

**CARB**

# CHAPTER 6

## CARBURETION

CARBURETOR	I-5
SECTIONAL VIEW	I-5
REMOVAL	I-6
DISASSEMBLY	I-6
INSPECTION	I-8
ASSEMBLY	I-9
INSTALLATION	I-12
FUEL LEVEL ADJUSTMENT	I-12
FUEL PUMP	I-13
PUMP OPERATION INSPECTION	I-13
REMOVAL	I-13
INSPECTION	I-14
ASSEMBLY	I-14

- CARBURETOR**
- 1 Connecting arm
  - 2 Jet needle jet
  - 3 Throttle valve
  - 4 Coasting orifice
  - 5 Valve seat assy
  - 6 Needle jet
  - 7 O-ring
  - 8 Main jet
  - 9 Pilot jet
  - 10 Pilot screw set
  - 11 Throttle stop screw
  - 12 Float
  - 13 Starter plunger
  - 14 Drain screw
  - 15 Main jet
  - 16 Needle jet
  - 17 Piston valve
  - 18 Jet needle set

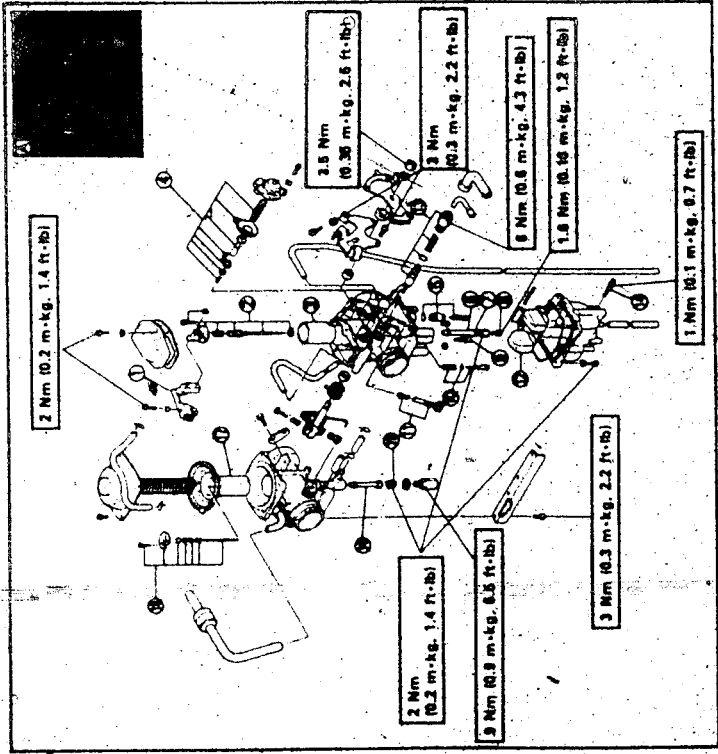
2 Nm  
(0.2 m.kg. 1)

9 Nm (0.9 m.kg.)

# CARBURETOR

- 1 Connecting arm
- 2 Jet needle set
- 3 Throttle valve
- 4 Coasting enricher
- 5 Valve seat assembly
- 6 Needle jet
- 7 O-ring
- 8 Main jet
- 9 Pilot jet
- 10 Throttle stop screw
- 11 Float
- 12 Starter plunger set
- 13 Drain screw
- 14 Main jet
- 15 Needle jet
- 16 Piston valve
- 17 Jet needle set

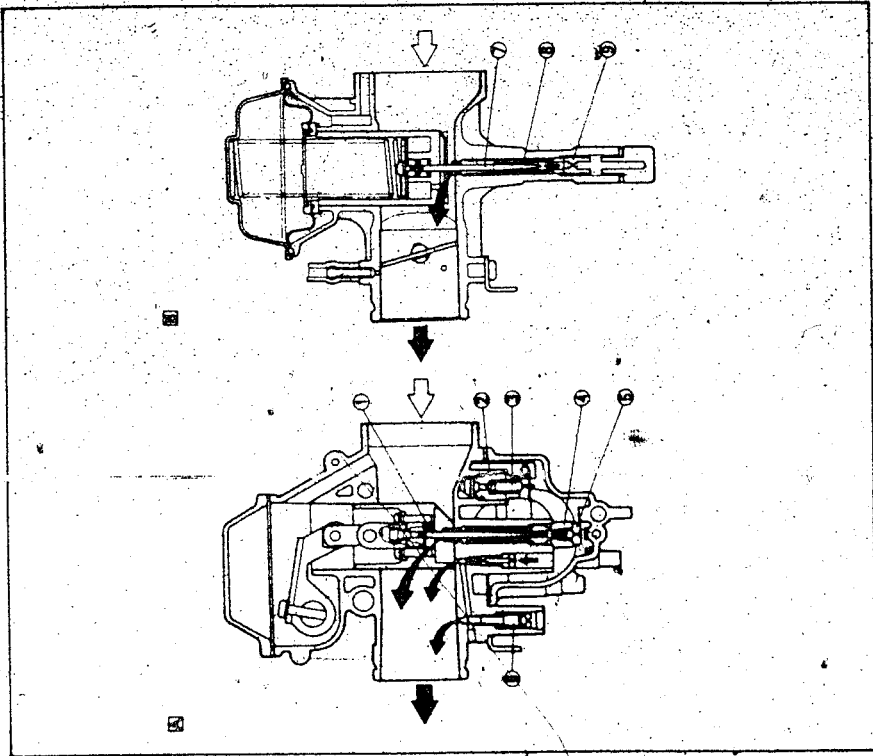
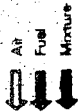
SPECIFICATIONS	
ID MARK	TYPE NO. 48W00 (A) (CH)
MAIN JET (M.J.)	130
PILOT JET (P.J.)	48
JET NEEDLE (J.N.)	5098-3/5
NEEDLE JET (N.J.)	5097-3/5 (A) (CH)
PILOT SCREW (P.S.)	V00
FLOAT HEIGHT (F.H.)	28 - 27 mm (10.98 - 1.06 in)
FUEL LEVEL (F.L.)	6.0 - 8.0 mm (0.34 - 0.31 in)
ENGINE IDLING SPEED	Below from the float chamber mating surface
	1,200 - 1,300 r/min



## SECTIONAL VIEW

- 1 Jet needle (primary)
- 2 Valve seat
- 3 Needle valve
- 4 Needle jet (primary)
- 5 Main jet (primary)
- 6 Pilot screw
- 7 Jet needle (secondary)
- 8 Needle jet (secondary)
- 9 Main jet (secondary)

- A Primary carburetor
- B Secondary carburetor



## CARBURETOR



**CARB**

## REMOVAL

- Seat
- Side covers
- Air scoops
- Fuel tank

FUEL TANK  
Refer to the "SEAT, FUEL TANK AND  
COVER" section in the CHAPTER 3.

2. Loosen:  
• Locknut ①

- Throttle cables ②
- Starter plunger ③

4. Loosen:
- Screws (carburetor joints) ①

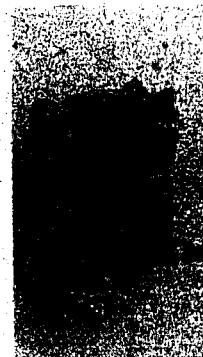
**NOTE:**

**NOTE:** Move carburetor joint bands 2 to the rear.

5. Remove:  
• Bolt ① (rear brake reservoir tank)

8. Remove:
- Bottle 1 (air filter case)

7. Loosen:
- Bolt ② (air filter case)
  - Carburetor joint from carburetor by moving air filter case to the rear.



## DISASSEMBLY

**NOTE:**

The following parts can be cleaned and inspected without disassembly

- Diaphragm (coasting enricher)
- Starter plunger
- Throttle stop screw

- 1. Disconnect:**

- Air vent hose ①
- Vacuum hose ②
- Air vent pipe ③
- Over flow hose ④

- Stay plate ⑤ (rear)
- Stay plate ⑧ (front)

- ### 3. Disconnect:

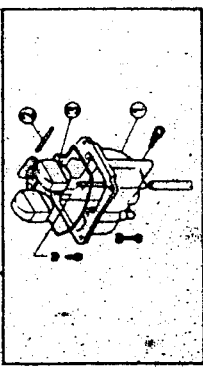
- Pipe ①
- Pipe ②
- Link rod ③

- Primary carburetor ④
- Secondary carburetor ⑤

**CARBURETOR**

**Primary carburetor**

1. Remove:
  - Float chamber ①
  - Float pin ②
  - Float ③

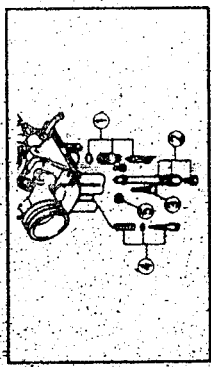


**NOTE:**

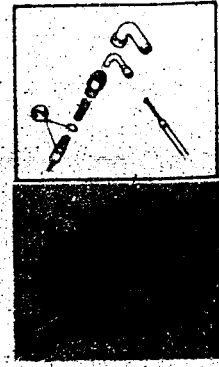
Remove the float pin in the arrow direction.



2. Remove:
  - Needle valve/Valve seat ①
  - Main jet/Needle jet ②
  - Pilot jet ③
  - Pilot screw ④
  - O-ring ⑤

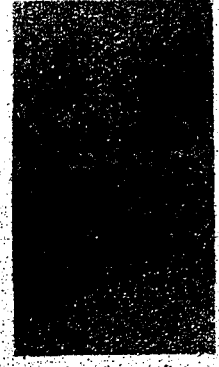


3. Disconnect:
  - Throttle stop screw ①



4. Remove:
  - Starter plunger ② (from the starter cable)

5. Remove:
  - Cover ① (casting enricher)
  - Spring ②
  - Diaphragm ③

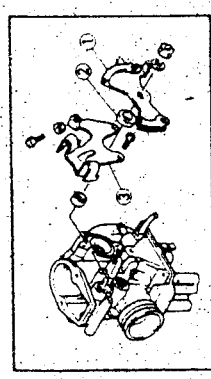


**CARBURETOR**

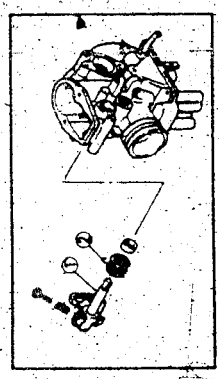
6. Remove:
  - Top cover ①
  - Gasket ②
  - Screw ③ (connecting arm)



7. Remove:
  - Throttle lever ①
  - Collar ②
  - Cable holder ③



8. Remove:
  - Throttle shaft ①
  - Spring ②
  - Throttle valve (with connecting arm)

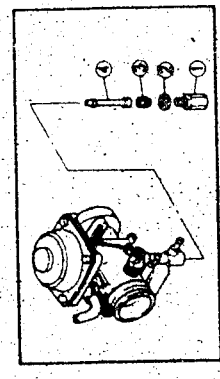


9. Remove:
  - Connecting arm ①
  - Jet needle ②
  - Throttle valve ③



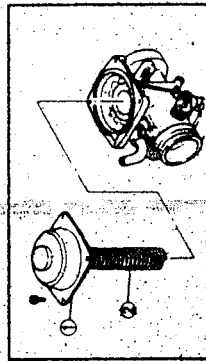
**Secondary carburetor**

1. Remove:
  - Plug ①
  - Gasket ②
  - Main jet ③
  - Needle jet ④

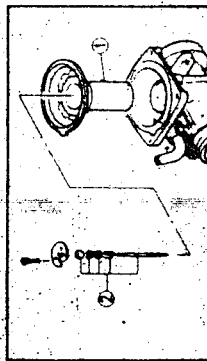


# CARBURETOR

2. Remove:
- Top cover ①
  - Spring ②



3. Remove:
- Piston valve ①
  - Jet needle ②



## INSPECTION

1. Inspect:
- Carburetor body
  - Float chamber
  - Cracks/Damage → Replace
  - Fuel passage
  - Contamination → Clean.



NOTE:  
Use a petroleum based solvent for cleaning. (Do not use any caustic carburetor cleaning solution.)  
Blow out all passages and jets with compressed air.

2. Inspect:
- Valve seat ①
  - Needle valve ②
  - O-ring ③
  - Damage/Wear/Contamination → Replace as a set.



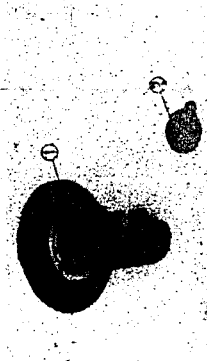
NOTE:  
Always replace the needle valve and valve seat as a set.

# CARBURETOR

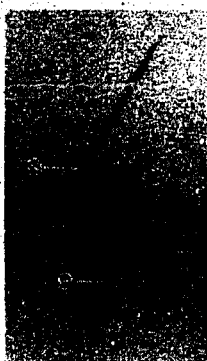
3. Inspect:
- Starter plunger ①
  - Wear/Damage → Replace.
  - Throttle stop screw ②
  - Damage → Replace.



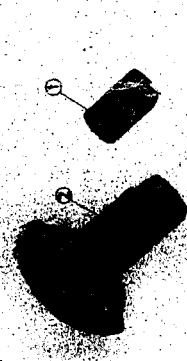
4. Inspect:
- Rubber diaphragm ① (piston valve)
  - Rubber diaphragm ② (coasting enricher)
  - Tears/Damage → Replace.



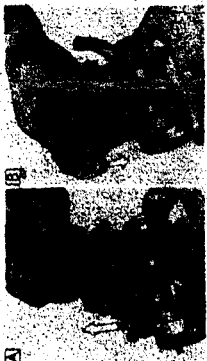
5. Inspect:
- Jet needle ① (primary)
  - Jet needle ② (secondary)
  - Bends/Wear/Damage → Replace.



6. Inspect:
- Throttle valve ① (primary)
  - Piston valve ② (secondary)
  - Scratches/Wear/Damage → Replace



7. Check:
- Free movement: Stick → Replace.
  - Insert the throttle valve and piston valve into the carburetor body, and check for free movement.

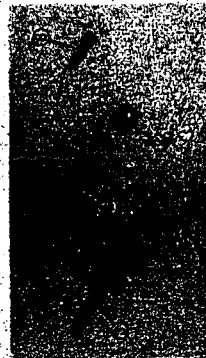


- ① Primary carburetor
- ② Secondary carburetor

8. Inspect:
- Float ①
- Damage → Replace.



9. Inspect:
- Main jet ① (primary)
  - Main jet ② (secondary)
  - Needle jet ③ (primary)
  - Needle jet ④ (secondary)
  - O-ring ⑤ (primary)
  - Pilot jet ⑥
- Wear/Damage → Replace.  
Contamination → Blow out jets with compressed air.



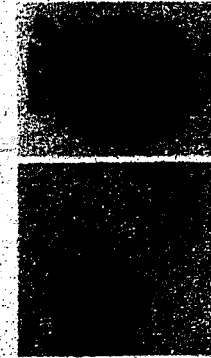
### ASSEMBLY

Reverse the "DISASSEMBLY" procedures. Note the following points.

- Before reassembling, wash the all parts in clean petroleum based solvent. Always use a new gasket.

### Secondary carburetor

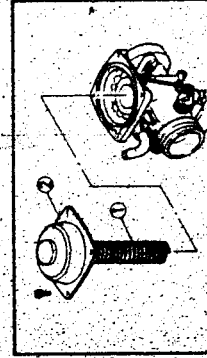
1. Install:
- Jet needle ①
  - Piston valve ②



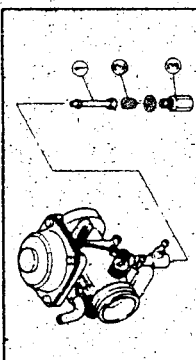
NOTE:

Match the tab on the rubber diaphragm to the matching recess in the secondary carburetor.

2. Install:
- Spring ①
  - Top cover ②



- Screw (top cover):
- 2 Nm (0.2 m.kg, 1.4 ft.lb)



3. Install:
- Needle jet ①
  - Main jet ②
  - Plug ③

- Main jet:
- 2 Nm (0.2 m.kg, 1.4 ft.lb)
- Plug:
- 9 Nm (0.9 m.kg, 6.5 ft.lb)

### Primary carburetor

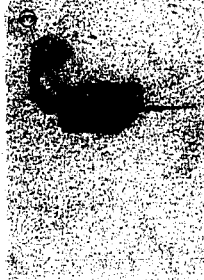
1. Install:
- Jet needle ①
  - Connecting arm ② (to throttle valve)



- Screw (connecting arm):
- 0.8 Nm (0.08 m.kg, 0.6 ft.lb)

### NOTE:

Make sure that the connecting arm assembly ③ is at the illustrated position.



2. Install:
- Throttle valve ①



3. Install:
- Spring ①
  - Throttle shaft ②



NOTE:

Set the spring as shown.

CARBURETOR CARB

4. Install:
- Screw ① (connecting arm)

**NOTE:**  
Turn the throttle shaft 1/2-turn clockwise to give preload to the spring and hold it.  
Then, install the screw (connecting arm).

**Screw (connecting arm):**  
2 Nm (0.2 m.-kg, 1.4 ft.-lb.)

5. Install:
- Cable holder ①
  - Collar ②
  - Throttle lever ③

**NOTE:**  
Be sure throttle shaft lever ④ and adjusting bolt ⑤ are aligned when tightening throttle shaft nut ⑥.

**Screw (cable holder):**  
3 Nm (0.3 m.-kg, 2.2 ft.-lb.)  
**Nut (throttle lever):**  
3.5 Nm (0.35 m.-kg, 2.5 ft.-lb.)

6. Install:
- Gasket ①
  - Top cover ②

**Screw (top cover):**  
2 Nm (0.2 m.-kg, 1.4 ft.-lb.)

I-10

CARBURETOR CARB

7. Install:
- Rubber diaphragm ① (coasting enricher)

**NOTE:**  
Match the tab on the rubber diaphragm to the matching recess in the coating enricher.

8. Connect:
- Starter plunger (to the starter cable)
9. Install:
- Throttle stop screw

10. Install:
- Pilot screw ①
  - Pilot jet ②
  - Needle jet ③
  - Main jet ④
  - Valve seat ⑤
  - Needle valve ⑥ (with float)

**Needle jet:**  
2 Nm (0.2 m.-kg, 1.4 ft.-lb.)  
**Main jet:**  
1.6 Nm (0.16 m.-kg, 1.2 ft.-lb.)  
**Screw (valve seat):**  
2 Nm (0.2 m.-kg, 1.4 ft.-lb.)

11. Install:
- Float pin ①

**NOTE:**  
Install the float pin reverse to the arrow.



# CARB

① (recasting enricher)

lubber diaphragm to the  
coasting enricher

the starter cable

1 kg, 1.4 ft.-lb)

5 m.kg, 1.2 ft.-lb)  
seed)

1 kg, 1.4 ft.-lb)

see to the arrow.

# I-11

## CARBURETOR CARB

12. Measure:

- Float height ⑧
- Out of specification - Adjust.

Float height (F.H.):  
25.0 - 27.0 mm (0.98 - 1.06 in)

.....  
Measurement and adjustment steps:  
.....

- Hold the carburetor in an upside down position.
- Measure the distance from the mating surface of the float chamber (gasket removed) to the top of the float.

NOTE:

The float arm should be resting on the needle valve, but not compressing the needle valve.

- If the float height is not within specification, inspect the valve seat and needle valve.
- If either is worn, replace them both.
- If both are fine, adjust the float height by bending the float tang ① on the float.
- Recheck the float height.

.....



13. Install:

- Float chamber

Screw (float chamber):  
2 Nm (0.2 m.kg, 1.4 ft.-lb)

14. Adjust:

- Pilot screw ①

Adjustment steps:

- Turn in the pilot screw until it is lightly seated.
- Back out by the specified number of turns.

Pilot screw (turn out):  
2 and 1/2 turns out

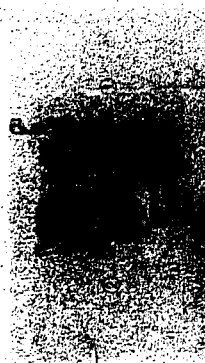
.....

## CARBURETOR

# CARB

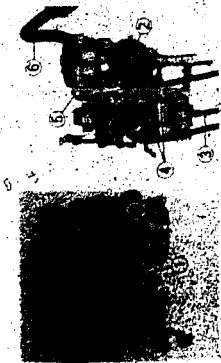
15. Install:

- Primary carburetor ①
- Secondary carburetor ②



16. Install:

- Stay-plate (front) ③
- Stay plate (rear) ④



Screw (stay plate):  
3 Nm (0.3 m.kg, 2.2 ft.-lb)

NOTE:

After tightening, check the throttle lever and throttle valve for smooth action.

17. Connect:

- Over flow hose ③
- Air vent pipe ④
- Vacuum hose ⑤
- Air vent hose ⑥

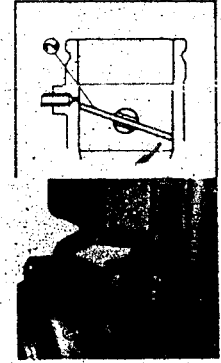
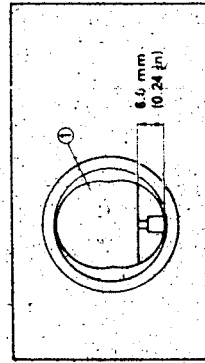
18. Adjust:

- Secondary carburetor synchronization

.....

Adjustment steps:

- Raise the primary throttle valve ① to a height of 8.0 mm (0.24 in) as indicated.



- Turn the synchronizing screw ① in or out so that secondary throttle valve ② is begun to open.

# CARB

for ①  
uretor ②

① ①  
② ②  
y plate:  
3 m·kg, 2.2 ft·lb

ack the throttle lever and  
ooth section.

③  
①  
⑤  
⑥

uretor synchronization

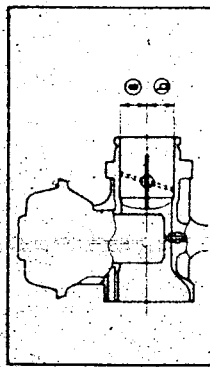
throttle valve ① to a height  
1) as indicated.

lifting screw ① in or out so  
throttle valve ② is begun to

# 1-12

## CARBURETOR

• Make sure that the secondary valve is opened horizontally (⑥ = ⑤) when the primary carburetor valve is fully opened.



**INSTALLATION**  
Reverse the "REMOVAL" procedure. Note the following points.

1. Install:  
• Carburetor assembly

Screw (joint band-left):  
2 Nm (0.2 m·kg, 1.4 ft·lb)  
Screw (joint band-right):  
5 Nm (0.5 m·kg, 3.6 ft·lb)

2. Install:  
• Carburetor joint to carburetor by moving air filter case forward.  
• Bolts (air filter case) ①

Bolt (air filter case):  
10 Nm (1.0 m·kg, 7.2 ft·lb)  
Screw (joint band-left):  
2 Nm (0.2 m·kg, 1.4 ft·lb)  
Screw (joint band-right):  
5 Nm (0.5 m·kg, 3.6 ft·lb)

3. Install:  
• Throttle cable ①  
• Starter plunger ②  
 Starter plunger:  
6 Nm (0.6 m·kg, 4.3 ft·lb)



## CARBURETOR

4. Adjust:  
• Throttle cable free play.  
Refer to the "THROTTLE CABLE FREE PLAY ADJUSTMENT" section in the CHAPTER 3.

Throttle cable free play:  
3 - 5 mm (0.12 - 0.20 in)

5. Adjust:  
• Idle speed  
Refer to the "IDLE SPEED ADJUSTMENT" section in the CHAPTER 3.

Engine idle speed:  
1,250 - 1,350 r/min

**FUEL LEVEL ADJUSTMENT**  
1. Place the motorcycle on a level place.  
2. Use the suitable stand under the frame and engine to ensure that the carburetor is positioned vertically.  
3. Connect the Fuel Level Gauge ① to the float chamber drain pipe



Fuel level gauge:  
P/N: VM-01312-A  
P/N: 90890-01312

4. Loosen the drain screw ②, and wait up the engine for several minutes.  
5. Hold the gauge vertically next to the float chamber mating surface.  
6. Measure:  
• Fuel level ③  
Out of specification → Adjust.

Fuel level:  
6.0 - 8.0 mm (0.24 - 0.31 in)  
Below from the float chamber mating surface



CABLE FREE  
section in the

level:  
0 in.

ADJUSTMENT

0

level place  
the frame and  
carburetor is pos-

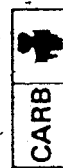
e ① to the float

and warm up the

ext to the float

st.

0.31 in)  
st chamber

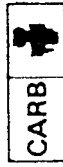


CARBURETOR

I-13

7. Adjust:  
• Fuel level

- Adjustment steps:
- Remove the carburetor.
  - Inspect the valve seat and needle valve.
  - If either is worn, replace them both.
  - If both are fine, adjust the float height by bending the float tang ① on the float.
  - Recheck the fuel level.



FUEL PUMP

### FUEL PUMP PUMP OPERATION INSPECTION

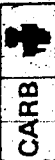
1. Inspect:
- Fuel pump operation
- Operation inspection steps:
- Turn the fuel cock to "ON".
  - Disconnect the delivery hose ① from the carburetor (fuel pump - carburetor).
  - Place the receptacle under the delivery hose and.
  - Turn the main switch to "ON".
  - Push the starter switch.
  - Check the fuel flow out from the delivery hose and.
  - If fuel does not flow out, replace the fuel pump assembly or refer to "INSPECTION" section.



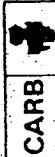
### REMOVAL

1. Remove:
- Seat
  - Side covers
  - Air scoops
  - Fuel tank
- Refer to the "SEAT, FUEL TANK AND COVER" section in the CHAPTER 3.
2. Disconnect:
- Vacuum hose ① (from intake manifold)
  - Delivery hose ② (from carburetor)





CARB



CARB

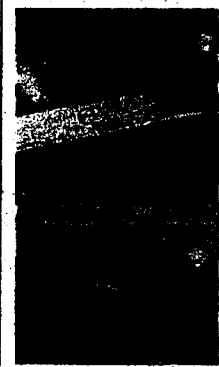
I-14

CARB



FUEL PUMP

FUEL PUMP



3. Remove:
- Fuel pump assembly ①

2. Install:

- Fuel tank
- Air scoops
- Side covers
- Seat

INSPECTION

.....

steps:

"ON" / hose ① from the carburetor) under the delivery hose to "ON" (from the delivery hose) replace the fuel pump - INSPECTION" section:

.....

⚠ Bolts (fuel tank, cording and fuel tank, side cover):

- 7 Nm (0.7 m·kg, 5.1 ft·lb)

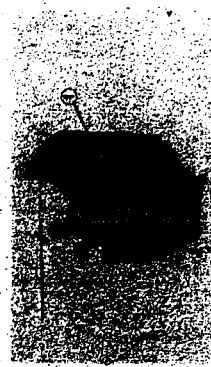
Bolt (seat):

- 10 Nm (1.0 m·kg, 7.2 ft·lb)

INSPECTION

1. Inspect:
- Fuel hose
  - Vacuum hose
  - Delivery hose
- Crack/Wear/Damage → Replace

2. Inspect:
- Fuel pump assembly ①
- Crack/Damage → Replace



ASSEMBLY

Reverse the "REMOVAL" procedure. Note the following points:

1. Connect:
- Vacuum hose
  - Delivery hose
  - Fuel hose

NOTE:

Be sure to connect the hose correctly, when connecting.

T. FUEL TANK AND the CHAPTER 3.

from intake manifold) on carburetor)