

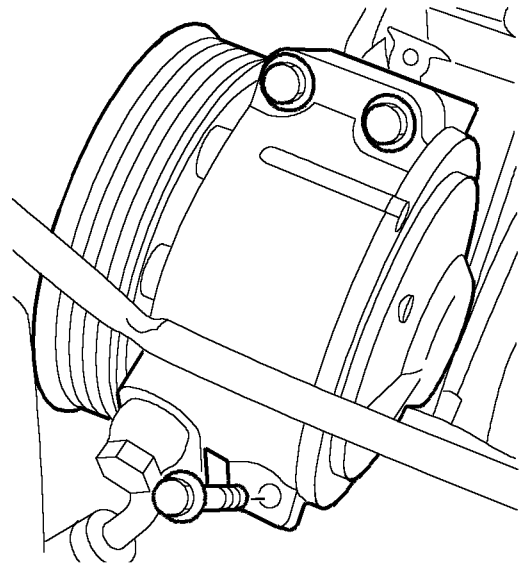
ENGINE - V8

Engine assembly

➔ 12.41.01.99

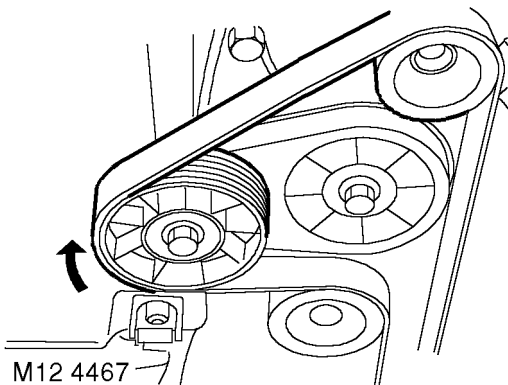
Remove

1. Drain engine oil and remove oil filter.
2. Remove radiator.
☞ **COOLING SYSTEM - V8, REPAIRS, Radiator.**
3. Remove upper inlet manifold.
☞ **MANIFOLDS AND EXHAUST SYSTEMS - V8, REPAIRS, Gasket - inlet manifold - upper - Without Secondary Air Injection.**
4. Remove ignition coil assemblies.
5. Position absorbent material to catch spillage and disconnect fuel pipe from fuel rail.
CAUTION: Always fit plugs to open connections to prevent contamination.
6. Release 2 hose clips and remove top hose.



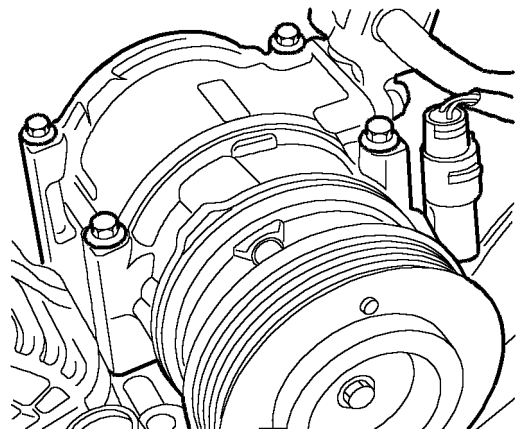
M12 4468

8. Remove 3 bolts securing ACE pump, release pump and tie aside.



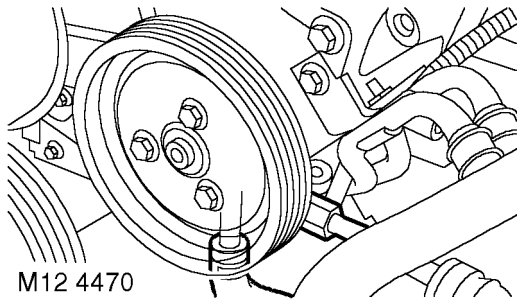
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7. Using a 15 mm spanner, release auxiliary drive belt tension and remove drive belt.



M12 4469

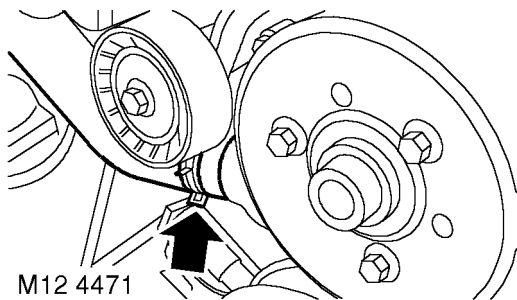
9. Disconnect multiplug from A/C compressor.
10. Remove 4 bolts securing A/C compressor, release compressor and tie aside.



M12 4470

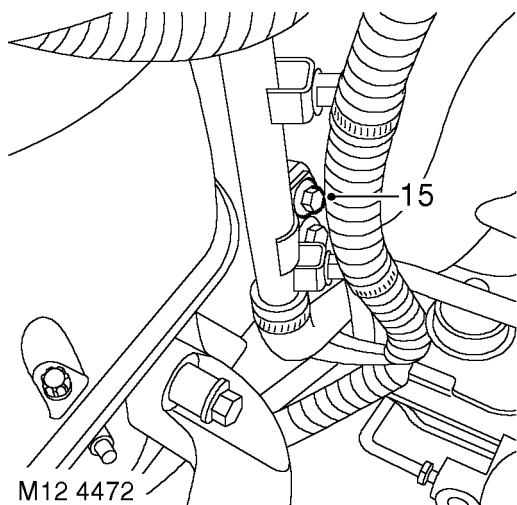
11. Remove bolt securing oil cooling pipes to PAS pump housing and remove saddle clamp.
12. Release PAS pump high and low pressure pipes and position aside.

CAUTION: Always fit plugs to open connections to prevent contamination.



M12 4471

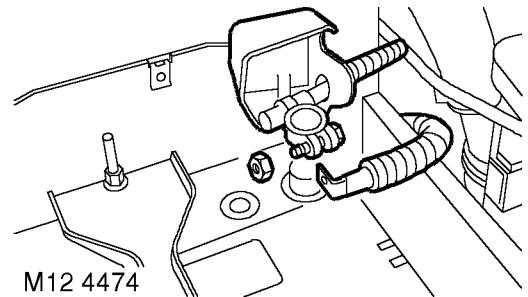
13. Release clips securing hose to coolant pump and coolant rail, release hose and position aside.



M12 4472

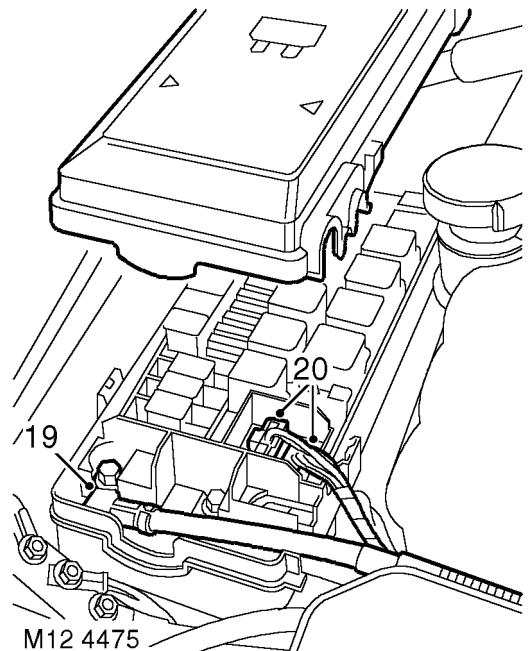
14. Release 2 harness clips from coolant rail.
15. Remove bolt securing coolant rail and position rail aside.

16. Remove bolt securing engine earth lead and position earth lead aside.



M12 4474

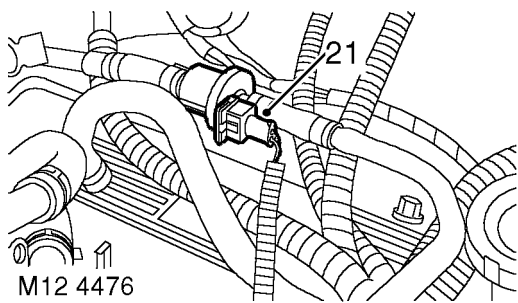
17. Remove nut securing engine harness positive lead to battery, release lead and position aside.



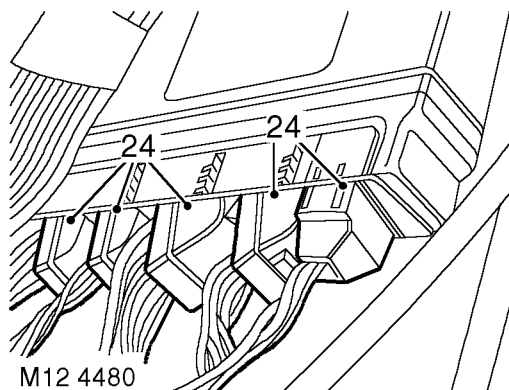
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18. Release clips and remove fuse box cover.
19. Remove bolt securing starter lead to fuse box, release lead and position aside.
20. Disconnect 2 engine harness multiplugs from fuse box.

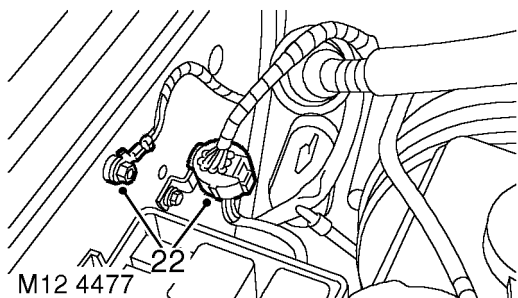
ENGINE - V8



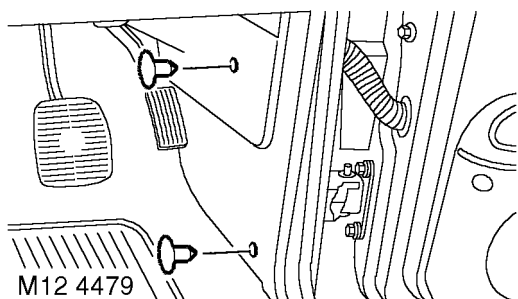
21. Disconnect multiplug from EVAP purge valve.



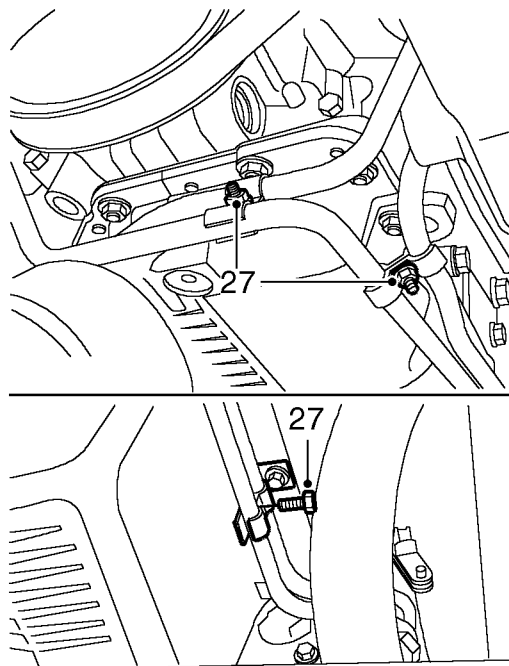
24. Disconnect 5 multiplugs connecting engine harness to ECM.
 25. Release engine harness, pull into engine bay and coil on top of engine.
 26. Raise vehicle on ramp.



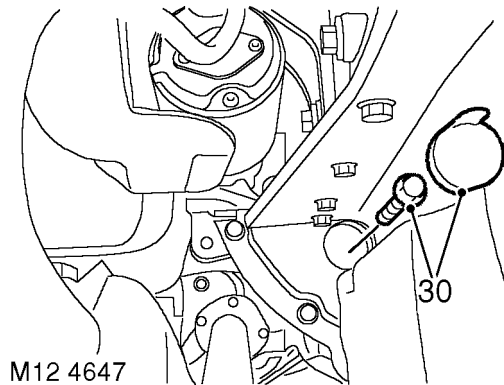
22. Remove nut securing engine harness earth to body and disconnect engine harness to main harness multiplug.



23. Remove trim fixings securing toe board and remove toe board.

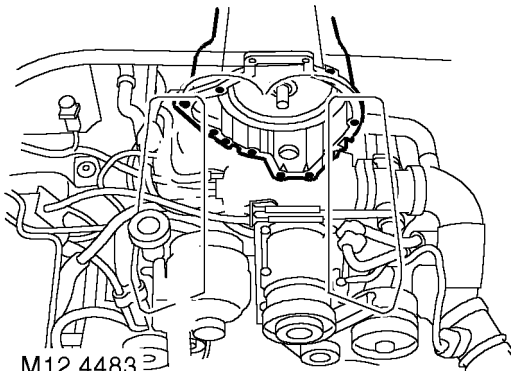


27. Remove 3 bolts securing oil cooling pipes to sump and remove saddle clamps.
 28. Tie oil cooling pipes aside.
 29. Remove exhaust front pipe.
MANIFOLDS AND EXHAUST SYSTEMS - V8, REPAIRS, Front pipe.



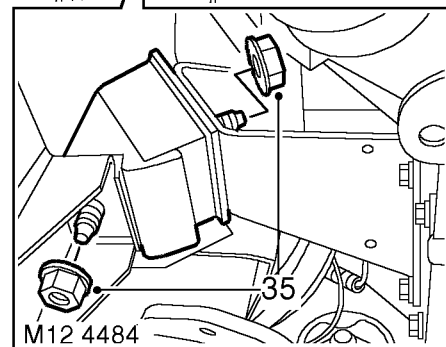
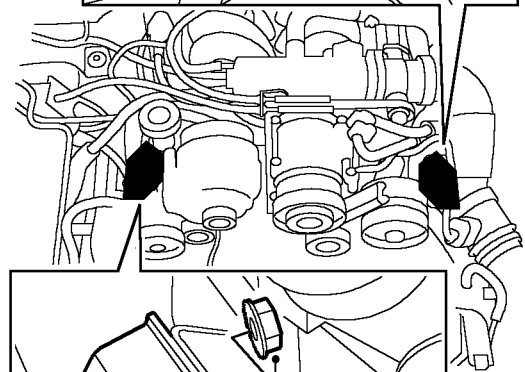
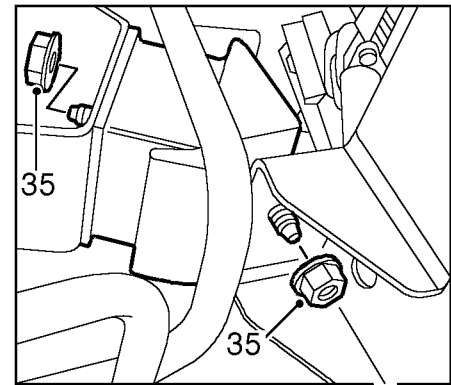
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30. **Models with automatic gearbox:** Remove access plug and remove 4 bolts securing torque converter to drive plate.
31. Rotate engine to access bolts.



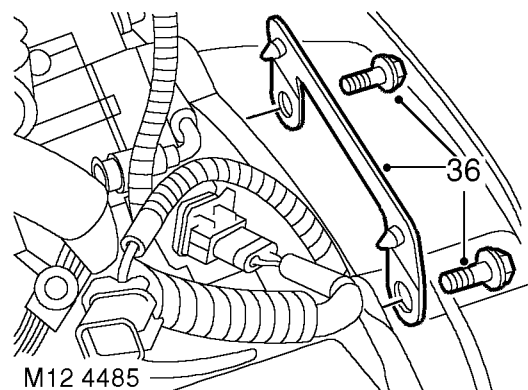
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32. Remove 12 bolts securing engine to gearbox. **DO NOT remove the top 2 bolts at this stage.**
33. Collect support brackets from bell housing bolts.
34. Attach suitable lifting equipment to engine.



M12 4484







35. Remove 4 nuts securing engine mountings, raise engine and remove engine mountings.



M12 4485

36. Lower engine, remove top bolts securing engine to gearbox and collect bracket.
37. Support gearbox on a jack.
38. Release engine from gearbox dowels.
39. With assistance remove engine from engine bay.

ENGINE - V8

- Refit**
1. Clean mating faces of engine and gearbox, dowel and dowel holes.
 2. Lubricate splines and bearing surface on first motion shaft with grease.
 3. With assistance position engine in engine bay, align to gearbox and locate on dowels.
 4. Position support brackets, fit bell housing bolts and tighten to 50 Nm (37 lbf.ft).
 5. Position engine mountings, fit nuts and tighten to 85 Nm (63 lbf.ft).
 6. Lower lifting equipment and remove from engine.
 7. **Models with automatic gearbox:** Align torque converter to drive plate, fit bolts and tighten to 50 Nm (37 lbf.ft). Fit access plug.
 8. Fit exhaust front pipe.
 **MANIFOLDS AND EXHAUST SYSTEMS - V8, REPAIRS, Front pipe.**
 9. Position oil cooling pipe saddle clamps and tighten bolts.
 10. Position engine harness into foot well.
 11. Connect 5 multiplugs to ECM.
 12. Fit toe board and secure with trim fixings.
 13. Connect engine harness earth to body and secure with nut.
 14. Connect engine harness to main harness multiplug.
 15. Connect multiplug to EVAP purge valve.
 16. Connect engine harness multiplugs to fuse box.
 17. Connect starter lead to fuse box and secure with nut.
 18. Connect engine harness positive lead to battery and tighten nut.
 19. Fit fuse box cover.
 20. Position engine earth lead and secure with bolt.
 21. Position coolant rail and secure with bolt.
 22. Connect harness clips to coolant rail.
 23. Connect hose to coolant rail and coolant pump and secure with clips.
 24. Connect PAS pump high and low pressure pipes and secure with clips.
 25. Position oil cooling pipe saddle clamp to PAS pump housing and secure with bolt.
 26. Clean A/C compressor and housing mating faces, dowels and dowel holes.
 27. Position A/C compressor, fit bolts and tighten to 22 Nm (16 lbf.ft).
 28. Connect multiplug to A/C compressor.
 29. Clean ACE pump and housing mating faces, dowels and dowel holes.
 30. Position ACE pump, fit bolts and tighten to 22 Nm (16 lbf.ft).
 31. Clean all pulley 'V's, fit auxiliary drive belt, using a 15mm spanner, release belt tensioner secure belt and re-tension drive belt.
 32. Ensure auxiliary drive belt is correctly located on all pulleys.
 33. Fit radiator.
 **COOLING SYSTEM - V8, REPAIRS, Radiator.**
 34. Fit top hose and secure with clips.
 35. Connect fuel pipe to fuel rail.
 36. Position ignition coils and connect ht leads.
 37. Fit upper inlet manifold.
 **MANIFOLDS AND EXHAUST SYSTEMS - V8, REPAIRS, Gasket - inlet manifold - upper - Without Secondary Air Injection.**
 38. Fit new oil filter and refill engine with oil.
 **ENGINE - V8, REPAIRS, Filter - oil.**
 **MAINTENANCE, PROCEDURES, Engine oil - V8 engine.**
 39. Top up gearbox oil.
 **MAINTENANCE, PROCEDURES, Automatic gearbox.**