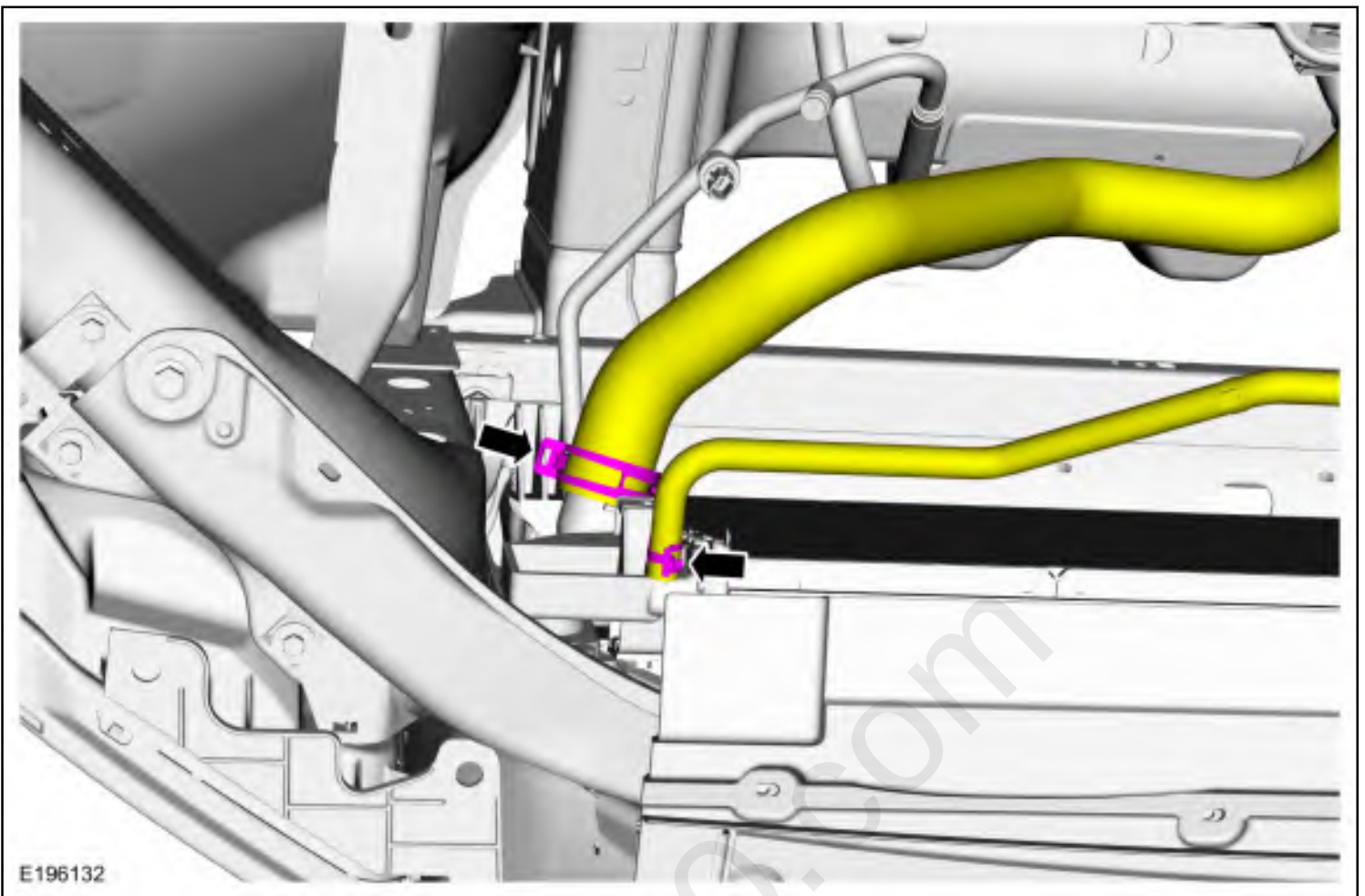
Torque:

Stage 1: 71 lb.in (8 Nm)

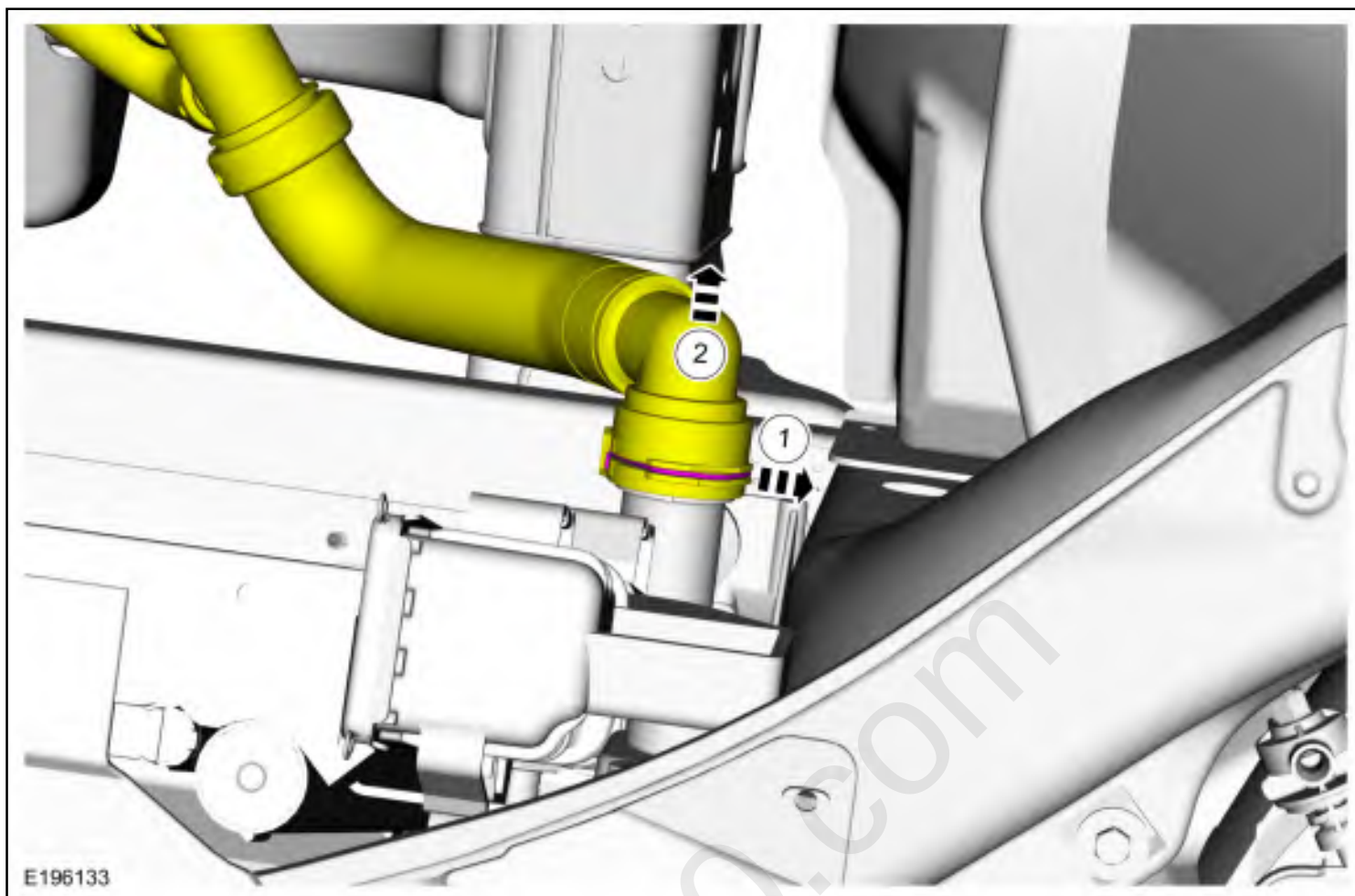
Stage 2: 133 lb.in (15 Nm)



16. Release the clamps and disconnect the upper radiator hose and the radiator to degas bottle hose.
Use the General Equipment: Hose Clamp Remover/Installer

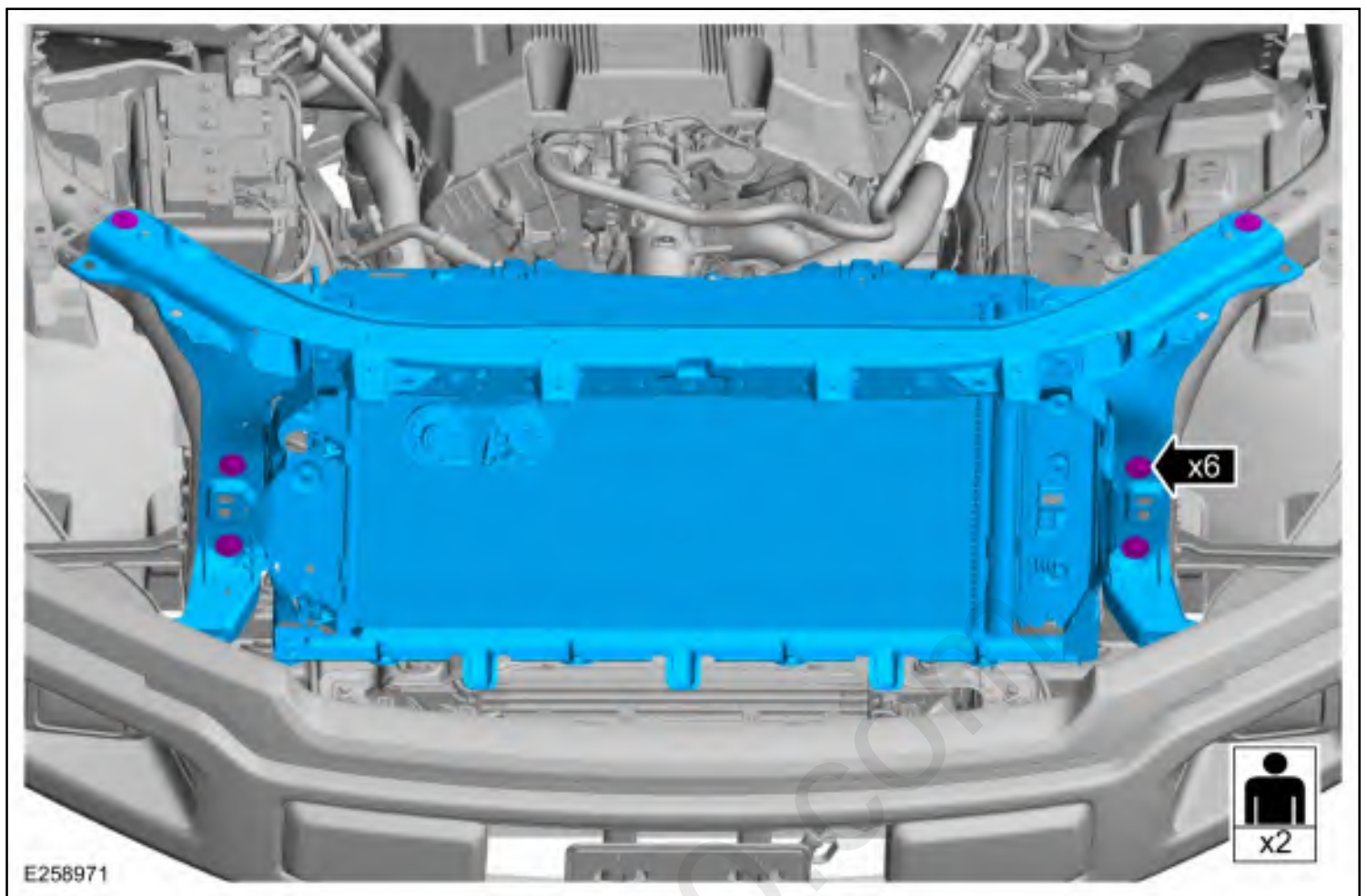


17. Pull the lower radiator hose spring clip until the end of the clip is in the detent on the quick connect coupling and disconnect the lower radiator hose.



18. Remove the retainers and the cooling module.
Torque: 22 lb.ft (30 Nm)





Installation

1. To install, reverse the removal procedure.
2. **NOTICE: Only use the specified material to lubricate the seals.**

Install new condenser fitting O-ring seals.

Material: Motorcraft® R-1234yf Refrigerant PAG Oil / YN-35 (WSS-M2C300-A2)

3. Fill and bleed the cooling system.
Refer to: [Cooling System Draining, Vacuum Filling and Bleeding](#) (303-03D Engine Cooling - 5.0L 32V Ti-VCT, General Procedures).