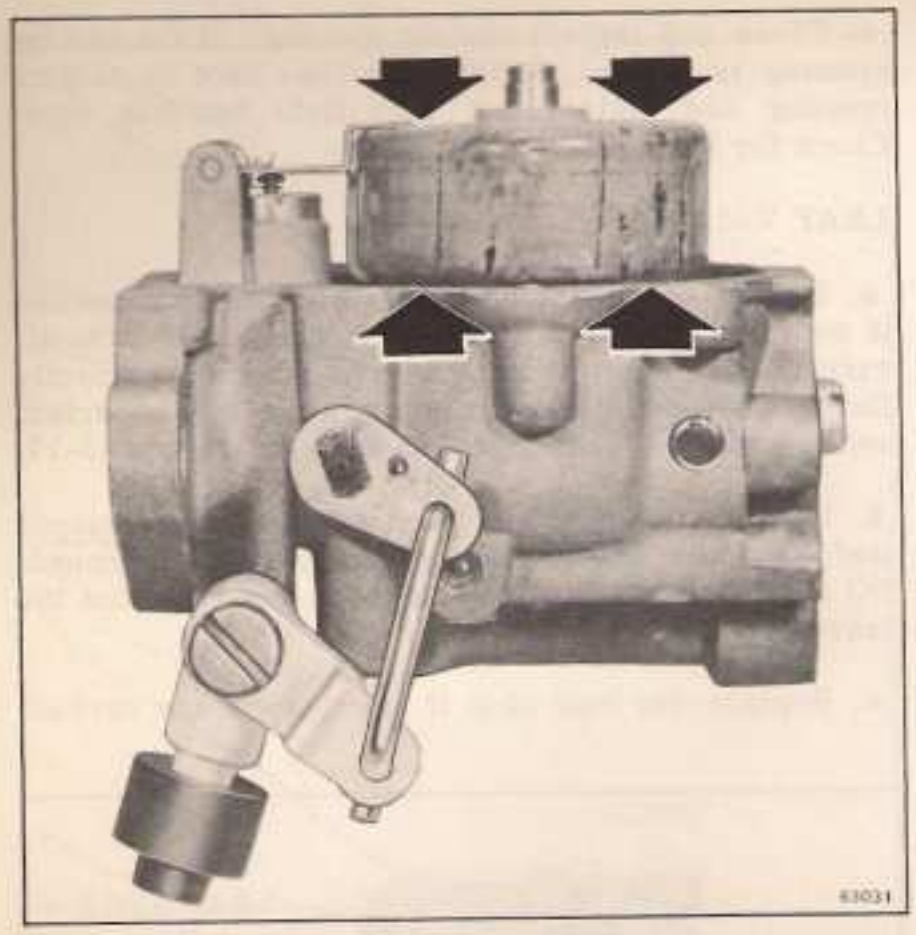

Figure 3-18. Float Level Adjustment

NEEDLE VALVES

a. Install new packing in carburetor body. Install the low-speed needle, turning in carefully until the needle is seated lightly; then back out 1-1/2 turns. DO NOT turn down tight as the taper on the needle may be damaged.

b. Install the packing nut. Tighten packing nut until needle can just be turned under finger pressure.

c. Adjust the low-speed needle as described under "Carburetor Adjustments" after installing carburetor on power head.

LEAF VALVES

a. The importance of keeping the leaves in these valves free from distortion cannot be over-emphasized. Replace any leaf or leaf stop which shows any indication of distortion or damage.

b. The leaf is so designed that it maintains constant contact with the leaf plate until a predetermined pressure is exerted against it. Leaf travel away from the plate is limited by the leaf stop. When pressure is removed, the inherent spring action of the leaf segments returns and holds them against the plate. Attach the leaf segments and leaf stops to the leaf plates, then examine each leaf carefully. Each leaf must lie flat against the plate with no edges turned up or away from the plate. Center leaf segments over alignment marks. See Figure 3-1.

NOTE

DO NOT lift or bend leaf segments by hand. This may damage them so that the leaves would have to be replaced.

c. Attach the two leaf plate assemblies to the leaf plate base. Tighten screws to torque specified in Section 2 to avoid distortion of the leaves or leaf plate.

REASSEMBLY OF CARBURETOR TO MOTOR

a. Attach leaf plate assembly and intake manifold to crankcase with screws, using new gaskets.

b. Place a new gasket in position on studs on manifold. Place carburetor on studs and fasten in place with nuts and lockwashers.

c. Reconnect fuel hose between fuel pump and carburetor.

d. Attach manual starter.

e. Adjust low-speed needle as described under "Carburetor Adjustments", and replace low speed valve knob and choke control knob.

CARBURETOR ADJUSTMENTS

THROTTLE CAM ADJUSTMENT

a. If throttle does not close, either the throttle return spring is too weak and should be replaced or the throttle or linkage is binding.

b. To adjust throttle cam, advance throttle control to the position where the cam follower roller leading (starboard) surface is between the two marks on the throttle cam. See Figure 3-19. At this point the throttle valve should be closed. If it does not, adjust as follows:

c. Advance throttle control. Marks on throttle cam must be directly behind round starboard surface of cam follower. See Figure 3-19 insert.

d. Loosen the hex head screws holding the cam to the armature base. See Figure 3-19. Push cam back towards rear of motor, then pull cam forward until it contacts cam follower. (Choke knob must be all the way in.)

e. Tighten screws and recheck position of throttle valve.

LOW-SPEED NEEDLE

a. Turn low-speed needle clockwise until needle seats gently. DO NOT FORCE.

b. Turn low-speed needle counterclockwise 1-1/2 turns.

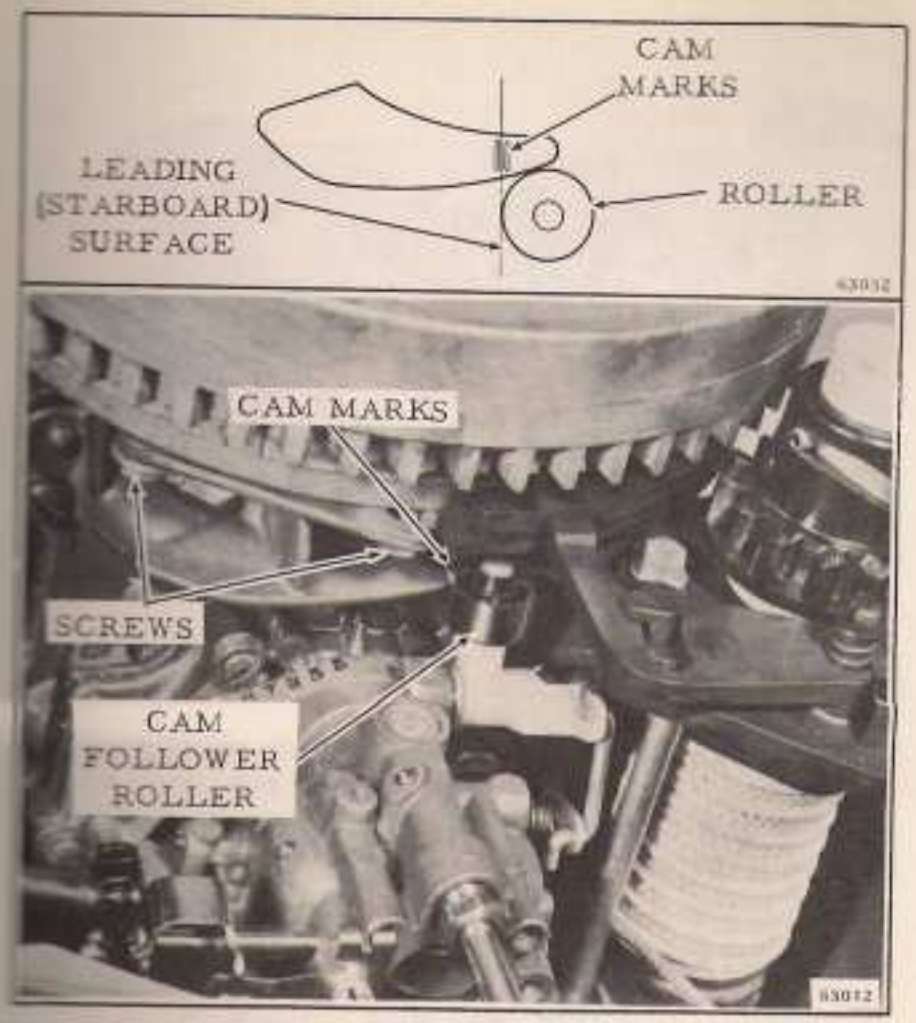

Figure 3-19. Throttle Cam Adjustment

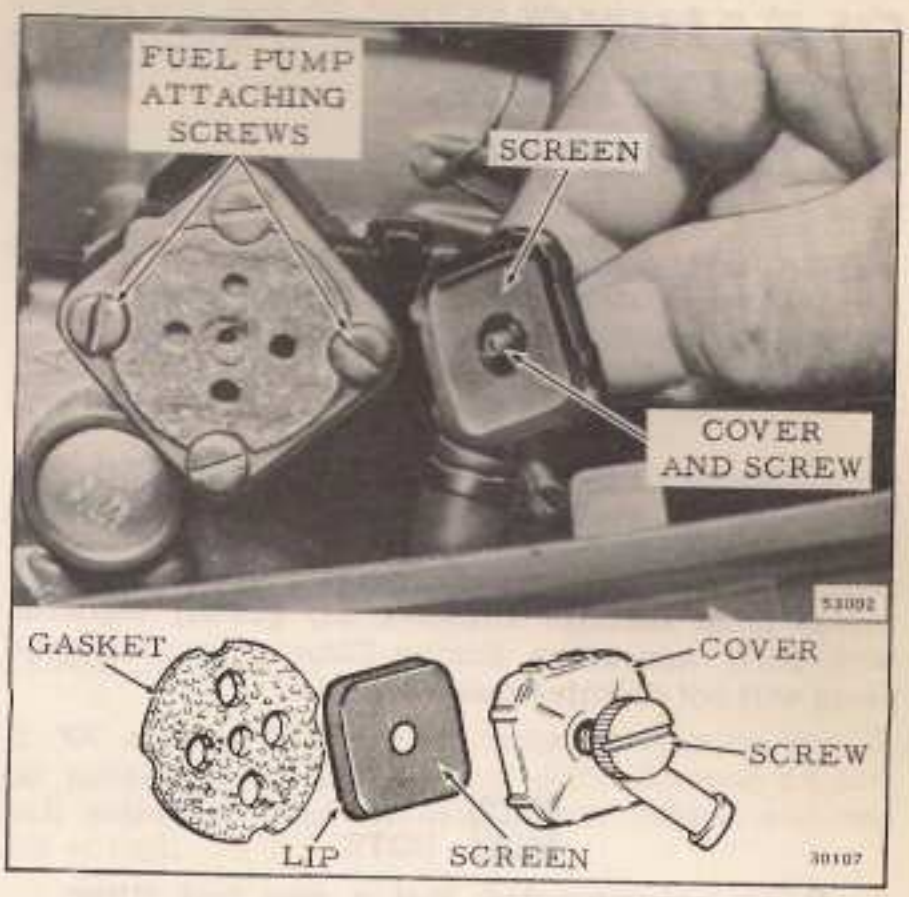

Figure 3-20. Fuel Filter

NOTE

Allow motor to reach normal operating temperature by running in a tank with test propeller in gear, at one-half throttle or slightly more before proceeding to next step.

c. With motor at operating temperature, run at slow speed (700 - 750 rpm) with test propeller in tank or on boat. Adjust low-speed knob until motor runs fastest and smoothest performance is obtained. Allow 15 seconds for motor to respond to adjustment.

d. Replace low-speed valve knob with low-speed control knob in normal running position. DO NOT disturb position of needle while installing knob.

e. With low speed needle and cam correctly adjusted, motor should idle at 550 rpm IN GEAR.

FUEL PUMP AND FILTER

Before replacing fuel pump, remove and clean the fuel filter and install a new filter element. See Figure 3-20. Also remove the fuel line from the fuel tank and blow through all passages and lines with compressed air to be sure they are open. This may be the cause of inadequate fuel delivery, and if so, would eliminate unnecessary replacement of the fuel pump. If this procedure does not correct the trouble, fuel pump is probably malfunctioning and should be replaced.

TESTING FUEL PUMP

Conduct this test on the motor in a test tank or on the boat.

1. Remove carburetor to fuel pump hose. Connect a fuel pressure gauge between the carburetor and fuel pump.

NOTE

Before testing, loosen fuel tank gas cap momentarily to release any pressure that may have built up. Fuel tank should not be more than 30 inches below fuel pump.

2. Start motor and observe gauge. Pump pressures should read as below.

R.P.M.		
600	2500 to 3000	4500
1 PSI	1.5 PSI	2.5 PSI

REMOVAL OF FUEL PUMP AND FILTER

a. Disconnect hoses from pump and filter assembly.

b. To remove fuel filter, remove screw and cover attaching filter to fuel pump. See Figure 3-20.

c. To remove fuel pump, remove two screws attaching pump to power head, and remove pump assembly. See Figure 3-20.