

HUPMOBILE

SIX-CYLINDER

INSTRUCTIONS

SERIES
618-G



FIRST EDITION
HUPP MOTOR CAR CORPORATION
DETROIT

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Advice for the Owner

The service and satisfaction that you obtain from your Hupmobile depends largely on proper driving and the care it is given, particularly the first 1,000 miles (1,600 kilometers) the car is in operation.

The universal joint, rear axle, transmission and wheel bearings are fitted to close limits as well as the pistons and bearings in the engine. The life of these parts can be greatly impaired unless they are properly worked in and are given adequate lubrication.

For the first 300 miles (485 kilometers) the car should not be driven at speeds in excess of 35 miles (57 kilometers) per hour. The next 200 miles (325 kilometers) not over 45 miles (72.4 kilometers) per hour and then only for short periods. The following 500 miles (800.1 kilometers) the car can be driven up to 60 miles (95 kilometers) per hour for short intervals. After 1,000 miles (1,600 kilometers) the car can be driven at any speed within its range; however, maximum sustained high speed should be avoided until the car has been gradually worked in to the higher speed ranges which permits a greater factor of safety when maximum speeds are maintained.

Excessive speeds in low and second gear should also be avoided, particularly during the breaking-in period of the car.

The brakes on a new car should be given the same consideration as that of a new engine. Severe brake application should be avoided except in emergency. Maximum brake life will be attained if moderate pedal pressure is used the first 1,000 miles (1,600 kilometers).

To further protect your investment your car should be inspected and lubricated every 1,000 miles (1,600 kilometers) or once each month by your Hupmobile distributor or dealer, as they have the knowledge and equipment to satisfactorily render this service.

The oil in the crankcase should be drained and refilled with fresh oil the first 500 miles (805 kilometers), thereafter every 1,000 miles (1,600 kilometers) in winter and every 1,500 miles (2,400 kilometers) in the summer, with a good grade of lubricant manufactured by a reputable refiner. Check the oil level daily and keep up to the full mark at all times.

Check and inflate tires to the recommended pressure once each week. Add water to the battery twice each month. Keep the radiator filled to proper level. Use a recommended anti-freeze solution during cold weather. See your Hupmobile dealer regarding the use of Neutrosol in the cooling system to prevent corrosion.

We suggest you read carefully the contents of this manual. Follow carefully the recommendations in your Lubrication Chart and take advantage of the regular inspection provided by your distributor or dealer as described under the Hupmobile Owner's Service Policy.

In adhering to these recommendations you will obtain maximum life from your Hupmobile.

Personal Danger of Running Engine in Closed Garage

Carbon monoxide, a deadly, poisonous gas, is always present in the exhaust of gasoline engines. The richer the mixture of gasoline and air on which the engine is being run, the greater is the proportion of this gas given off at the exhaust pipe. Due to this gas being present, it is extremely dangerous to run the engine for any length of time while the car is in a small, closed garage. If the doors and windows are open, the danger will be much lessened.

However, it is far safer if adjustments are being made, to run the car out into the open. If the proportion of carbon monoxide is a fraction of one per cent, unconsciousness may result without warning. In most cases no indication of danger is given by personal discomfort until too late.

License Data

Serial or car number. On right side of dash under hood.

Engine number stamped on left side of crankcase.

Diameter of bore— $3\frac{1}{2}$ "—88.9 m/m.

Stroke— $4\frac{1}{4}$ "—107.95 m/m.

Number of cylinders—six.

Piston displacement—245.3—4019 cu. c.

S. A. E. or N. A. C. C. horse power rating—29.42.

Wheelbase—118".

Weight—Information on weight of any model Hupmobile can be obtained from your dealer.

Lubrication Chart

Complete detail lubrication instructions and oil specifications are given on chart. Follow them carefully.

Engine Fuels

The most satisfactory performance can be obtained through the use of fuels having an octane rating of 70 or above; gasolines below this rating can be used but may cause the engine to detonate or spark knock on acceleration or on a hard pull.

Controls and Gauges

To Start Engine (Cold)

Pull choke control all the way out. Pull throttle control approximately $\frac{1}{4}$ out or equivalent to 20 miles (32 kilometers) per hour car speed in high gear.

Turn on ignition and pull starter button. Push choke in part way immediately when engine starts and all the way in as soon as possible, consistent with satisfactory engine performance.

When starting at temperatures below freezing point, it is advisable to allow engine to idle (at approximately 20 miles (32 kilometers) per hour car speed in high gear) for two or three minutes.

Ignition Switch

The ignition switch located in center of instrument panel should be shut off when the engine is not running and before leaving the car. To shut off ignition, turn key to left.

FOR THEFT PREVENTION—The ignition should always be locked. The greater number of cars stolen, the higher the insurance rate you pay. **LOCKING IS PART OF PARKING. LOCK YOUR CAR WHENEVER YOU PARK.**

Oil Pressure Gauge

This gauge indicates pressure of the oiling system and should always register when engine is running. If it does not register, stop engine and investigate the cause, which may be due to insufficient amount or too thin a lubricant.

An approximate pressure of 30 pounds at 30 miles per hour and at least 3 to 5 pounds idling is desirable. These readings should only be taken with fresh oil and after engine has reached its normal running temperature.

Oil Level Gauge

A rod gauge located on the left side of the crankcase is used to determine amount of oil in crankcase.

Fuel Level Gauge

Electrically operated. Registers only when ignition switch is in "ON" position. There is approximately $1\frac{1}{2}$ gallon 5.68 liters reserve when gauge registers empty.

Ammeter

Charge and discharge of battery are recorded by this instrument. The ammeter should show a charge reading with the engine running at a car speed of 10 miles per hour or higher when lights are not in use.

Carburetor Choke Control

The choke control should be pulled all the way out for starting and returned part way immediately when engine starts and pushed all the way in as soon as possible.

NOTE: Excessive use of choke causes diluted engine oil, and rapid wear of piston pins, pistons and cylinders, as well as motor bearings. AVOID THIS BY USING CHOKE ONLY WHEN NECESSARY.

Manifold Heat Control

Thermostatically controlled and automatic in its operation. No lubrication or adjustment is required.

Carburetor Air Cleaner and Silencer

For efficient operation, remove and wash the filter element in gasoline and re-oil with fresh engine oil every 2,000 miles (3,200 kilometers). Cars driven in unusually dusty localities, the filter should be cleaned more frequently. Allow filter to drain well before replacing.

Instrument Panel Lamp

Instrument Panel Lamp. The switch is located on lower left side of instrument panel.

To operate move switch lever to left.

Spark Advance—Automatic

The spark is automatically controlled by the engine speed for all driving conditions.

Fuses

The lighting circuit fuse is located on switch in back of instrument panel and is of 20 ampere capacity. The generator fuse is of 5-ampere capacity—never replace with a fuse of greater capacity.

Hood Lift and Lock

A combination lift and lock is used on the hood. To open, grasp lever and gently push hood in to relieve tension on the lock and turn lever. Raise hood until support arm fastens into position on hood brace. To lower hood, raise slightly and pull support arm out of locked position. Lubricate hood lock every 1,000 miles (1,600 kilometers).

Cooling System

Keep pump well lubricated. See lubrication Chart. When adjustment is necessary, turn packing nut to right or clockwise to tighten. When necessary to add water to the cooling system, the filler cap is located on the left side of radiator under the hood.

To Drain Cooling System

Open radiator drain cock at the lower left side of radiator and remove plug at left rear end of cylinder block. To insure complete drainage of the cooling system, the car must be on a level surface. Caution: NEVER POUR COLD WATER IN AN EMPTY OR NEARLY EMPTY WATER SYSTEM WHEN ENGINE IS HOT.

Thermostat—Engine

Is for the purpose of controlling engine temperature. The thermostat cannot be adjusted. In case of failure to operate, it should be replaced.

Fuel Pump

The fuel is filtered through a screen of fine mesh. Dirt and water settle in the sediment chamber and can be easily drained by removing the drain screw just below inlet. The screen should be inspected and cleaned at frequent intervals by removing the small cap screw and cover at top of pump assembly.

Clutch (Type 10-A-6)

There should be approximately $\frac{3}{4}$ " to 1" (19.05 to 25.399 millimeters) clearance between pedal and toe board. This adjustment should be checked every 1,000 miles (1,600 kilometers). If neglected, the clutch is liable to be damaged.

Rear Axle and Transmission

These units require little attention other than to see that they are lubricated regularly—See Lubrication Chart. Have your Hupmobile dealer make all inspections and adjustments to these units.

Transmission—Superdrive

The transmission superdrive is provided to reduce the ratio of engine speed to car speed above 40 miles per hour (65 km. per hour), without manual shifting of gears. When the superdrive is in operation, the engine speed is slower than the propeller shaft speed, whereas, in direct drive, the engine speed and propeller shaft speed are the same. The engagement of the superdrive is controlled by the engine speed and free wheeling unit. The automatic engagement of the superdrive can only take place when the free wheeling unit is in operation, and the superdrive does not function when free wheeling is locked out.

Superdrive Control

A control on the instrument panel is provided which may be set in either of two positions. When the control button is pulled all the way "out" to its stop, the superdrive or free wheeling can not operate at any speed.

When the control button is pushed "in," the superdrive and free wheeling units are in operation. When shifting the control button from one position to another to lock out or cut in the free wheeling unit and superdrive, it is necessary to have the engine driving the car. At the same time, the clutch pedal must be depressed while pulling out the dash control button. **THE SUPERDRIVE AND FREE WHEELING CONTROL MUST NOT BE SHIFTED AT SPEEDS ABOVE 40 TO 45 MILES PER HOUR (65 TO 72 km. PER HOUR).** At speeds above 40 to 45 miles per hour (65 to 72 km. per hour), it is not necessary to lock out the free wheeling as it is automatically cut out by superdrive operation. **WHEN SHIFTING FROM SUPERDRIVE TO CONVENTIONAL DRIVE BY PULLING "OUT" THE CONTROL BUTTON ON THE INSTRUMENT PANEL, DO NOT EXERT ANY MORE PRESSURE THAN ABSOLUTELY NECESSARY ON THE CONTROL TO ACCOMPLISH THE SHIFT. GENTLY BUT RAPIDLY PULL "OUT" ON THE BUTTON, BUT DO NOT FORCE ENGAGEMENT.**

When the superdrive control button is pushed "in" to the limit of its travel and the car is traveling at a speed greater than 40 to 45 miles per hour (65 to 72 km. per hour), and the foot accelerator is released for at least $1\frac{1}{2}$ seconds and then pressed again, the superdrive mechanism will be in operation.

Superdrive engagement cannot take place unless the vehicle is operating at a speed in excess of the cut-in speed and the engine is running at a speed at least 25% slower than car speed. For this reason, it may be difficult to obtain engagement when driving up grade or through mud or snow, because the vehicle will slow down, due to road friction, almost as rapidly as the engine, unless all accelerator control rods and the accelerator pedal are free and operate without lagging or sticking. Therefore, it is important that the parts be given a periodic inspection and all points of friction lubricated with light engine oil. **REFER TO LUBRICATION CHART FOR CORRECT LUBRICANT TO USE IN TRANSMISSION.**

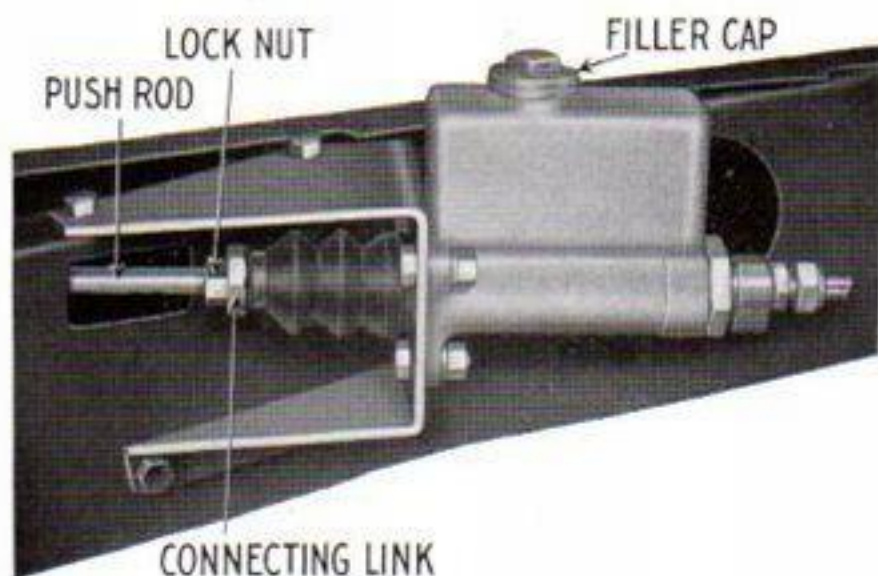
Steering Gear

The steering gear requires little attention other than to see that it is lubricated regularly. See Lubrication Chart. Detail instructions on the care and adjustment of the gear will be furnished upon request.

Brakes

The Hupmobile Series 618-G is equipped with Lockheed Hydraulic two-shoe brakes.

The system consists of a master cylinder, where hydraulic pressure is originated, and four wheel cylinders, which operate the brake shoes against each drum. The brake pedal when depressed moves the piston within the master cylinder, thus displacing the brake fluid from the master cylinder through tubing and flexible hose connections into the four wheel cylinders.



Master Cylinder

It is imperative that the connecting link, which is attached to the brake pedal operating rod, be adjusted so there will be from $\frac{1}{4}$ " to $\frac{3}{8}$ " free movement of the brake pedal before the pressure stroke starts.

The fluid reservoir filler cap is conveniently located on top of master cylinder. The reservoir should be kept at least half full of fluid at all times and should be checked for fluid level each 2,500 miles (4000 Kilometers) of operation.

CAUTION: Extreme care must be used in removing the fluid reservoir filler cap to prevent dirt entering the master cylinder. **ONLY GENUINE LOCKHEED BRAKE FLUID SHOULD BE USED.**



Brake Assembly

Shoe Adjustment (Minor)

When the brake linings become worn, as indicated by the foot pedal going almost to the floor board, necessary adjustment can be made as follows:

Jack up the wheels to clear the ground. Rotate the shoe adjustment cams with a wrench until the shoes come in contact with the drum, then back off the adjustment slightly until the wheel rotates freely in either direction. Proceed in a like manner on the brake shoes of all wheels. This is a minor brake adjustment and whenever possible, all brake adjustments should be made by an authorized Hupmobile Service Station.

Cold Weather Suggestions

All liquids that are ordinarily used in the cooling system contain chemical impurities. These liquids when circulated under ordinary driving conditions produce electrical and chemical action that cause corrosion and rust deposits and result in overheating.

To obtain maximum efficiency from your cooling system, we recommend the use of "Neutrosol." This chemical neutralizes the corrosive effect of alkaline or chlorinated waters.

"Neutrosol" should be used with alcohol only as other anti-freeze solutions generally contain non-corrosive material. It is made up in powder form and a two-ounce charge is sufficient for any radiator.

The radiating system should be thoroughly cleaned at least four times a year. At any time the radiator is drained and fresh water is used, then a charge of "Neutrosol" should be placed in the cooling system.

As the cold weather approaches, the use of an anti-freeze solution should begin.

Anti-Freeze Solutions

We suggest the following anti-freeze solutions: denatured alcohol, Eveready Prestone, and G. P. A. distilled glycerine.

To determine the amount of anti-freeze solution to be used in proportion to the amount of water, follow the chart as recommended by their respective manufacturer.

Capacity of cooling system—5 gallons—18.927 liters.

Automobile accessory houses sell a special type of hydrometer used for testing the strength of anti-freeze solutions.

Oil

Drain and refill the engine with a lubricating oil that stands a zero test, every 1,000 miles (1,600 kilometers). See Lubrication Chart.

Generator Charging Rate

Winter Generator Charge rate, generator cold, battery fully charged, 19 amp. maximum. For summer driving reduce the charging rate four amperes. We suggest that this be done by an authorized Auto-Lite Service Station.

Voltage and Candlepower of Bulbs

Headlamp—double filament Tung-sol or Mazda 21-32 candlepower 6-8 volts—double contact bulb. Parking lights—3 C. P. 6-8 volts—single contact bulb. Instrument light—3 C. P. 6-8 volts—single contact bulb. Stop light—15 C. P. 6-8 volts—single contact bulb. Rear lights—3 C. P. 6-8 volts—single contact. Dome light—6 C. P. 6-8 volts—single contact bulb.

Instructions for Adjustment and Use of Depress Beam Headlamps

Depress Beam Headlamps are equipped with parabolic reflectors having positively focused two filament incandescent lamps which in combination with the Depress Beam lenses distribute the projected light to give two beams.

(1) Clear Road Beam—This beam is to be used on country roads when not approaching other vehicles.

(2) Meeting or Lower Beam—This Beam is to be used when meeting other cars and for driving on lighted streets or highways.

To replace burned out bulbs—Having removed the door and lens the prefocused bulb may be removed by turning counter clockwise. Only bulbs having a prefocusing collar may be used. The Standard replacement bulb for these headlamps is marked number 2320.

To Aim Depress Beam Headlamps—The lamps should be aimed with the car standing on the level and approximately 25 feet in front of a white screen or wall.

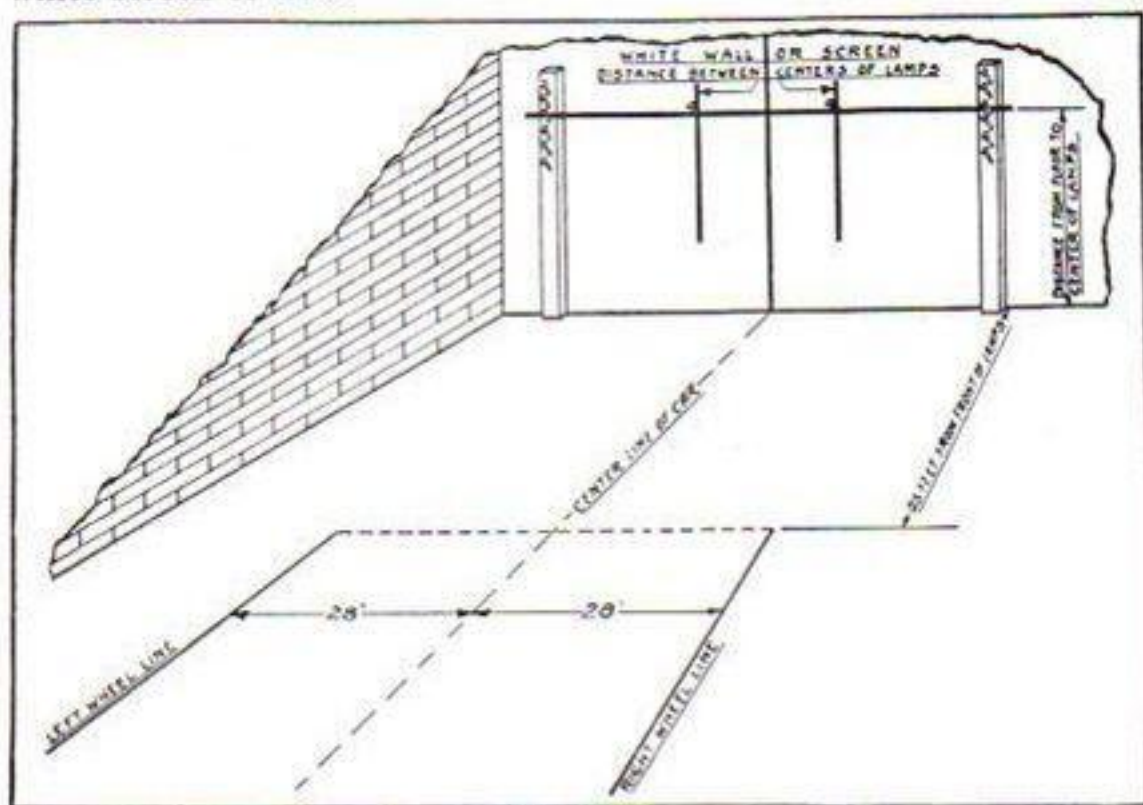


Figure A

The adjustments should be made with the car loaded and tires normally inflated.

Measure the height of the lamp centers above the floor level and stretch a ribbon across the screen at this height. By sighting through the exact center of the rear window and the radiator cap or hood hinge determine a point on the screen corresponding to the center line of the car. Measure the distance between the centers of the headlamps and place vertical markers at half this distance on either side of the car center line.

Hupmobile



**Radiator Capacity 5
gallons. 18.927 Liters**
See your Hupmobile
Dealer for proper use
of Neutrosol

Steering Gear
Remove plug at top of housing. Lubricate
twice a year with:
Mobile Grease No. 2
Sunoco Steering Gear Lubricant

Drag Link Socket XX
Use chassis lubricant or its equivalent

Drag Link Socket XX
Use chassis lubricant or its equivalent

Steering Knuckle X
Chassis lubricant or its equivalent

Front Wheel Bearings XXXX
Clean and repack with non-fluid grease that
will resist high temperatures.

Steering Cross Tube XX
Use chassis lubricant or its equivalent

Crankcase
Capacity: 6 quarts (6.68 liters). Inspect level
daily. Drain and refill with fresh oil every 1500
miles (2400 kilometers) summer and every
1000 miles (1600 kilometers) winter.
S. A. E. No. 20—Winter use
S. A. E. No. 30—Summer use
S. A. E. No. 40—Extreme warm weather

Spring Shackle X
Chassis lubricant or its equivalent

Brake Master Cylinder
The reservoir should be kept at least half full
of fluid at all times and should be checked
for fluid level each 2500 miles (4000 kilometers)
of operation. ONLY GENUINE LOCKHEED
BRAKE FLUID SHOULD BE USED.

Clutch Pedal X

Fan Bearing
Remove fan hub and housing plug. Lubricate
every 20,000 miles (33,000 kilometers). Use
only Keystone No. 44 Grease.

Water Pump Bushing X
Use a waterproof grease such as Kasson or its
equivalent. Grease cup should be turned
down every 360 miles (485 kilometers).

Steering Knuckle X
Chassis lubricant or its equivalent

Front Wheel Bearings XXXX
Clean and repack with a non-fluid grease that
will resist high temperatures.

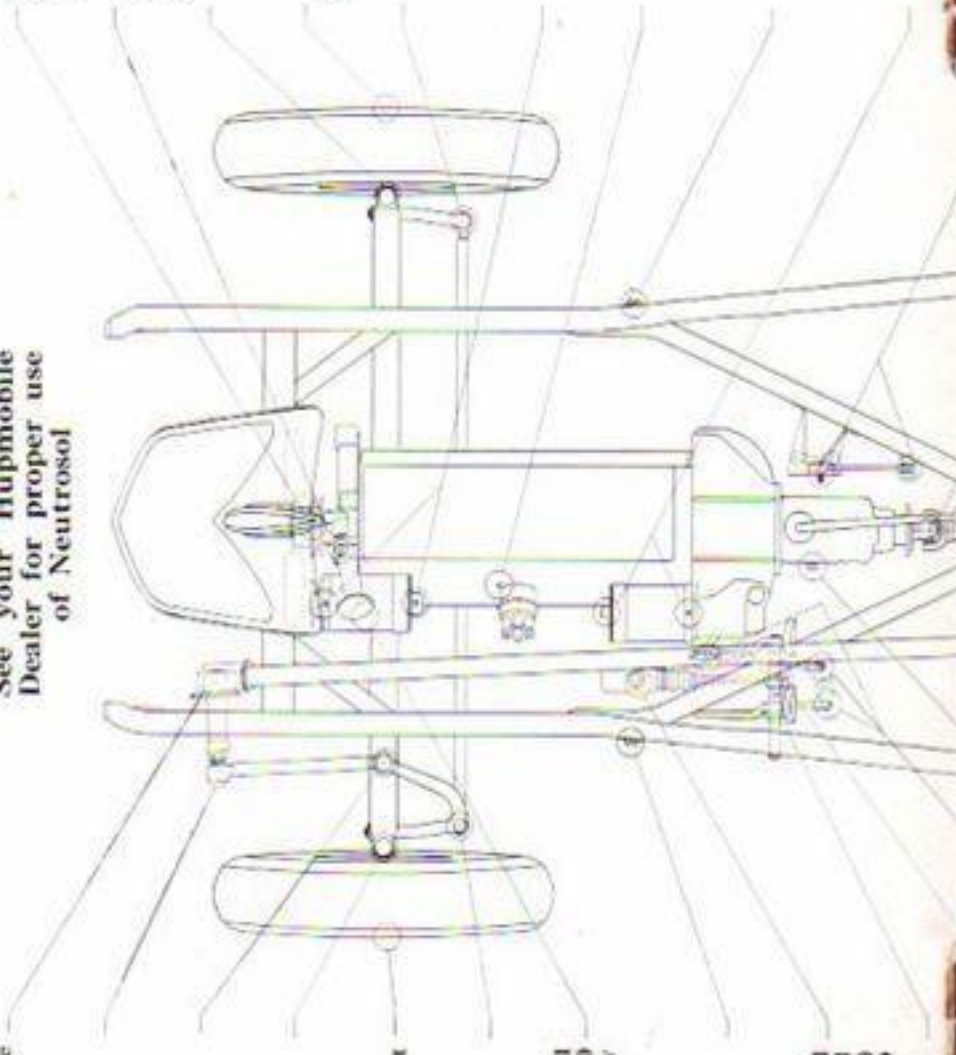
Steering Cross Tube XX
Use chassis lubricant or its equivalent

Generator Bearing X
Motor Oil—S. A. E. 30

Ignition Distributor Bearing X
Motor Oil—S. A. E. 30

Spring Shackle X
Chassis lubricant or its equivalent

Starting Motor X
Motor Oil—S. A. E. 30



Brake Master Cylinder Lever X

Motor Oil—S. A. E. 30

Clutch Release Connections X

Motor Oil—S. A. E. 30

Transmission

Capacity: 2¼ pints (1.0 liter). Drain and refill twice each year. Use S.A.E. 70 for summer and S.A.E. 50 for winter. Note: Cars equipped with Super Drive—the capacity is 6 pints (2.8 liters). Caution: Refined oils that are not corrosive are required in the transmissions equipped with Super Drive. Lubricants containing solid compounds or heavy compounded soaps must not be used.

Spring Bolt X

* Chassis lubricant or its equivalent

Rear Axle

Capacity: 2¼ pints (1.3 liters). Flush out with kerosene and fill to proper level with fresh lubricant twice a year.

★H. S. P. L.,

Whitmore's Oil

Duplex Hypoid Rear Axle Compound

Rear Spring Shackle X

Chassis lubricant or its equivalent

X Lubricate every 1,000 miles (1,600 km.)
 XX Lubricate every 2,000 miles (3,200 km.)
 XXX Lubricate every 5,000 miles (8,000 km.)
 XXXX Lubricate every 10,000 miles (16,000 km.)

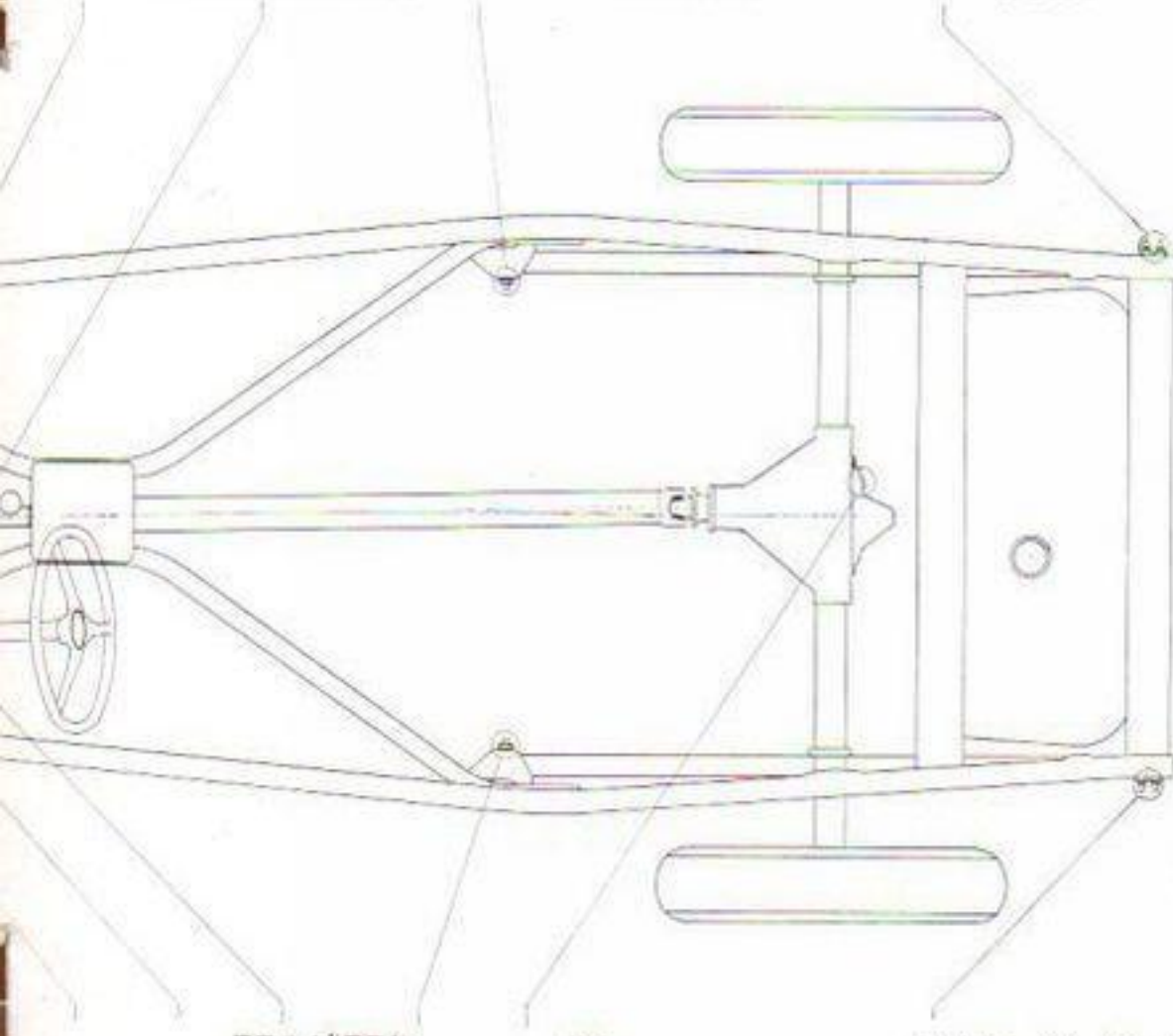
★H. S. P. L.—Hupmobile Special Process Lubricant—Obtain from Hupmobile distributors and dealers.

The additional lubricants as specified on this chart may be obtained from the following manufacturers:

Whitmore Lubricants, Whitmore Mfg. Co., Cleveland, Ohio

Kasson Grease and Duplex Hypoid Rear Axle Compound, Enterprise Oil Co., Buffalo, N.Y.

Mobile and Sunoco, Socony-Vacuum Oil Co., Inc., New York, N.Y.



*NOTE: Pressure grease valves are omitted on cars fitted with silent-block bushings at front end of rear springs.

Brake Connections X

Motor Oil—S. A. E. 30

Propeller Shaft Spline

Fill spline with H. S. P. L. or any good grade of semi-fluid lubricant such as used in transmissions or rear axles, XX

The universal joint bearings, when assembled, are packed with sufficient lubricant for 20,000 miles (32,000 kilometers) of operation and unless the seals become worn they should require no additional lubricant. If the bearings are disassembled they should be cleaned and repacked with a good grade of lubricant made especially for use in ball and roller bearings.

Spring Bolt X

Chassis lubricant or its equivalent*

Note: The clutch release bearing and rear wheel bearings are of the pre-lubricated type and require no additional lubrication.

Rear Spring Shackle X

Chassis lubricant or its equivalent

To obtain maximum performance of the shock absorbers, have them checked every 5,000 miles (8,000 kilometers). Use only Gabriel Cushion Oil of 500 viscosity.

Gasoline Capacity—16 Gallons

60.56 Liters

LUBRICATION CHART

Series 618-G



Figure C



Figure D

Cover the right lamp. Place switch on clear Road Beam position; loosen the upper and lower mounting nuts in back of headlamp; then aim the spot of high intensity so that it centers on the corresponding lamp center marker with its upper cut off falling at the horizontal ribbon as shown in Figure C. Tighten mounting nuts securely while the lamp is in this position.

Having covered the left headlamp proceed to aim the right lamp in exactly the same way. With the headlamps tightened in these positions the meeting or lower beams will fall in their proper place, as shown in figure "D."

Miscellaneous Instructions

REFLECTORS—Reflectors should be highly polished and free from dust, grease or dents. Don't let bare hands come in contact with reflector surface.

TO CLEAN REFLECTORS—Remove bulbs and place ordinary "lamp black" on piece of dry absorbent cotton; polish by rubbing reflector from bulb holder outward to edge of reflector.

Storage Battery

To give you the full protection of the Willard Guarantee and Adjustment Policy for your battery, the battery in your new car should be registered, immediately, with the local Willard Service Station.

The 3-cell, 6-volt storage battery in your car is located on left side of car. This electro-chemical device stores up electrical current produced by the generator and supplies current for the starting motor, lights, ignition, horn and all electrical appliances installed on the car, such as radio, electric heater, cigar lighter, etc. The current used must be replaced, otherwise in time the battery will become discharged and unable to give sufficient current to crank the car or do other work. The amount of current replaced will depend on the rate of charge (generator setting) and the amount of driving the owner does.

To insure the condition of the battery it should be tested with an accurate hydrometer every 2 weeks. These tests will be made for you by your car dealer or your nearest Willard battery service station or they will explain how to make them yourself. At the time tests are made *distilled water* should be added to bring the level of the solution $\frac{3}{8}$ " (not more) above the top of the plates. Do *not* allow solution to drop to a level below the top of the plates. Do *not* add acid or any so-called "charging solution" dope or other substance.

If tests show the battery is not being kept charged it may mean that the generator charging rate is not set correctly or that some irregularity is present. If *any* difficulty is experienced with keeping the battery in your car charged and operating satisfactorily, consult your dealer or your Willard battery station.

When installing radio, electric heater or any electrical appliances not regular equipment on your car, consult your car dealer or battery service station to get the best results from the battery under its added load.

In cold weather it is doubly important to keep your battery well charged—A charged condition will insure satisfactory service and will protect it from freezing. A discharged battery will freeze and be damaged by low temperatures.

Care of Tires

Balloon tires must be inflated to their recommended pressure at all times. Under-inflation will cause rapid and uneven tire wear, unsatisfactory steering operation at both high and low speed, stone bruises and eventually blow-outs. The tires must have sufficient air pressure to support the car's weight—yet to insure easy riding, they should not be too hard.

For all models, check pressure **ONCE A WEEK** with an accurate balloon tire gauge and maintain the following minimum pressure:

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Front	Rear
16 x 6.00	16 x 6.00
24 pounds	28 pounds
(1.69 kilograms per square centimeter)	(1.97 kilograms per square centimeter)

Punctures can often be avoided by inspecting the tires frequently, removing small particles of glass, tacks, etc., before they work their way through the casing and into the tube.

Chrome Finish

The chromium finish on your car should be washed at regular intervals, using a sponge and warm water, then dried with a soft cloth, in order to maintain the brilliancy of the finish.

In the winter months the chromium finish should be cleaned frequently, for the reason that in many localities a substance is used on the street for melting ice that attacks chromium if allowed to remain on the finish for any length of time. Therefore, keep the chromium finish on your car clean.

Ordering Parts

When you find it necessary to procure parts for replacement purposes it will be to your advantage to buy them from an authorized Hupmobile distributor or dealer.

Your Hupmobile dealer handles only genuine Hupmobile service parts which are of the same specifications and are given the same rigid inspection as those parts originally assembled in the Hupmobile car.

Hupmobile Distributors and Dealers at all times endeavor to carry an adequate stock of parts and this supply is maintained for your convenience.

Always remember that your Hupmobile dealer is your car's best friend. He is interested in the operation of your car and that you are obtaining the very best of service from it. He has the knowledge and equipment to intelligently and efficiently service your car.

When ordering parts the following information is necessary:

- 1—THE CAR NUMBER, stamped on a plate on the right side of dash under hood.
- 2—ENGINE NUMBER, stamped on left side of crankcase.
- 3—NAME AND DESCRIPTION OF PART.

First Aid to Motorists

Before replacing any parts or change any adjustments, first determine the cause of the trouble. Otherwise adjustments that are correct may be destroyed.

Engine Fails to Start

1. Fuel tank empty.
2. Ignition switch off.
3. Engine flooded with gasoline through excessive use of choke.
4. Choke not closing fully.
5. Throttle not open sufficiently.
6. Water in gasoline. Obstruction in fuel line.
7. Loose or broken ignition wire.
8. Fouled spark plugs. Remove, clean or replace with new.
9. Improperly adjusted spark plug and distributor points. (Refer to Important Adjustments).

Engine Lacks Power (Misses at Low Speed)

1. Fouled or broken spark plugs.
2. Improperly adjusted spark plug and ignition points. (Refer to Important Adjustments).
3. Loose or disconnected ignition wire.
4. Air leak at carburetor or intake manifold.
5. Poor compression due to improperly seated valves.
6. Valve tappets adjusted too close or too wide. (Refer to Important Adjustments).
7. Gas mixture too rich or too lean.

High Speed (Misses at High Speed)

1. Fouled or defective spark plugs.
2. Improperly adjusted spark plug or distributor point gaps. (Refer to Important Adjustments).
3. Insufficient tension of distributor contact spring.
4. Valve tappets improperly adjusted. (Refer to Important Adjustments).
5. Accumulation of dirt or water in carburetor or restriction in fuel supply line.

Engine Stops Suddenly

1. Gasoline tank empty.
2. Water in gasoline.
3. Obstruction in fuel lines.
4. Loose or broken terminal in wiring system.
5. Overheated on account of lack of oil or water.

Engine Overheats

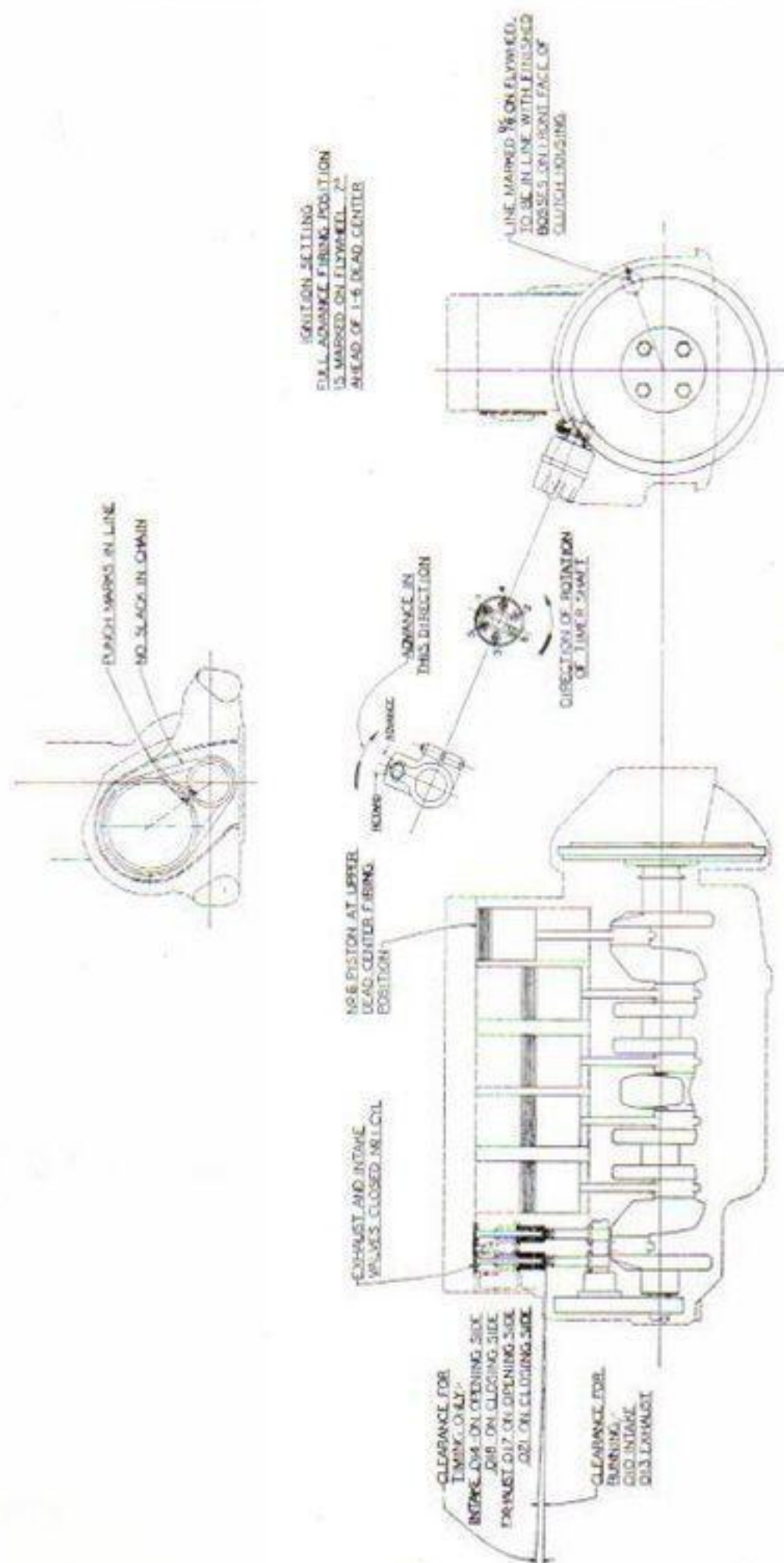
1. Lack of water or oil.

NOTE: Oil pressure gauge fluctuating indicates oil is too low in crankcase.

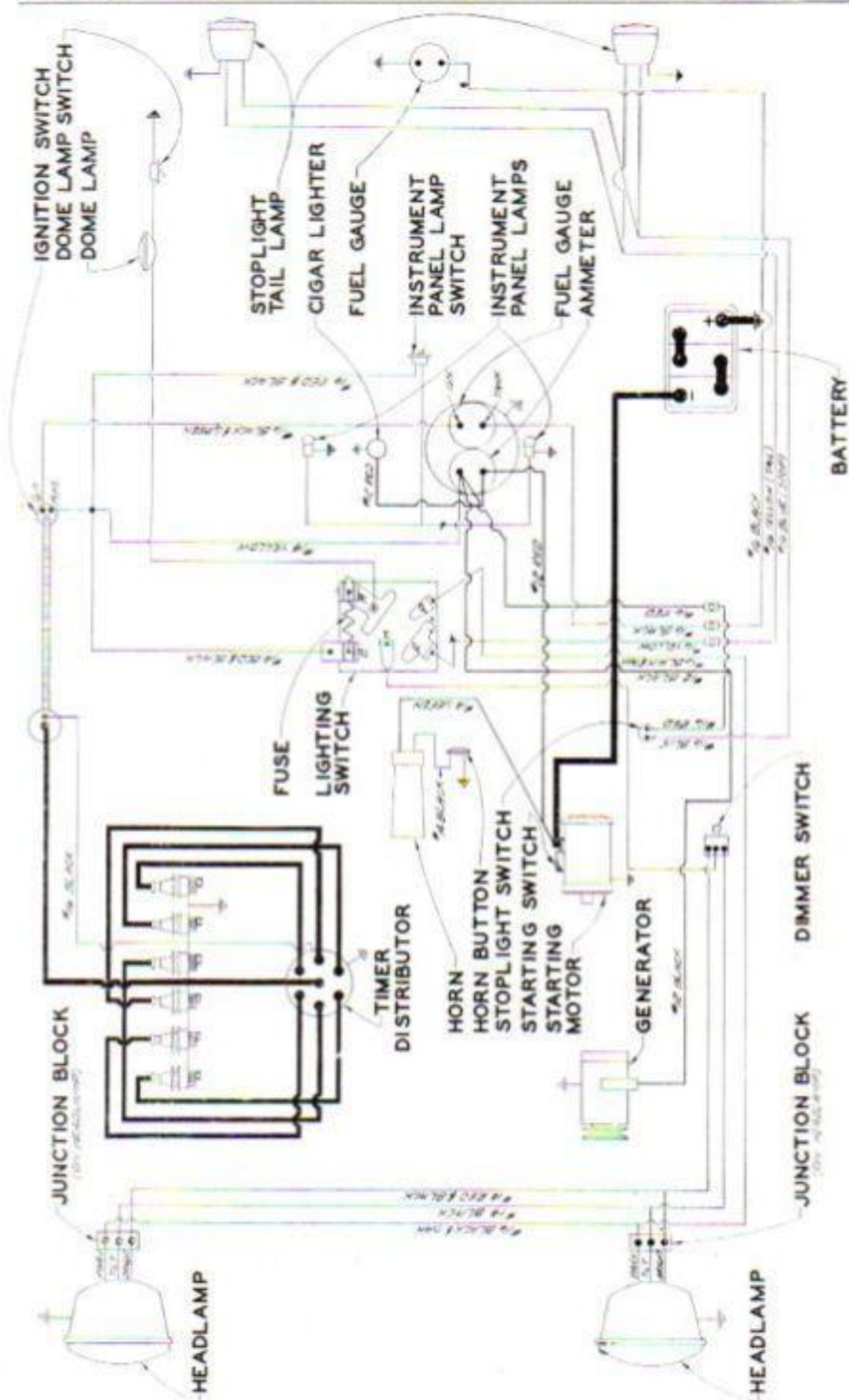
2. Loose or broken fan belt.
3. Excess carbon deposit in combustion chamber.
4. Engine out of time.
5. Fouled or defective spark plugs.
6. Carburetor out of adjustment.
7. Water circulation restricted by sediment in cooling system.
8. Radiator frozen—(in freezing weather).
9. Collapsed water hose.

Engine Knocks

1. Excess carbon deposit in combustion chamber.
2. Loose connecting rod bearings.
3. Loose main bearings.
4. Engine overheated.



Timing Diagram—618 "G"



Wiring Diagram—618 "G"

Accessory Manufacturers

The following list indicates the manufacturers supplying accessories to the Hupp Motor Car Corporation for use on the Series 618-G.

STARTER MOTOR AND GENERATOR

Auto-Lite—The Electric Auto-Lite Company, Toledo, Ohio

IGNITION LOCK AND COIL

Electric Auto-Lite Co., Toledo, Ohio

LIGHTING SWITCH

Henry Cole—F. C. Hersee Co., Detroit, Michigan

STORAGE BATTERY

Willard Storage Battery Company, Cleveland, Ohio

AMMETER

Stewart-Warner Corporation, Chicago, Illinois

SPARK PLUGS

Champion Spark Plug Company, Toledo, Ohio

HORN

Electric Auto-Lite Company, Toledo, Ohio

FUEL PUMP

A. C. Spark Plug Co., Flint, Michigan

CARBURETOR

Carter Carburetor Corp., St. Louis, Missouri

GASOLINE GAUGE

Stewart-Warner Corporation, Chicago, Illinois

OIL PRESSURE GAUGE

Stewart-Warner Corporation, Chicago, Illinois

SPEEDOMETER

Stewart-Warner Corporation, Chicago, Illinois

WHEELS—STEEL SPOKE

Budd Wheel Co., Detroit, Michigan

SHOCK ABSORBERS

The Gabriel Company, Cleveland, Ohio

TIRES

Goodyear Tire & Rubber Company, Akron, Ohio

WINDSHIELD CLEANER

Trico Products Corporation, Buffalo, New York

AIR CLEANER

Burgess Battery Co., Madison, Wisconsin

HEAT INDICATOR

Stewart-Warner Corporation, Chicago, Illinois

Special Hupmobile Accessories

The following equipment is designed and built exclusively for Hupmobile and can only be purchased through your Hupmobile Dealer.

SERIES 618-"G"

Wheel Appearance Rings—Will add a marked appearance to your car. Easily and quickly installed. This very popular accessory is unusually low priced.

Hupmobile Mirror Clock Combination—This attractive accessory is made especially for Hupmobile. It consists of an 8-day clock mounted in a bevel edged non-glare mirror. A convenient time-piece that can be read by all occupants of the car.

Traveling Cases—For Touring Sedans—Consists of a man's case, ladies' case and utility case. Designed especially to fit the touring sedan trunks. They are of wood construction, covered with high grade fabric. Extremely light in weight and exceptionally attractive.

Auto Radio (Philco Transitone)—Superheterodyne, designed especially for Hupmobile. Includes the latest type automatic control and amplifier tubes, automatic volume control with exceptionally fine tone quality and extreme selectivity. Dial control to match other instruments installed in dash.

Radio as you ride, entertainment for the entire family. You have not completely enjoyed the pleasure of motoring unless your car is radio equipped. Sold only through Hupmobile dealers.

Draft Deflectors—Especially designed for your Hupmobile. This accessory permits you to drive with the front windows all the way down without the annoyance of drafts. They also enhance the appearance of the car.

Visor Mirror—The vanity visor mirror is a novelty item for the ladies. Extremely simple to install and unusually low priced.

Bumper Guards—Chromium plated. Especially designed for the bumper on your car. An added protection against damaged fenders and other sheet metal parts when parking or driving in traffic.

Dual-Air Tone Horns—Beautifully blended tone. A touch of the horn button in traffic gives only a suggestion of their full volume, yet they sharply warn without irritating. Easy to install. Reasonably priced.

Your Hupmobile Dealer can supply you with many other accessories such as Cigar Lighters, Home Garage Battery Charger, Extra Sun Visor, and other useful items that add to the appearance and comfort of your car. Also inquire about Neutrosol for the radiator. It is inexpensive and will prevent rust and corrosion in the cooling system.

It is to your advantage to buy Genuine Hupmobile Accessories. See your nearest Hupmobile Dealer regarding these items.

HUPMOBILE

Owner Service Policy

Delivery

1. Your car was properly prepared for delivery in accordance with the STANDARD NEW CAR INSPECTION and ADJUSTMENT and all equipment and tools listed as standard equipment are with the car.

Parts and Labor

2. For 90 days after delivery, provided the car has not been driven to exceed 4,000 miles, any parts (including all original equipment except tires) which have proved defective in either material or workmanship will be replaced or repaired by any Hupmobile dealer in the United States and Canada without any charge to the owner for the material or labor.

Adjustment

3. The owner is entitled to receive an inspection and adjustment of his new car at the end of the 500, 1500, and 2500-mile period. The items of inspection and adjustment are listed on the inspection coupons. These inspections and adjustments will be given free only by the dealer from whom the car was purchased. The owner will pay for this service when it is obtained from other than the dealer who sold the car.

Inspection

4. Throughout the life of the car the owner is entitled to have his car tested and inspected without charge, every 30 days or 1,000 miles, by an authorized Hupmobile Service Station, provided such inspection or testing requires no dismantling of parts.

Service Identification Card

5. At the time of delivery, the owner will be provided with a Service Identification Card, which will introduce him to any authorized Hupmobile Service Station and entitle him to receive service in accordance with this policy. The owner should carry the card with him at all times so he can present it when necessary.

Tourist Privileges

6. When touring the owner is entitled upon presentation of his Identification Card, to all of the benefits of this policy during warranty period, at any Authorized Hupmobile Service Station in the United States and Canada, with the exception of three inspections and adjustments as outlined in paragraph No. 3.

Change of Residence

7. In case the owner changes his residence, from one location to another before the warranty period has expired, the Authorized Hupmobile Service Station serving the locality into which the owner moves, will upon presentation of the Owner's Identification Card, render any no-charge service to which the owner may be entitled as outlined in Paragraph 2.

Regular Maintenance Parts and Service Charges

8. For the benefit of the owner, the Hupp Motor Car Corp. has provided established parts prices and labor time studies on regular maintenance work. Genuine Hupmobile parts are sold through Authorized Hupmobile Service Stations and can be secured anywhere in the United States and Canada, at the published price.

Important

The provisions of this OWNER'S SERVICE POLICY will be null and void on any HUPMOBILE car where parts not made by, sold by, or having the written approval of the HUPP MOTOR CAR CORPORATION are used, or which shall have been repaired by other than an AUTHORIZED HUPMOBILE SERVICE STATION.

Important Adjustments

Whenever adjustments are necessary, we recommend the work be performed by an authorized Hupmobile Service Station.

Spark Plug Gap	.026" to .030" .660 to .762 m/m
See Note A— Below	
Dist. Point Adj.	Auto Lite .018"-.020" .457 to .508 m/m
Generator Fuse	5 amperes
Lighting Circuit Fuse	20 amperes
Carburetor Adjustment	$\frac{3}{8}$ to 1 turn open. High fixed jet. Carter
Valve Adj. Intake Exhaust	.010" .254 m/m .013" .330 m/m
Valve Seat—Width	$\frac{1}{16}$ " to $\frac{3}{16}$ " Intake $\frac{3}{16}$ " to $\frac{1}{4}$ " Exhaust m/m $\left\{ \begin{array}{l} 1.600 \text{ to} \\ 1.981 \text{ In.} \\ 2.387 \text{ to} \\ 2.768 \text{ Ex.} \end{array} \right.$
Piston Clearance	.002"—10 to 13 Lbs. Pull on Thickness Gauge .0508 m/m 4.536 to 5.897 Kilograms Pull on Thickness Gauge
Piston Ring Gap Oil Ring Compression Ring	.007" to .015" .007" to .012" .178 to .381 m/m .178 to .305 m/m
Conn. Rod, (End Play)	.005" to .010" .127 to .254 m/m

Conn. Rod Diametrical Play	.0015" to .002" .0381 to .0508 m/m
Crankshaft (End Play)	.004" to .008" .102 to .203 m/m
Minimum	30 lbs. @ 30 M.P.H.
Oil Pressure Warm Motor Idle	3 to 5 pounds
Clutch Pedal Clearance	$\frac{3}{4}$ " to 1" 19.05 to 25.399 m/m
Oil Pan Capacity	6 Quarts 5.68 Liters
Cooling System Capacity	5 Gallons 18.927 Liters
Fuel Tank Capacity	16 Gallons 60.56 Liters
Front Wheel Toe-in	$\frac{1}{8}$ " = $\frac{1}{16}$ " $\frac{1}{8}$ " = 3.17 m/m = 1.60 - m/m
Tire Air Pressure Front—24 Lbs. Rear—28 Lbs.	$\left\{ \begin{array}{l} 1.69 \\ \text{Kilo. per} \\ \text{Square cm.} \\ 1.97 \text{ Kilo. per sq.} \\ \text{cm.} \end{array} \right.$
Type Battery Capacity	W S-2-15 6VS. 100 Amp. Hr.
m/m—Millimeters KG—Kilograms CM—Centimeters KM—Kilometers	

NOTE A: When adjusting spark plug or distributor points, it is important that all gaps be exactly the same within the range specified.

FAN BELT—Should be inspected every 1000 miles (1600 kilometers). To adjust, loosen the clamp and pivot bolts. Move generator away from block until slack has been removed from belt. Caution: Do not adjust fan belt too tight. Tighten clamp and pivot bolts securely. Timing Chain is not adjustable.

