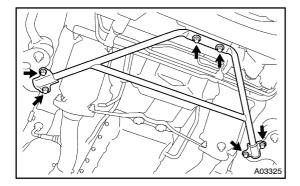
EM0E7-02

REMOVAL

- 1. REMOVE HOOD
- 2. REMOVE ENGINE UNDER COVER
- 3. DRAIN ENGINE COOLANT
- 4. DRAIN ENGINE OIL
- 5. REMOVE V-BANK COVER
- 6. REMOVE AIR CLEANER INLET
- 7. REMOVE AIR CLEANER ASSEMBLY
- 8. REMOVE INTAKE AIR CONNECTOR PIPE
- 9. REMOVE[RADIATOR[ASSEMBLY[[See[page[CO-19]]
- 10. REMOVE DRIVE BELT (See page CH-7)



11. REMOVE FRONT SUSPENSION MEMBER BRACE Remove the 6 bolts and brace.

12. DISCONNECT WIRE, CABLES, HOSES AND CLAMP

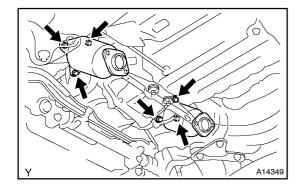
- Disconnect the alternator wire from alternator.
- Disconnect the wire for alternator wire from wire clamp on alternator.
- Disconnect the ground cable from stay on alternator.
- Disconnect the PS oil hose from No. 1 oil pan.
- Disconnect the 2 PS air hoses from hose clamp on No. 3 RH timing belt cover.
- Disconnect the hose clamp for PS air hose.
- Disconnect the PS air hose from upper intake manifold.
- Disconnect the starter cable from battery.
- Disconnect the ground strap from body.
- Disconnect the 2 heater hoses.
- Disconnect the fuel inlet hose (rear fuel pipe) from fuel main tube.

13. DISCONNECT ENGINE WIRE FROM ECU BOX

- (a) Remove these parts:
 - Remove the ECU cover
 - Remove the ECU hood
- (b) Disconnect these connectors:
 - Disconnect the 3 engine ECU connectors
 - Disconnect the 4 wire harness connectors
 - Disconnect the 2 junction connectors
- (c) Disconnect the grommet and engine wire from the ECU box.

14. DISCONNECT HEATED OXYGEN SENSORS FROM FRONT EXHAUST PIPE

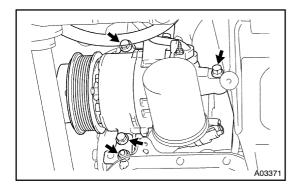
- (a) Disconnect the 2 wire grommets from the floor panel.
- (b) Disconnect the 2 oxygen sensors from the exhaust pipe.
- 15. REMOVE FRONT AND CENTER EXHAUST PIPES



16. REMOVE TWC

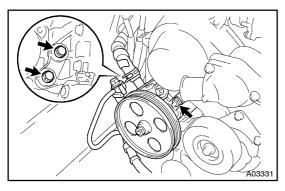
Remove the 3 nuts, TWC and gasket. Remove the 2 TWC.

- 17. REMOVE CENTER FRONT FLOOR BRACE
- 18. REMOVE HEAT INSULATORS
- 19. REMOVE PROPELLER SHAFT (See Pub. No. RM588E on page PR-4)



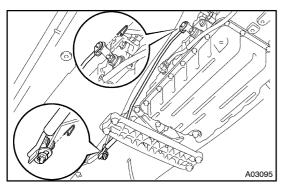
20. DISCONNECT A/C COMPRESSOR FROM ENGINE

- (a) Disconnect the A/C compressor connector.
- (b) Disconnect the wire clamp from the wire bracket on the A/C compressor.
- (c) Remove the bolt, nut and A/C compressor stay.
- (d) Remove the bolt, and disconnect the wire bracket from the A/C compressor.
- (e) Remove the bolt, and disconnect the A/C compressor from the engine.



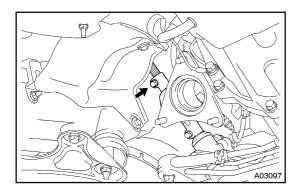
21. REMOVE PS PUMP

- (a) Remove the 2 screws and RH engine under cover.
- (b) Disconnect the PS oil pressure switch connector.
- (c) Remove the 2 bolts and nut, and disconnect the PS pump from the engine.



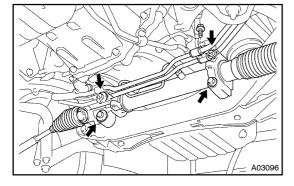
22. REMOVE TRANSMISSION CONTROL ROD

Remove the 2 clips and control rod.



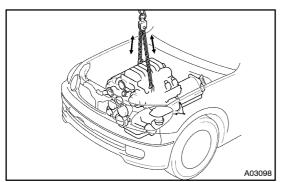
23. DISCONNECT PS GEAR HOUSING

- (a) Check the steering wheel at the straight-ahead position.
- (b) Remove the bolt holding the sliding yoke to the steering intermediate shaft.



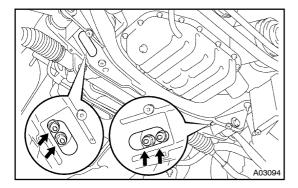
- (c) Remove the bolt, and disconnect the 2 PS oil tubes from the front frame.
- (d) Remove the 4 bolts, and disconnect the PS gear housing from the front frame.
- (e) Disconnect the sliding yoke from the intermediate shaft. HINT:

Suspend the PS gear housing securely.

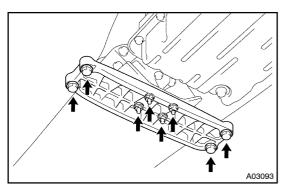


24. REMOVE ENGINE AND TRANSMISSION ASSEMBLY FROM VEHICLE

- (a) Remove the nut and No.1 V-bank cover bracket from the No.2 engine hanger.
- (b) Attach the engine chain hoist to the engine hangers.

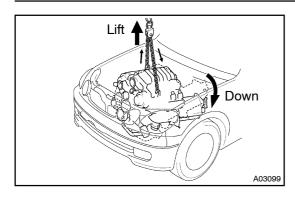


- (c) Remove the 2 hole plugs.
- (d) Remove the 4 nuts holding the engine mounting insulators to the front suspension crossmember.



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

LEXUS GS300/GS430 SUP (RM786E)



(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.
- 25. DISCONNECT ENGINE WIRE FROM TRANSMISSION

Disconnect the connectors and wire:

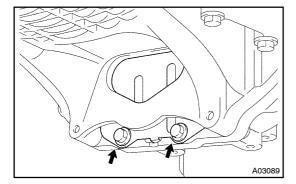
- Disconnect the VSV connector.
- Disconnect the PNP switch connector.
- Disconnect the solenoid connector.
- Disconnect the direct clutch speed sensor connector.
- Disconnect the engine wire from 3 wire clamps.

26. REMOVE OIL DIPSTICK GUIDE AND DIPSTICK FOR TRANSMISSION

- (a) Remove the bolt.
- (b) Pull out the dipstick guide and dipstick from the dipstick tube of transmission.
- (c) Remove the O-ring from the dipstick guide.

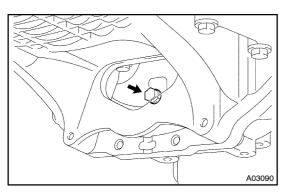
27. REMOVE OIL COOLER PIPES FOR TRANSMISSION

- (a) Disconnect the oil level sensor connector.
- (b) Remove the 3 bolts and 3 stays.
- (c) Loosen the 2 union nuts, and remove the 2 oil cooler pipes.



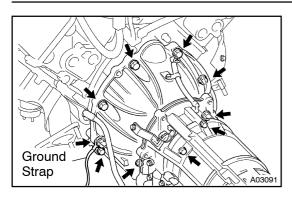
28. REMOVE TORQUE CONVERTER CLUTCH BOLTS

(a) Remove the 2 bolts and flywheel housing under cover.



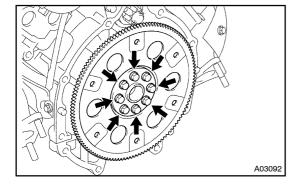
- b) Turn the crankshaft pulley bolt to gain access to each bolt.
- (c) Hold the crankshaft pulley bolt with a wrench, and remove the 6 bolts.

LEXUS GS300/GS430 SUP (RM786E)



29. REMOVE TRANSMISSION

- (a) Remove the 10 bolts and ground strap.
- (b) Remove the transmission together with the torque converter clutch from the engine.



30. REMOVE DRIVE PLATE

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