

DAIHATSU

L500, L501

FU

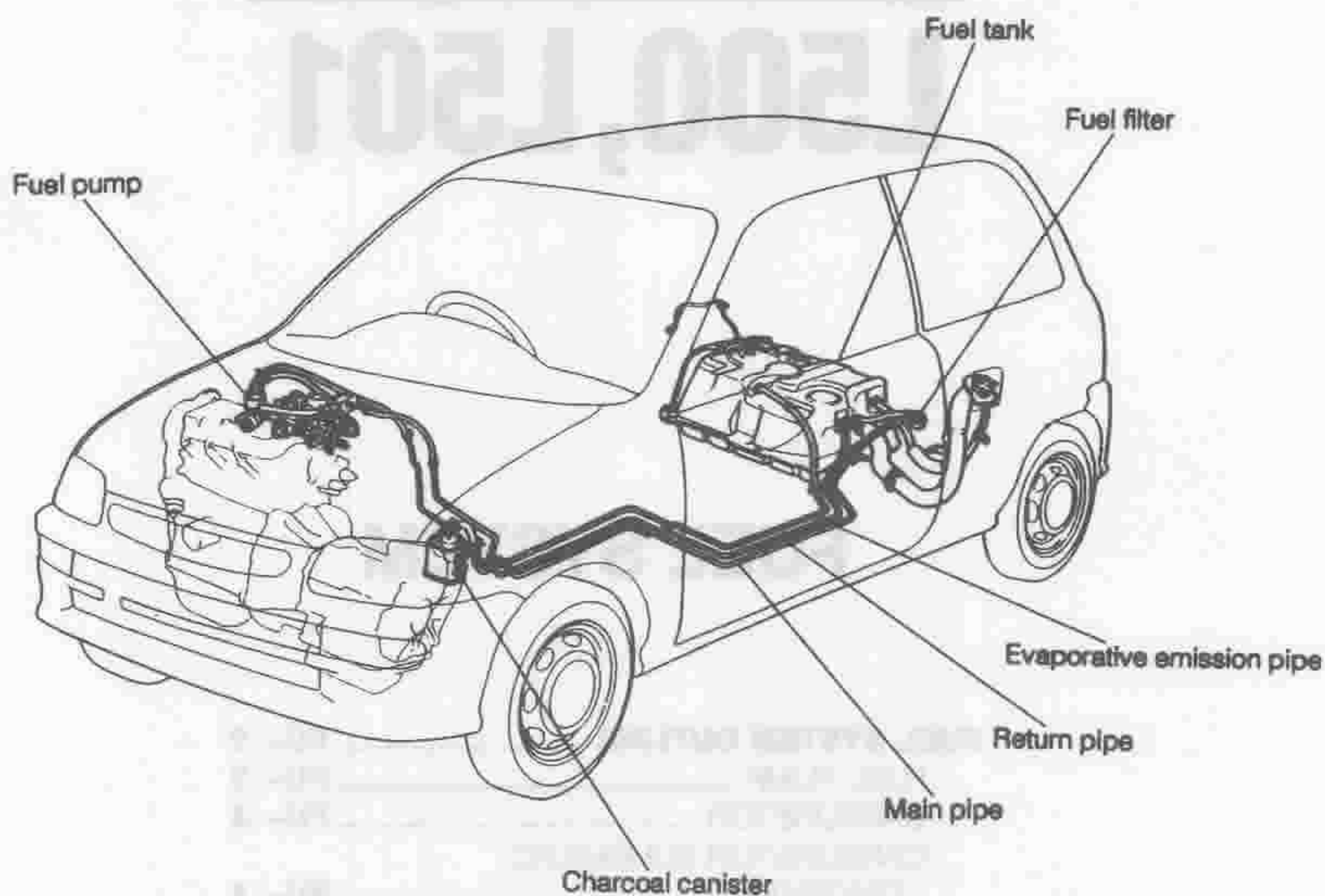
FUEL SYSTEM

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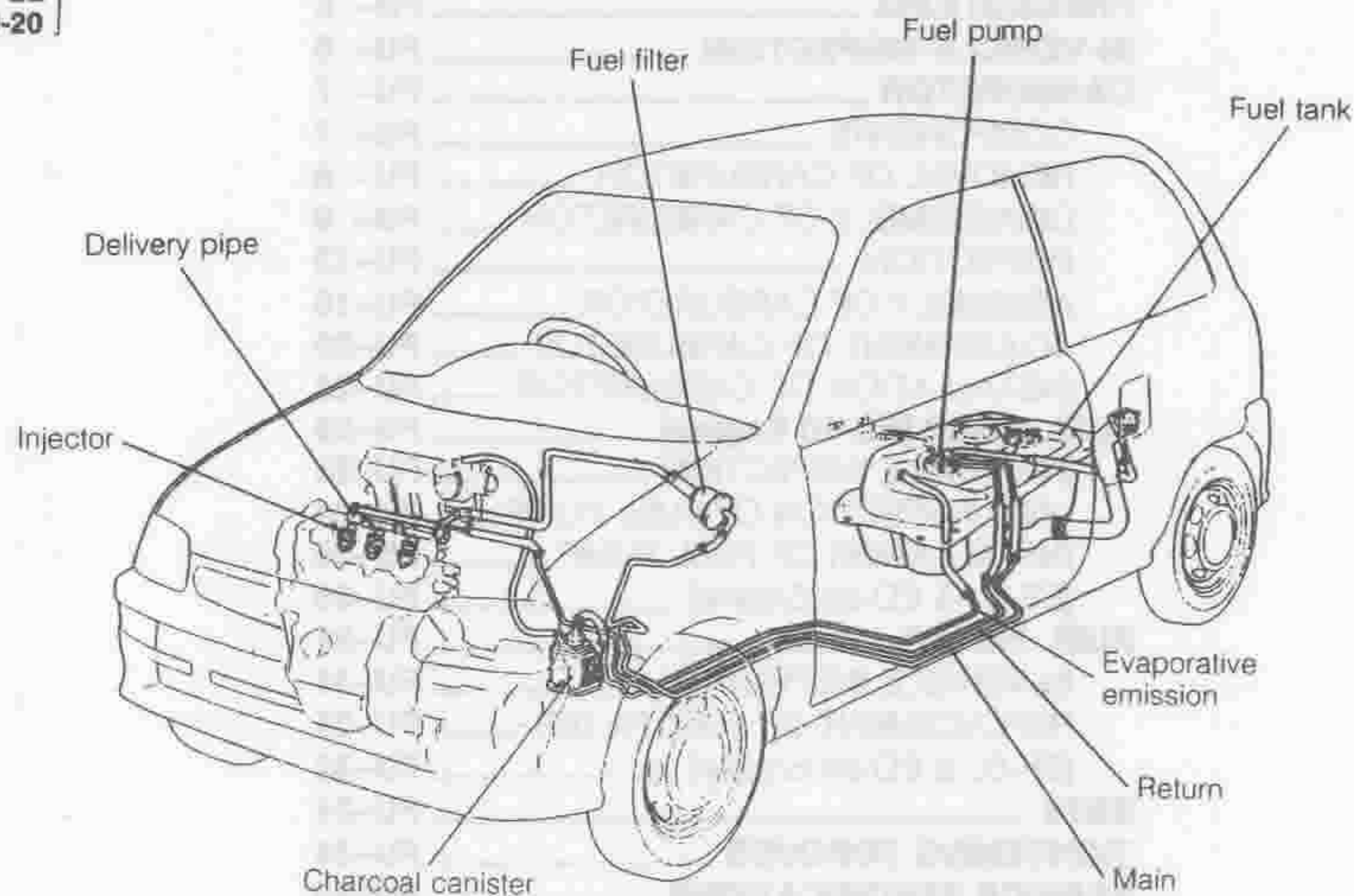
LFU00001-00000

FUEL SYSTEM OUTLINE

[ED-10]



[EF-EL
ED-20]



FUEL PUMP

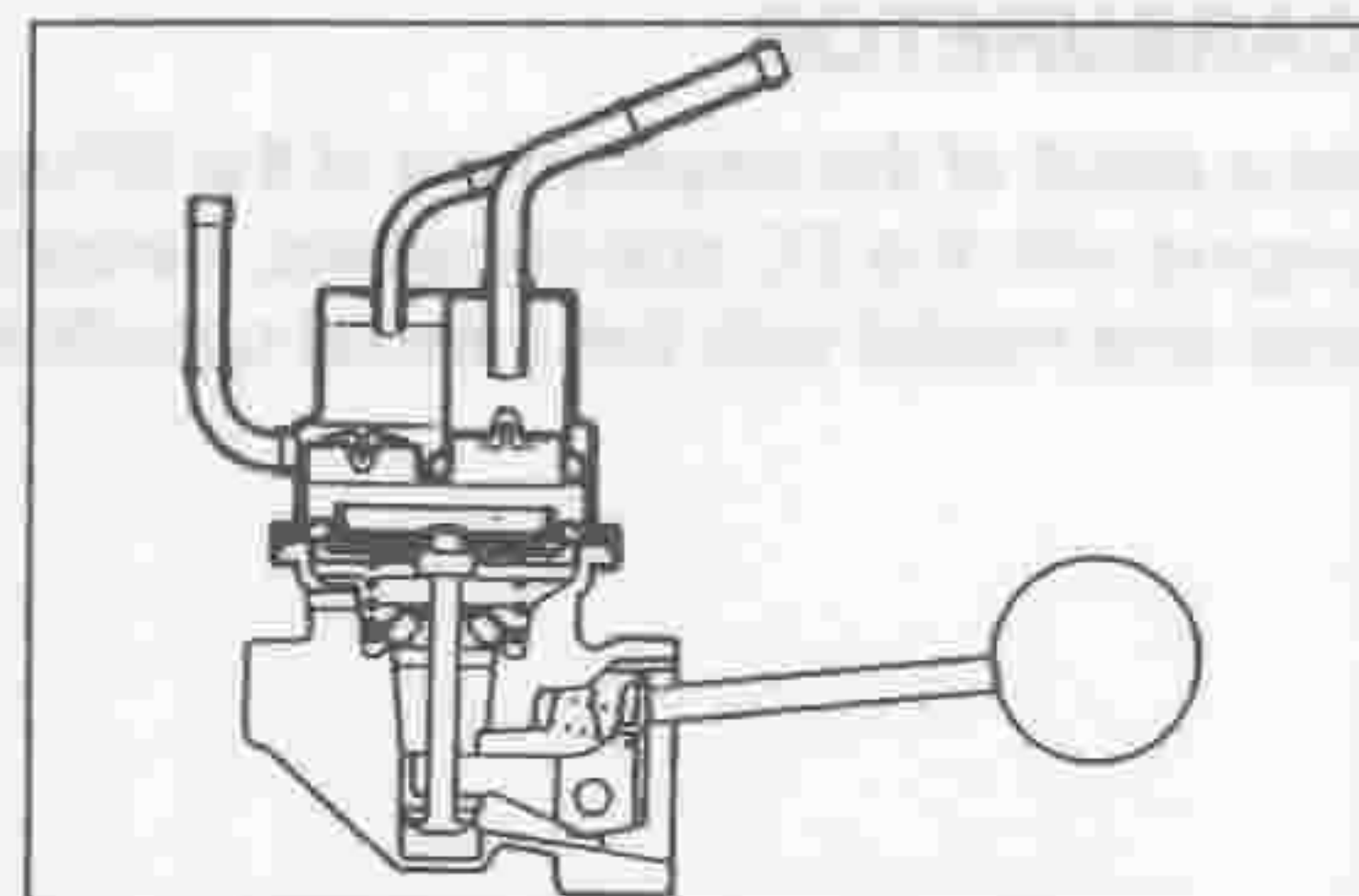
[Type ED-10 Engine]

A mechanical fuel pump is employed.

The fuel pump is installed to the cylinder head with a heat insulator interposed and is driven via a push rod by the fuel pump cam of the camshaft.

Moreover, the delivery output of the fuel pump has been increased by increasing the stroke of the fuel pump cam.

The return pipe is provided at the outlet chamber of the fuel pump so that vapor emitted in the fuel pump may be separated and discharged efficiently.



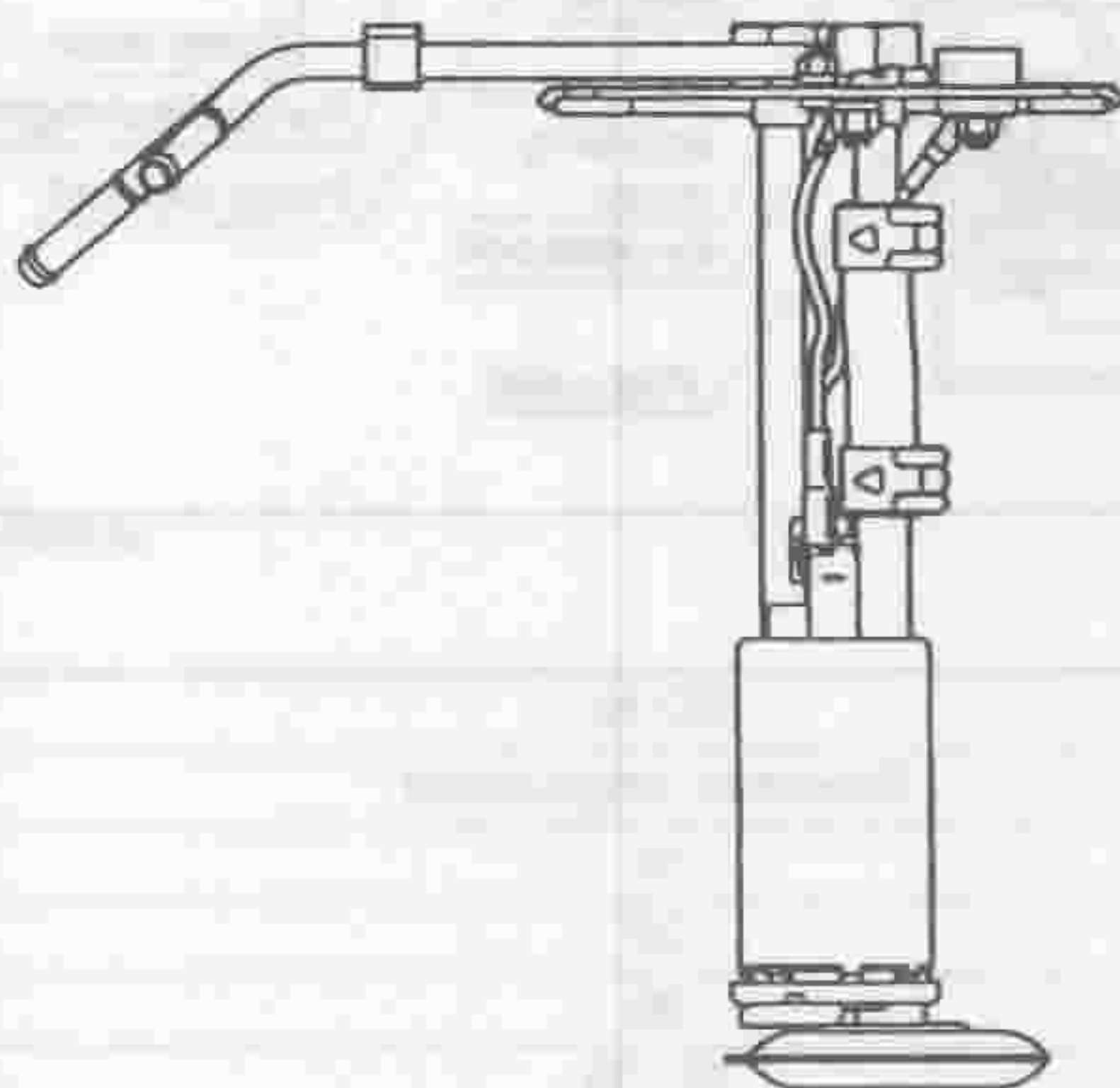
LFU00003-00002

Fuel Pump Specification

Item	Engine type	
	ED-10	
Delivery output [at cam revolution speed of 2500 rpm]	cm ³ /min	800 or more

[Type EF-EL & ED-20 Engine]

As a result of the employment of the EFI system on Type ED-series engine, the fuel pump for Type ED-20 engine has been changed from the hitherto-employed fuel pump for a feedback carburetor to a high-pressure type fuel pump for EFI.



Fuel Pump Specifications

Item	Engine type	
	EF-EL, ED-20	
Type	Westco	
Delivery output	dm ³ /h	More than 50 [12.0 V, 343 kPa]

LFU00004-00003

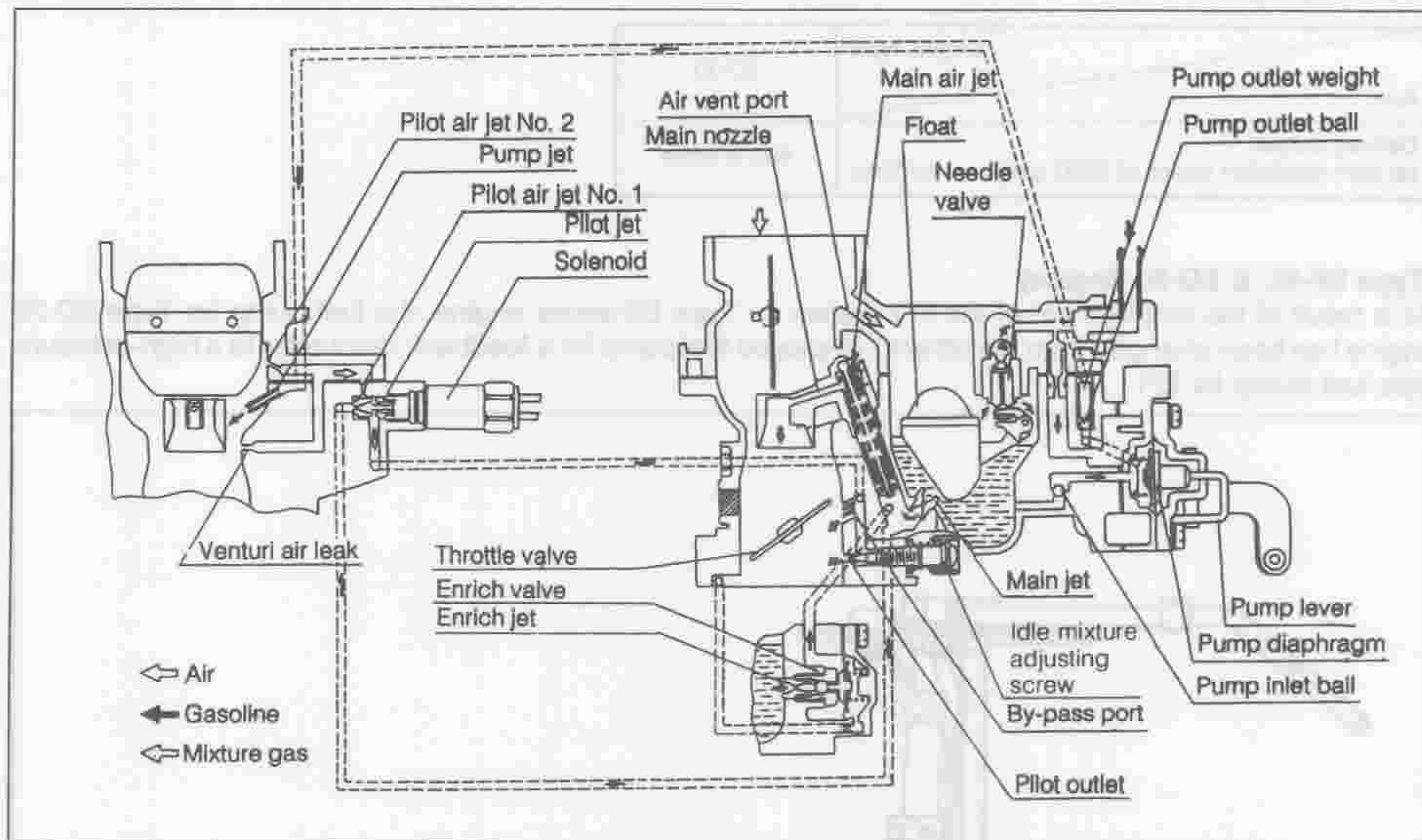
CARBURETOR

General specifications
(Conventional carburetor)

LFU00005-00004

CARBURETOR SCHEMATIC DIAGRAM

[ED-10 Engine]



LFU00006-00005

CARBURETOR SPECIFICATIONS

Item		ED-10
Type		Downdraft, single-barrel
Air horn inner diameter	mm	44
Throttle bore diameter	mm	32
Outer venturi diameter	mm	26
Inner venturi diameter	mm	12 - 18
Main nozzle diameter	mm	2.1
Main jet diameter	mm	1.30
Pilot jet diameter	mm	0.425
Accelerating pump jet diameter	mm	0.4
Throttle valve fully-closed/fully-opened angle	°	8/90
Choke valve fully-closed/fully-opened angle	°	20/90
Fuel level (measured from top of the chamber)	mm	20

LFU00007-00000

PRECAUTIONS

1. Before working on the fuel system, be sure to disconnect the ground cable from the negative (-) terminal of the battery.
2. When working on the fuel system, never allow any naked fire to be brought near the working site. Also, never smoke cigarette or the like.
3. Do not allow the fuel to get to any parts made of rubber or resin.
4. Do not work on the fuel system of more than one vehicle at the same time.
5. Be certain to keep each part of the fuel system from contamination.
6. Be very careful not to allow any dirt or the like be mixed into the fuel system during the servicing operation.
7. Make sure to keep the working site clean. Also, be sure not to loose any part, specifically small parts.
8. Never loose nor mix up those pins, clips and springs with each other.

LFU00008-00000



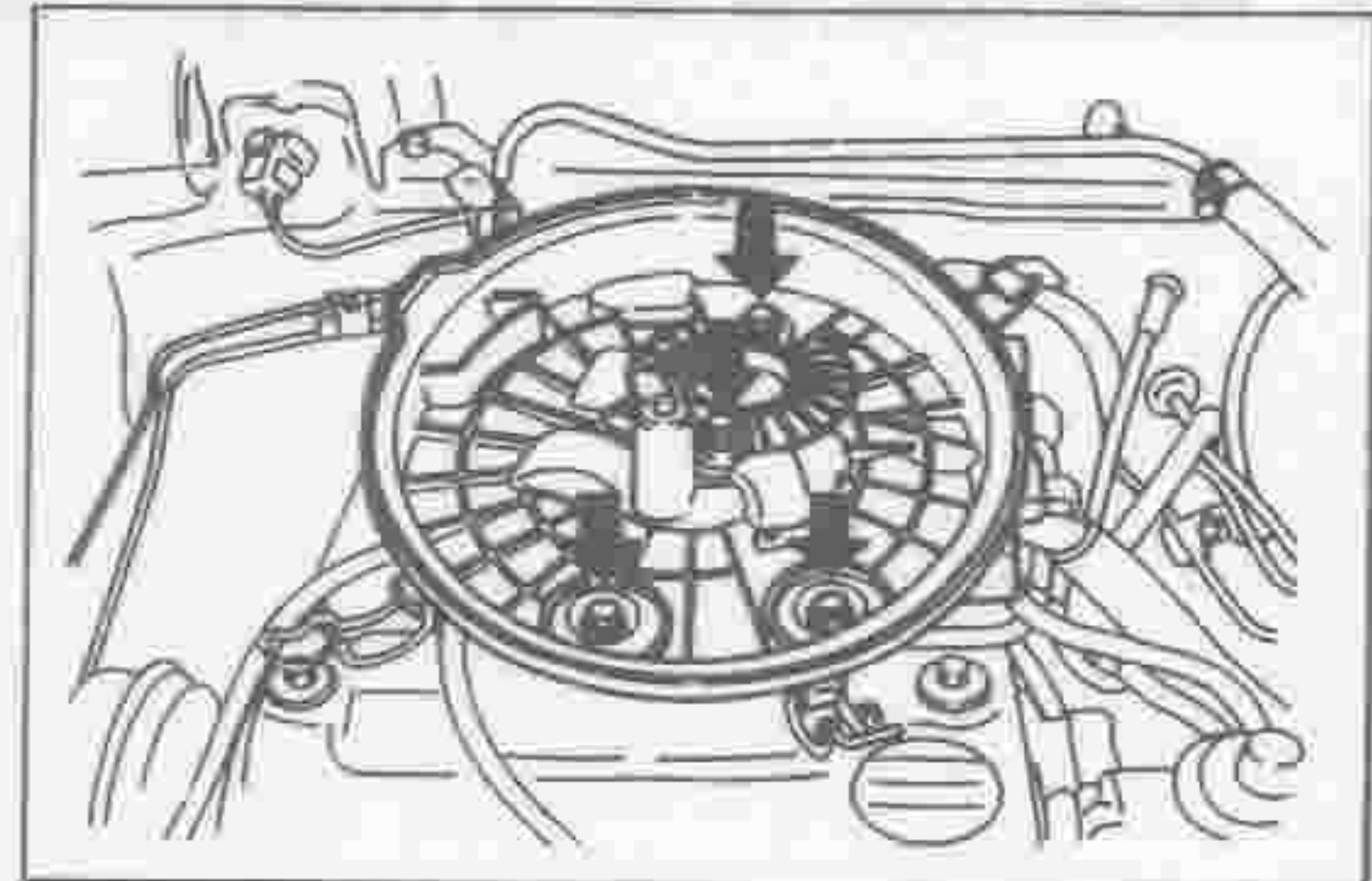
IN-VEHICLE INSPECTION

NOTE:

- Before starting the engine, plug the disconnected vacuum hoses to prevent rough idling.

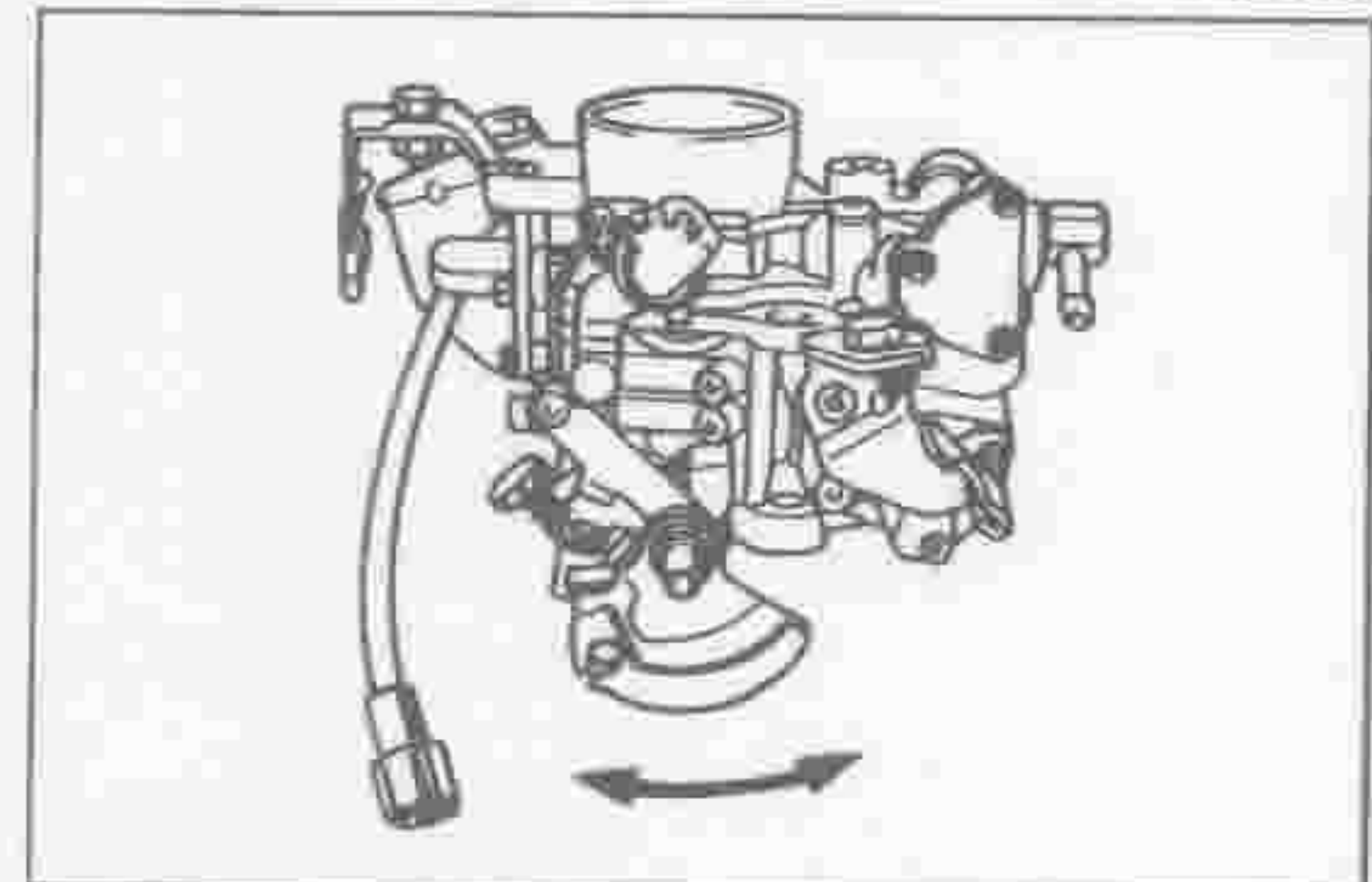
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1. Removal of air cleaner assembly
(Refer to the EM section.)



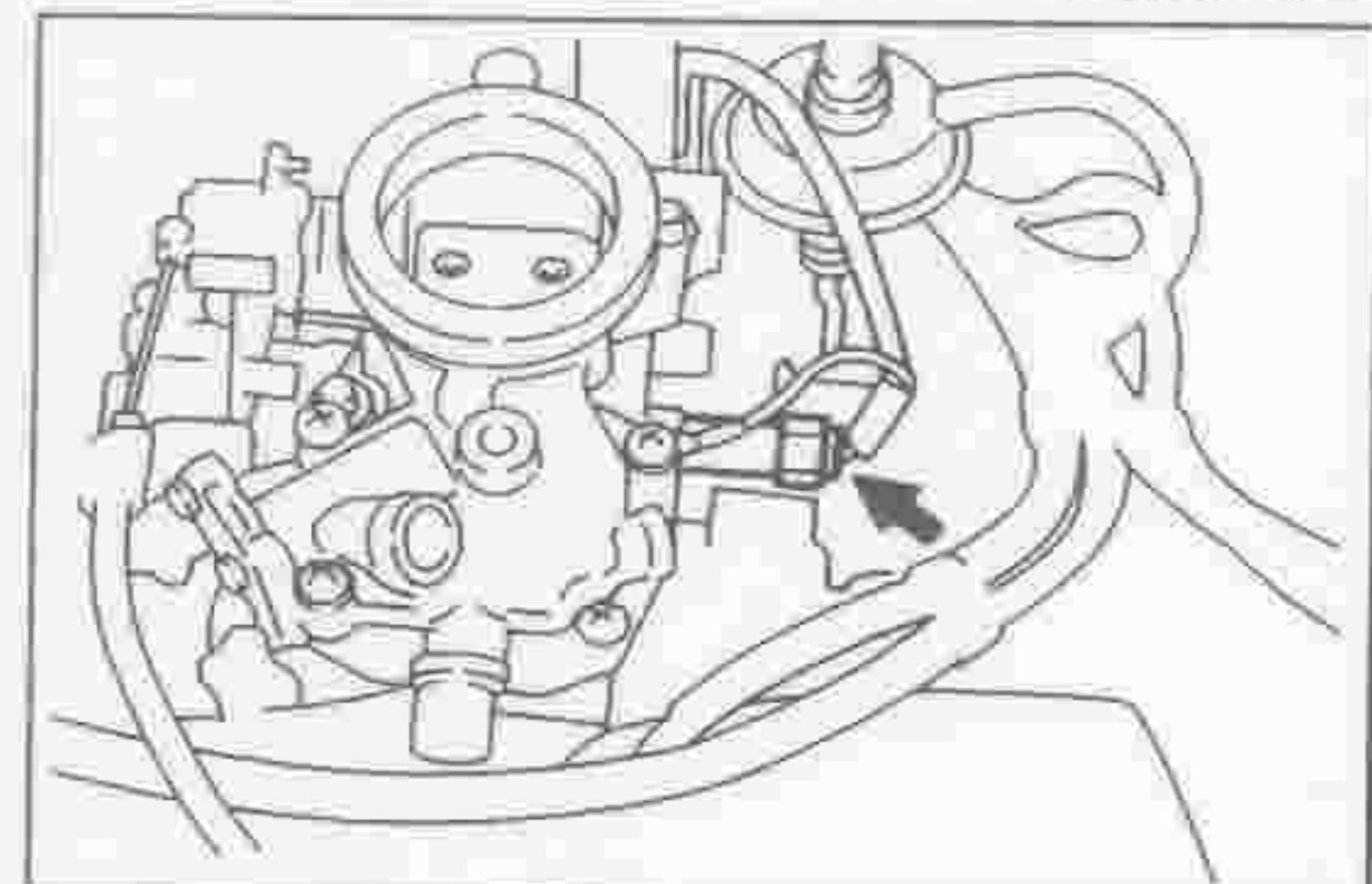
LFU00010-00006

2. Inspection of carburetor and linkage
 - (1) Ensure that each screw plug is installed correctly.
 - (2) Check each linkage for evidence of excessive wear. Also, check to see if any snap ring is missing.
 - (3) With the acceleration pedal fully depressed, check to see if the throttle valve opens fully.



LFU00011-00007

3. Inspection of solenoid valve
 - (1) Check to see if you can feel the operation of the solenoid valve when the ignition switch is turned ON/OFF. If the solenoid valve remains inoperative, check the power supply for the solenoid valve. Then, proceed to the check described in the step (2) below.



LFU00012-00008

- (2) Disconnect the connector. Check to see if the resistance of the solenoid valve conforms to the specification.

Specified Resistance: 40 - 70Ω

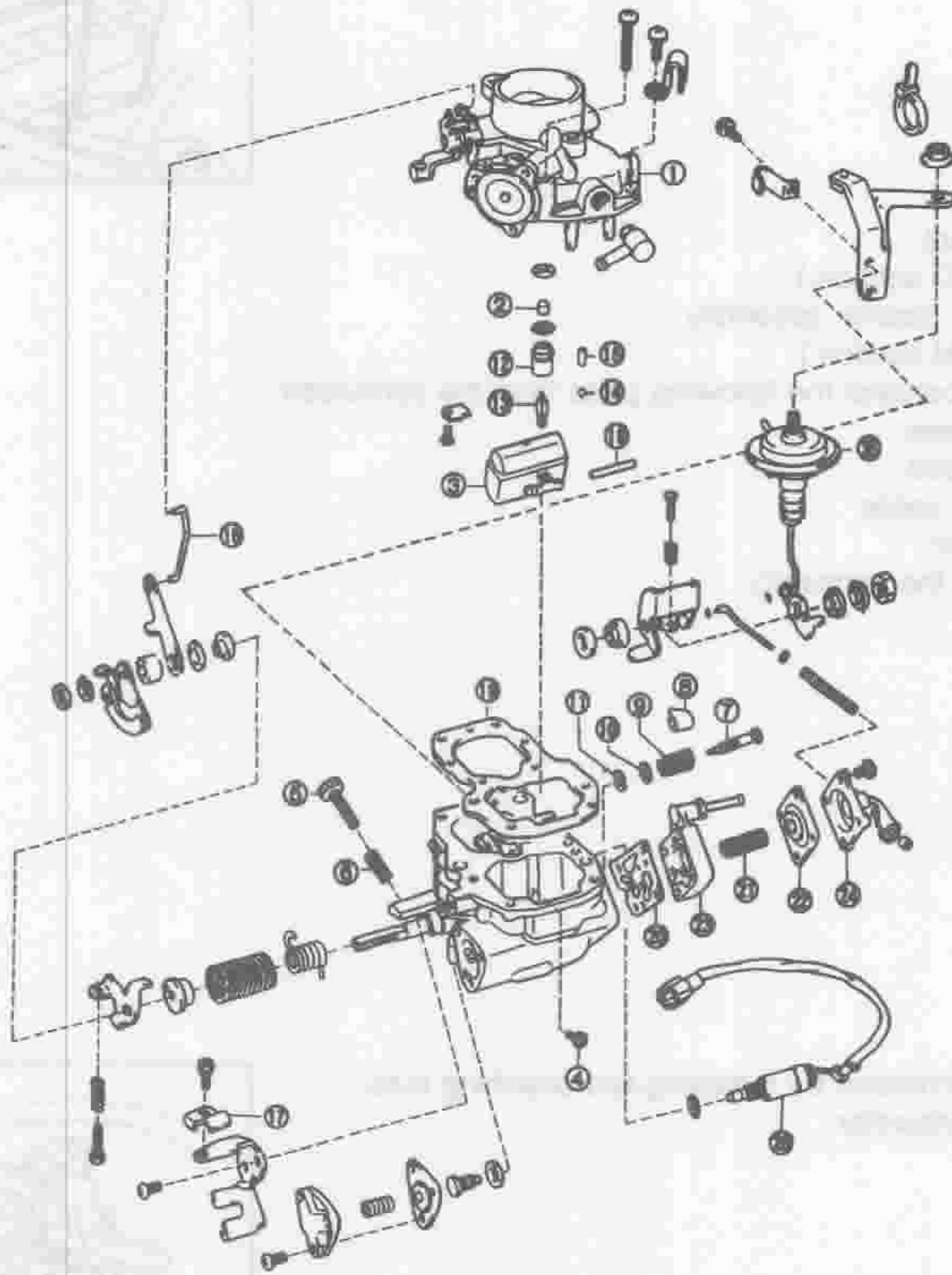
If the resistance fails to conform to the specification, replace the solenoid valve.

- (3) Reconnect the connector.

4. Install the air cleaner assembly and connect the disconnected hoses.

LFU00013-00000

CARBURETOR COMPONENTS



- ① Air horn
- ② Strainer
- ③ Float
- ④ Main jet
- ⑤ Throttle adjusting screw
- ⑥ Spring
- ⑦ Idle mixture adjusting screw
- ⑧ Cap
- ⑨ Spring
- ⑩ Washer
- ⑪ Gasket
- ⑫ Needle valve seat
- ⑬ Needle valve

- ⑭ Steel ball
- ⑮ Discharge weight
- ⑯ Float lever pin
- ⑰ Clamp
- ⑱ Link
- ⑲ Air horn gasket
- ⑳ Gasket
- ㉑ Pump damping spring
- ㉒ Diaphragm
- ㉓ Pump body
- ㉔ Cover
- ㉕ Depression chamber
- ㉖ Solenoid valve

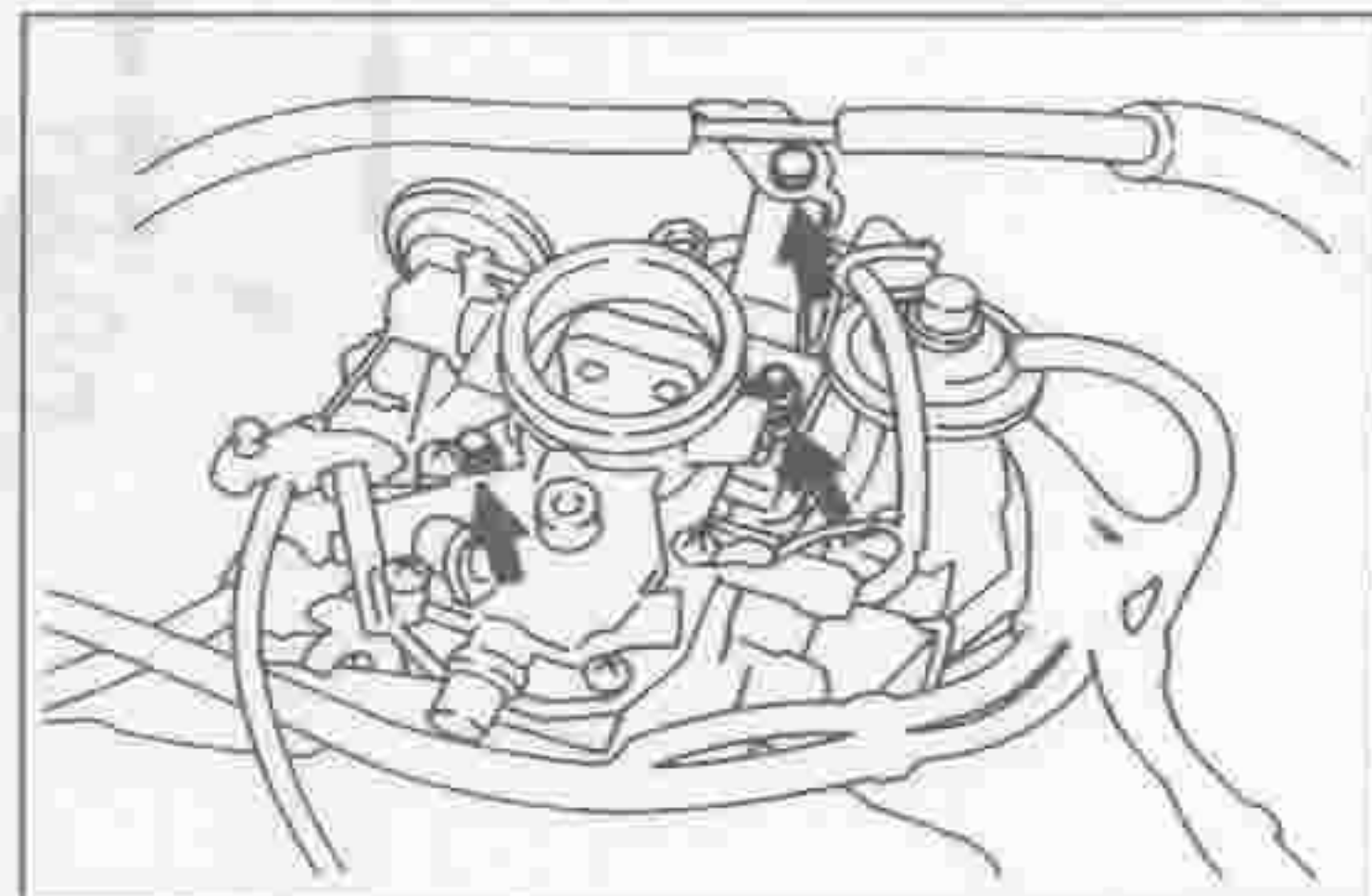


LFU00015-00010

2. Drain the coolant.
(Refer to the CO section.)
3. Remove the air cleaner assembly.
(Refer to the EM section.)
4. Remove or disconnect the following parts from the carburetor.
 - (1) Vacuum hoses
 - (2) Fuel inlet hose
 - (3) Accelerator cable
 - (4) Choke cable
 - (5) Disconnect the connector.

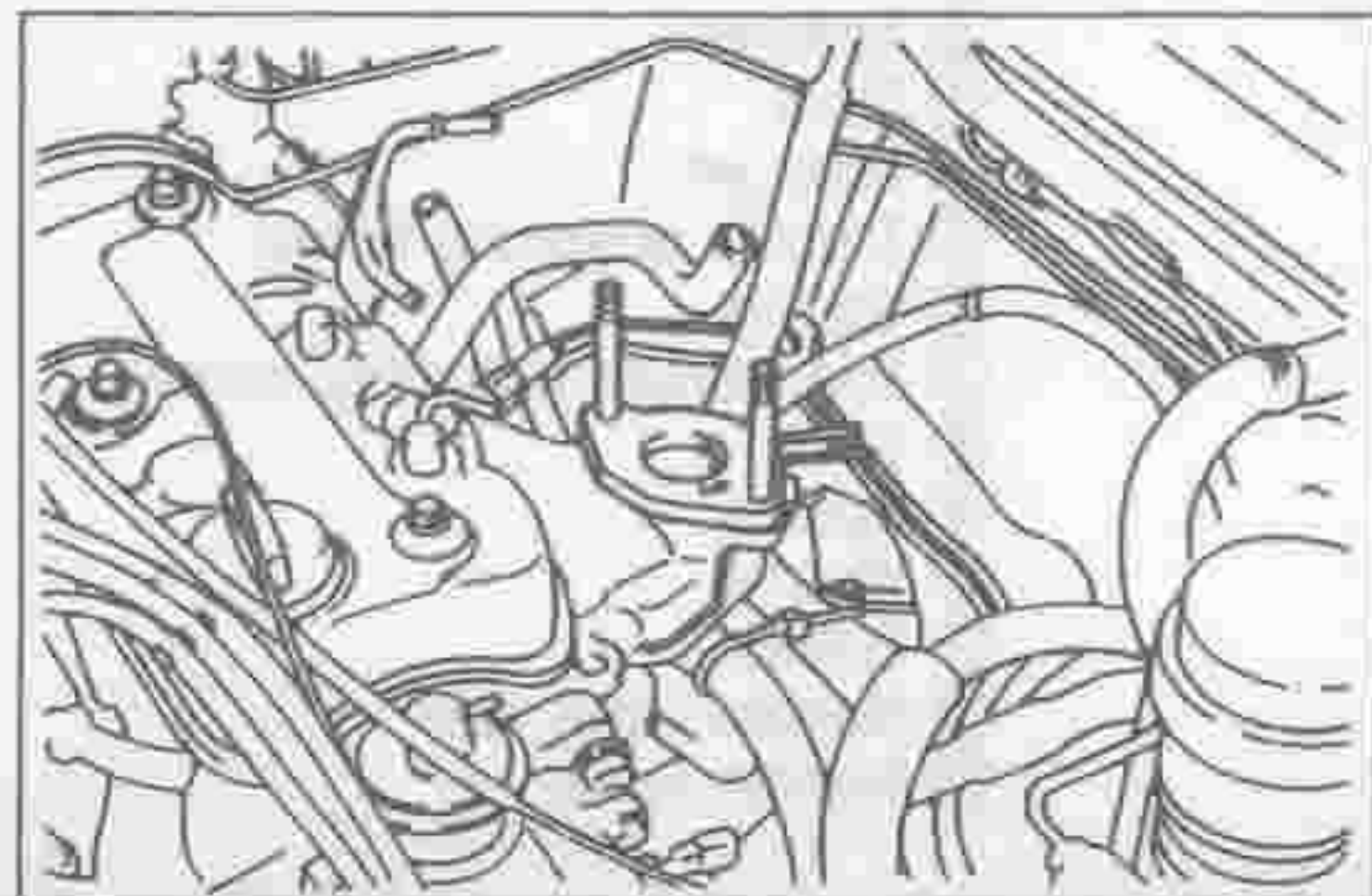
LFU00016-00000

5. Remove the carburetor by removing two attaching nuts.
6. Remove the carburetor.



LFU00017-00011

7. Remove the heat insulator.



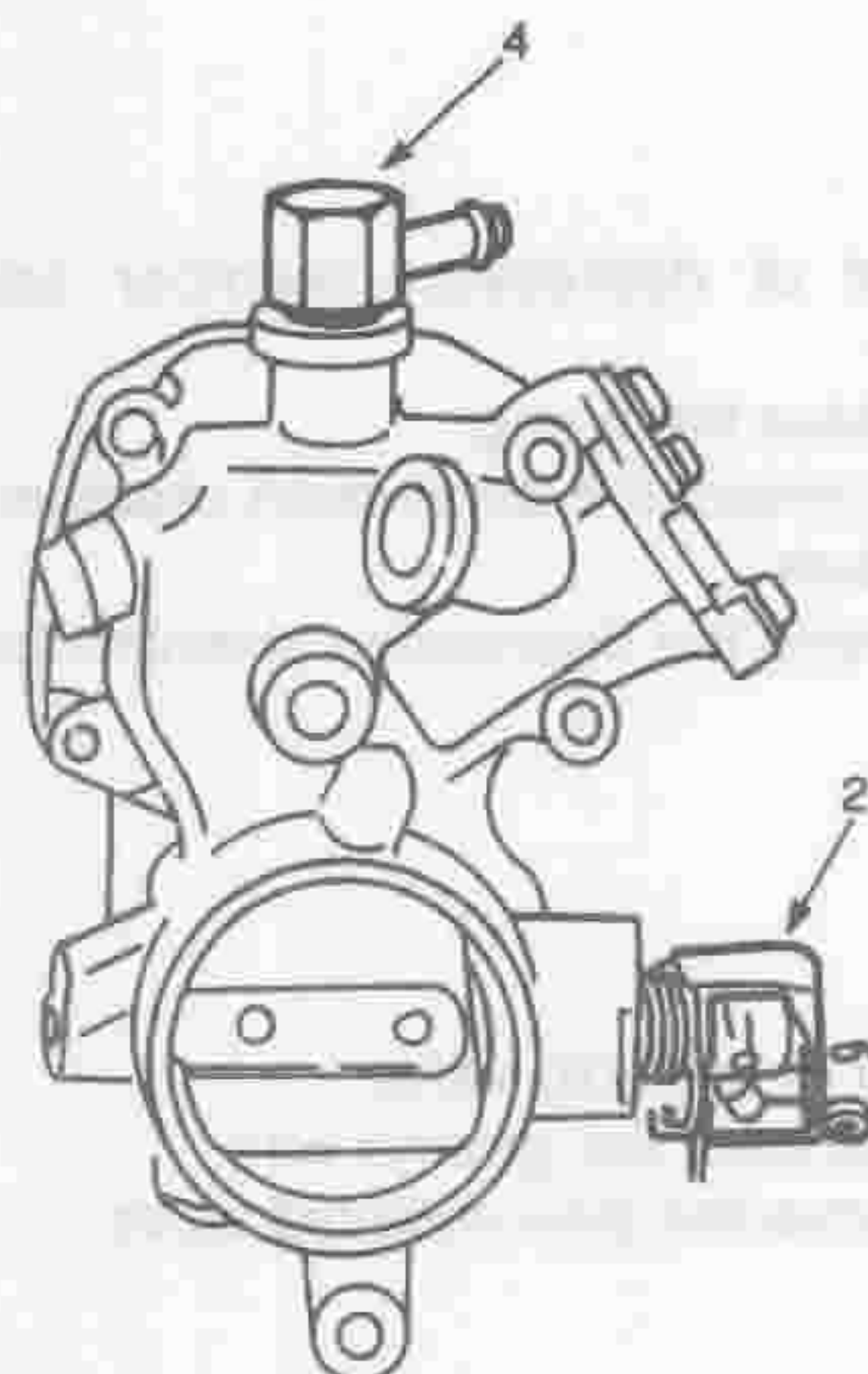
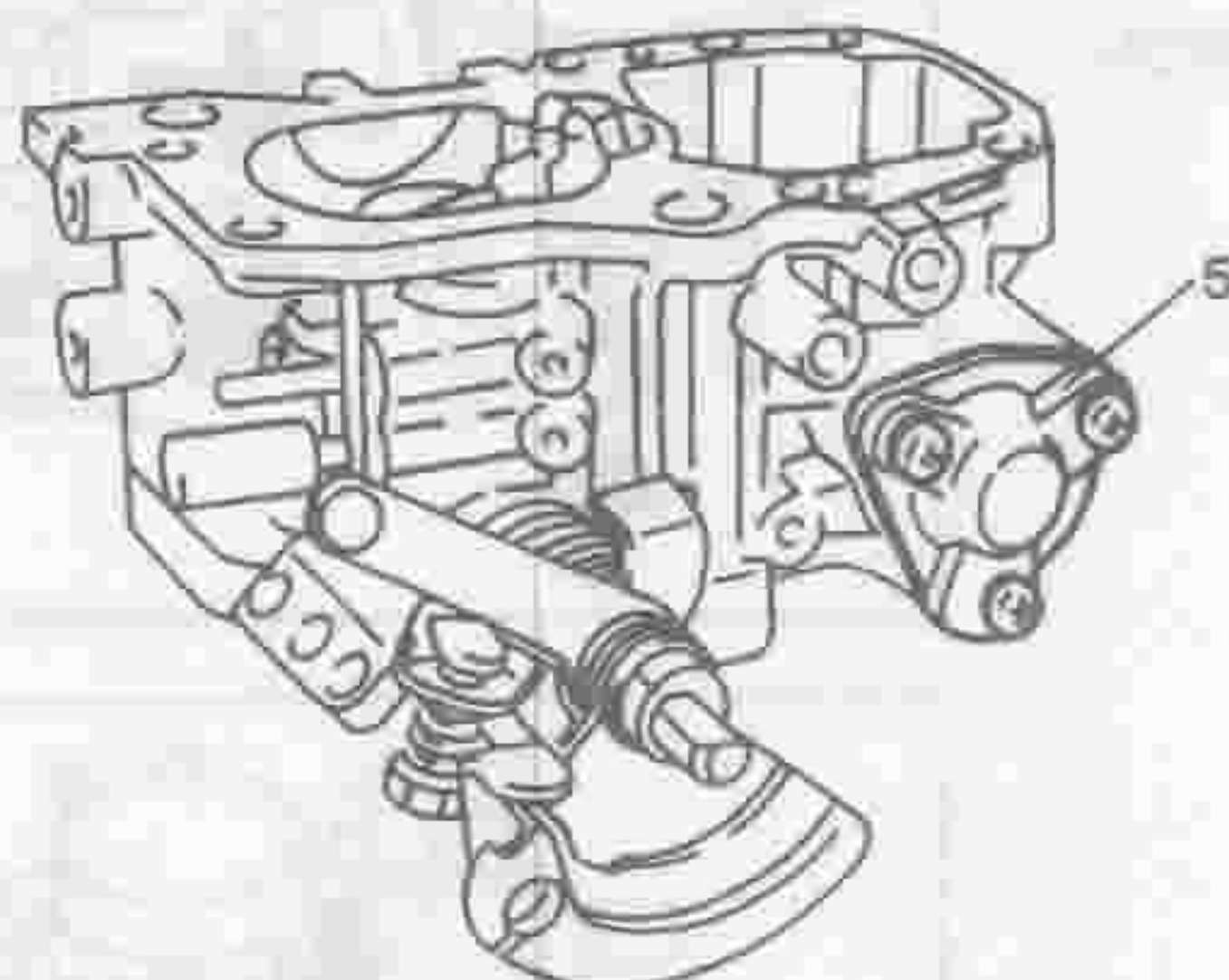
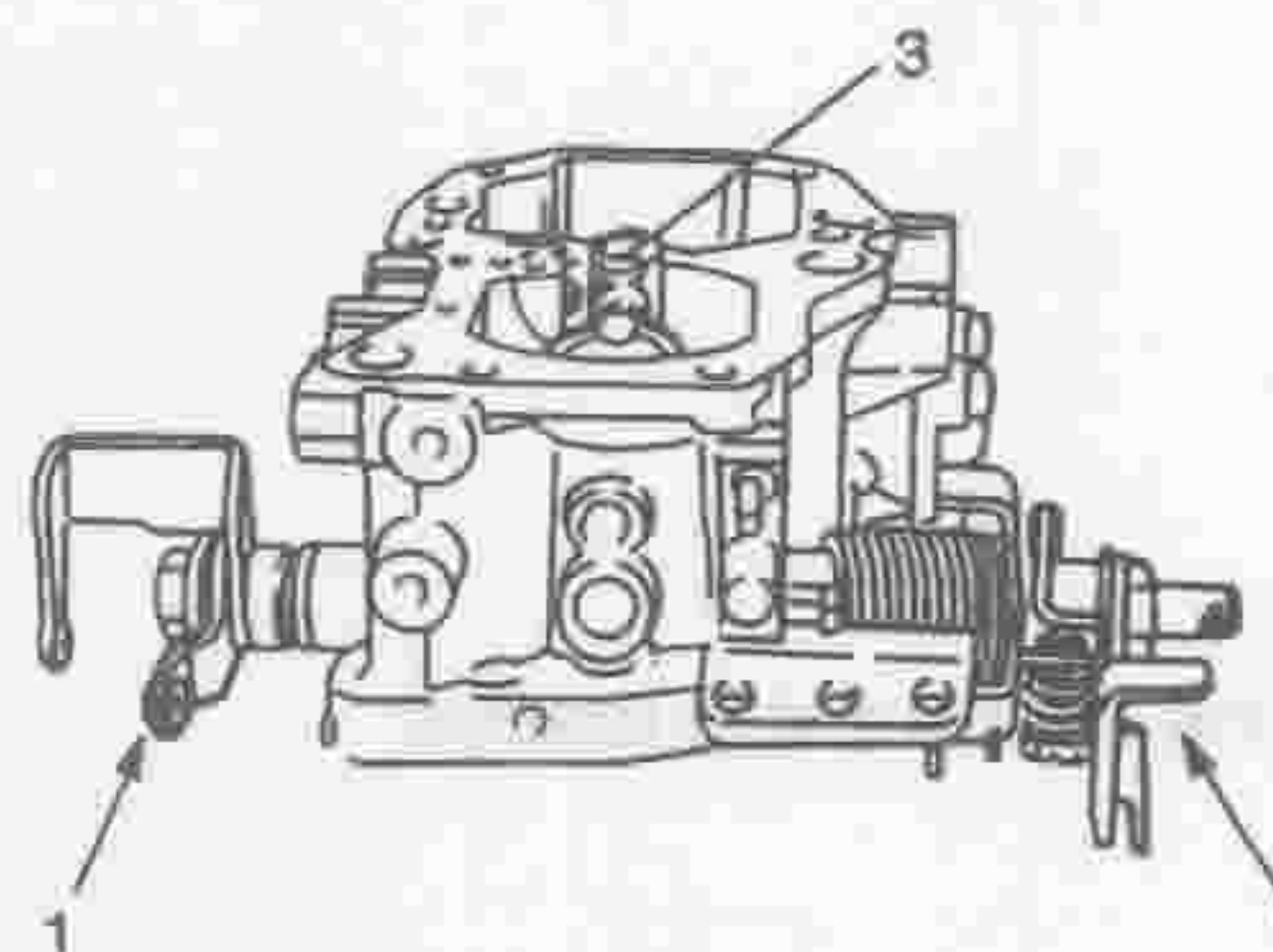
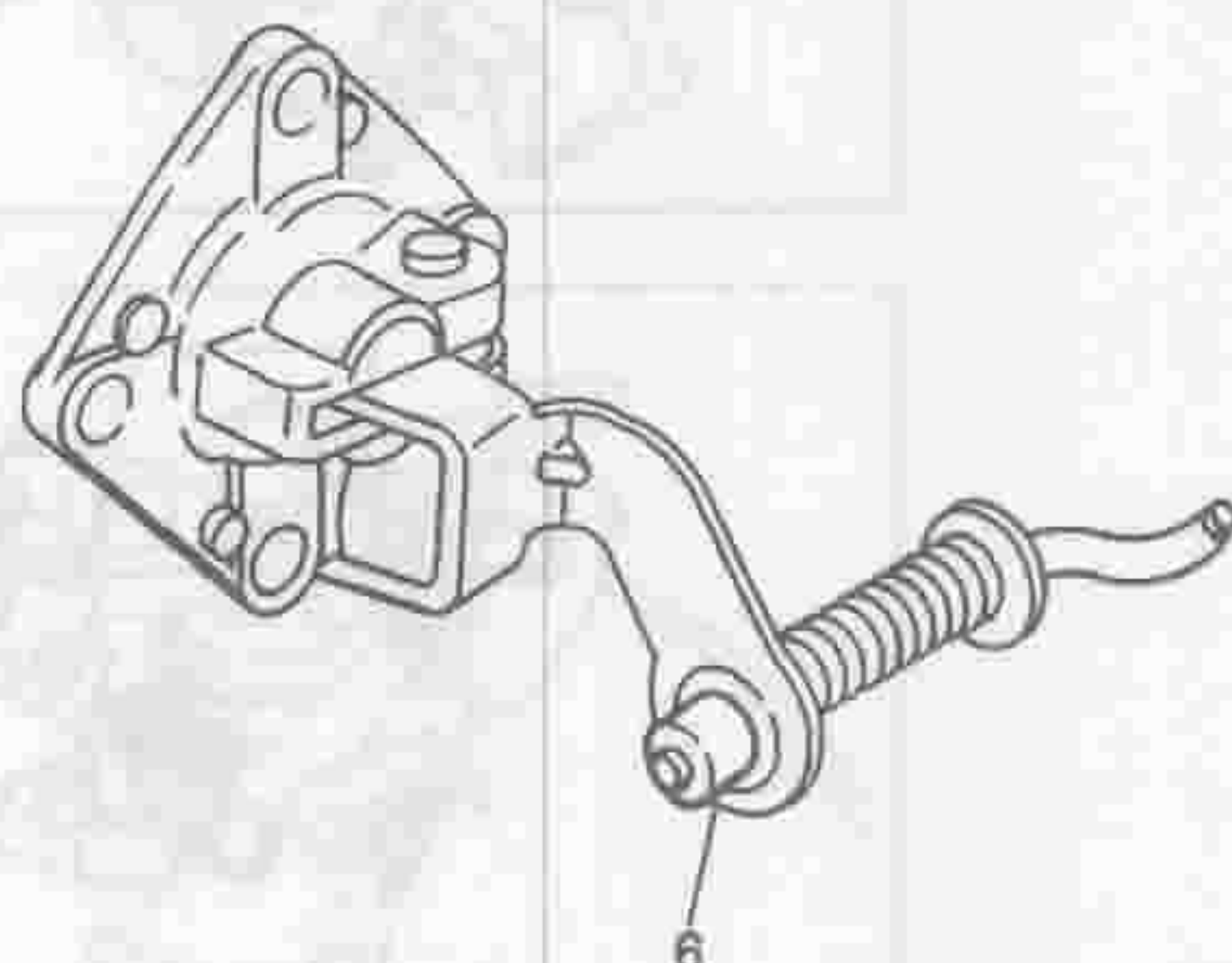
LFU00018-00012

DISASSEMBLY OF CARBURETOR

NOTE:

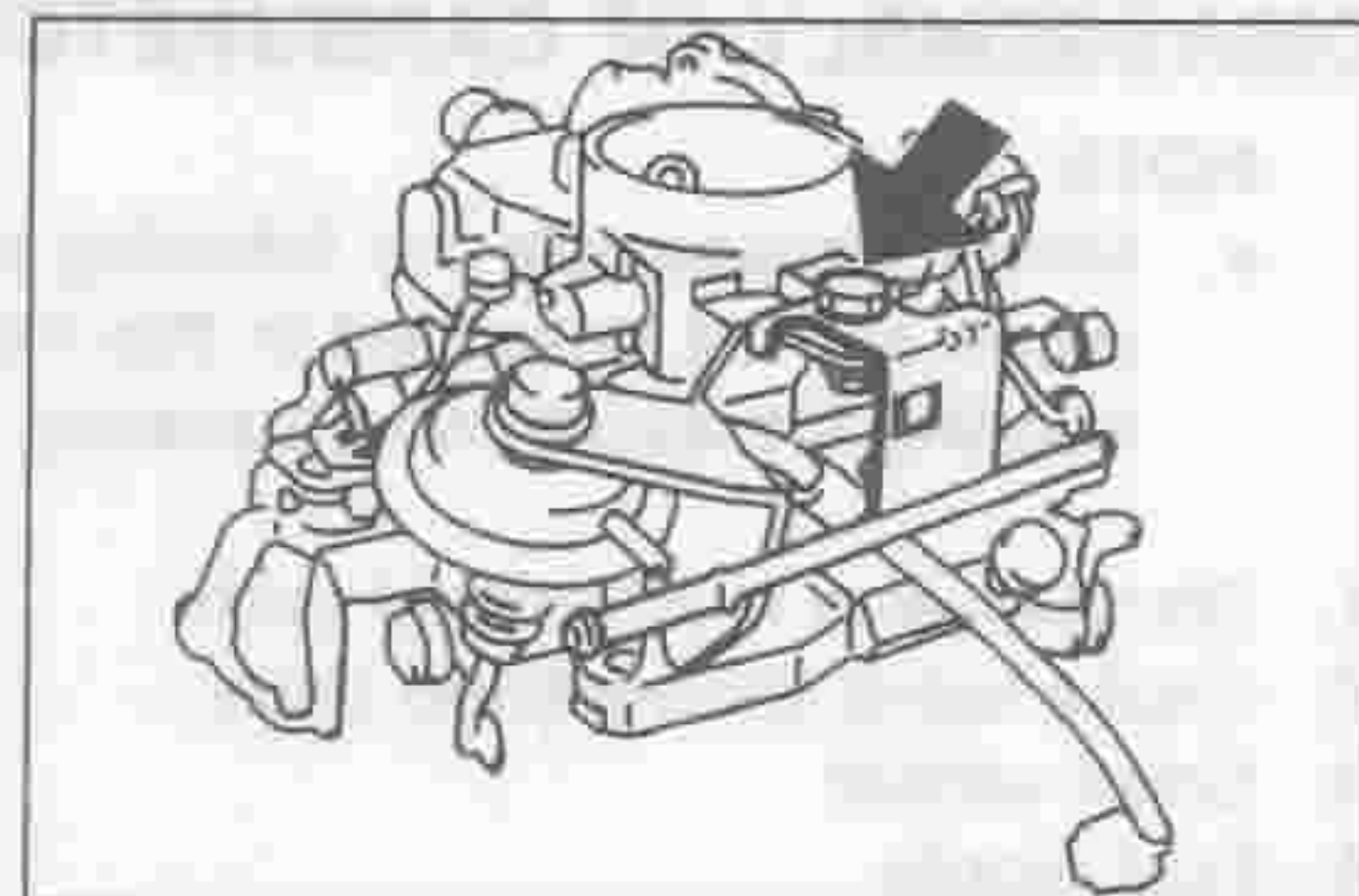
- Never disassemble the following parts and those parts whose disassembling and assembling procedures are not described in this manual because no replacement part is available for the purpose of keeping the assembling accuracy and reliability.

1. Throttle valve shaft-related parts
2. Choke valve shaft-related parts
3. Small venturi
4. Fuel nipple
5. Enrichment valve-related parts
6. Acceleration pump lever connecting nut



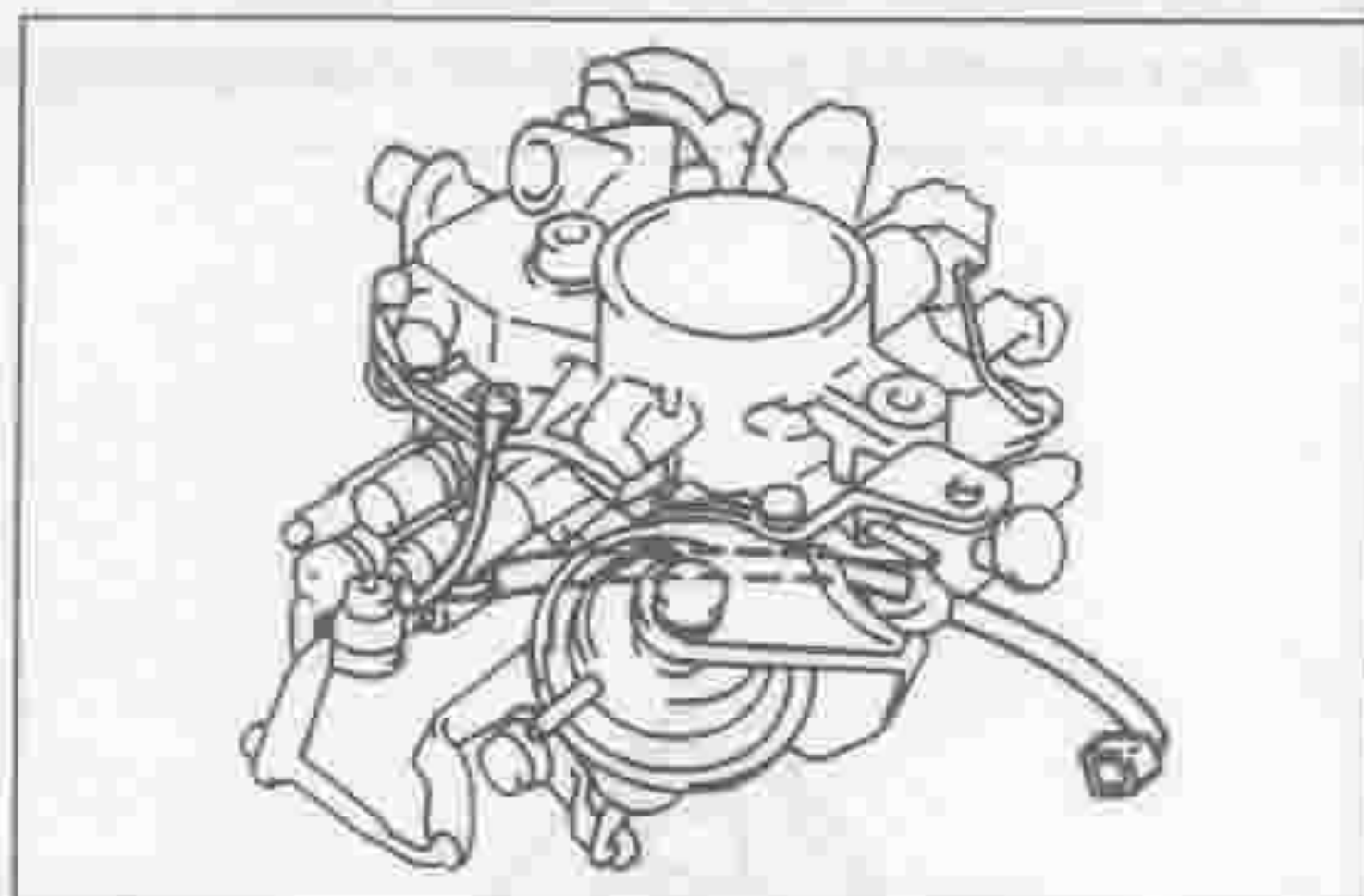
FU-10

1. Disconnect the fuel pipe.



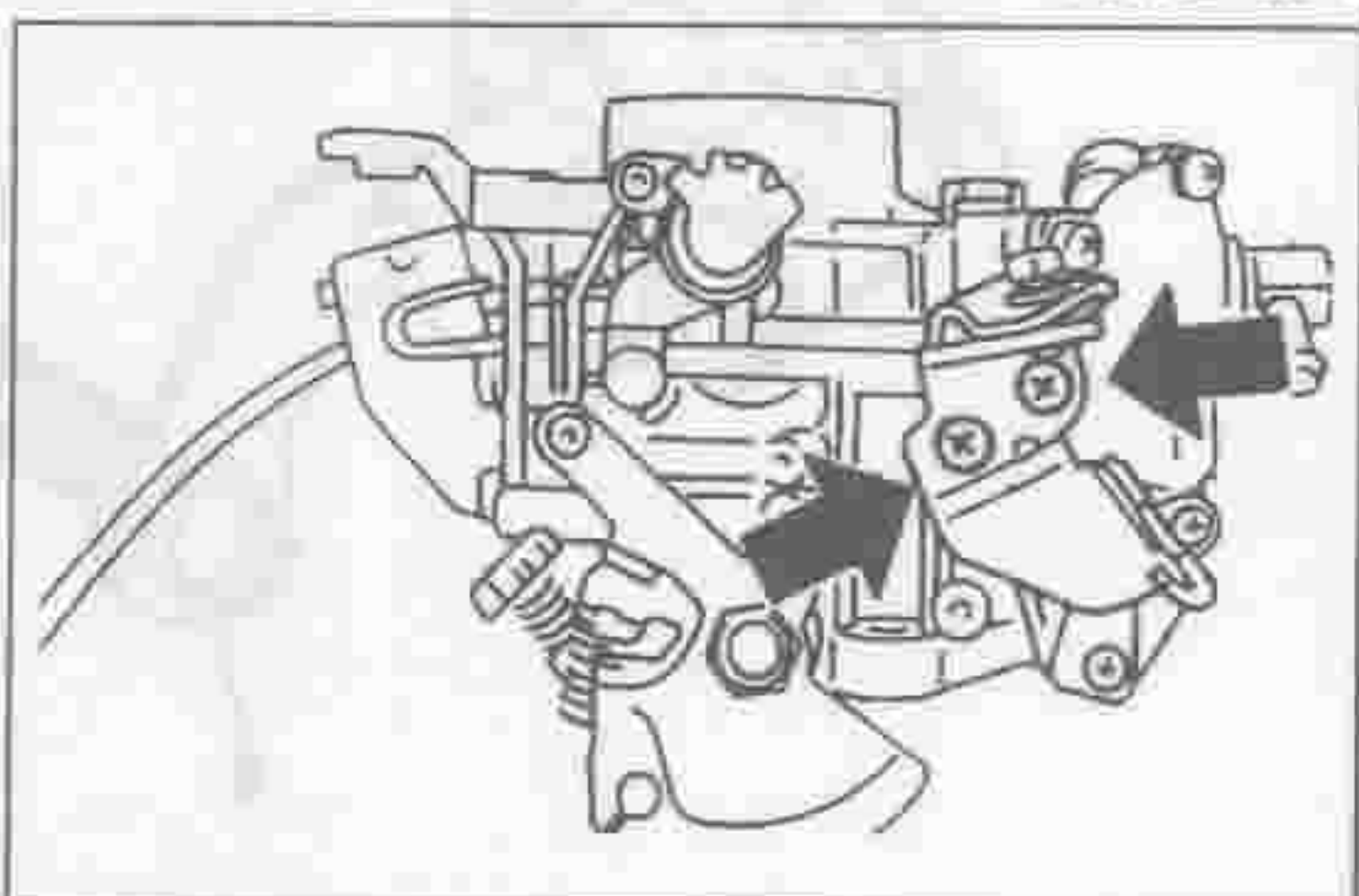
LFU00020-00014

2. Remove the harness from the harness clamp.



LFU00021-00015

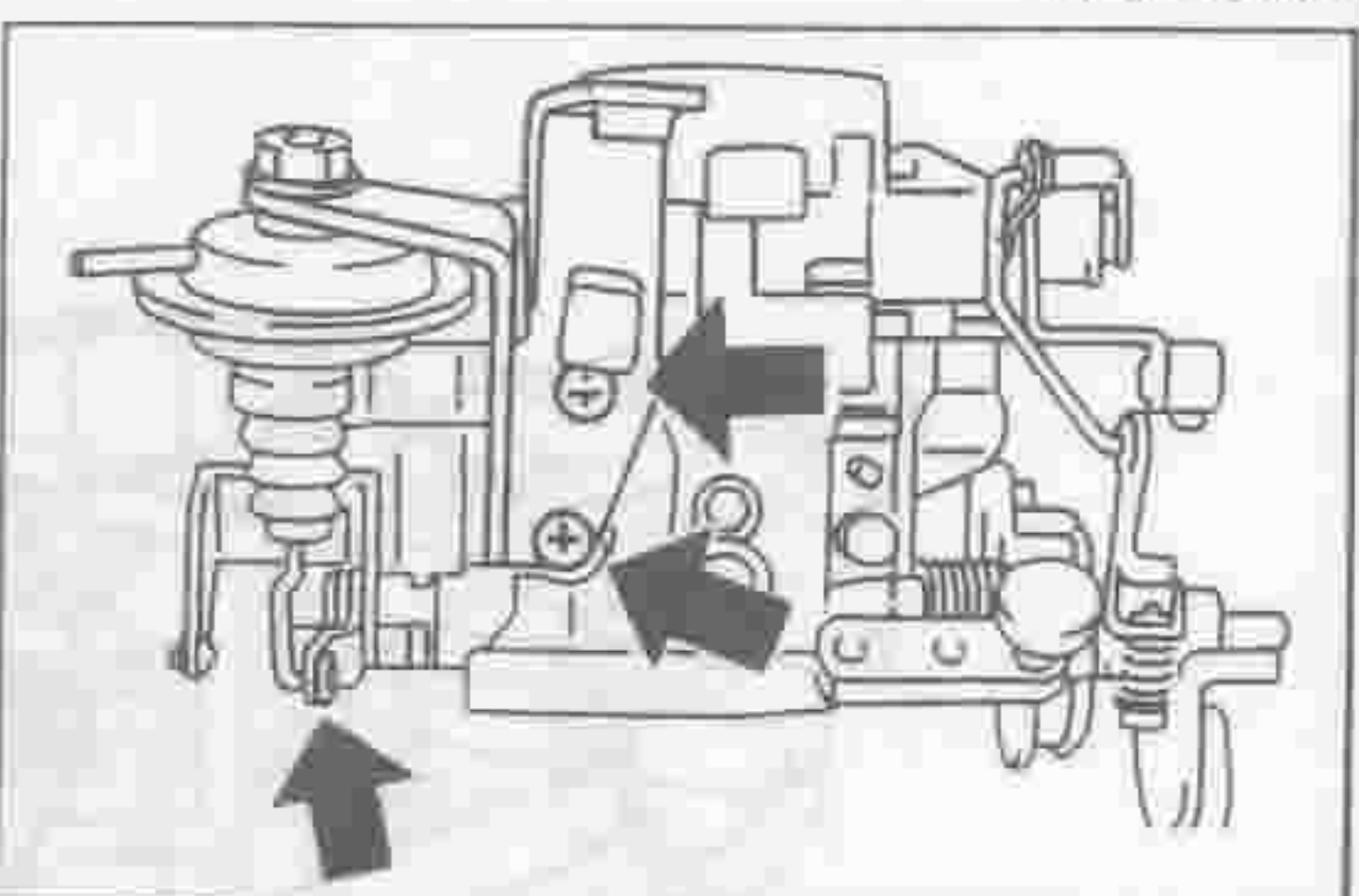
3. Remove the throttle cable bracket.



LFU00022-00016

4. Removal of depression chamber body assembly with bracket

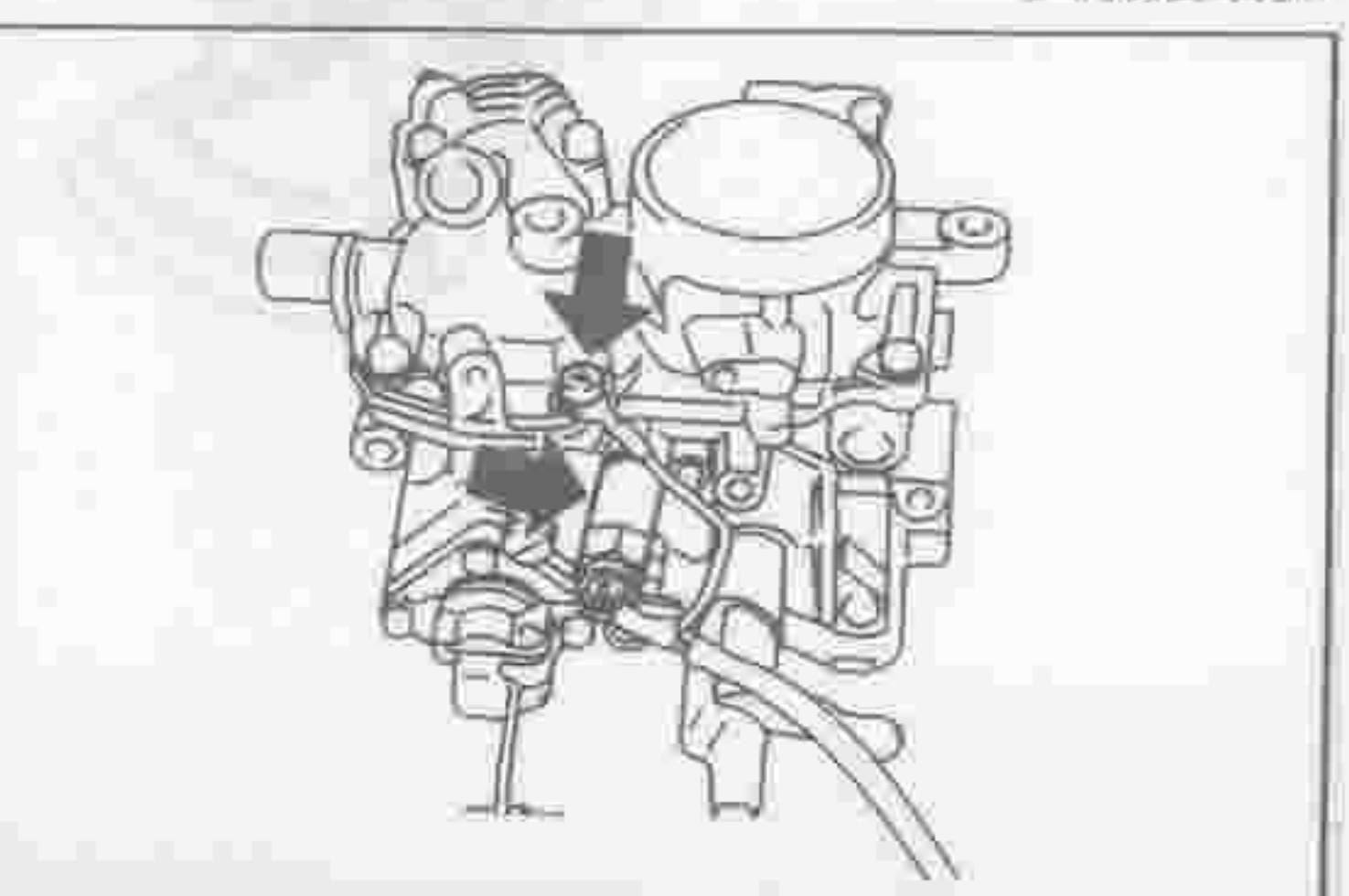
- (1) Remove the E-ring.
- (2) Disconnect the depression chamber rod from the throttle lever.
- (3) Remove the depression chamber body assembly.



LFU00023-00017

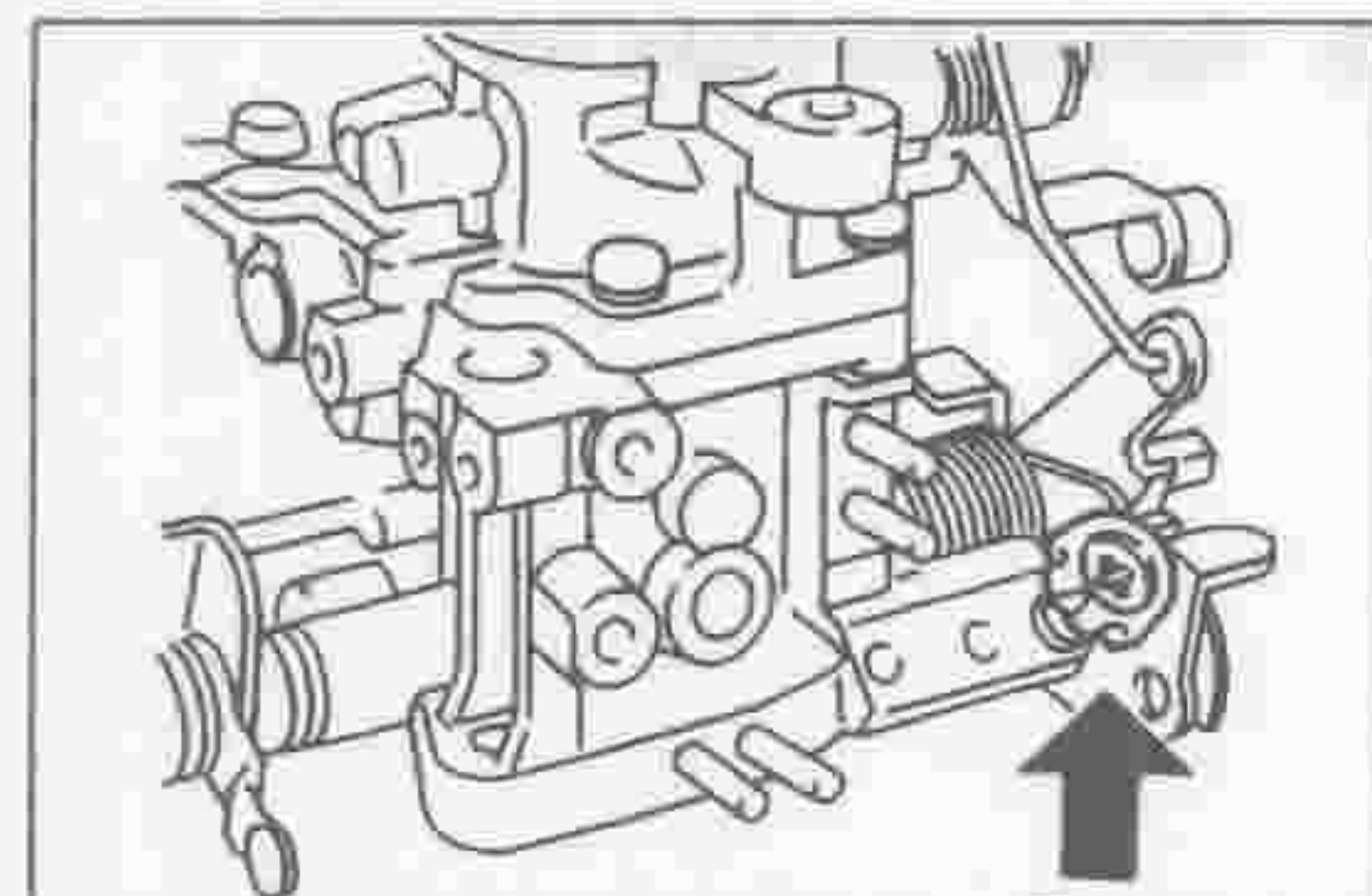
5. Removal of solenoid valve

- (1) Disconnect the ground wire.
- (2) Remove the slow solenoid valve.



LFU00024-00018

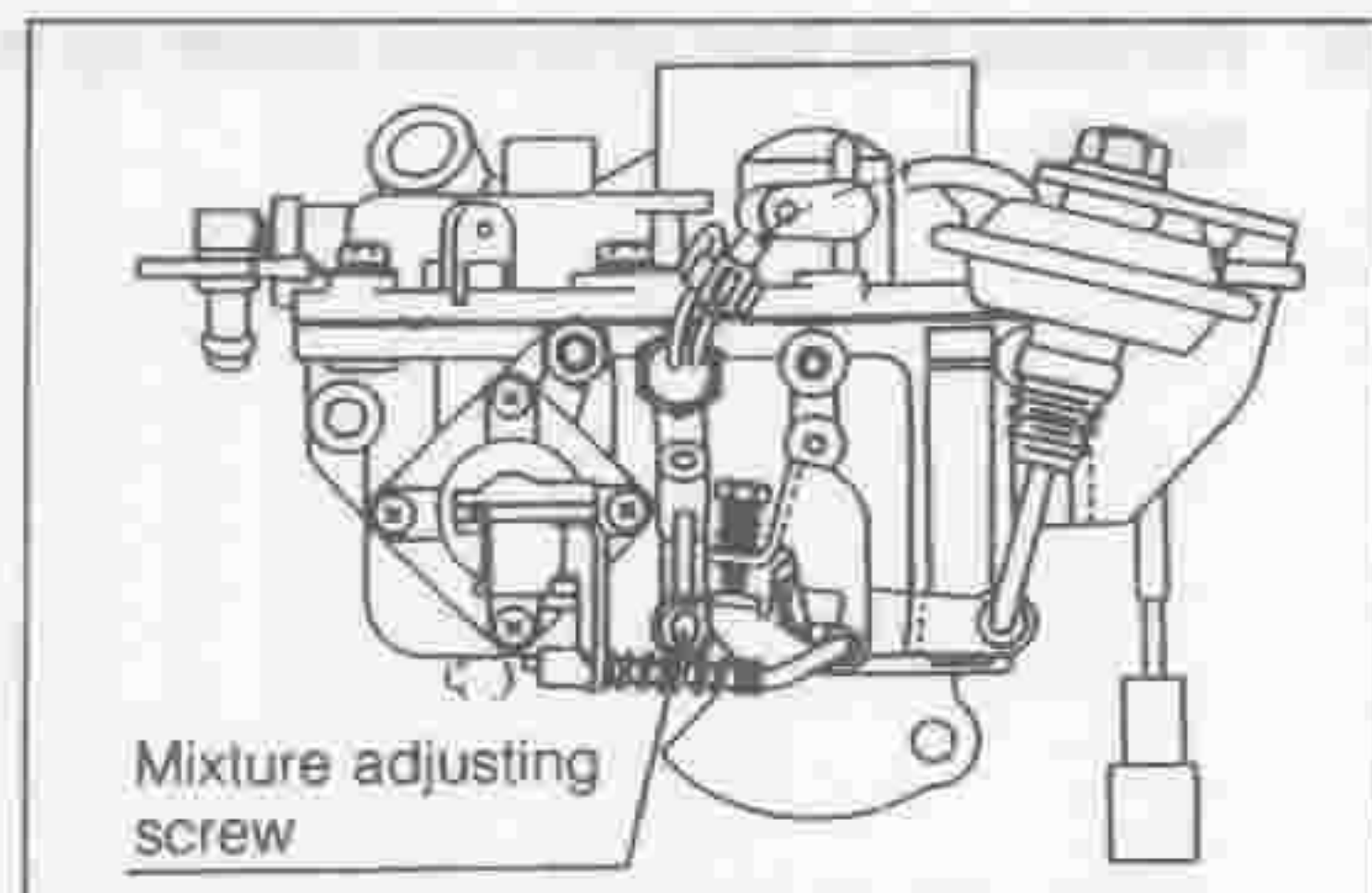
6. Remove the throttle adjusting screw.



LFU00025-00019

7. Remove the mixture adjusting screw, using the following SST.

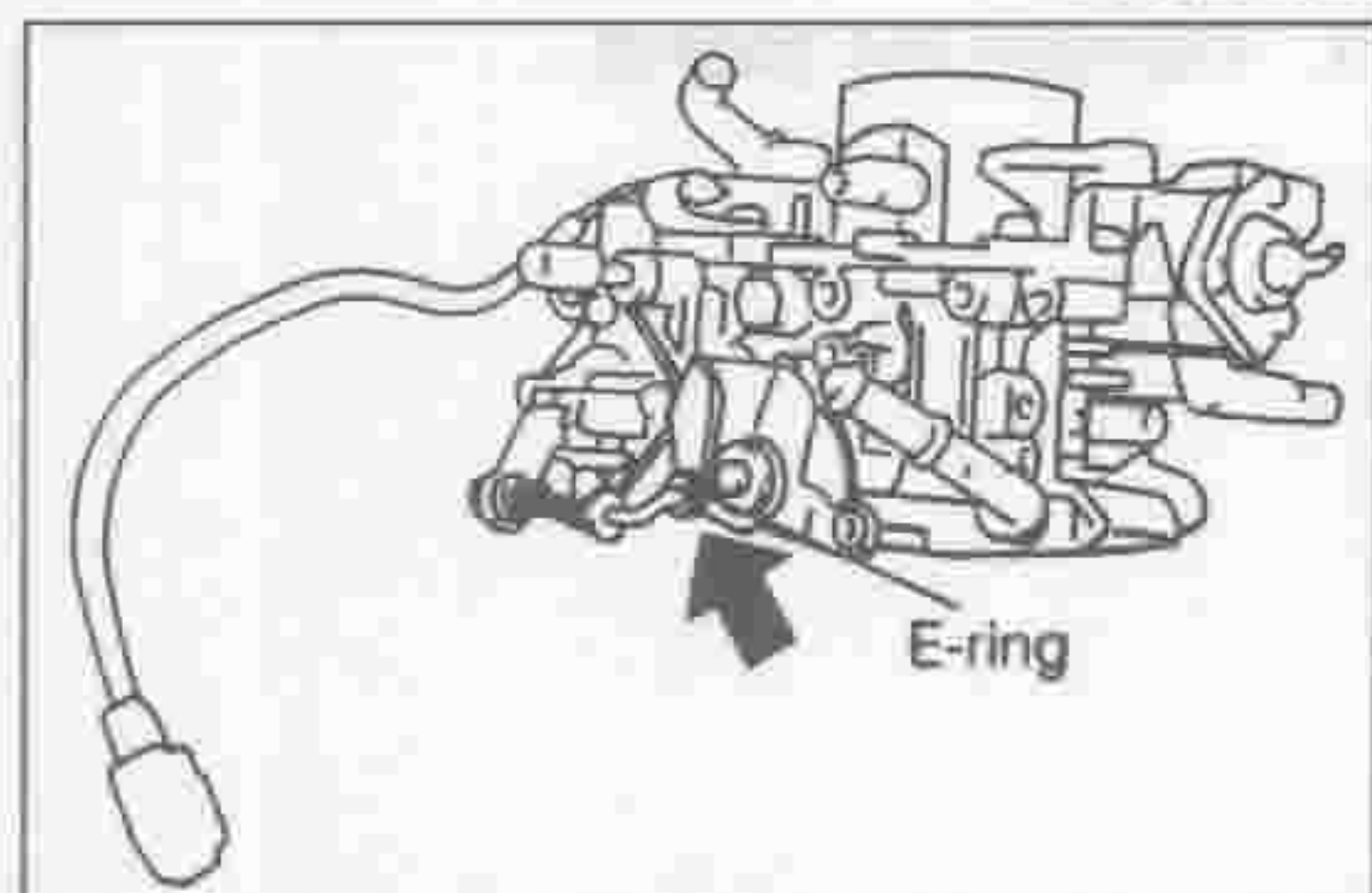
SST: 09243-87201-000



LFU00026-00020

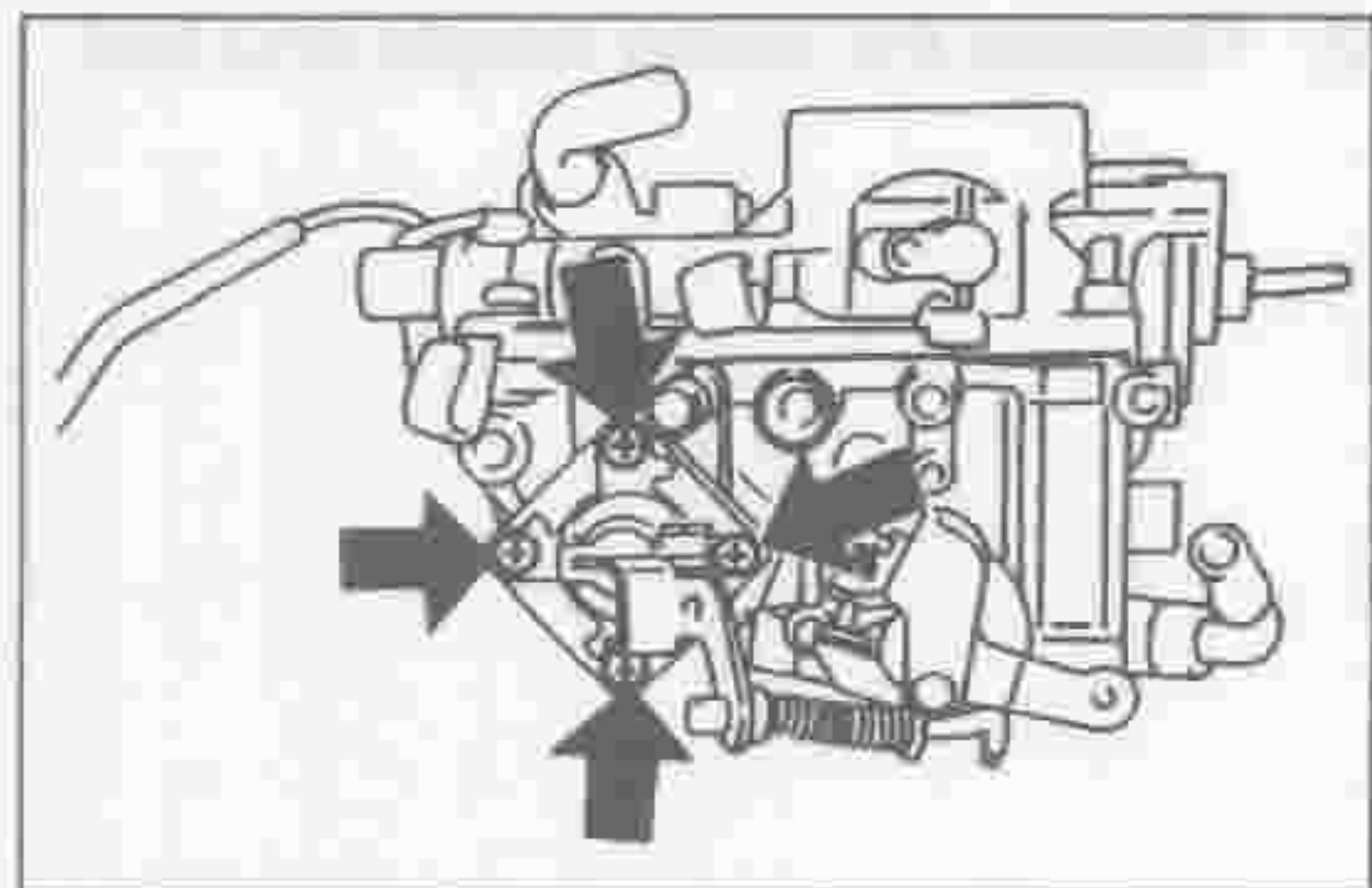
8. Removal of acceleration pump

- (1) Disconnect the acceleration pump rod from the throttle lever by removing the E-ring.



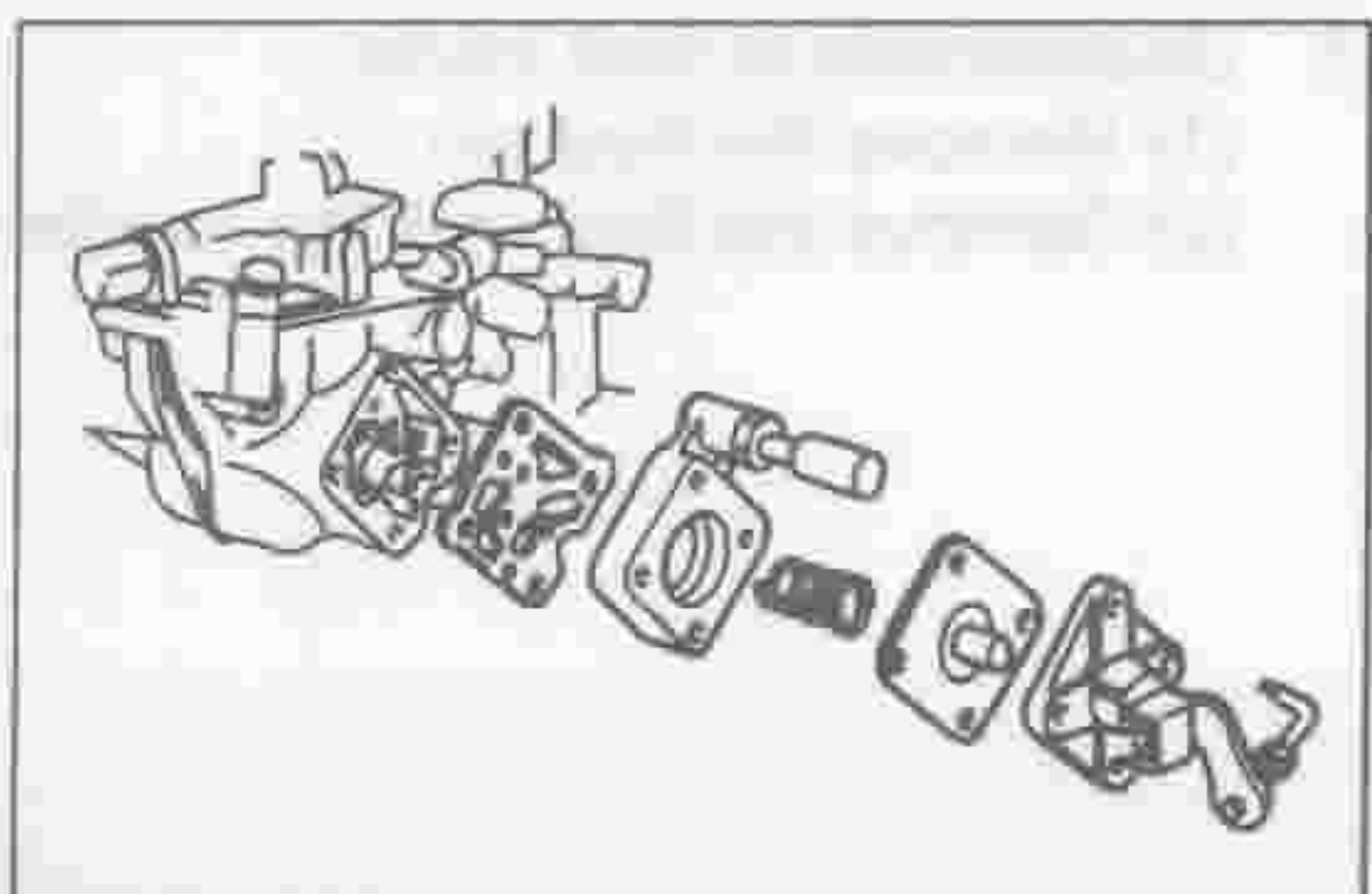
LFU00027-00021

- (2) Remove the cover assembly by removing four screws.



LFU00028-00022

- (3) Remove the spring, diaphragm pump body assembly and gasket.

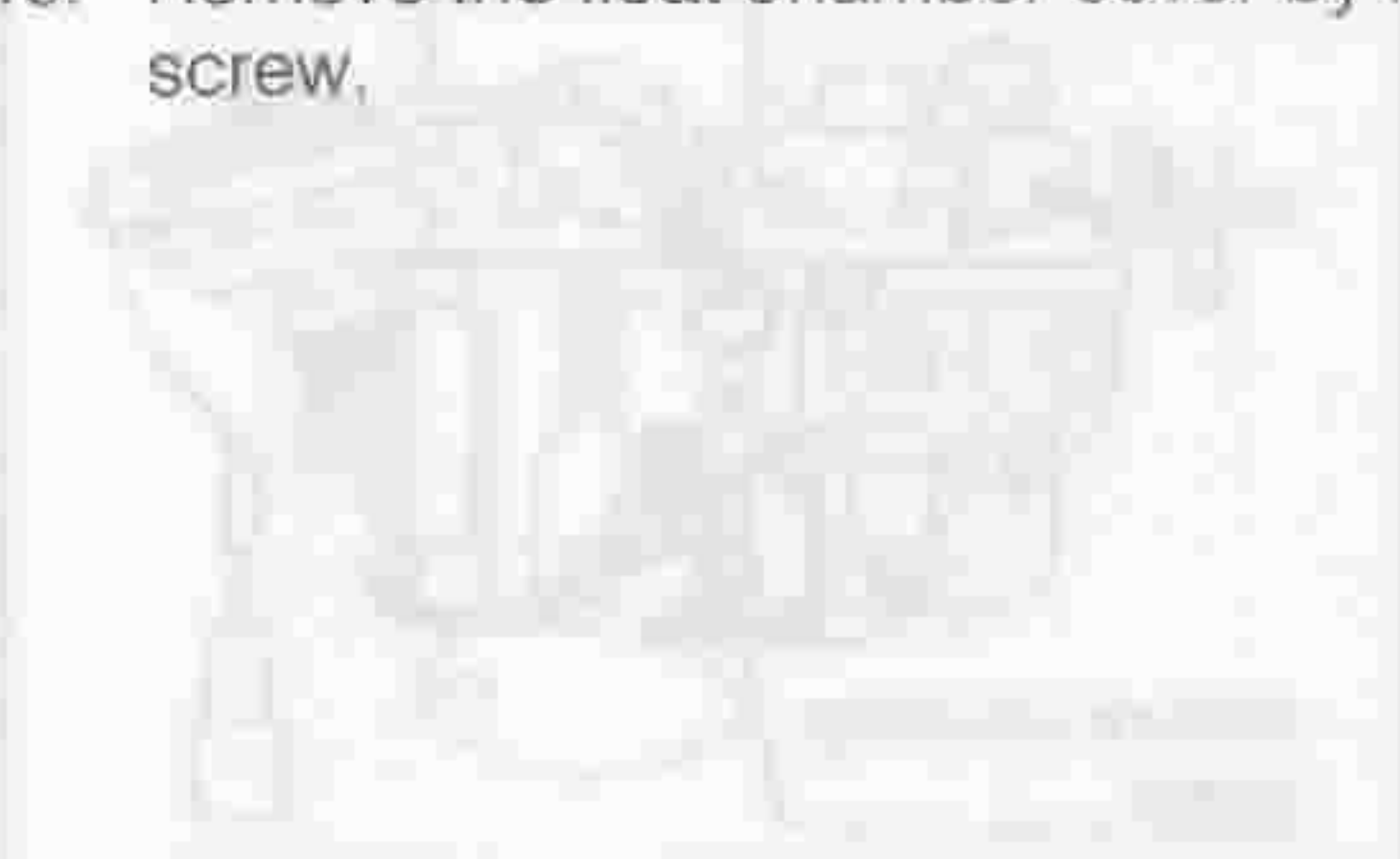


LFU00029-00023

9. Remove the choke link.



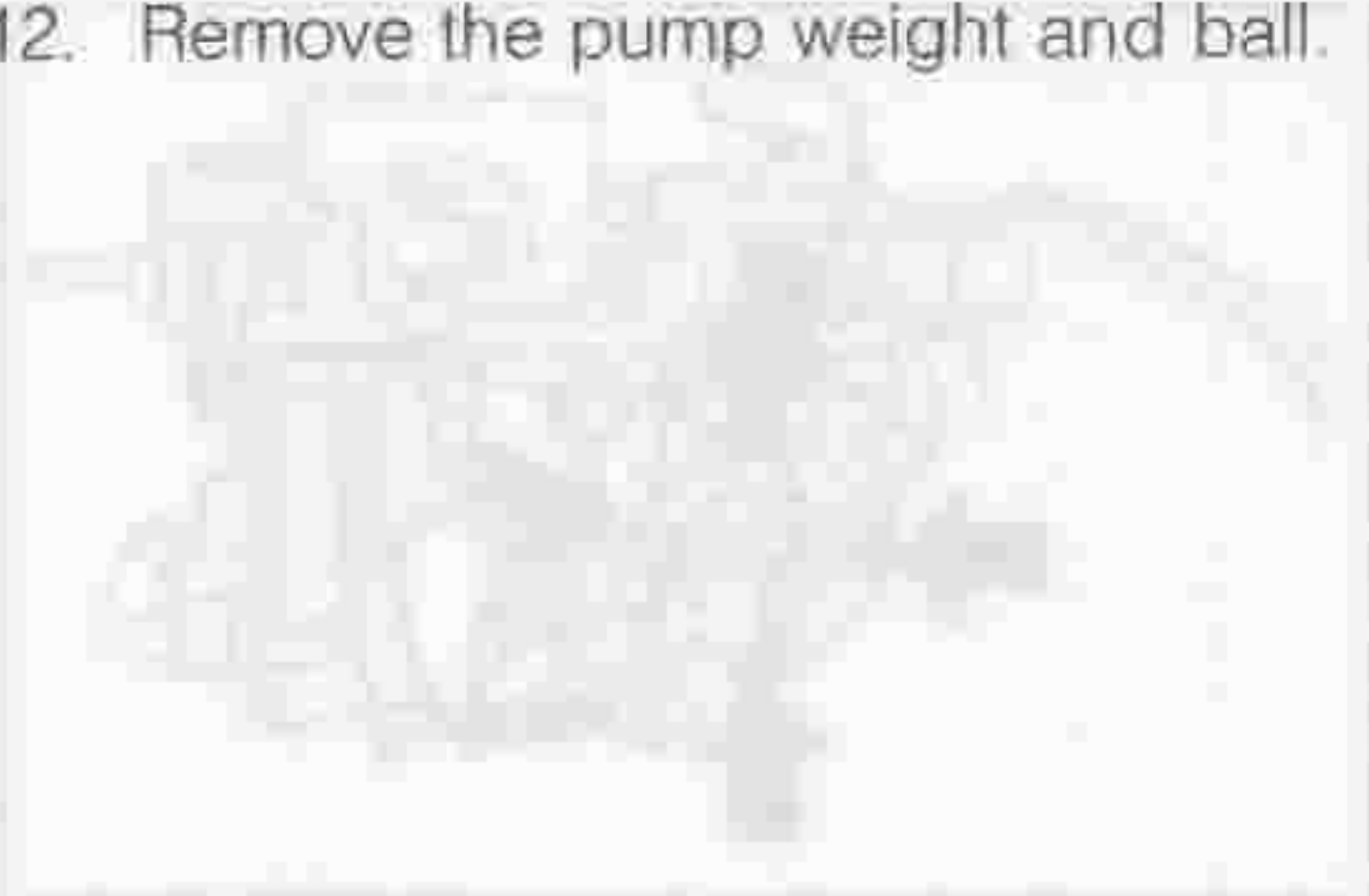
10. Remove the float chamber cover by removing the attaching screw.



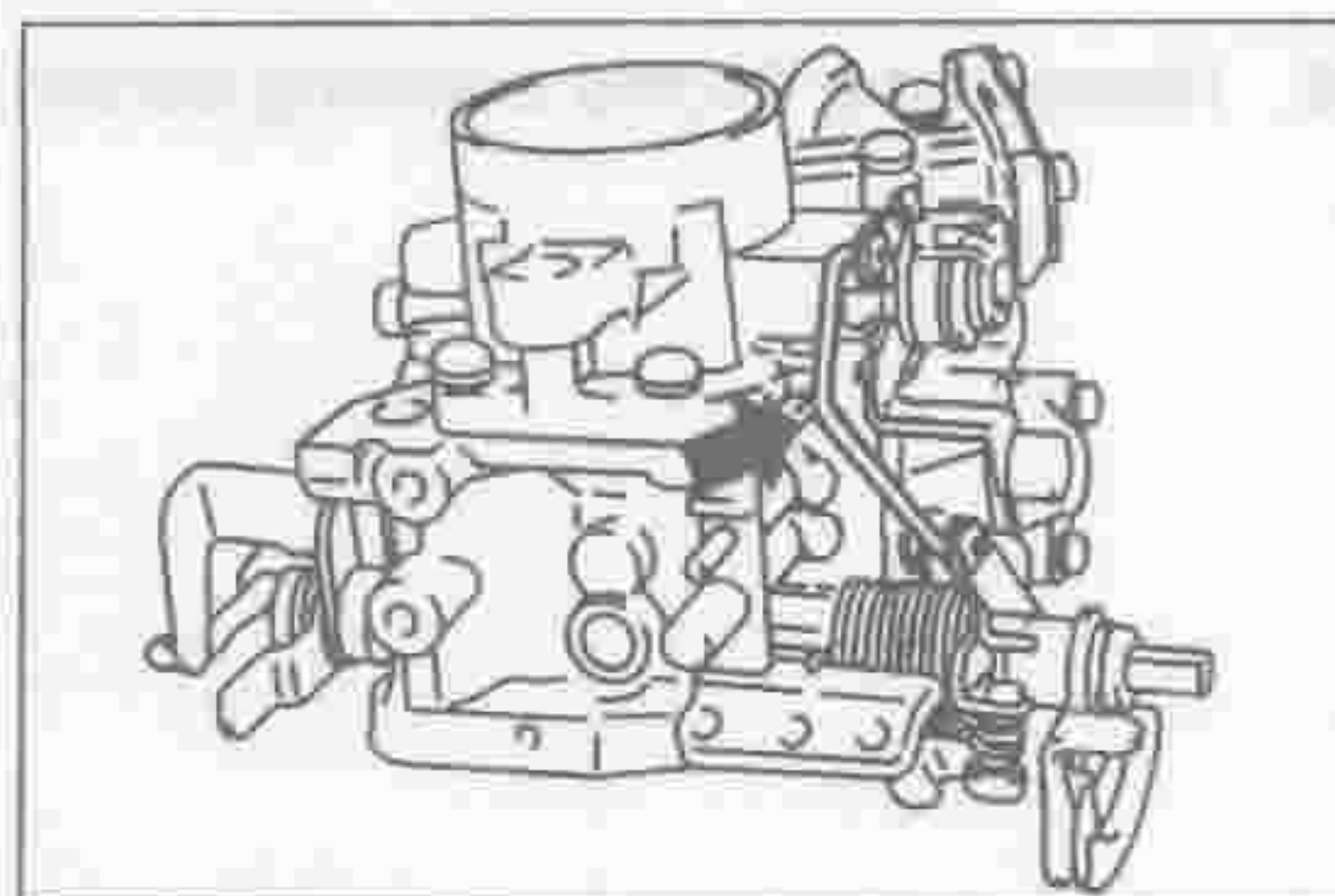
11. Remove the gasket.



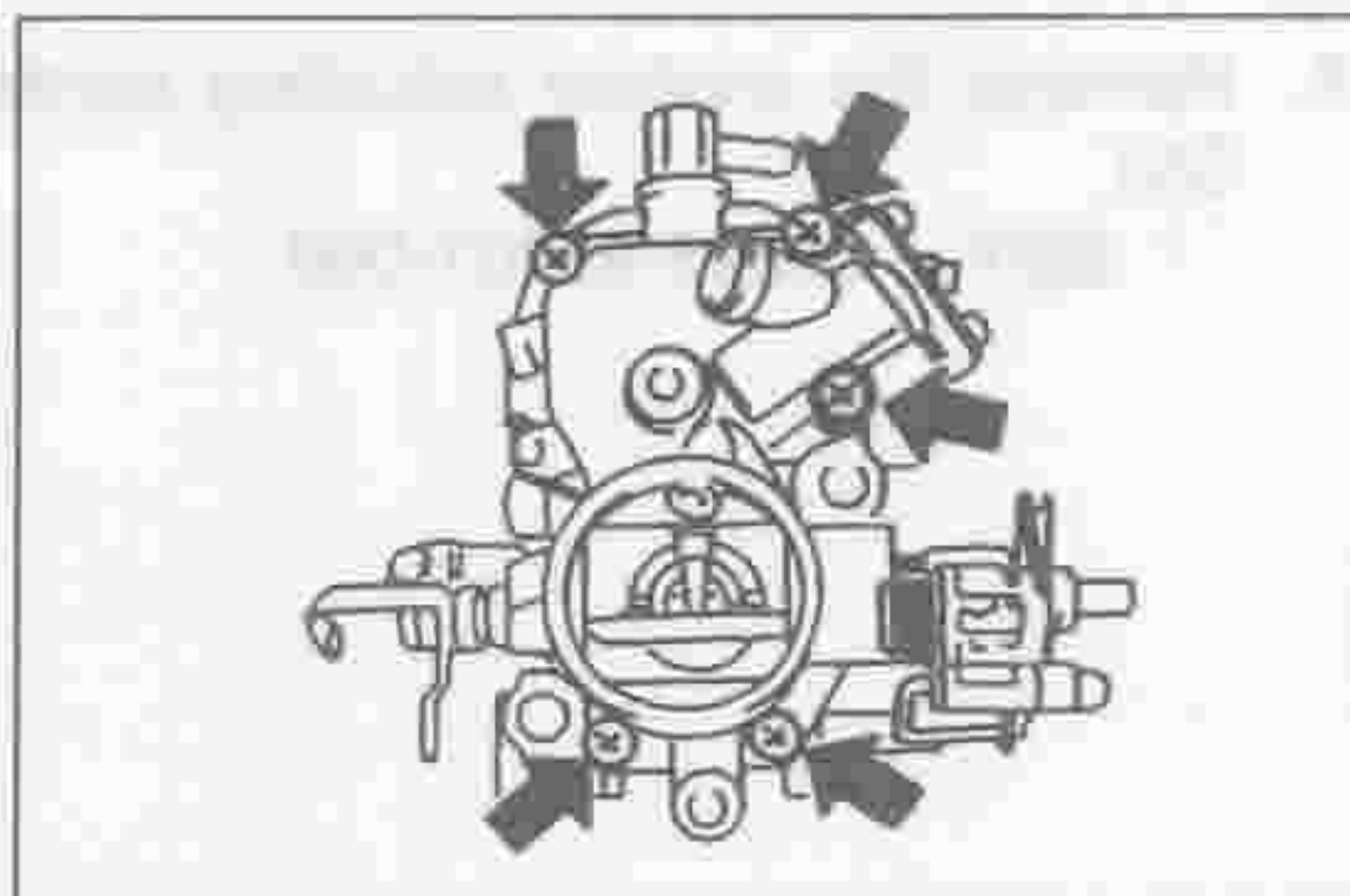
12. Remove the pump weight and ball.



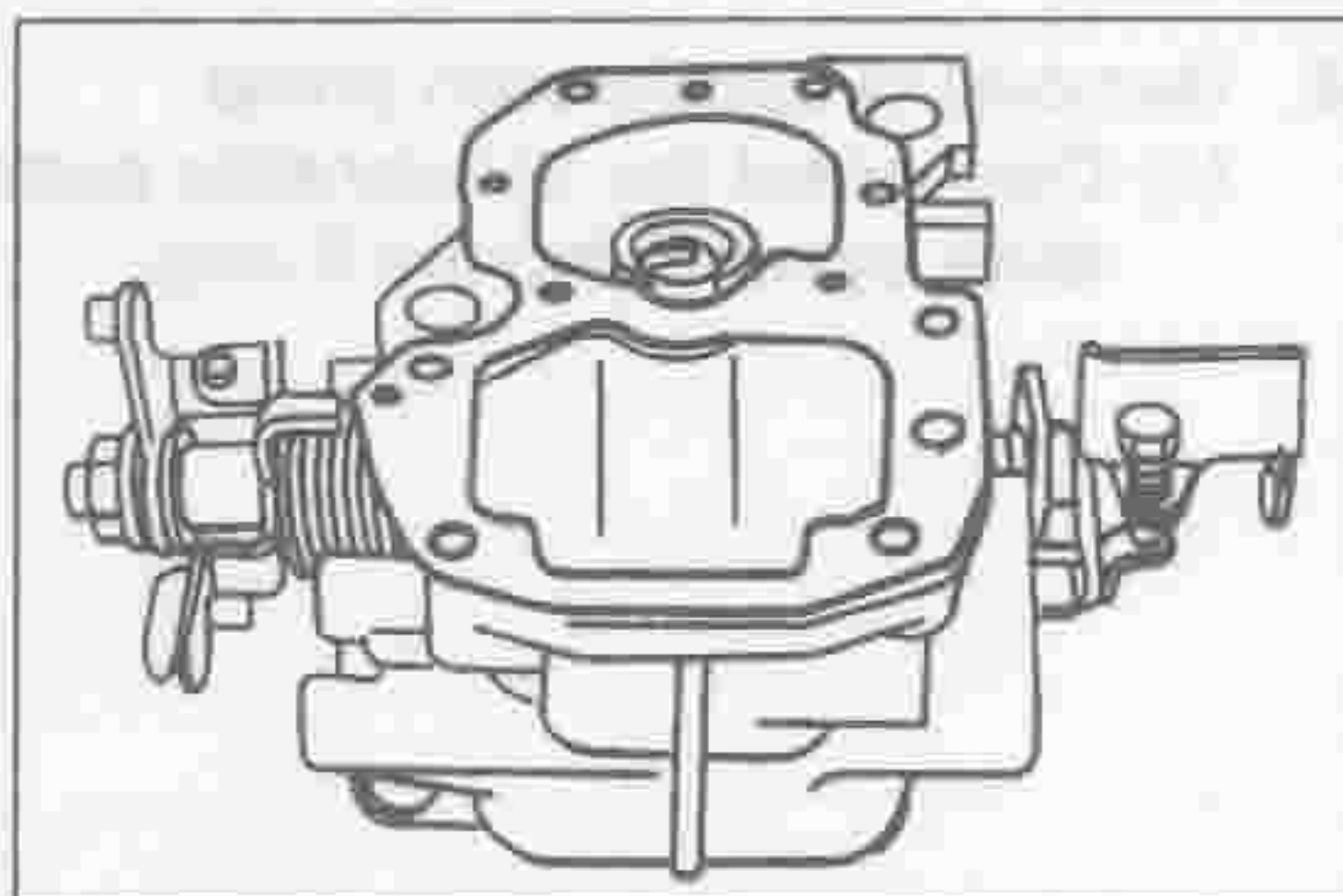
13. Disassembly of float cover
(1) Remove the float pin.
(2) Remove the float and the needle valve.



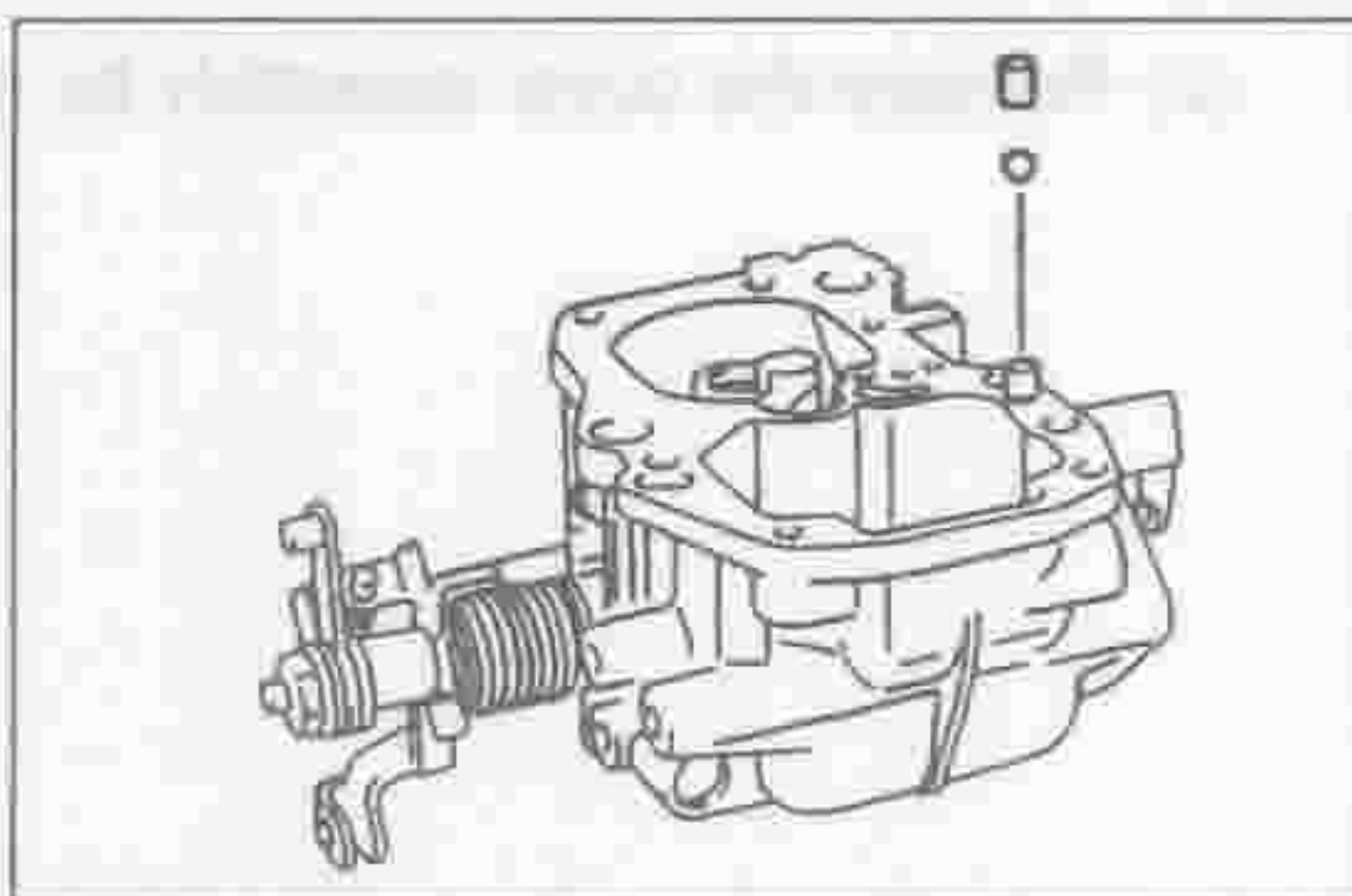
LFU00030-00024



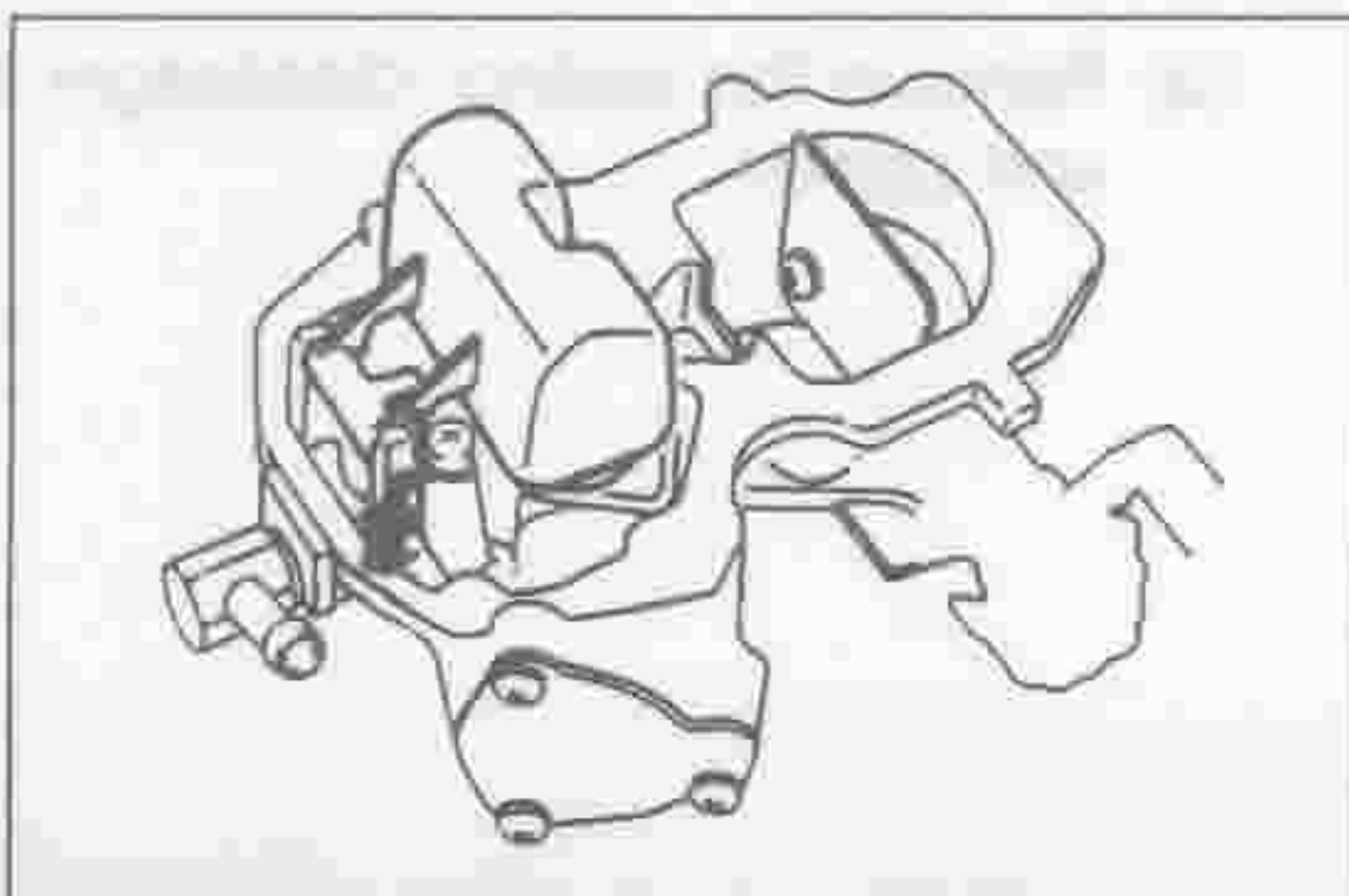
LFU00031-00025



LFU00032-00026

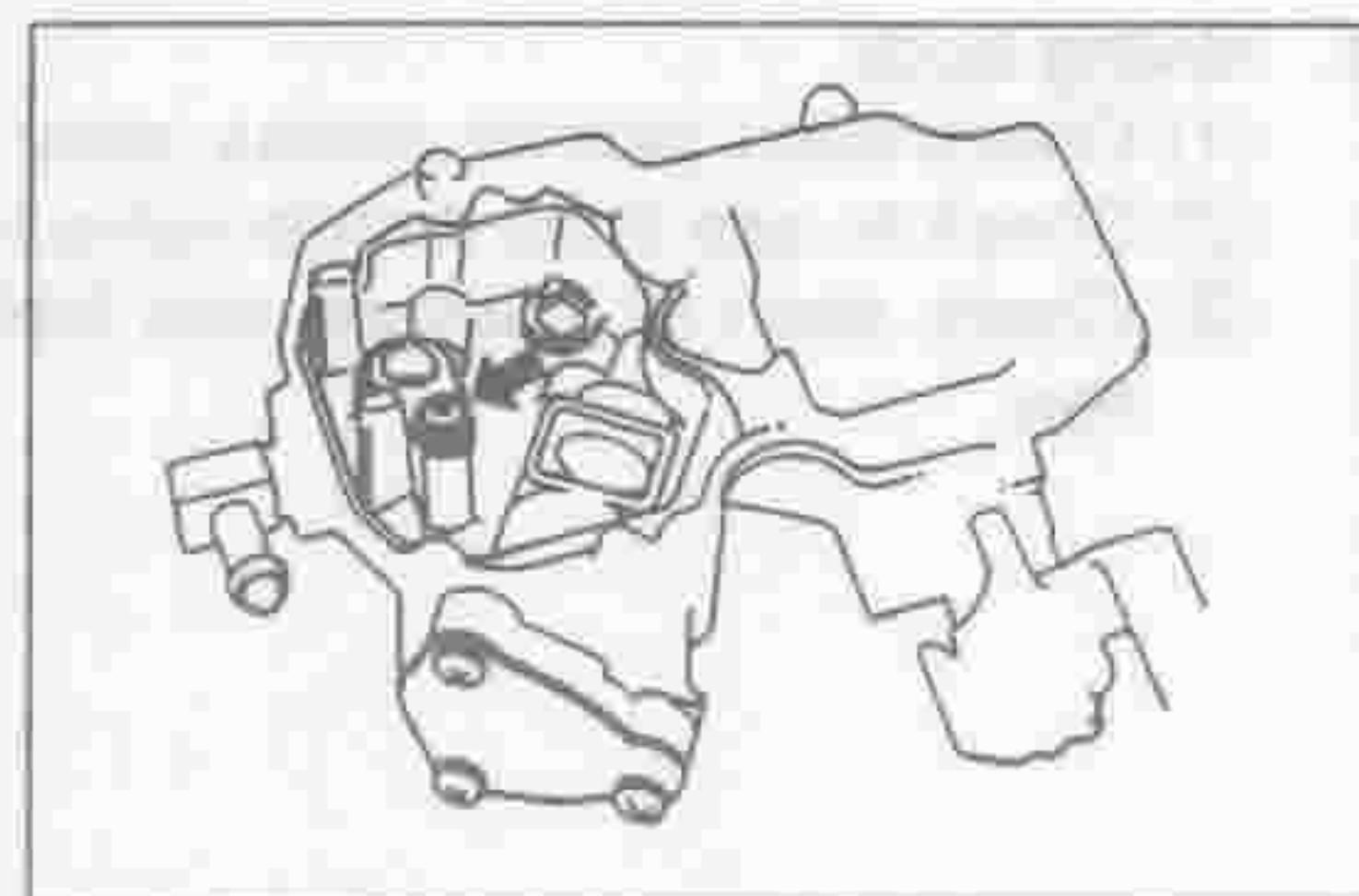


LFU00033-00027



LFU00034-00028

- (3) Remove the valve seat retaining plate by removing the attaching screw.



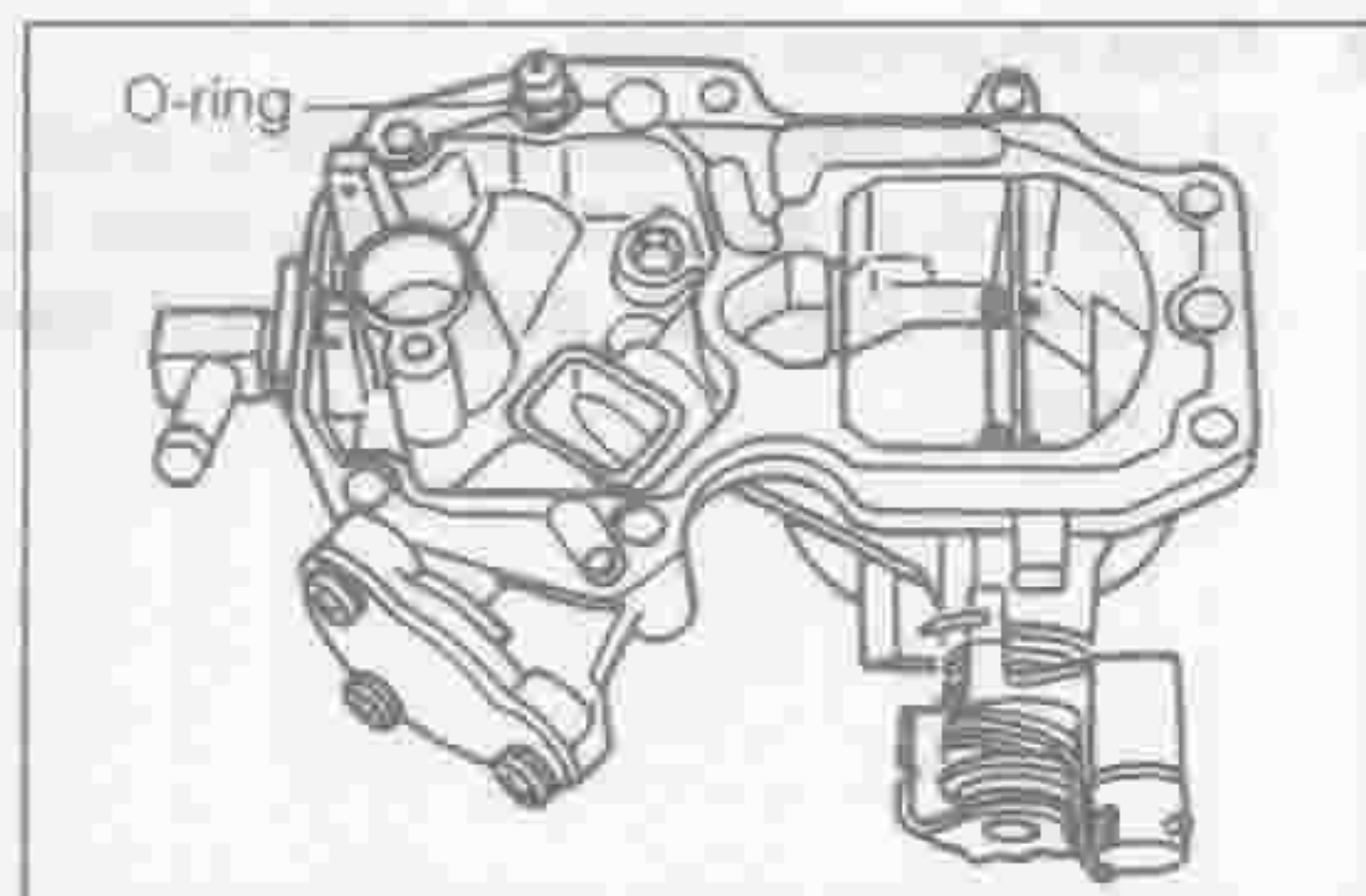
LFU00035-00029

- (4) Remove the valve seat with the strainer and adjusting shim.

NOTE:

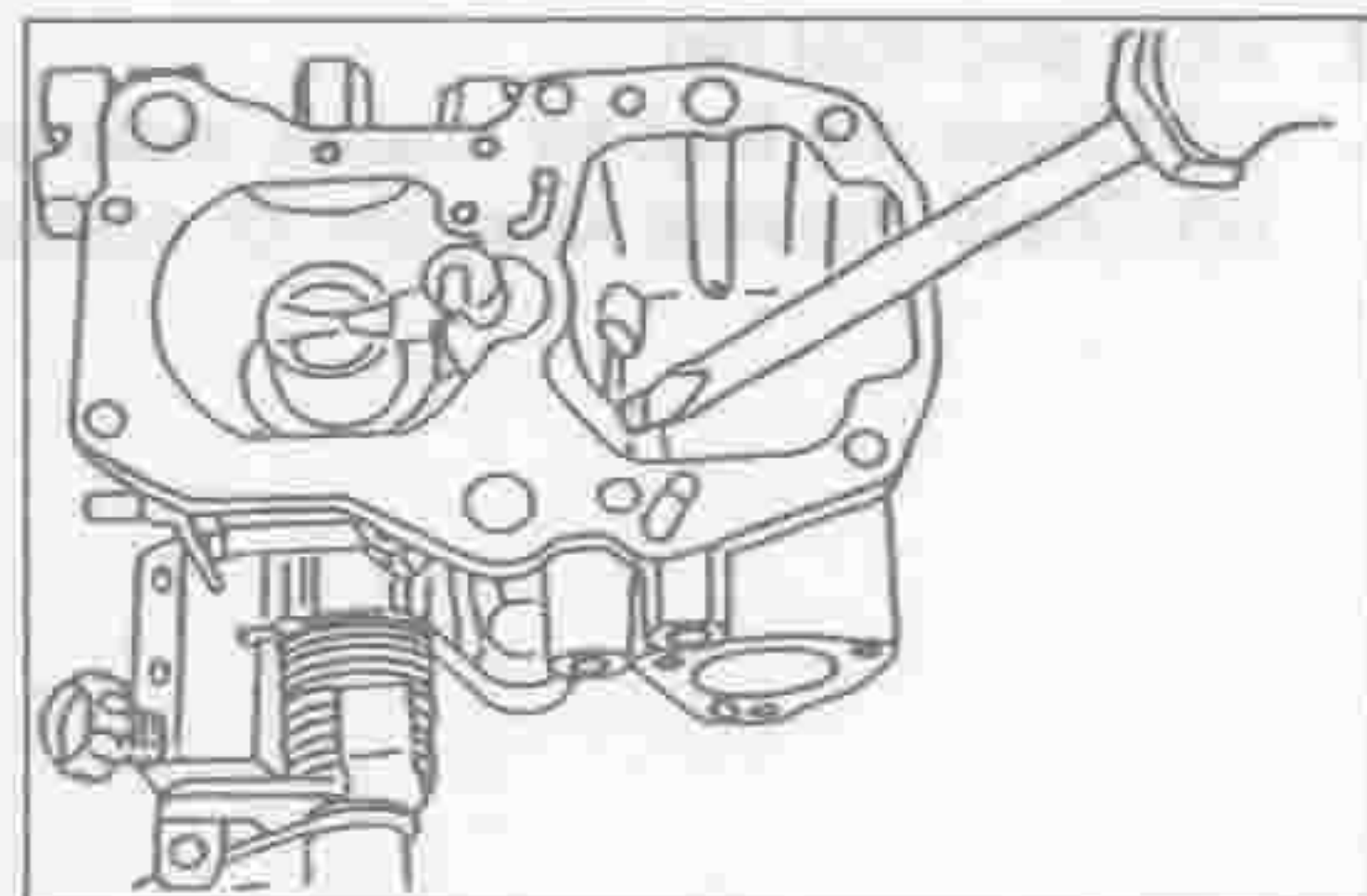
- Measure the thickness of the adjusting shim after removal of the adjusting shim.

- (5) Remove the O-ring from the jet.



LFU00036-00030

14. Remove the main jet from the carburetor body.



LFU00037-00031

INSPECTION

PRECAUTION:

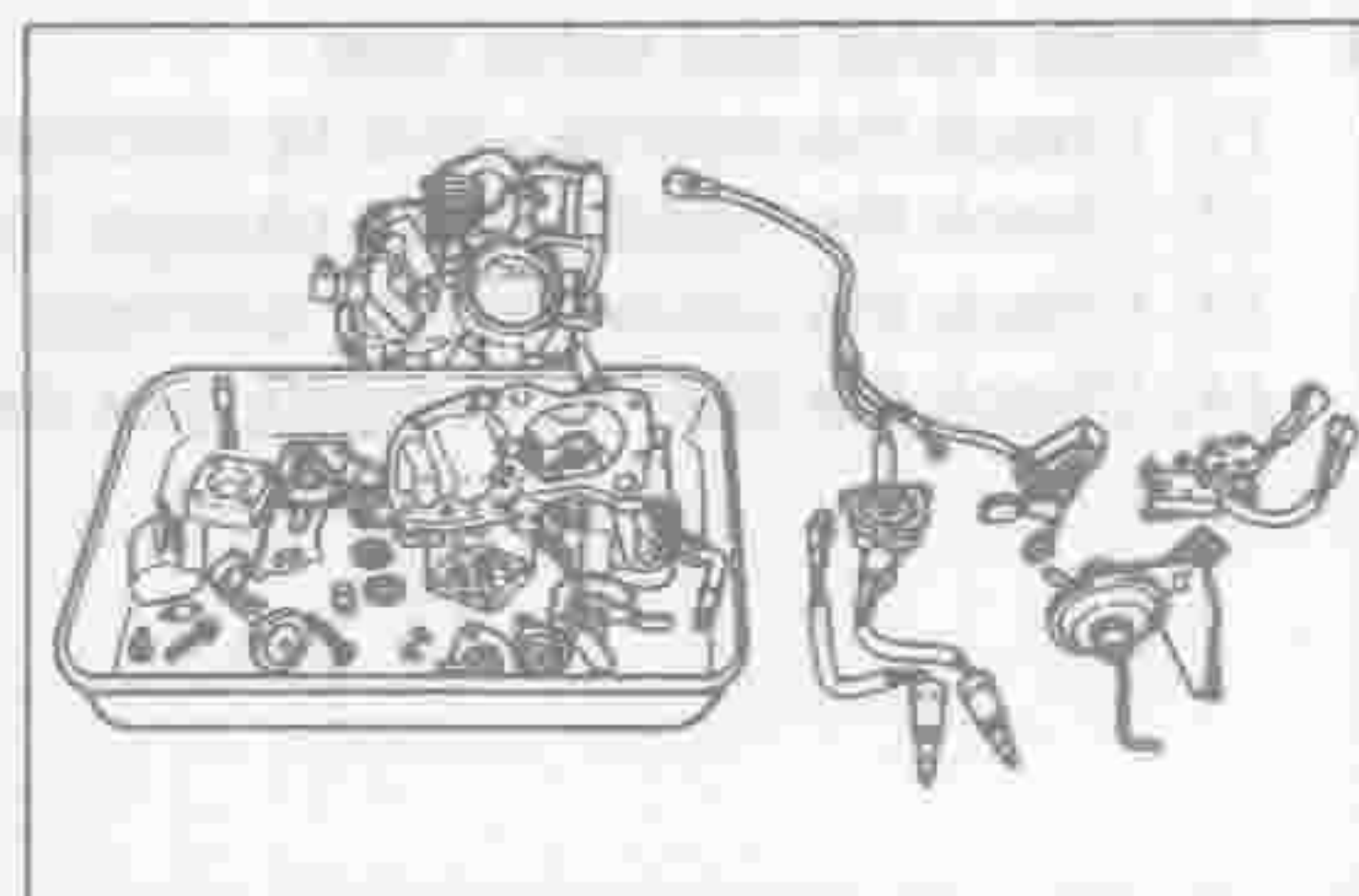
- Before inspecting each part, wash it thoroughly in cleaning solvent except for the electrical parts, depression chamber body.
- Apply compressed air to the jet, air passages and so forth so as to remove any foreign matter and dry them.

WARNING:

- Protect your eyes with safety goggles or the like when using compressed air.

CAUTION:

- Never clean the jets or the orifices with a wire or a drill. This could enlarge the diameter of the jets or orifices, resulting in excessive fuel consumption.

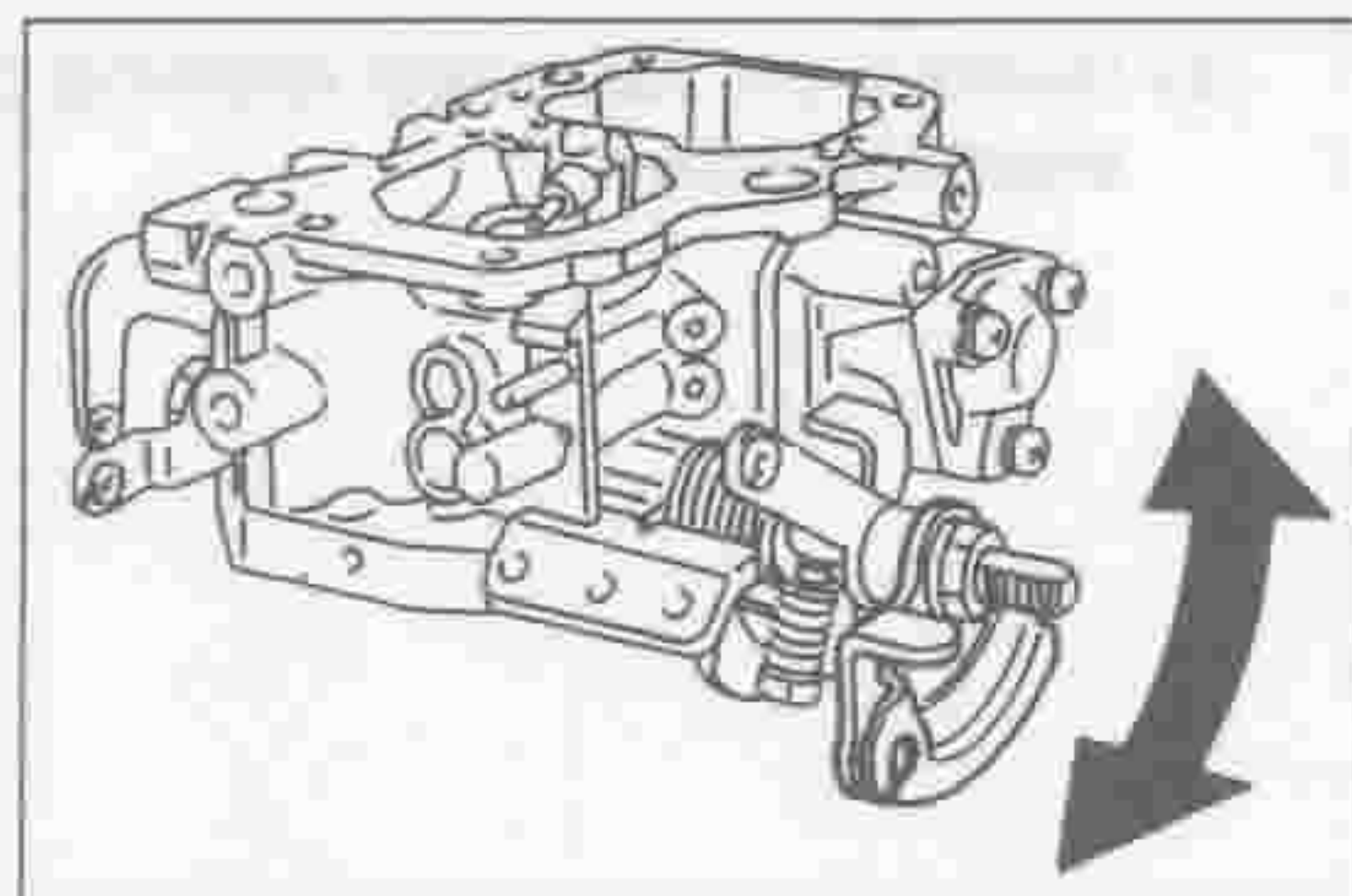


LFU00038-00032

FU-14

1. Mixing body

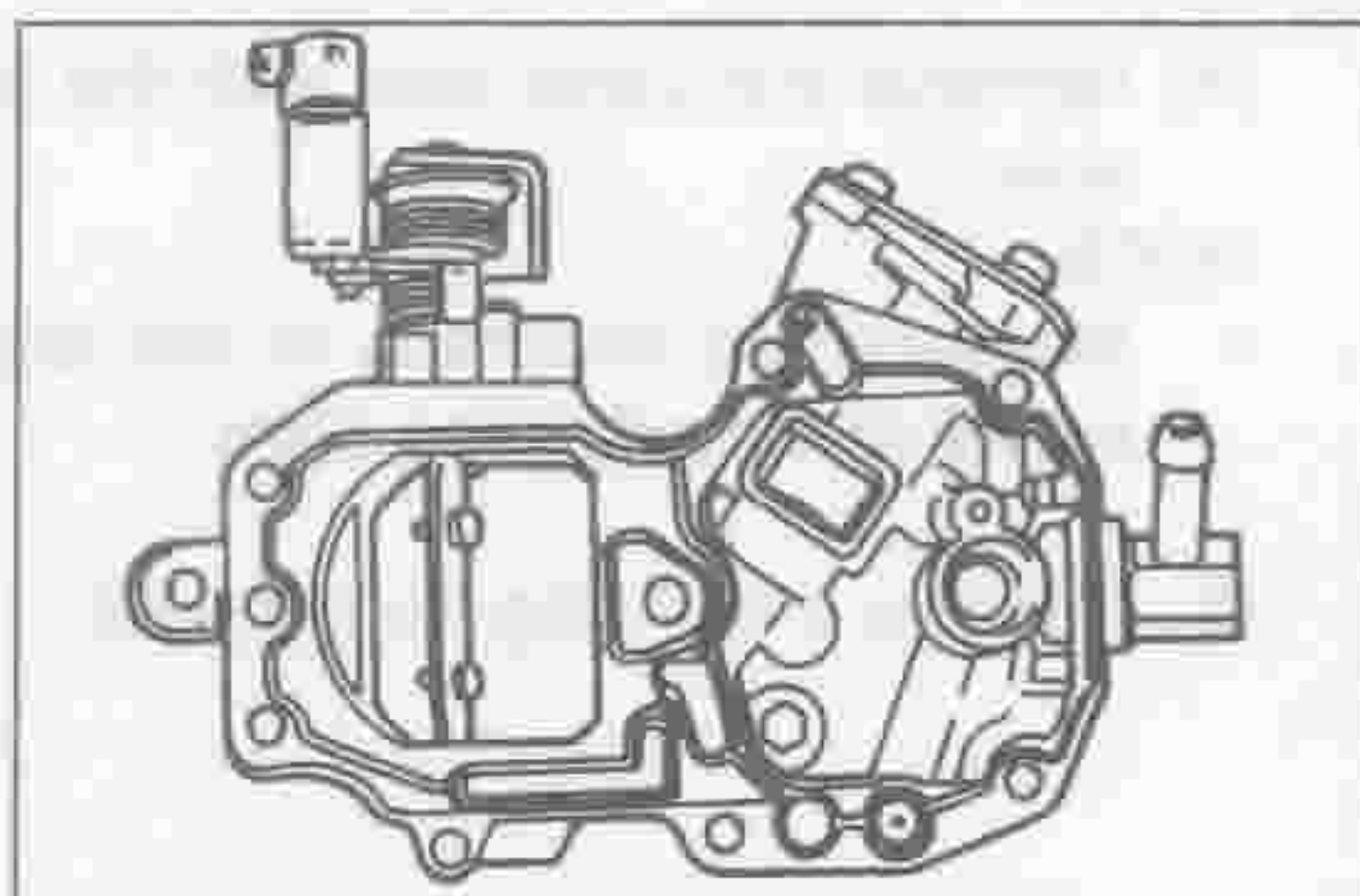
- (1) Check each part for cracks, wear or damage.
- (2) Check to see if the throttle valve functions smoothly.
- (3) Check each air passage and fuel passage for restriction.



LFU00039-00033

2. Float chamber cover

- (1) Check each part for cracks, wear or damage.
- (2) Check to see if the choke valve functions smoothly.
- (3) Check each air passage and fuel passage for restriction.



LFU00040-00034

3. Float and float pin

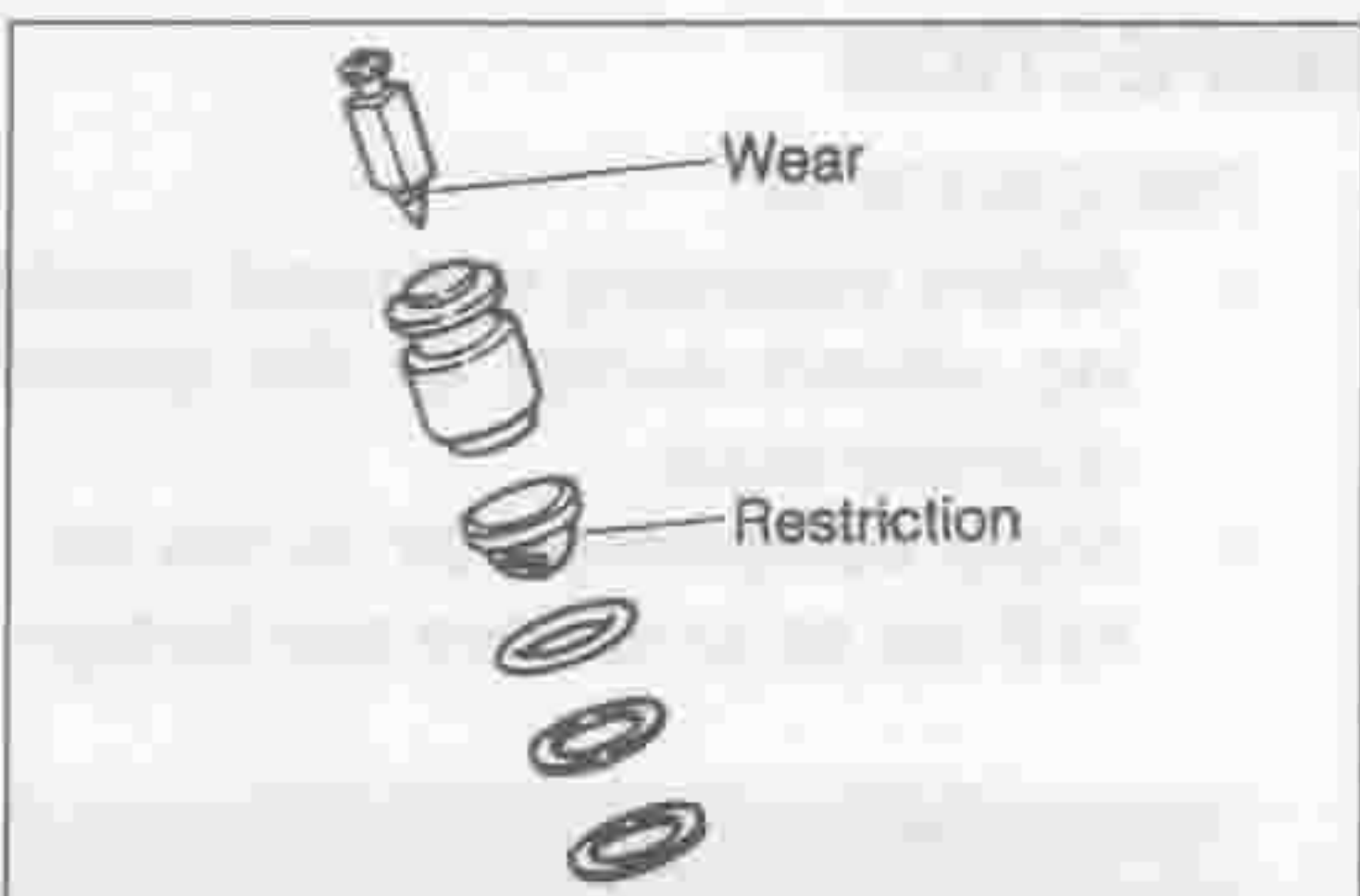
- (1) Check the float for cracks, wear or damage.
- (2) Check the float lever pin for scratches or wear.



LFU00041-00035

4. Needle valve and valve seat

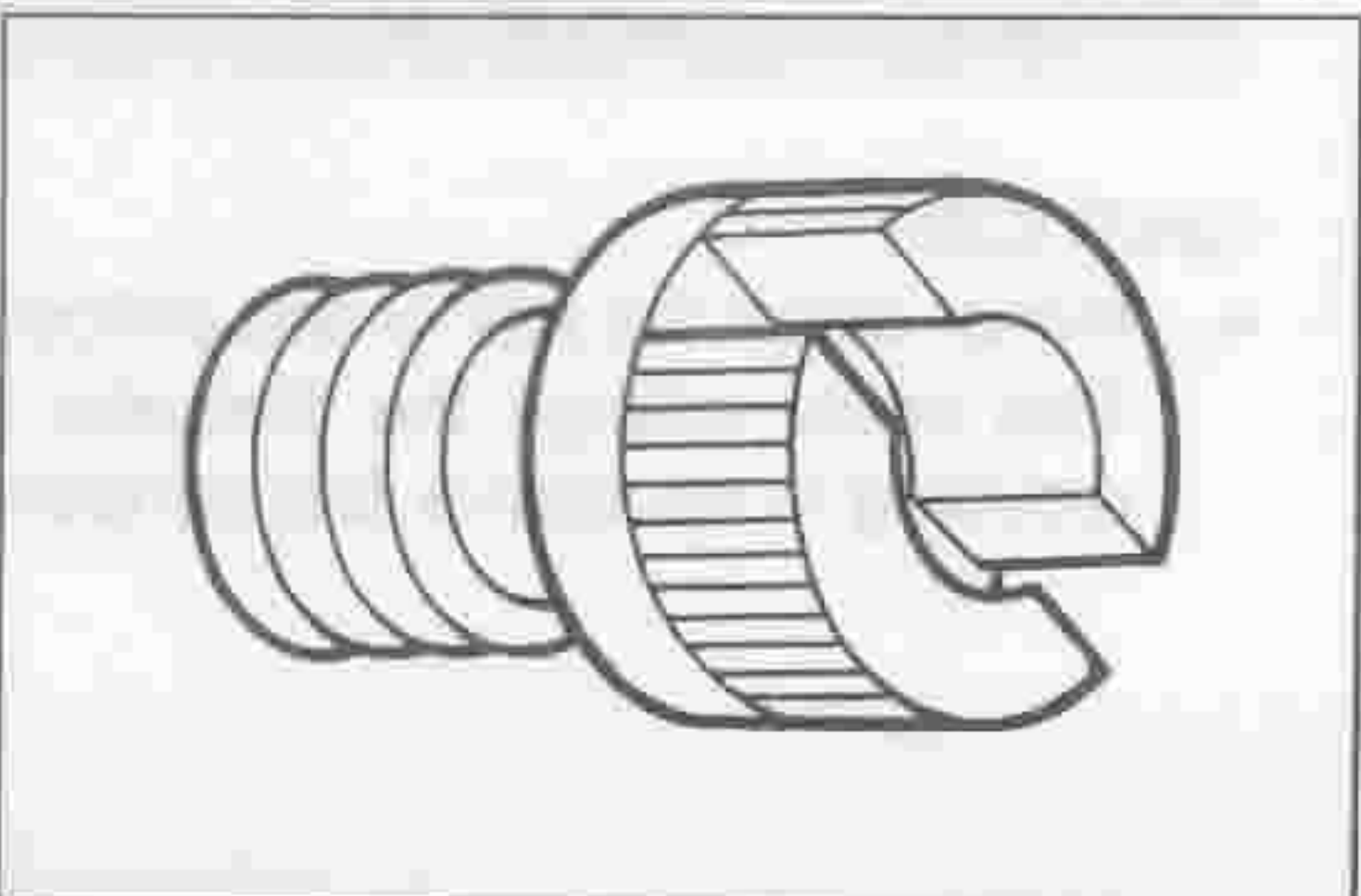
- (1) Check the needle valve tip section for wear.
- (2) Check the needle valve plunger for smooth operation.
- (3) Check the valve seat for damage.
- (4) Check the filter for restriction or damage.



LFU00042-00036

5. Main jet

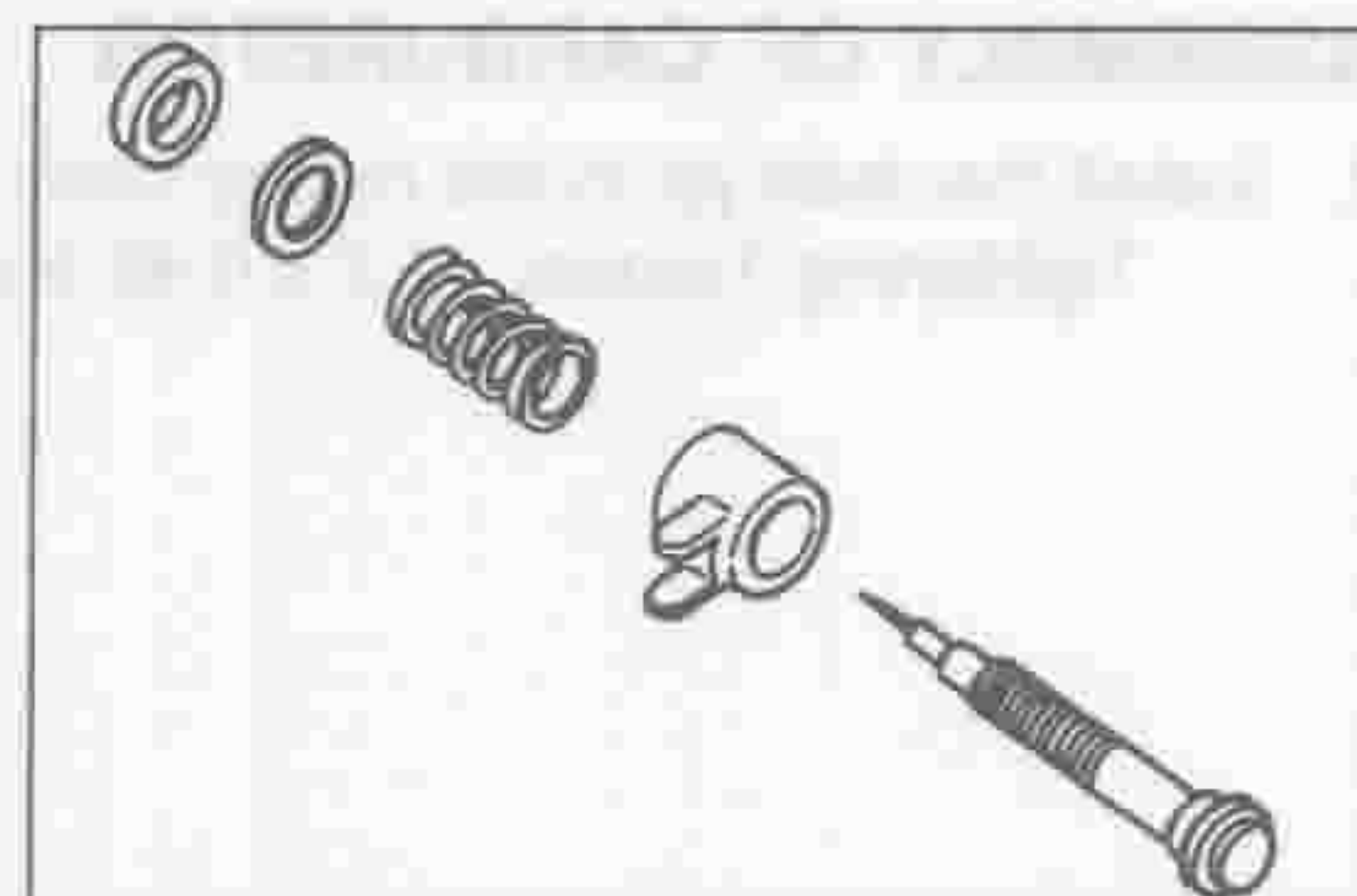
Check the main jet for restriction or damage.



LFU00043-00037

6. Idle mixture adjusting screw

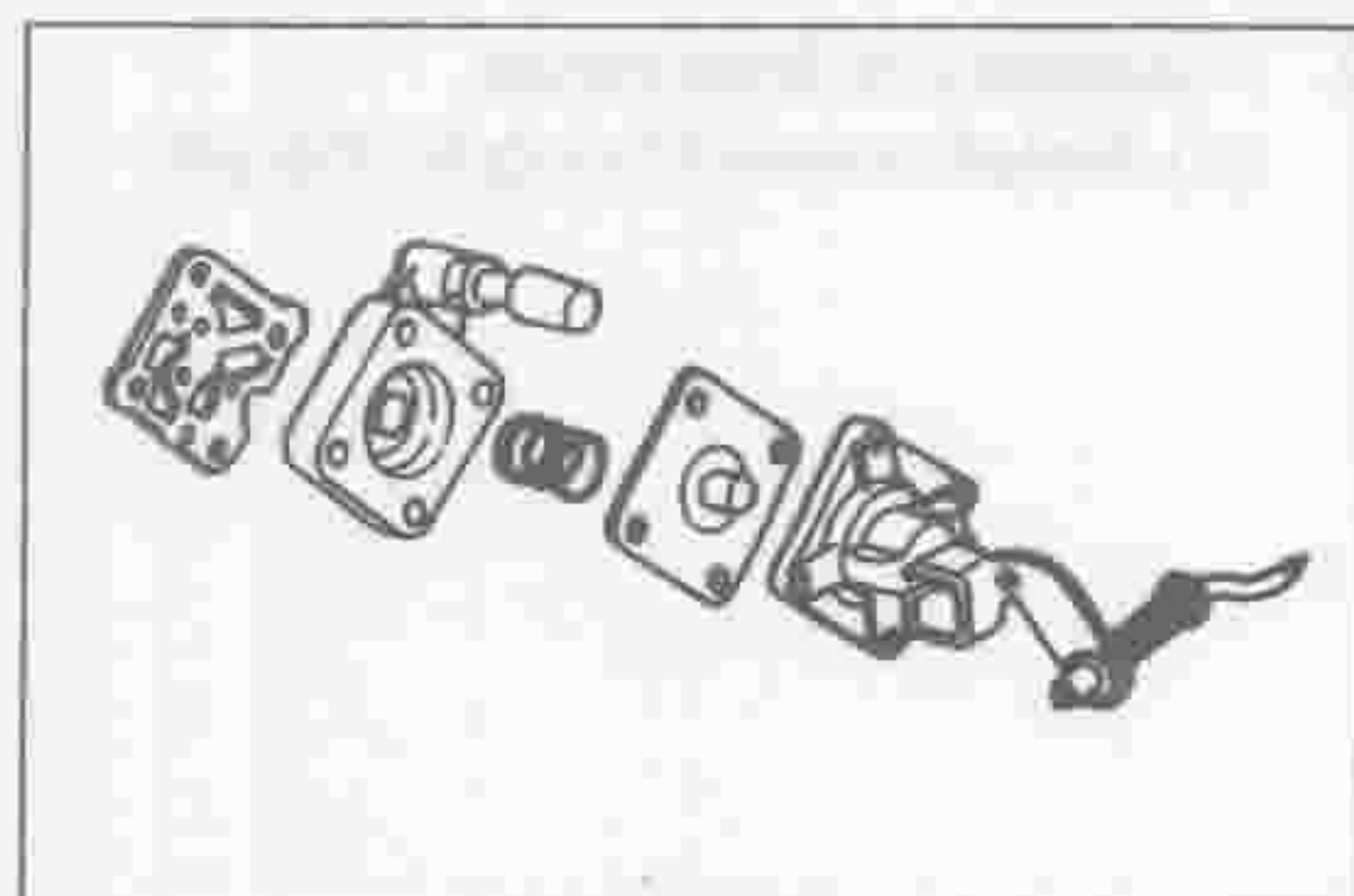
- (1) Check the mixture adjusting screw for wear or damage.
- (2) Check the cap for wear or damage.
- (3) Check the spring for damage.
- (4) Check the washer for damage or wear.



LFU00044-00038

7. Acceleration pump

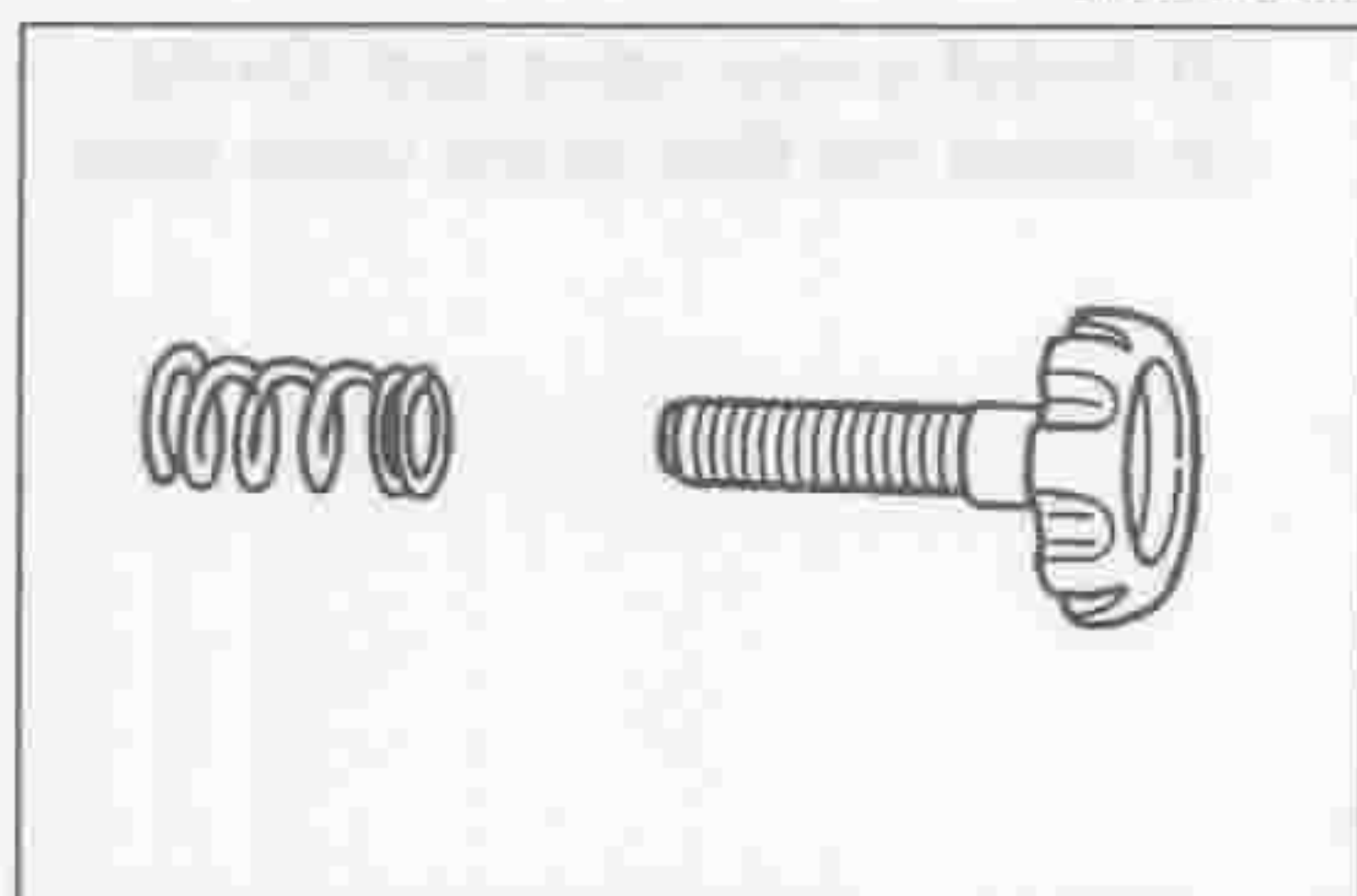
- (1) Check the cover assembly for smooth operation, damage or air passage restriction.
- (2) Check the spring for damage.
- (3) Check the diaphragm for damage.
- (4) Check the pump body assembly for restriction of air passage or fuel passage.



LFU00045-00039

8. Throttle adjusting screw

- (1) Check the throttle adjusting screw for damage.
- (2) Check the spring for damage.



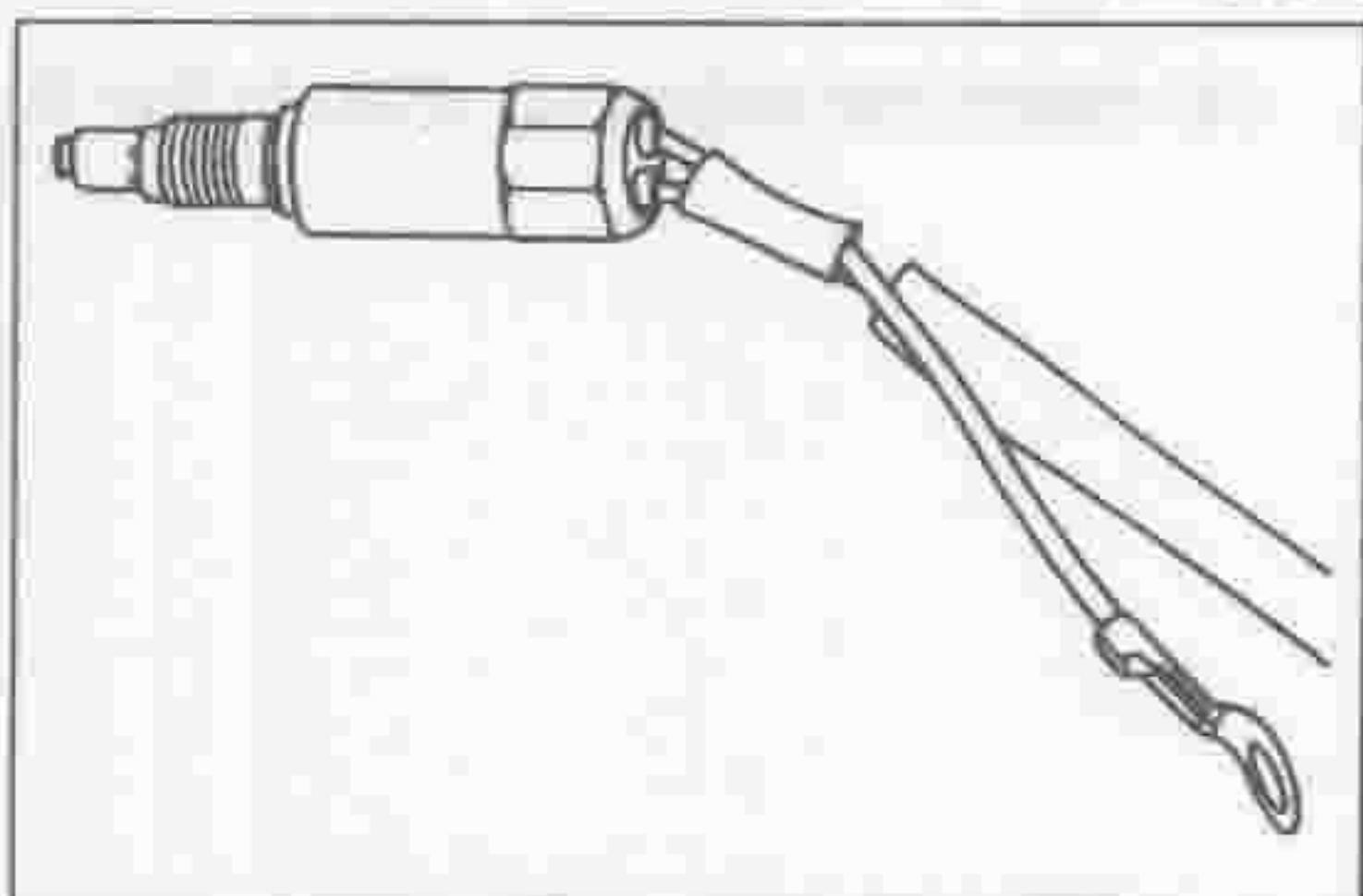
LFU00046-00040

9. Solenoid valve

CAUTION:

- Never remove the valve from the solenoid.

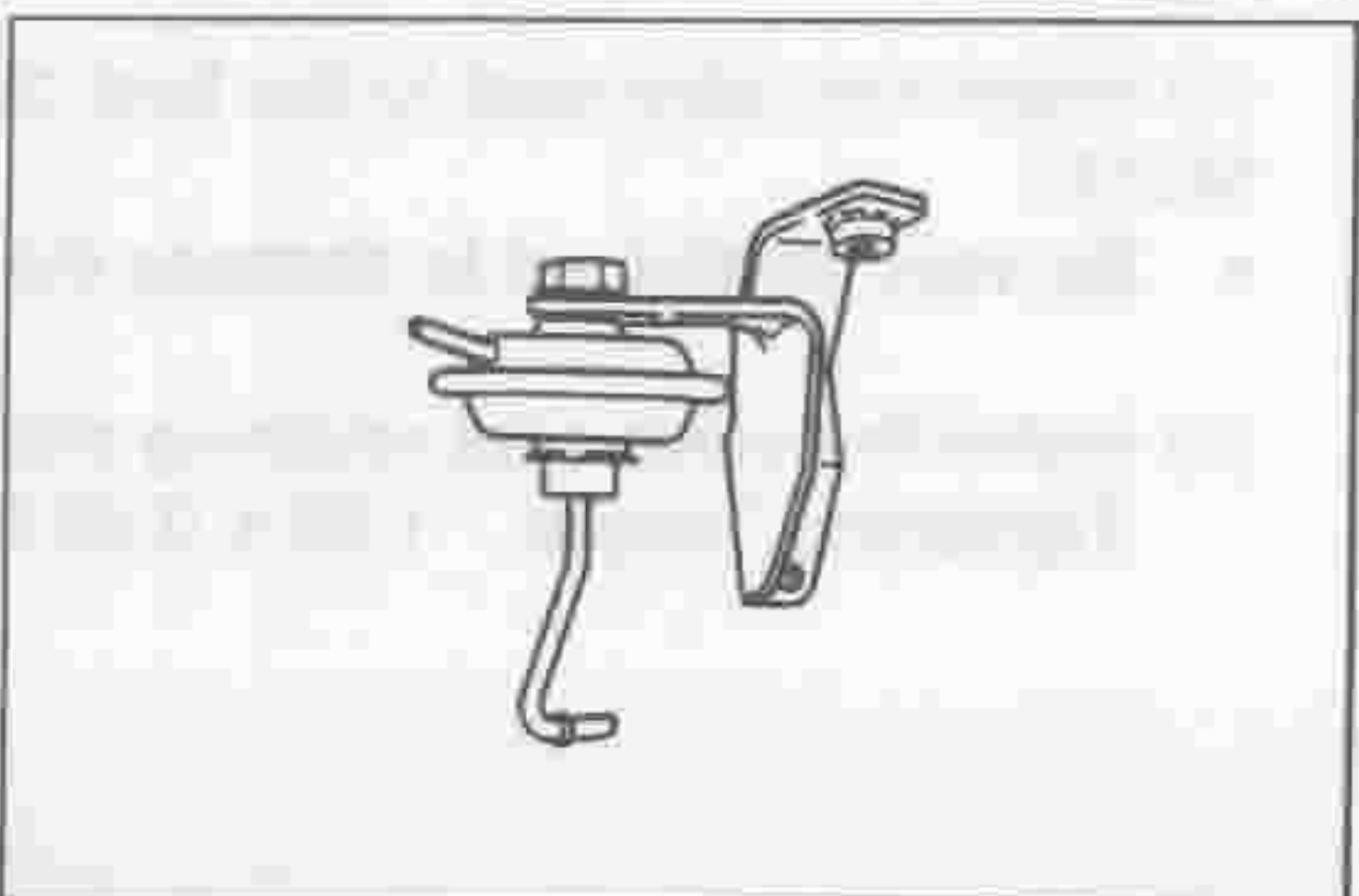
Ensure that the valve is opened when the solenoid valve is energized. Also, ensure that the valve is closed when the solenoid valve is not energized.



LFU00047-00041

10. Depression chamber body assembly

Ensure that the rod is drawn into the chamber when negative pressure is applied to the depression chamber. Also, ensure that the applied pressure will not change.

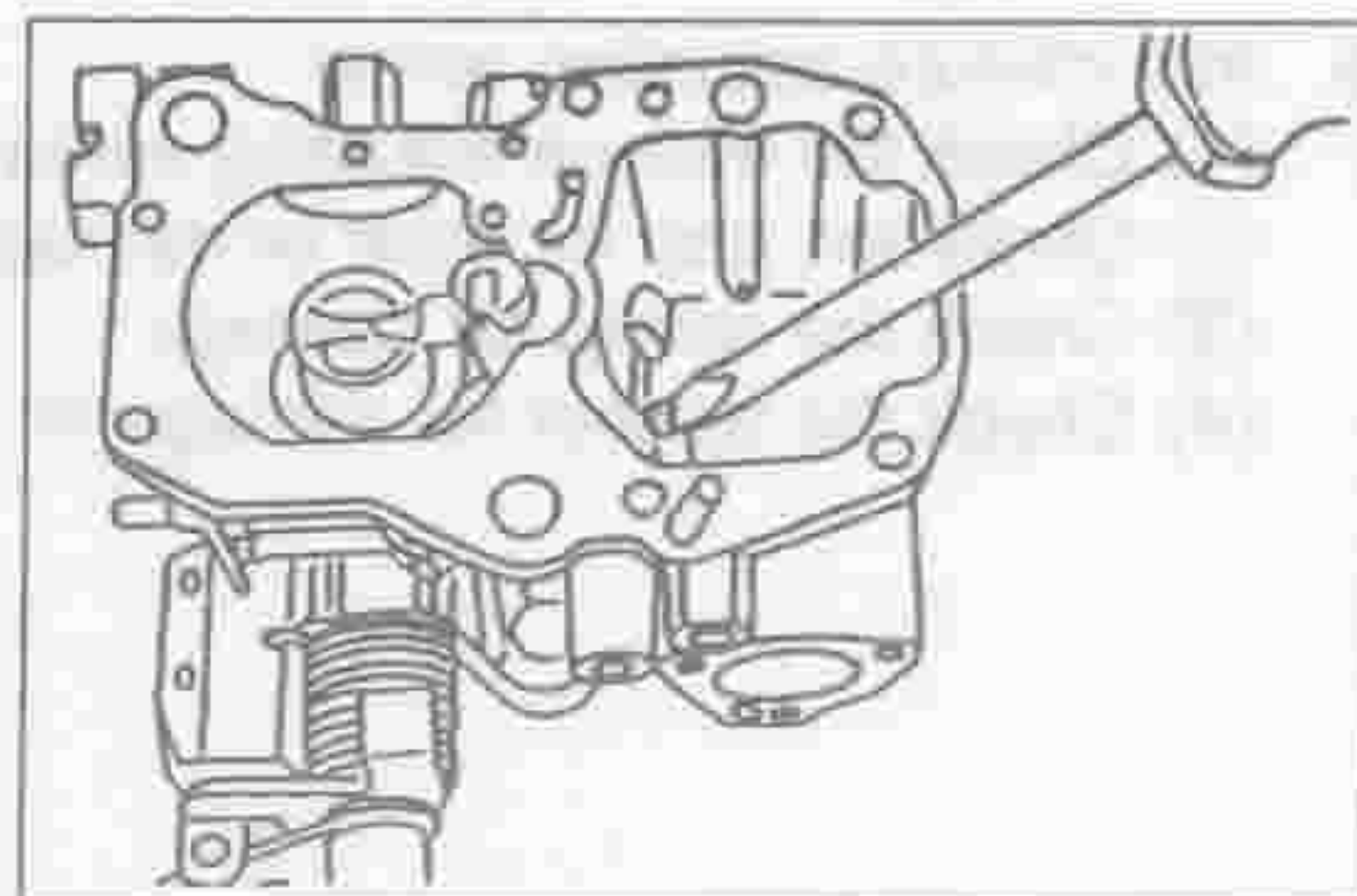


LFU00048-00042

ASSEMBLY OF CARBURETOR

1. Install the main jet to the mixing body.

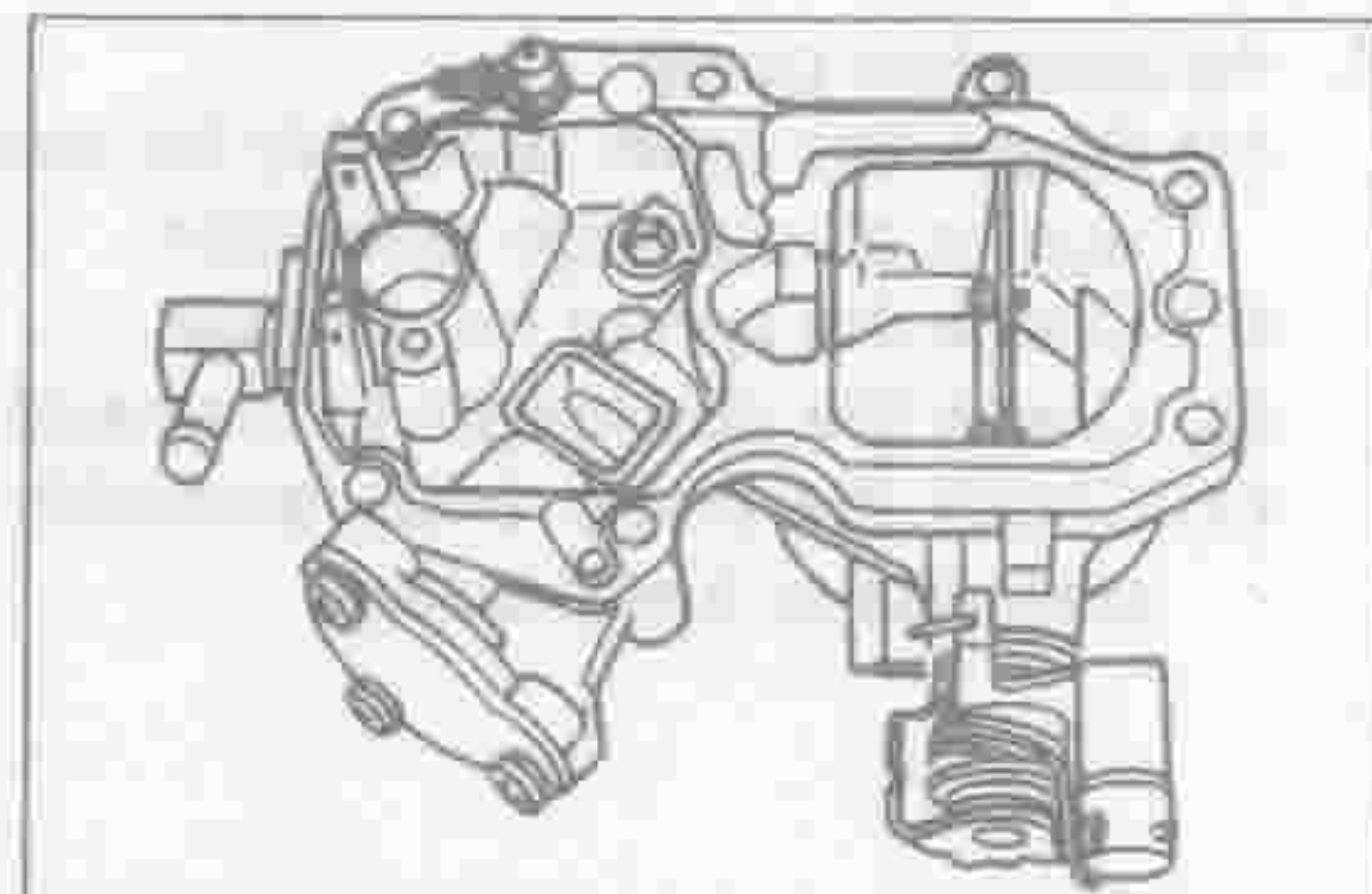
Tightening Torque: $1.7 \pm 0.49 \text{ N}\cdot\text{m}$ ($18 \pm 5 \text{ kgf}\cdot\text{cm}$)



LFU00049-00043

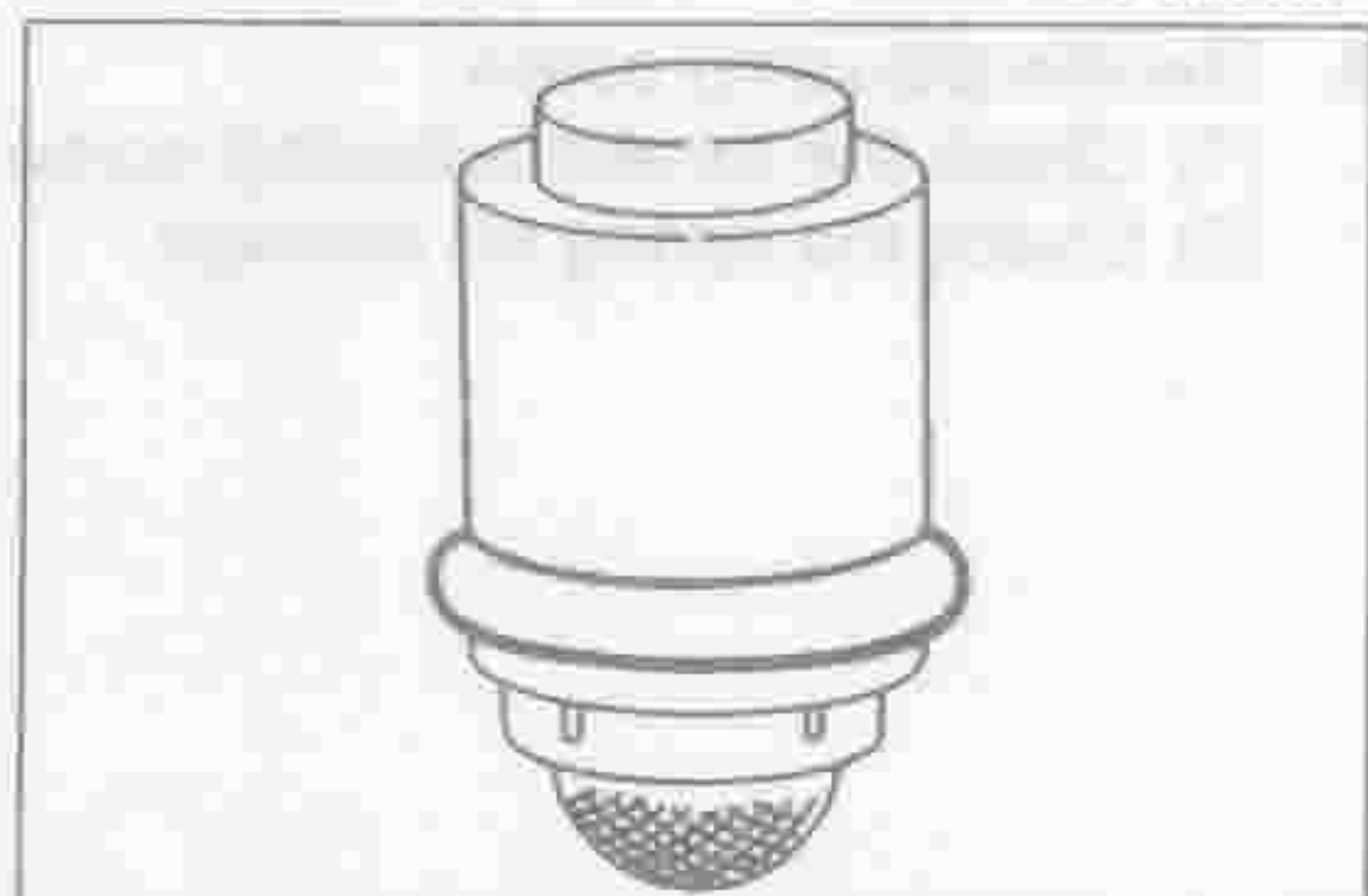
2. Assembly of float cover

- (1) Install a new O-ring to the jet.



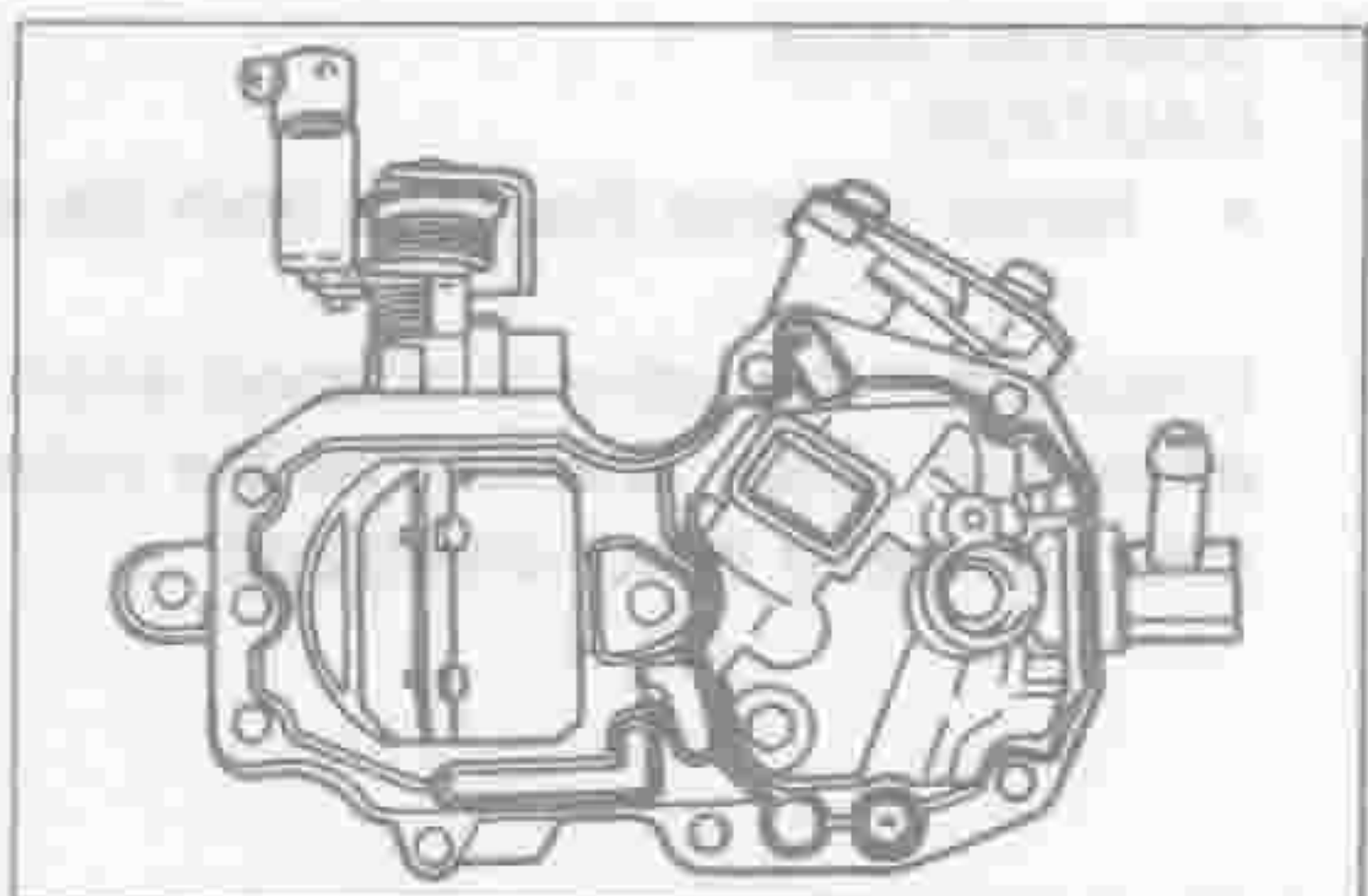
LFU00050-00044

- (2) Install a new valve seat O-ring.
- (3) Install the filter to the valve seat.



LFU00051-00045

- (4) Insert the adjusting shim to the float chamber cover.



LFU00052-00046

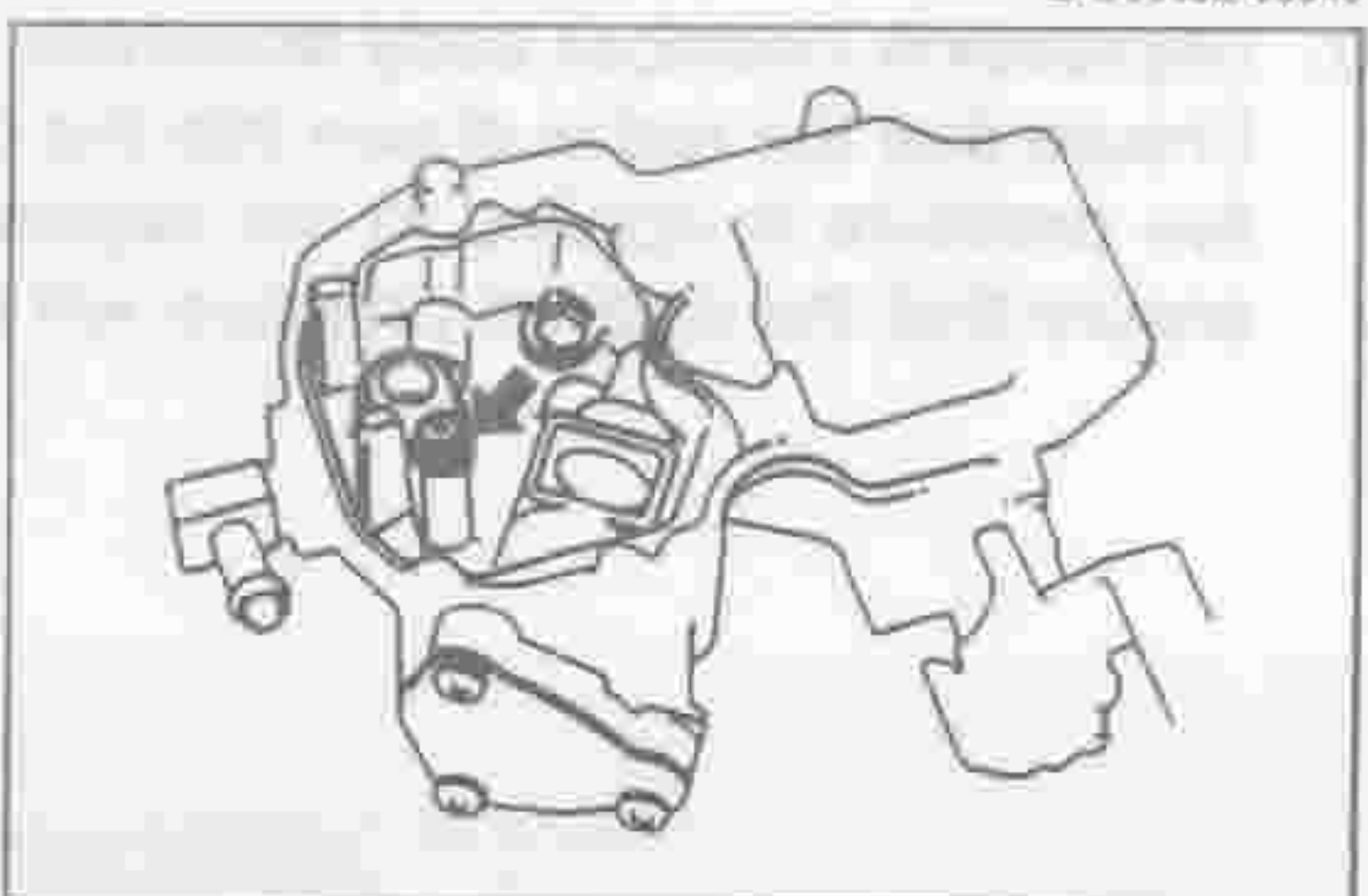
- (5) Insert the valve seat to the float chamber cover.

NOTE:

- Be very careful not to damage the O-ring.

- (6) Install the valve seat retaining plate with screws.

Tightening Torque: $1.96 \pm 0.49 \text{ N}\cdot\text{m}$ ($20 \pm 5 \text{ kgf}\cdot\text{cm}$)



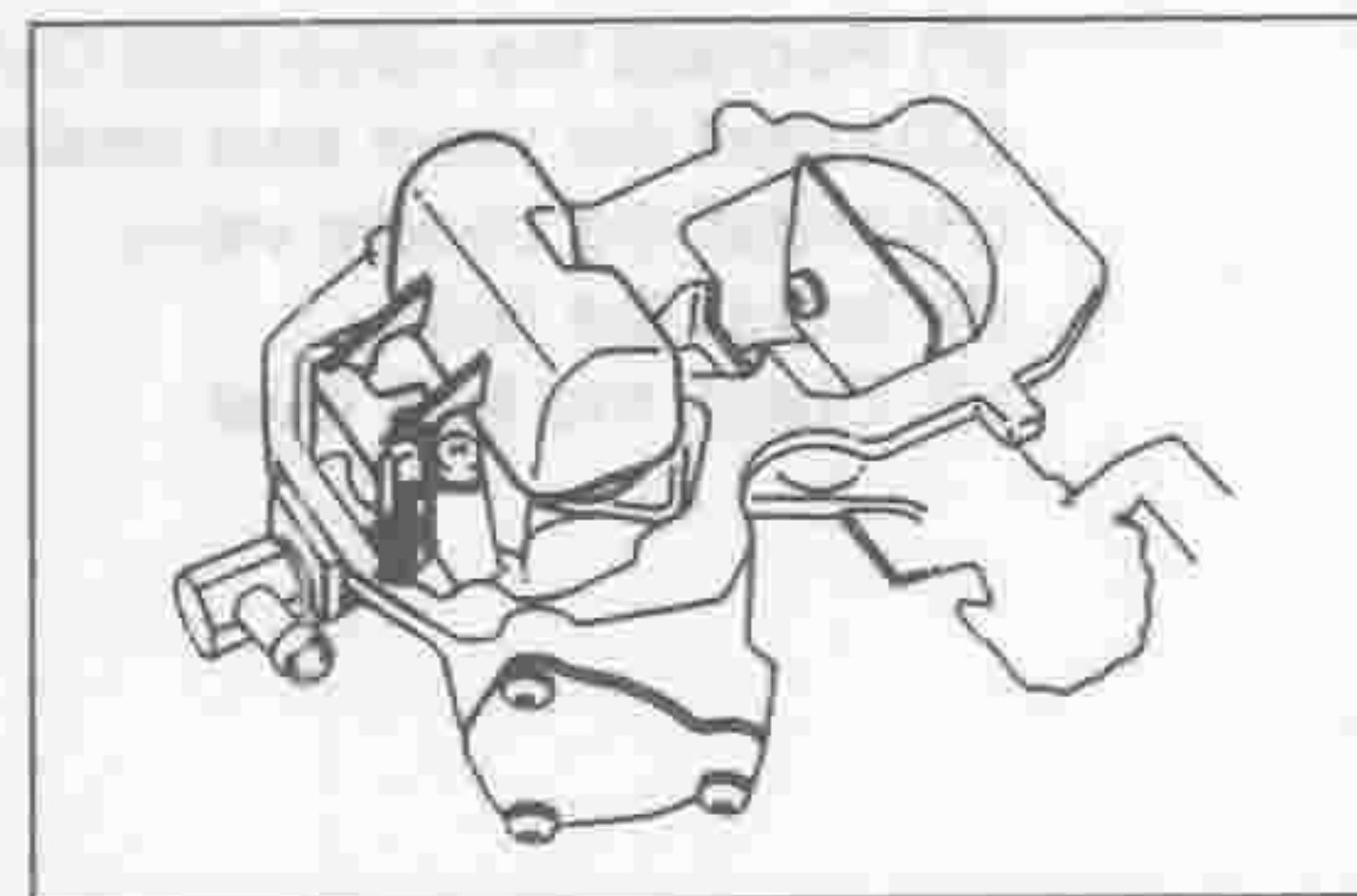
LFU00053-00047

(7) Install the needle valve to the valve seat.

(8) Install the float with a float pin.

NOTE:

- Hook the forward end of the needle valve to the pawl of the float.



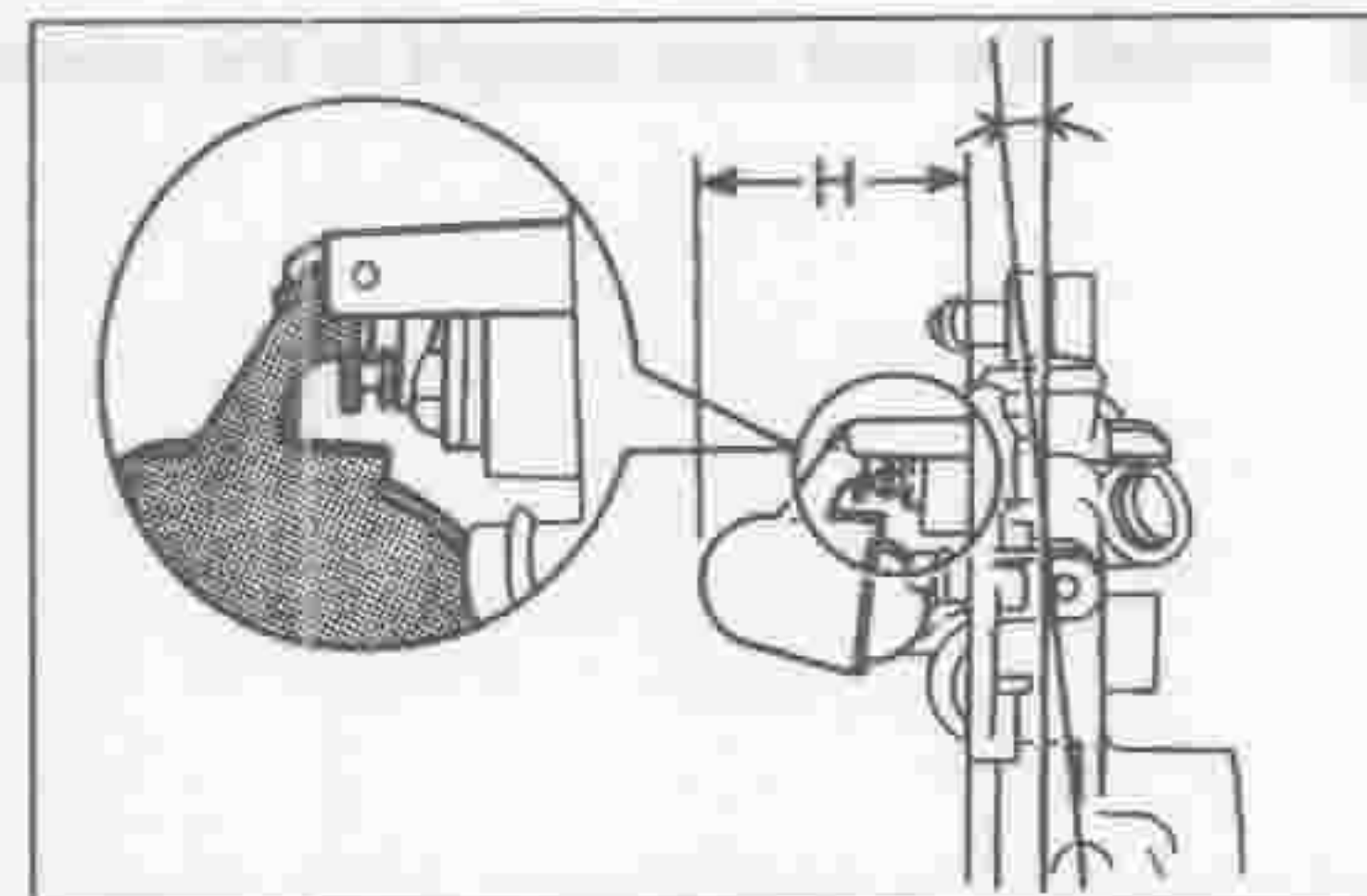
LFU00054-00048

(9) Check and adjustment of float level

① Check

With the float installed to the float chamber cover, gradually tilt the float chamber cover from perpendicular state, as indicated in the right figure. Continue the tilting, until the float arm contacts with the forward end of the needle valve. However, at this time, the spring built in the needle valve should not be compressed. Ensure that the dimension H conforms to the specification.

Specified Dimension H: 36.5 mm



LFU00055-00049

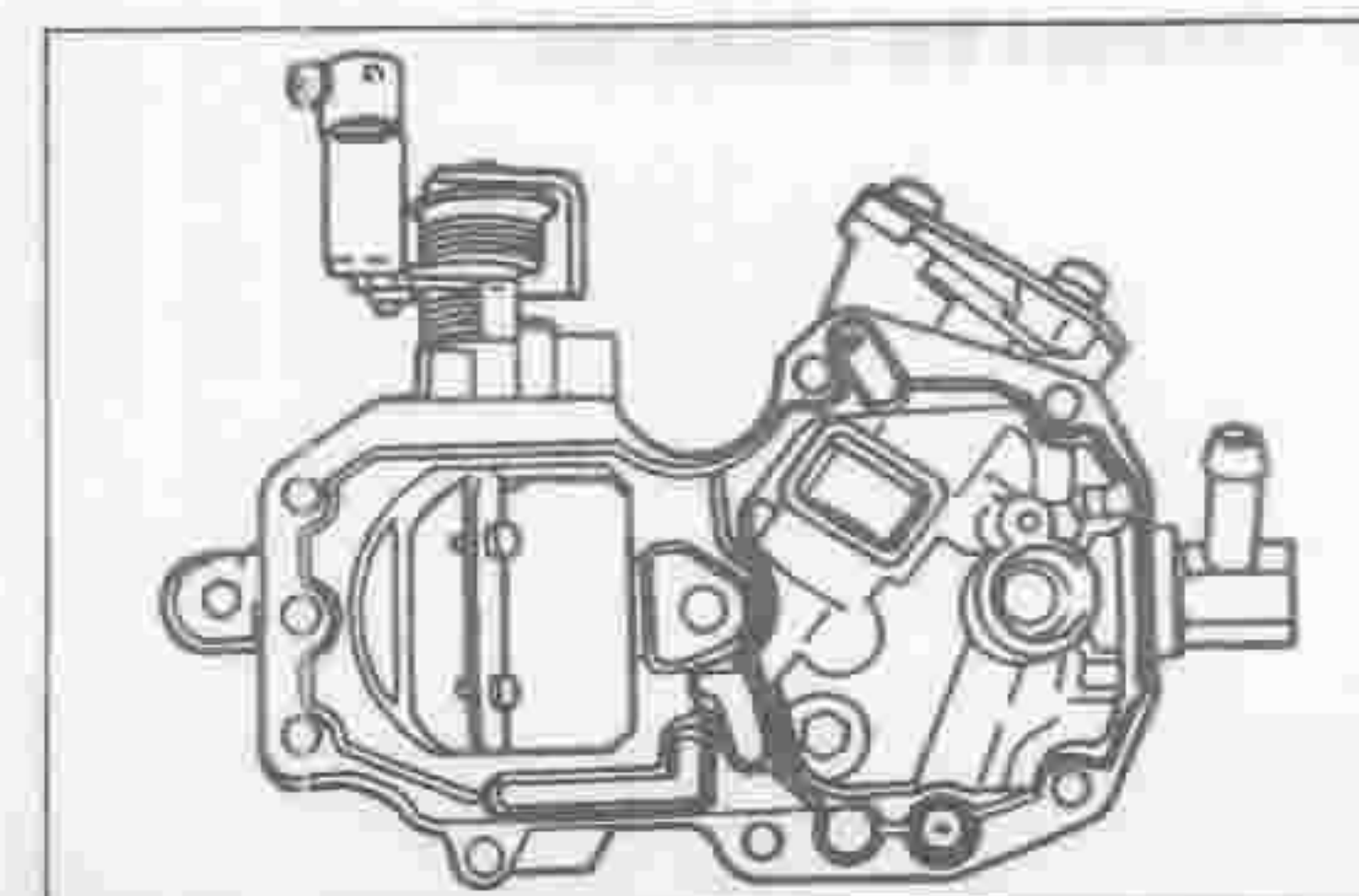
If the dimension H fails to conform to the specification, adjust the adjusting shim so that the dimension H may conform to the specification.

If the dimension H conforms to the specification, replace the O-ring of the needle valve seat with a new one and perform the assembling.

② Adjustment

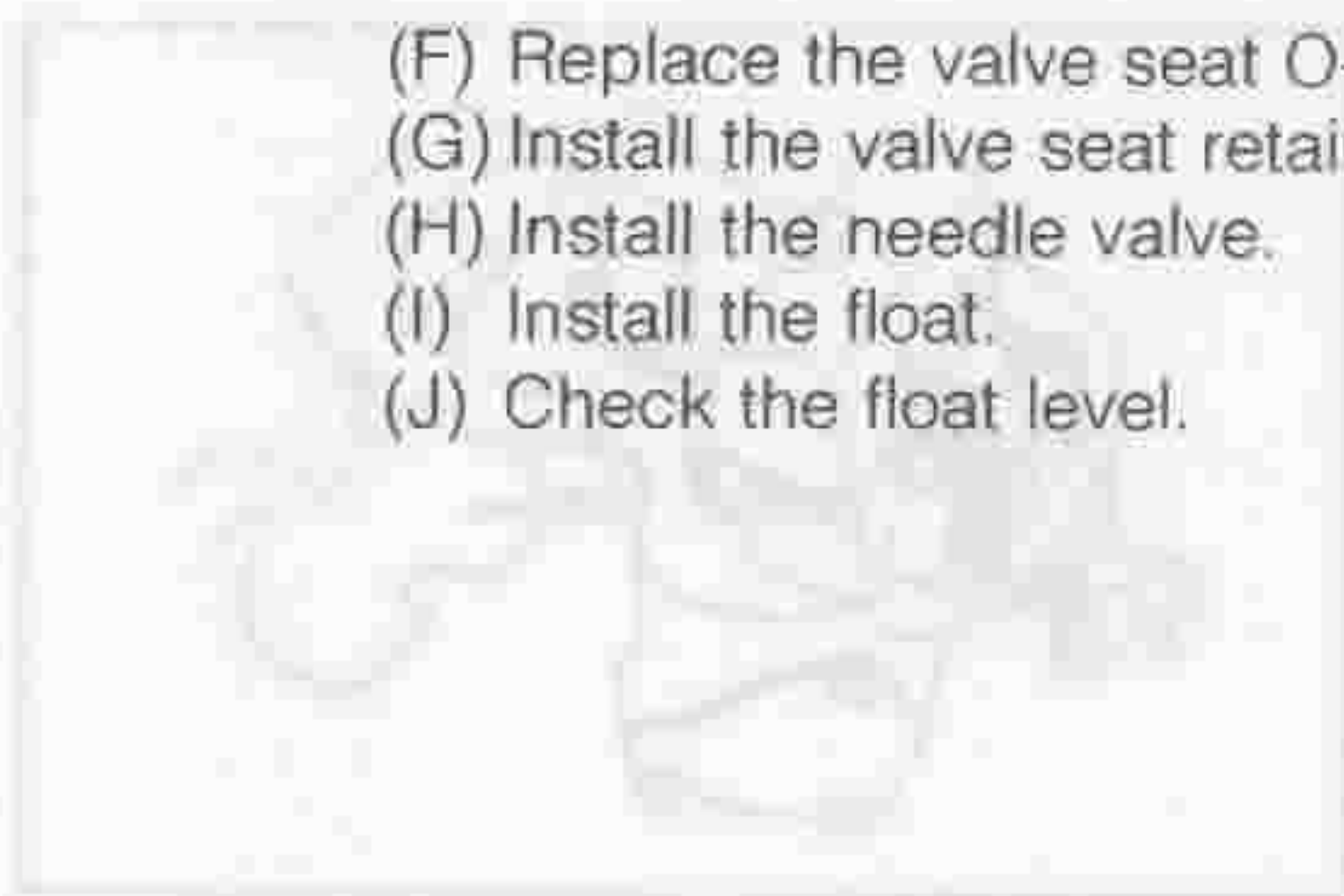
- Remove the float pin.
- Remove the float and the needle valve.
- Remove the valve seat retaining plate.
- Remove the valve seat with the strainer.

- Increase or decrease the number of the shims, as required.



LFU00056-00050

- (F) Replace the valve seat O-ring with a new one.
- (G) Install the valve seat retaining plate.
- (H) Install the needle valve.
- (I) Install the float.
- (J) Check the float level.



3. Install the ball and weight to the mixing body.



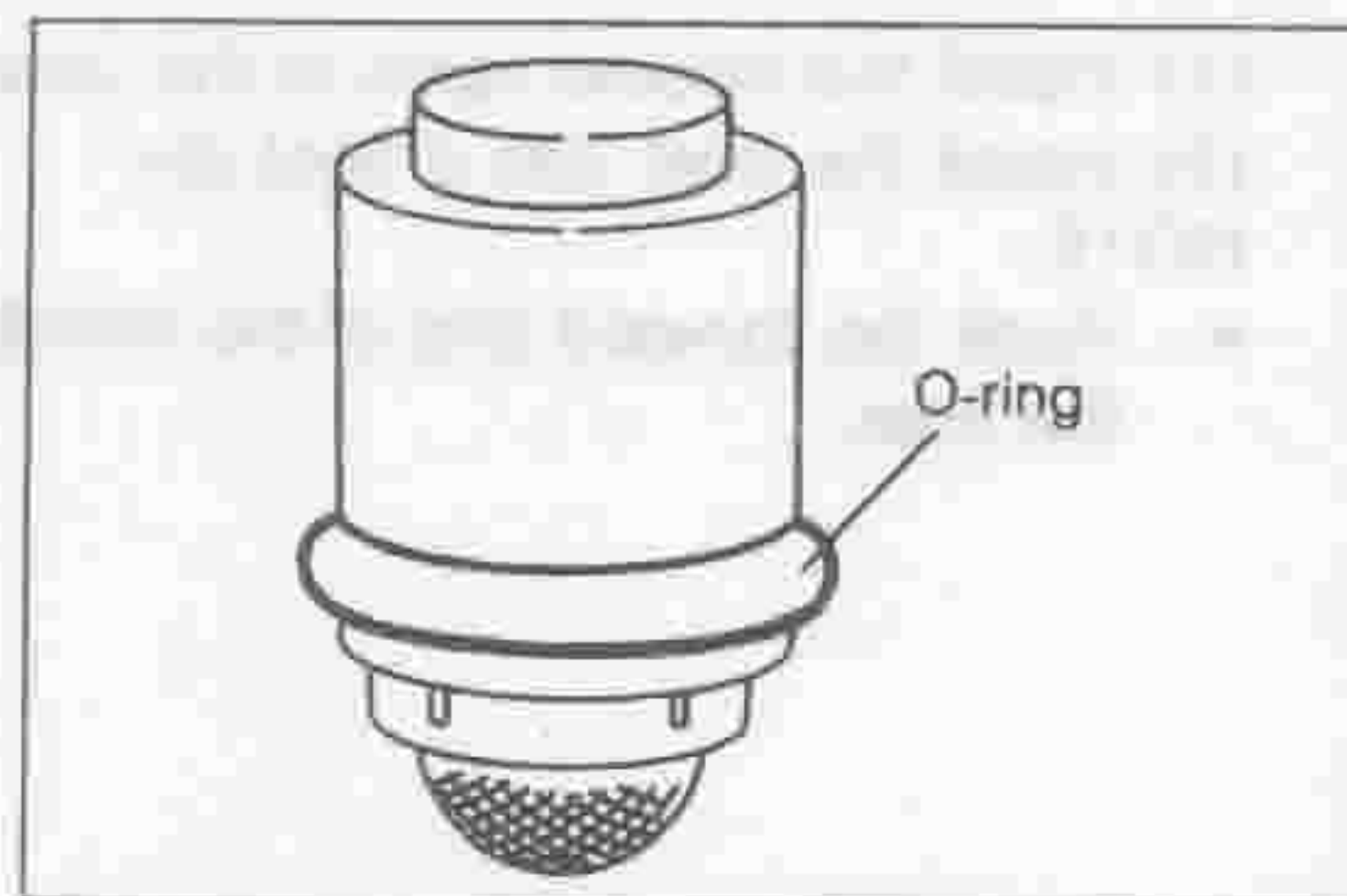
4. Place a new gasket on the mixing body.

5. Install the float chamber cover.

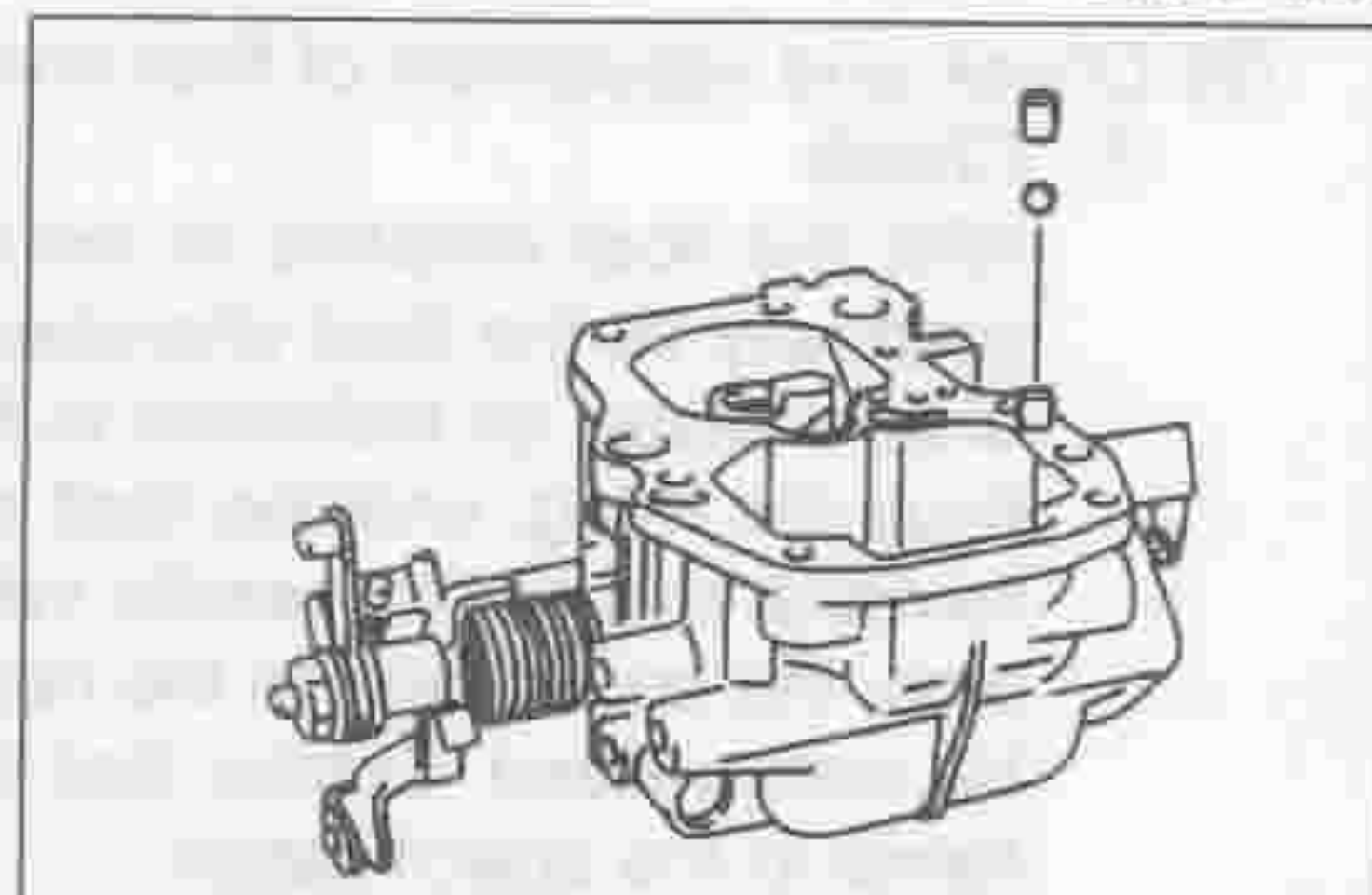
NOTE:

- Attach the wire clip and ground wire to the position indicated in the figure.

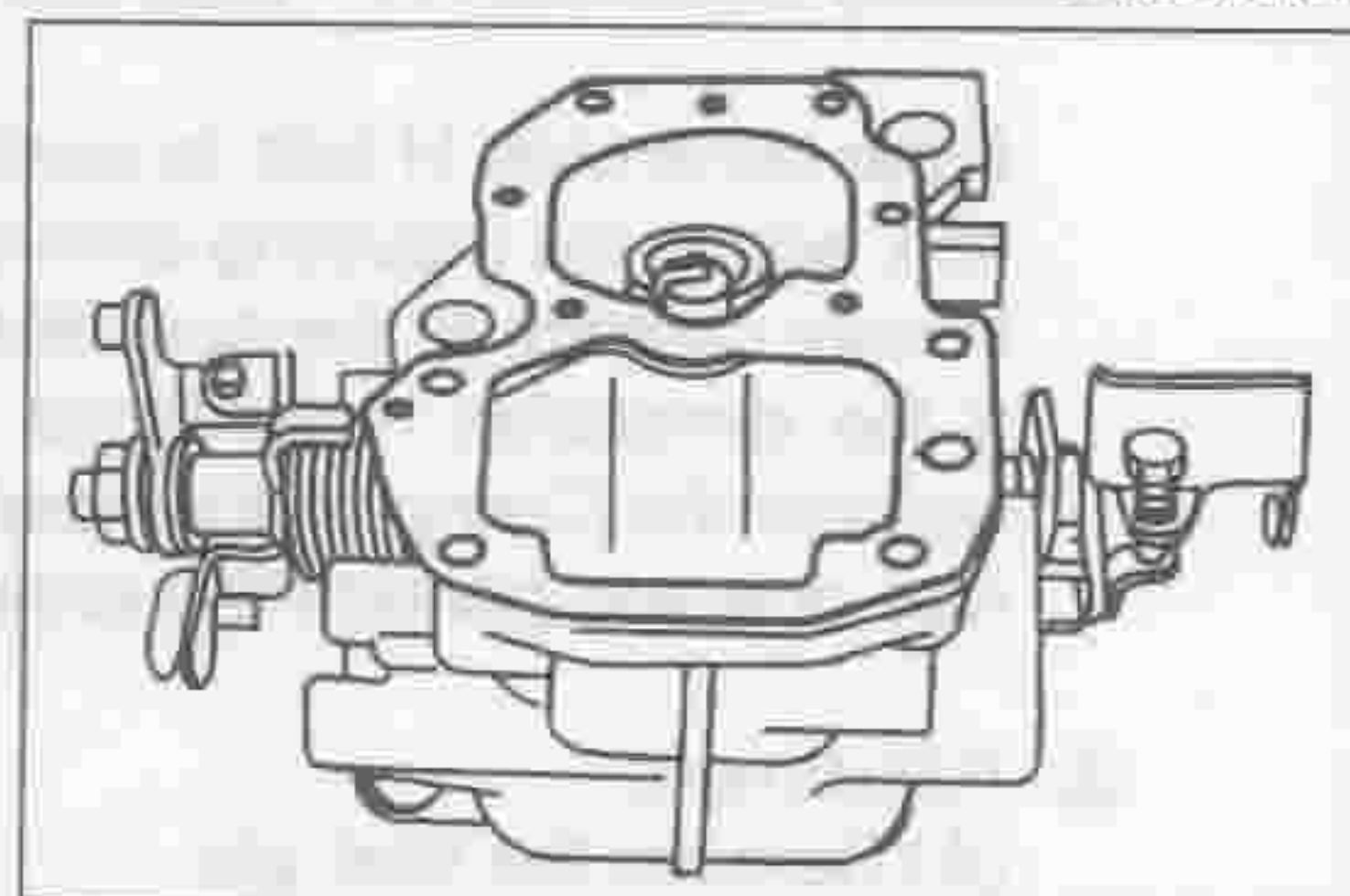
6. Connect the choke link.



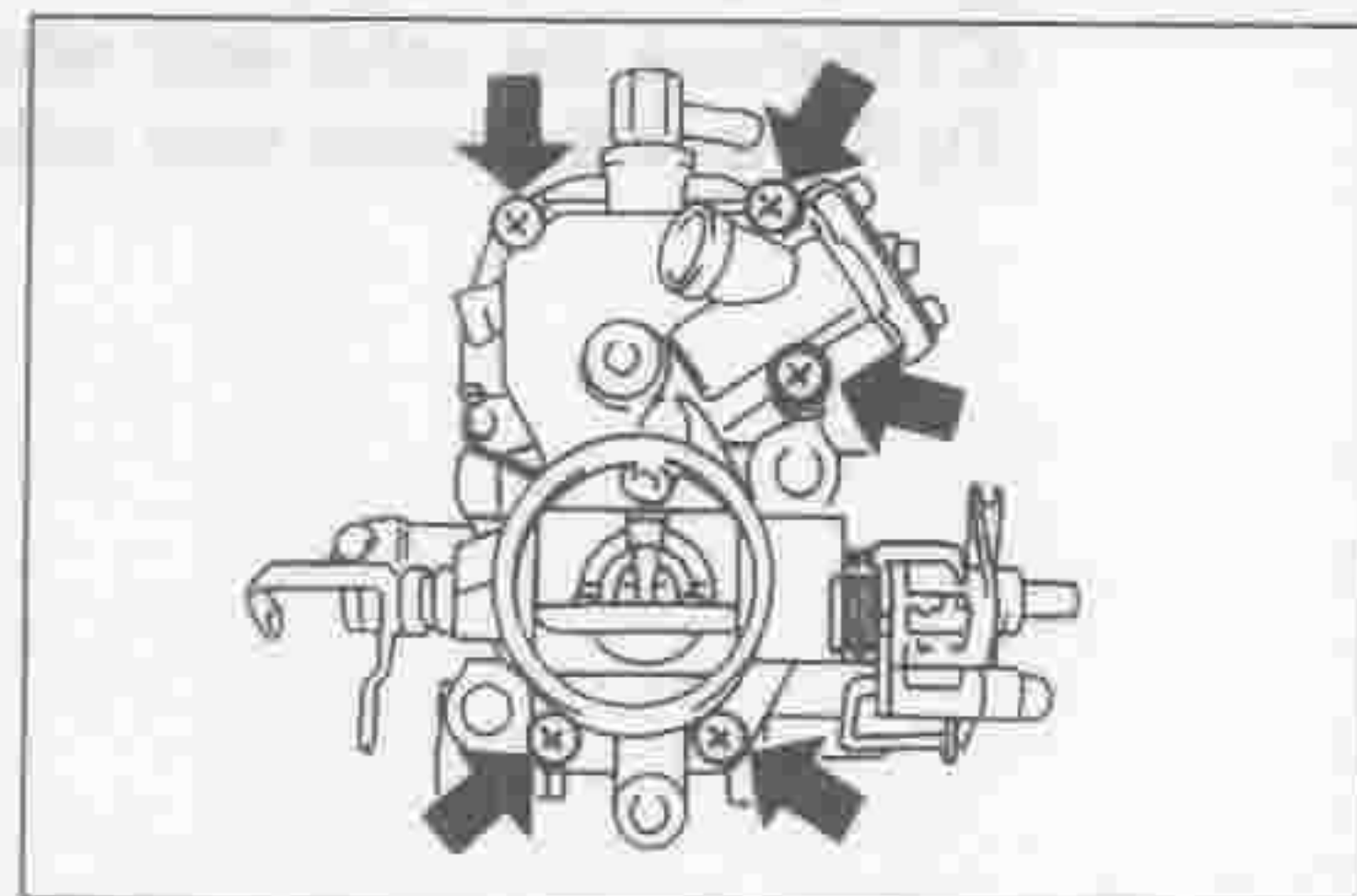
LFU00057-00051



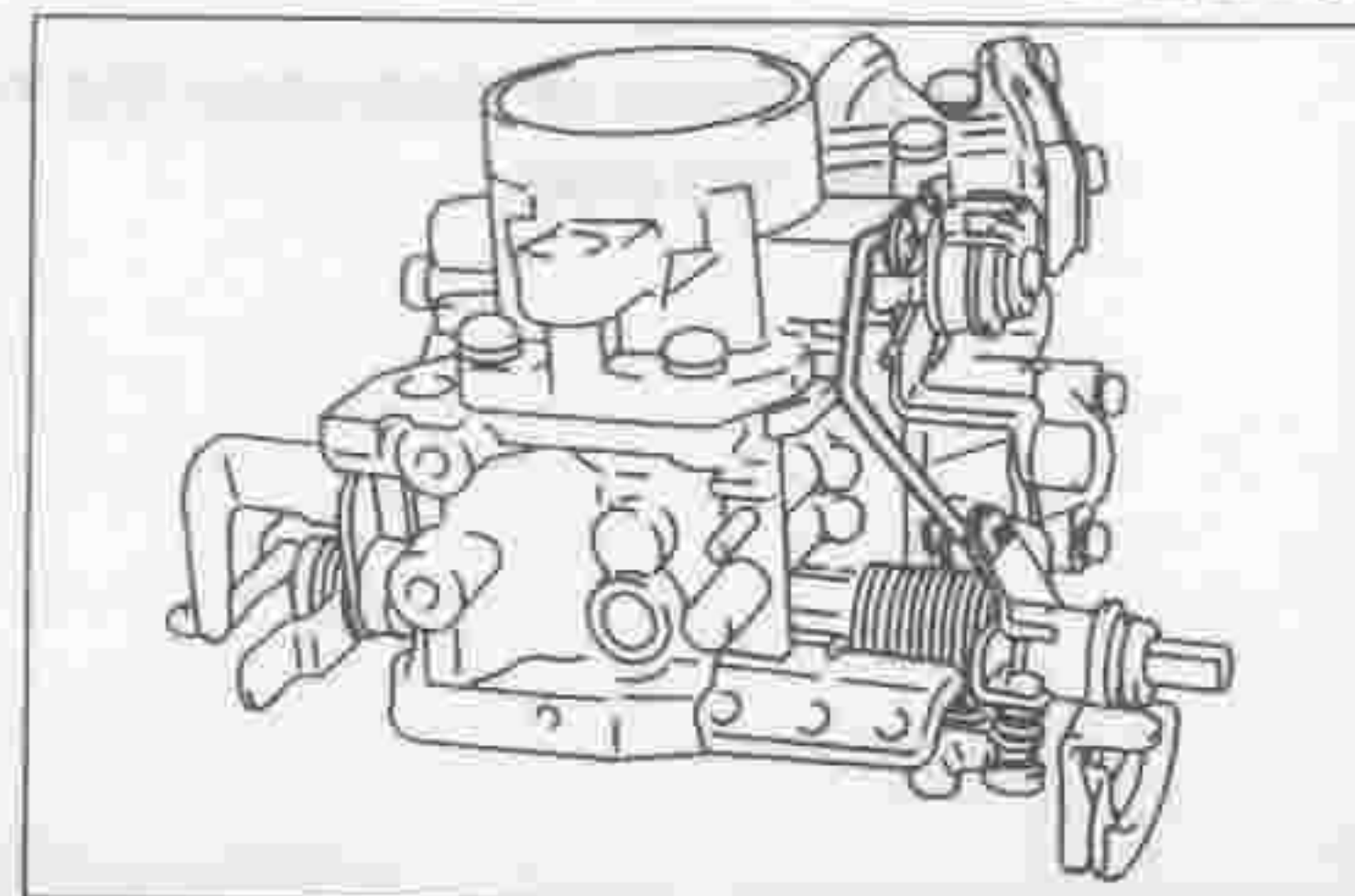
LFU00058-00052



LFU00059-00053



LFU00060-00054



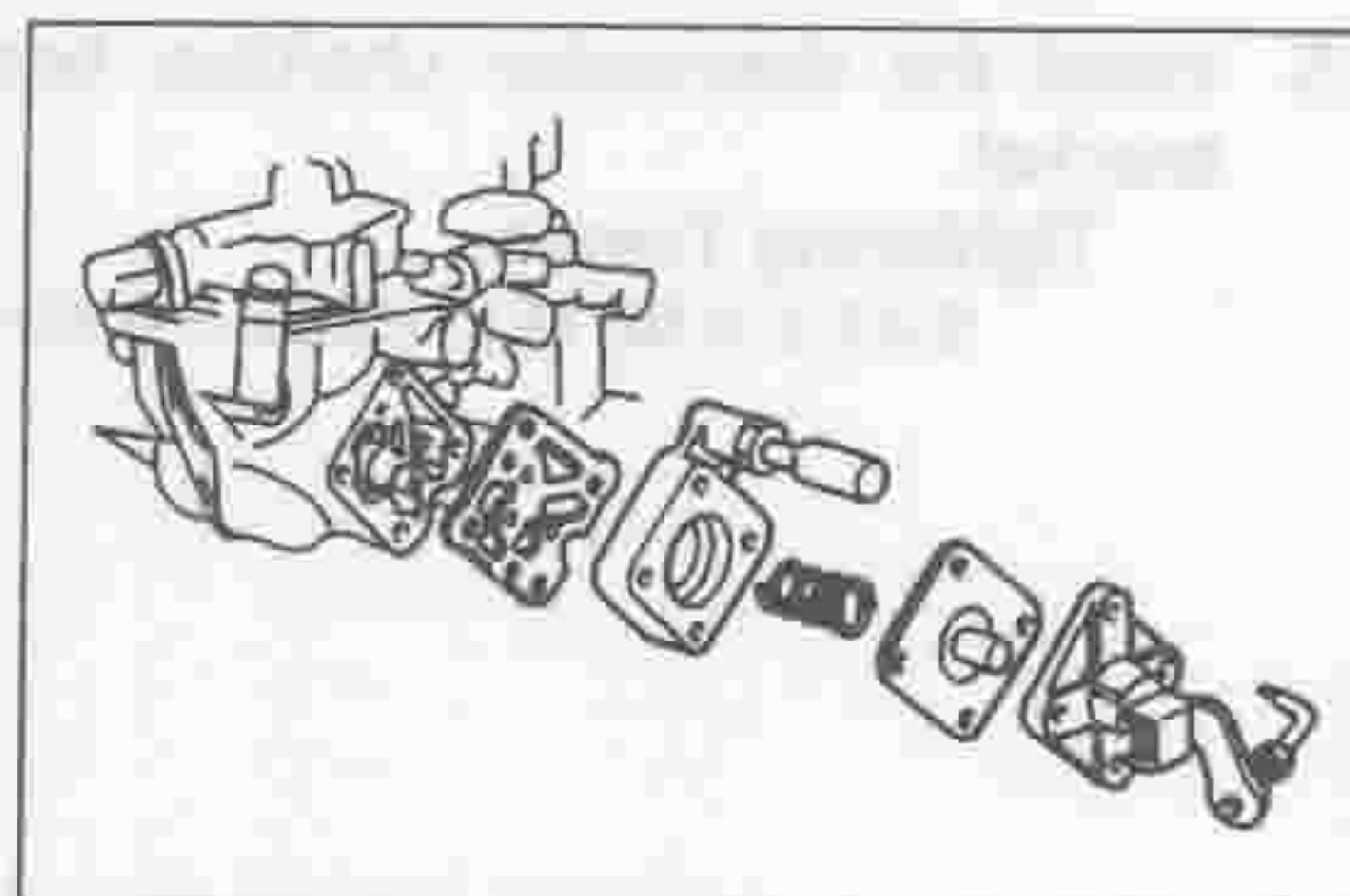
LFU00061-00055

7. Installation of acceleration pump

- (1) Install the pump body assembly diaphragm, spring and cover with a new gasket interposed.

NOTE:

- Install the parts in such a way that the protrusion of the gasket comes to the position indicated in the right figure.



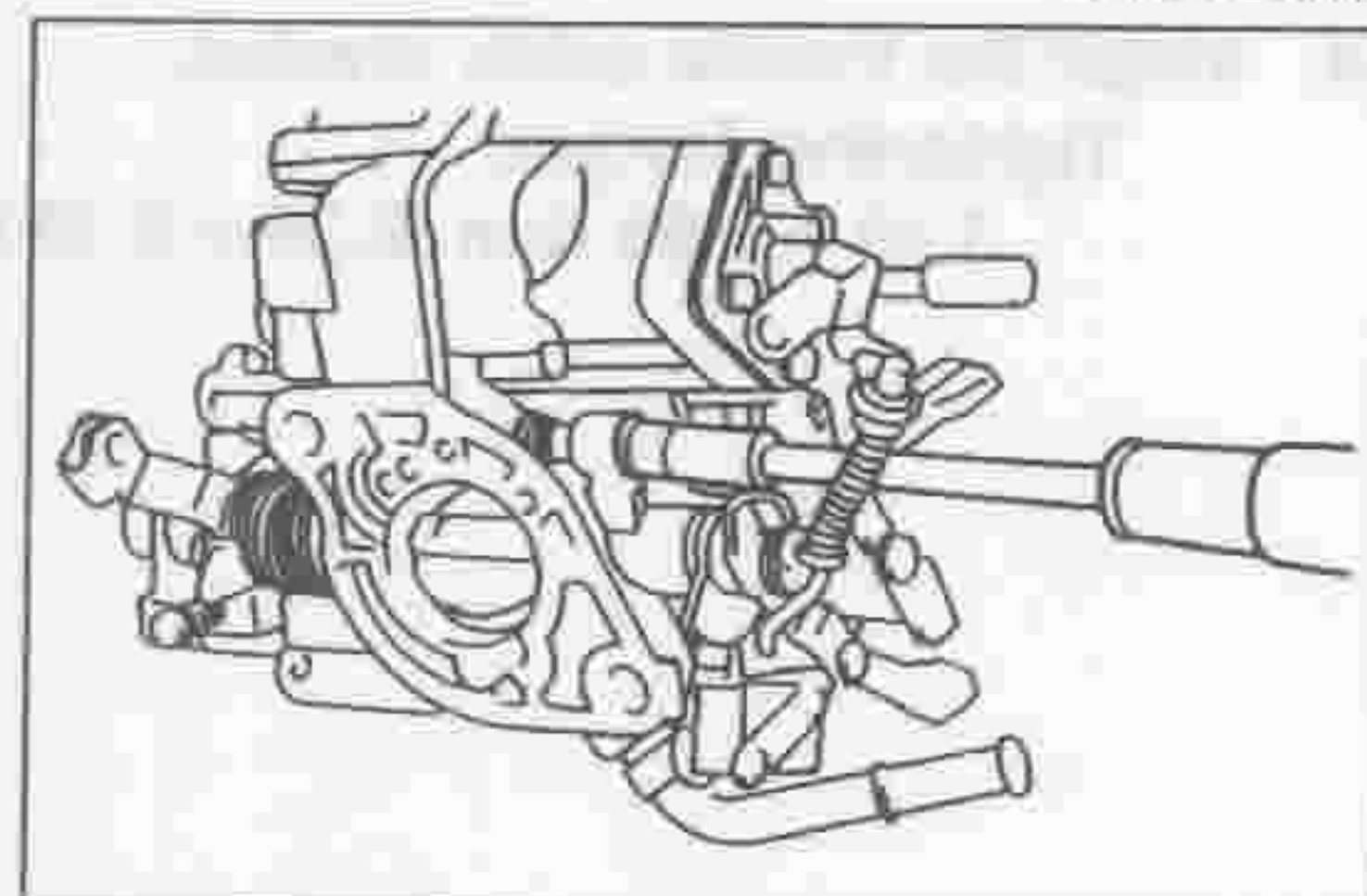
LFU00062-00056

8. Install the idle mixture adjusting screw with a new gasket interposed, using the following SST.

SST: 09243-87201-000

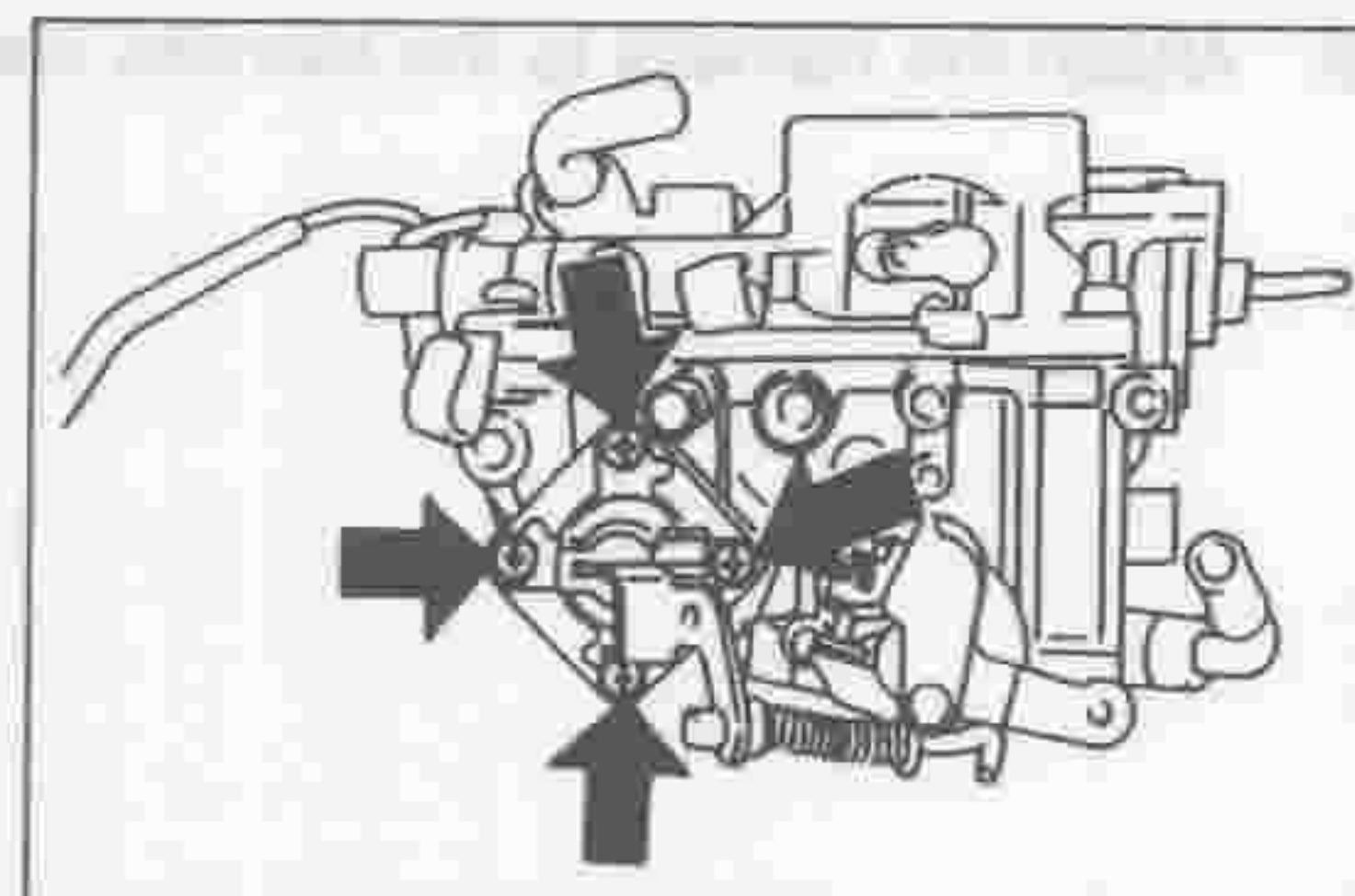
NOTE:

- Make sure that the cap engages with the rib of the mixing body, as indicated in the right figure.



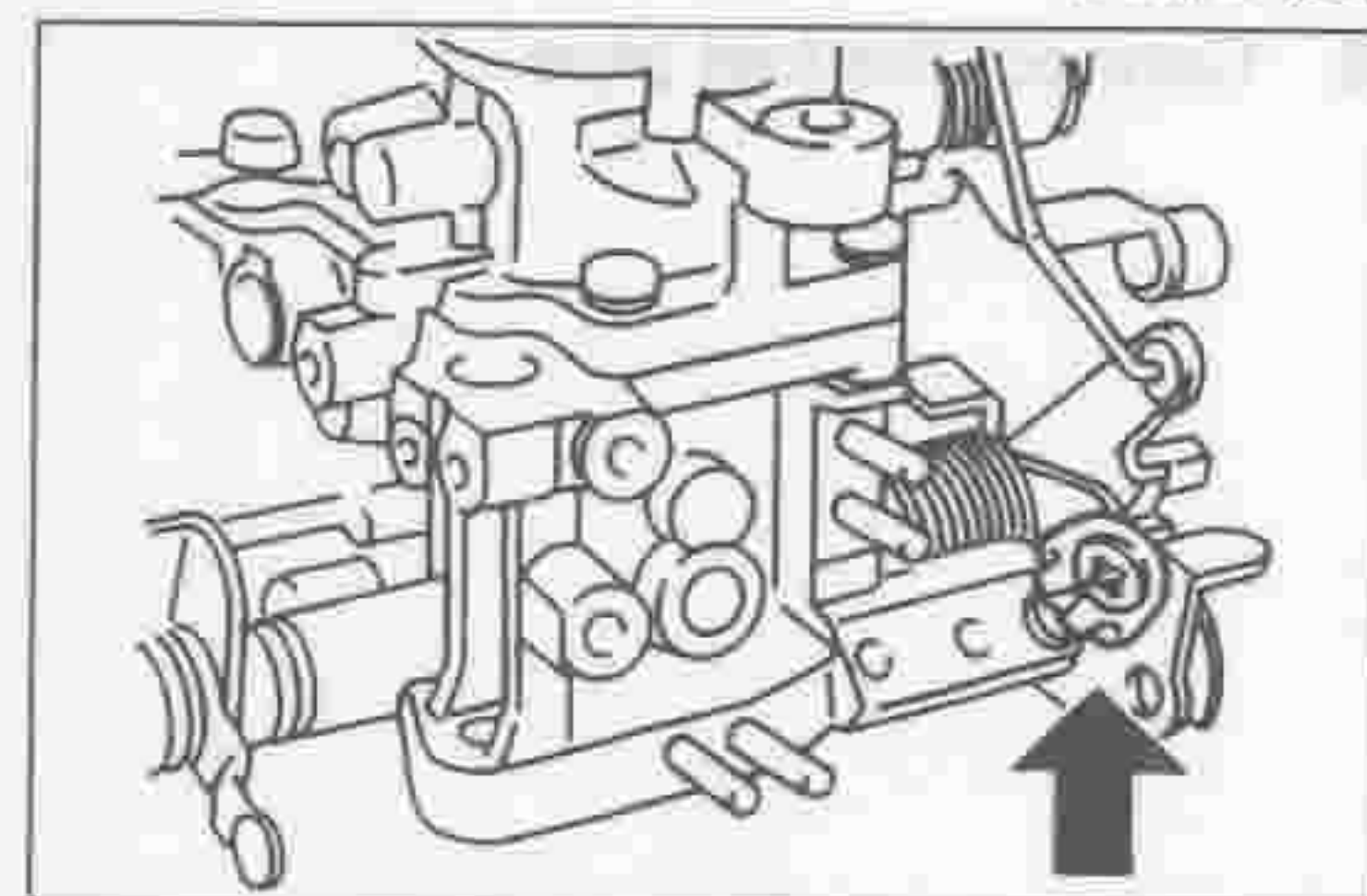
LFU00063-00057

9. Connect the acceleration pump rod to the throttle lever.
10. Install the E-ring.



LFU00064-00058

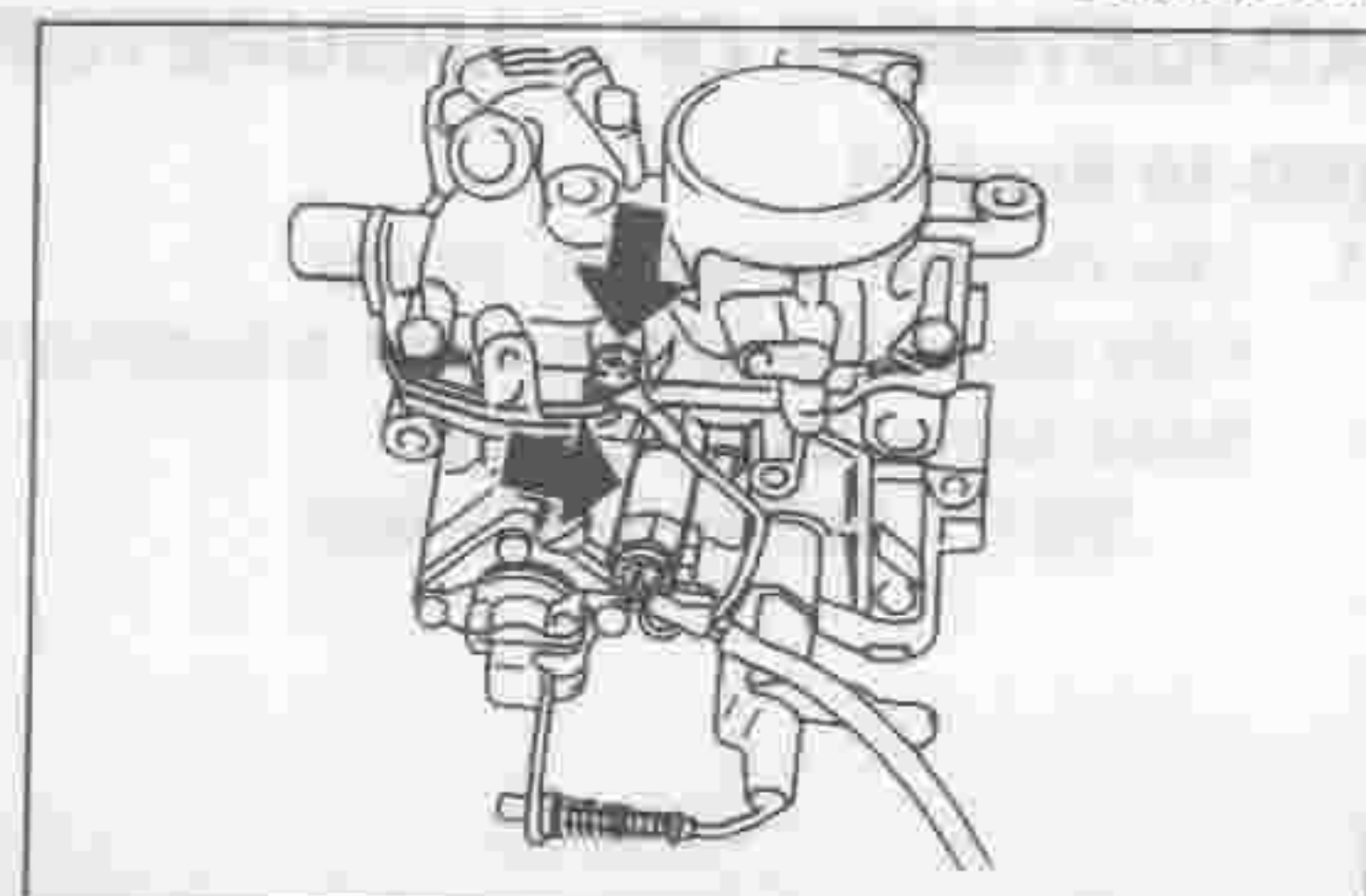
11. Install the throttle adjusting screw.



LFU00065-00059

12. Installation of solenoid valve

- (1) Replace the O-ring with a new one.
- (2) Install the solenoid valve.

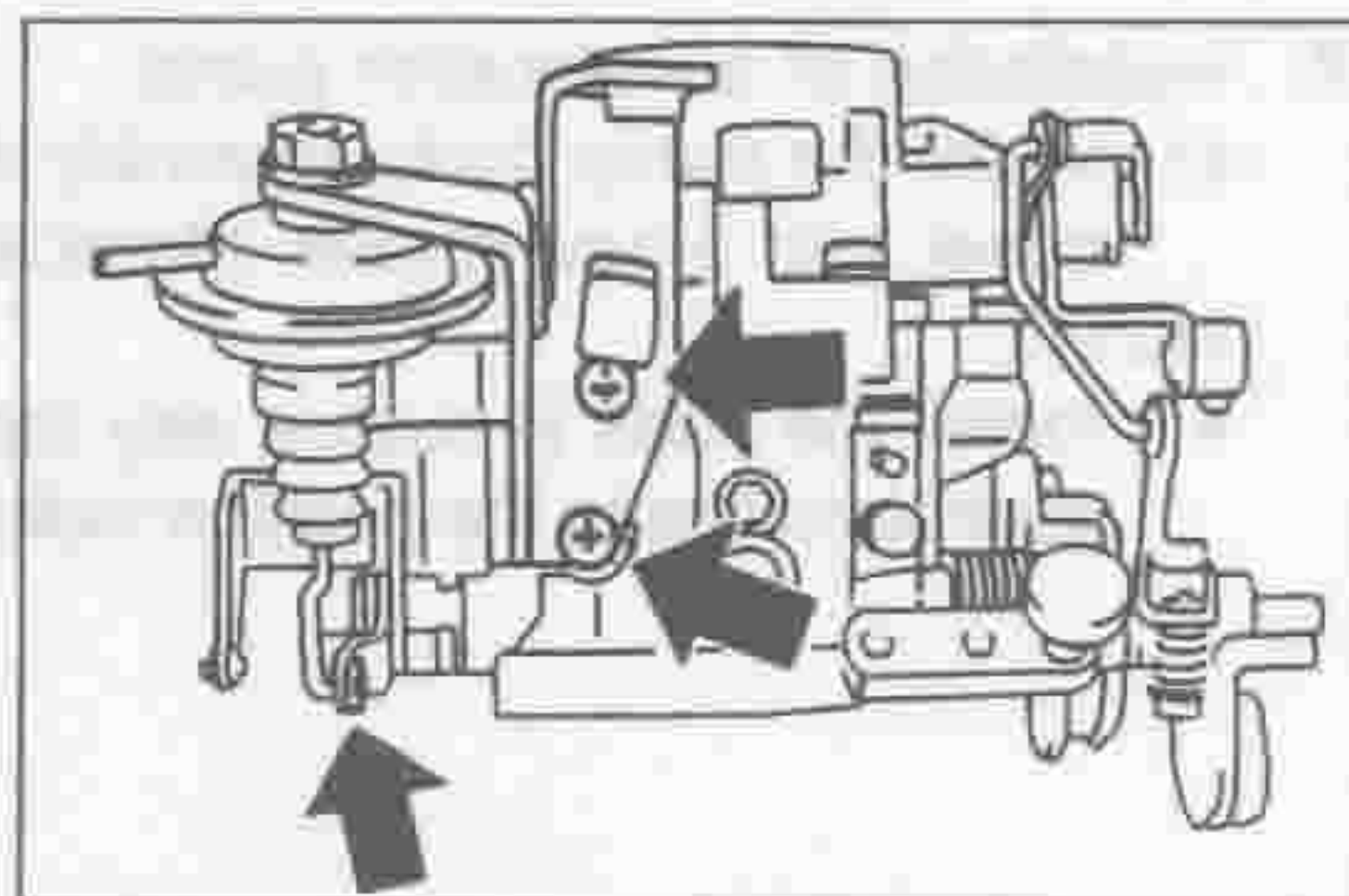


LFU00066-00060

13. Install the depression chamber body assembly with the bracket.

Tightening Torque:

$3.43 \pm 0.98 \text{ N}\cdot\text{m}$ ($0.35 \pm 0.10 \text{ kgf}\cdot\text{m}$)

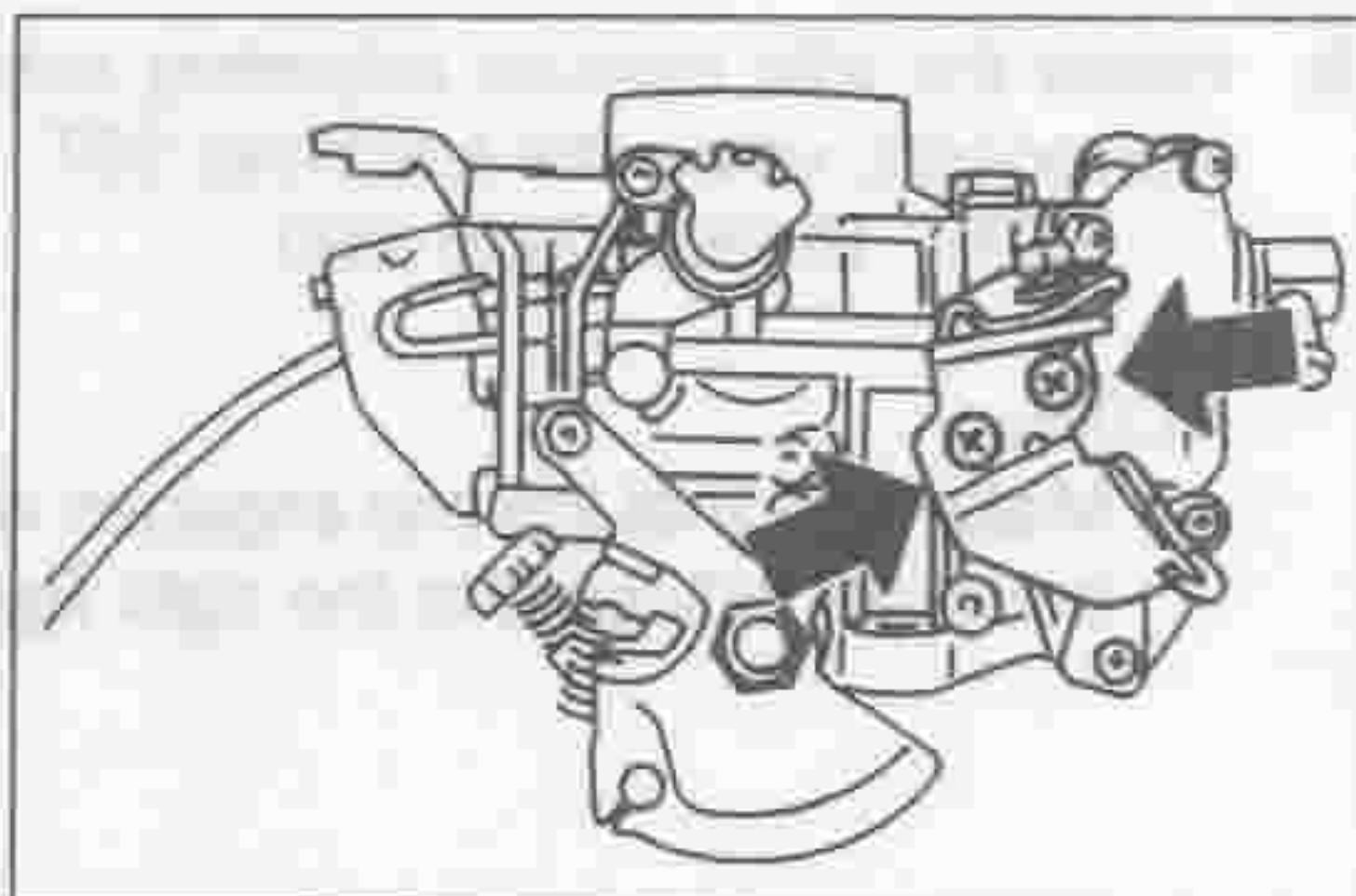


LFU00067-00061

14. Install the throttle cable bracket.

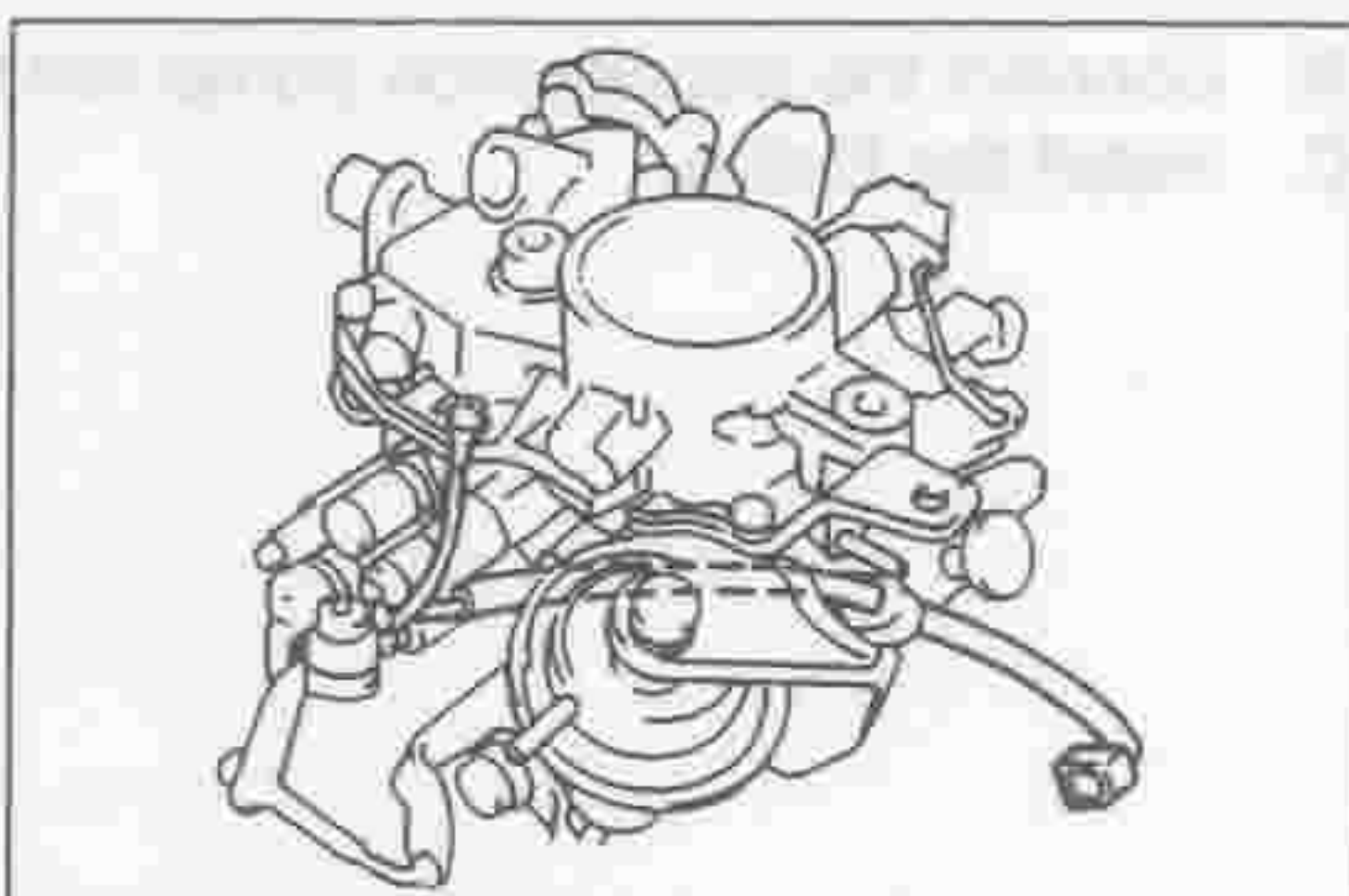
Tightening Torque:

$3.43 \pm 0.98 \text{ N}\cdot\text{m}$ ($0.35 \pm 0.10 \text{ kgf}\cdot\text{m}$)



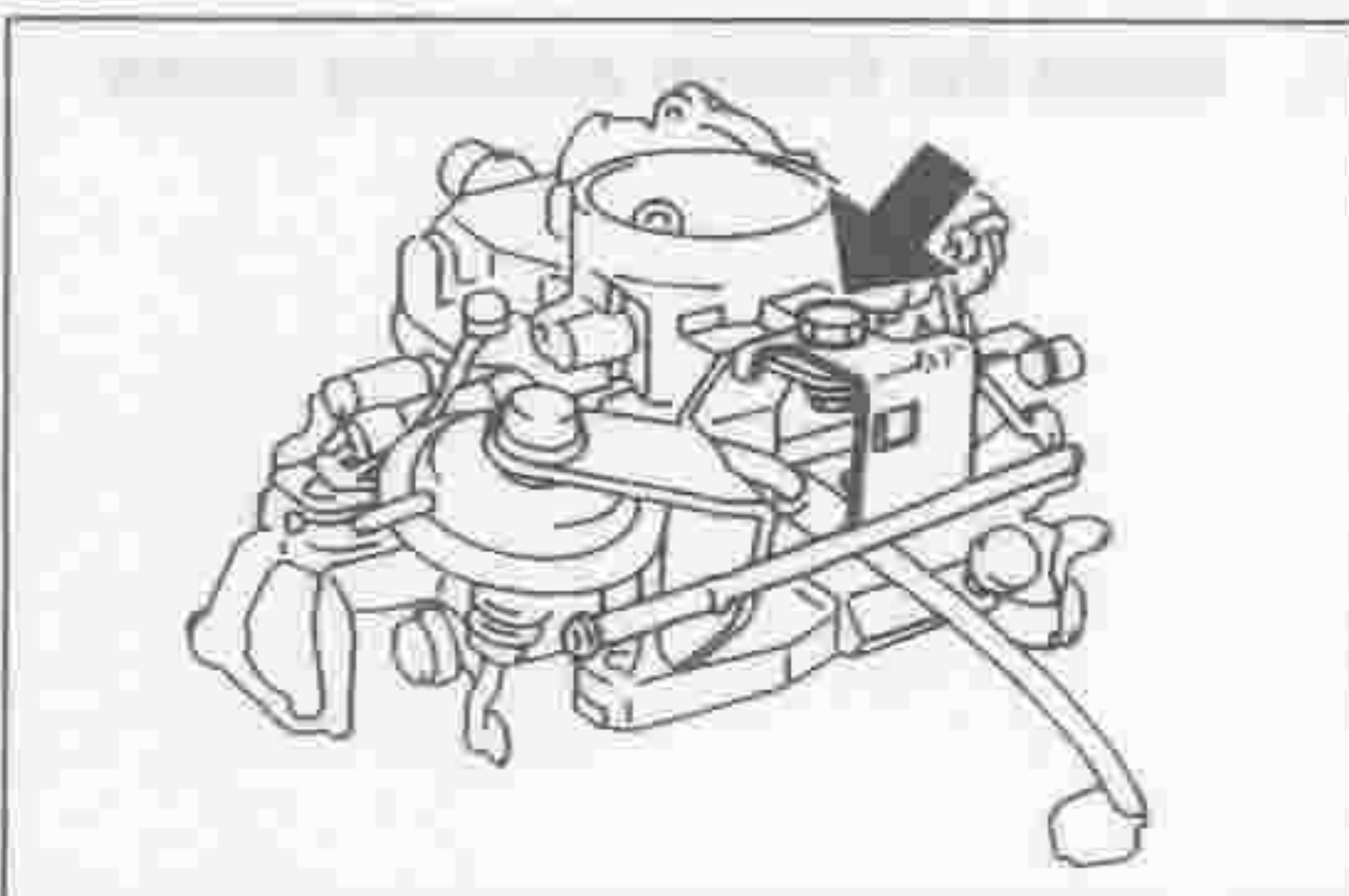
LFU00068-00062

15. Attach the harness to the harness clamp.



LFU00069-00063

16. Connect the fuel pipe.



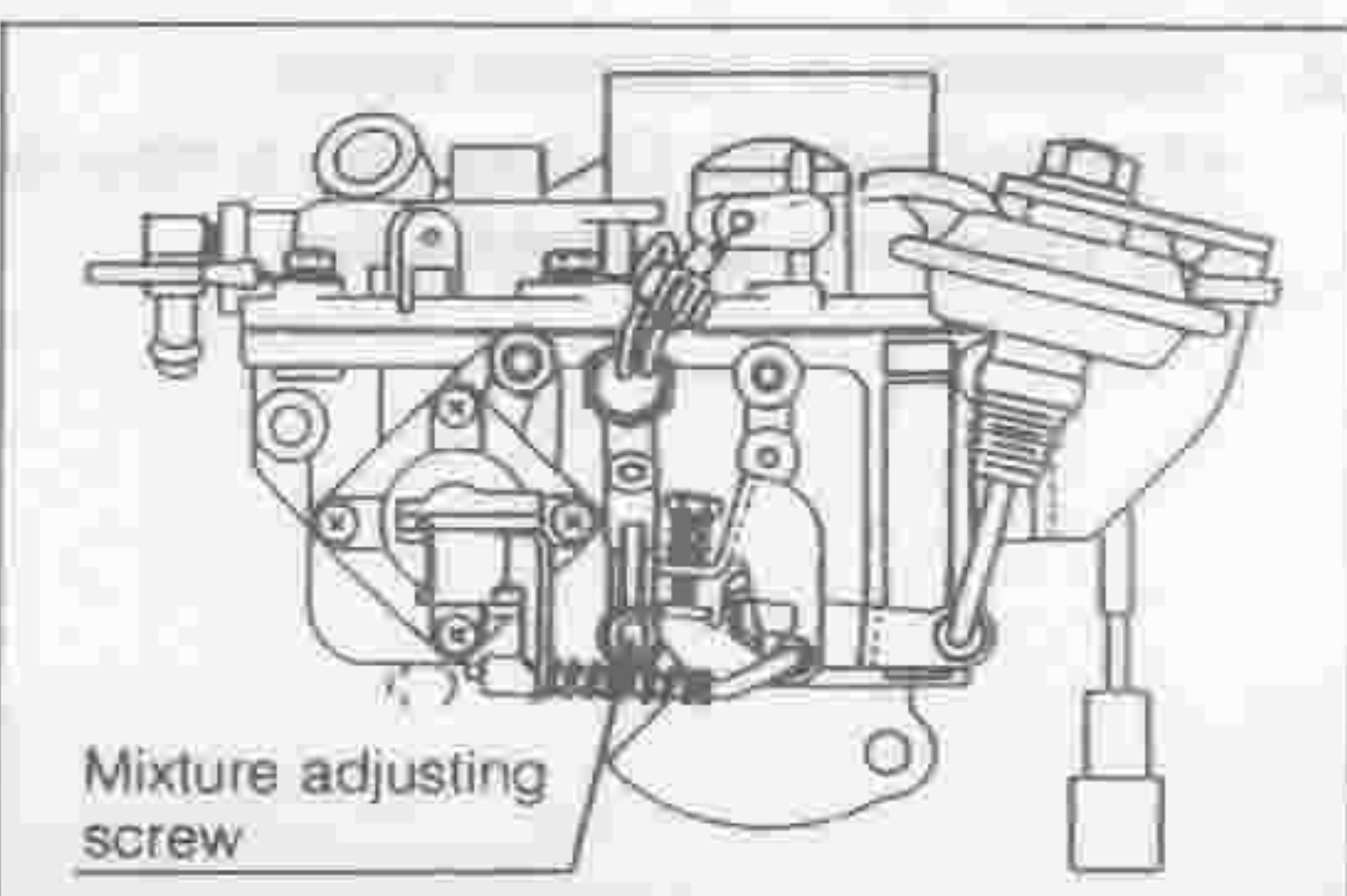
LFU00070-00064

ADJUSTMENT OF CARBURETOR

[ED-10 Engine]

1. Idle mixture adjusting screw
Fully close the idle mixture adjusting screw and back it off three turns, using the SST.

SST: 09243-87201-000

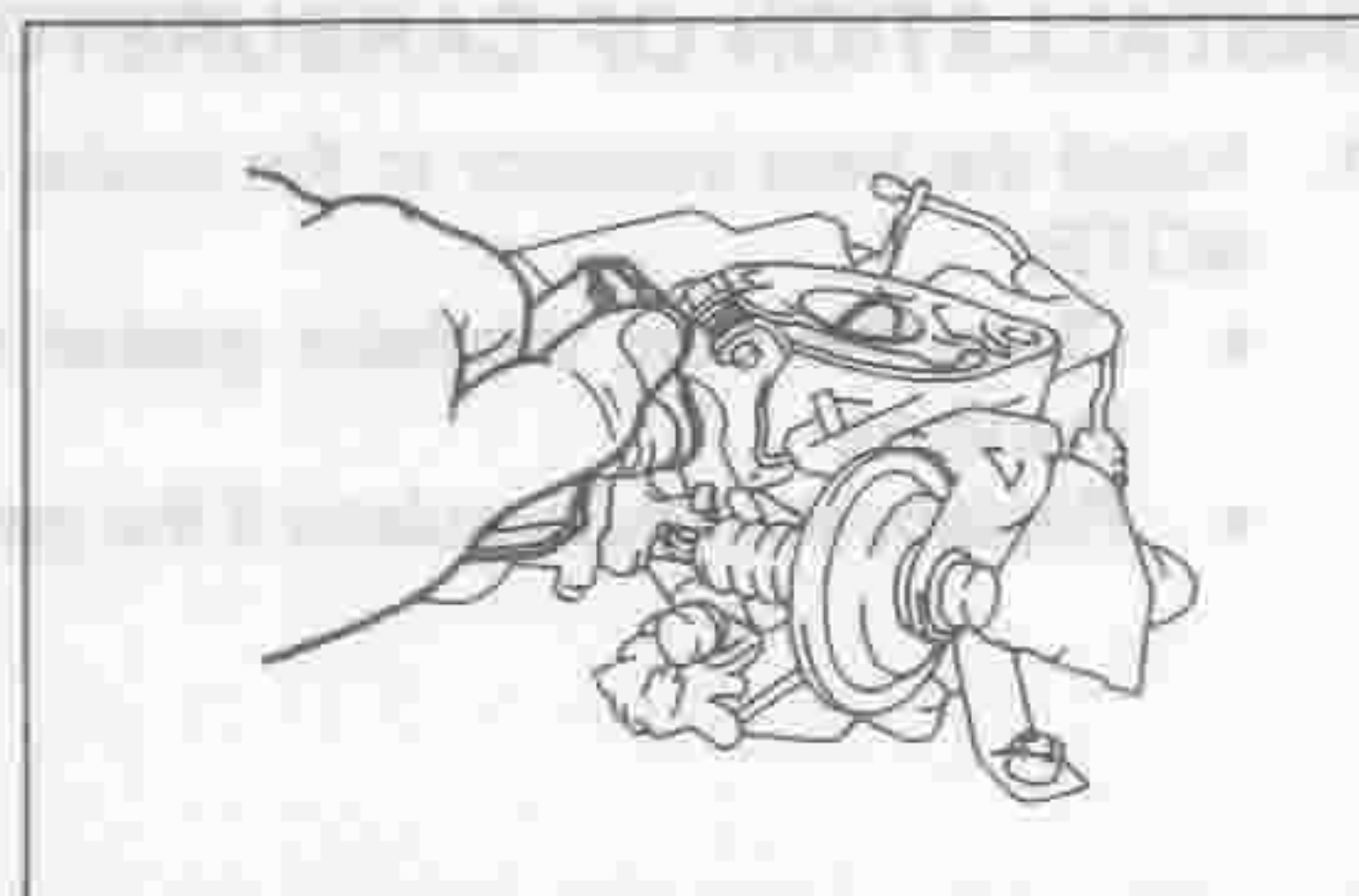


LFU00071-00065

2. Throttle valve full opening angle

Ensure that the full opening angle is $90 \pm 1^\circ$ when the throttle valve is fully opened.

If not, adjust the full opening angle by bending the throttle lever stopper.



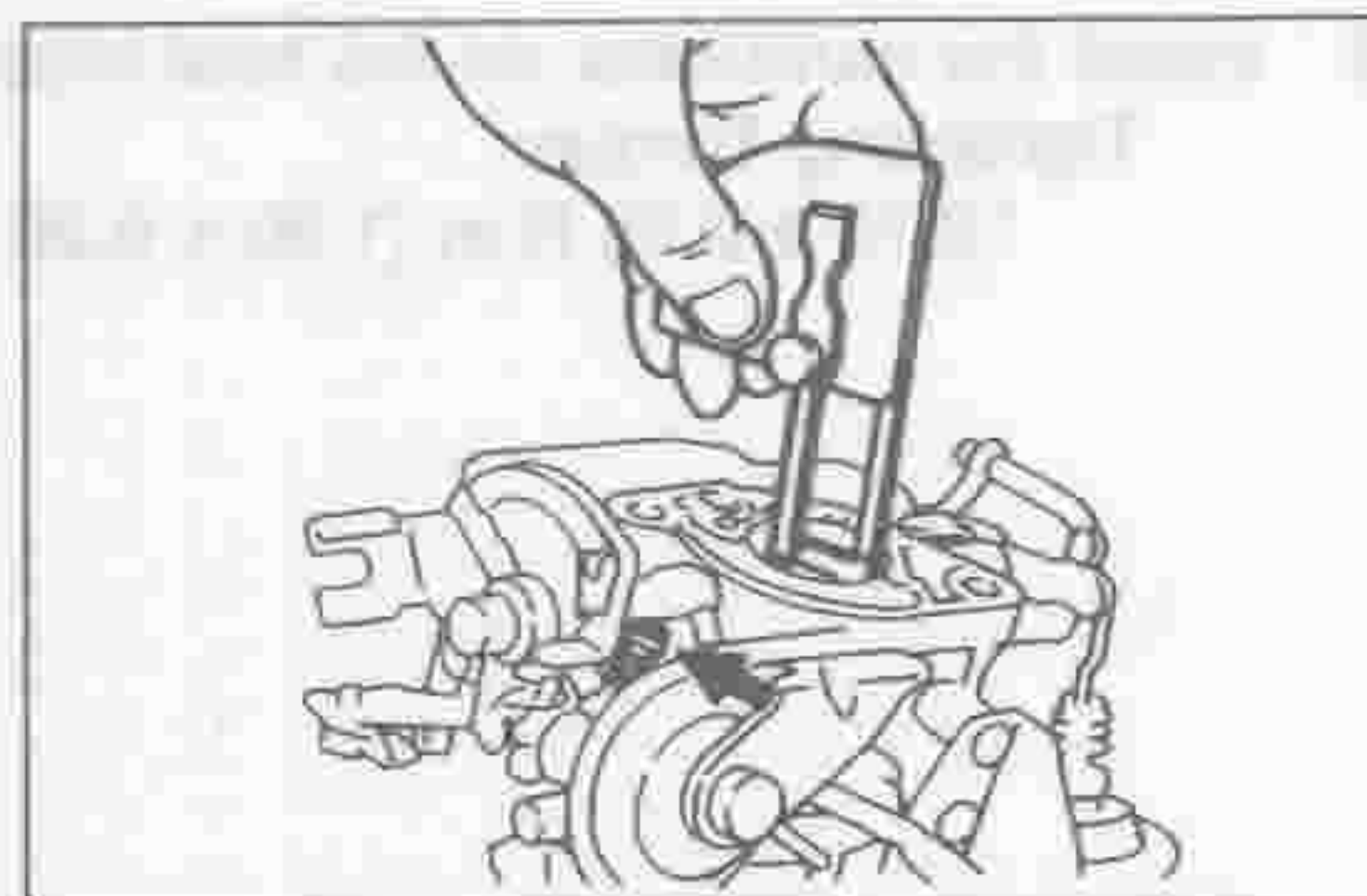
LFU00072-00066

3. Adjustment of fast idle

Ensure that the opening angle of the throttle valve conforms to the specification when the choke valve is in the fully-closed state.

Specified Value: 20°

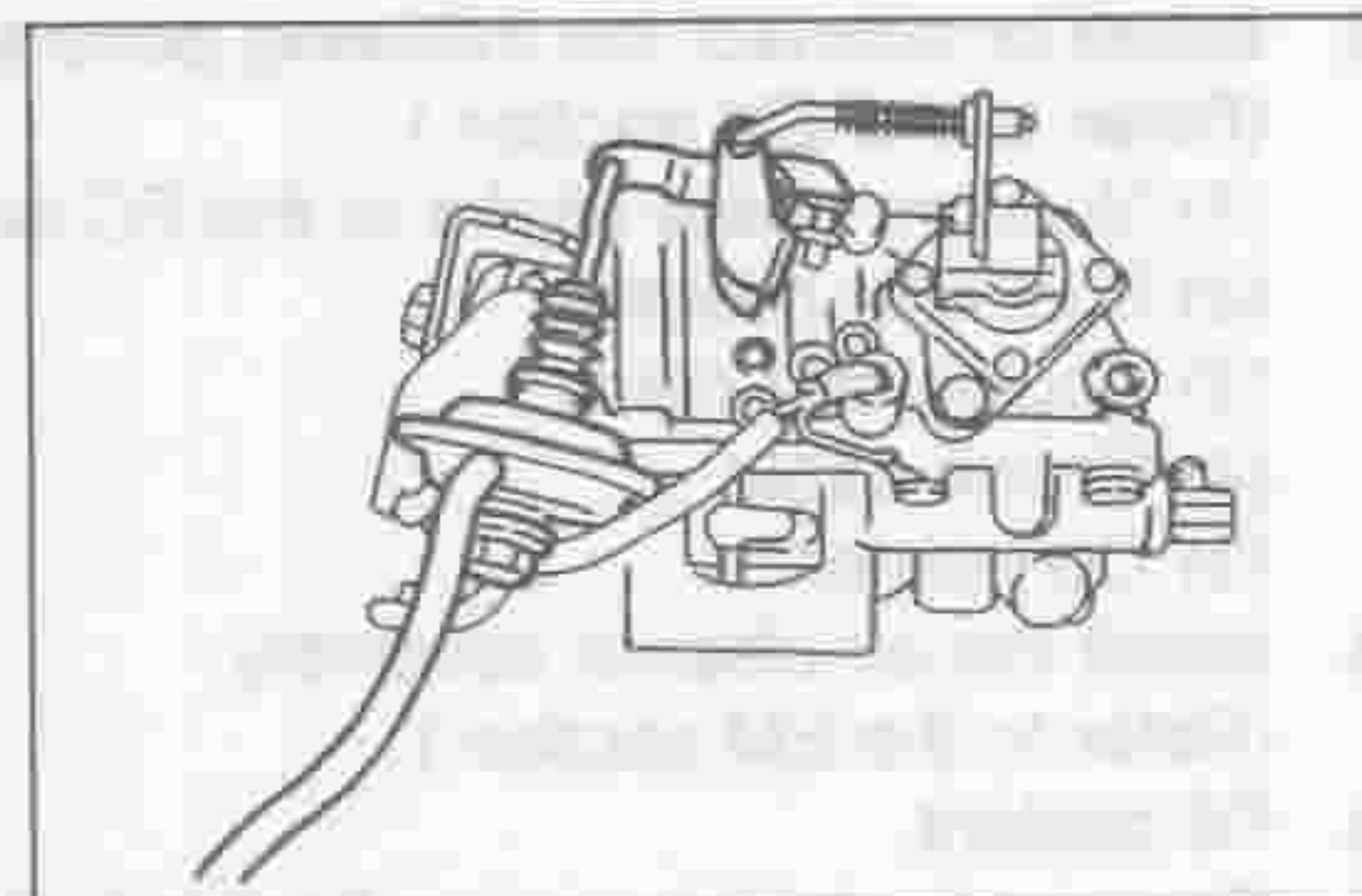
If not, adjust the throttle valve opening angle with the adjusting screw.



LFU00073-00067

4. Throttle positioner/idle-up during cold period

(1) Apply a negative pressure of 26.66 kPa (200 mmHg) to the actuator.



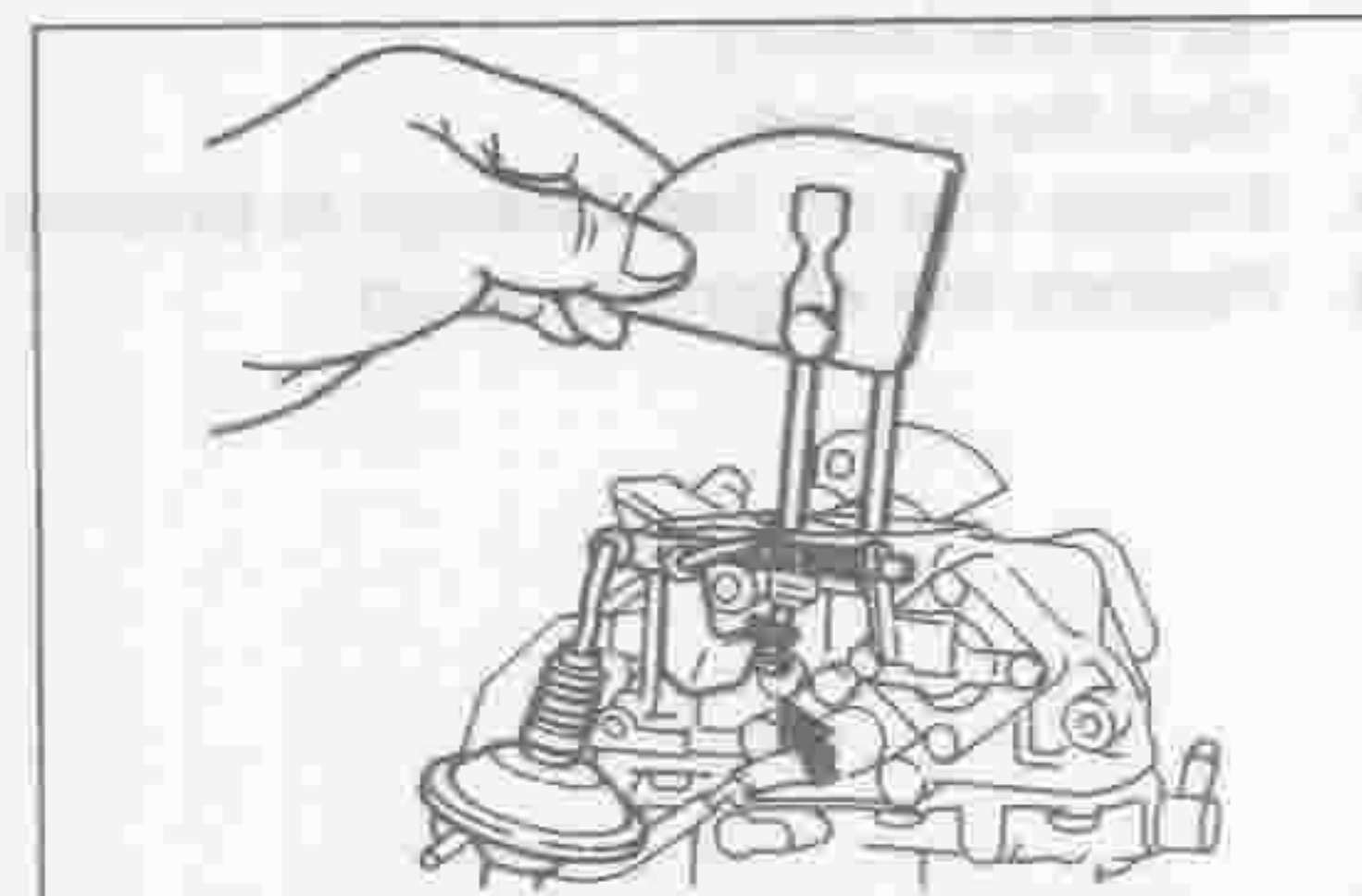
LFU00074-00068

(2) Under the condition in the step (1), ensure that the opening angle of the throttle valve conforms to the specification.

Specified Throttle Valve Opening Angle: $13 \pm 1^\circ$

SST: 09240-00014-000

If not, adjust the throttle opening angle with the adjusting screw.

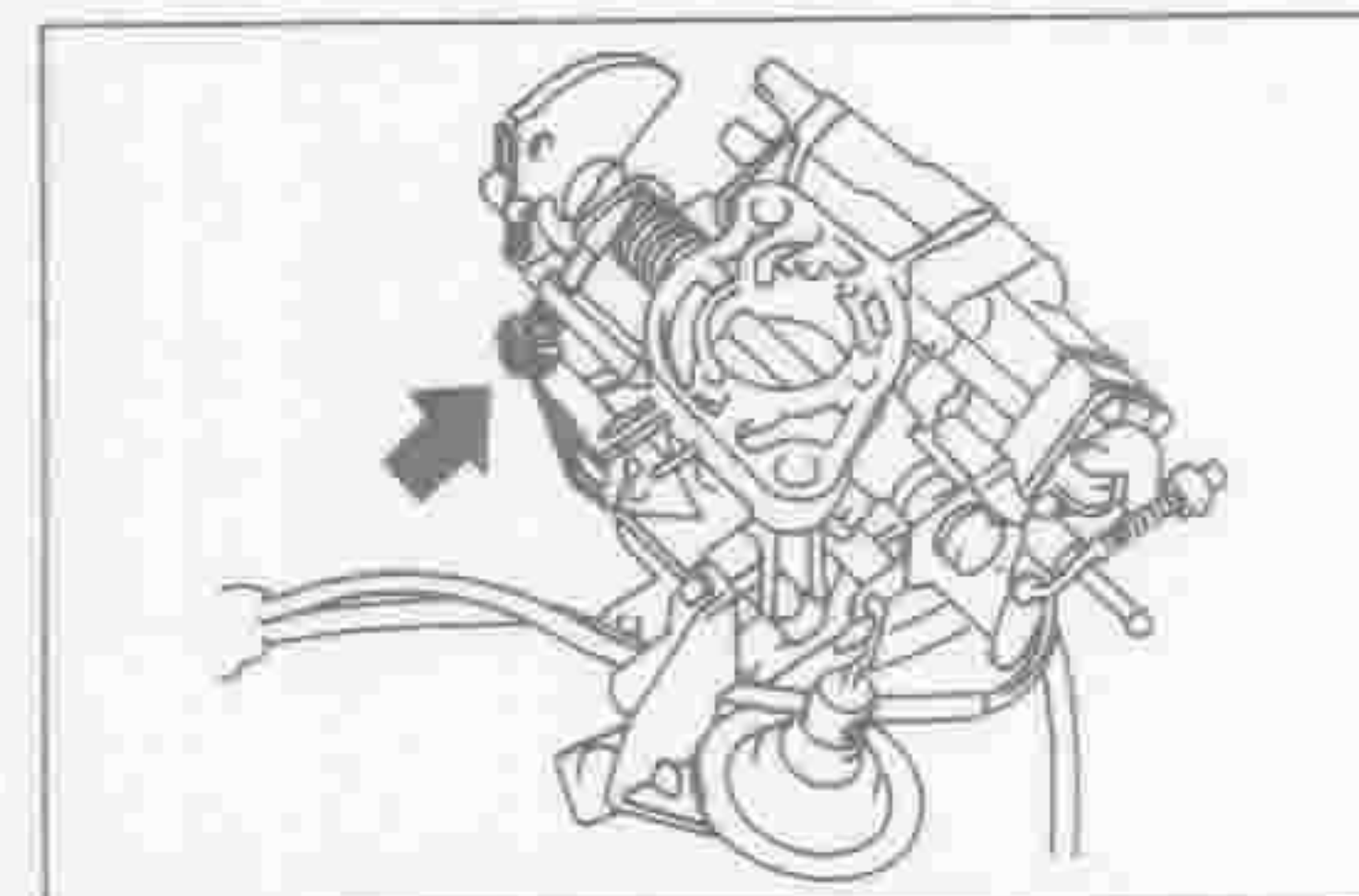


LFU00075-00069

5. Throttle adjusting screw

(1) Apply a negative pressure of 53.29 kPa (400 mmHg) to the actuator.

(2) Screw in the throttle adjusting screw, until the throttle valve slightly opens.



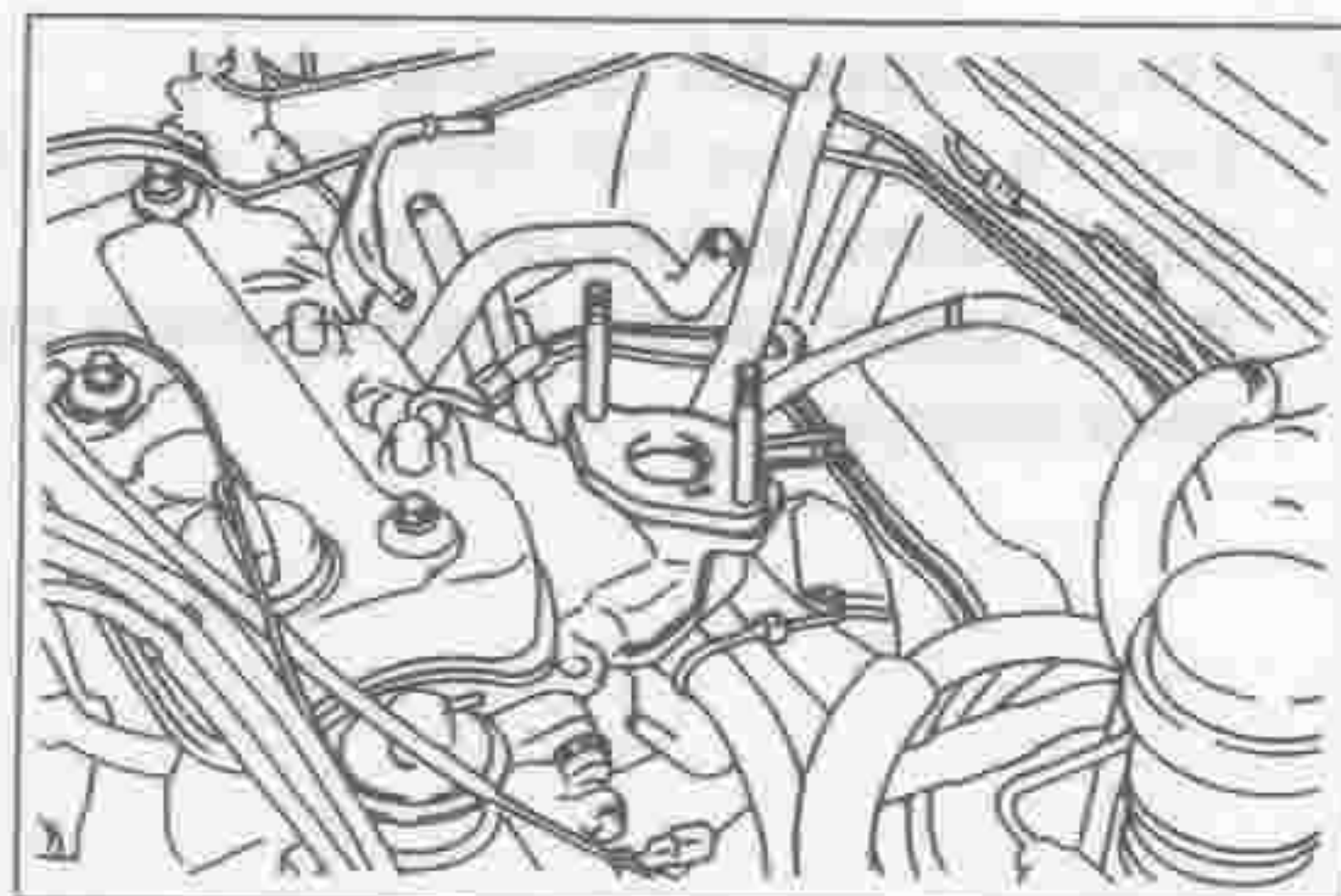
LFU00076-00070

INSTALLATION OF CARBURETOR

1. Install the heat insulator to the intake manifold.

NOTE:

- Clean the heat insulator gasket surface of the intake manifold.
- Replace the heat insulator if the gasket exhibits damage.

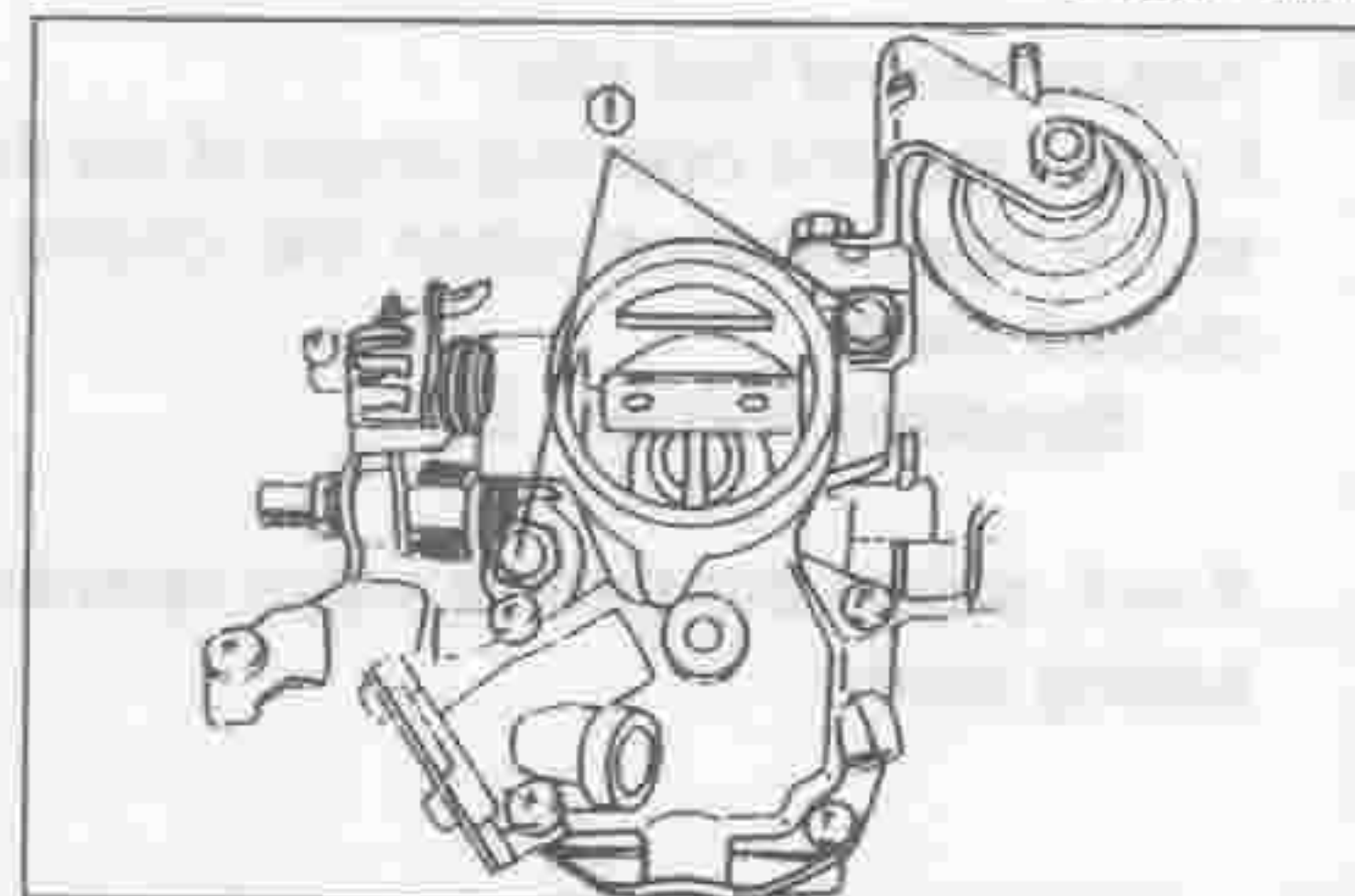


LFU00077-00071

2. Install the carburetor on the heat insulator.

Tightening Torque:

$12.75 \pm 2.55 \text{ N}\cdot\text{m}$ ($1.30 \pm 0.26 \text{ kgf}\cdot\text{m}$)



LFU00078-00072

3. Install or connect the following parts to the carburetor.

(Refer to the EM section.)

(1) Vacuum hoses (Refer to the EC section.)

(2) Fuel inlet hoses

(3) Accelerator cable

(4) Choke cable

(5) Connector

4. Install the air cleaner assembly.

(Refer to the EM section.)

5. Fill coolant.

6. Connect the battery ground cable to the negative (-) terminal of the battery.

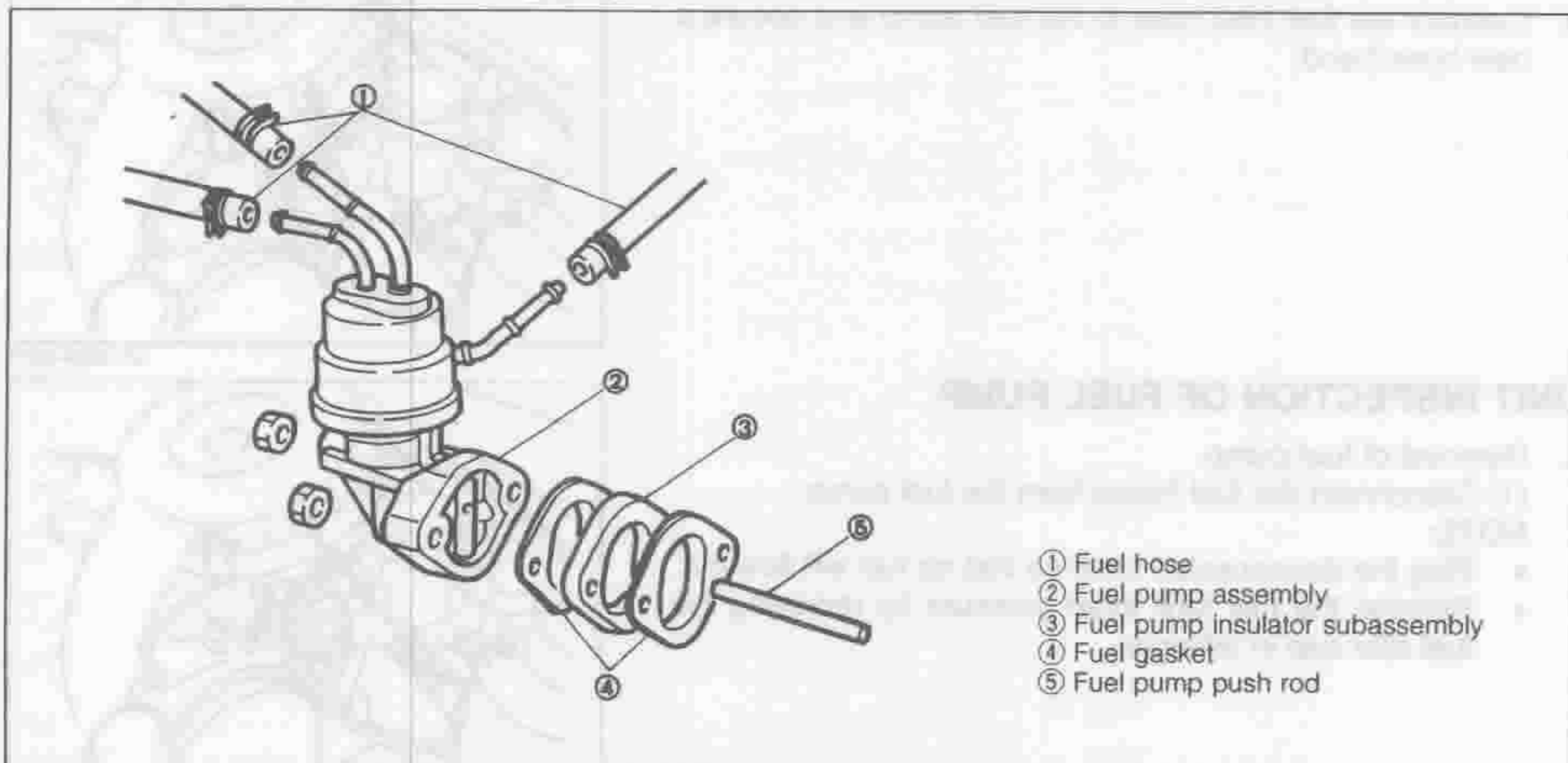
7. Start the engine.

8. Ensure that no fuel leakage is present.

9. Perform the engine tune-up.

LFU00079-00000

FUEL PUMP [ED-10 Engine]



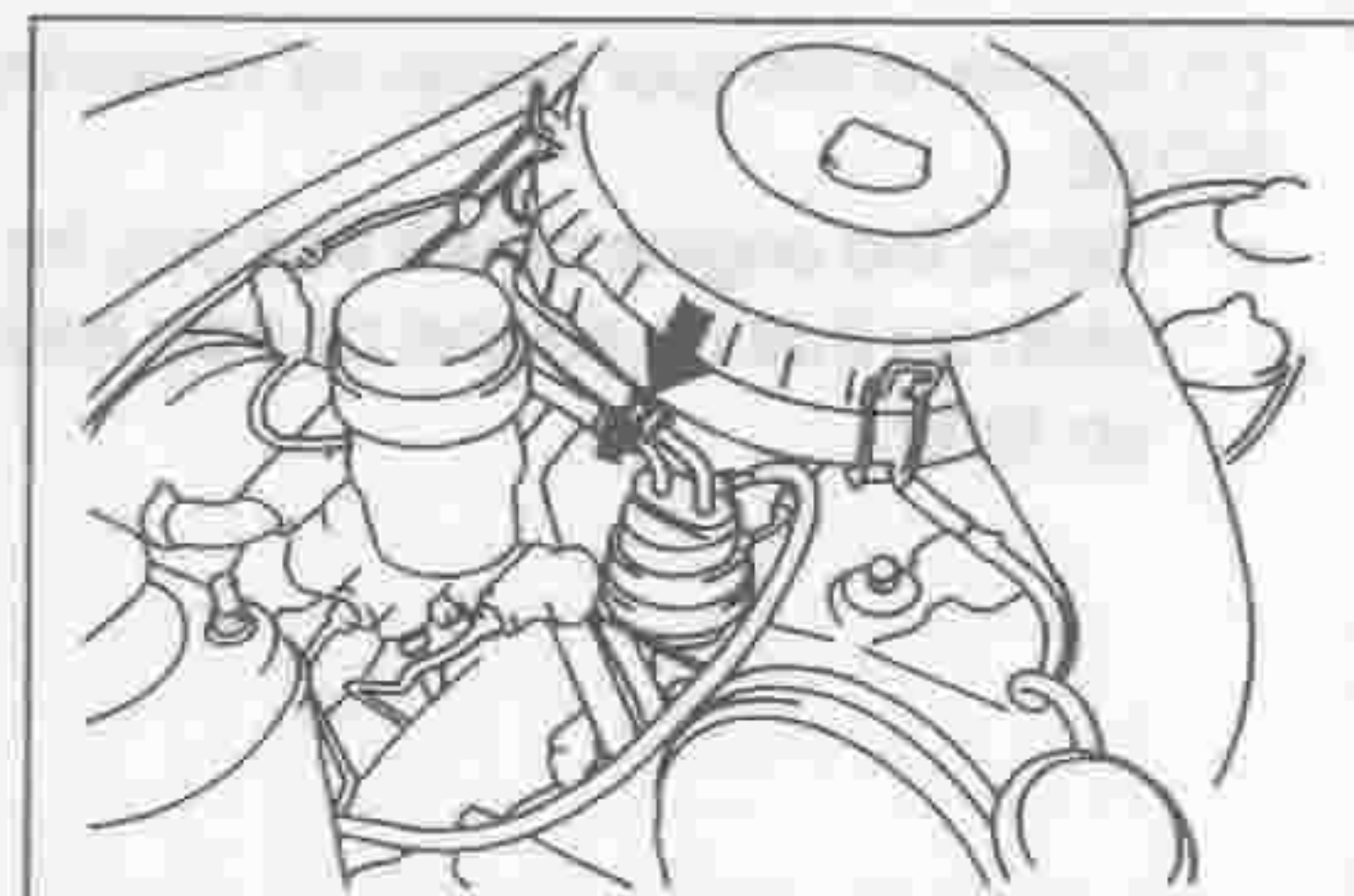
LFU00080-00073

IN-VEHICLE INSPECTION

1. Release the fuel tank inner pressure by removing the fuel filler cap.
2. Disconnect the fuel inlet hose from the fuel pump.

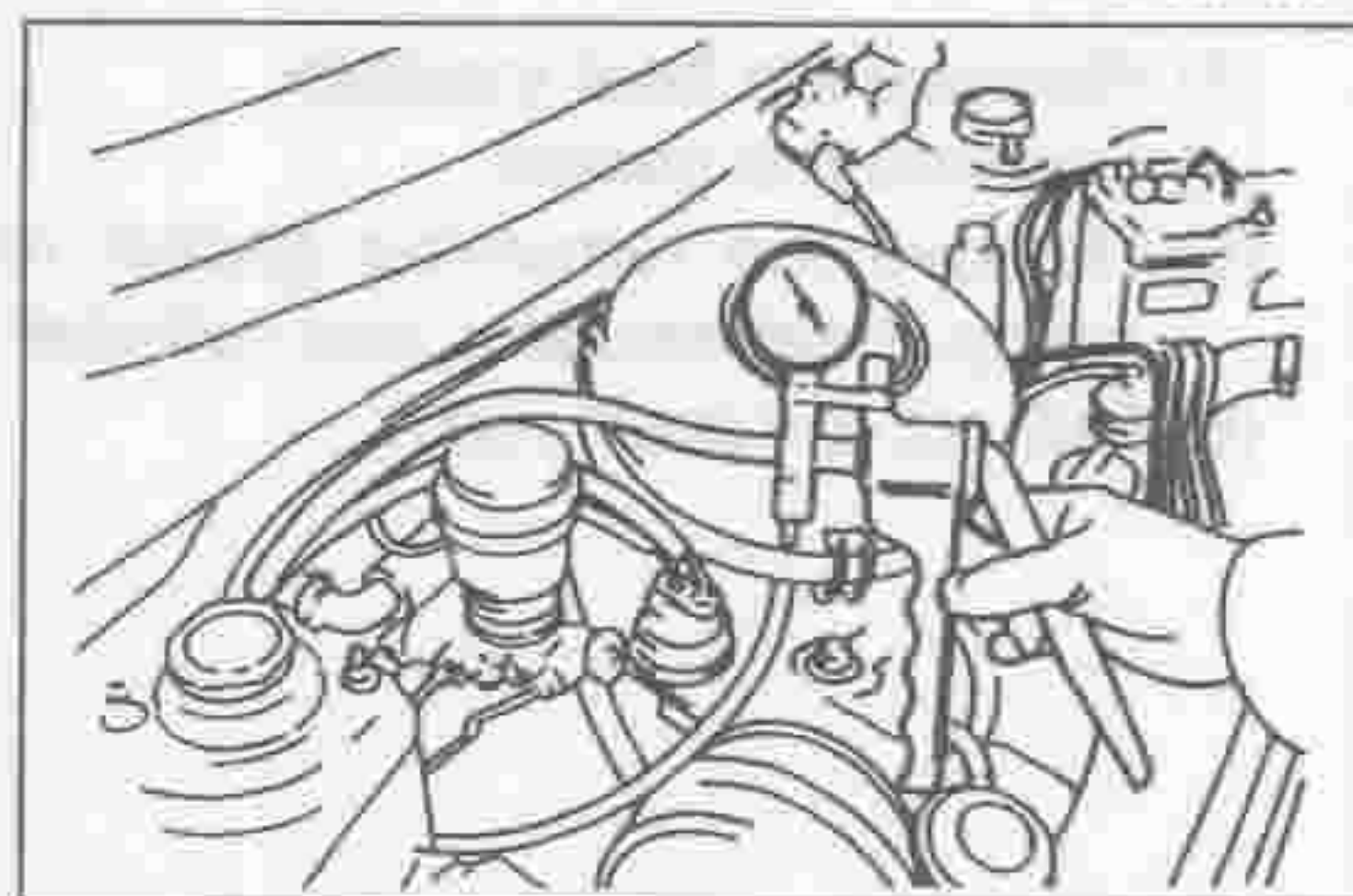
NOTE:

- Plug the disconnected hose so that no fuel will flow out.



LFU00081-00074

3. Connect a vacuum meter to the fuel inlet pipe of the fuel pump.



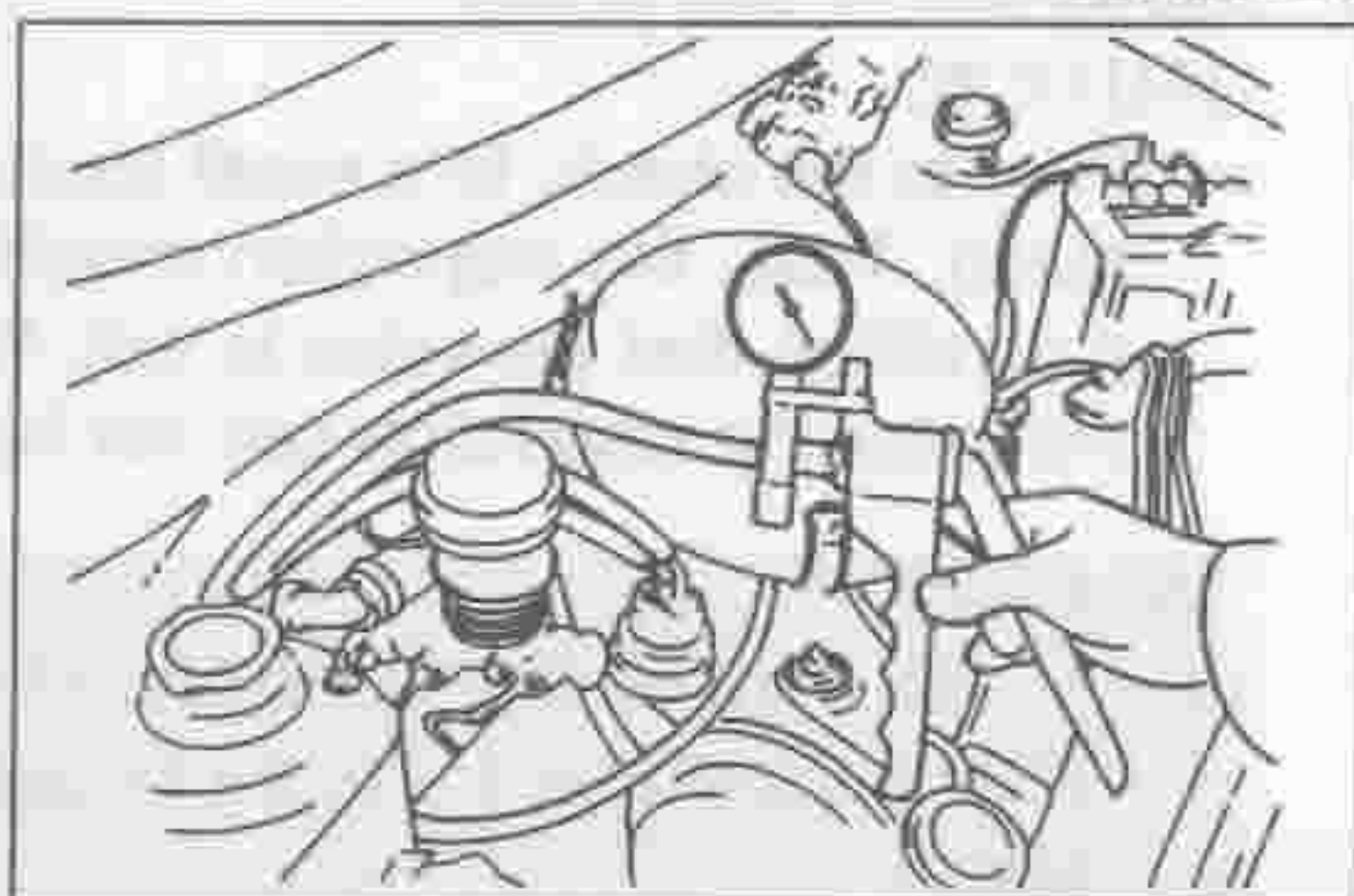
LFU00082-00075

4. Ensure that the indication of the vacuum meter is the specified value or more when cranking the engine by means of the starter motor or when starting the engine.

Specified Negative Pressure:

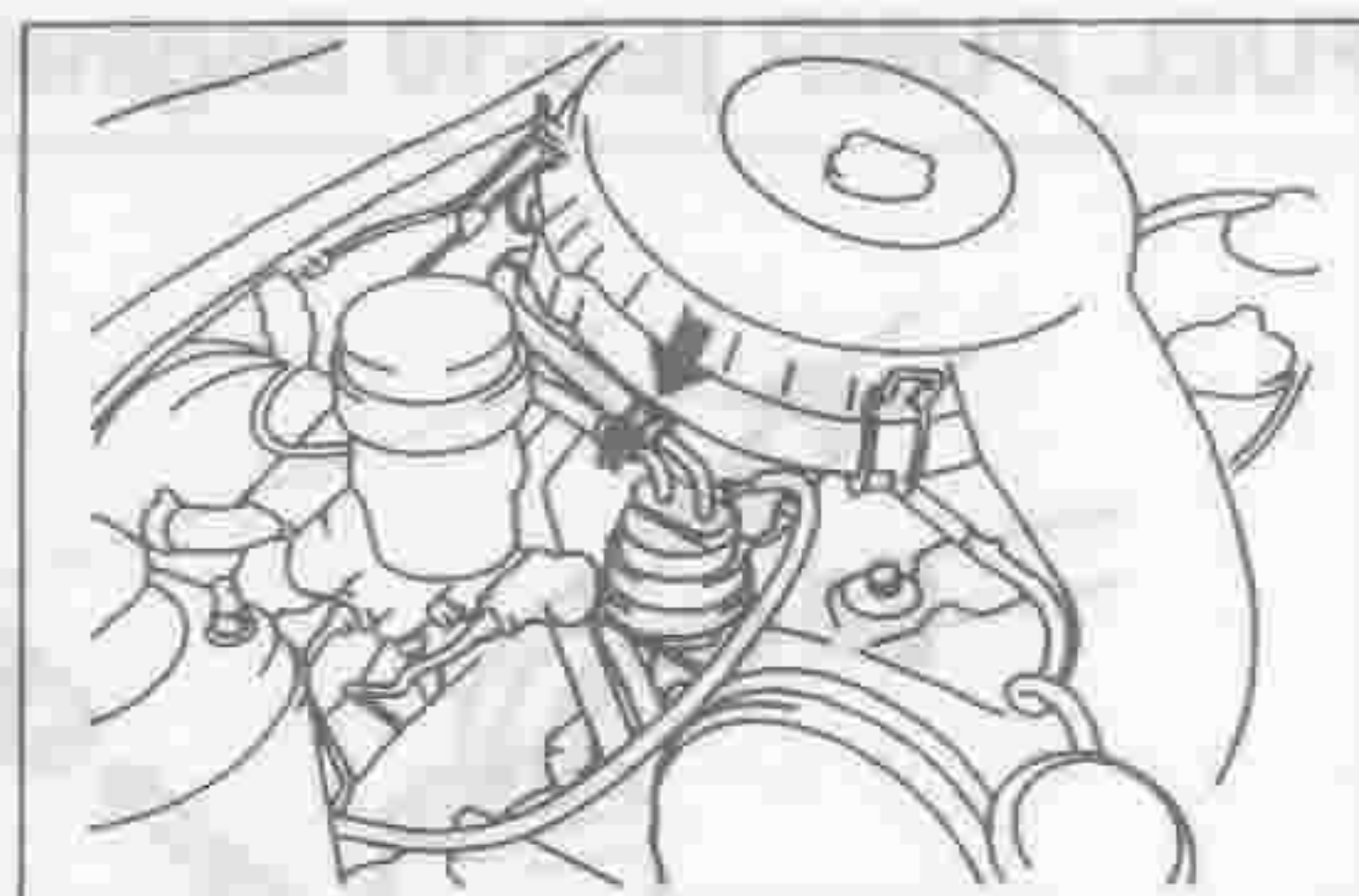
10.56 kPa (80 mmHg) or more

If not, check the fuel pump push rod or cam stroke. If no trouble is found on the push rod or cam, replace the fuel pump.



LFU00083-00076

5. Remove the vacuum meter from the fuel pump.
6. Connect the fuel inlet hose to the fuel pump and secure a new hose band.



LFU00084-00077

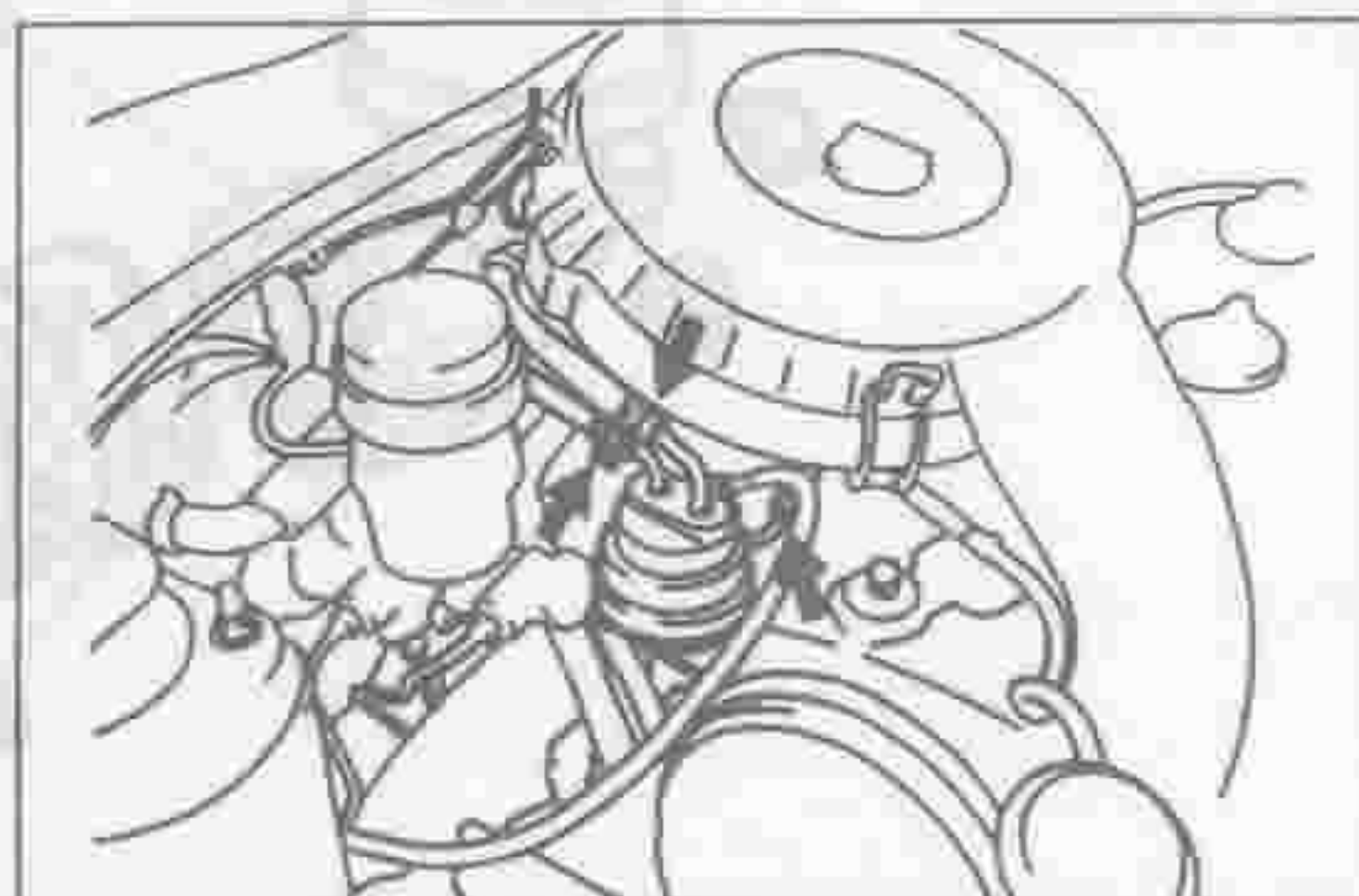
UNIT INSPECTION OF FUEL PUMP

1. Removal of fuel pump

- (1) Disconnect the fuel hoses from the fuel pump.

NOTE:

- Plug the disconnected hose so that no fuel will flow out.
- Release the fuel tank inner pressure by removing the fuel filler cap in advance.

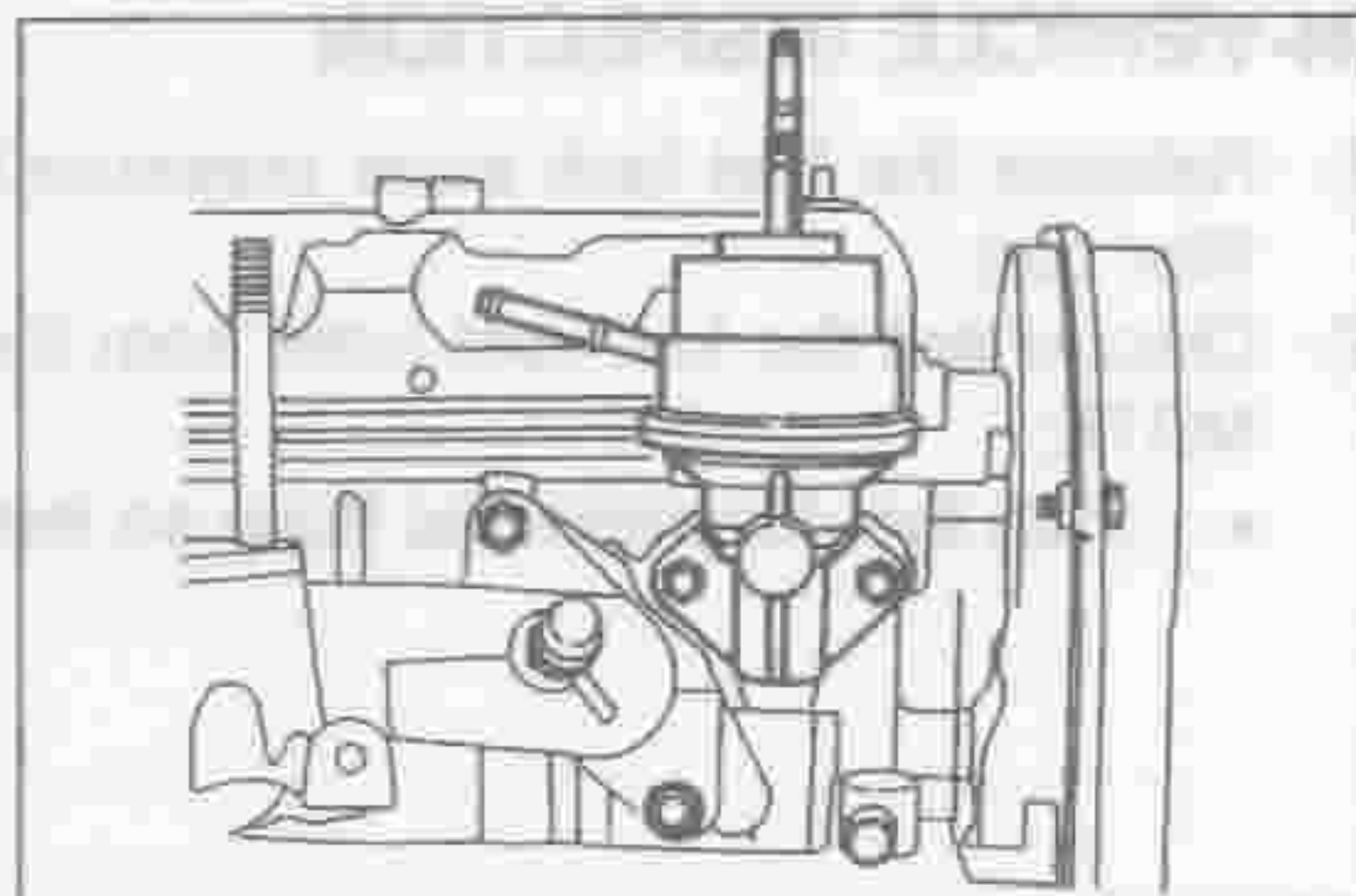


LFU00085-00078

- (2) Remove the fuel pump by removing the attaching nuts.

NOTE:

- Since the engine oil will flow out, be sure to put a suitable cloth so that no engine oil may splash on the starter and so forth.



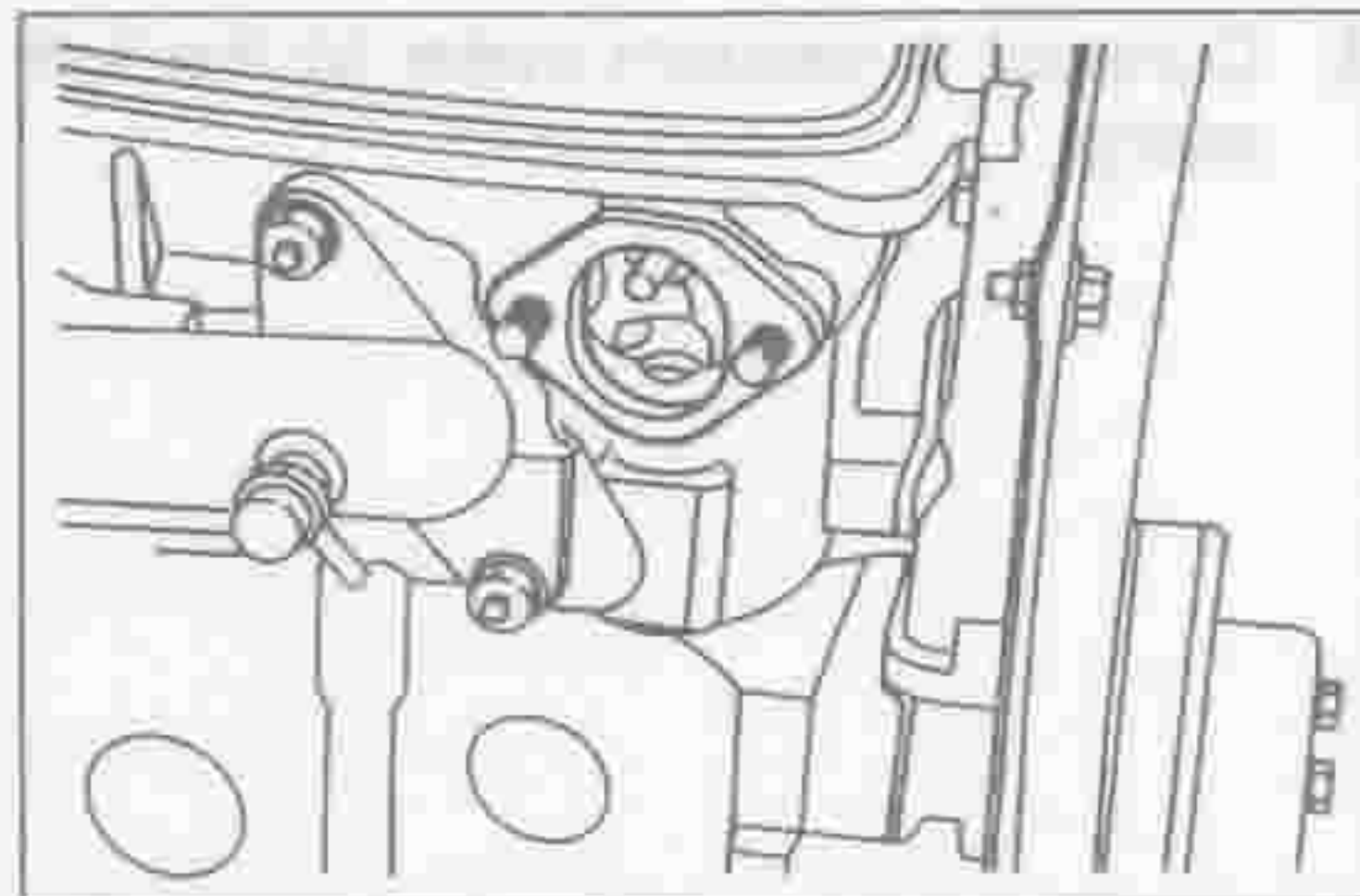
LFU00086-00079

- (3) Remove the heat insulator.

- (4) Remove the gasket.

- (5) Remove the remaining gasket material from the fuel pump, heat insulator and cylinder head.

- (6) Pull out the push rod.



LFU00087-00080

2. Inspection of fuel pump

CAUTION:

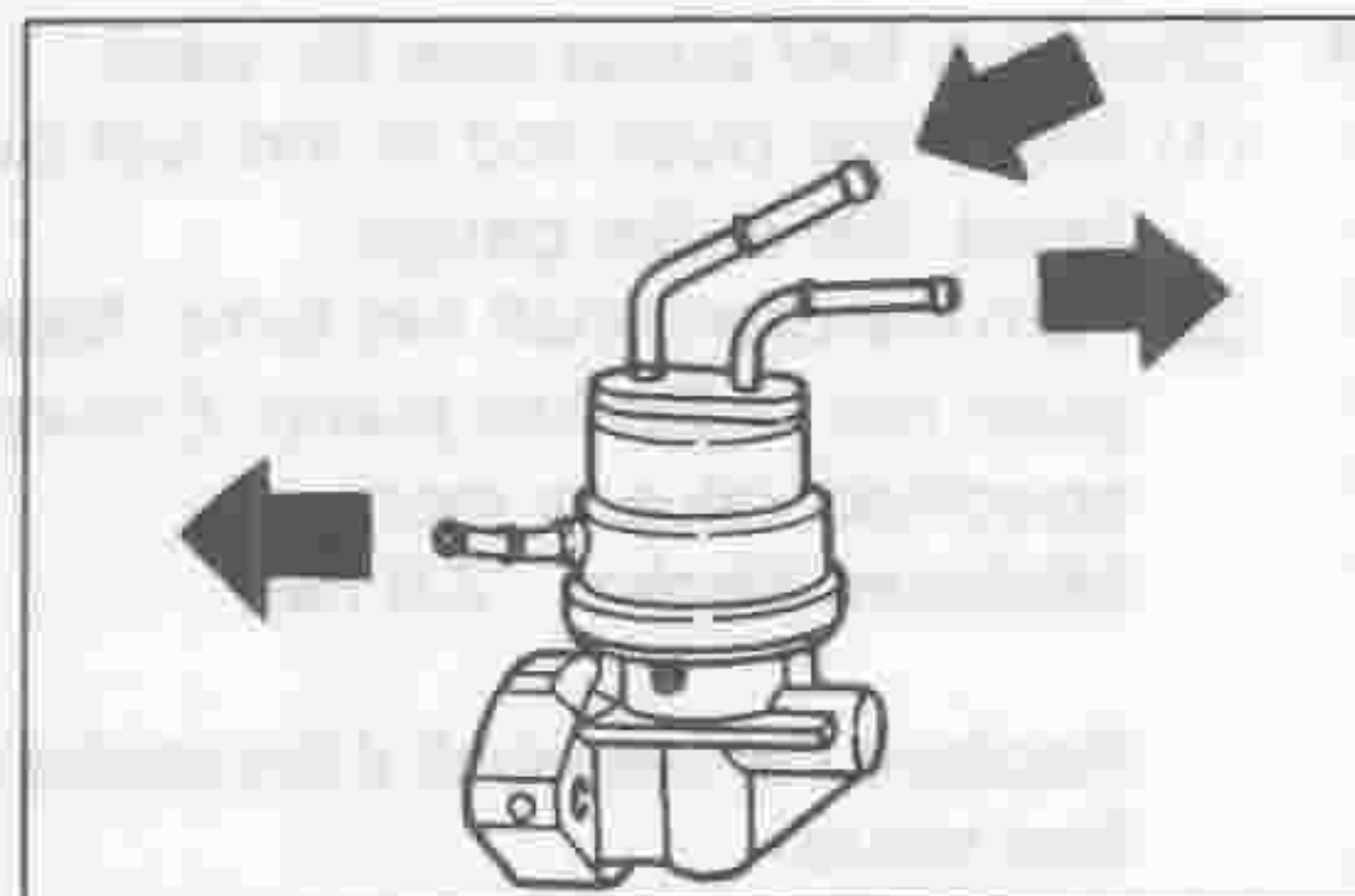
- Prior to the check, fill a small amount of fuel into the fuel pump. Thus, the inspection should be performed under a condition that the valve is wet. When the valve is dry, the following inspection can not be performed correctly.

WARNING:

- Never work on the fuel system in proximity of a fire.
- Never allow any fire to be brought near the working site.

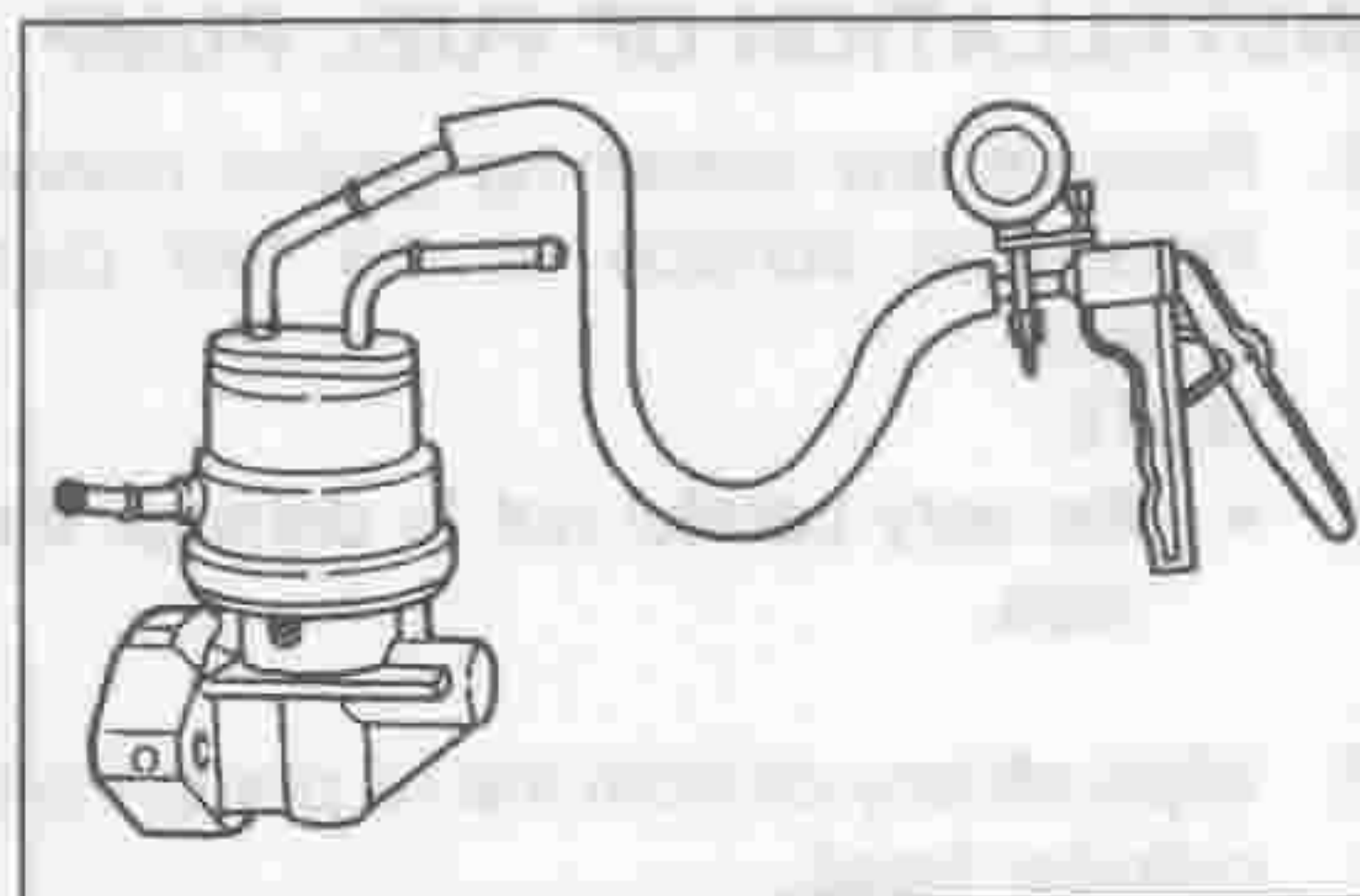
LFU00088-00080

- (1) Blow air from the inlet side of the fuel pump. Ensure that air continuity exists.
Replace the fuel pump if no air continuity exists.



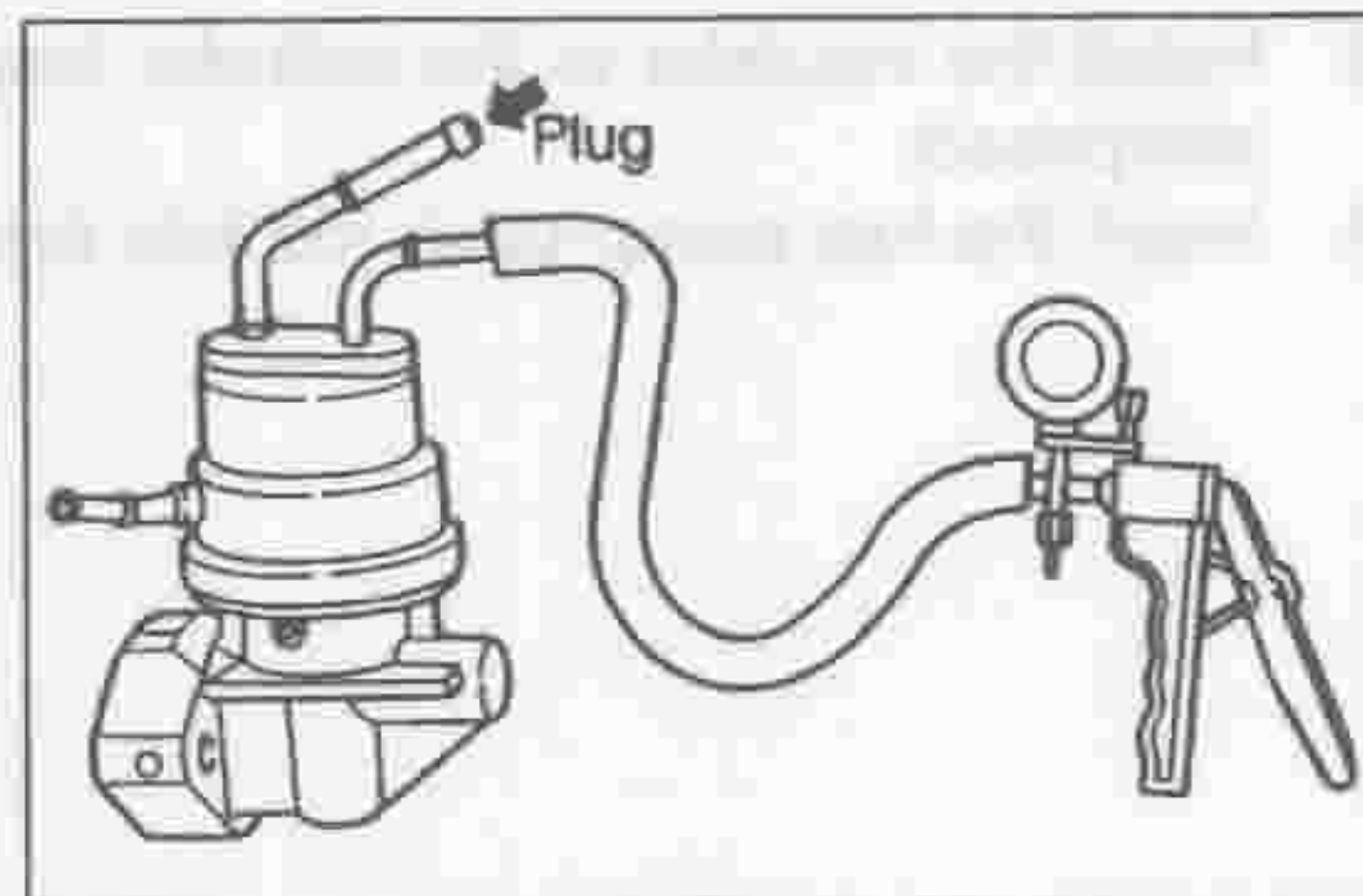
LFU00089-00081

- (2) Install a MityVac to the inlet side of the fuel pump and apply a negative pressure. Ensure that the applied pressure is retained.
Replace the fuel pump if the pressure is not retained.



LFU00090-00082

- (3) Plug the inlet pipe and return pipe of the fuel pump. Install a MityVac to the outlet pipe and apply a negative pressure. Ensure that the applied pressure is retained.
Replace the fuel pump if the pressure is not retained.



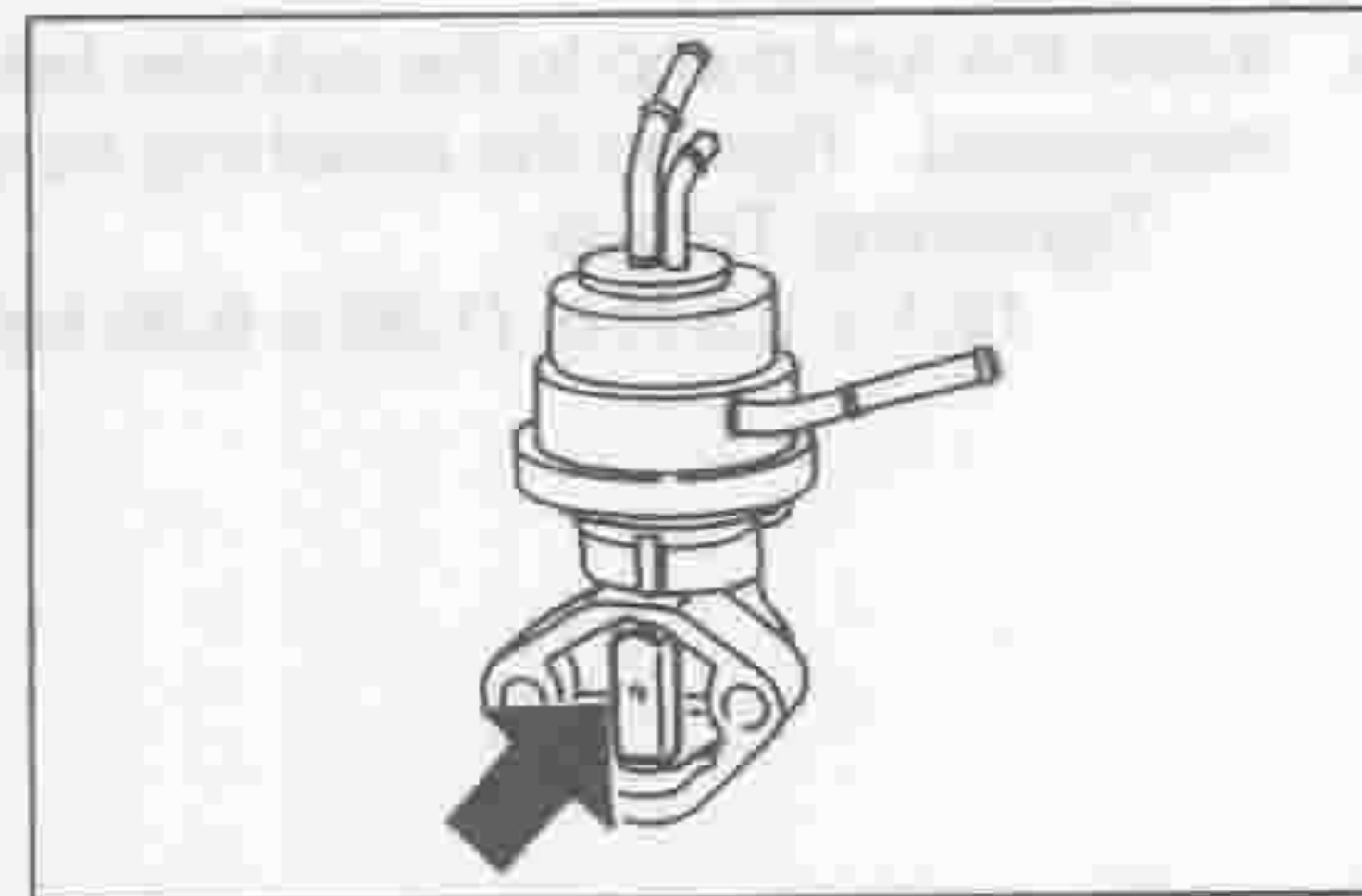
LFU00091-00083

- (4) Visually inspect the push rod-contact-surface of the fuel pump.

NOTE:

- When the contact surface is not a mirror-like surface, it means that the contact surface is worn out.

Replace the fuel pump if the contact surface exhibits wear.



LFU00092-00084

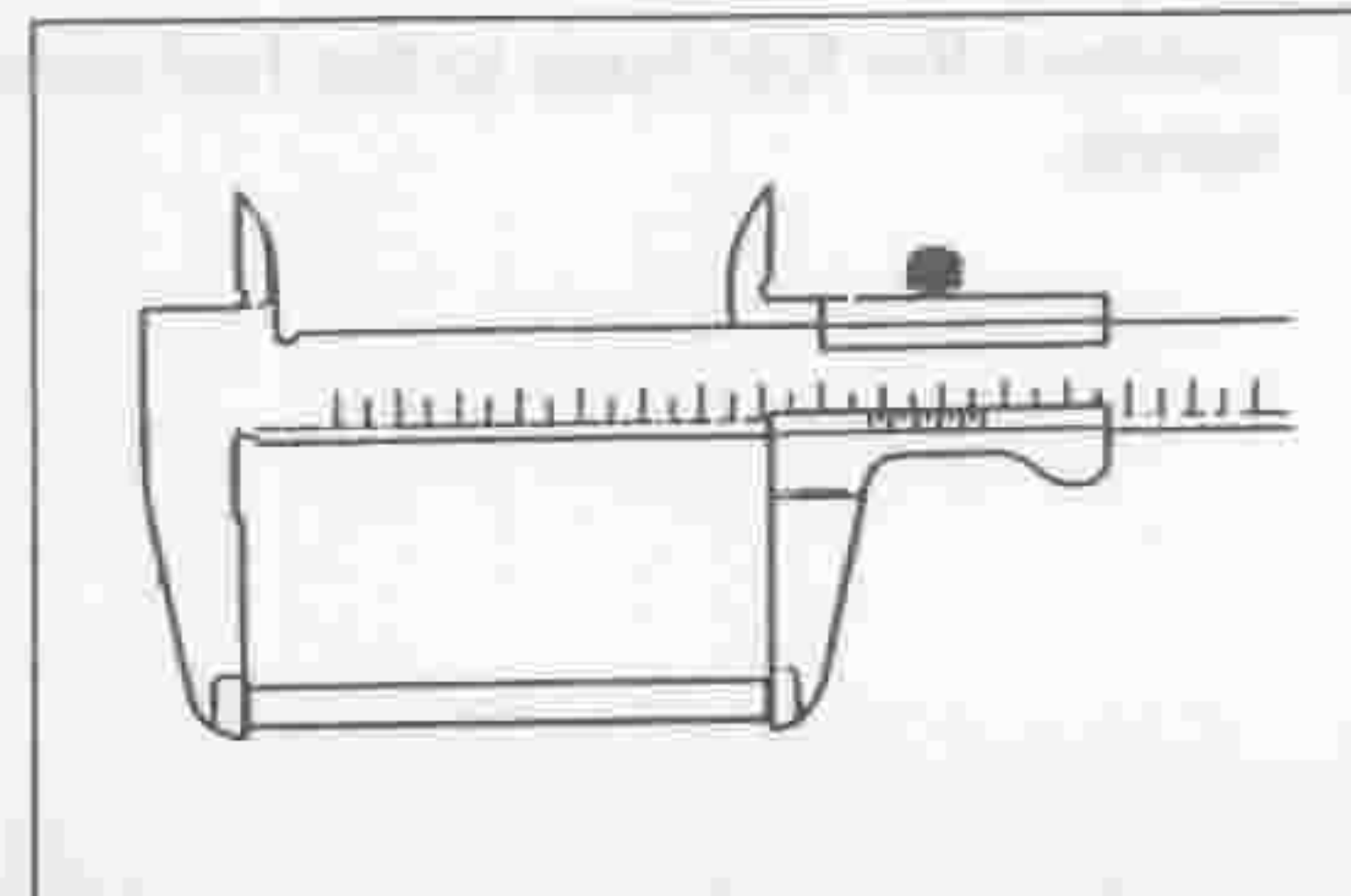
3. Inspection of fuel pump push rod
Ensure that the overall length of the push rod is the specified value or more.

Minimum Limit: 57.50 mm

Reference

STD: 57.95 - 58.25 mm

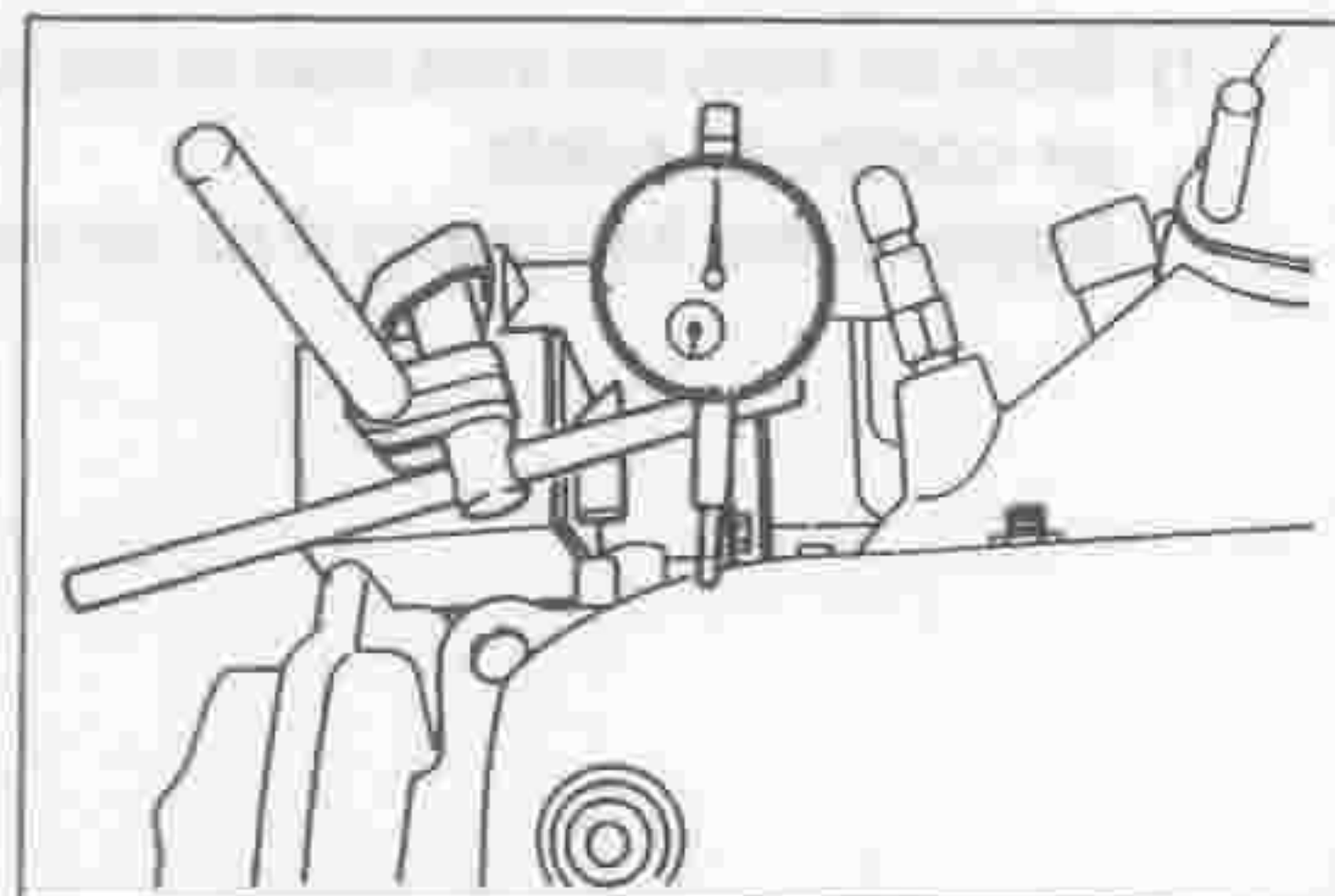
Replace the push rod if its overall length is less than the specified value.



LFU00093-00085

4. Checking fuel pump cam for wear
 - (1) Insert the push rod of the fuel pump into the cylinder head. Set a dial gauge.
 - (2) Turn the crankshaft two turns. Measure the stroke of the push rod of the fuel pump. Ensure that the stroke is the specified value or more.
Minimum Stroke: 3.0 mm

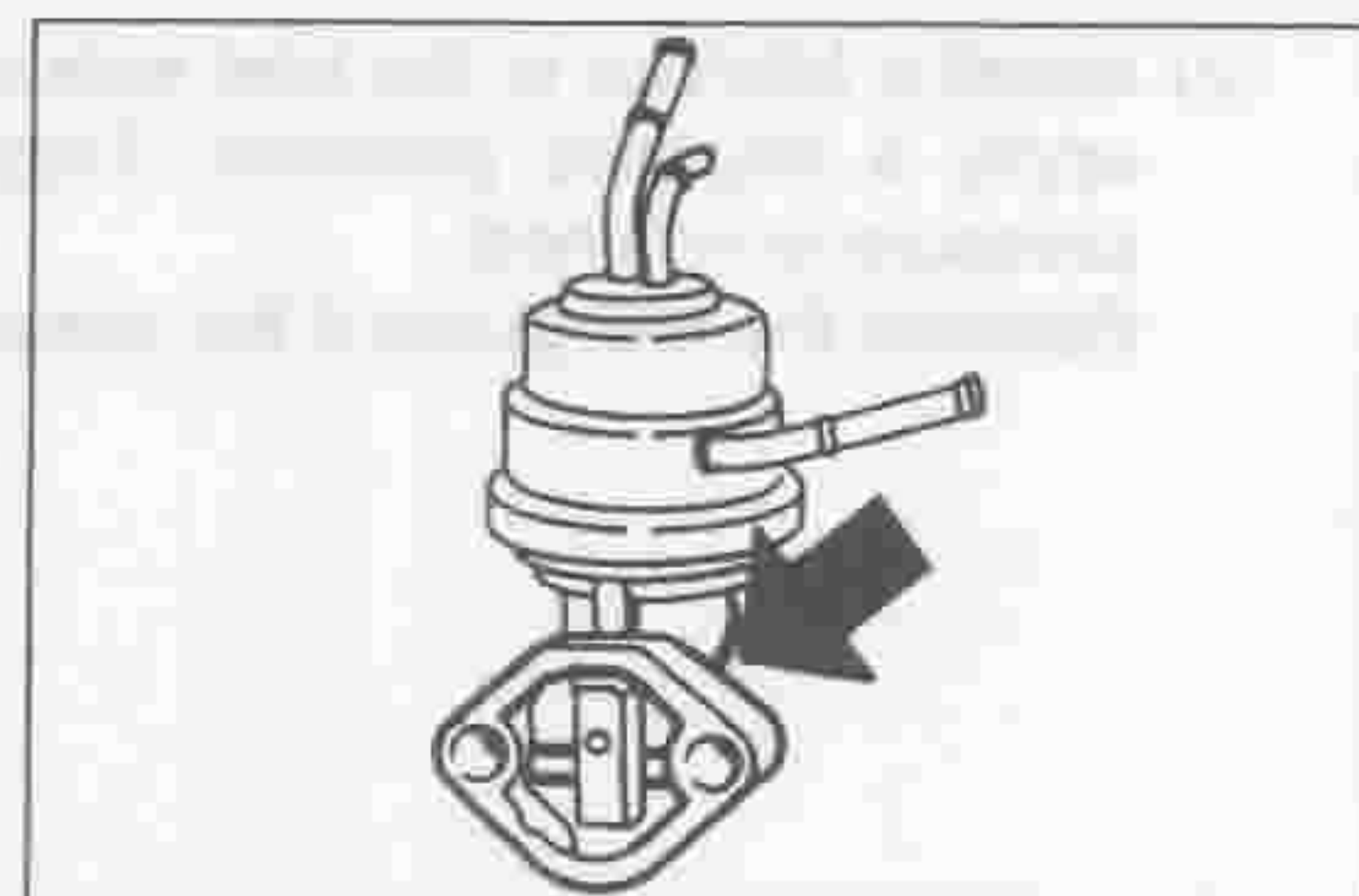
Replace the camshaft if the stroke is less than the specified value.



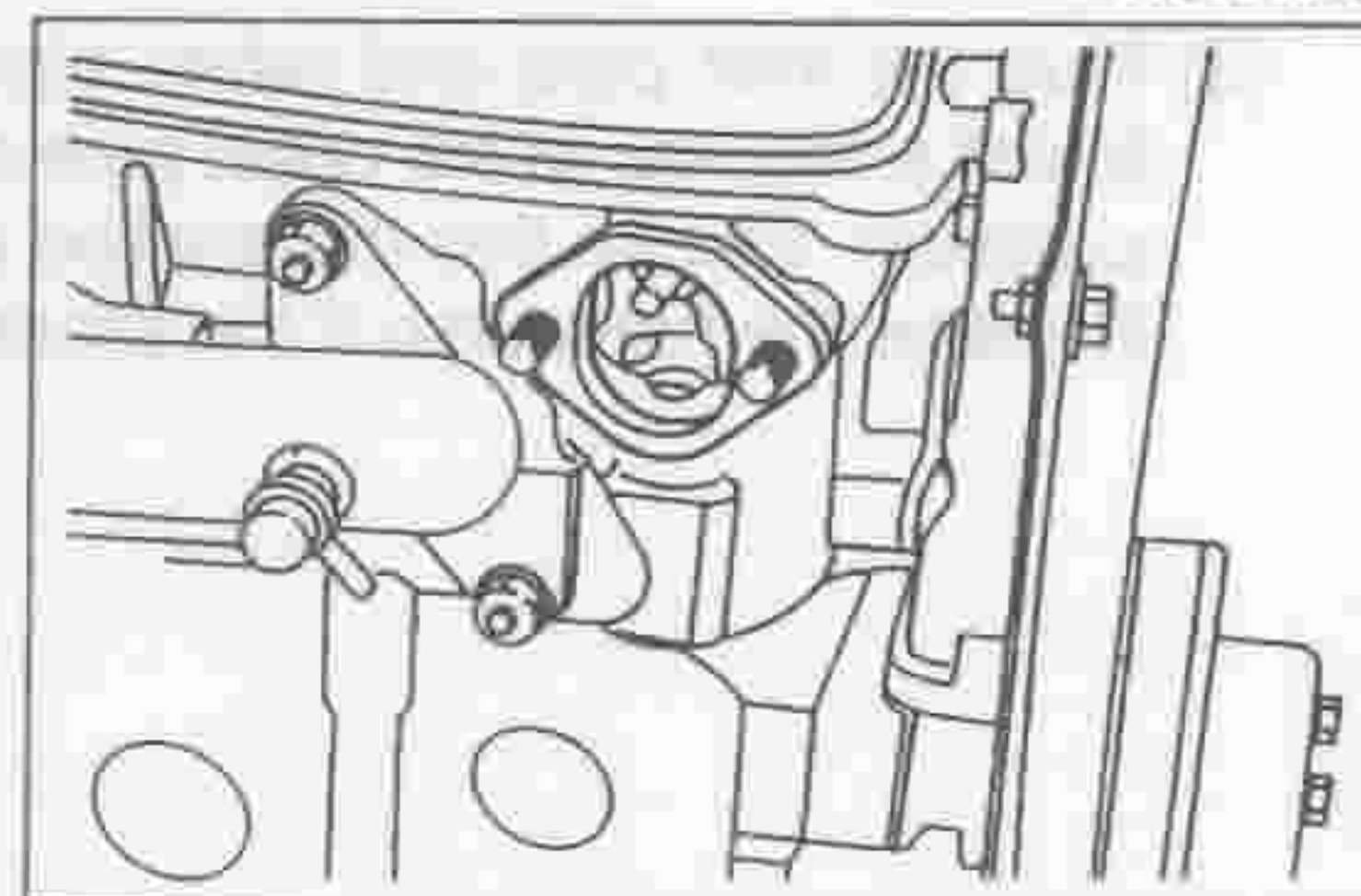
LFU00094-00086

INSTALLATION OF FUEL PUMP

1. Remove any remaining gasket material from the insulator installation surface of the fuel pump, using a gasket scraper.
NOTE:
 - Be very careful not to damage the gasket contact surface.
2. Wipe off any oil from the oil pump installation surface of the cylinder head.
3. Install the insulator to the cylinder head with a new gasket interposed.
4. Insert the fuel pump push rod into the cylinder head.

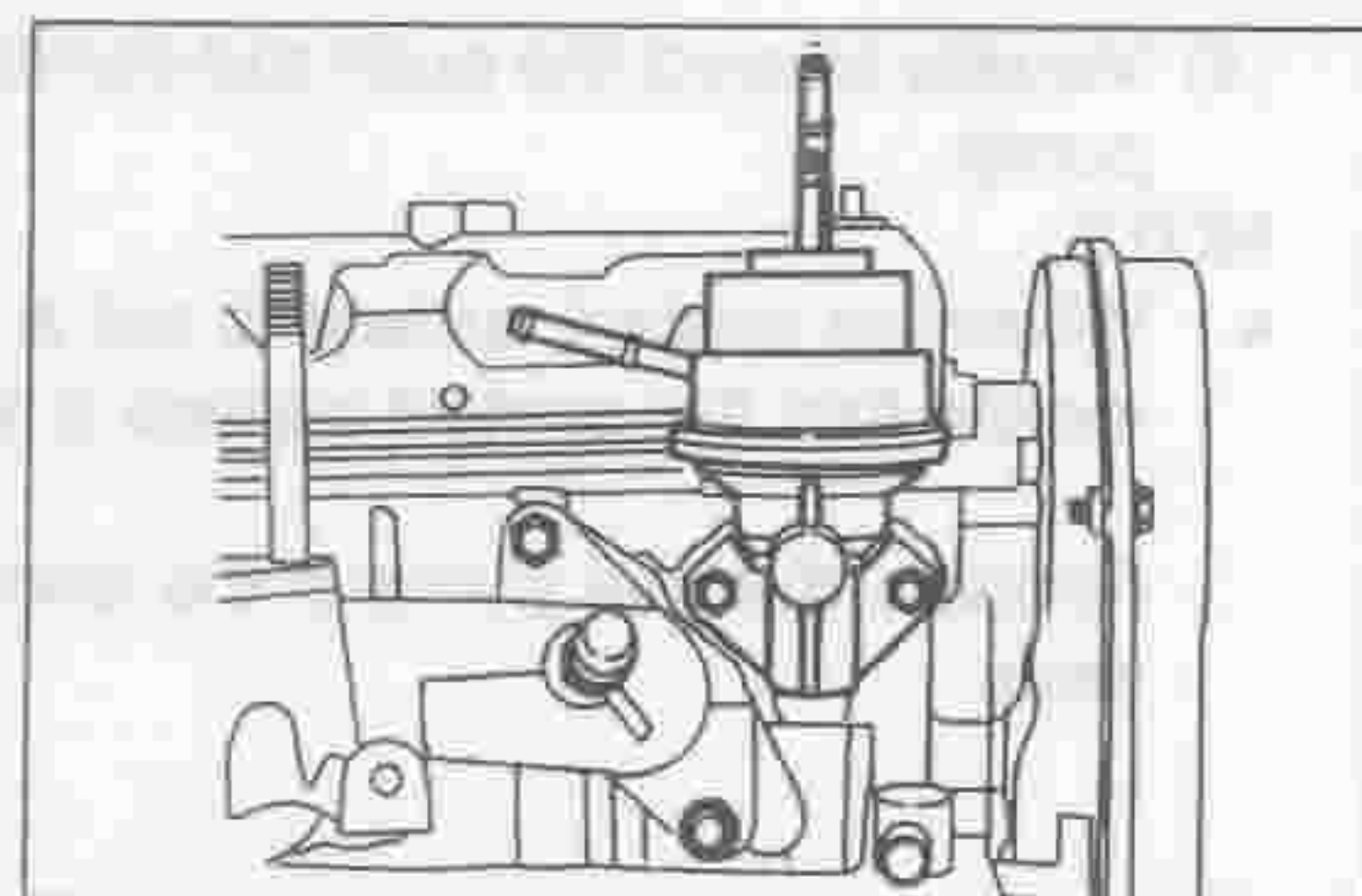


LFU00095-00087



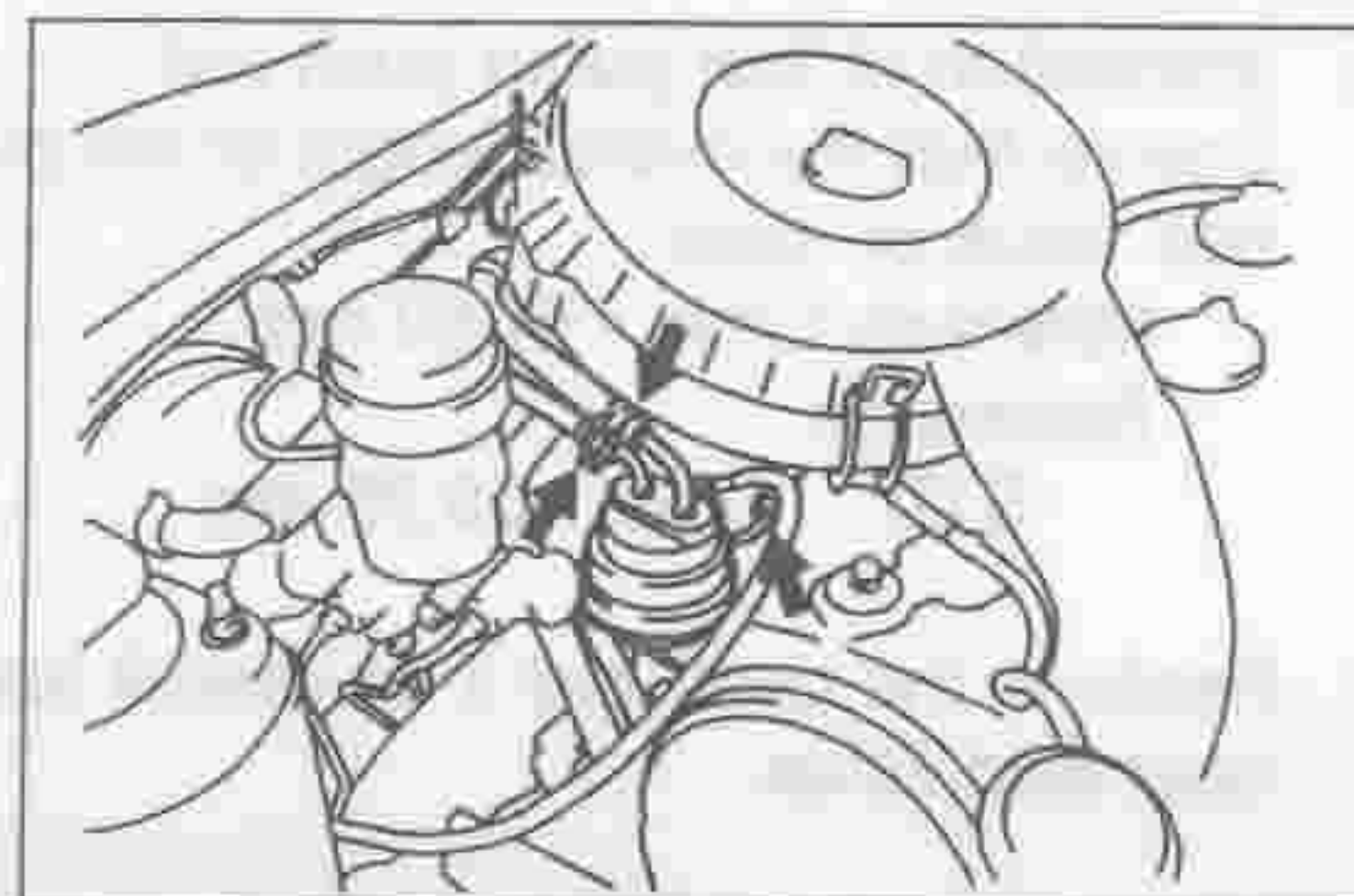
LFU00096-00088

5. Install the fuel pump to the cylinder head with a new gasket interposed. Tighten the attaching nuts.
Tightening Torque:
 $19.1 \pm 3.8 \text{ N}\cdot\text{m}$ ($1.95 \pm 0.39 \text{ kgf}\cdot\text{m}$)



LFU00097-00089

6. Connect the fuel hose to the fuel pump. Attach new hose bands.



LFU00098-00090

7. Start the engine. Ensure that the engine exhibits no fuel or oil leakage.
Repair any leaky points, as required.

Figure 3-10-10 3-10-10

Revised 10/10/10

LFU00099-00000



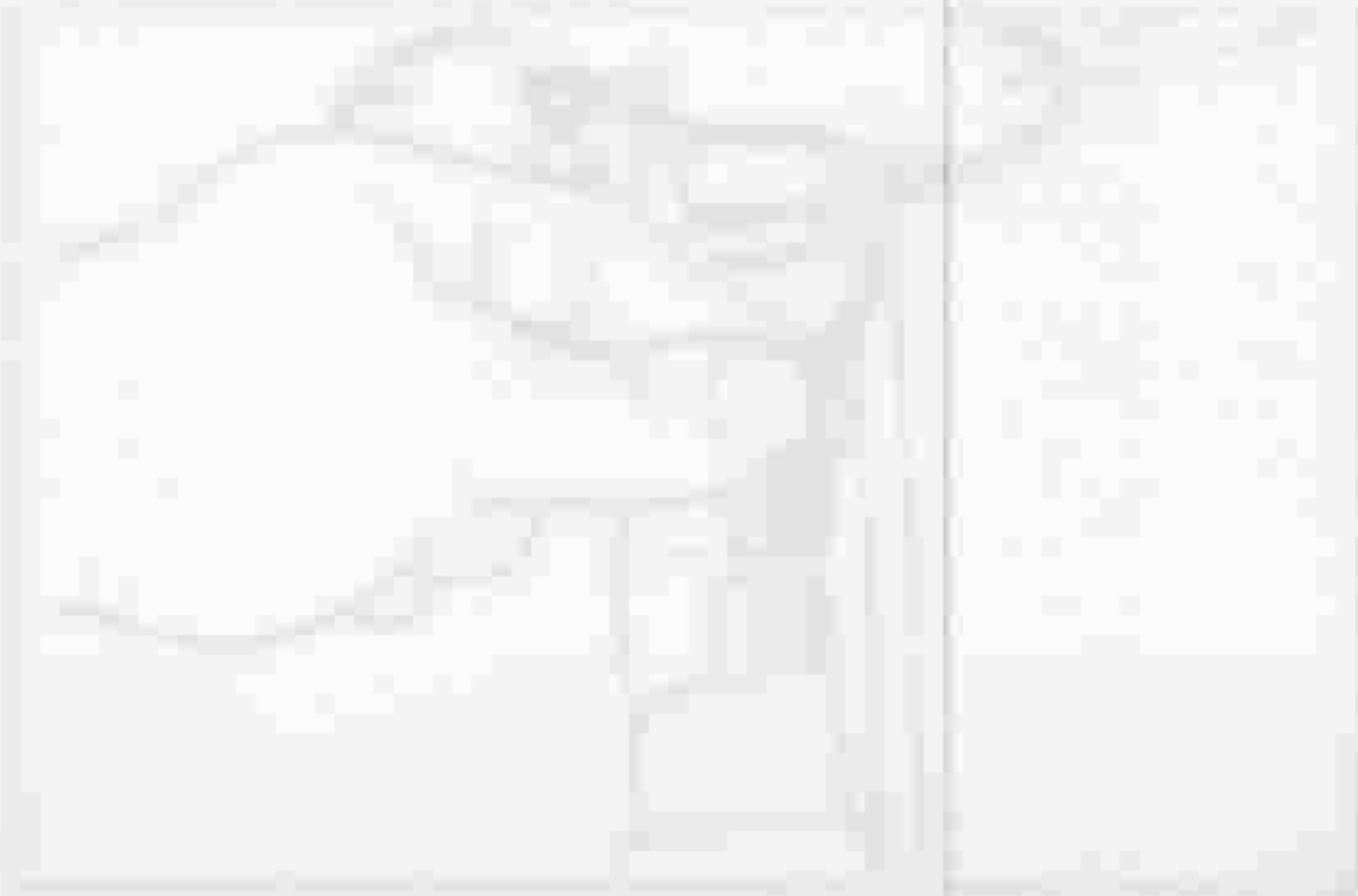
1. Remove the fuel filter and replace with a new one.
2. Tighten the fuel filter cap.
3. Check for leaks.



4. Check the fuel filter for leaks.
5. Check the fuel filter for leaks.
6. Check the fuel filter for leaks.
7. Check the fuel filter for leaks.



8. Check the fuel filter for leaks.
9. Check the fuel filter for leaks.
10. Check the fuel filter for leaks.



11. Check the fuel filter for leaks.

[EF-EL & ED-20 Engine]

In-vehicle inspection

For the confirmation of the operation check, fuel pressure check and fuel delivery output for the fuel pump for Type EF-EL engine and Type ED-20 engine, refer to the EF section.

LFU00100-00000

Removal of fuel pump

1. Disconnect the ground cable terminal from the negative (-) terminal of the battery.
2. Remove the fuel tank from the vehicle.

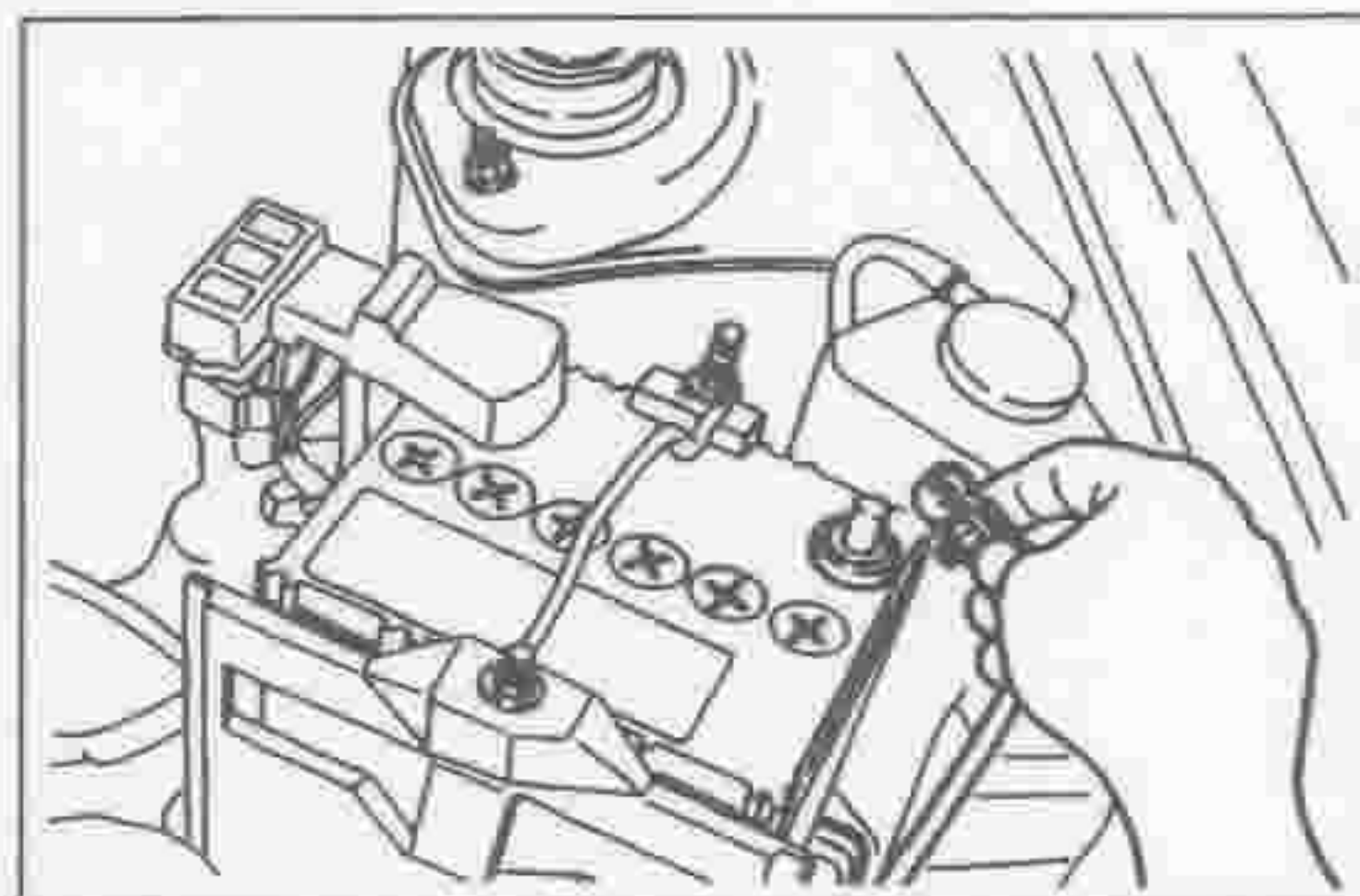
3. Disconnect the fuel sender gauge connector.
4. Detach the fuel pump wire from the clamp.
5. Disconnect the fuel hoses.
6. Evenly loosen the fuel pump attaching bolts and remove them.

7. Remove the fuel pump.
8. Remove the fuel pump gasket.

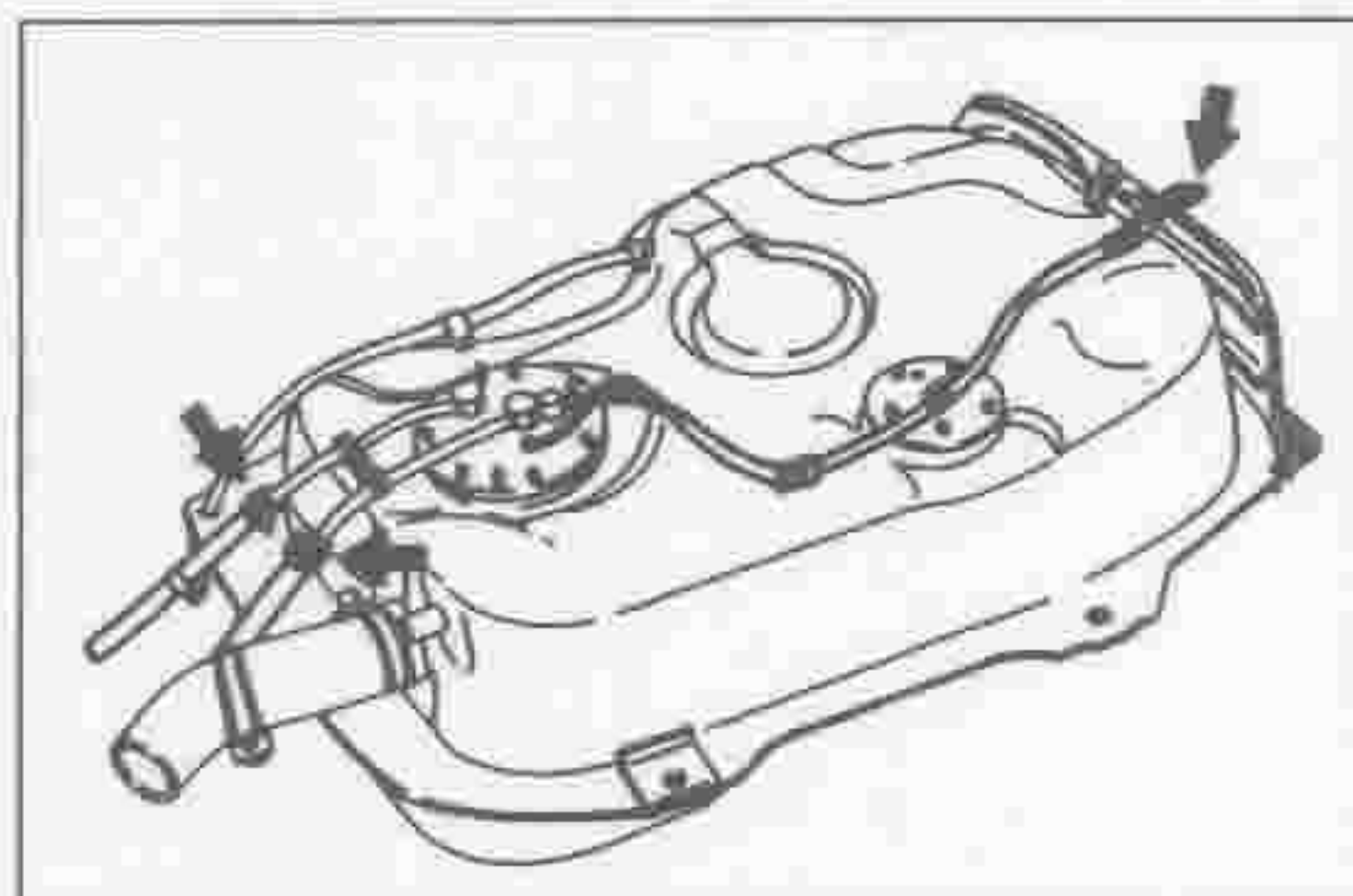
CAUTION:

- Never reuse the gasket.

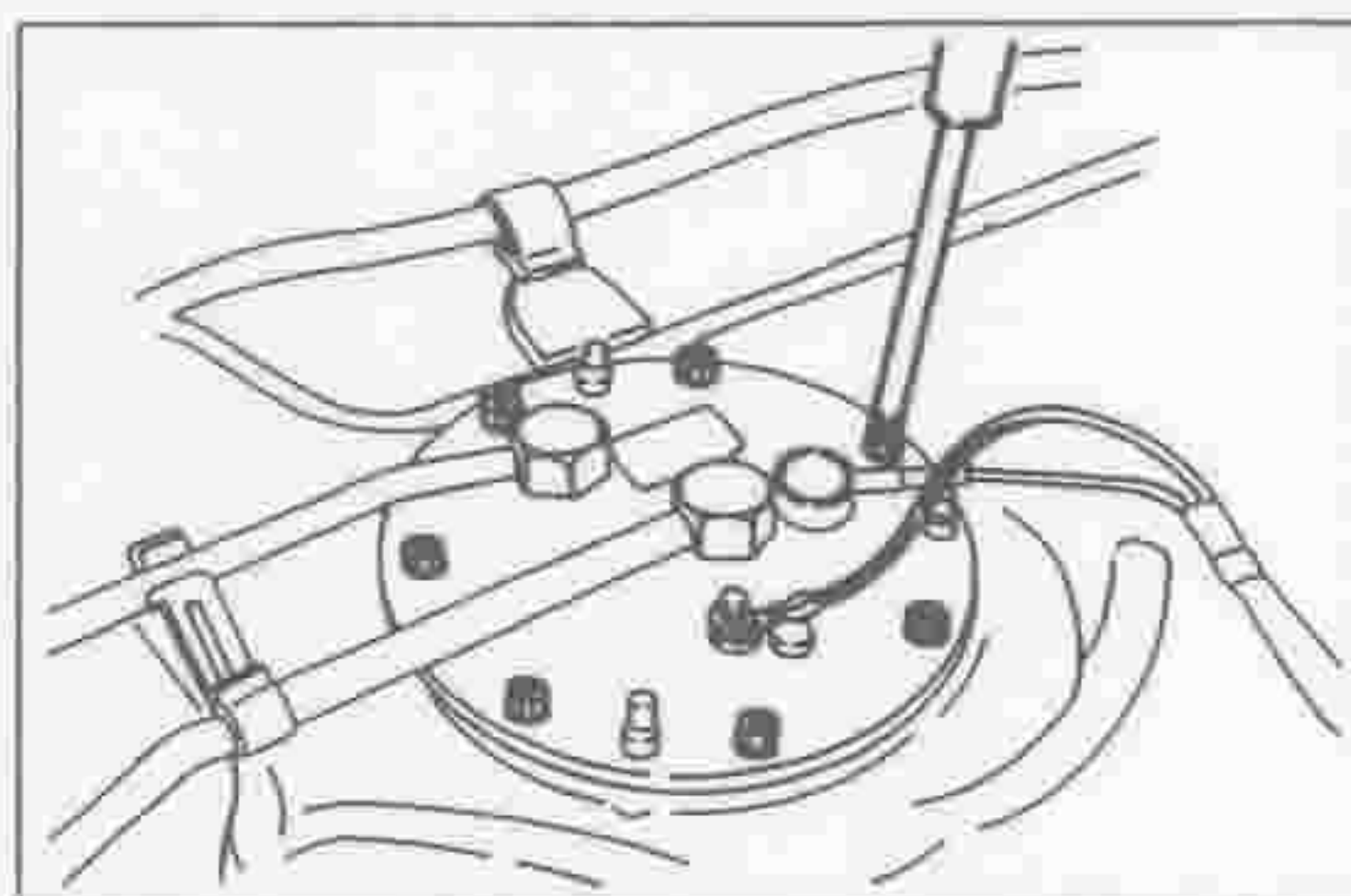
9. Disconnect the connector of the fuel pump.



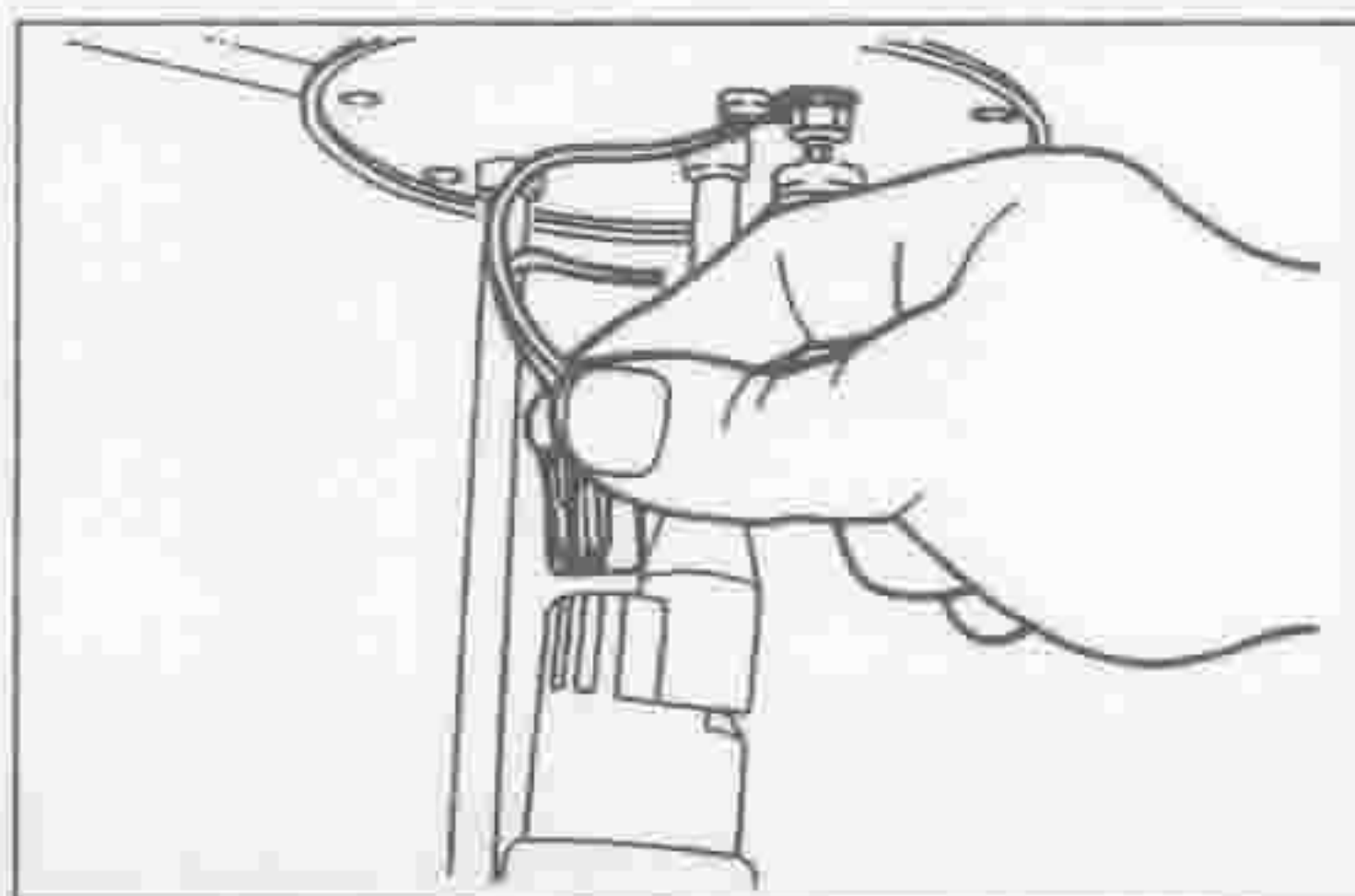
LFU00101-00091



LFU00102-00092



LFU00103-00093

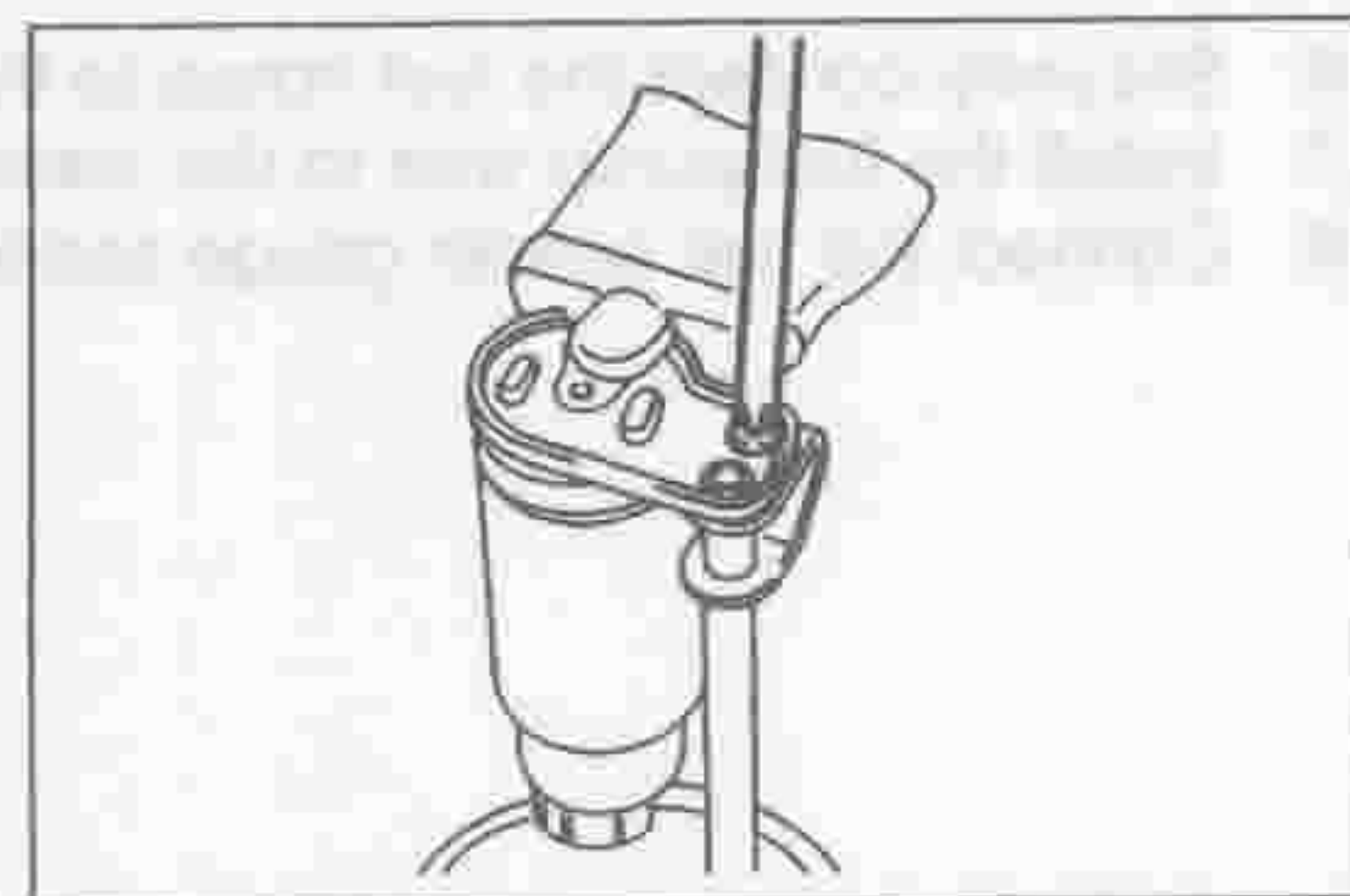


LFU00104-00094

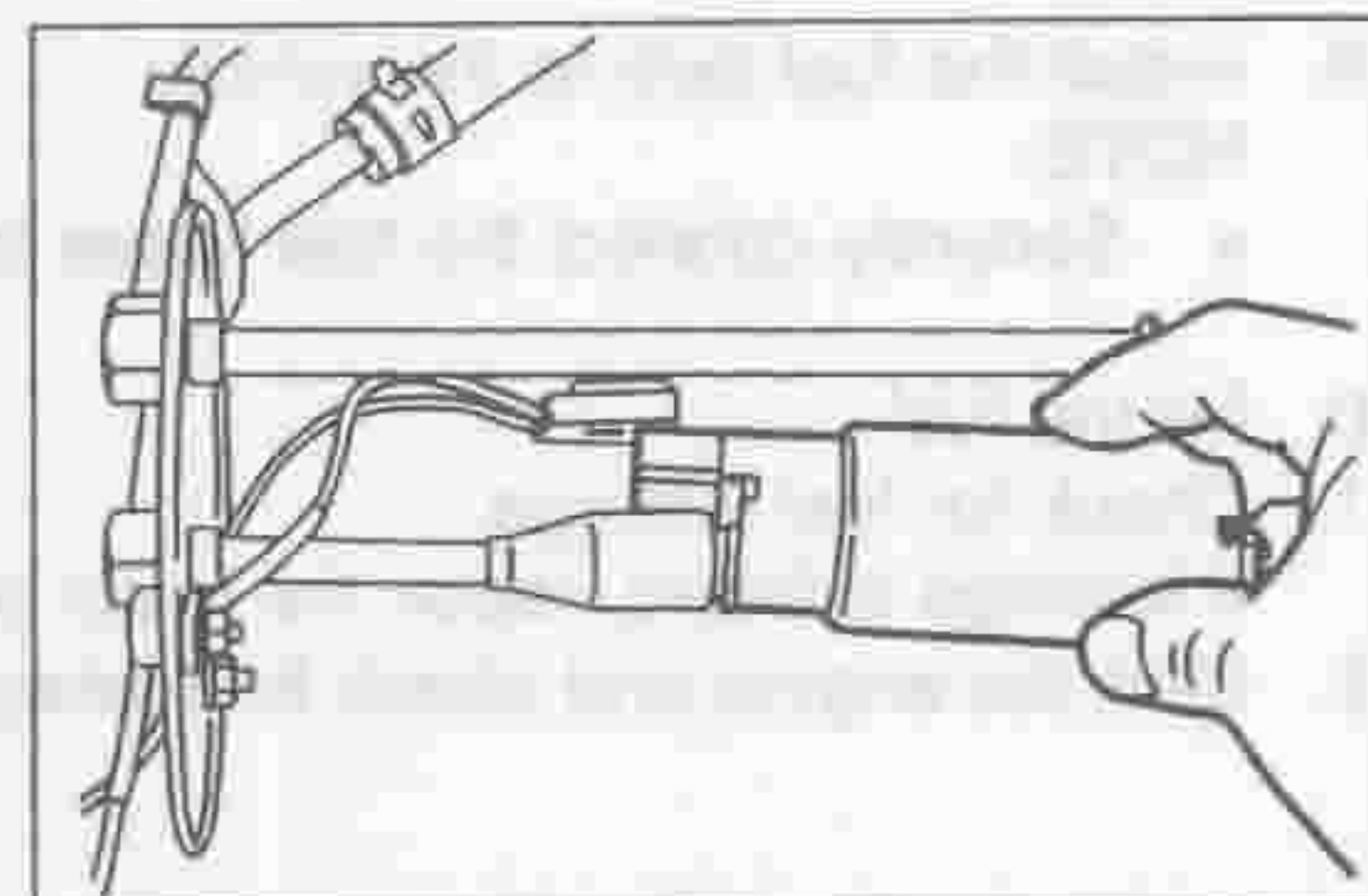
10. Remove the C bracket attaching screw.



11. Remove the fuel pump from the bracket.



LFU00105-00095



LFU00106-00096

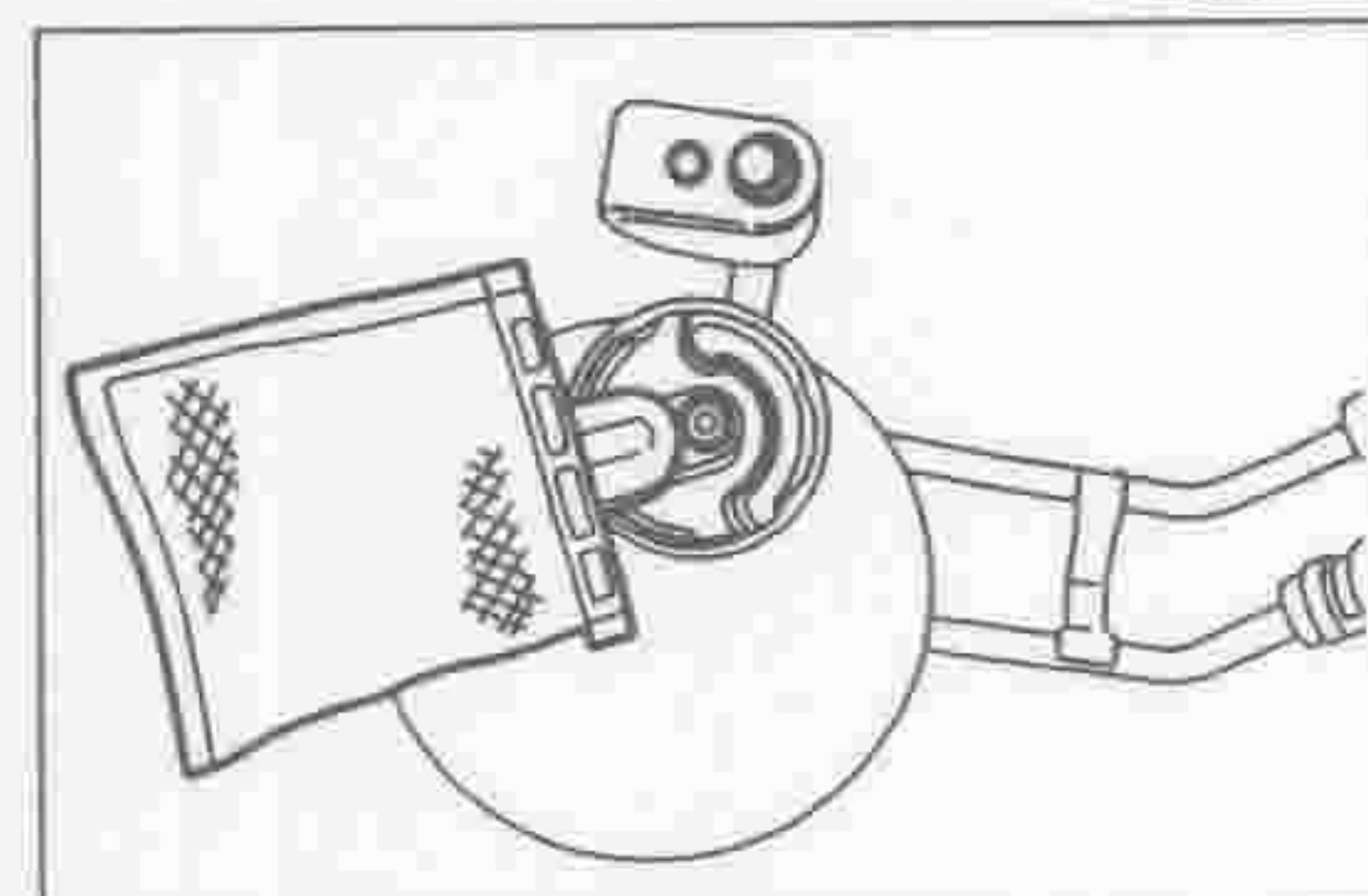
ASSEMBLY OF FUEL PUMP

1. Install the O-ring with new one.

NOTE:

- Be very careful not to damage the fuel pump.

2. Install the C bracket through the rubber cushion to the fuel pump.



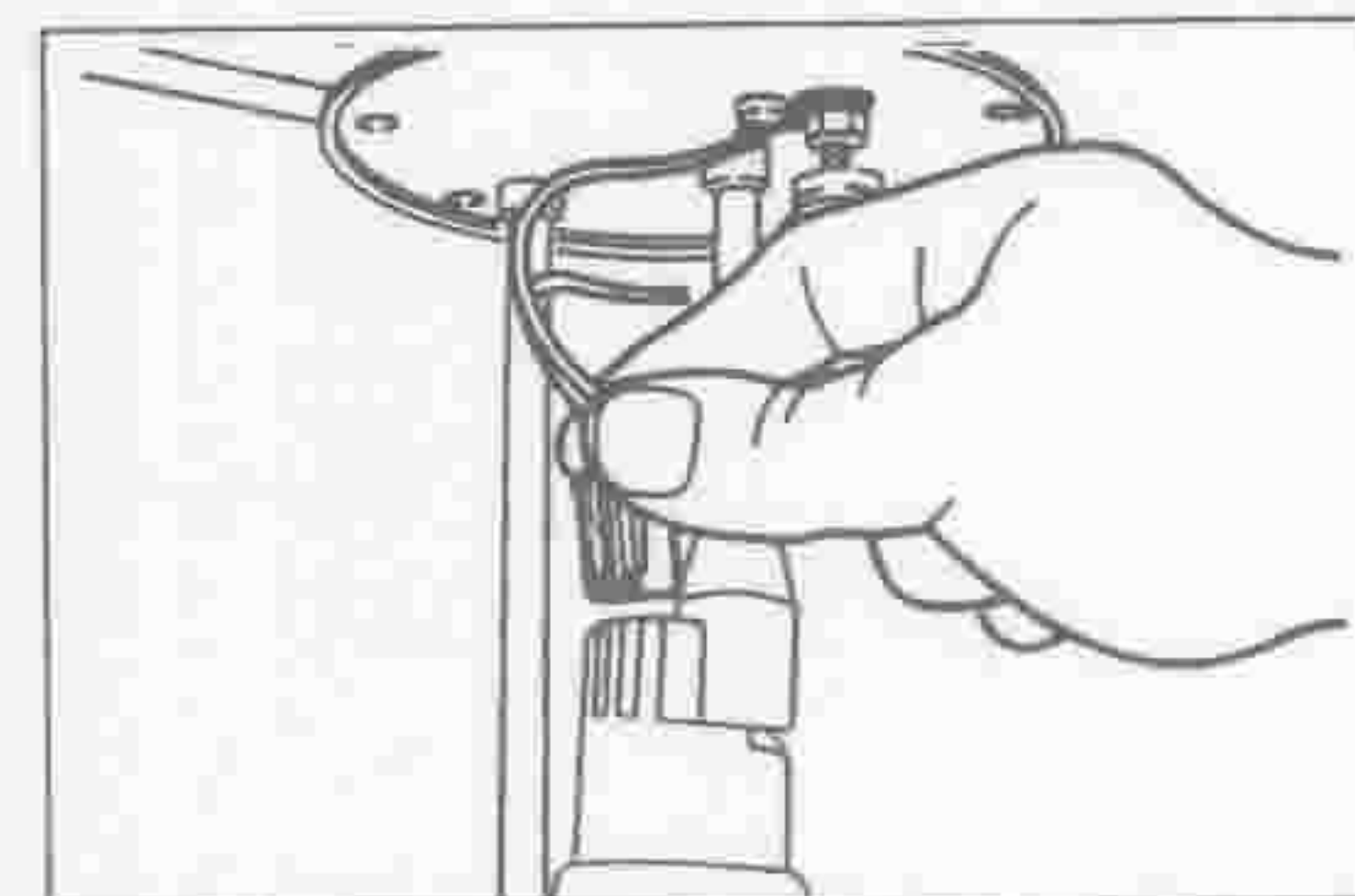
LFU00107-00097

3. Connect the connector of the fuel pump.

NOTE:

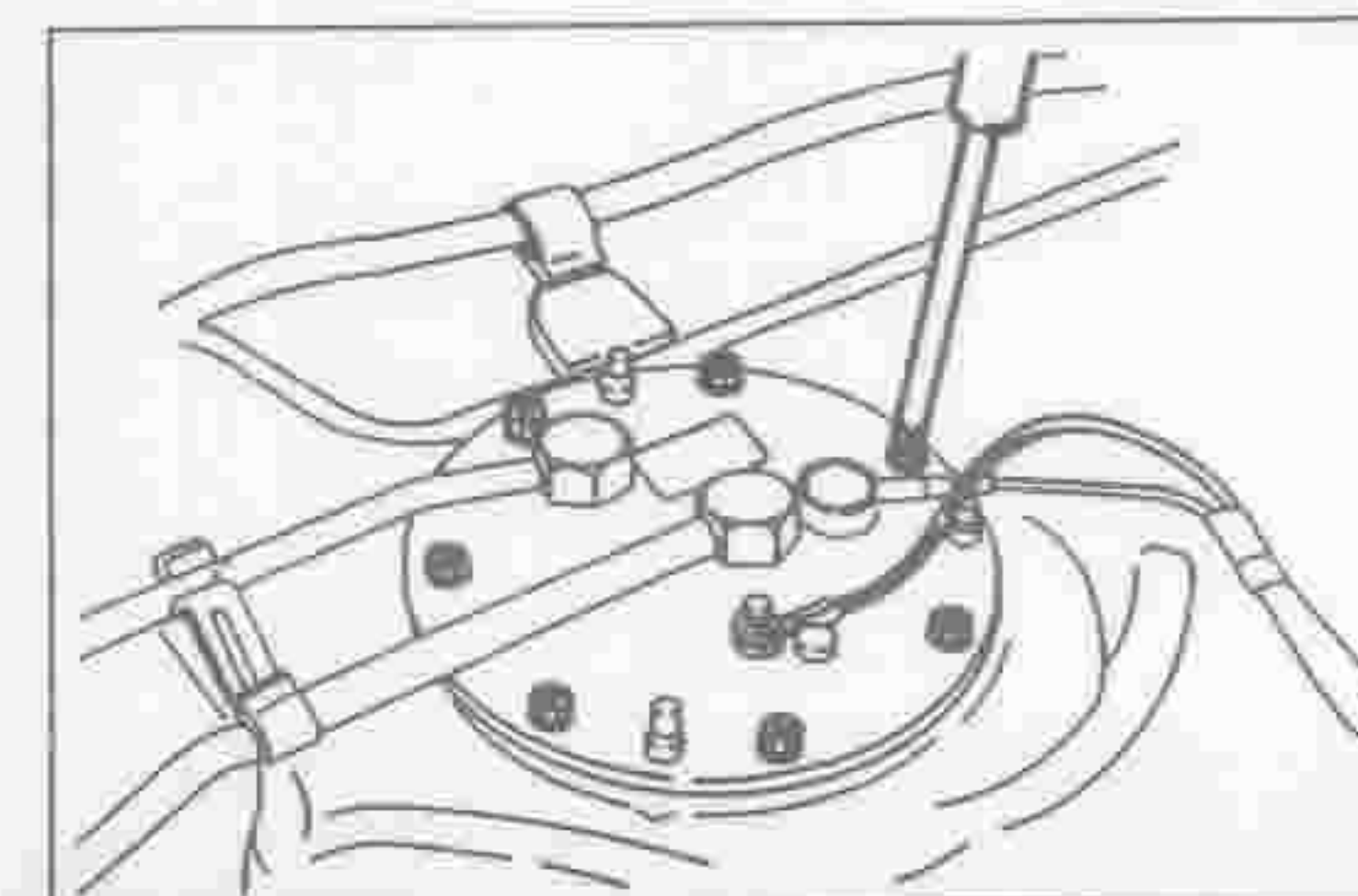
- Securely lock the connector.

4. Install a new gasket to the fuel pump bracket.



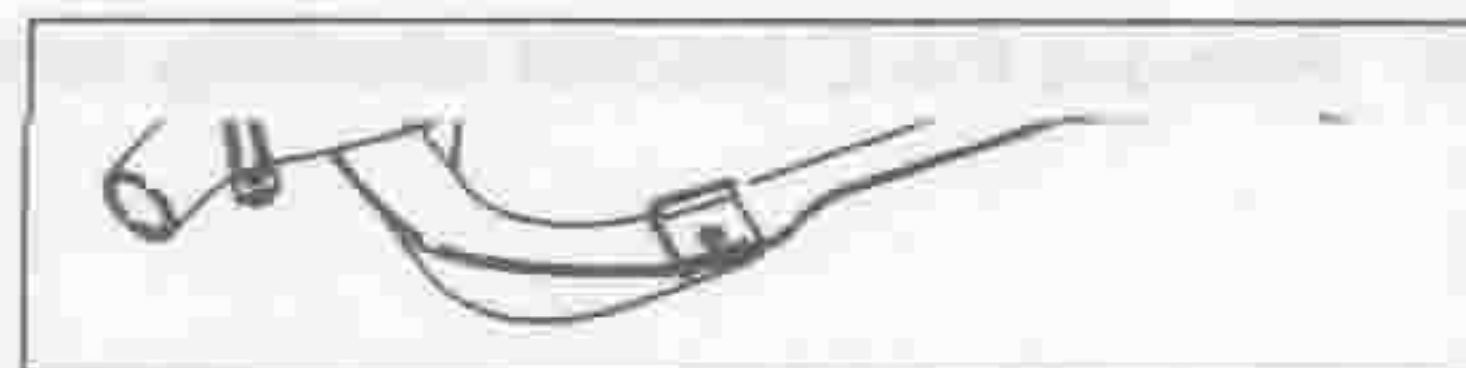
LFU00108-00098

5. Install the fuel tank bracket to the fuel tank. Tighten the fuel pump bracket attaching screws.



LFU00109-00099

6. Securely connect the fuel hoses to the fuel tank.



LFU00110-00100

9. Install the fuel tank to the vehicle.

NOTE:

- Securely connect the fuel hoses to each fuel pipe.

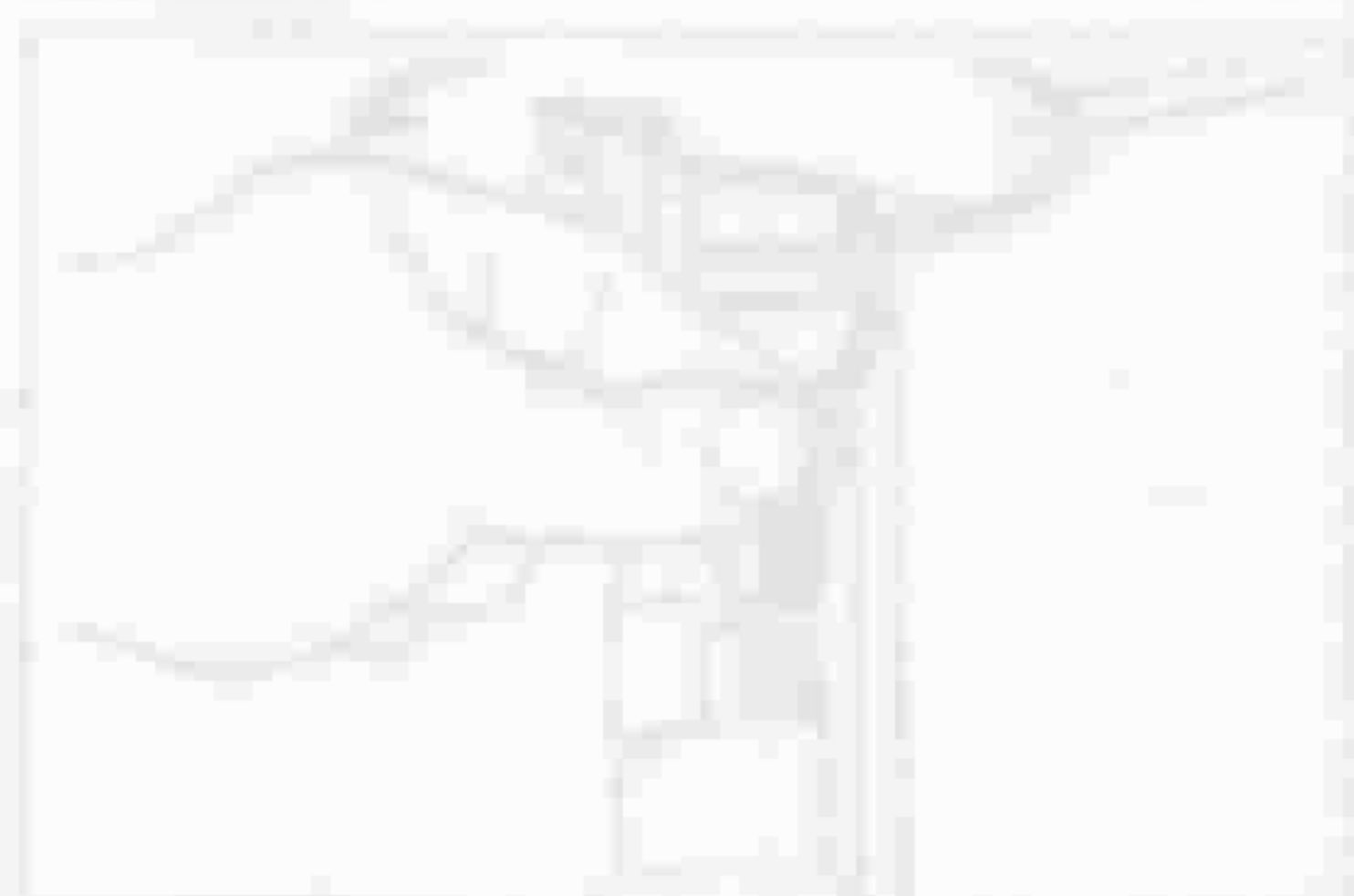
10. Fill the fuel.

11. Check for fuel leakage.

If leakage is found, repair the leaky point.

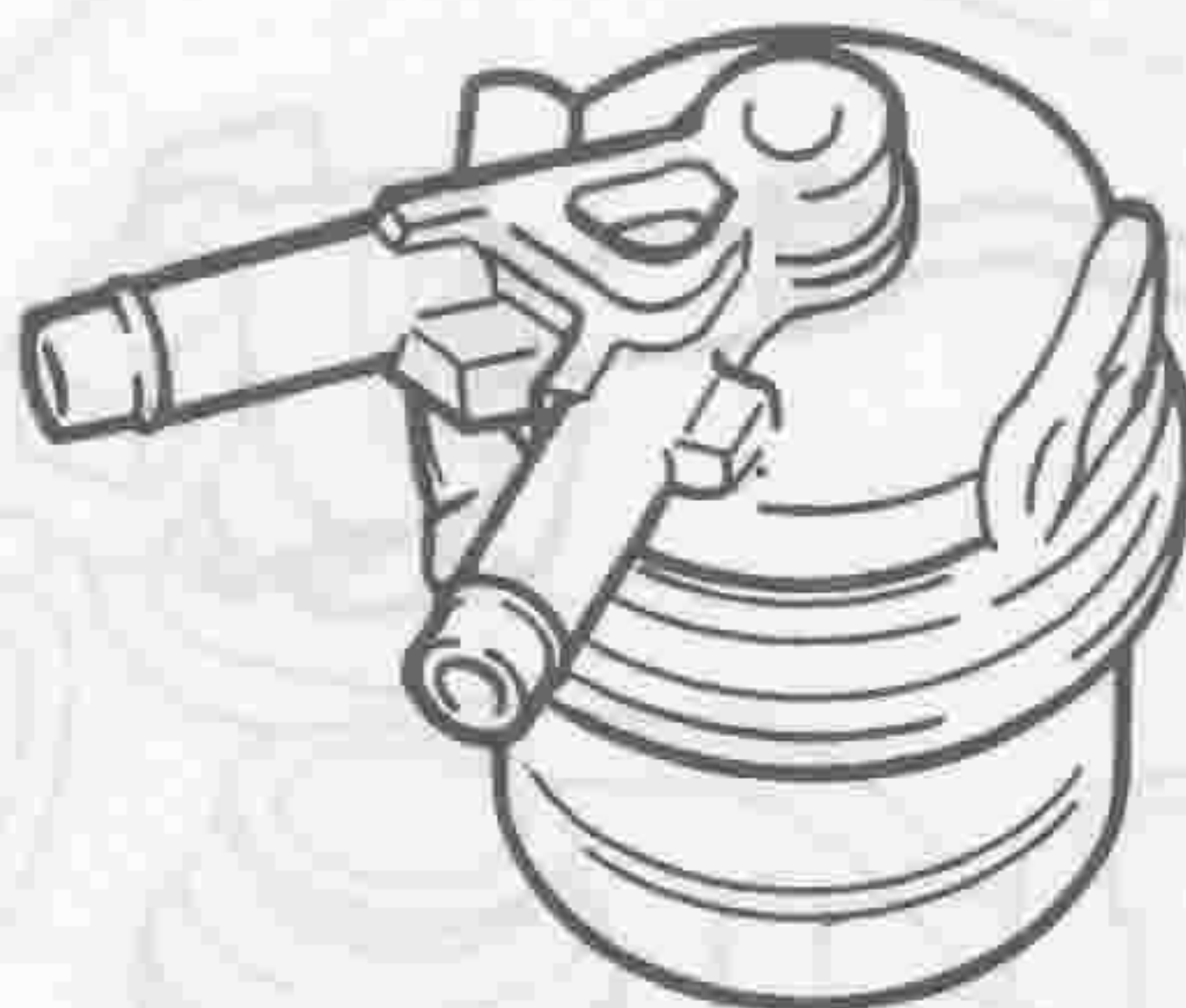
12. Start the engine and check for leakage.

LFU00111-00000



FUEL FILTER

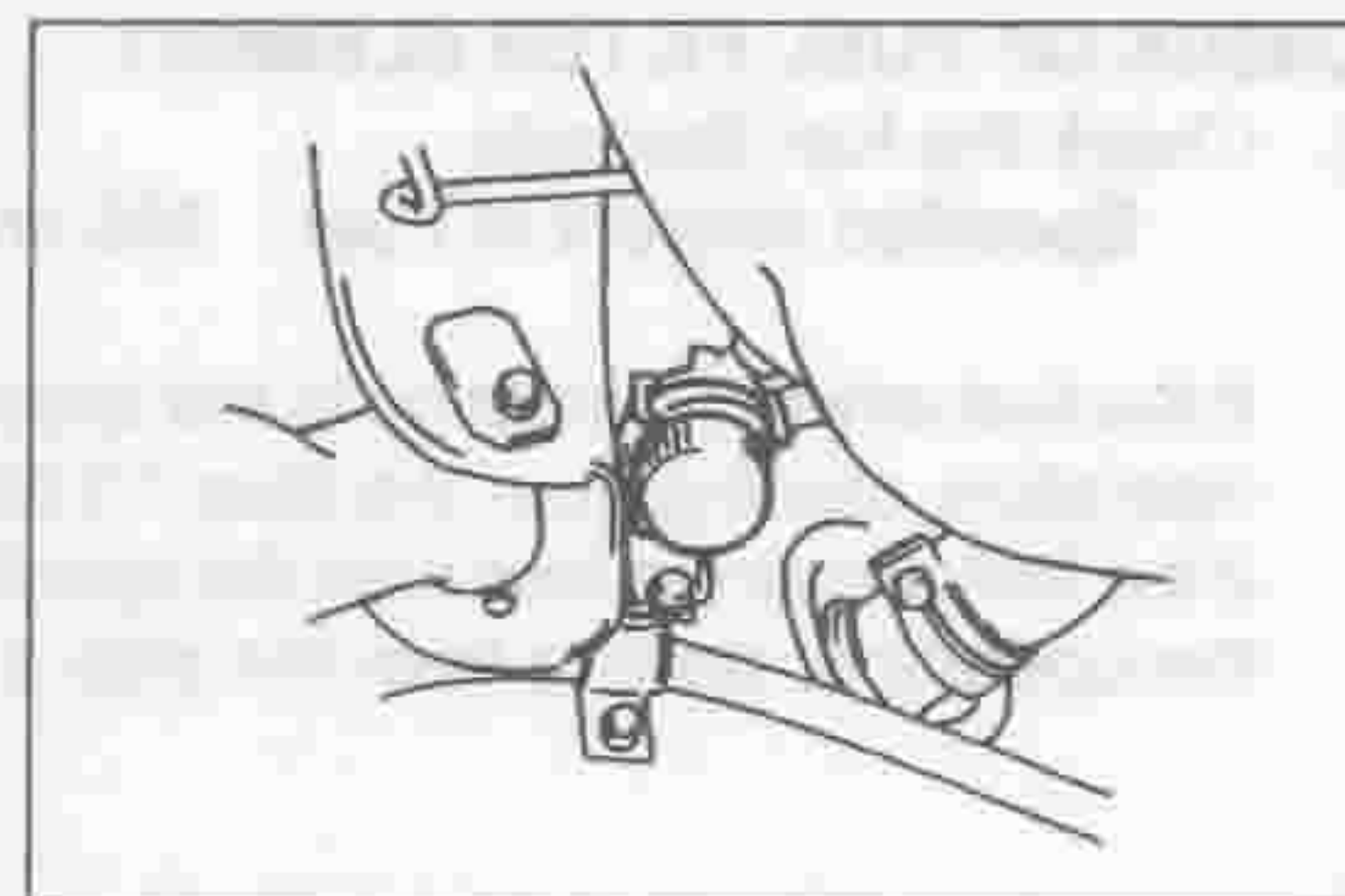
[ED-10 Engine]



LFU00112-00101

IN-VEHICLE INSPECTION

1. Check of fuel pump
 2. Start the engine.
 3. Check that the fuel filter is filled up with fuel (no trapped air exists in the fuel filter).
- If no trapped air exists, replace the fuel filter.



LFU00113-00102

REPLACEMENT OF FUEL FILTER

WARNING:

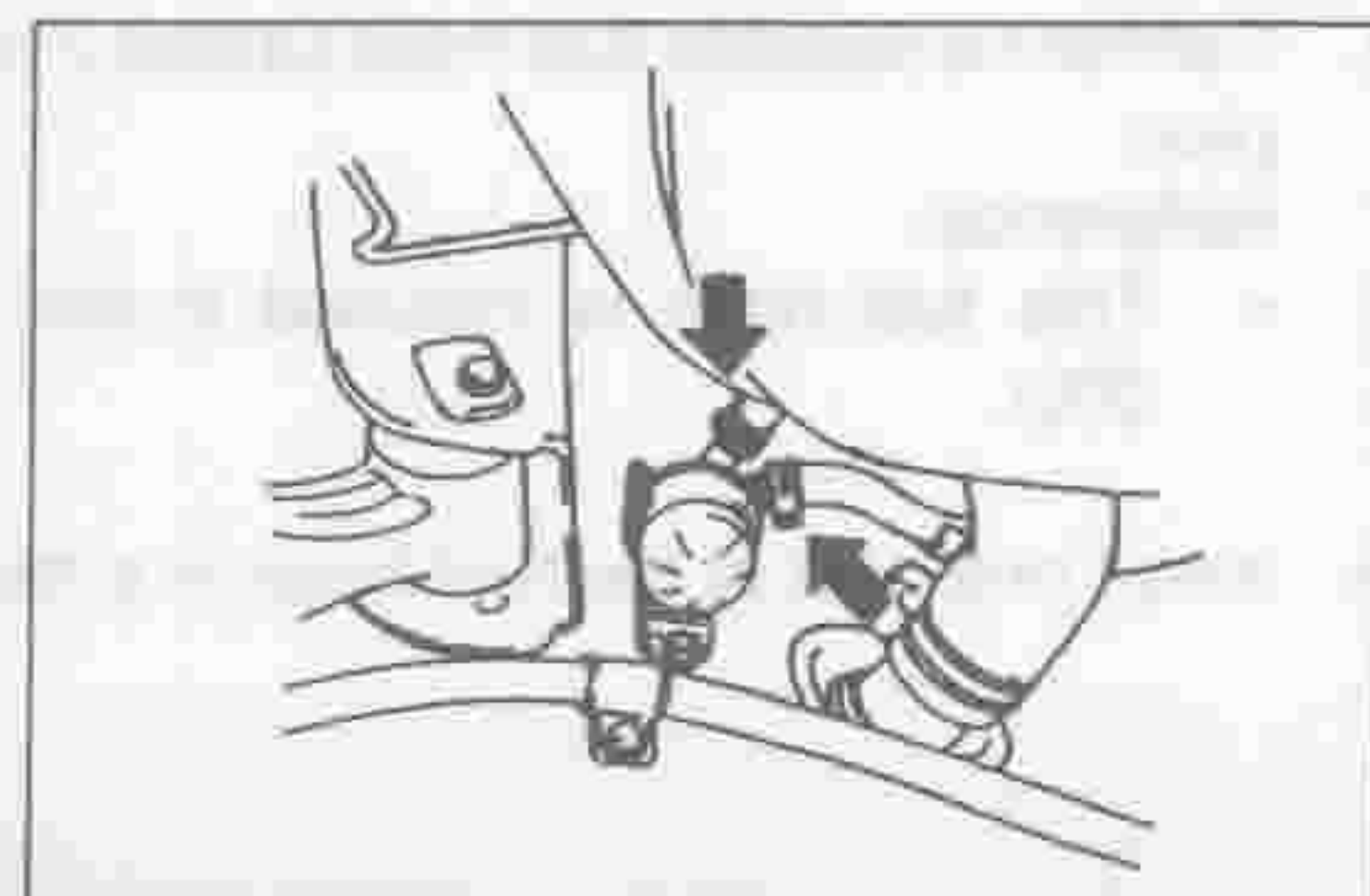
- Never work on the fuel system in proximity of fire.
- Never allow any fire to be brought near the working site.

1. Release the fuel tank inner pressure by removing the fuel filler cap.
2. Disconnect the fuel hoses from the fuel filter.

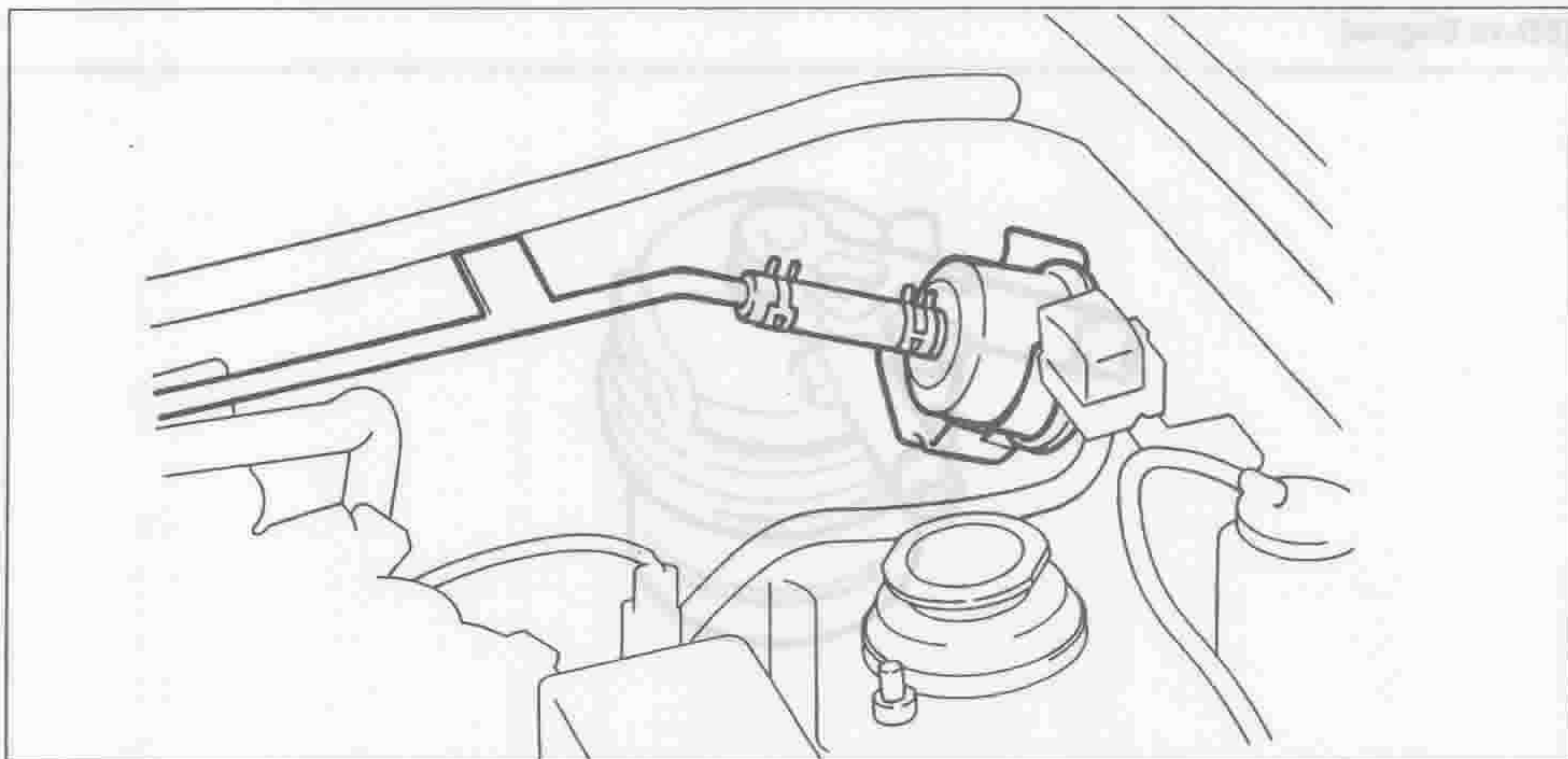
NOTE:

- Plug the disconnected hoses so that no fuel may flow out.

3. Remove the fuel filter.
4. Install a new fuel filter.
5. Connect the fuel hose to the fuel filter and attach a new clip.
6. Start the engine. Ensure that the engine exhibits no fuel leakage.



LFU00115-00103



LFU00116-00104

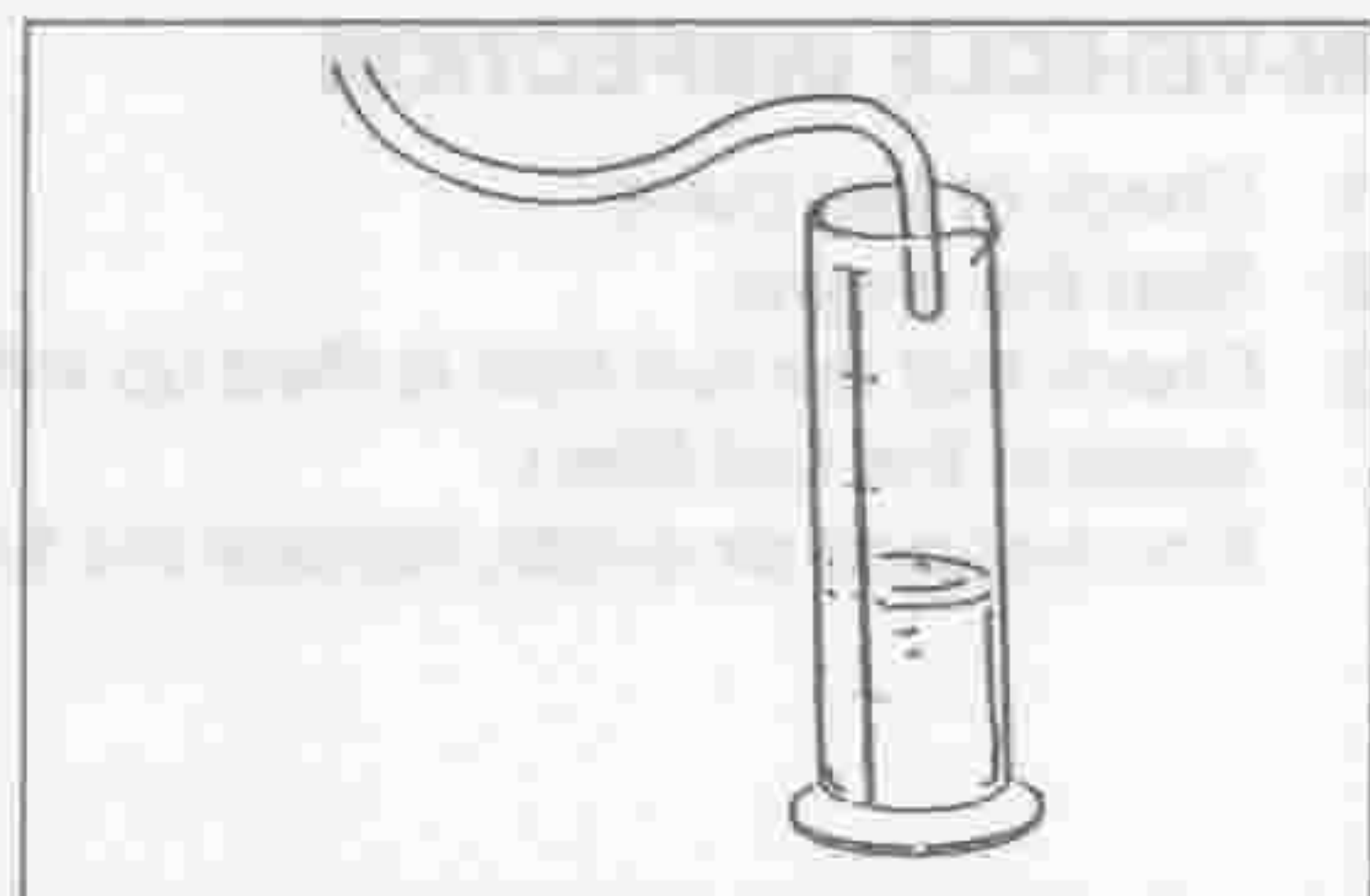
CHECK OF FUEL FILTER ELEMENT

1. Check the fuel flow rate.

Specified Amount of Fuel: 165 cm³ or more

If the fuel amount conforms to the specification, perform the operation, starting from the step 13 onward.

If the fuel amount is less than the specified amount, perform the operation, starting from the step 2 onward.



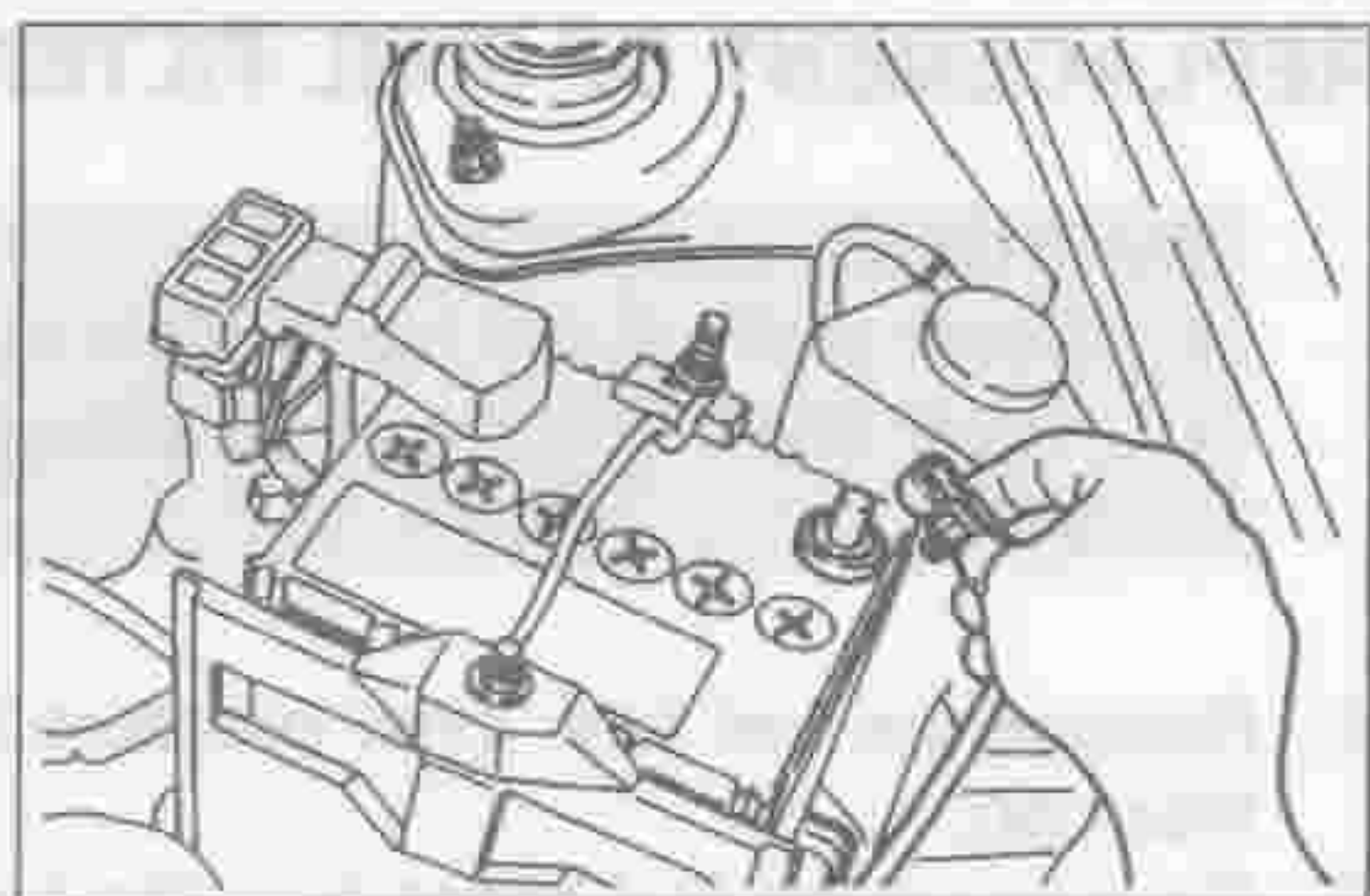
LFU00117-00105

2. Disconnect the ground cable terminal from the negative (-) terminal of the battery.

3. Disconnect the fuel hose gradually.

CAUTION:

- Since the fuel will flow out, be certain to place a suitable container or cloth, etc. under the fuel filter so that no fuel may get to the resin or rubber parts or electrical parts of the vehicle.
- Release the inner pressure of the fuel tank by removing the fuel filler cap in advance.



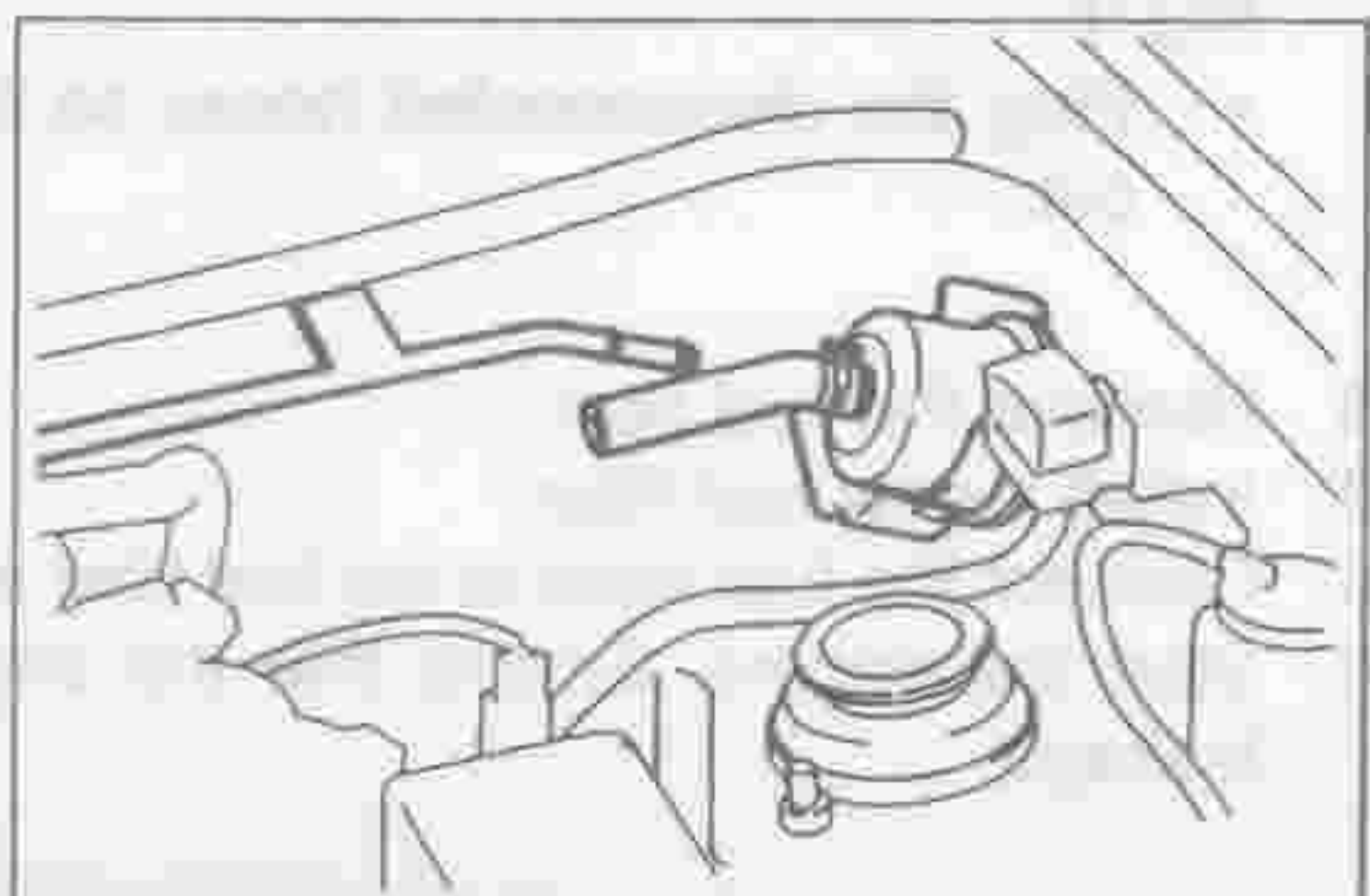
LFU00118-00108

4. Connect a suitable fuel hose (about 2 meter long) to the fuel pipe.

Reference:

- This fuel hose is included in the SST (09268-87702-000).

5. Insert one end of the fuel hose in a measuring cylinder.

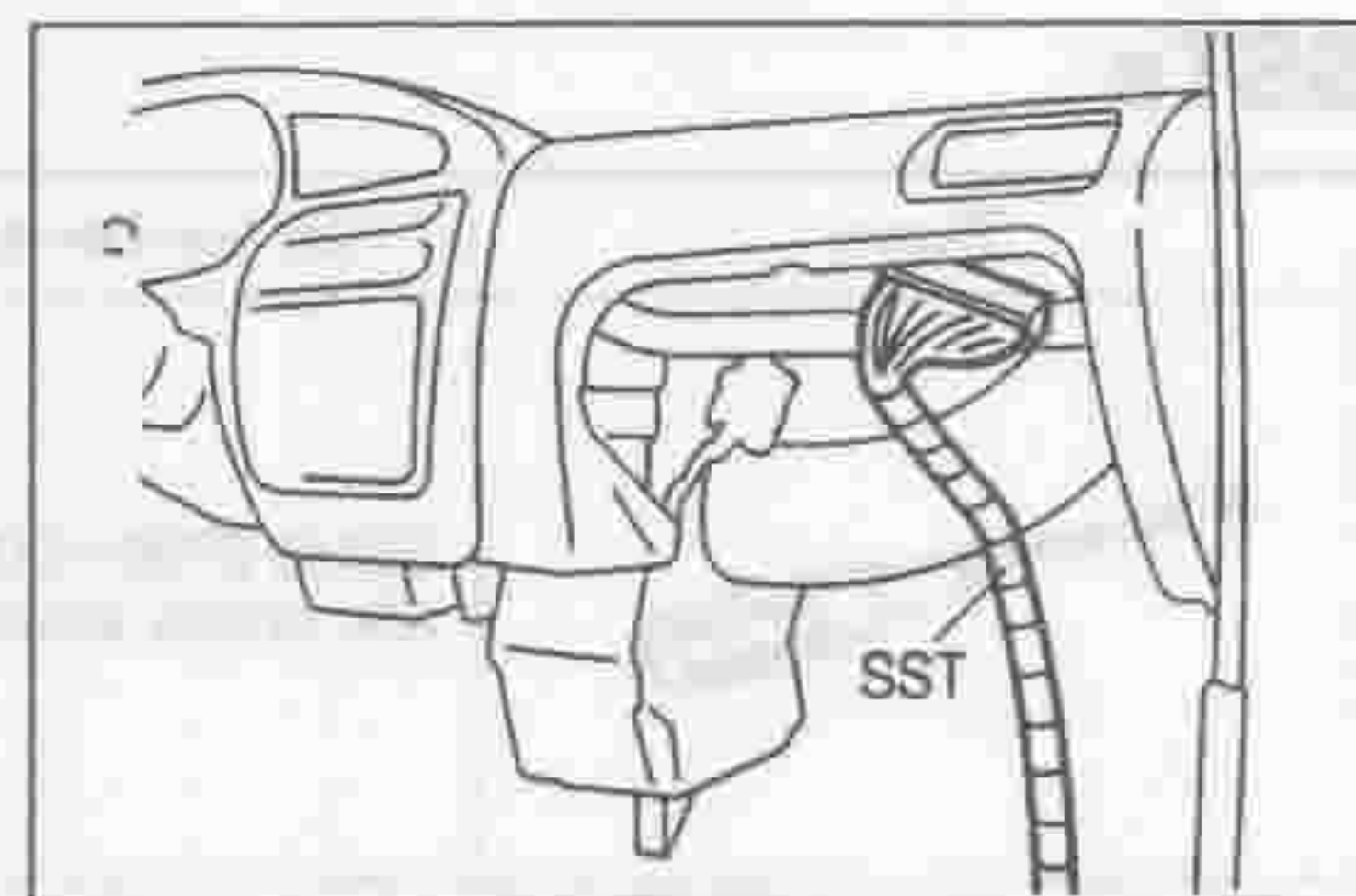


LFU00119-00107

6. Connect the following SST between the ECU and the engine wire.

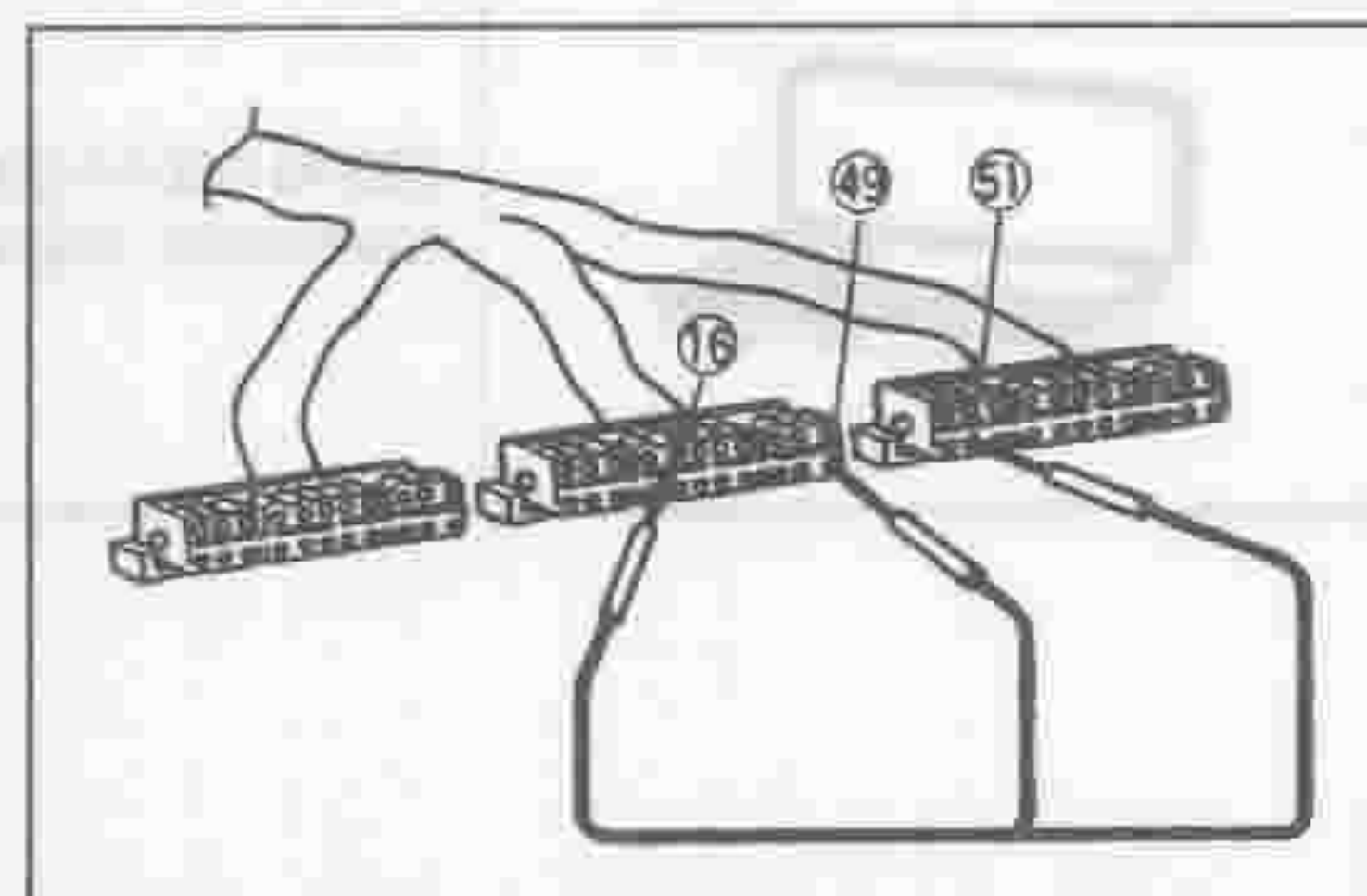
SST: 09842-87705-000

7. Reconnect the ground cable terminal to the negative (-) terminal of the battery.



LFU00120-00108

8. Connect the SST terminals.
9. Turn ON the ignition switch for 15 seconds. Then turn OFF the switch.



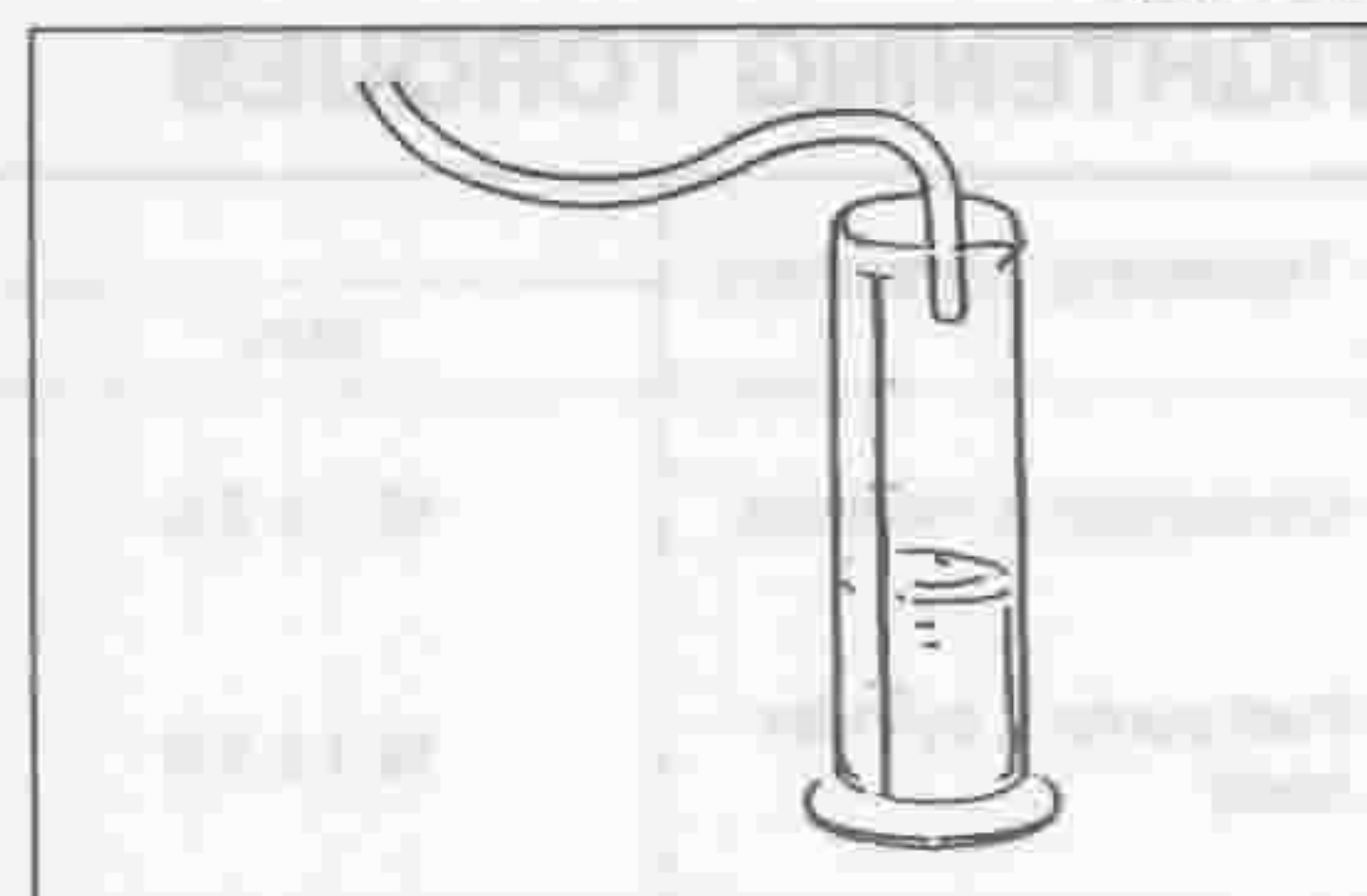
LFU00121-00109

10. Measure the amount of fuel collected in the measuring cylinder.

Specified Amount of Fuel: 165 cm³ or more

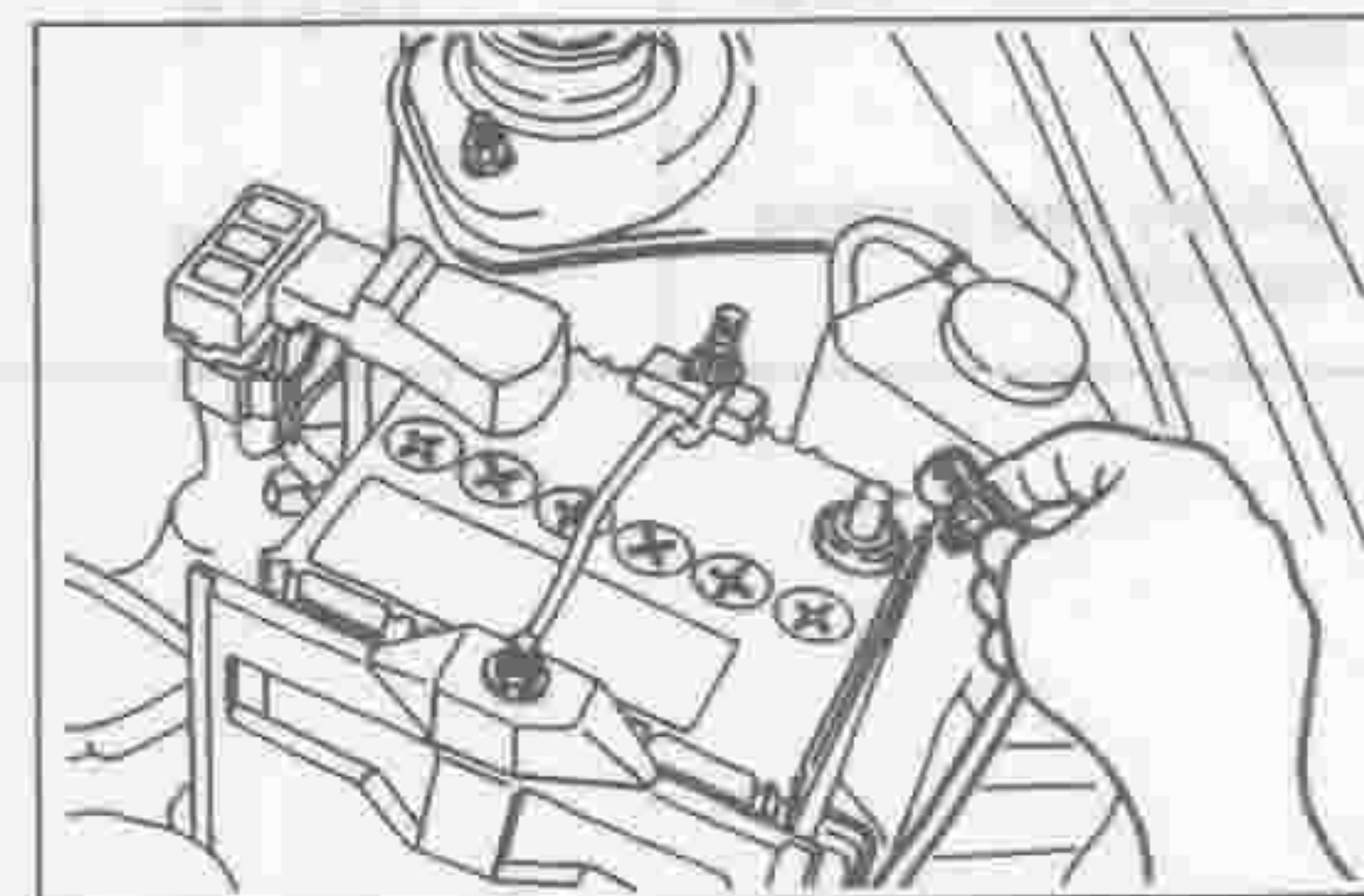
If the fuel amount conforms to the specification, replace the fuel filter.

If the fuel amount is less than the specified amount, check the fuel pump filter for restriction. Then, replace the fuel pump as required.



LFU00122-00110

11. Disconnect the ground cable terminal from the negative (-) terminal of the battery.
12. Remove the SST (Check sub harness), connect the engine wire to the ECU.
13. Disconnect the fuel hose (2 meter long) from the fuel filter.
14. Securely connect the fuel hose to the fuel filter with new clip.
15. Reconnect the ground cable terminal to the negative (-) terminal of the battery.
16. Start the engine. Check to see if any fuel leakage is present. Repair any defective part if fuel leakage exists.



LFU00123-00111

SSTs

Shape	Part number and Part name	Purpose	Remarks
	09243-87201-000 Idle adjust wrench	Adjustment of the idle mixture adjusting screw	
	09240-00014-000 Carburetor adjuster gauge set	Adjustment of the carburetor	

LFU00124-00112

TIGHTENING TORQUES

Tightening component	Tightening torque			Remarks
	N-m	kgf-m	ft-lb	
Carburetor x manifold	12.7 ± 2.5	1.30 ± 0.26	9.4 ± 1.9	
Fuel pump x cylinder head	19.1 ± 3.8	1.95 ± 0.39	14.1 ± 2.8	
Throttle body x surge tank	7.9 ± 1.6	0.80 ± 0.16	5.8 ± 1.2	
Delivery pipe x intake manifold	19.1 ± 3.8	1.95 ± 0.39	14.1 ± 2.8	

LFU00125-00000

SERVICE SPECIFICATIONS

FUEL SYSTEM

Carburetor	Number of backing-off of idle mixture adjusting screw		2 turns
	Solenoid valve	Resistance	40 - 70 Ω
	Float level	Dimension "H"	36.5 mm
	Choke valve	Throttle valve opening angle	20° (At time when choke is fully pulled)
	Throttle valve	Full opening angle	90 $\pm$ 1°
	Throttle positioner/idle-up during cold period	Throttle valve opening angle	13°
Fuel pump (ED-10 Engine)	Suction force		-10.7 kPa (-80 mmHg)
	Push rod length	Standard Minimum limit	57.95 - 58.25 mm 57.5 mm
	Push rod stroke	Standard Minimum limit	3.4 mm 3.3 mm
Fuel pump (EF-EL & ED-20 Engine)	Delivery pressure		343 kPa (3.5 kgf/cm ²)
	Delivery output		More than 40 dm ³ /h
	Cut-off pressure		392 - 588 kPa (4 - 6 kgf/cm ²)