CHAPTER 4. CARBURETION

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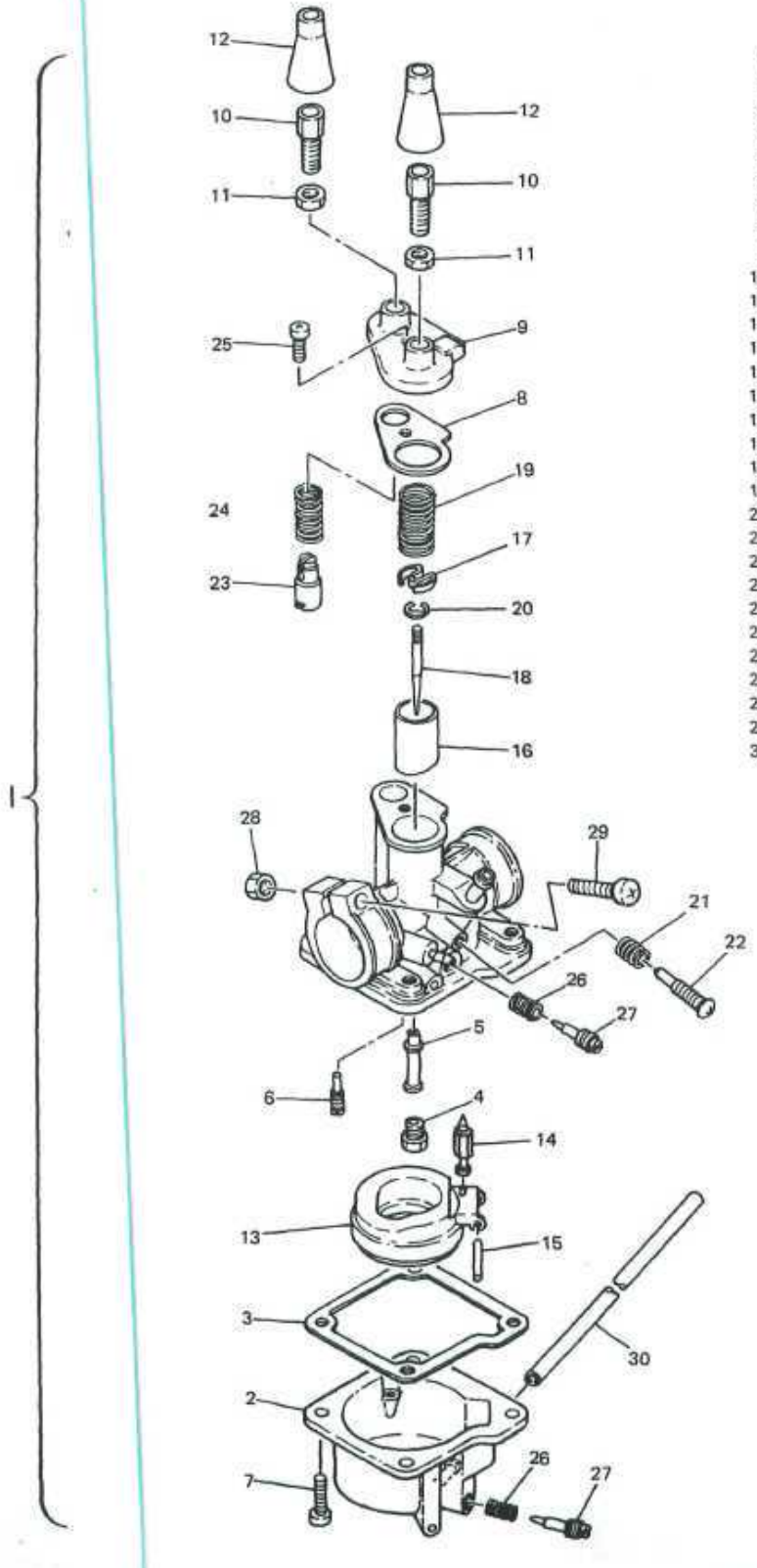
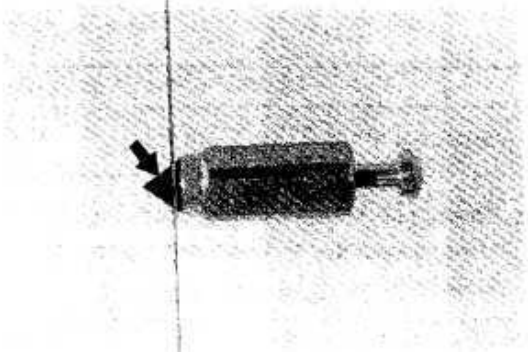


1. Carburetor assembly
2. Float chamber body
3. Float chamber gasket
4. Main jet
5. Needle jet
6. Pilot jet
7. Pan head screw
8. Mixing chamber gasket
9. Mixing chamber top
10. Wire adjusting screw
11. Wire adjusting nut
12. Cap
13. Float
14. Needle valve
15. Float pin
16. Throttle valve
17. Spring seat
18. Jet needle
19. Throttle valve spring
20. Clip
21. Throttle stop spring
22. Throttle stop screw
23. Starter plunger
24. Plunger spring
25. Panhead screw
26. Pilot air screw spring
27. Pilot air screw
28. Nut
29. Panhead screw
30. Hose

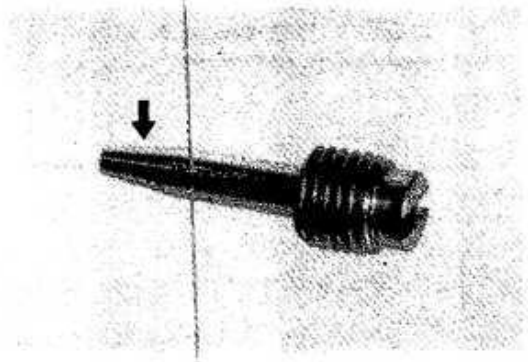
4-1. CARBURETOR

A. Inspection and Repair

1. Remove following parts
   a) Pilot air screw
   b) Throttle stop screw
   c) Float chamber
   d) Float
   e) Needle valve
   f) Main jet
   g) Needle jet
   h) Pilot jet
2. Wash carburetor in petroleum base solvent. Wash all associated parts.
3. Using high pressure air, blow out all passages and jets.
4. Inspect needle for signs of excessive wear or foreign particles. Replace as required.



5. Inspect pilot air screw for signs of excessive wear or foreign particles. Replace as required.

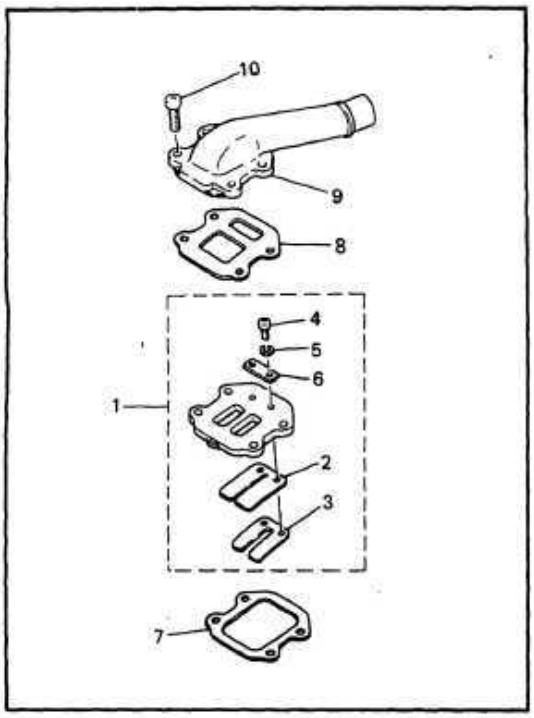


6. Install float chamber.
7. Remove needle out of seat in throttle valve (slide). Inspect for signs of bending, scratches or wear. Replace as required.
8. Check throttle valve (slide) for signs of wear. Insert into carburetor body and check for free movement. If slide or body is out of round causing slide to stick, replace slide or body as necessary.
9. Install throttle valve and needle assembly in carburetor mixing chamber.
10. Install mixing chamber top.
11. Re-install carburetor. Check position and routing of all tubes. Check tightness of all fittings. Make sure carburetor is mounted in a level position (Refer to CABLE ROUTING DIAGRAM).
12. After installation, readjust throttle cable and Autolube pump cable. See directions in Chapter 2, Section 2-3-A. and 2-3-C.

4-2. REED VALVE ASSEMBLY

A. Inspection

1. Handling the reed valve
   The reed valve is operated by changes in crankcase pressure and by the inertia force of the fuel-air stream. It is a high-precision piece, and therefore, it must be handled with special care.
2. Storage
   The reed valve must be stored in a clean and dry place and must be kept off the sun. Particularly, it must be kept free from salt. Avoid touching the valve.
3. Inspect reed petals for signs of fatigue and cracks. Reed petals should fit flush or nearly flush against neoprene seats. If in doubt as to sealing ability, apply suction to carburetor side of assembly. Leakage should be slight to moderate.

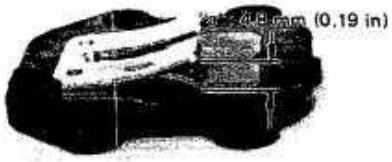


1. Reed valve assembly
2. Reed valve
3. Reed valve stopper
4. Panhead screw
5. Spring washer
6. Reed valve plate
7. Valve seat packing 1
8. Valve seat packing 2
9. Manifold
10. Panhead screw

4. Valve stopper
   The valve stopper controls the movement of the valve. Check clearance "a".

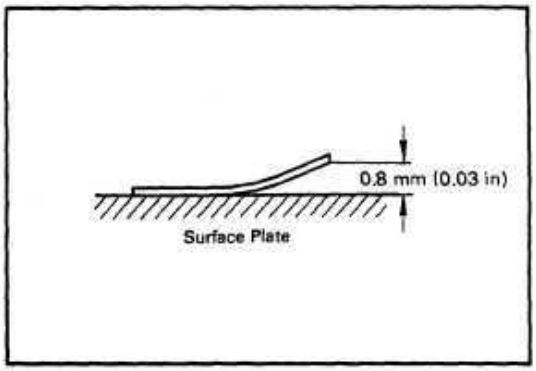
Valve stopper clearance: 4.8±0.2 mm (0.19±0.008 in)
Read distortion limit: 0.3 mm (0.012 in)

NOTE:
If clearance "a" is larger than specified, the valve will be broken. If smaller, engine performance can be impaired.



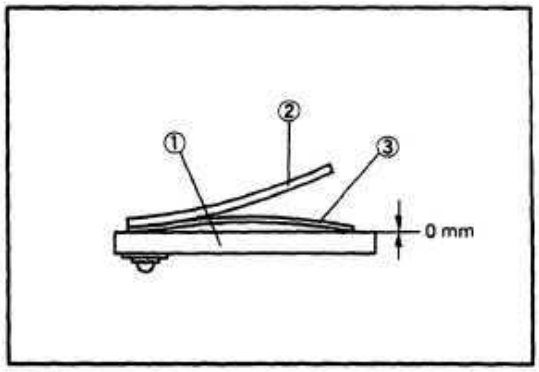
Valve stopper screw torque: 0.08 m-kg (0.6 ft-lb)

5. Reed valve
   a. Place the reed valve on a surface plate, with the reverse side down, and measure the amount of warpage. If measured more than the limit, the reed valve should be replaced.



Warpage limit: 0.8 mm (0.03 in)

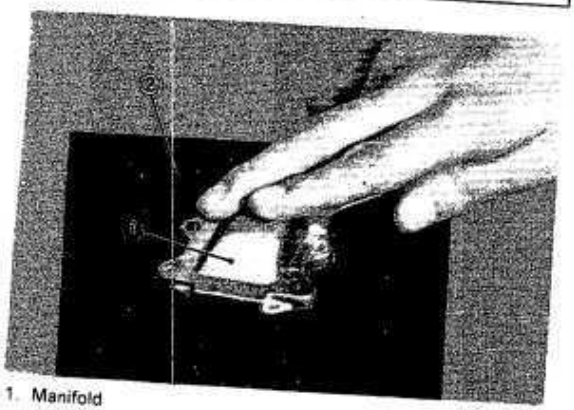
   b. There should be no gap between the reed valve end and valve seat, when it is installed.



1. Valve seat
2. Reed valve stopper
3. Reed valve

6. Manifold.
   Check distortion of manifold surface. If distortion is out of limit, resurface it on the #600 wet. sandpaper.

Distortion limit: 0.1 mm (0.004 in)



1. Manifold
2. Sandpaper (#600)