

REMOVAL

1. REMOVE HOOD

NOTICE:

Be careful not to damage the body or glass with the hood end.

2. REMOVE ENGINE UNDER COVER

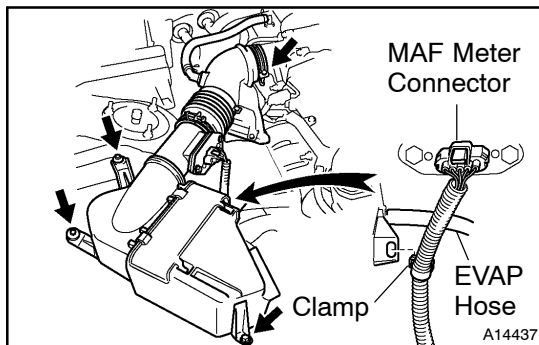
3. DRAIN ENGINE COOLANT

4. DRAIN ENGINE OIL

5. REMOVE ENGINE COVER

Remove the 4 nuts and engine cover.

6. REMOVE AIR CLEANER INLET



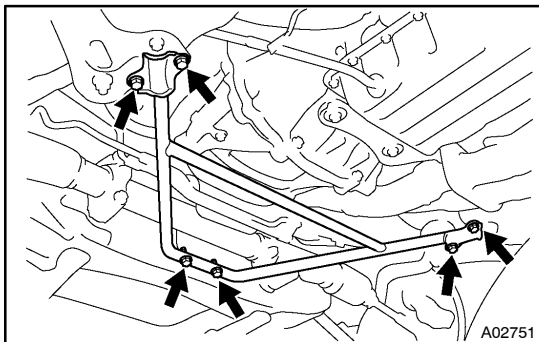
7. REMOVE AIR CLEANER, MAF METER AND INTAKE AIR RESONATOR ASSEMBLY

- (a) Disconnect the MAF meter connector.
- (b) Disconnect the engine wire clamp from the air cleaner case.
- (c) Disconnect the EVAP hose from the air cleaner case.
- (d) Disconnect the PCV hose from the No.2 cylinder head cover.
- (e) Loosen the hose clamp bolt holding the intake air resonator to the throttle body.
- (f) Remove the 3 bolts, the air cleaner, MAF meter and intake air resonator assembly.

8. DISCONNECT ACCELERATOR CABLE FROM ENGINE

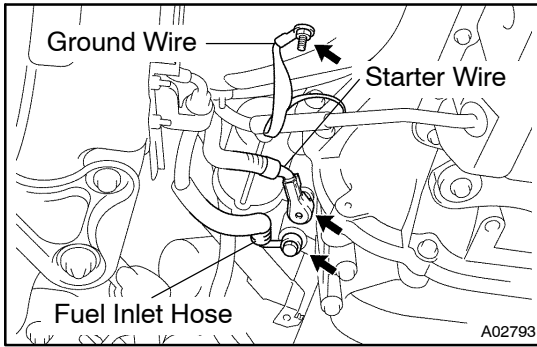
9. REMOVE RADIATOR ASSEMBLY (See page [CO-18](#))

10. REMOVE DRIVE BELT (See page [CH-1](#))



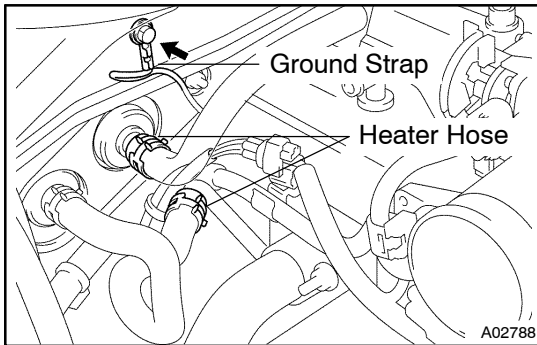
11. REMOVE FRONT SUSPENSION MEMBER BRACE

Remove the 6 bolts and brace.

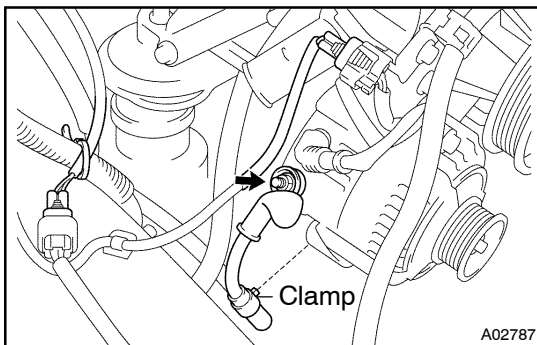


12. DISCONNECT WIRES, CABLE, STRAP, CONNECTORS, HOSES AND CLAMPS

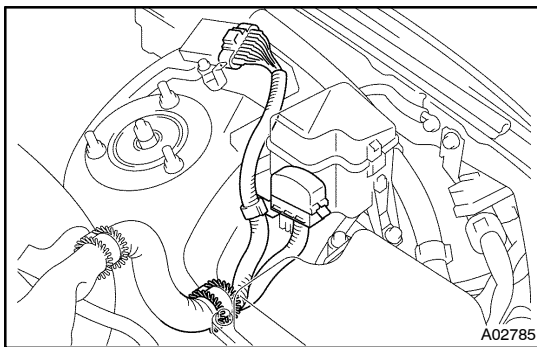
- (a) Disconnect the ground wire from the floor.
- (b) Disconnect the starter wire from the terminal and manifold stay.
- (c) Disconnect the fuel inlet hose from the fuel pipe support.



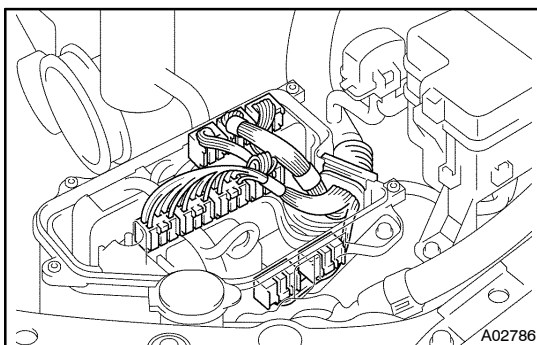
- (d) Disconnect the ground strap from the dash panel.
- (e) Disconnect the heater hose from the heater pipe.
- (f) Disconnect the heater hose from the water bypass pipe.
- (g) Disconnect the EVAP hose from the pipe (from charcoal canister).



- (h) Disconnect the heater oxygen sensor (bank 1 sensor 1) connector.
- (i) Disconnect the heater oxygen sensor (bank 1 sensor 2) connector.
- (j) Disconnect the generator wire.
- (k) Disconnect the engine wire clamp from the wire clip of generator.
- (l) Disconnect the ground cable from the bracket on the cylinder block.

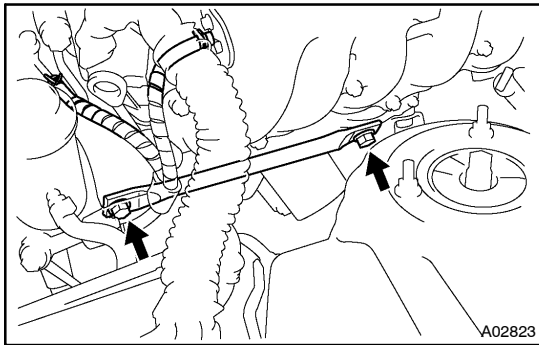


- (m) Disconnect the igniter connector.
- (n) Disconnect the DLC1.
- (o) Disconnect the 2 engine wire clamps from the clamp brackets.



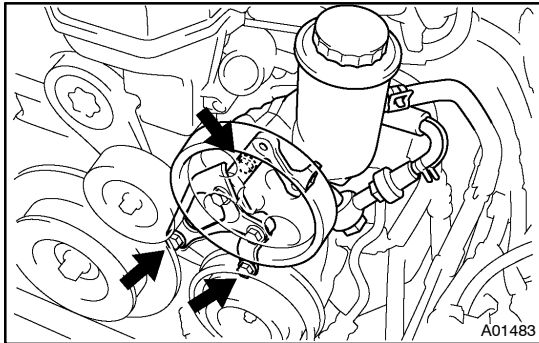
13. DISCONNECT ENGINE WIRE FROM ECM BOX

- (a) Remove the ECM hood and ECM cover.
- (b) Disconnect the 3 ECM connectors.
- (c) Disconnect the 4 wire harness connectors.
- (d) Disconnect the 2 junction connectors.
- (e) Disconnect the grommet and engine wire from the ECM box.

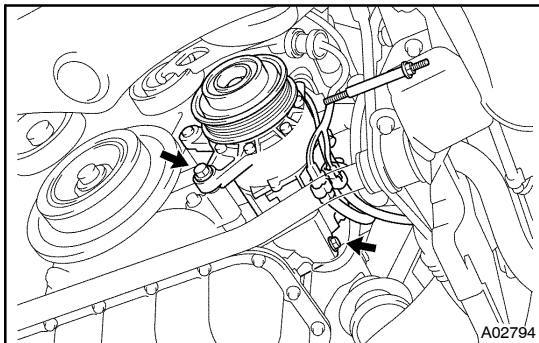


14. DISCONNECT PS PUMP AND A/C COMPRESSOR WITHOUT DISCONNECTING HOSES

- (a) Disconnect the PS air hose from the No.4 timing belt cover.
- (b) Disconnect the PS air hose from the air intake chamber.
- (c) Remove the 2 bolts and pump rear stay.



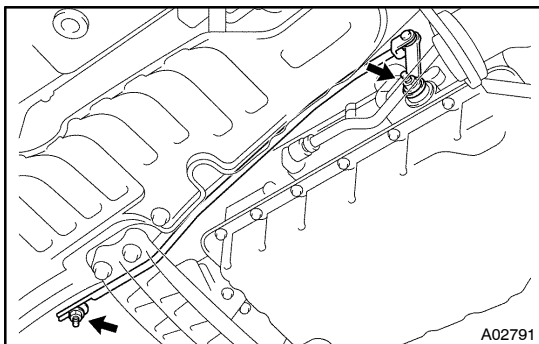
- (d) Remove the 3 bolts and plate washer, and disconnect the vane pump assembly from the engine.



- (e) Loosen the nut.
- (f) Using a torx socket (E10), remove the stud bolt and nut.
- (g) Disconnect the PPS solenoid valve connector.
- (h) Disconnect the A/C compressor connector.
- (i) Remove the 2 bolts, and disconnect the compressor from the engine.

HINT:

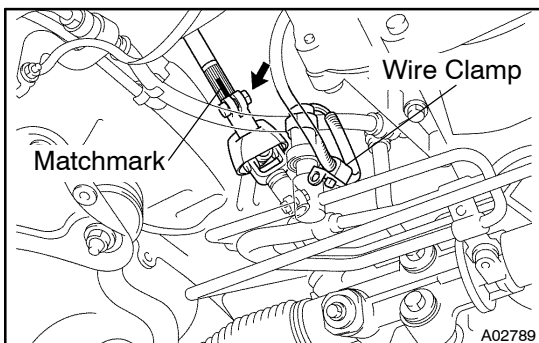
Put aside the vane pump and compressor, and suspend it securely.



15. REMOVE PROPELLER SHAFT (See page [PR-4](#))

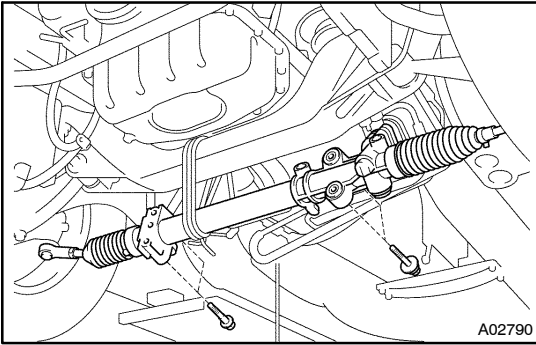
16. REMOVE TRANSMISSION CONTROL ROD

Remove the 2 nuts and control rod.



17. DISCONNECT PS GEAR HOUSING

- (a) Check the steering wheel at the straight-ahead position, and place matchmarks on the sliding yoke and intermediate shaft.
- (b) Remove the bolt holding the sliding yoke to the steering intermediate shaft.
- (c) Disconnect the PS pressure switch connector and wire clamp.

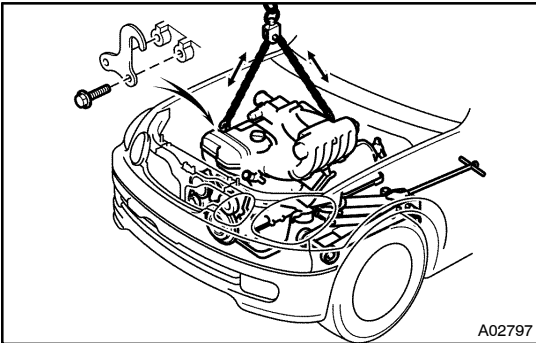


- (d) Remove the 4 bolts, and disconnect the PS housing from the front frame.

- (e) Disconnect the sliding yoke from the intermediate shaft.

HINT:

Suspend the PS gear housing securely.



18. REMOVE ENGINE AND TRANSMISSION ASSEMBLY FROM VEHICLE

- (a) Install the No.1 engine hanger in the correct direction.

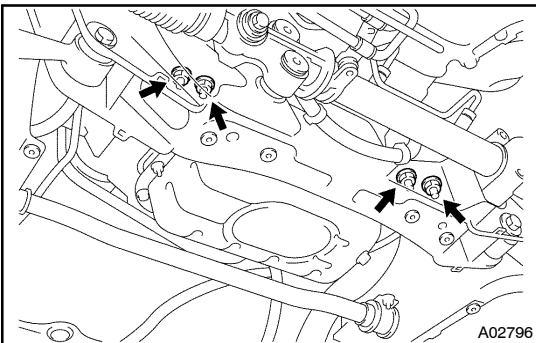
Part No.:

No.1 engine hanger 12281-46050

Bolt 90105-10345

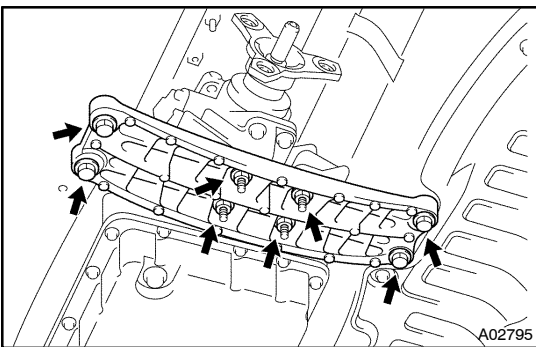
Torque: 40 N·m (400 kgf·cm, 30 ft·lbf)

- (b) Attach the engine chain hoist to the engine hangers.

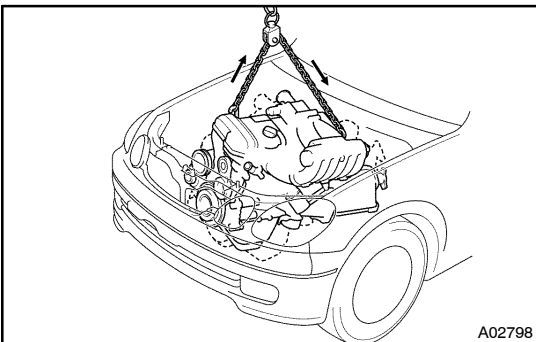


- (c) Remove the 2 hole plugs.

- (d) Remove the 4 nuts holding the engine mounting insulators to the front suspension crossmember.



- (e) Remove the 4 bolts, 4 nuts and rear engine mounting member.

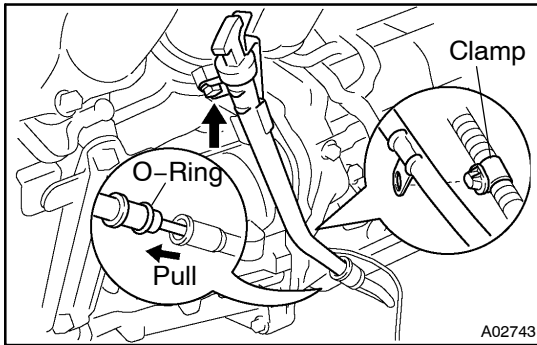


- (f) Lift the engine out of the vehicle slowly and carefully.

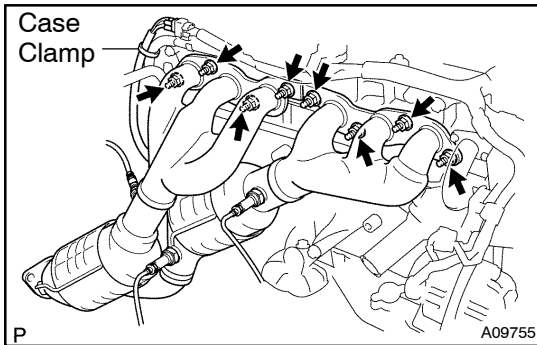
HINT:

Make sure the engine is clear of all wiring, hoses and cables.

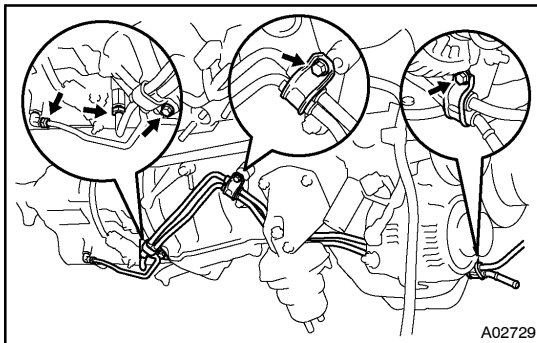
- (g) Place the engine and transmission assembly onto the stand.

**19. REMOVE OIL DIPSTICK AND GUIDE FOR A/T**

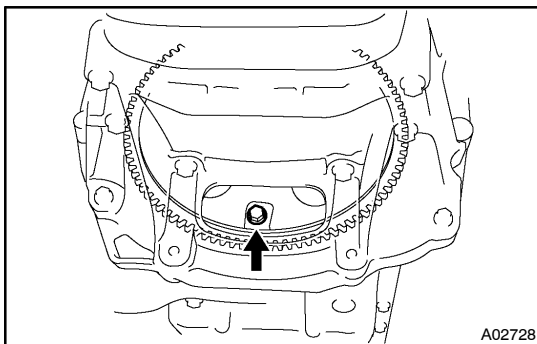
- (a) Disconnect the engine wire clamp from the dipstick guide.
- (b) Remove the bolt.
- (c) Pull out the dipstick guide and dipstick from the dipstick tube.
- (d) Remove the O-ring from the dipstick guide.

**20. REMOVE EXHAUST MANIFOLD**

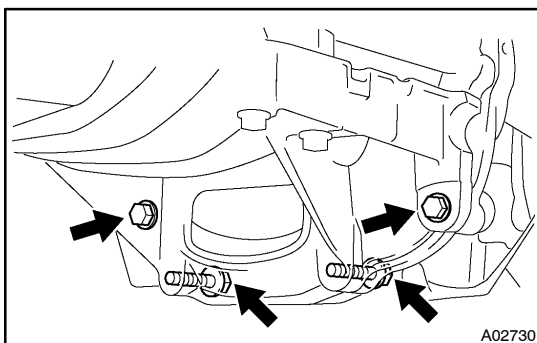
- (a) Remove the case clamp.
- (b) Disconnect the heated oxygen sensor (bank 2 sensor 1) connector.
- (c) Remove the 8 nuts, exhaust manifold and 2 gaskets.

**21. REMOVE OIL COOLER PIPES FOR A/T**

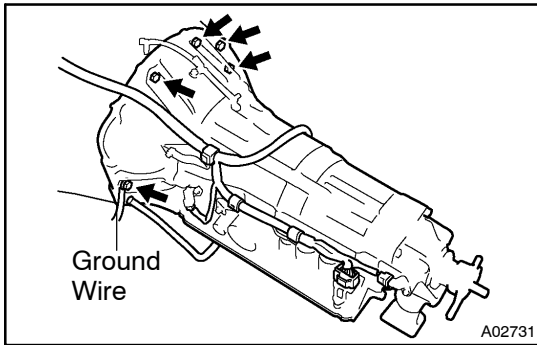
- (a) Remove the 3 bolts and pipe clamps.
- (b) Loosen the 2 union nuts, and remove the 2 oil cooler pipes.

**22. REMOVE TORQUE CONVERTER CLUTCH BOLTS**

- (a) Remove the hole plug.
- (b) Turn the crankshaft pulley bolt to gain access to each bolt.
- (c) Hold the crankshaft pulley bolt with a wrench, and remove the 6 bolts.

**23. REMOVE 4 BOLTS HOLDING NO.1 OIL PAN TO TRANSMISSION****24. REMOVE STARTER**

- (a) Disconnect the starter connector.
- (b) Remove the 2 bolts, clamp bracket and starter.

**25. DISCONNECT ENGINE WIRE FROM TRANSMISSION**

- (a) Disconnect the VSS connector.
- (b) Disconnect the PNP switch connector.
- (c) Disconnect the solenoid connector.
- (d) Disconnect the direct clutch speed sensor connector.
- (e) Disconnect the engine wire from the 3 wire clamps.

26. REMOVE TRANSMISSION FROM ENGINE

- (a) Remove the 5 bolts and ground wire.
- (b) Remove the transmission together with the torque converter clutch from the engine.

27. REMOVE DRIVE PLATE

Remove the 8 bolts, rear plate, drive plate and front spacer.