Repeat adjustment with other idle adjusting screw. Readjust throttle stopscrew for correct idling speed.

Accelerating Pump Setting—Not adjustable.

Fast Idle:—Integral with carburetor (throttle by-pass type). No adjustment required.

Automatic Choke:—Integral with carburetor. See article in Carburetion Equipment Section.

NOTE—If mixture is too rich, or too lean, during warming up period, automatic choke setting can be varied not more than 5 graduations in either direction from standard setting of 11 Notches Rich. See Carburetion Equipment Section article for directions.

Air Cleaner:—AC #1528585 heavy duty oil-bath type Std.

NOTE—AC #844751 oil-wetted type air cleaner is used on crankcase vent (in oil filler cap).

Fuel Pump:—AC Type AJ #1523629 Inverted type (vacuum unit at top) combination fuel-and-vacuum pump.

See article in Carburetion Equipment Section.

Gasoline Gauge:—Stewart-Warner Electric type.

See article in Carburetion Equipment Section.

MANIFOLD HEAT CONTROL:—Thermostatic coil type. Thermostatic coil mounted on forward end of heat valve shaft with counterweight at rear end. No adjustment required. See that valve operates freely when turned by hand. Do not oil any part of heat control.

VALVE TIMING:—To Check—Set tappet clearance #1 exhaust valve at .015". This valve should close with piston 5° or .0103" past top dead center when 5° point on flywheel (midway between second and third graduations after dead center mark #1 UP. DC.) lines up with pointer in inspection hole in left front face of housing under starter. Reset tappet clearance at .010" with engine warm.

Tappet Clearance:—.007" Int., .010" Exh., engine warm.

Valve Spring Pressure:—50 lbs. at 1⅝" (valves closed), 120 lbs. at 1 5/16" (valve open).

LUBRICATION:—Crankcase Capacity—6 qts.

Normal Oil Pressure—35 lbs. (25-40) at 30 M.P.H.

BATTERY:—Prest-O-Lite Hi-Level, Type HP2-17. 6 volt, 17 plate, 114 ampere hour capacity (20 hour rate).

NOTE—Specific gravity reading for fully charged Hi-Level battery is 1.250.

Starting Capacity—133 amperes for 20 minutes.

Zero Capacity—300 amperes for 3.5 minutes.

Grounded Terminal—Positive (+) terminal grounded to left rear leg of frame 'X' member. **Engine Ground**—Left rear transmission cover bolt grounded to left front leg of frame 'X' member by strap connector.

Dimensions—Width 7". Length 10 5/16". Height 8¾".

Location—In cradle under left front seat.

STARTER:—Model MAX-4006. Armature MAW-2006.

Drive—Outboard Barrel Type Bendix No. A-1729.

Rotation—Counter-clockwise at commutator end.

Brush Spring Tension—31-42 ozs. (new brushes).

Cranking Engine—125 R.P.M., 175 amperes, 5 volts.

Performance Data

Torque	R.P.M.	Volts	Amperes
0 ft. lbs.	5300	5.5	65
2.75 "	1630	5.0	200
5.5 "	970	4.5	300
8.7 "	600	4.0	400
12.0 "	300	3.5	500
16.5 "	Lock	3.0	640
25.0 "	Lock	4.0	880

Removal:—Starter flange mounted on left front face of flywheel housing. To remove, take out flange mounting screws.

Starting Switch:—Model SS-4001. Magnetic type. Mounted on starter and controlled by pushbutton on instrument panel. See article in Electrical Equipment Section.

Switch Specifications

Closes with terminal voltage of 4 volts or less. Remains closed until voltage drops to .75-2.0 volts. Current draw, 3 amperes at 6.0 volts.

GENERATOR:—Model GCJ-4807A-2. Armature GCJ-2006. Third brush control type with external vibrating voltage regulation. Ventilated by fan on drive pulley.

Maximum Charging Rate—30.5 amperes (cold), 25.5 amperes (hot), 8.0 volts, 3200 R.P.M. To check charging rate, disconnect regulator 'F' lead, ground generator 'F' terminal, connect test ammeter in charging line at regulator 'B' terminal. Operate generator charging battery (do not run generator on open-circuit).

Charging Rate Adjustment—Third brush set for maximum output (1 commutator bar min., 1 commutator bar plus 1 mica strip max. between third brush and insulated or nearest main brush) and this setting must not be exceeded. Actual charging rate controlled by voltage regulator setting. See Regulator data below.

Performance Data

Cold Amperes	Cold Volts	Cold R.P.M.	Hot Amperes	Hot Volts	Hot R.P.M.
0	6.4	800	0	6.4	840
4	6.6	900	4	6.65	960
8	6.85	1025	8	6.9	1100
12	7.05	1160	12	7.15	1270
16	7.25	1330	16	7.4	1520
20	7.5	1560	20	7.65	1860
24	7.7	1900	24	7.9	2460
28	7.9	2400	26	8.0	3600
30	8.0	3200			

Rotation—Counter-clockwise at commutator end.

Brush Spring Tension—53 ozs. Max. (new brushes).

Field Current—1.9-2.1 amperes at 6.0 volts.

Motoring Current—4.0-4.4 amperes at 6.0 volts.

Removal:—Generator pivot mounted at left front of engine with fan belt drive. To remove, take out pivot and clamp bolts.

Belt Adjustment:—Swing generator away from engine until reading on spring scale attached to clamp bolt lug and parallel to clamp link is 25 lbs. or until belt deflection between generator and water pump pulleys is ½" with thumb pressure.

REGULATOR:—Model VRD-4001B (first 5650 cars), VRD-4005A (later cars). Consists of Cutout Relay and Vibrating type Voltage Regulator in case on dash.

See article in Electrical Equipment Section.

NOTE—Regulator cover is sealed. Serviced on exchange basis if seals not broken. Cover must be removed to make adjustments.

Cutout Relay

Cuts In—6.4-7.0 volts Cold.

Cuts Out—.5 ampere Min., 3.0 amperes Max. (Cold).

Contact Gap—.015" Minimum.

Air Gap—.034" Min., .038" Max. with contacts open. Measure at hinge end of core.

Voltage Regulator

Setting—7.3-7.6 volts at 70°F. (Regulator Serial No. 8R-000001 Up). **See Electrical Equipment Section for settings and changes on units before this serial no.**

To Check (without breaking seal)—Connect ammeter in charging line at regulator 'B' terminal, connect voltmeter between 'B' and 'GD' terminals. Operate generator at speed equivalent to 30 M.P.H. charging battery until voltage is steady. Voltmeter reading should be within limits of 7.3-7.6 volts (cold —70°F), 7.1-7.4 volts (hot—140°F).

See Regulator Setting above.

To Adjust (with cover removed)—Change regulator armature spring tension by bending lower spring hanger. See Electrical Equipment Section for complete instructions.

Contact Gap—.010" Min., .020" Max. with armature against stop pin.

Air Gap—.0595-.0625" with contacts just opening.

LIGHTING:—Headlamps—Hall 'Flex-beam', pre-focused type with special non-interchangeable lenses (marked Right and Left). Asymetrical Passing Beam (lower beam left hand headlamp, upper beam right hand headlamp) controlled by foot selector switch.

Headlamp Adjustment—With car fully loaded, tires properly inflated, on level floor 25' from screen, and upper beams lighted (switch in 'Country Driving' position), aim left hand headlamp so that hot spot is centered on vertical lamp-center-line with top cut-off at lamp center height horizontal line. Aim right hand headlamp for same height but with left edge of hot spot at vertical lamp-center-line (entire hot spot to right of this line). Right hand headlamp may be turned slightly more toward right if this setting provides a passing beam which is too blinding. Headlamps adjusted by loosening nut on mounting bracket under lamp.

Beam Indicator—Located on face of speedometer dial. Lighted whenever upper beam (Country Driving) in use.

Switches

Lighting—Delco-Remy No. 1994504.

Foot Selector—Delco-Remy No. 1997001.

Bulb Specifications

Position	Candlepower	Mazda No.
Headlamps	32-32	2330
Parking, Fender, Instrument	1½	55
Beam & Heater Indicators	1	51
Stop & Tail	21-3	1158
License	3	63
Dome	6	81
Fog Light	32	1321

THERMOSTATIC RELAY:—Mounted on lighting switch (part of switch assembly). Contacts remain closed with 25 ampere current but open within one minute with 38 ampere current (70°F). Non-adjustable (adjustment is sealed).

FUSES:—Fuse Block No. 1868292. Mounted on lighting switch. Two 20 ampere fuses. Protects following circuits:

Right Hand Fuse—Stop light Body lights.

Left Hand Fuse—Accessories (Cigar Lighter, Heater, Defroster, Fog Light, etc.)

Instrument & Tail Lamp—20 ampere fuse in connector in instrument switch lead near lighting switch.

HORNS:—Sparton or Klaxon. Vibrator type twin horns operated by horn relay.