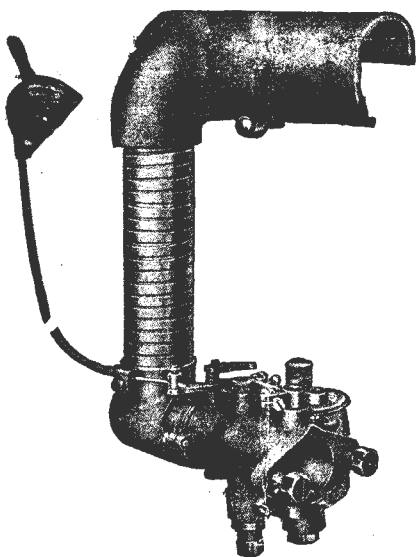


New RAYFIELD Plain Tube Carburetor for FORDS



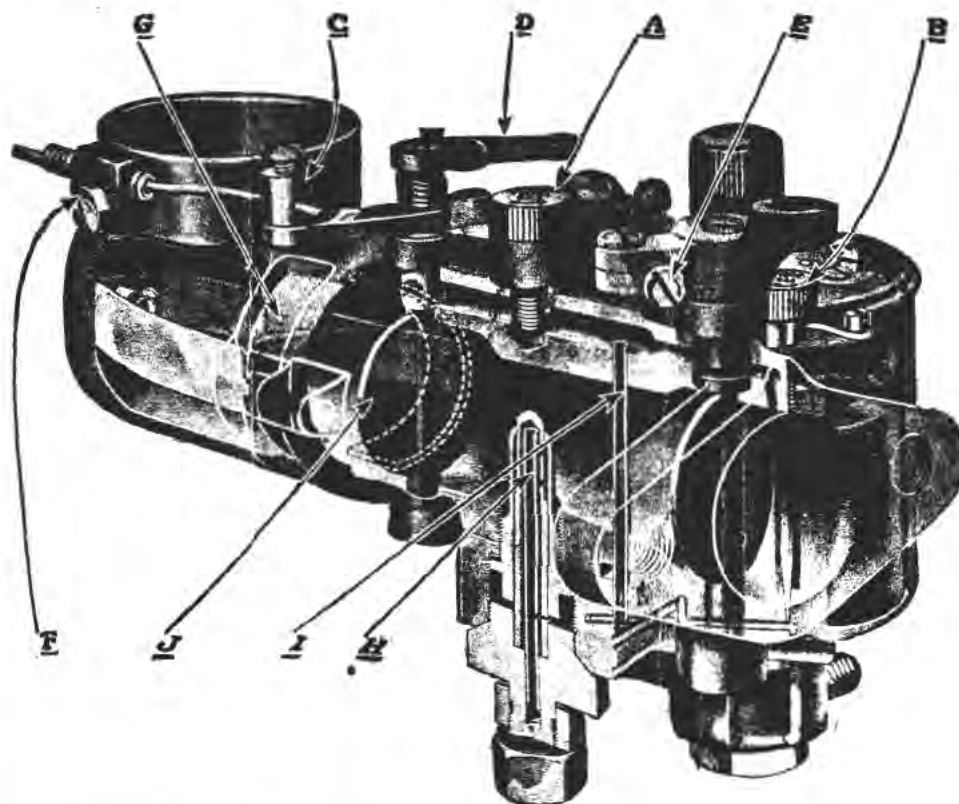
MODEL "UF"

Installation and Adjustment Instructions

Before installing the **Rayfield** Carburetor on the Ford Motor, check over the motor and ignition system and see that they are in first-class condition. Satisfactory results cannot be obtained otherwise. See that the spark is correctly timed and that the motor has good compression. The compression should be the same in all cylinders and the spark plugs should be set with a $1/32$ " gap.

The Ford **Rayfield** outfit consists of one Model "UF" Carburetor, one gas line with unions, one length of hot air tubing attached to a hot air stove, one dash adjustment, two wood screws for fastening the dash adjustment on the dash; if metal cowl is used, two stove bolts are provided; two $3/8$ -16 hexagon cap screws for attaching carburetor to manifold and one manifold gasket.

- A.—Low Speed Adjustment.
- B.—High Speed Adjustment.
- C.—Dash Control Choker Valve Arm.
- D.—Choker Valve Arm operated by wire.
- E.—Stop Arm Screw.
- F.—Hot Air Tubing and Dash Control Tubing Lock Screw.
- G.—Thermostatic Shutter and Reeds.
- H.—Main Multiple Jet Nozzle.
- I.—Idle Gas Jet.
- J.—Butterfly Choke Valve.



Installation Instructions.

Installation. After removing the Ford Carburetor and the Ford hot air stove, remove the ferrule and union nut from the Ford gas line and in their place put on the ferrule and union nut taken from the gas line in the **Rayfield** outfit. The Ford gas line will have to be bent back about 2" in order to accommodate the **Rayfield** Carburetor. Attach the end of the **Rayfield** gas line from which you just took the nut and ferrule, to the Ford gas line and attach the other end of the **Rayfield** gas line to the gas connection on the carburetor and screw the unions up rather loosely. Attach the carburetor to the Ford manifold with the cap screws and lock washers furnished with the outfit. Don't neglect to place the gasket between the carburetor and the manifold flanges. Draw the cap screws up firmly to prevent air leaks. After the carburetor is attached the gasoline connections should then be tightened.

Insert the Ford throttle rod in the throttle arm on the carburetor. Be sure that the throttle opens the full distance until the stop arm strikes the stop. It is sometimes necessary to bend the throttle rod slightly to prevent striking the cylinders.

Install the dash control on the dash or on the instrument board. Run the tubing through the clamp and lock screw "F", but do not extend the tubing more than one-eighth of an inch through the clamp. Cut the tubing, but not the wire, to the proper length if necessary. Connect the wire to arm "C". Be sure that the wire is so connected that when the handle of the dash adjustment is in the starting position the arm "C" is pulled back to its furthest point of travel, so that butterfly choke valve "J" is closed tightly. Butterfly choke valve "J" is shown in the section above in the position it should be in for starting.

Place the hot air tubing attached to the stove in the air intake of the carburetor, at the same time placing the stove over the manifold. Fasten the tubing by tightening up screw "F", which holds both the dash adjustment tubing and the hot air tubing in place. Clamp the stove to the exhaust manifold.

If the motor is not provided with a self starter, run a wire with a loop at one end from arm "D", through to the front of the radiator, for hand cranking.

Starting. When the motor is cranked by hand, set the dash adjustment lever half way between the start and run position. Advance the throttle lever on the steering wheel about one-quarter way. Pull the wire just described, which is attached to arm "D", in order to close the choke butterfly while the motor is being cranked. When the motor begins to fire the wire can be released. The valve will then open half way only because of the position of the dash adjustment lever. As the motor warms up, the dash adjustment lever can gradually be returned to the run position. When using a self-starter, the dash adjustment should be set at start and returned gradually to the run position as the motor warms up.

Note: **Rayfield Carburetors** are all carefully motor tested and the adjusting screws set just as they are taken from the motors. It might be possible, however, that these screws may be tampered with before the carburetor reaches the hands of the purchaser. If the motor fails to start, turn both the low speed adjusting screw "A" and the intermediate and high speed adjusting screw "B" down as far as they will go. Then turn them up three complete turns. With this adjustment the carburetor will supply the motor with enough gas to start and run until it is thoroughly warmed up when the proper adjustments can be made.

Idling Adjustment. First let the motor heat up thoroughly. Have the throttle lever on the steering wheel advanced a few notches only. Then idle the motor to a low speed, by using screw "E" on the stop arm. This screw simply governs the position of the butterfly throttle. Turning the screw to the right holds the throttle open wider and the motor will idle at an increased speed. Turning the screw to the left decreases the speed by permitting the throttle to close more. Set the screw "E", so that the motor will idle at the desired speed when you have the throttle lever on the steering wheel in the preferred position.

Gas Adjustment, Low Speed. Screw "A" is for the low speed adjustment and governs the gas supply to the motor while the motor is running at low speed. Advance the spark lever on the steering wheel about half way. Then to determine the quality of the low speed mixture, turn the low speed adjusting screw "A" to the right two or three notches at a time until the motor indicates that it is not getting enough gas. You then have a starting point. Gradually enrich the mixture by turning the screw to the left until the motor idles smoothly, indicating that the mixture is correct.

Gas Adjustment, High Speed. Screw "B" governs the supply of gas to the motor when it is running at intermediate or high speed. In order to determine the quality of the mixture in making the intermediate and high speed adjustment, accelerate the motor. If the motor does not back fire through the carburetor, turn the intermediate or high speed adjusting screw "B" to the right and again accelerate and continue in this way until the motor does back fire through the carburetor when you accelerate. The back firing shows a light mixture. Then turn the screw "B" to the left a notch or two at a time until the back firing no longer occurs when you accelerate.

The Thermostatic shutters "G" are non-adjustable and should not be tampered with. They are set to operate at the proper temperature. When the motor reaches a very high temperature the shutters will automatically open and admit cold air and thus prevent loss of power.

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