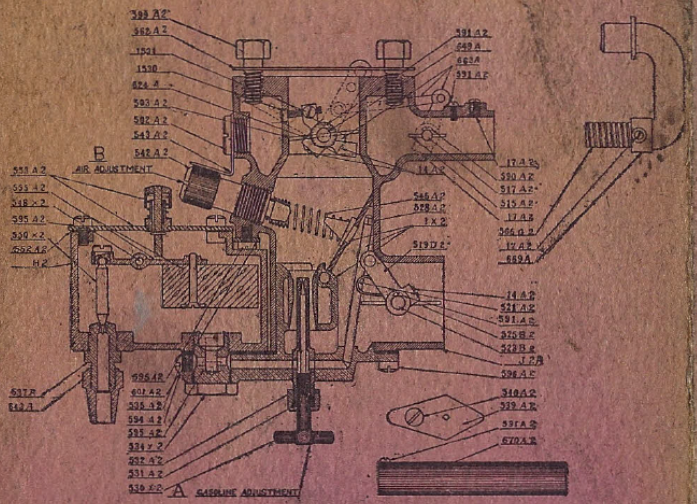
Any degree of heat desired may be obtained if wished by intermediate positions of this Season Adjustment Lever "C."

In extreme winter weather better economy and all around performance can be obtained if care is taken in shielding lower part of radiator sufficiently to keep motor temperature up to normal.

If the above is not sufficently clear to any users of the Marvel any questions will be cheerfully answered if addressed to

MARVEL CARBURETER CO.,
Flint, Michigan, U. S. A.



MARVEL CARBURETER
MODEL-E

NOTICE—If occasion arises to send Carbureter into our factory, always tag it with make and model of car, owner's name and address, notifying us by mail when and how shipped.

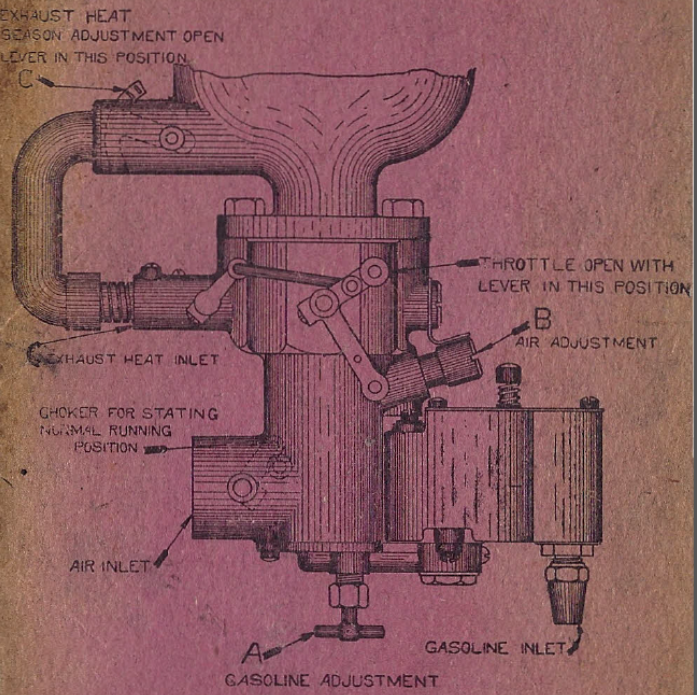
MODEL E PARTS PRICE LIST

Part No.	Name	Price
650A	Carbureter assembled	$16.00
H2	Brass Bowl	2.50
IX2	Insert assembly	3.50
14A2	Pilot set screw	.10
17A2	Cup point set screw	.10
502A2	Heater Jacket plug	.20
503A2	Throttle fly	.25
511C2	Connecting rod	.10
513A2	Damper dog	.25
515A2	Damper fly	.10
517A2	Damper shaft	.10
521A2	Choker spring L. H.	.15
525B2	Choker fly	.30
528A2	High speed jet No. 69	.20
530DX2	Low speed needle assembly	.50
531A2	Low speed needle packing	.10
532A2	Low speed needle packing nut	.15
534Y2	Insert connecting screw assembly	.50
535B2	Insert gasket	.10
539A2	Exhaust shutter	.20
540A2	Exhaust shutter screw, 10x24, spec.	.10
542A2	Air valve adj. screw	.40
543A2	Air valve ratchet spring	.15
545A2	Air valve spring No. 13	.30
547A2	Float screw washer	.10
548X2	Float lever shaft assembly	.20
550X2	Float valve and head assembly	.45
552A2	Bowl cover gasket	.10
553A2	Bowl cover and flusher assembly	.75
554X2	Flusher assembly	.35
555A2	Float and lever assembly	.75
562A2	Flange gasket	.10
565G2	Flexible heat tube	.10
580A2	Damper fly screw, 4x36x3-16	.10
591A2	Throttle and choker fly screw, 4x36x¼	.10
592A2	Float screw, 4x36x⅜ F. H. B.	.10
595A2	Bowl cover screw, 10x24x¾	.10
595B2	Choker tube clip screw, 10x24x5-16	.10
596A2	Insert lock screw, 10x24x⅜	.10
600A3	Manifold Stud	.10
601A2	Bowl support	.10
624A2	Throttle stop	.40
637A	Valve seat and flared tube union	.25
643A	Flared tube union nut	.20
663A	Throttle lever and damper assembly	.75
669A	Carbureter heat elbow	.30
670A	Carbureter Jacket Brass Exhaust Tube	.30
689A	Escutcheon Pin	.10
734A	Choker lever and shaft assembly	.55
738A	Throttle lever damper dog, connecting rod and shaft assembly	1.25
745A	No. 2 Choker shaft	.20
746A	Throttle shaft	.20
750A	Throttle lever	.40
752A	Choker lever	.25
1580	Throttle stop screw, 6x32x⅝	.10
1531	Throttle stop pinch screw, 6x32x¼	.10

CARLAND E-30 47

Marvel Carbureter

Model E



AS USED ON

Oakland "34-B"

Maryel Carbureter Co.

FLINT, MICHIGAN, U. S. A.

Directions for Installing and Adjusting

See that all connections between intake valves of motor and carbureter are absolutely -free from air leaks. All cylinders should hold compression as nearly alike as possible. The ignition system should be giving a good, hot spark at each plug and plugs should be clean, with points set evenly and in most cases twenty-five to thirty thousands apart.

Notice Gasoline Needle Valve "A" on cut. After closing by gently turning to right until seated, open by turning to left about one turn. Final adjustment is usually 3-4 to 1 turn open.

Notice Air Valve Adjusting Screw "B" on cut, this should be so adjusted that end of screw is about even with end of ratchet pointer that presses against it.

The preliminary adjustments of the carbureter just mentioned, may be made before attaching.

Before starting, open throttle about one-third, and pull dash choker out in order to allow motor to draw off gas for easy starting, and have spark advanced about two-thirds.

After the Motor has started, it is best to at once release Choker as otherwise too much fuel may be drawn off and cause the Motor to stall. However, in cold weather, after starting, the Choker may be partially closed for a short time in order to cause a little excess fuel to be drawn off which will aid the motor in warming up.

After motor has started close throttle to moderate speed (which means nearly closed). At this point close Gasoline Needle "A" a very little at a time until motor runs smoothly with spark fully retarded before making final adjustments.

The next step is to get proper adjustment of air valve. To accomplish this, Air Valve Adjustment Screw "B" should be turned to the left to back out and release the air valve spring, about one-eighth of a turn at a time, until motor begins to slow down. This indicates that air valve spring is now too loose, whereupon it should again be tightened a little by turning to the right, one-eighth of a turn at a time, until motor runs smoothly.

Next, fully advance spark and open throttle quickly an as far as possible. Upon doing this motor should speed up promptly and quickly. If it hesitates or "popping back" is heard, a little more gas should be released at "A," by turning to left, a very little at a time. Wait for motor to settle and again open throttle quickly as before. Repeat these trials until the proper adjustment is obtained, the object being to have just enough gas, and no more, to allow motor to pick up promptly and smoothly when throttle is suddenly opened, the spark as mentioned being fully advanced.

If at first no "popping back" is heard when throttle is quickly opened there is a possibility of too much gas being turned on, and same should be corrected by turning the Needle Valve "A" to right, or in, until throttle can be opened quickly and motor hesitates or "pops back" before picking up speed, with spark retarded, but picks up quickly and smooothly without "popping" by simply advancing spark and again opening throttle which indicates the proper adjustment has been obtained.

The highest economy of fuel will be obtained by adjusting with Air Valve Adjusting Screw "B" released (to the left), and the Gasoline Valve "A" closed (to the right) as nearly as possible and still obtain the desired results.

When allowing motor to idle, or car is running slowly, spark should be retarded.

NOTICE

The Throttle Stop on throttle lever governs speed of motor when idling. If running too fast, back up adjusting screw until desired speed is reached, and visa versa.

FLOAT LEVEL

The float should stand so that from the top of float to top of bowl at back side, next to mixing chamber, the space measures 9-16 inches.

HEAT ADJUSTMENT

The Model "E" Marvel Carbureter has an automatic heat control of hot gases from the internal exhaust of the engine governed by the Throttle Lever which gases are forced through the Heat Jacket around the Throttle, continuing through jackets around the Venturi and Gasoline Nozzle, but which do not come in contact with the air supply to the mixing chamber. This heat is intended to warm the gas and air of the mixing chamber to aid in perfect combustion at all speeds and is accomplished by having a great quantity of heat in the jacket when Throttle is nearly closed and gradually diminishing same as throttle is opened. A slot in the end of the shaft carrying this Damper is parallel with the Damper itself and therefore shows the position of the Damper which should be wide open when throttle is closed.

SEASON HEAT CONTROL

of the carbureter the Oakland 34-B model has

In addition to the exhaust heated jackets an exhaust heated jacket on its inlet manifold, thru which the internal exhaust of the engine first passes before entering the heat jackets of carbureter.

The regulation of heat on carbureter and inlet manifold depends on the grade of fuel being used, and also on temperature conditions.

With heavy low grade fuel now commonly used in most localities it is advisable to use all the heat, with Season Adjustment Lever "C" on inlet manifold jacket outlet wide open or "up", as shown on cut on first page of this folder.

When high test gasoline, meaning above 65 degrees Baume test of good fuel, is used, as is common in a few localities still, or in very warm weather, the application of heat to carbureter must be modified.

This is accomplished by turning Season Adjustment to Jacket Heat Lever "C" to closed, or "down," i. e., 90 degrees from position shown on cut. This cuts off entirely the exhaust heat to jackets surrounding carbureter, and at the same time cuts off the circulation of heat thru the inlet manifold jacket.