



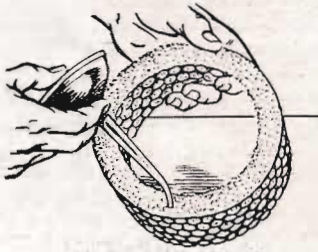
UNSCREW
WING NUT
ON TOP OF
CAP



REMOVE AIR FILTERING ELEMENT



WASH ELEMENT IN CLEANING FLUID



OIL FILTER AND REPLACE

First remove the oil-bath air cleaner, drain out old oil and wash the container and the filter elements thoroughly. Refill with new oil. Be sure parts are in the proper position



POUR OUT OLD OIL,
CLEAN AND REFILL



WASH FILTER
IN CLEANING FLUID

essential as it provides a means of shortening the warm-up period and thereby reduces fuel consumption and crankcase dilution. Other points to check at the time of servicing the carburetor are the tension of the foot-accelerator spring and the setting of the fast idle. On some carburetors, the fast-idle mechanism requires no adjustment, but on others there is a recommended clearance between the throttle-lever adjusting screw and its bearing point, usually a dimple on the carburetor casting. A weak spring on the carburetor permits movement of the pedal when driving over rough roads or pavement and causes the accelerator to discharge excess fuel into the air stream at the carburetor venturi. This defect should be eliminated by renewal of the spring. Occasionally, this defect alone accounts for unusually low gas mileage and unsatisfactory operation of the engine.

Fuel-pump vacuum booster: Three views of a combination fuel-pump vacuum booster are illustrated on page 10. The booster serves to increase the vacuum needed to operate the windshield-wiper motor when the engine-manifold vacuum is low, as when the engine is being accelerated rapidly. All fuel pumps, with or without a vacuum booster, have a filter and sediment bowl at the bottom, which collects dirt and other foreign matter. The sediment bowl is easily removed by loosening the bolt that passes through its center. When the bowl is removed for cleaning, the gaskets should be replaced if they are not in good condition.

Operation of a typical fuel-pump vacuum-booster combination can be followed by reference to the lettered sketch illustrated on page 10. Rotation of the camshaft eccentric actuates rocker arm A, pivoted at B, which pulls link C and diaphragm D upward against spring pressure E. This creates a vacuum in pump chamber F. This suction stroke of the pump causes fuel from the tank to enter sediment bowl H through inlet G. The fuel passes through strainer I and enters pump chamber F. On the return stroke, spring pressure E pushes the diaphragm D downward, forcing fuel from chamber F through outlet valve J and through discharge K to the carburetor. When the carburetor bowl is full, the carburetor-float valve is

closed, thus setting up a back pressure in pump chamber F. This pressure holds diaphragm D upward against spring pressure E. Thus, the fuel pump is inoperative until the carburetor float valve opens and the back pressure is released. Spring L simply serves to keep the rocker arm in constant contact with the camshaft. Hard starting or a "flattening out" of engine speed in highway driving indicates that the fuel pump should be tested.

The carburetor receives the fuel from the pump, mixes it with the proper amount of air and distributes the vaporized mixture in the correct proportions to the engine.

An air cleaner, illustrated at left, is clamped to the top of the carburetor.