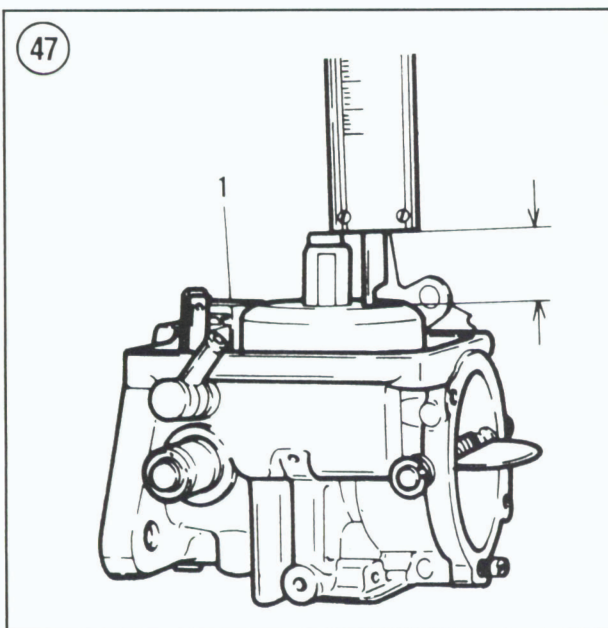


CENTERBOWL SINGLE-THROAT CARBURETOR (DT 20 THROUGH DT 85; DT 115, DT 140)

Overhaul

Several variations of this carburetor design have been used among these models. All operate essentially the same, varying primarily in calibration and linkage connections. Refer to **Figure 46**, typical for this procedure.

1. Remove the float bowl attaching screws. Remove the float bowl and gasket from the fuel bowl. Discard the gasket.
2. Slide the float hinge pin to one side and remove the float and pin assembly from the carburetor.
3. Remove the inlet needle. Remove the needle valve seat with an appropriate size socket wrench (on models with removable seat).
4. Remove the main jet and nozzle with a jet remover or wide-blade screwdriver. Remove and discard the nozzle O-ring.
5. Remove the pilot (idle) jet with a suitable removal tool.



6. Remove the air jet (if so equipped) with a suitable removal tool.

NOTE

Before removing the pilot screw, record the number of turns necessary until the screw lightly seats. Record the number of turns as the screw must be reinstalled to the exact same setting.

7. Unscrew the pilot (idle) screw and spring.
8. Clean and inspect all parts as described in this chapter.
9. Assembly is the reverse of disassembly, noting the following.
10. Install the pilot (idle) screw and spring. Lightly seat screw, then back out the number of turns recorded during removal.
11. Check the float adjustment as described in this chapter.

Float Adjustment

1. Invert the carburetor body and lower the float until adjusting tab just touches inlet needle. Hold the float in this position and measure the distance between the carburetor body and the bottom of the float, as shown in **Figure 47**, on all models except 1989-on DT 25 and 1988-on DT 30. On 1989-on DT 25 and 1988-on DT 30, measure from float bowl mating surface (gasket removed) to bottom of float.

CAUTION

*Bend the float adjustment arm or tang carefully when adjustment is required—do **not** press down on the float. Downward pressure on the float will press the inlet needle tip into its seat and can damage the tip surface.*

2. If the float level is not within specifications (**Table 1**), adjust float by bending the adjusting tab (1, **Figure 47**) as required.

NOTE

After adjusting the float level, the float should be approximately level with the carburetor body-to-float bowl mating surface.

Idle Speed Adjustment

The engine should be installed in a test tank or on the boat in the water for this procedure.

1985-1987 DT 20, DT 30; 1985-1988 DT 25; 1991 DT 25, DT 30

1. Remove the engine cover.
2. Check and adjust the ignition timing. See Chapter Five.
3. Connect a tachometer according to manufacturer's instructions.
4. Start the engine and run for 5-10 minutes to bring it to normal operating temperature.
5. Lightly seat the pilot (idle) air screw (**Figure 48**). Refer to **Table 2** and back it out the number of turns specified.
6. Shift the engine into FORWARD.

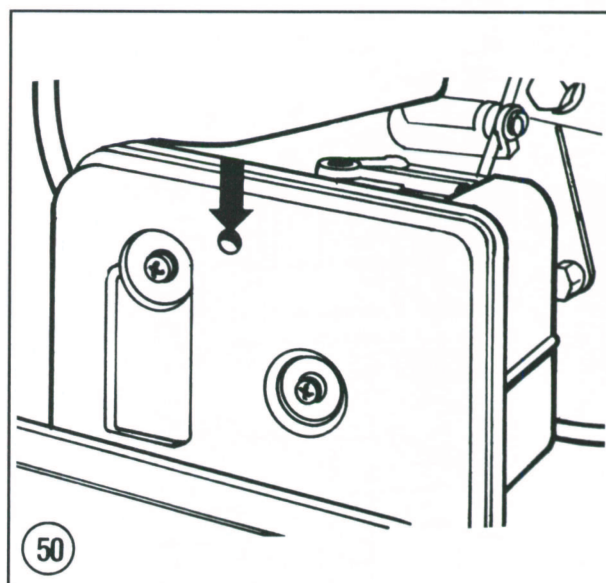
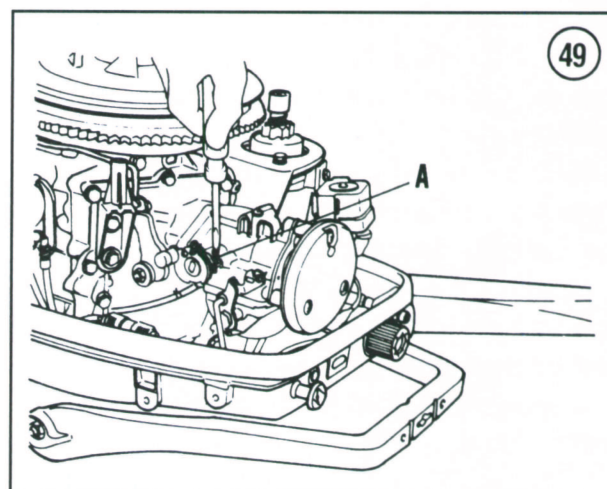
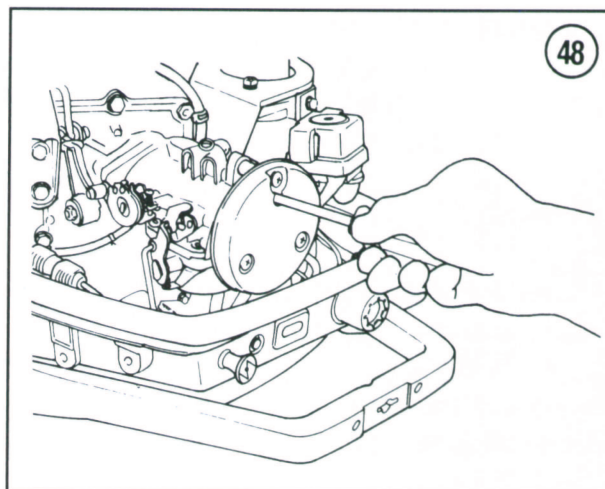
NOTE

Make sure the choke valve is in the full-open position.

7. Rotate the throttle lever to the closed position (full retard).
8. If idle speed is not 600-650 rpm, adjust the throttle stop screw (A, **Figure 49**) as required to bring the idle speed within specifications.
9. Shut the engine off.
10. Disconnect the tachometer and install the engine cover.

1985-on DT 35, DT 40

1. Remove the engine cover.
2. Check and adjust ignition timing. See Chapter Five.
3. Connect a tachometer according to manufacturer's instructions.
4. Start the engine and run for 5-10 minutes to bring it to normal operating temperature.
5. Lightly seat the pilot (idle) air screw (**Figure 50**). Refer to **Table 2** and back it out the number of turns specified.

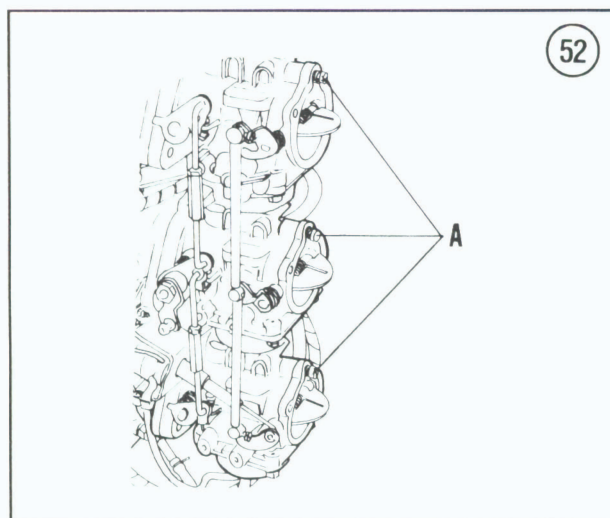
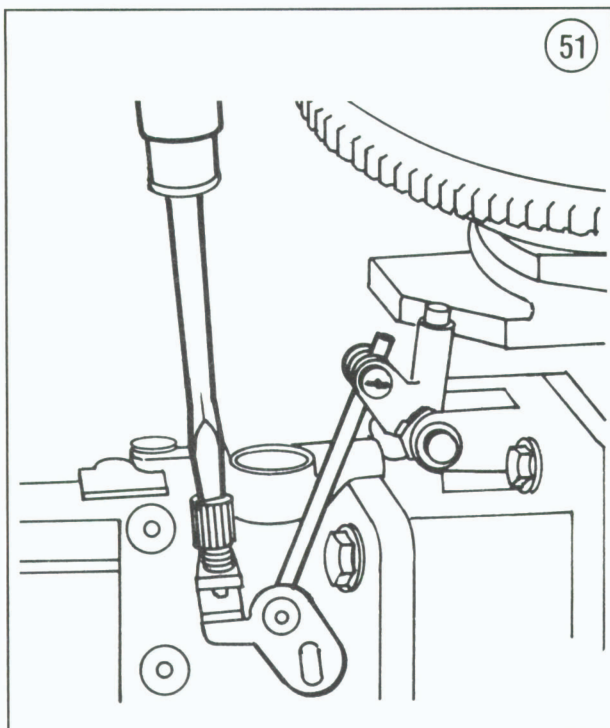


6. Shift the engine into the FORWARD 1st notch.

NOTE

Make sure the choke valve is in the full-open position.

7. If idle speed is not 650-700 rpm, adjust the throttle stop screw (**Figure 51**) as required to bring the idle speed within specifications.



8. Shut the engine off.
9. Disconnect the tachometer and install the engine cover.

1985-1987 DT 75, DT 85; 1991 DT 75, DT 85

1. Remove the engine cover.
2. Check and adjust ignition timing. See Chapter Five.
3. Connect a tachometer according to manufacturer's instructions.
4. Start the engine and run for 5-10 minutes to bring it to normal operating temperature.
5. Lightly seat each pilot (idle) air screw (A, **Figure 52**). Refer to **Table 2** and back it out the number of turns specified.
6. Shift the engine into FORWARD.

NOTE

Make sure the choke valve is in the full-open position.

NOTE

Do not adjust the throttle stop screws to make the adjustment in Step 7.

7. If idle speed is not 600-700 rpm, loosen the timing adjust bolt locknut and adjust the bolt (**Figure 53**) as required to bring idle speed within

