

5-8. Fuel system

1. General

1) The fuel tank is located under the floor of the rear seat and the tank is filled using the filler opening on the left side of the vehicle.

Fuel is delivered from the fuel tank

through fuel pipes to the fuel filter, fuel pump and carburetor.

The piping is arranged so that a portion of fuel is diverted to the fuel tank at the intake port of the carburetor.

A fuel separator is provided in the air breather circuit to prevent fuel from

flowing out. Vaporized fuel from the fuel tank is fed to the air cleaner through the fuel separator and two-way valve. The vaporized fuel fed to the air cleaner is sucked and burnt as the engine starts.

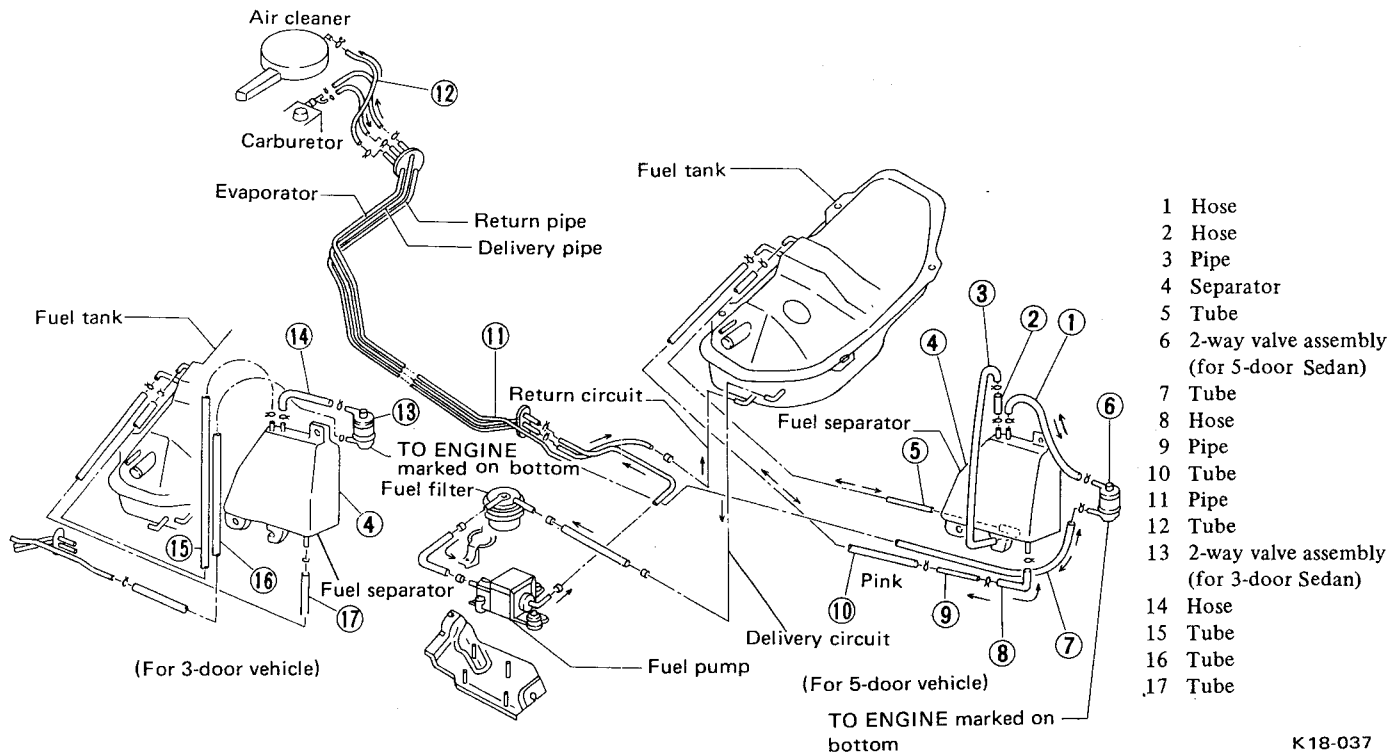


Fig. 5-8-1

2) The 2-way valve maintains the internal pressure in the fuel tank at a constant level. During operation, valve A ② opens to release pressure when the pressure rises above the preset level. Further, valve B ① opens to admit air when the pressure drops below the preset level.

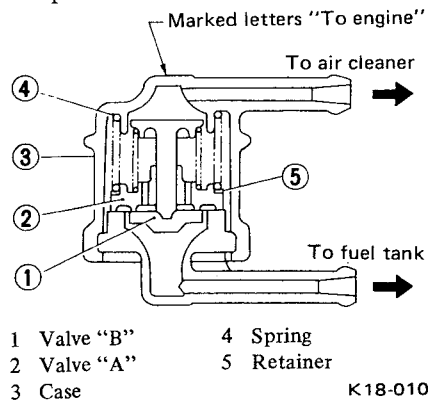


Fig. 5-8-2

3) The fuel pump is a no-contactor type with a solenoid plunger pump.

The electric circuit is completely sealed.

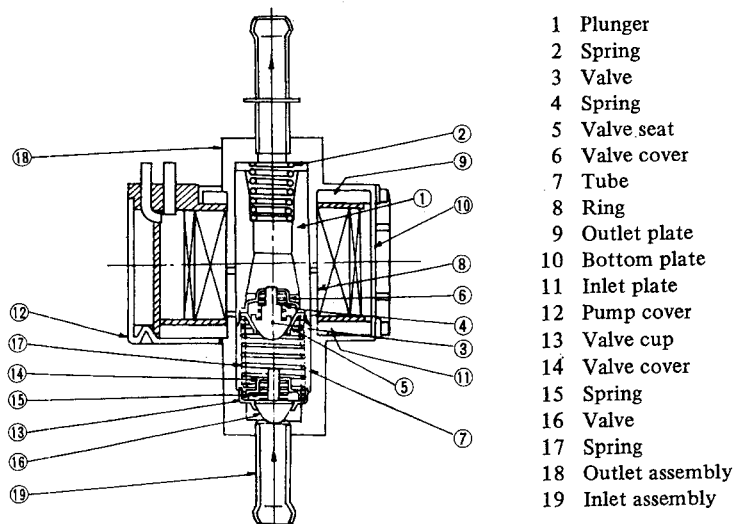


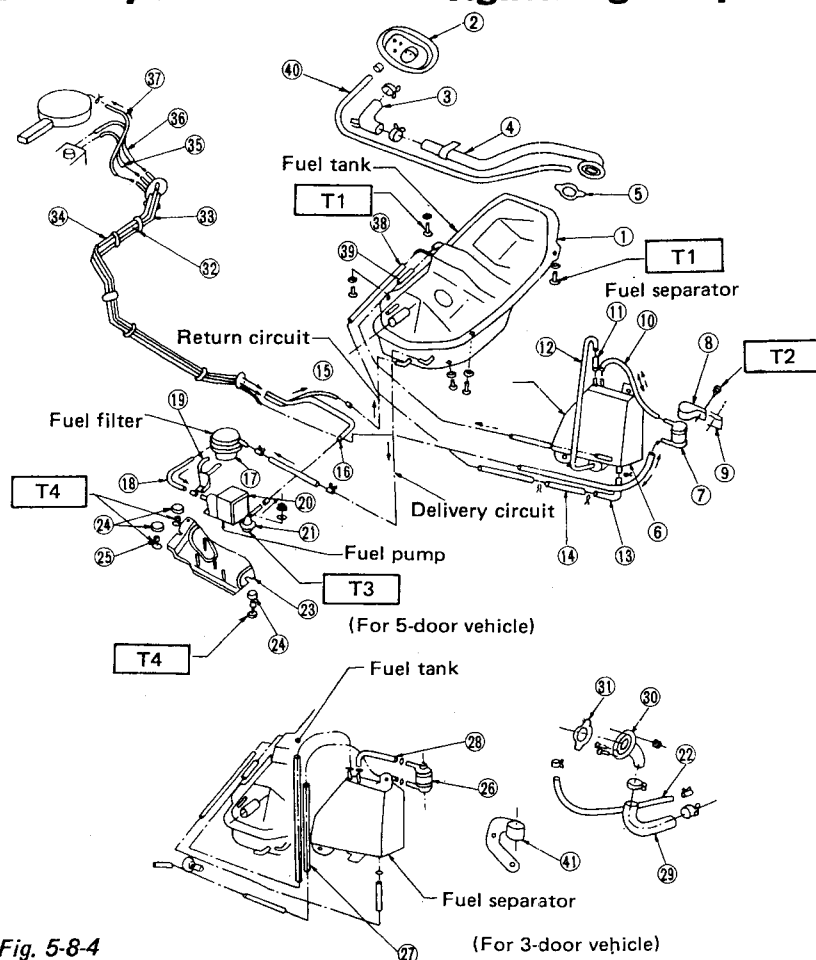
Fig. 5-8-3

Fuel system

2. Specifications

Fuel tank	Capacity	31 ℓ (8.2 US gal, 6.8 Imp gal)
	Location	Under rear floor
Fuel pump	Type	Solenoid plunger type
	Discharge pressure	11.28 ± 2.45 kPa (0.115 ± 0.025 kg/cm ² , 1.64 ± 0.36 psi)
	Discharge	17 ℓ (4.5 US gal, 3.7 Imp gal)/hr. or more
	Amperage	1.5 A or less
	Min. working voltage	8 V or less
	Working frequency	10^{+2} Hz
Type of fuel filter		Cartridge type
Equipment of fuel filter		Yes
Fuel separator	Equipment	Yes
	Capacity	400 cc (24.41 cu in)
Type of vaporized-fuel recovery system		Air cleaner storage type

3. Component Parts and Tightening Torque



- | | |
|---------------------|----------------------|
| 1 Fuel tank | 20 Fuel pump |
| 2 Grommet | 21 Grommet |
| 3 Filler hose | 22 Air vent tube |
| 4 Filler pipe ass'y | 23 Bracket |
| 5 Filler cap | 24 Grommet |
| 6 Fuel separator | 25 Spacer |
| 7 2-way valve ass'y | 26 2-way valve |
| 8 Bracket | 27 Tube |
| 9 Spring nut | 28 Hose |
| 10 Hose | 29 Filler hose |
| 11 Hose | 30 Filler pipe |
| 12 Pipe | 31 Filler cap |
| 13 Hose | 32 Delivery pipe |
| 14 Pipe | 33 Return pipe |
| 15 Hose | 34 Air breather pipe |
| 16 Hose | 35 Hose |
| 17 Filter | 36 Hose |
| 18 Hose | 37 Tube |
| 19 Holder | 38 Tube |
| | 39 Tube |
| | 40 Air vent tube |
| | 41 Bracket |

Tightening torque N·m (kg-m, ft-lb)
T1: 18 ± 5 (1.8 ± 0.5 , 13 ± 3.6)
T2: 1.5 ± 0.5 (0.15 ± 0.05 , 1.1 ± 0.4)
T3: 7.4 ± 2.0 (0.75 ± 0.20 , 5.4 ± 1.4)
T4: 4.4 ± 1.0 (0.45 ± 0.10 , 3.3 ± 0.7)

Fig. 5-8-4

K18-038

4. Service Precautions for Major Components

1) Fuel Tank

1) Remove the fuel tank in the following order:

(1) After removing the battery minus terminal connection, lift the vehicle. Remove the drain bolt from the fuel tank bottom and drain the fuel. Fuel drainage can be performed quickly by removing the filler cap.

NOTE:

- a. Gasoline is flammable. The above work should not be performed near flames or hot objects.
- b. After draining the fuel, securely tighten the drain bolt.

(2) Remove the rear seat and the filler pipe protector.

(3) Remove the filler hose clamp and the air vent tube clamp adjacent to the fuel tank.

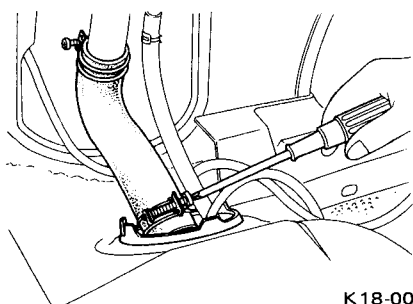


Fig. 5-8-5

(4) Open the lid of the access hole and disconnect the harness terminal of the fuel meter unit.

(5) Remove the fuel delivery hose and return hose by loosening the clamps on the side of the fuel tank.

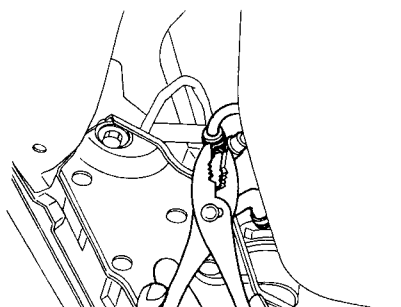


Fig. 5-8-6

(6) Loosen the mounting bolts of the fuel tank, and remove the two air breather tubes at the front of the tank.

2) The fuel tank should be installed in an order opposite to removal. Pay close attention to the following points.

(1) When attaching the air breather tubes to the fuel tank, connect the pink tube to the upper pipe of the tank and the black tube to the lower pipe.

Insert 15 to 20 mm (0.59 to 0.79 in) of the pipe into the air breather tube, then tighten with a clip. Fix the air breather tubes with coating clips in two places on the upper side of the tank.

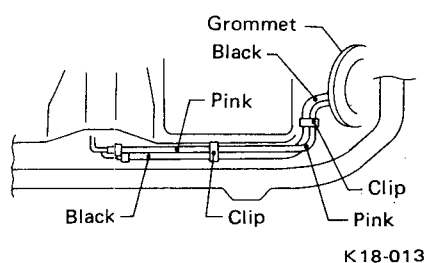


Fig. 5-8-7

(2) Install the fuel tank using the specified flange bolts and washers.

Tightening torque:
 $18 \pm 5 \text{ N}\cdot\text{m}$
 $(1.8 \pm 0.5 \text{ kg}\cdot\text{m}, 13 \pm 3.6 \text{ ft}\cdot\text{lb})$

(3) When connecting the hoses and tubes, insert the mating pipes as specified below, then firmly tighten with clips or clamps.

Fuel filler hose
$\ell = 25 \text{ to } 30 \text{ mm (0.98 to 1.18 in)}$
Fuel delivery hose Fuel return hose Air vent tube
$\ell = 20 \text{ to } 25 \text{ mm (0.79 to 0.98 in)}$

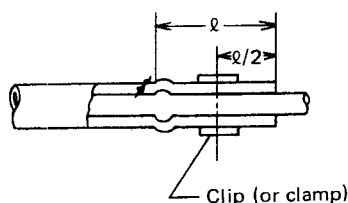


Fig. 5-8-8

NOTE:

Install the clamp so that its screw will not interfere with the filler pipe protector.

(4) Insert the grommet into the hole in the floor. Improper grommet fitting can result in water leakage.

2) Fuel Separator

1) Remove the fuel separator in the following order:

(1) Remove the rear seat, rear seat backrest and rear left-hand trim. In the 5-door vehicle, remove the filler pipe.

(2) Remove the fuel separator from rear inner quarter.

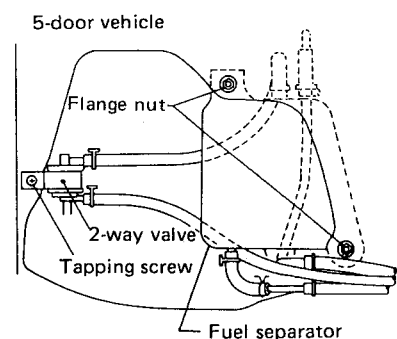


Fig. 5-8-9

3-door vehicle

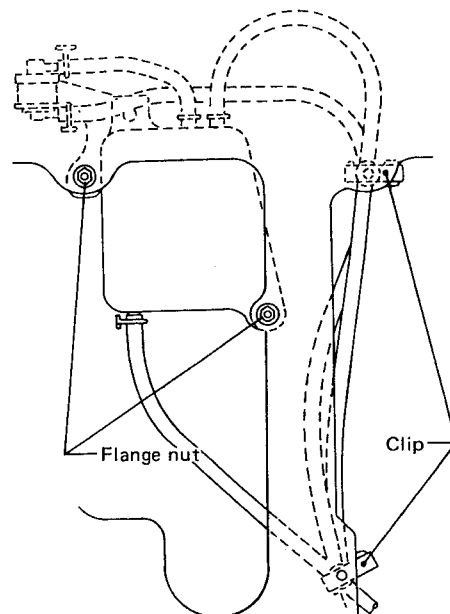


Fig. 5-8-10

Fuel system

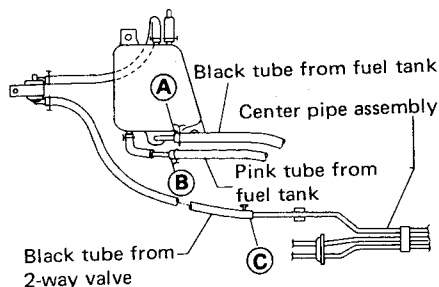
2) Pay attention to the following points when installing the fuel separator.

(1) Be careful to properly install the air breather tubes.

NOTE:

Do not use sudsy water, as a lubricant when connecting the tubes.

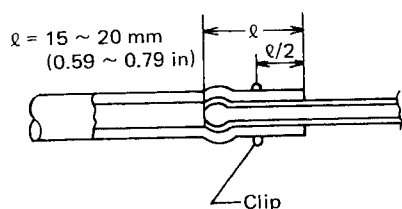
5-door vehicle



- (1) Connect black tube from fuel tank to (A).
- (2) Connect pink tube from fuel tank to (B).
- (3) Connect black tube from 2-way valve to (C).

K18-017

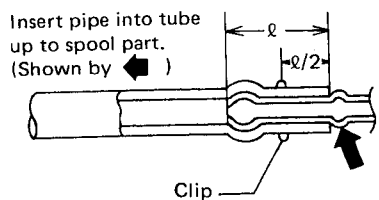
Fig. 5-8-11



Connection to pipe without spool showing insertion length (A and B in Fig. 5-8-11)

K18-018

Fig. 5-8-12

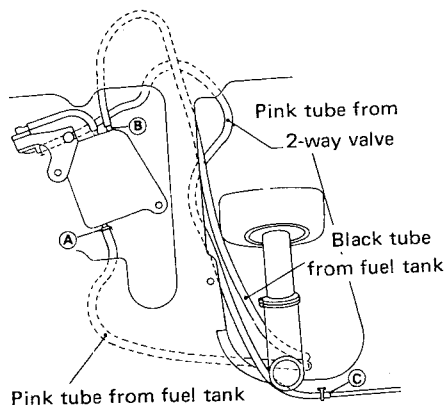


Connection to pipe with spool showing insertion length (C in Fig. 5-8-11)

K18-019

Fig. 5-8-13

3-door vehicle

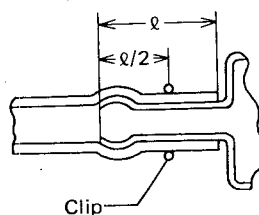


- (1) Connect tubes (air breather) to separator nipples at (A) and (B), and to center pipe assembly at (C).
- (2) Connect pink tube from tank to (A), black tube from tank to (B), and black tube from 2-way valve to (C).

K18-020

Fig. 5-8-14

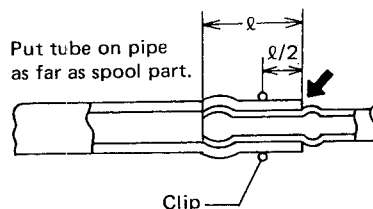
Put tube on nipple as far as it goes.



Connection to separator nipple (A and B in Fig. 5-8-14)

K18-021

Fig. 5-8-15



Connection to pipe with spool showing insertion length (C in Fig. 5-8-14)

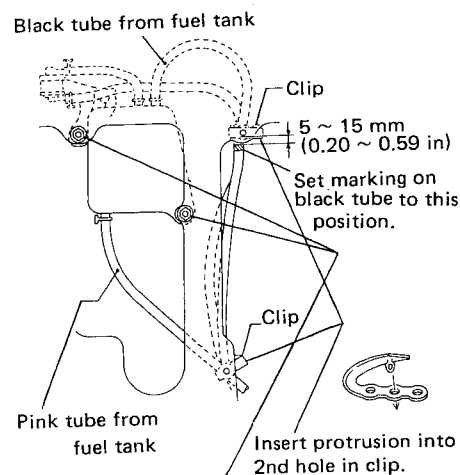
K18-022

Fig. 5-8-16

(2) After installing the fuel separator, ensure that the tubes are neither bent nor collapsed.

Flange nut tightening torque:
 $1.5 \pm 0.5 \text{ N}\cdot\text{m}$
 $(0.15 \pm 0.05 \text{ kg}\cdot\text{m},$
 $1.1 \pm 0.4 \text{ ft}\cdot\text{lb})$

In the 3-door vehicle, the tubes should be fastened with clips.



Flange nut tightening torque
 $1.5 \pm 0.5 \text{ N}\cdot\text{m}$
 $(0.15 \pm 0.05 \text{ kg}\cdot\text{m},$
 $1.1 \pm 0.4 \text{ ft}\cdot\text{lb})$

K18-023

Fig. 5-8-17

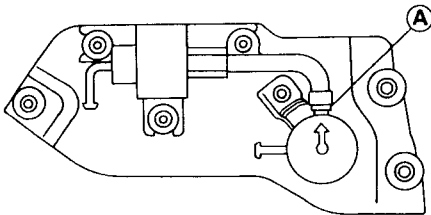
Fuel system

3) Fuel Pump and Fuel Filter

1) Removal and installation of fuel pump and fuel filter should be carried out after pinching the fuel delivery hose near the fuel tank by using the pinch cock.

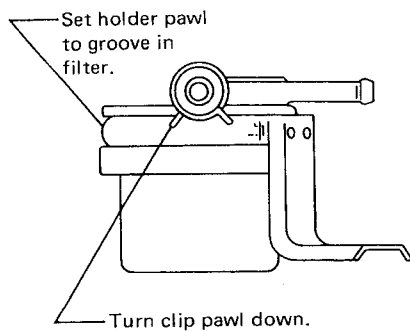
2) Pay attention to the following points when installing the fuel pump and fuel filter.

(1) Properly install the fuel filter, as shown in the figure below. Connect the hose to (A) and fasten with a clip.



K18-024

Fig. 5-8-18



K18-025

Fig. 5-8-19

3) Install the fuel pump in the position shown in the figure using a right washer, cushion and spacer.

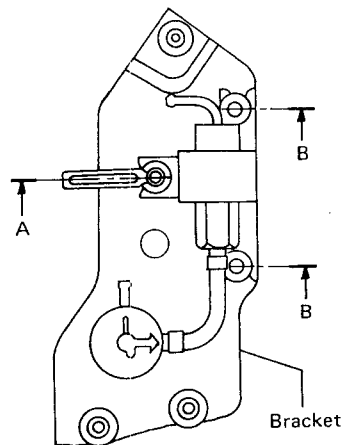
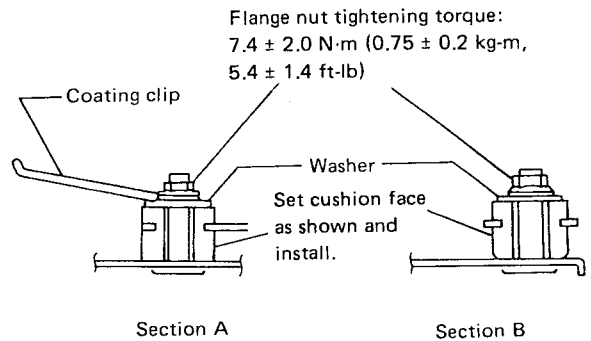


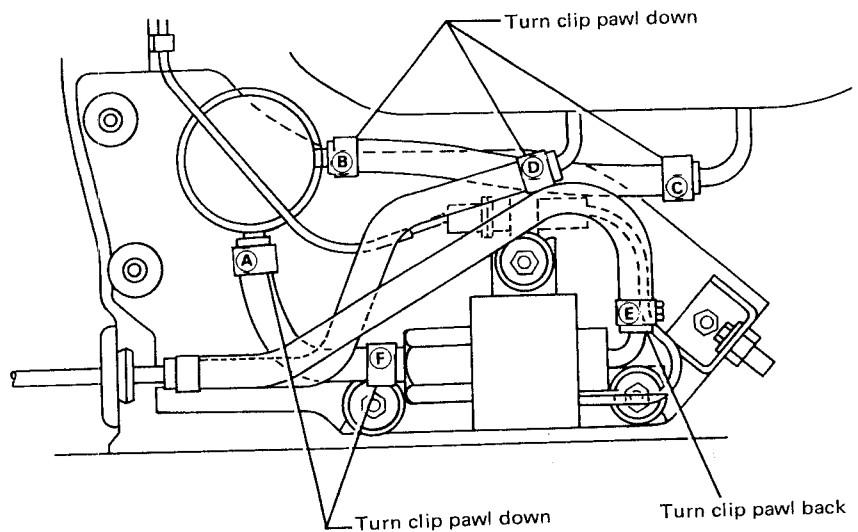
Fig. 5-8-20

After connecting the hose at point "C", install the clip securely with the pawl facing the bracket.



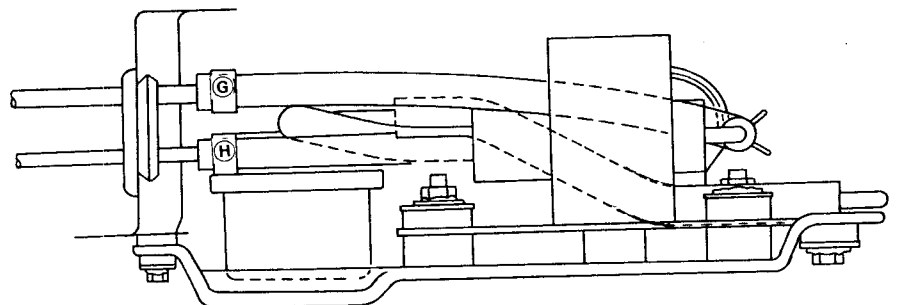
K18-040

4) The piping to the fuel pump and fuel filter should be arranged as shown in the figure.



K18-041

Fig. 5-8-21

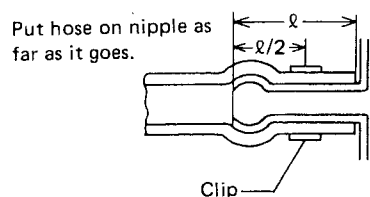


K18-042

Fig. 5-8-22

Fuel system

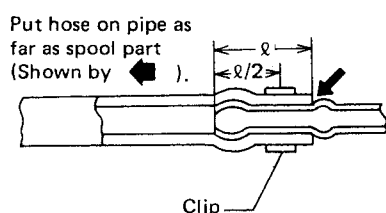
Use the following insertion lengths when making hose connections.



Connections to filter and pump inlet (A, B and F in Fig. 5-8-21)

Fig. 5-8-23

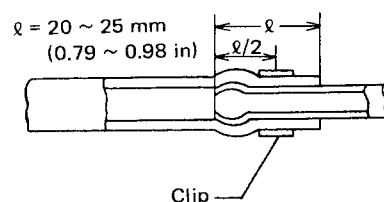
K18-029



Connections to pipes with spool showing insertion length (G and H in Fig. 5-8-22)

Fig. 5-8-24

K18-030



Connections to pipes without spool showing insertion length (C, D and E in Fig. 5-8-21)

Fig. 5-8-25

K18-031

5) Connect the harness on the side of the fuel pump to the harness on the side of the vehicle body with the protector coupler and fix the connector with a coating clip.

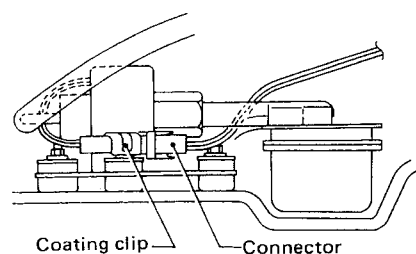


Fig. 5-8-26

K18-032

6) When installing the fuel pump bracket to the vehicle body, be careful not to put the harness between the bracket and the body. Tighten the flange bolt to the specified torque.

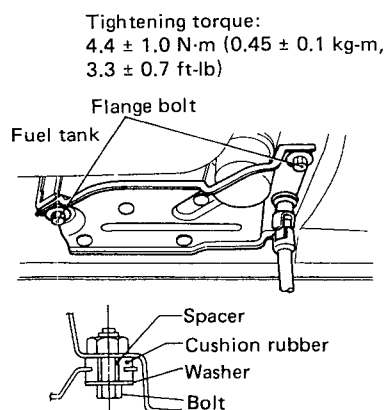


Fig. 5-8-27

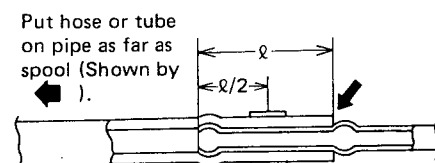
K18-043

Tightening torque:
4.4 ± 1.0 N·m (0.45 ± 0.1 kg-m,
3.3 ± 0.7 ft-lb)

4) Fuel Delivery and Evaporation Lines

Pay attention to the following when installing hoses and tubes.

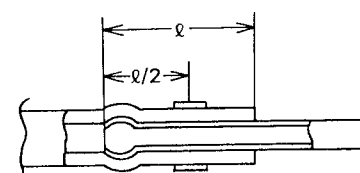
Use the following insertion lengths when making hose connections.



Connections to pipes with spool showing insertion length.

Fig. 5-8-28

K18-034



In breather line:
 $l = 15 \sim 20$ mm
(0.59 ~ 0.79 in)

In delivery and return lines:
 $l = 20 \sim 25$ mm
(0.79 ~ 0.98 in)

Connections to pipes without spool showing insertion length

Fig. 5-8-29

K18-035

NOTE:

Sudsy water must not be used as a lubricant when making hose and tube connections.

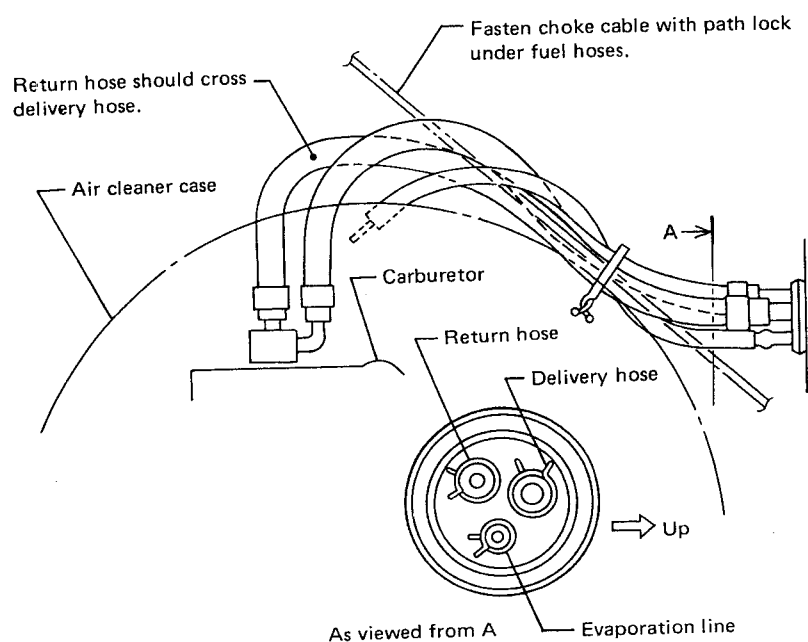


Fig. 5-8-30

K18-044