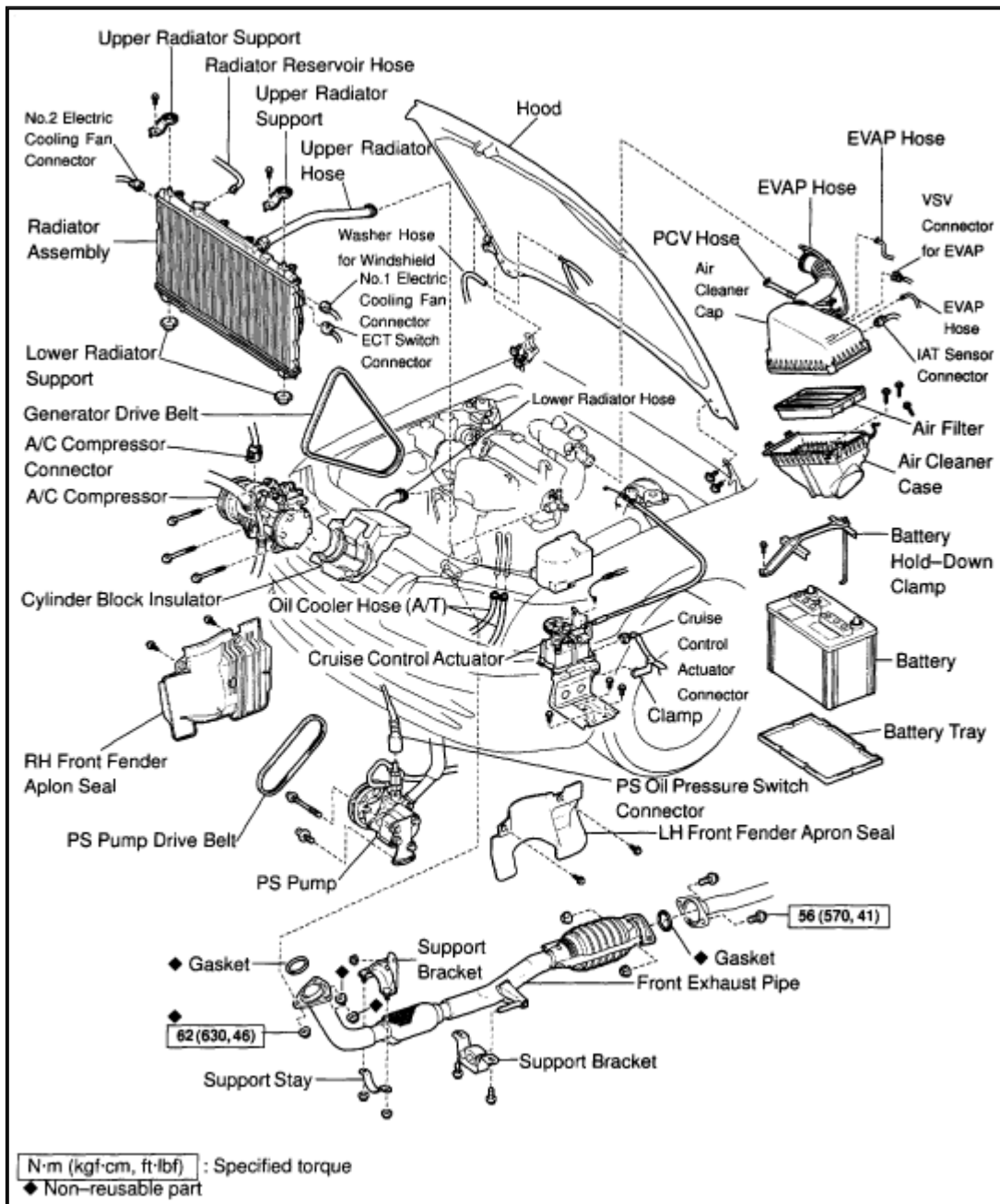


1998 Toyota Camry LE Sedan L4-2164cc 2.2L DOHC MFI

Vehicle Level → Engine, Cooling and Exhaust → Engine → Service and Repair → Removal ←

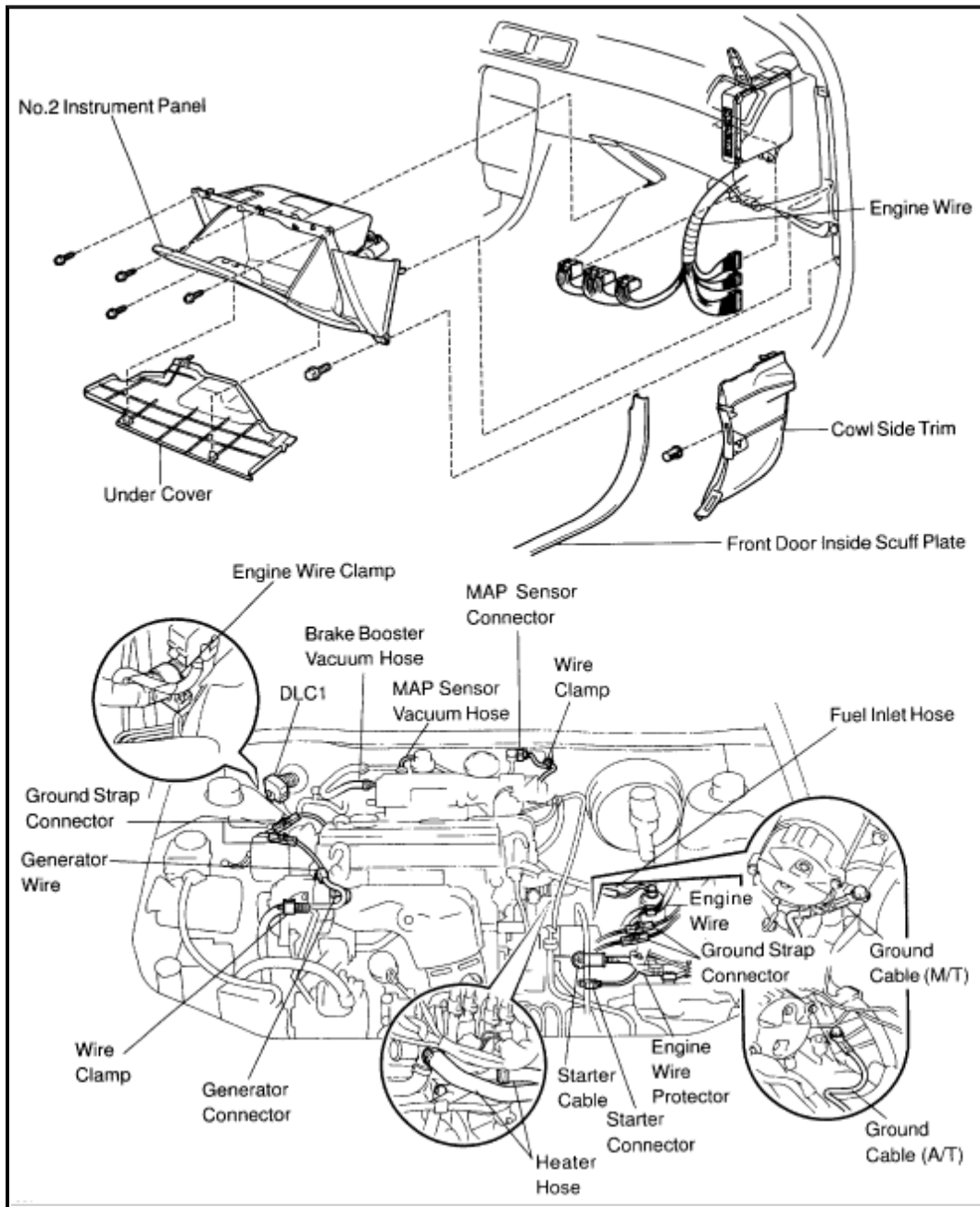
Removal

[Notes](#)



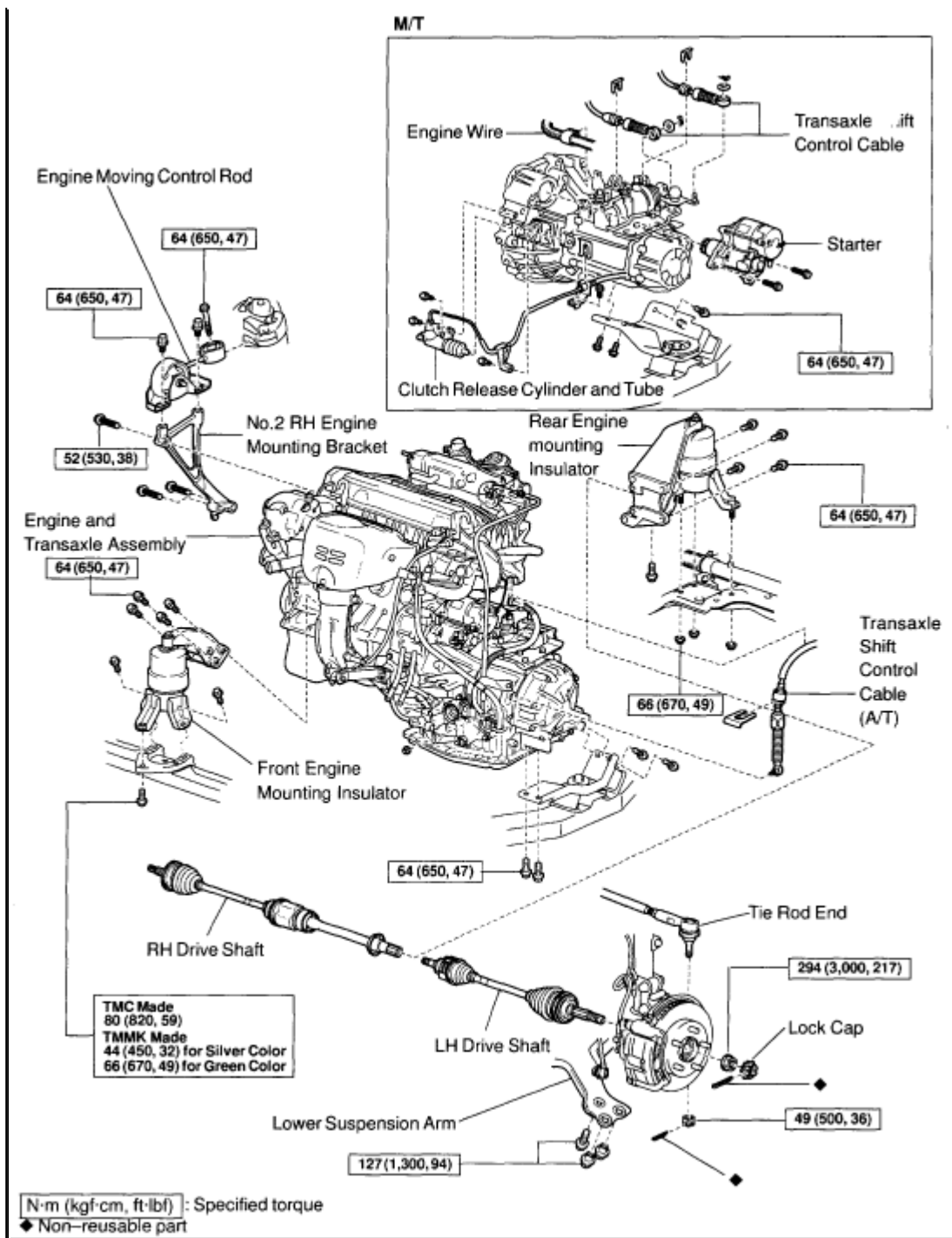
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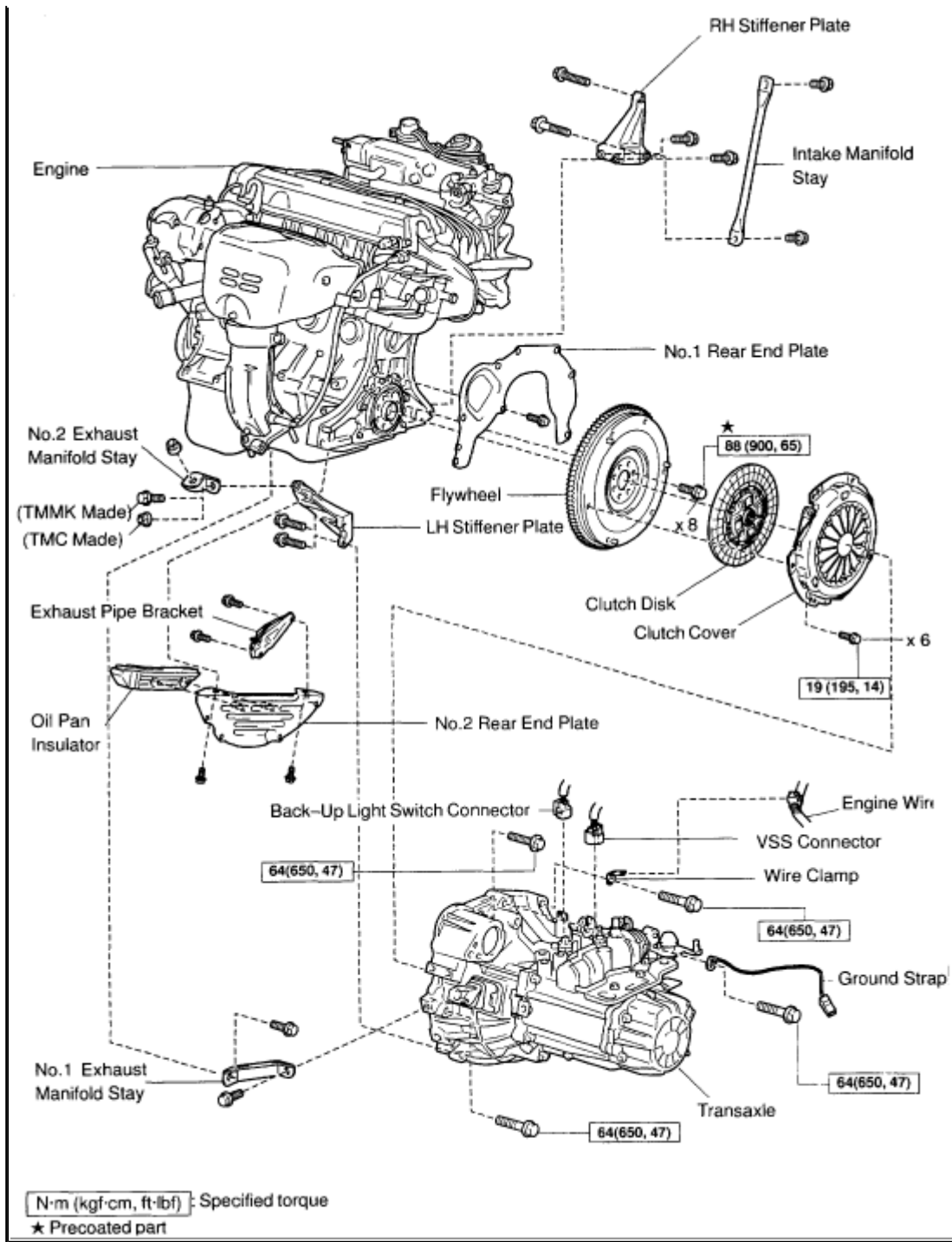
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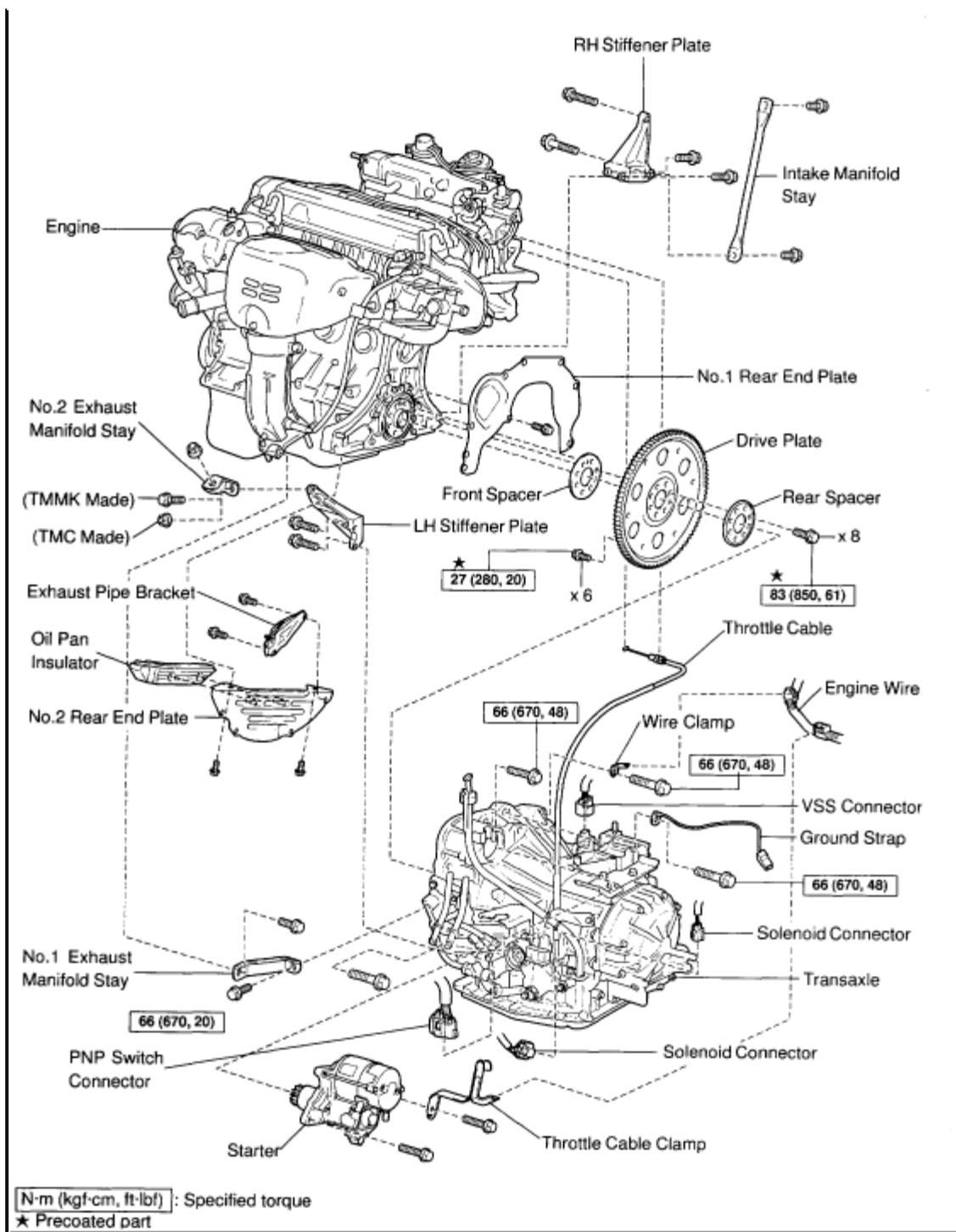
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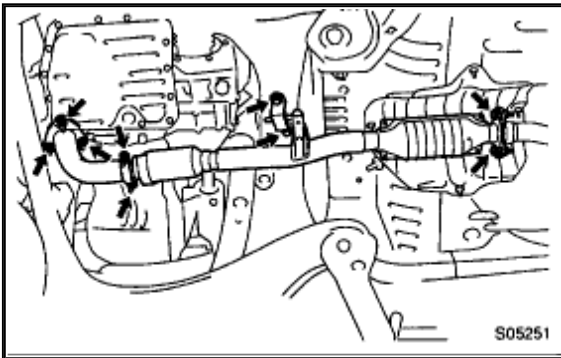
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## REMOVAL

1. Remove hood.
2. Remove front fender apron seals.
3. Drain engine coolant.



4. Drain engine oil.
5. Disconnect accelerator cable.
6. Remove air cleaner cap.
  - a. Disconnect the Intake Air Temperature (**IAT**) sensor connector.
  - b. Disconnect the Vacuum Switching Valve (**VSV**) connector for the Evaporative Emission (**EVAP**)
  - c. Disconnect the cable and hoses:
    - PCV hose from cylinder head cover
    - EVAP hose from throttle body
    - EVAP hose from VSV
  - d. Disconnect the 2 clamps, and disconnect the air cleaner cap from the air cleaner case.
  - e. Loosen hose clamp, and disconnect the air cleaner hose from the throttle body.
  - f. Remove the air cleaner cap and hose assembly.
7. Remove air cleaner case.
  - a. Remove the air filter.
  - b. Remove the 3 bolts and air cleaner case.
8. Remove battery and tray.
9. Remove cruise control actuator.
10. Remove [radiator](#).

[Zoom](#)[Sized for Print](#)

11. Remove front [exhaust pipe](#).
  - a. Remove the 2 bolts holding the support stay to the support bracket.
  - b. Remove the 2 bolts holding the support bracket to the front frame.
  - c. Remove the 2 bolts and 2 nuts holding the front [exhaust pipe](#) to the center exhaust pipe.
  - d. Remove the 3 nuts holding the front [exhaust pipe](#) to the [exhaust manifold](#).
  - e. Remove the front [exhaust pipe](#) and 2 gaskets.

f. Remove the nut and support bracket.

12. Disconnect connectors, wires, cables, clamps and hoses.

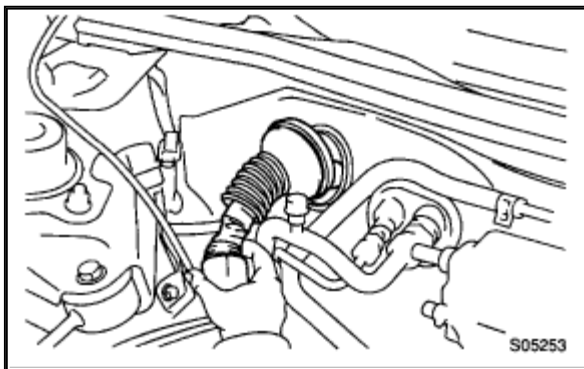
- Generator wire
- Generator connector
- Wire clamp from generator
- Starter cable
- Starter connector
- DLC1 from bracket
- Engine wire clamp from bracket on RH fender apron
- MAP sensor connector
- Wire clamp from bracket for MAP sensor
- 2 ground strap connectors from RH fender apron
- 2 ground strap connectors from LH fender apron
- Engine wire protector clamp from battery bracket
- Engine wire from clamp on [fuel filter](#)
- Ground cable from transaxle
- Brake booster vacuum hose from [intake manifold](#)
- [Heater hose](#) from water outlet
- Heater hose from water bypass pipe
- Fuel inlet hose from [fuel filter](#)
- MAP sensor vacuum hose from gas filter on [intake manifold](#)

13. Disconnect engine wire from cabin.

a. Remove the under cover.

b. Disconnect these connectors:

- 3 Engine Control Module (**ECM**) connectors
- 3 cowl wire connectors from connectors on bracket

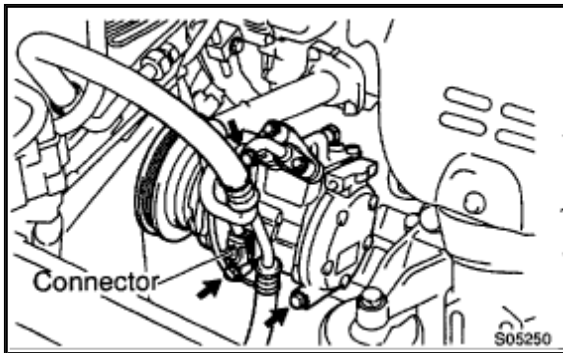


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c. Disconnect the grommet from the cowl panel, and pull out the engine wire.

14. Remove drive shafts.
15. Disconnect transaxle control cable(s) from transaxle.
16. M/T: Remove starter.
17. M/T: Disconnect clutch release cylinder and tube from transaxle.
18. Disconnect A/C compressor from engine.
  - a. Disconnect the A/C compressor connector.
  - b. Remove the [drive belt](#).



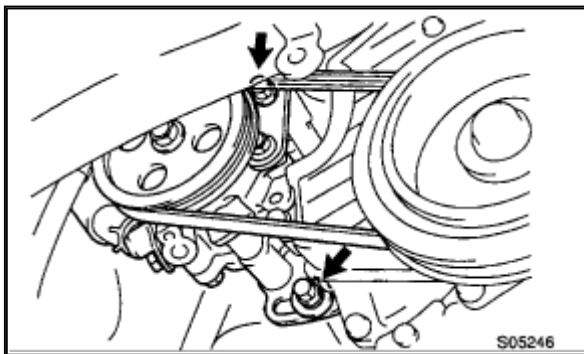
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- c. Remove the 3 bolts and disconnect the A/C compressor from the engine.
- d. Remove the cylinder block insulator.

19. Disconnect PS pump from engine

- a. Disconnect the PS [oil pressure switch](#) connector.

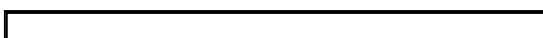


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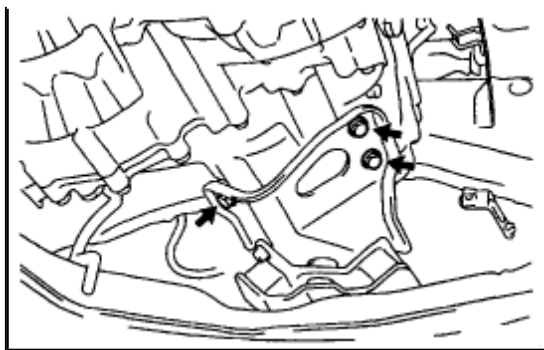
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- b. Loosen the 2 bolts, and remove the [drive belt](#).
- c. Remove the 2 bolts, and disconnect the PS pump from the engine.

20. Remove bolts holding transaxle to LH engine mounting insulator.



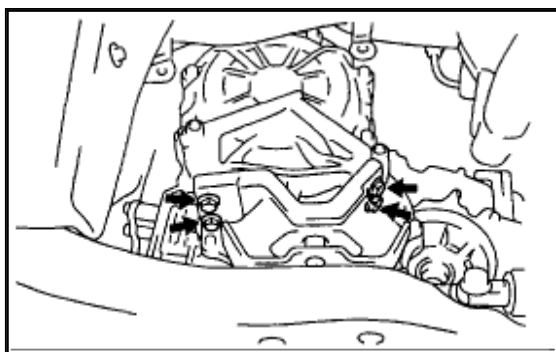




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M/T: Remove the 3 bolts.



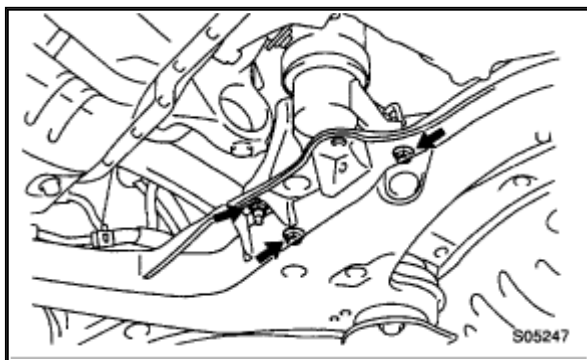
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A/T: Remove the 4 bolts.

21. Remove nuts holding rear engine mounting bracket to front frame.

a. Remove the 2 hole plugs.

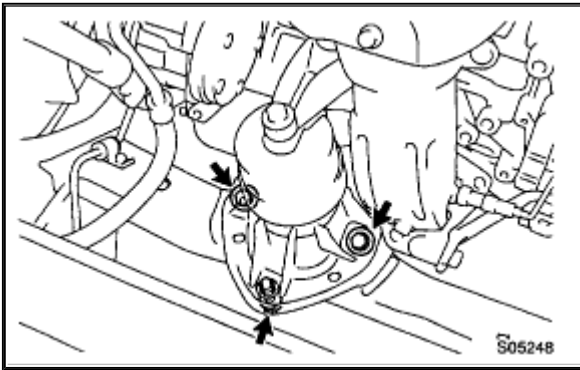


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b. Remove the 3 nuts.

22. Remove bolts holding front [engine mounting insulator](#) to front frame.

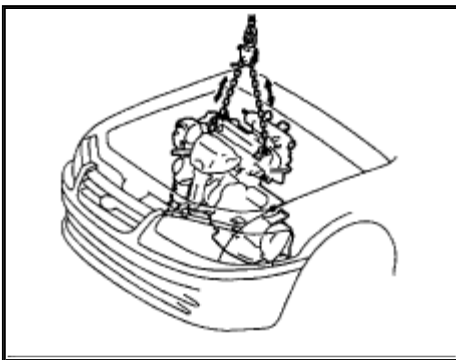


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Remove the 3 bolts.

23. Attach engine sling device to engine hangers.



Zoom

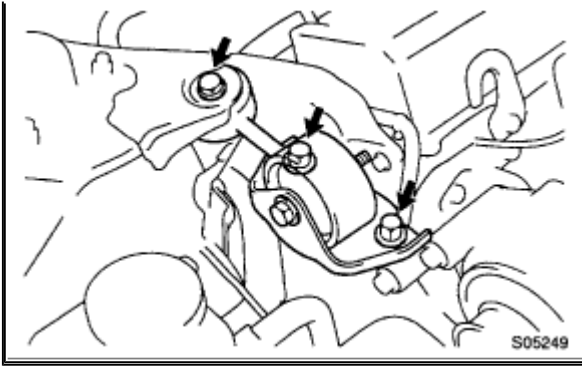
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Attach the engine chain hoist to the engine hangers.

**CAUTION:** Do not attempt to hang the engine by hooking the chain to any other part.

24. Remove engine moving control rod.



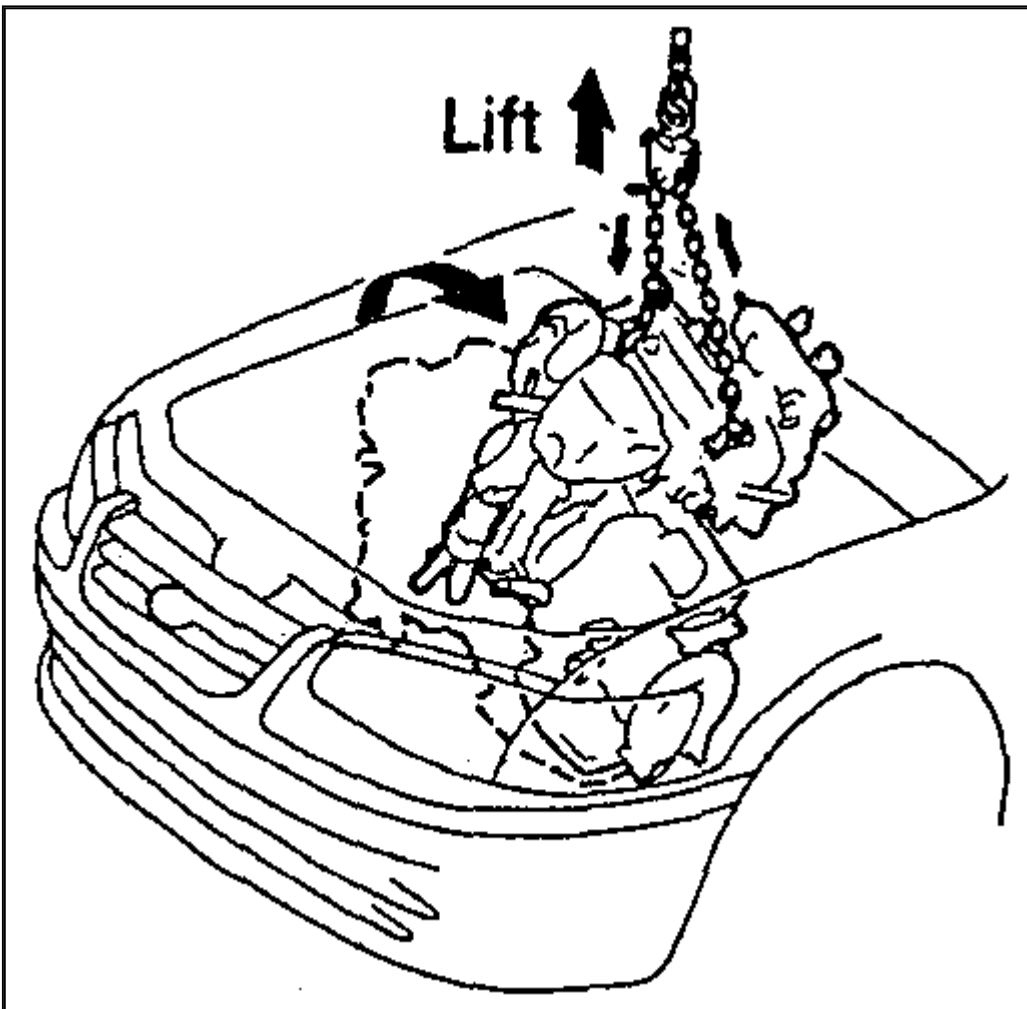


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Remove the 3 bolts and control rod.

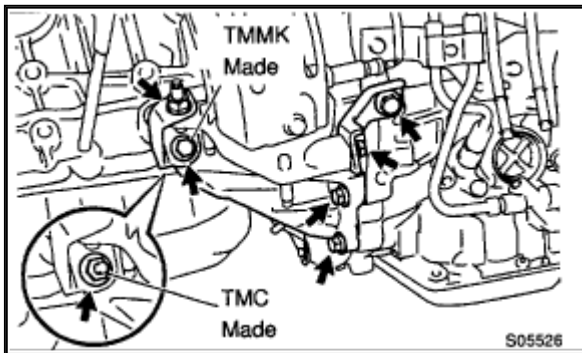
25. Remove engine and transaxle assembly from vehicle.



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- a. Lift the engine out of the vehicle slowly and carefully. **NOTICE:** Make sure the engine is clear of all wiring, hoses and cables.
  - b. Place the engine and transaxle assembly onto the stand.
26. Remove front [engine mounting insulator](#) from engine. Remove the 4 bolts and mounting insulator.
  27. Remove rear [engine mounting insulator](#) from engine. Remove the 4 bolts, the mounting insulator.
  28. Remove No.2 RH engine mounting bracket from engine. Remove the 3 bolts and mounting bracket.
  29. A/T: Disconnect throttle cable from throttle body.
  30. A/T: Remove starter.
  31. Disconnect connectors. Disconnect the connectors:
    - VSS connector
    - M/T: Back-up light switch connector
    - A/T: PNP switch connector
    - A/T: 2 solenoid connectors
  32. Remove No.1 [exhaust manifold](#) stay. Remove the 2 bolts and manifold stay.

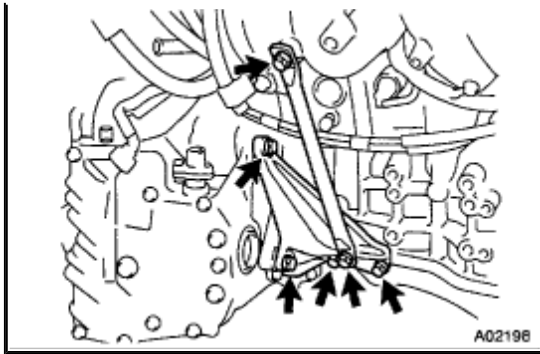


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33. Remove No.2 [exhaust manifold](#) stay and LH stiffener plate.
  - a. TMC Made: Remove the 2 nuts and manifold stay.
  - b. TMMK Made: Remove the bolt, nut and manifold stay.
  - c. Remove the 2 bolts and stiffener plate.
34. Remove [intake manifold](#) stay. Remove the 2 bolts and [intake manifold](#) stay.

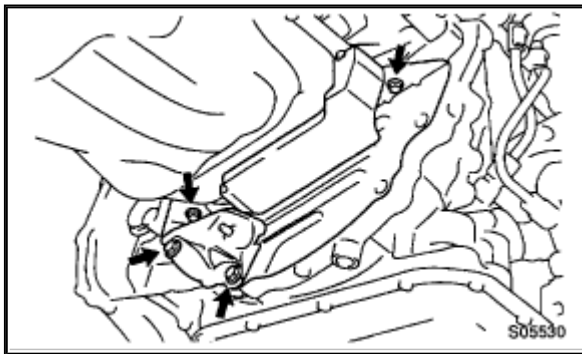




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35. Remove RH stiffener plate. Remove the 4 bolts and stiffener plate.

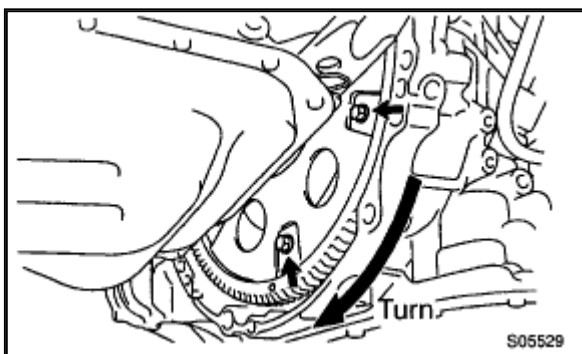


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36. Remove [exhaust pipe](#) bracket, [oil pan](#) insulator and No.2 rear end plate.

- a. Remove the 2 bolts and [exhaust pipe](#) bracket.
- b. Remove the 2 bolts, [oil pan](#) insulator and rear end plate.



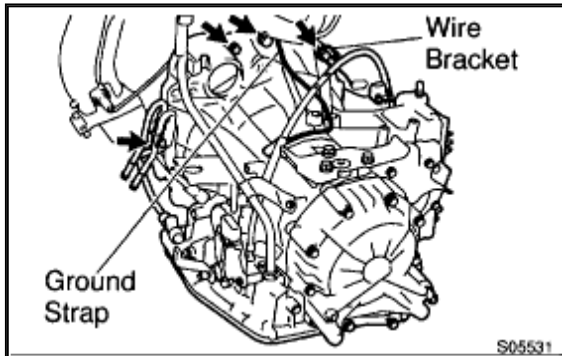
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37. A/T: Remove torque converter clutch bolts.



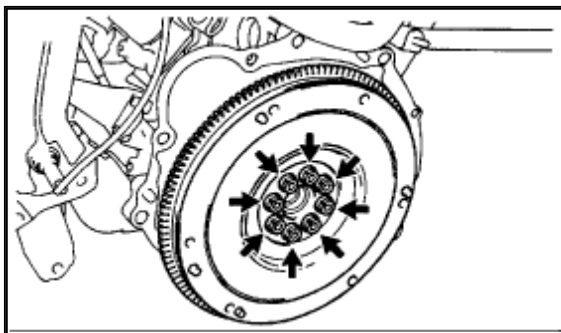
- a. Turn the crankshaft pulley bolt to gain access to each bolt.
- b. Hold the crankshaft pulley bolt with a wrench, and remove the 6 bolts.



Zoom

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38. Remove transaxle.



Zoom

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- a. Remove the 4 bolts, ground strap and wire bracket.
- b. Remove the transaxle together with the torque converter clutch (A/T) from the engine.

39. M/T: Remove clutch cover and disc.
40. M/T: Remove flywheel. Remove the 8 bolts and flywheel.
41. A/T: Remove drive plate. Remove the 8 bolts, front spacer, drive plate and rear spacer.
42. Remove No.1 rear end plate. Remove the bolt and end plate.