TUNE UP THE USED CARS

BUICK

1938

SERIES 40

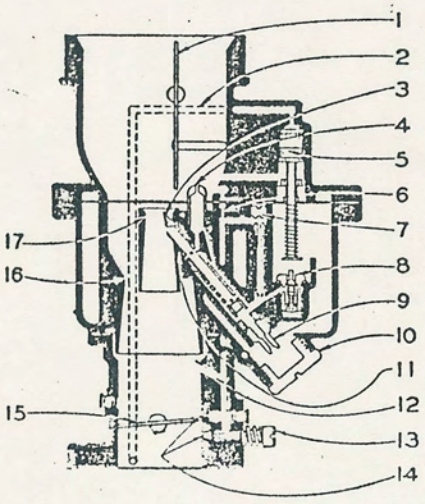
DEALERS ARE SERVICING ALL MAKES OF CARS AND ARE TRADING IN ALL MAKES. IN RESPONSE TO REQUESTS FOR TUNE-UP INFORMATION ON PAST MODEL CARS FOR USE IN THE SHOP AND IN THE USED CAR RECONDITIONING DEPARTMENT, AUTOMOBILE TRADE JOURNAL WILL PUBLISH THIS INFORMATION EACH MONTH, COVERING THE PAST THREE YEARS OF ONE MAKE OF CAR. THE MAKE SELECTED WILL BE THE ONE FOR WHICH WE RECEIVE THE MOST REQUESTS. WRITE US YOUR PREFERENCE.

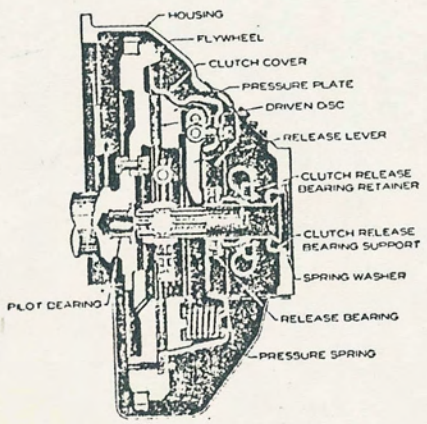
Engine

Starting engine number 43396937. Overhead valve type, 3 3/32-in. bore x 4⅛-in. stroke, piston displacement 248 cu. in. Compression ratio 6.1-1. Compression pressure 126 lb. at 1000 r.p.m. Max. brake hp. 107 at 3400 r.p.m Max. torque 203 ft. lb. at 2000 r.p.m. Firing order 1-6-2-5-8-3-7-4.

Carburetor

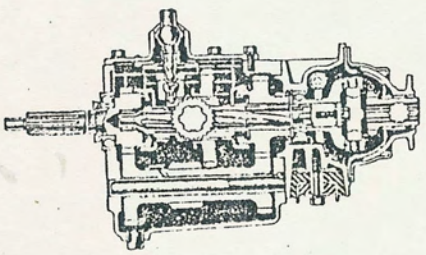
Stromberg model AAV1 and Marvel model CD-1B. Stromberg carburetor is a dual downdraft with automatic choke. Idle adjusting screw controls gas. Turn out for richer mixture. Before adjusting idle mixture be sure idle speed screw is on thin portion of fast idle cam. Accelerating pump arm has three holes, set link in hole on longest radius to secure greatest accelerating charge. Fuel level should be 19/32 in. below top surface of float bowl. Calibration: Main discharge jet No. 28 notched; Main metering jet .047 in.; By-pass jet No. 62; High speed bleeder No. 65; Float needle seat .101 in. Marvel carburetor is a dual downdraft with automatic choke. Idle adjusting screw controls gas. Turn out for richer mixture. Fuel height should be ¾ in. below top surface of float bowl, or just at the bottom of the "sight plug" in the side of the float bowl, with engine idling. Accelerating pump lever has three holes. Inner hole permits greatest accelerating charge. Center hole is normal position. Metering pin height may be checked by removing bowl cover and holding vacuum step-up plunger down on its seat. Under these conditions the dimension from the top of the metering pin to the top of metering pin guide should be 13/64 in. This dimension may be changed by bending pin lifter. Be sure to check both metering pins.





Distributor

Delco-Remy model 1,110,801 with Octane Selector. Centrifugal advance 22 to 26 degrees, vacuum advance 12 degrees. Breaker point gap .012 to .017 in. Cam angle 29 to 32½ degrees.



Ignition Timing

With points set to 0.15 in. and Octane Selector set at zero, spark occurs 4 degrees before top center or when the flywheel mark aligns with pointer.

Spark Plugs

Standard equipment AC No. 46 set to .023 to .028 in.

Valves and Springs

Seat angle of inlet and exhaust valves 45 degrees. Spring pressure, with outer spring compressed to 1 15/16 in. and inner spring to 1 21/32 in., total weight should be 42 to 53 lb. Free length inner 1⅞ in.; outer 2 5/16 in.

Tappet Clearance

Operating tappet clearance inlet and exhaust .015 in. Clearance for valve timing .015 in.

Valve Timing

With tappet set to .015 in. inlet valve should be .004 in. off its seat at 13 degrees before top center. There should be 11 pins of the timing chain between the marks on the cam and crankshaft sprocket. Pins which coincide with marks may be identified by the copper plated washer on them.

Main Bearings

Steel backed babbitt lined, interchangeable in complete sets and may be renewed from below. Mains are equipped with solid shims. Diametric clearance .0007 to .0022 in., crankshaft endplay .004 to .008 in.

Generator

Delco-Remy model 1,101,053 with voltage regulator. Maximum charging rate hot 25 to 28 amps.; cold 27 to 31 amps. Voltage regulator is set to 7.5 volts. Cutout relay closes at 6.4 to 7.0 volts, opens at 0 to 3.5 amps. discharge.

Steering Data

Caster ⅞ degree negative, plus or minus ⅜ degree. Caster is adjusted by turning the eccentric bushing in the upper control arm outer end. Camber ¼ degree negative to 1 degree positive. Camber is adjusted by turning the same eccentric bushing that controls caster and is adjusted within one-half revolution of the correct caster setting. King pin slant 3½ to 4½ degrees. Toe-in 0 to 1/16 in. Adjust toe-in by turning adjusting sleeve at tie rod ends. Turn both sleeves an equal amount.

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