

SERVICE INSTRUCTIONS

IMPORTANT

1. Timing, spark plugs, ignition points and wiring are as much a part of good engine tune-up as carburetion.
2. An engine cannot operate at peak efficiency if the manifold heat valve is not working properly, or if there are heavy carbon deposits in the engine combustion chamber. Use Rochester X-88 to free up the manifold heat valve; use X-66, as recommended, to remove harmful carbon deposits from combustion chamber.
3. This kit may contain a universal gasket package, therefore, one or more gaskets not required on this job may be found in the kit. In the case of duplicate gaskets or parts, compare with old part or gasket.

DISASSEMBLY

NOTE: Disassembly procedure covers all carburetors of this type. If carburetor does not have part referred to, proceed to the next step.

1. Remove bowl cover screws and bowl cover complete with float, needle and seat assembly, and gasket.
2. Remove fuel strainer and retaining nut.
3. Remove retainer and spring(s) from pump diaphragm stem.
4. Disconnect rod from arm by removing retaining hair pin clip.
5. Remove metering rod and arm.
6. Remove throttle shaft arm and connecting rod.
7. Remove pump lifter link from casting.
8. Remove fuel baffle plate.
9. Remove pump housing and pump assembly from bowl.
10. Remove spring retainer and dismantle pump from cover casting.
11. Remove jet and pump check needle or ball.
12. Dismantle choke by removing cover screws and retainers.
13. Disassemble fast idle link and rod.
14. Remove slide link from choke housing. Further disassembly of the choke is not required unless replacement parts not included in the kit are required.

CLEANING

1. For safety, do not use paint thinner or other inflammable solvent for carburetor cleaning. Use approved cold immersion cleaner. Rochester X-55 is highly recommended.
2. Only metal parts should be immersed in cleaning fluid.
3. Blow out all passages with compressed air.

ASSEMBLY AND ADJUSTMENTS

Adjustments should be made any time carburetor is serviced. Refer to specifications for adjustment dimensions.

1. Assemble carburetor in reverse order to disassembly.
- CAUTION:** Float hinge pin must be installed with pin shoulder away from carburetor bore.

Fast idle and unloader adjustments must be made before installing choke cover, gasket, and baffle.

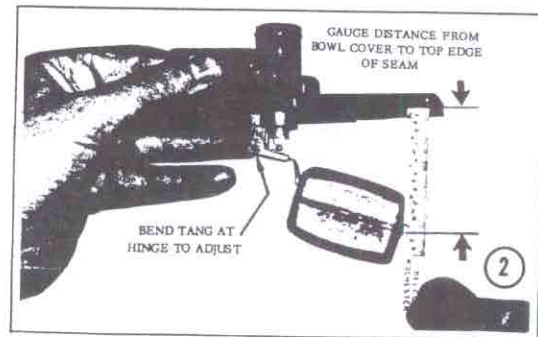
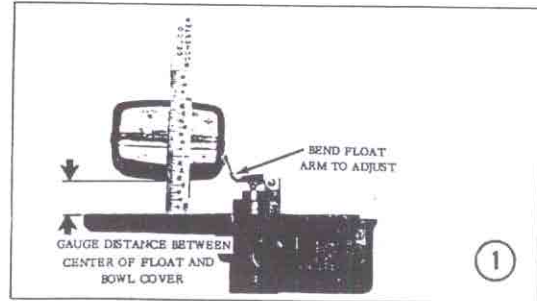
Float Adjustment

Invert the bowl cover and gauge between the center of the float and the bowl cover gasket surface as shown in Figure 1. To adjust, bend the float lever only.

CAUTION: Do not force Neo-Tip needle into the seat.

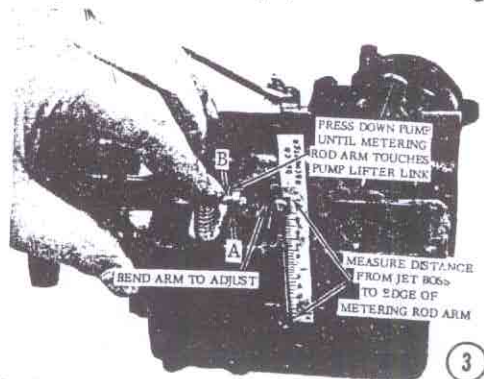
Float Drop Adjustment

With the bowl cover held upright, gauge the float drop between the bowl cover ad top of seam at free end of the float as shown in Figure 2. Bend the tang on the float lever to adjust.



Metering Rod Adjustment

With throttle valves fully closed, press down on pump diaphragm shaft until metering rod arm (A) touches pump lifter link (B). Bend metering rod arm (A) to obtain specified distance between upper corner of metering rod arm and bowl casting surface around jet, as shown in Figure 3.



Fast Idle Adjustment

Close choke and throttle valve so that fast idle slide link is on the high step of the fast idle cam. Cam is located in the choke housing. With linkage in this position, bend choke rod (Fig. 4), to obtain specified distance between throttle valve and carburetor bore. Dimension is measured at the opposite side from the idle discharge port.

(Continued on page 7)

IGNITION SYSTEMS

Ignition Coil

If poor ignition performance is obtained and the coil is suspected, it may be tested on the car or it may be removed for the test.

Ignition coils are often condemned when the trouble is actually in the ignition switch. A completely defective ignition switch will produce an open primary circuit, giving the same indications as if the coil were completely dead. A partly defective ignition switch will cause a weak spark. Both of these conditions are often blamed on the coil.

By cutting the ignition switch out of the circuit, it can easily be determined whether or not the coil is defective or whether fault lies with the ignition switch.

In the case of lock-switch coils, the coil end cover should be removed and a temporary wire connected directly from the battery (or the nearest live battery connection), to the coil terminal that is normally under the coil end cover. In the case of coils without the lock-switch feature, a similar temporary wire should be connected to the terminal of the coil to which the battery wire is normally connected. In either case, this temporary connection jumps the ignition switch. If the trouble is eliminated when the engine is started, it is obvious that the ignition switch was the offender—not the coil.

In the absence of any testing equipment, a simple check of an ignition coil can be made as follows: Turn on ignition switch with breaker points closed. Remove the high tension cable from the center socket of the distributor cap and hold it 1/4" to 3/8" away from a clean spot on the engine. If the coil and other units connected to it are in good condition, a spark should jump from the wire to the engine. If not, use a jumper wire terminal of the distributor to the engine; if the primary is in good condition, a spark will occur.

All ignition coils with metal containers can be tested for grounded windings by placing one test clip on a clean part of the metal container and touching the other clip to the primary and high tension terminals. If the lamp lights or tiny sparks appear at the points of contact, the windings are grounded and the coil should be replaced.

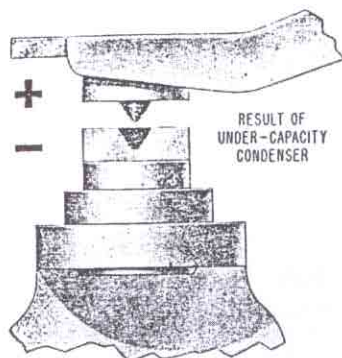


Fig. 24 Mound on positive point

If the mound is on the positive point (Fig. 24), install a condenser of greater capacity; if the mound is on the negative point, (Fig. 25), install a condenser of lesser capacity.

Coil Polarity

The polarity of the high tension terminal of the coil is important, as some car manufacturers specify positive polarity and others negative polarity. A reversal of this polarity when connecting the

coil, or when replacing the coil, may affect the performance of the engine (or the radio).

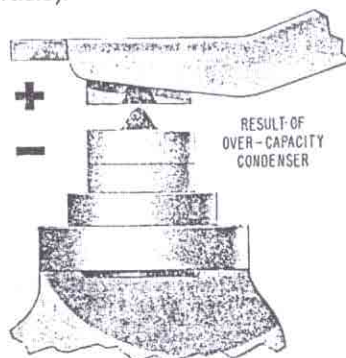


Fig. 25 Mound on negative point

Testing Coil Polarity

Check for reversed coil polarity by holding any high tension wire about 1/4" from its spark plug terminal with the engine running. Insert the point of a wooden lead pencil between the spark plug and wire, Fig. 29. If the spark flares and has a slight orange tinge on the spark plug side of the pencil, polarity is correct. If the spark flares on the cable side, coil connections should be reversed.

When coils have plus or minus markings near the terminals, with a negative grounded system, the negative terminal wire should be connected to the distributor. With a positive-grounded system, the positive terminal wire should be connected to the distributor.

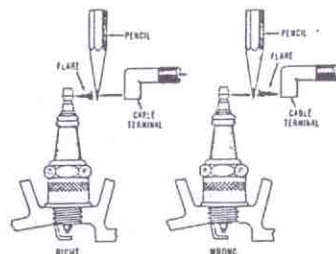


Fig. 29 Checking coil polarity

Checking Resistors

Before installing a new coil to replace one that has burst open, check the external resistor as follows:

1. Connect one terminal of a voltmeter to the battery side of the resistor and the other voltmeter lead to a good ground.
2. Turn on the ignition but don't start the engine.
3. The voltmeter should indicate very close to the battery voltage.
4. Leave voltmeter lead connected to ground and move the other voltmeter lead to the coil side of the resistor.
5. The voltmeter should now read several volts lower than before.
6. If the voltmeter reading is the same or almost the same in both instances, the resistor is short-circuited. Discard it and install a new one.
7. Be sure to install the correct resistor and coil for each system as they have been designed in matching units for maximum performance.

Resistors used with Auto-Lite, Delco-Remy and Ford coils must not be used interchangeably for to do so can result in burned points, overheated coils, misfiring, lower coil output and poor operation.