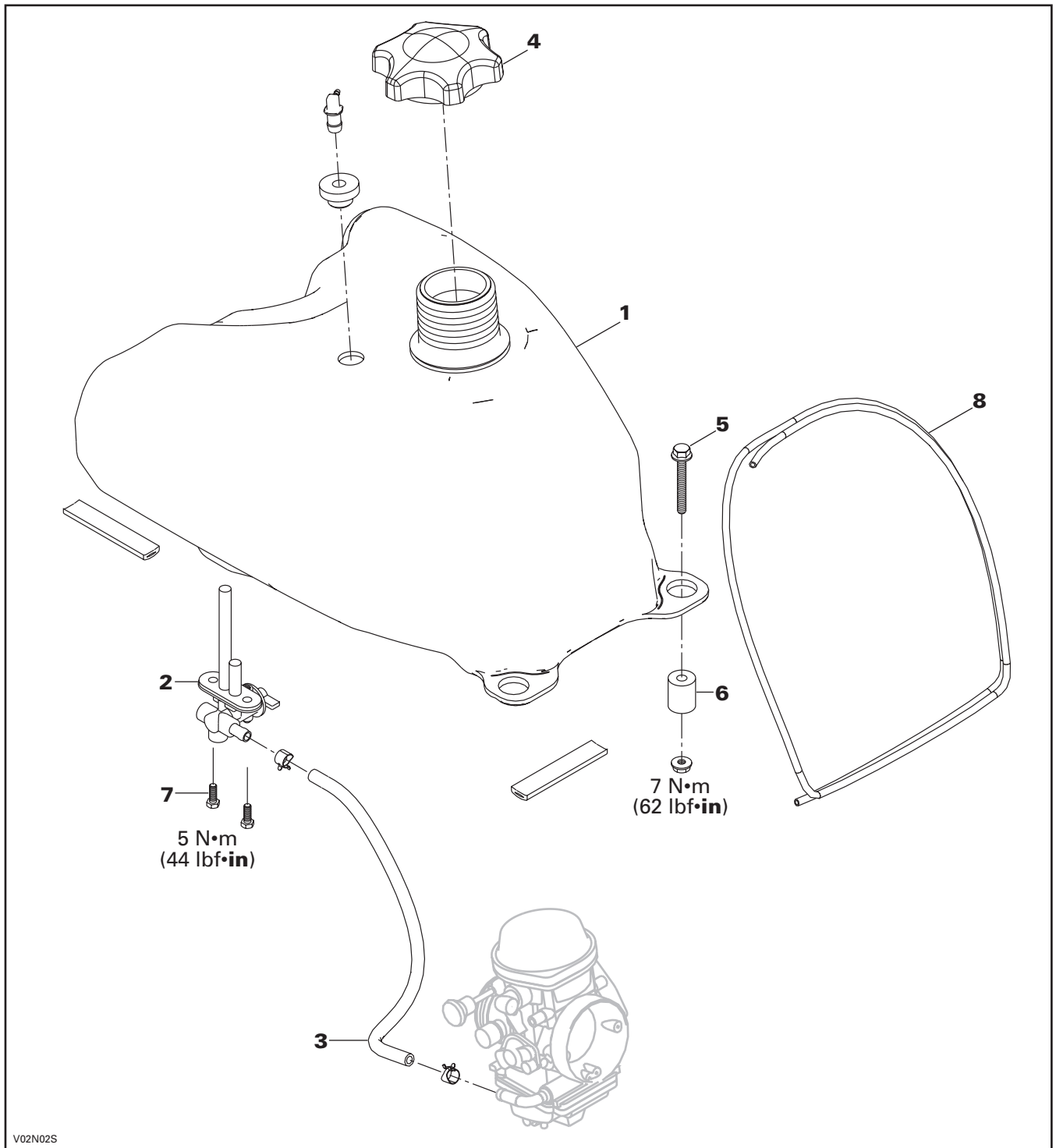


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FUEL CIRCUIT



Section 04 FUEL SYSTEM

Subsection 02 (FUEL CIRCUIT)

FUEL LINE

WARNING

Whenever working on fuel system, always verify for water or dust infiltration in reservoir. Replace any damaged, leaking or deteriorated fuel line.

When replacing fuel line, be sure to use hoses as available from Bombardier parts department. This will ensure continued proper and safe operation.

WARNING

Use of improper fuel line could compromise fuel system integrity.

WARNING

When draining a fuel tank or whenever a fuel line is disconnected, obstruct line with a hose pincher (P/N 295 000 076) or equivalent device. Fuel is flammable and explosive under certain conditions. Ensure work area is well ventilated. Do not smoke or allow open flames or sparks in the vicinity.

1, FUEL TANK

NOTE: Disconnect BLACK negative cable from battery.

Draining

Turn fuel valve **no. 2** to the position OFF then obstruct line **no. 3** with a hose pincher (P/N 295 000 076).

Disconnect fuel line from carburetor.

Place fuel line in a reservoir, turn fuel valve on RE-SERVE and remove hose pincher.

NOTE: To accelerate fuel tank draining and ensure complete draining, remove cap **no. 4**.

When the tank is empty, turn valve OFF.

Removal

Drain fuel tank.

Remove following items from body. Refer to BODY for complete detailed procedure:

- seat
- front fascia
- fuel tank cover.

Inspection

Inspect fuel tank for any damage or cracks which may result in fuel leaks. If so, replace tank with new one.

Installation

Reverse removal procedure, however pay attention to the following:

Perform fuel system pressurization as described in the following procedure.

2, FUEL VALVE

Removal

Remove fuel tank.

Place fuel tank on the side.

Unscrew the bolts **no. 7** retaining fuel valve to fuel tank.

Remove fuel valve.

Inspection

Check strainer on each end of fuel valve rods. If one strainer is damaged, change fuel valve.

Check gasket between fuel valve and fuel tank for damage. If so, replace by a new.

Installation

For installation, reverse the removal procedure.

Clean strainer on each end of fuel valve rods.

Perform fuel system pressurization as described in the following procedure.

FUEL SYSTEM PRESSURIZATION

Fill up fuel tank **no. 1**.

Remove seat and fuel tank cover.

Install on fuel tank the special cap included in the fuel and oil system tester kit (P/N 529 033 100).

Install hose pinchers (P/N 295 000 076) on fuel tank vent line **no. 8** and on the outlet hose **no. 3** at carburetor, as shown in the following photos.

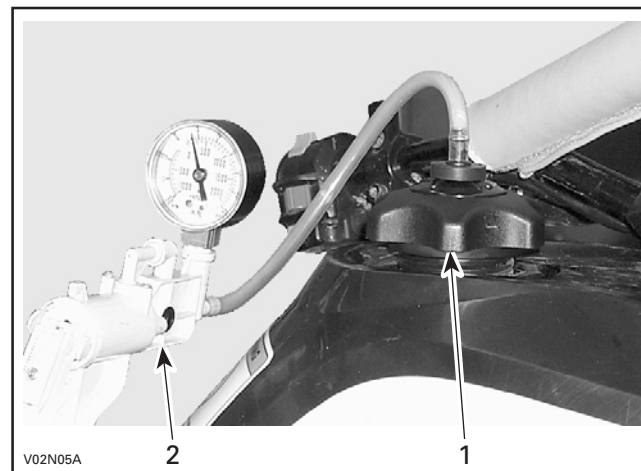


HOSE PINCHER INSTALLED ON FUEL TANK VENT LINE



HOSE PINCHER INSTALLED ON FUEL PUMP OUTLET

Using air pump (P/N 529 021 800) inject air into fuel tank. See next photo.



1. Special cap on tank
2. Air pump

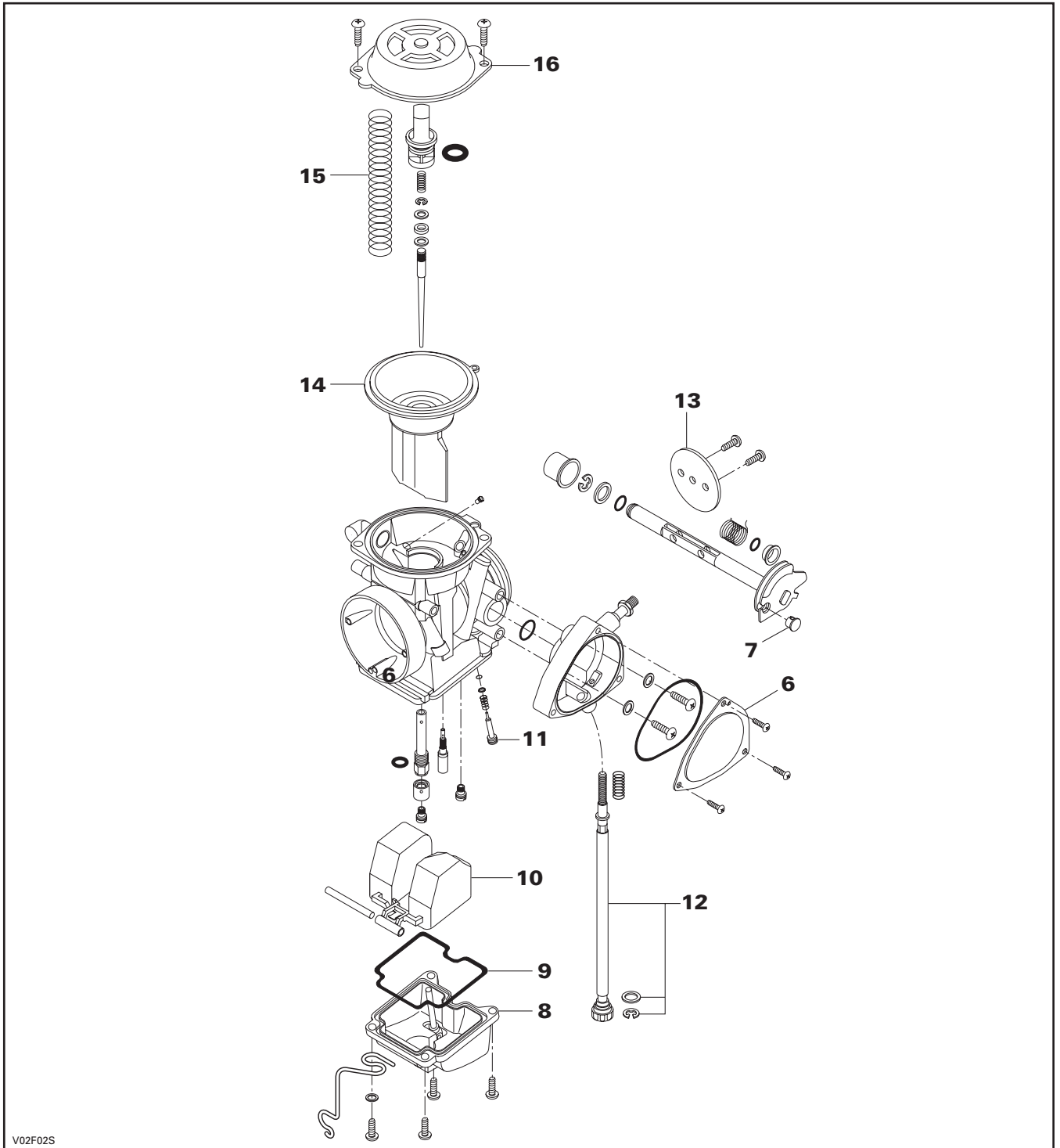
Pressurize fuel system to 21 kPa (3 PSI). That pressure must not drop during 3 minutes.

If pressure drops, locate fuel leak(s) and repair/replace leaking component(s).

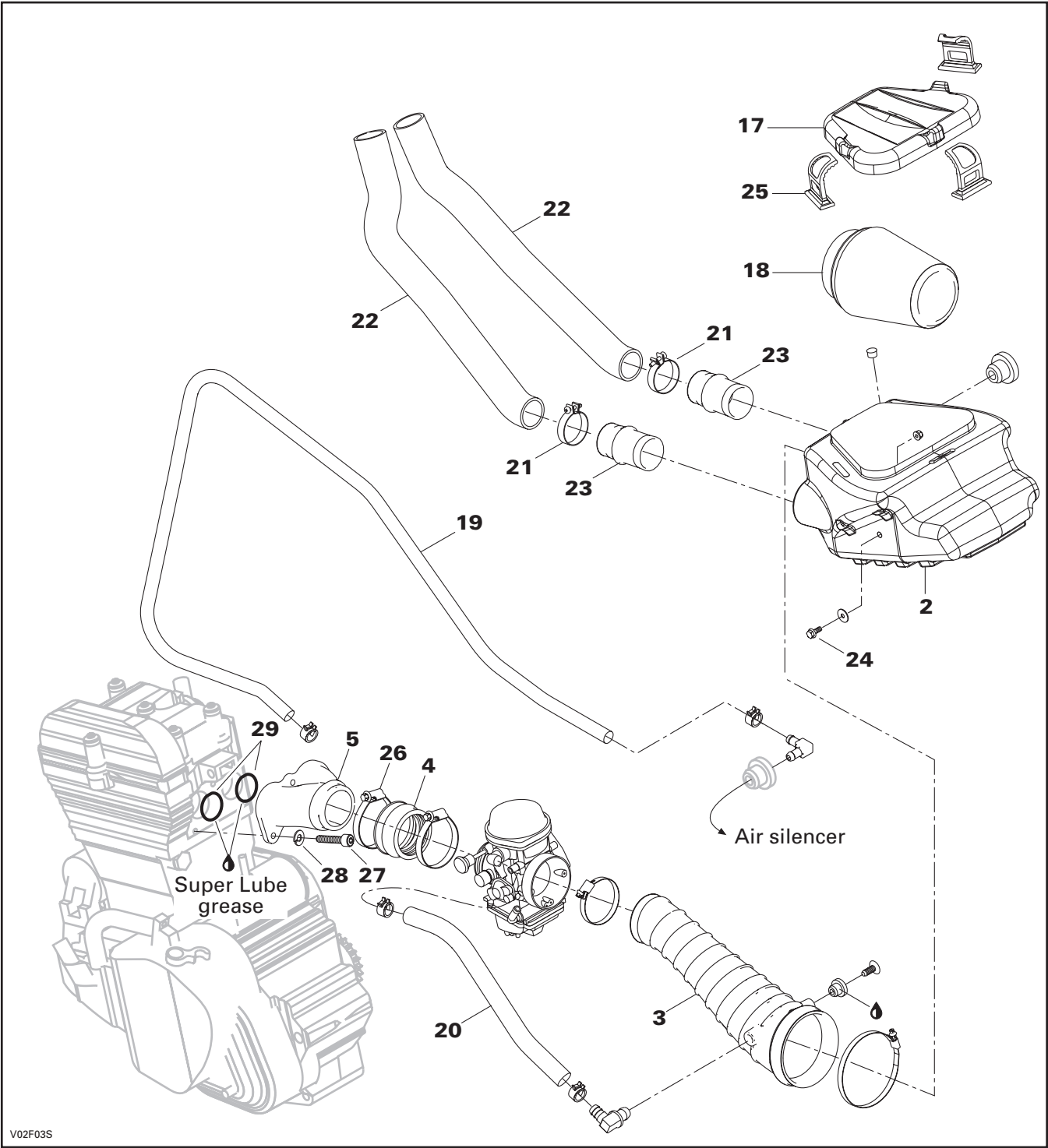
To ease locating leak(s) at fuel tank vent fitting or fuel cap spray soapy water on components, bubbles will indicate leak location(s).

CARBURETOR AND AIR INTAKE SILENCER

CARBURETOR



AIR INTAKE SILENCER



V02F03S

CAUTION: Although some jets can be replaced by other jets from other carburetors, such modifications shouldn't be performed. They can greatly affect engine calibration and can cause severe damage to engine. Use only recommended jetting specific for this carburetor.

1, CARBURETOR

Removal

Disconnect BLACK negative cable from battery.

Remove seat.

Unplug all hoses from carburetor.

NOTE: To ease reinstallation, mark all hoses before unplugging.

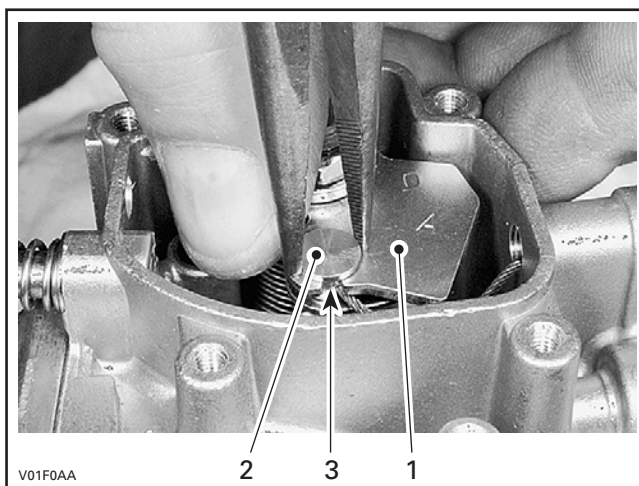
Loosen both carburetor and air box clamps.

Pull out carburetor.

Throttle Cable Removal

Remove carburetor side cover **no. 6**.

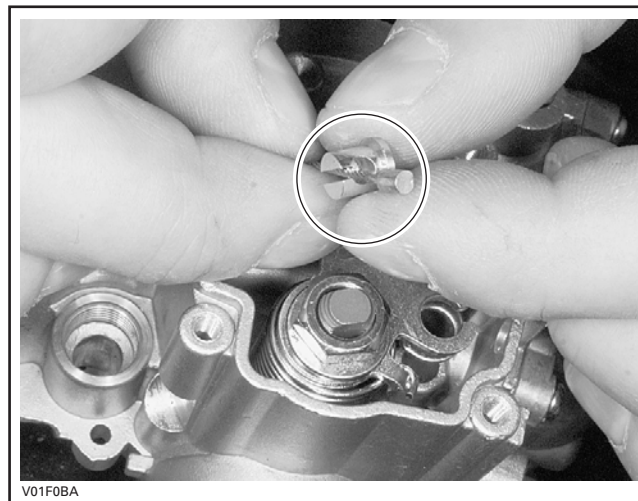
Using thumb, release tension on throttle lever. With long nose pliers, rotate cable end bushing **no. 7** so that cable aligns with throttle lever recess, then lift cable end. See next photo.



TYPICAL

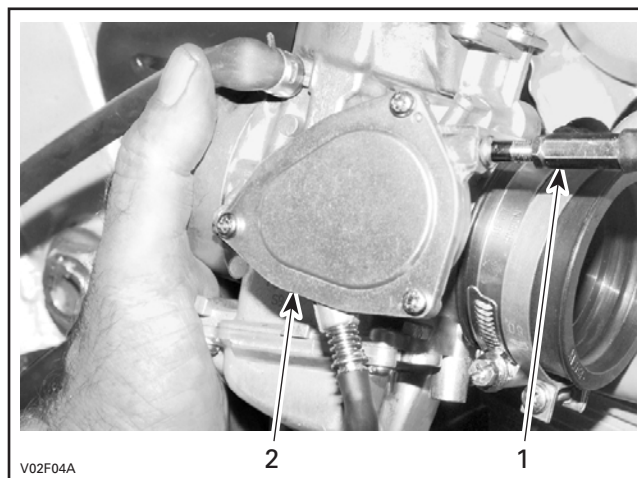
1. Release tension on throttle lever
2. Cable end bushing
3. Throttle lever recess

Separate cable end bushing from throttle cable end, as shown in the next photo. Keep bushing.



TYPICAL — REMOVE CABLE END BUSHING

Loosen throttle cable nut, as shown in the next photo.



1. Loosen this nut
2. Side cover

Pull cable out from carburetor.

Cleaning and Inspection

The entire carburetor should be cleaned with a general solvent and dried with compressed air before disassembly.

CAUTION: Heavy duty carburetor cleaner may be harmful to the float material and to the rubber parts, O-rings, etc. Therefore, it is recommended to remove those parts prior to cleaning.

Section 04 FUEL SYSTEM

Subsection 03 (CARBURETOR AND AIR INTAKE SILENCER)

Carburetor body and jets should be cleaned in a carburetor cleaner following manufacturer’s instructions.

⚠ WARNING

Solvent with a low flash point such as gasoline, naphtha, benzol, etc., should not be used as they are flammable and explosive.

Carburetor Float Level Adjustment

Correct fuel level in float chamber is vital toward maximum engine efficiency. To check for correct float level proceed as follows:

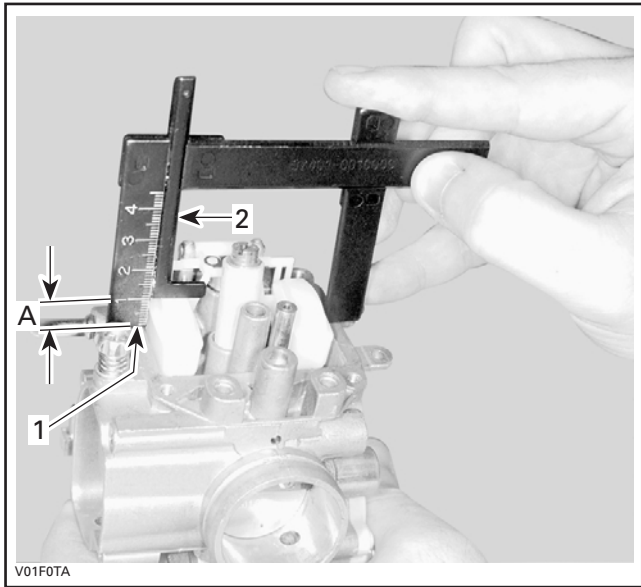
- Remove float bowl no. 8 and gasket no. 9 from carburetor.
- Make sure that float arm no. 10 is symmetric, not distorted.

With carburetor chamber up side down:

- Measure height H between bowl seat and the top edge of float arm. Use float level gauge (P/N 529 035 520).
- Keep float level gauge perfectly vertical and in line with main jet hole.

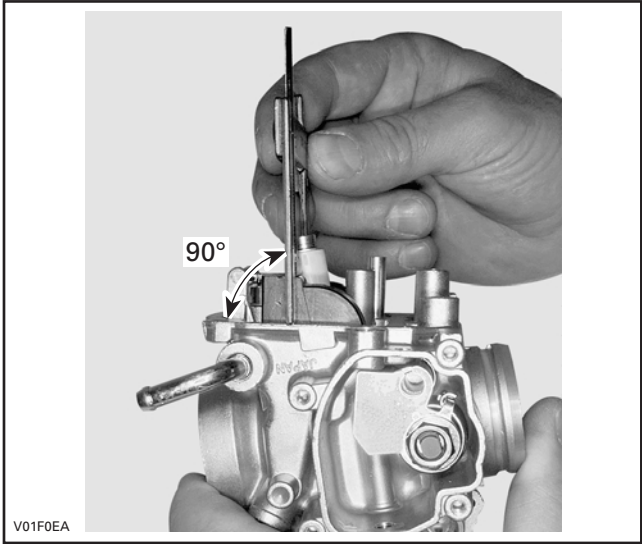
Ensure that both float level gauge tips are properly positioned on carburetor body and that “L” arm is leaning on float with compressing valve spring.

Refer to following photos for proper float level gauge positioning.



TYPICAL

- 1. Gauge tips
- 2. “L” arm
- A. Height H



TYPICAL — GAUGE ALIGNED WITH MAIN JET

To adjust height H, bend the contact tab of float arm until the specified height is reached.

CAUTION: When adjusting lever, do not pry it. This will apply pressure on needle and damage valve seat/needle.

CARBURETOR FLOAT LEVEL ADJUSTMENT	
H	10 ± 0.5 mm (.39 ± .02 in)

Installation

To install carburetor on engine, inverse removal procedure, as described:

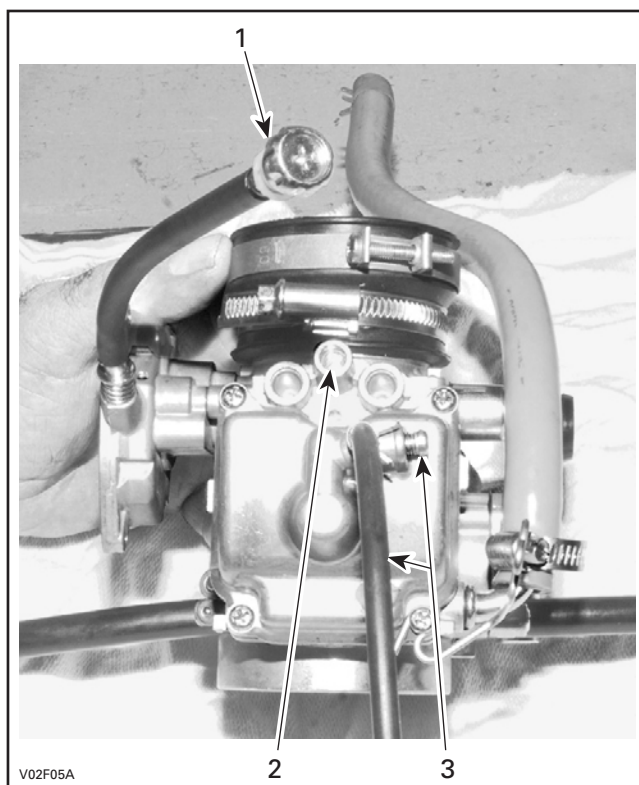
- Inspect throttle cable housing prior to installation.
- Reinstall and adjust throttle cable, then side cover. Refer to next section CARBURETOR ADJUSTMENTS.
- Reinstall carburetor on engine.

When reinstalling carburetor on engine, pay attention to the following:

CAUTION: The carburetor adaptor must be checked for cracks and/or damage. At assembly, the carburetor adaptor must be perfectly matched with the carburetor and intake adaptor or severe engine damage will occur.

Install clamps in a way that their tightening bolts are staggered, not aligned.

Carburetor Adjustments



BOTTOM VIEW

1. Idle speed screw
2. Pilot screw
3. Drain tube and screw

Pilot Screw Preliminary Adjustment

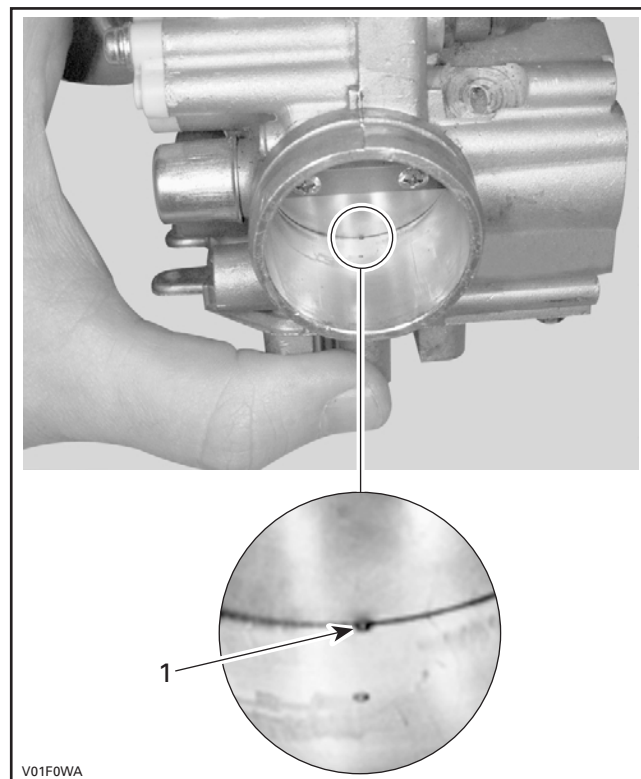
NOTE: The pilot screw no. 11 is factory pre-set. Adjustment is not necessary unless the carburetor is overhauled or replaced.

Completely close the **pilot screw** (until a slight seating resistance is felt) then back off as specified.

Refer to TECHNICAL DATA for specifications.

Idle Speed Preliminary Adjustment

Adjust idle speed screw no. 12 to 1-1/2 turn or so so that throttle valve no. 13 closes bypass hole by half, as shown in the next photo.



TYPICAL

1. Bypass hole closes to halfway

Idle Speed Adjustment

Start engine and allow it to warm then adjust idle speed to specifications by turning **idle speed screw** clockwise to increase engine speed or counterclockwise to decrease it.

NOTE: Use the digital induction tachometer (P/N 529 014 500). Turn tachometer wire around spark plug wire, about 4 or 5 turns, for the best measure.

CAUTION: Do not attempt to set the idle speed by using the pilot screw.

Refer to TECHNICAL DATA for idle speed specifications.

Section 04 FUEL SYSTEM

Subsection 03 (CARBURETOR AND AIR INTAKE SILENCER)

Pilot Screw Adjustment

NOTE: The pilot screw is factory pre-set. Adjustment is not necessary unless the carburetor is overhauled or replaced. Warm the engine to operating temperature.

Turn the pilot screw clockwise until you hear the engine misses or decreases air speed, then turn counterclockwise until the engine again misses or decreases air speed.

Center the pilot screw exactly between these two extreme positions.

If idle speed changes after adjustment of the pilot screw, readjust the idle speed screw.

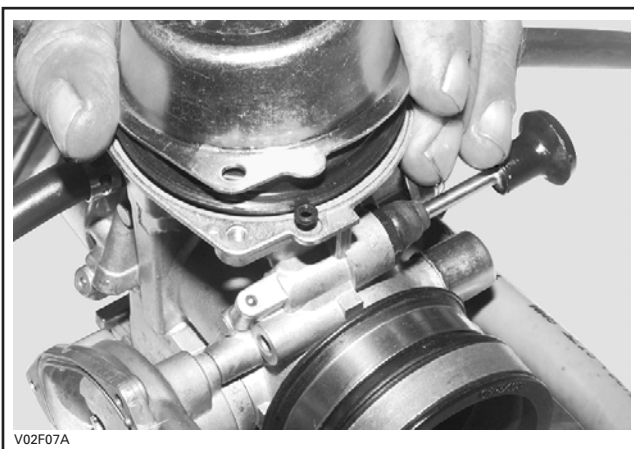
Diaphragm Installation

Carefully replace diaphragm **no. 14** in its original position.

Make sure spring is located properly in carburetor cover **no. 15** before screwing.



NOTE: Check and place correctly the indexation lob.



Throttle

WARNING

Ensure the key is turned OFF, prior to performing the throttle cable adjustment.

Before adjusting the throttle cable, adjust idle speed (preliminary adjustment).

On the carburetor, loosen lock nut and adjust throttle cable.

Retorque lock nut.

AIR INTAKE SILENCER

2, Air Filter Box

Removal

Remove:

- seat
- air box cover **no. 17**
- air filter **no. 18**
- rectifier located under air filter box.

Disconnect the air intake tube **no. 3** from carburetor.

Remove the oil line **no. 19** on the RH side and the hose **no. 20** on the LH side.

Unscrew clamps **no. 21** retaining the vent hoses **no. 22** to the deflectors **no. 23**.

Unscrew bolts **no. 24**.

Pull air filter box out of frame with air intake tube.

Inspection

Check air filter box for cracks or other damages. Change air filter box if necessary.

Check air filter box latches **no. 25** for cracks or other damages. Change the air filter box latches if necessary.

Installation

For installation, reverse the removal procedure.

3, Air Intake Tube

Removal

Remove air filter box.

Separate air intake tube from air filter box.

Inspection

Check air intake tube for cracks or other damages.
Change it if necessary.

Installation

For installation, reverse the removal procedure.

4, Carburetor Adaptor

Removal

Remove carburetor.

Unscrew clamp **no. 26**.

Separate the carburetor adaptor from the intake adaptor **no. 5**.

Inspection

Check carburetor adaptor for cracks or other damages. Change it if necessary.

Installation

For installation, reverse the removal procedure.

5, Intake Adaptor

Removal

Remove carburetor.

Unscrew socket screws **no. 27** and washers **no. 28** then remove intake adaptor.

Inspection

Check intake adaptor for cracks or other damages, change if necessary.

Check O-rings **no. 29** and change if necessary.

Installation

For installation, reverse the removal procedure.