STUDEBAKER Six 1955

MODEL 16G CHAMPION

A. E. A. TUNE-UP SYSTEM

Standards of Adjustment
Automotive Electric Association

ISSUED JUNE 1955

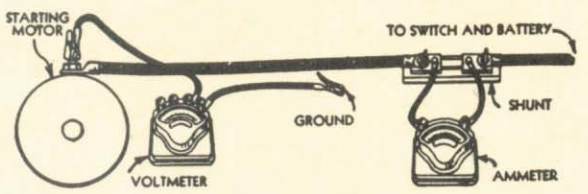
FORM NO. SB-68

BATTERY

WILLARD Type HDW-1-100 Capacity - 100 Amp. Hour (20 hr. rate)

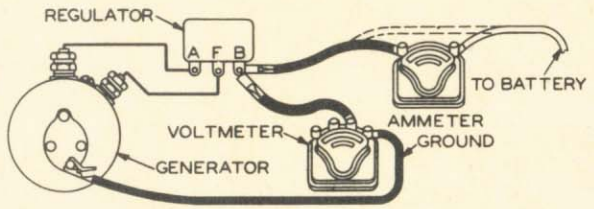
Positive terminal grounded

STARTING MOTOR



AUTO-LITE No. MZ-4157
Bendix Drive - AUTO-LITE No. EBA-33; BENDIX No. A-1792
FREE RUNNING SPEED - 4000 Min. R.P.M. 68 Max. Amps. 5.0 Volts
LOCK TORQUE (Stalled) - 4.4 Min. Ft. Lbs. 280 Max. Amps. 2.0 Volts
CONTROL - Starting Switch Part No. SW-4016

GENERATOR



AUTO-LITE No. GGW-4801E
Brush Spring Tension - 35 - 53 oz. with new brushes
Maximum Controlled Output:
Hot - 45 Amps. 8.0 Volts at 2350-2550 R.P.M. of Generator
Cold - 45 Amps. 8.0 Volts at 1925-2125 R.P.M. of Generator
Rotation - Clockwise (viewing drive end)

GENERATOR REGULATOR

AUTO-LITE No. VBE-6101A
Current - Voltage Regulator -

Cut-Out Relay - Armature air gap - .031" to .034". Contact point gap .015" minimum. Contacts close at 6.3 to 6.8 volts. Contacts open at 4.1 to 4.8 volts.

Current Regulator - Armature air gap - .048" to .052". Operating current - after 15 minutes operation at 10 amps.

Temp. F.	40°	60°	70°	80°	100°
Amps.	55 max.	53 max.	52 max.	51 max.	49 max.

Operating current - after additional 15 minutes operation at maximum output:

Amps.	46-50	44-48	43-47	42-46	40-44

Voltage Regulator - Armature air gap .048"-.052". Operating voltage - after 15 minutes operation while charging at 10 amps. (allowable variation ± .15 volts).

Temp. F.	50°	60°	70°	80°	90°	100°	110°	120°
Volts	7.41	7.38	7.35	7.32	7.29	7.27	7.24	7.21

COMPRESSION

VALVE CLEARANCE - Engine Cold - Intake - .016"
Exhaust - .016"
VALVE TIMING - Inlet valves open 15° before top dead center.
TAPPET LASH for timing: .020" (Cold)

SPARK PLUGS

CHAMPION Type J-7 Gap .030" Size 14mm.

Use Round Wire Gauge

IGNITION COIL

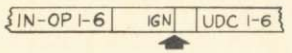
AUTO-LITE No. CR-6007 Servicing Coil No. CR-6007

Mounting Bracket On Coil

DISTRIBUTOR

AUTO-LITE No. 1AT-4201
Firing Order - 1-5-3-6-2-4
Cam Angle - 39° ± 3°
Breaker Contact Gap - .020"
Breaker Contact Set Part No. 1GW-3028AS
Breaker Arm Spring Tension - 17 - 20 oz.
Condenser - Part No. 1AT-2015L
Capacity - .21 - .25 Mfds.
Automatic Advance - Start 0° at 400 R.P.M.; Intermediate 4° at 975 R.P.M.; Maximum 7° at 1400 R.P.M.
(Distributor degrees at distributor R.P.M. Tolerance + or - 1°)
Vacuum Control - No. 1AT-2023LJ 4" hg. to start plunger travel; 9° distributor advance at 12" hg. maximum advance.

IGNITION TIMING



USE TIMING LIGHT -

Breaker points to open 2° before top dead center. Timing mark on vibration damper.

FUEL PUMP

AC - Type 4156 Series EP
Capacity - 1 pint or over in 1 minute
Pressure - 4 lbs. minimum; 5 lbs. maximum.

CARBURETOR

CARTER - Model 2108S
Float Level - With bowl cover inverted and float resting on seated needle, distance from tip of edge of bowl cover to soldered edge of seam should be 3/8".
Fixed Jets - Metering Rod - Standard Part No. 75-902
Metering Rod - Jet Assembly Part No. 120-129S
Climatic ® Control - Set one point lean.
Fast Idle Adjustment - With thermostatic coil housing, gasket and baffle plate removed, crack throttle valve and hold choke valve closed. Then close throttle. There should now be .046" between throttle valve and bore of carburetor.
Accelerating Pump Adjustment - With throttle lever set screw backed out and throttle valve seated, place pump travel gauge on bowl cover with lip of gauge over plunger shaft. Hold gauge vertical. Difference between closed and wide open throttle reading at index should be 14/64" plunger travel.
Metering Rod Adjustment - With throttle lever set screw backed out and throttle valves seated, insert gauge T109-102 in place of metering rod. Press down on metering rod arm until upper lip of arm contacts pin in pump arm. There should now be less than .005" between pin and notch in gauge. After adjusting upper lip of metering rod arm, it is necessary to adjust lower lip as follows: Press down on metering rod arm until upper lip contacts pin in pump arm. Adjust lower lip for 3/16" between pin in pump arm and upper surface of lower lip.
Unloader Adjustment - Hold throttle valve wide open and close choke valve as far as possible without forcing. There should now be 3/16" between lower edge of choke valve and inner wall of air horn.
Anti-Percolator Adjustment - Crack throttle valve .030" between throttle valve and bore of carburetor, side opposite idle port. There should now be .025" between rocker arm lip and pump arm.
Idle Engine Speed - 1/2 to 1-1/2 turns open. Out, to make rich. Idle engine at 525-550 R.P.M. (Standard Trans.), Idle at 575-600 R.P.M. (Automatic Transmission; Overdrive)

COOLING SYSTEM

Capacity - 10 Quarts without heater (U.S. Measure)
8.35 Quarts without heater (Imperial Measure)
Thermostat - In cylinder head outlet. Opens at 157° - 162° F.

WINDSHIELD WIPER

Windshield Wiper - TRICO
Service Motor No. CPM-12-17 (Standard Series)
No. CPM-12-19 (Sport Series)
Wiper Arm (Both sides) AL-150
Blade (Both sides) RB-11
Linkage (Both sides) H-87820-1

ADDITIONAL SPECIFICATIONS

Gauges - STEWART-WARNER
Temperature Gauge - Dash Unit No. 442427
Temperature Sender - No. 362-K
Oil Pressure Gauge - No. 444469
Gasoline Gauge - Dash Unit No. 441159
Tank Unit No. 383B (Sedan & Tudor)
383N (Coupe & Hard Top)
Ammeter - No. 440274

Speedometer - STEWART-WARNER No. 565-CV
Inner Core No. R-58 - 58-15/16" (Stand. Trans. & Hardtop with Overdrive)
Inner Core No. R-55 - 55-3/4" (Overdrive except Hardtop)

Crankcase Capacity - 5 Quarts (U.S. Measure)
4.14 Quarts (Imperial Measure)

Recommended Tire Pressure -
Cold - 26 lbs. front; 24 lbs. rear.

Ignition Lock - HURD

Key Series	HH000 - HH999
Key Blank No.	68-165
Lock No.	68-226

SERIAL NUMBER - On left front door hinge pillar post.
G-1, 316, 501 and up South Bend, Indiana
G-932, 501 and up Los Angeles, California
G-758, 201 and up Canada

ENGINE NUMBER - Top left front of cylinder block
1, 138, 001 and up South Bend, Indiana
L-101 and up Los Angeles, California
C-60501 and up Canada

Printed in U.S.A.