

3. ENGINE REMOVAL AND INSTALLATION

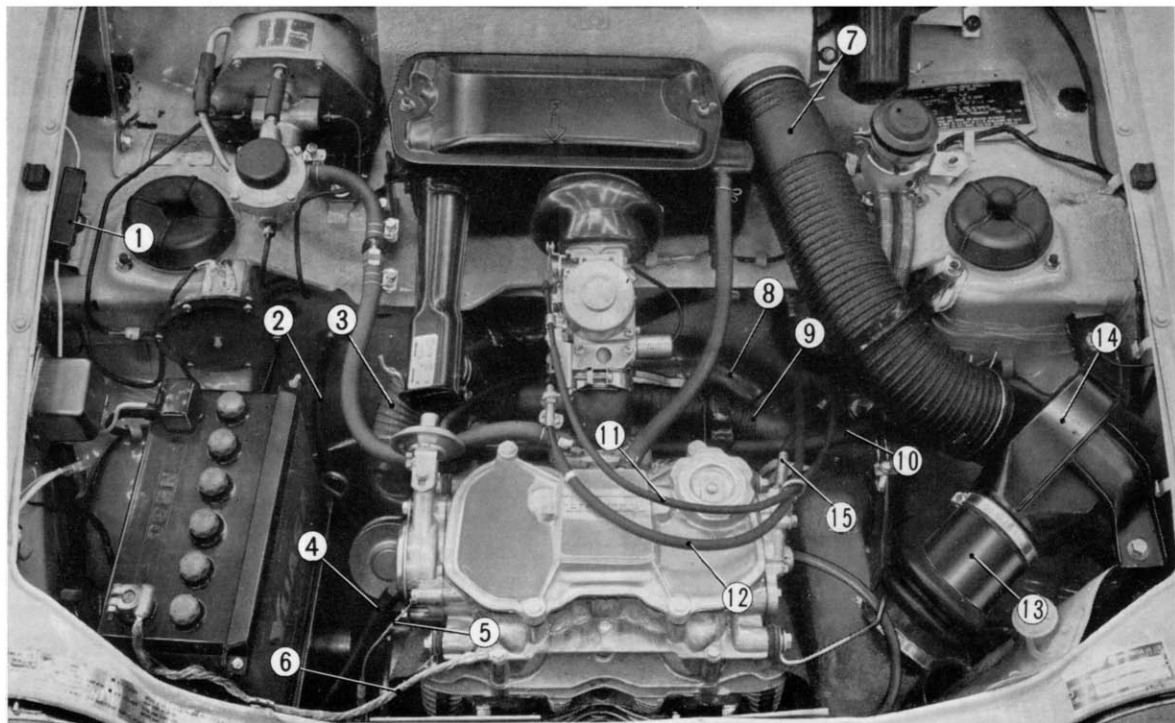


Fig. 3-1

① Main Fuse	⑥ Engine Ground Strap	⑪ Choke Control Cable
② Speedometer Drive Cable	⑦ Heater Duct B	⑫ Throttle Control Cable
③ Exhaust Air Duct	⑧ Heater Duct	⑬ Heater Duct A
④ High Tension Cable	⑨ Hot Air Duct	⑭ Heater Blower Unit
⑤ Ignition Primary Wire	⑩ Clutch Control Cable	⑮ Tachometer Drive Cable

3-1. Removal

1. Drain the crankcase lubricating oil by removing the drain plug.
2. Disconnect the negative and positive cables from the battery and remove the battery. Disconnect the positive cable from the main fuse.
3. Disconnect the following control cables and electrical wiring from the engine:
 - Throttle and choke control cables.
 - Tachometer drive cable.
 - Engine ground strap.
 - Ignition primary wire (blue).
 - High Tension cables.
 - Back-up switch wires.
4. Disconnect the breather tube from the camshaft housing cover.
5. Disconnect the fuel line and vacuum advance tube from the carburetor assembly. Disconnect the fuel solenoid. Remove the carburetor bellows from the air cleaner and then remove the carburetor and intake manifold as an assembly from the engine.
6. Disconnect the following ducts from the engine:
 - Hot air duct
 - Heater duct

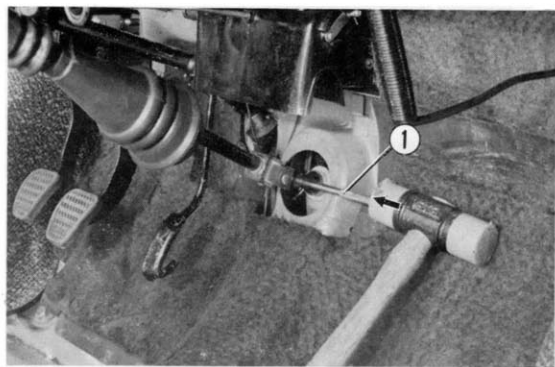


Fig. 3-2 ① Gear Shift Rod Pin Driver

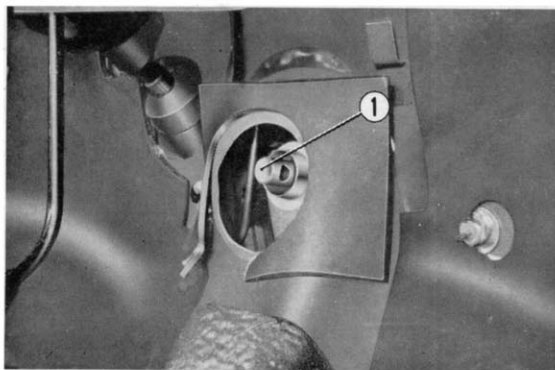


Fig. 3-3 ① Gear Shift Rod

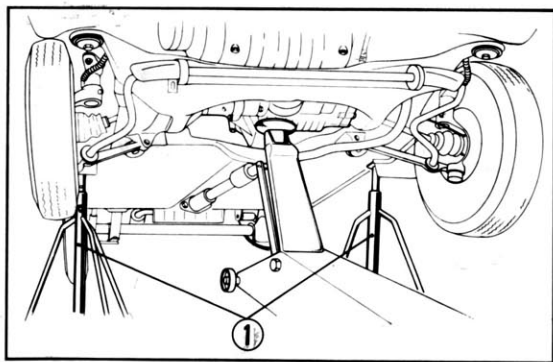


Fig. 3-4 ① Stand

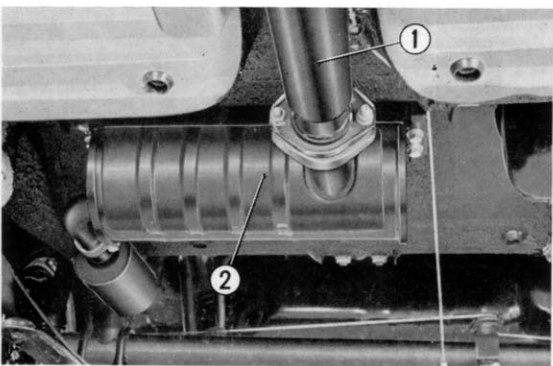


Fig. 3-5 ① Exhaust Silencer A
② Exhaust Main Silencer

Heater duct A
Heater duct B
Exhaust air duct

7. Remove the heater blower from the engine compartment.
8. Separate the speedometer drive cable and clutch control cable from the engine unit. Disconnect the starter solenoid and generator wiring.
9. Using the special tool (gear shift rod joint pin driver) and a hammer, remove the pin at the joint as shown in Fig. 3-2.
10. Push the gear shift rod in to prevent it from touching the floor board when the engine is removed.

11. Place a floor jack under the crankcase, and raise the front end of car. Place jack stands under the body and then remove the floor jack.

NOTES:

1. The car body should be raised until the lowest part of the front mask skirt is at least 850 mm (34 in.) above the floor.
2. When positioning the jack stands, place wooden blocks on top of the stands to prevent damage to the car body. Also be careful no to damage the brake hoses and fuel pipes running along the left-hand side of the car.
12. Raise the jack until the jack head takes the load of the engine unit.
13. Separate the exhaust silencer A from the exhaust main silencer at the flange.
14. Remove the left and right front wheels.
15. Remove the left and right front splash-guards.

16. Disconnect the brake hoses at the front brake calipers, or remove the front calipers from the steering knuckles and attach them to the front shock absorber assemblies with a piece of wire.
17. Remove the front shock absorber assemblies from the steering knuckles (See Section 12-1).

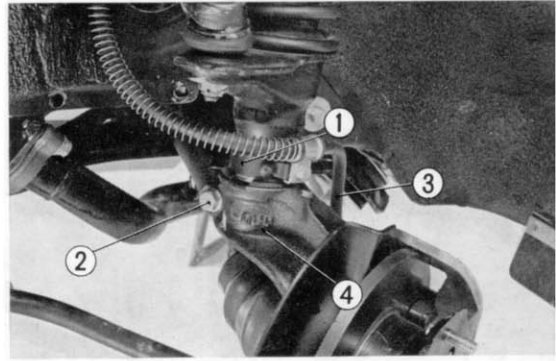


Fig. 3-6 ① Front Shock Absorber Assembly
② Front Dumper Lock Bolt
③ Brake Hose
④ Knuckle

18. Remove the subframe rear mounting bolts. Then remove the subframe front mounting bolts.
19. Carefully lower the engine as an assembly including the subframe, exhaust pipe and silencer.

NOTE: Before lowreing the engine and subframe, check again to see that all electrical wires and control cables are completely disconnected

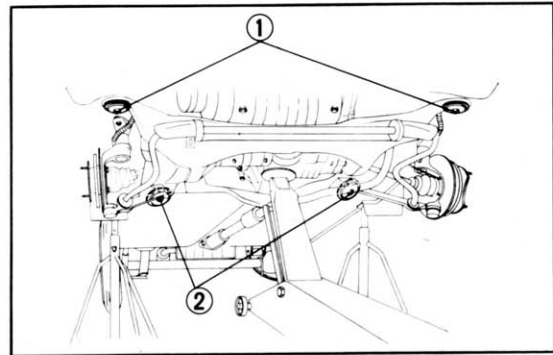


Fig. 3-7 ① Front Mounting Bolt
② Rear Mounting Nut

20. Lower the engine until it can be moved from under the body.
21. Disconnect the joint pipe A from the exhaust joint pipe and remove the joint pipe A, heat exchanger and exhaust manifold from the engine unit.
22. Remove the drive shafts from the differential.
23. Remove the four bolts securing the engine to the engine mounting bracket. Remove the rear engine mounting bolt and rear engine bracket bolts. The engine may now be removed from subframe and mounted on the engine stand (special tool).

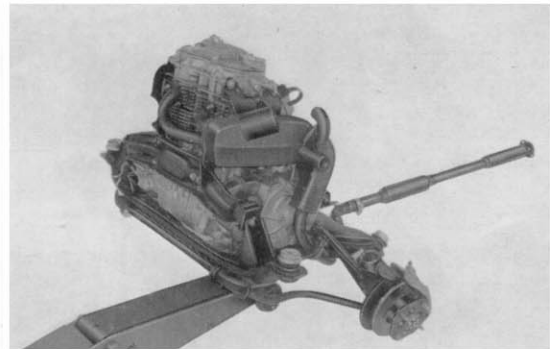


Fig. 3-8

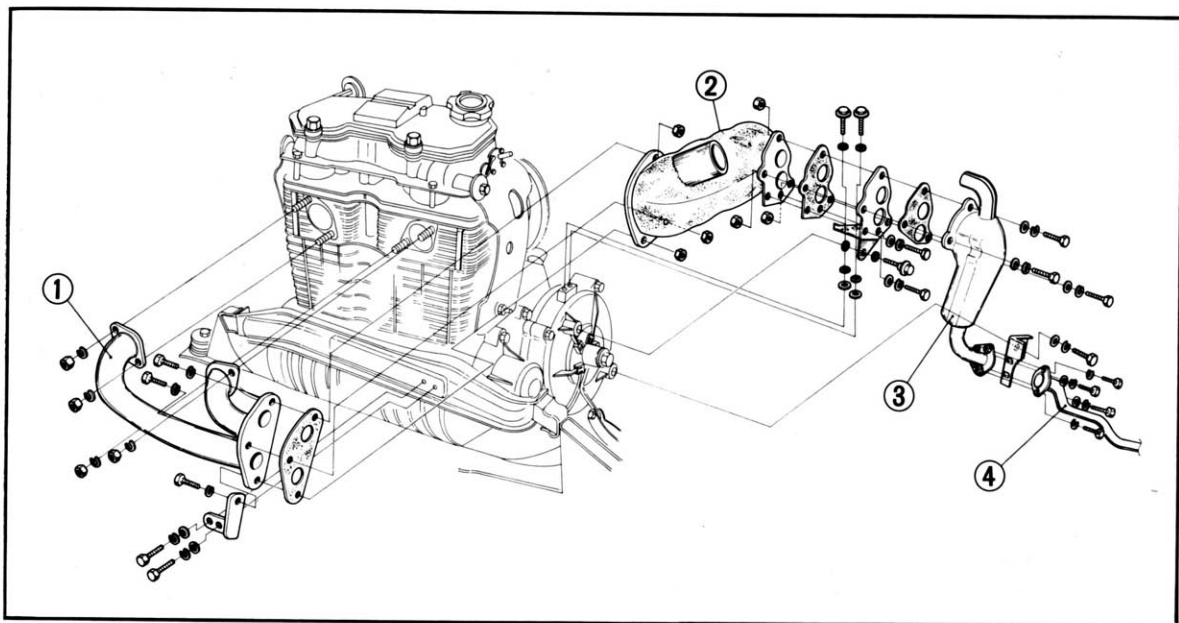


Fig. 3-9 ① Exhaust Manifold
② Heat Exchanger

③ Joint pipe A
④ Exhaust Joint pipe

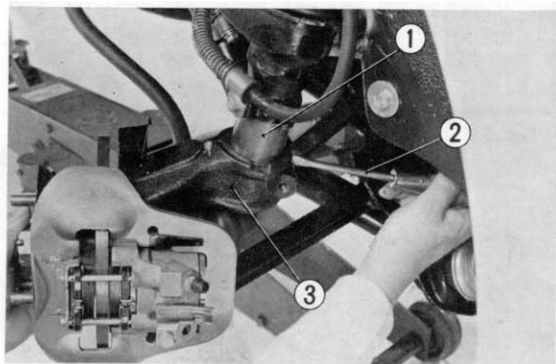


Fig. 3-10 ① Front Shock Absorber Assembly
② Screwdriver
③ Knuckle

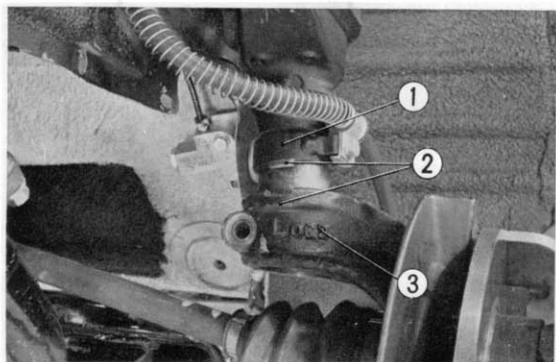


Fig. 3-11 ① Front Shock Absorber Assembly
② Aligning Groove
③ Knuckle

3-2. Installation

To install the engine, reverse the removal procedure. Pay careful attention to the following items.

- * When installing the knuckle to the front shock absorber assembly, spread the knuckle by inserting a screwdriver into the knuckle slot as shown.
- * Raise the engine and subframe assembly about half way into position and align the tabs on the front suspension main shafts with the slots in the knuckles.
- * Check to be sure that the gear shift rod is not interfering with the car body.
- * After mounting the engine unit, the following items should be checked:

- Bleed the air from the brake system
- Carburetor idle adjustment
- Ignition timing
- Clutch adjustment
- Front suspension alignment (toe-in).

When tightening the engine mounting bolts and nuts, follow the torque specifications given on the following page.

Engine Mounting Bolt and Nut Torque Specifications

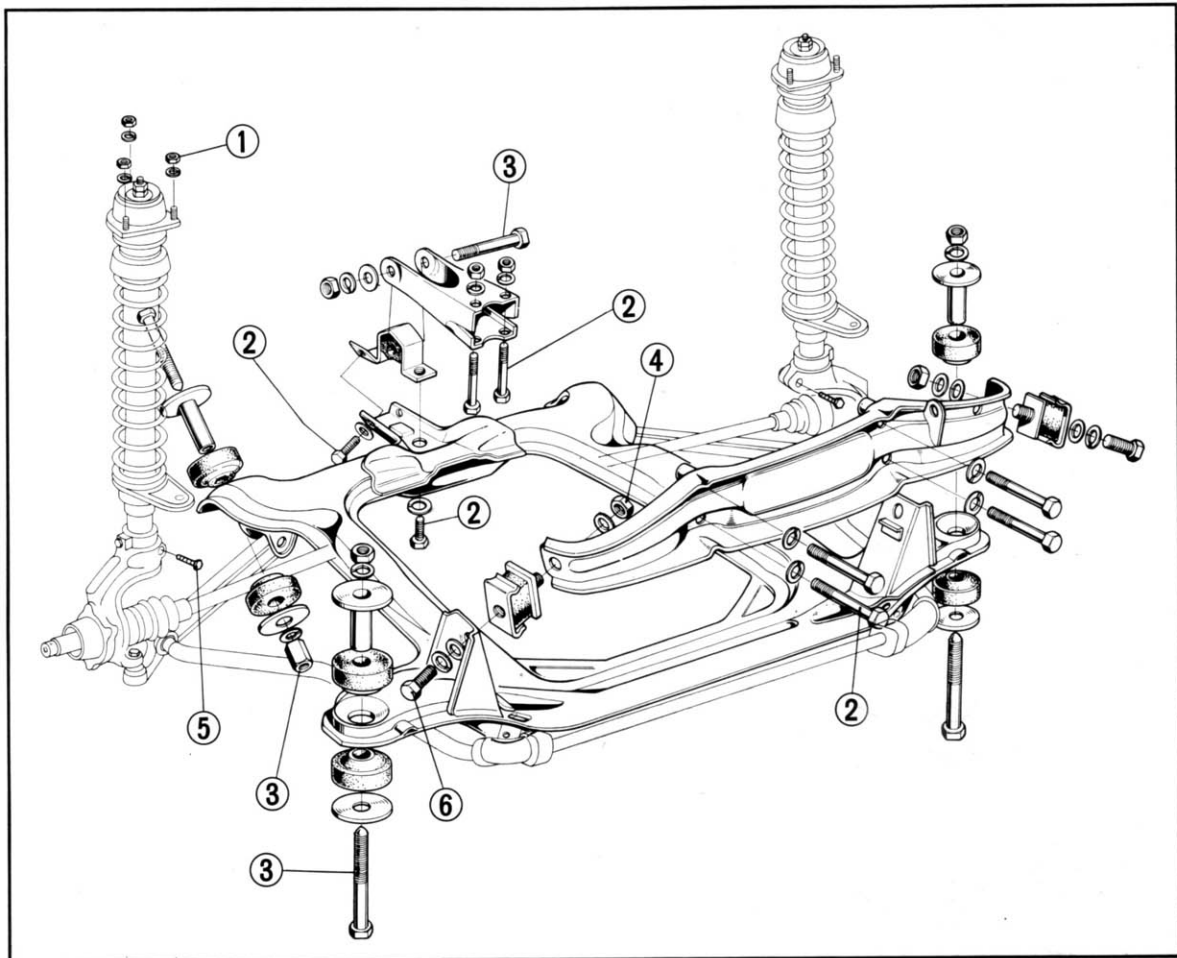


Fig. 3-12 ① 1.5~2.0 kg-m (11~14 lbs-ft) ④ 3.0~3.5 kg-m (22~25 lbs-ft)
 ② 2.0~2.4 kg-m (14~17 lbs-ft) ⑤ 4.5~5.0 kg-m (33~36 lbs-ft)
 ③ 4.0~4.8 kg-m (29~35 lbs-ft) ⑥ 2.1~2.5 kg-m (15~18 lbs-ft)