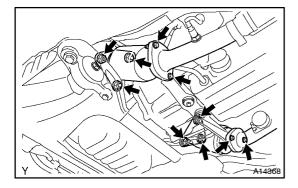
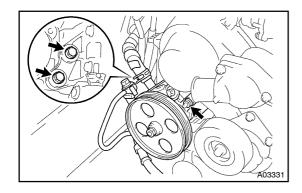
EM1LM-01

REMOVAL

- 1. ☐ REMOVE [HOOD]
- 2. REMOVE ENGINE UNDER COVER AND OIL PAN PROTECTOR
- 3. DRAIN ENGINE COOLANT
- 4. ENGINE OIL
- 5. REMOVE_V-BANK_COVER_AND_ENGINE_SIDE_COVER_
- 6. ☐ REMOVE AIR CLEANER INLET
- 7. REMOVE AIR CLEANER AND INTAKE AIR CONNECTOR ASSEMBLY
- 8. REMOVE DRIVE BELT (See page CH-1)
- 9. DISCONNECT[RADIATOR[LOWER[HOSE[FROM]WATER[INLET[HOUSING]
- 10. DISCONNECT RADIATOR UPPER HOUSE FROM WATER BYPASS JOINT
- 11 DISCONNECT WIRE, CABLES AND HOSES
- Disconnect[]he[]brake[]booster[]vacuum[]hose[]from[]he[]ntake[]manifold.
- Disconnect[the[2[heater[hoses[from[the[water[bypass pipe.
- Disconnect the 2 ground straps from the body.
- □ Disconnect[the[starter[cable[from[the[battery.
- Disconnect[]he[]uel[]nlet[]hose[]rom[]he[]uel[]main[]ube.
- Disconnect the IPS air those from the intake manifold.
- □ Disconnect[]the[EVAP[]hose[]from[]the[]VSV[]for[EVAP.
- □ Disconnect[the[2]A/T[\phiil[\phicooler[\text{hoses}]trom[\text{the}[\text{radiator.}]
- □ Disconnect[the[2]electric[cooling[fan[connectors.
- □ Disconnect[the[2]electric[cooling[fan[ECU]connectors.
- 12. DISCONNECT ENGINE WIRE FROM ECM BOX
- (a) Remove the ECU box cover.
- (b) ☐ Disconnect[the[5][ECU[connectors[and[2]]][vire[connectors.
- (c) Disconnect[the[grommet[and[engine[wire[from[the[ECU box.
- 13.☐ Unleaded Gasoline:
 DISCONNECT HEATED OXYGEN SENSORS FROM
 FRONT EXHAUST PIPE

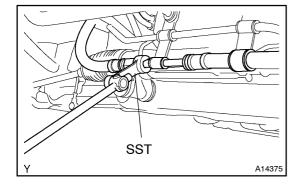


- 14. REMOVE FRONT EXHAUST PIPE, CENTER EXHAUST PIPE[AND[TAIL[PIPES[See[page[EM-123]]]
- 15. REMOVE TWC (unleaded gasoline) OR SUB-MUF-FLERS (leaded gasoline)
- 16. REMOVE HEAT INSULATORS
- 17. REMOVE PROPELLER SHAFT (See page PR-3)
- 18. DISCONNECT A/C COMPRESSOR FROM ENGINE (See page AC-53)



19. REMOVE PS PUMP AND OIL RESERVOIR

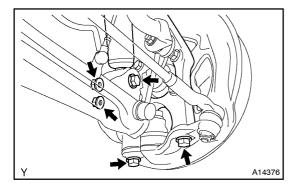
- (a) Remove the 2 bolts, but and PS bump from the engine.
- (b) Remove[the] [bolts[and] Soil [reservoir [from [the]] H[fender apron.



20. ☐ DISCONNECT [PS[OIL] TUBE

SST[] 09633-00020

21. DISCONNECT \$\int \text{IDING} \text{YOKE} \text{FROM} \text{INTERMEDIATE} SHAFT

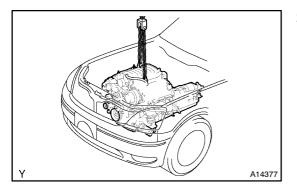


- 22. REMOVE FRONT STABILIZER BAR (See page SA-47)
- 23. DISCONNECT SHOCK ABSORBER FROM LOWER ARM

Remove the bolt and nut, disconnect the shock absorber from the lower arm.

- 24. DISCONNECT LEVEL HEIGHT SENSOR LINKAGE FROM LOWER ARM
- 25. DISCONNECT LOWER ARM FROM STEERING KNUCKLE

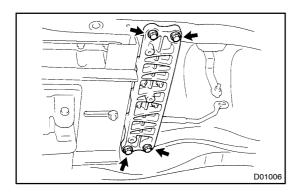
Remove the 2 bolts, disconnect the lower arm from the steering knuckle.



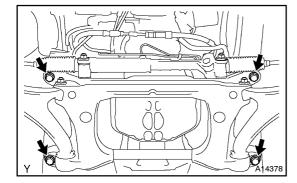
26. REMOVE ENGINE AND TRANSMISSION ASSEMBLY FROM VEHICLE

(a) Attach the engine chain hoist to the engine hangers and hold the engine tightly.

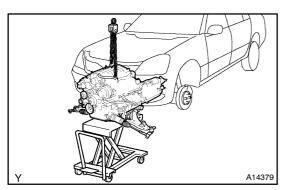
LEXUS[LS430] (RM792E)



- (b) Remove the nut, and disconnect the transmission control rod from the shift lever.
- (c) Remove the 4 bolts and disconnect the rear mounting member from the body.
- (d) Set the engine jack.



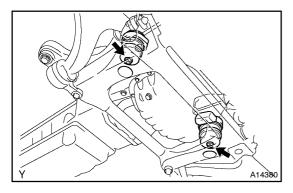
(e) Remove the 4 bolts and disconnect the front suspension member from the body.



(f) Lower the engine out of the vehicle slowly and carefully. **NOTICE:**

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

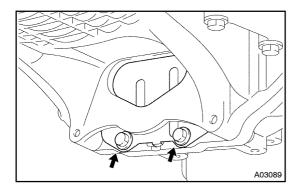
(g) Using a engine sliding device, and place the engine and transmission assembly onto the stand.



27. REMOVE FRONT SUSPENSION MEMBER FROM ENGINE

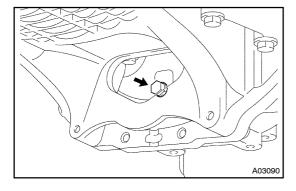
Remove the 2 nuts and front suspension member with the steering gear housing.

- 28. DISCONNECT ENGINE WIRE FROM TRANSMISSION
- (a) Disconnect the PNP switch connector.
- (b) Disconnect the solenoid connector.
- (c) Disconnect the direct clutch speed sensor connector.
- (d) Disconnect the PNP switch connector.
- (e) Disconnect the 4 engine wire clamps from the bracket.
- 29. REMOVE OIL DIPSTICK GUIDE AND DIPSTICK FOR TRANSMISSION
- 30. REMOVE OIL COOLER PIPES FOR TRANSMISSION

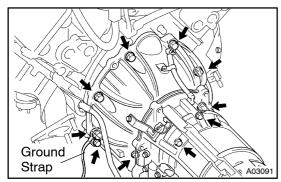


31. REMOVE TORQUE CONVERTER CLUTCH BOLTS

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

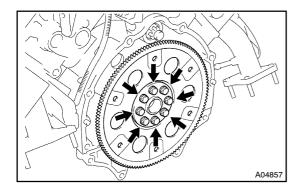


- (b) Turn the crankshaft pulley bolt to again access to each bolt.
- (c) Hold the crankshaft pulley bolt with a wrench, and remove the 6 bolts.



32. REMOVE TRANSMISSION FROM ENGINE

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



33. REMOVE DRIVE PLATE

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