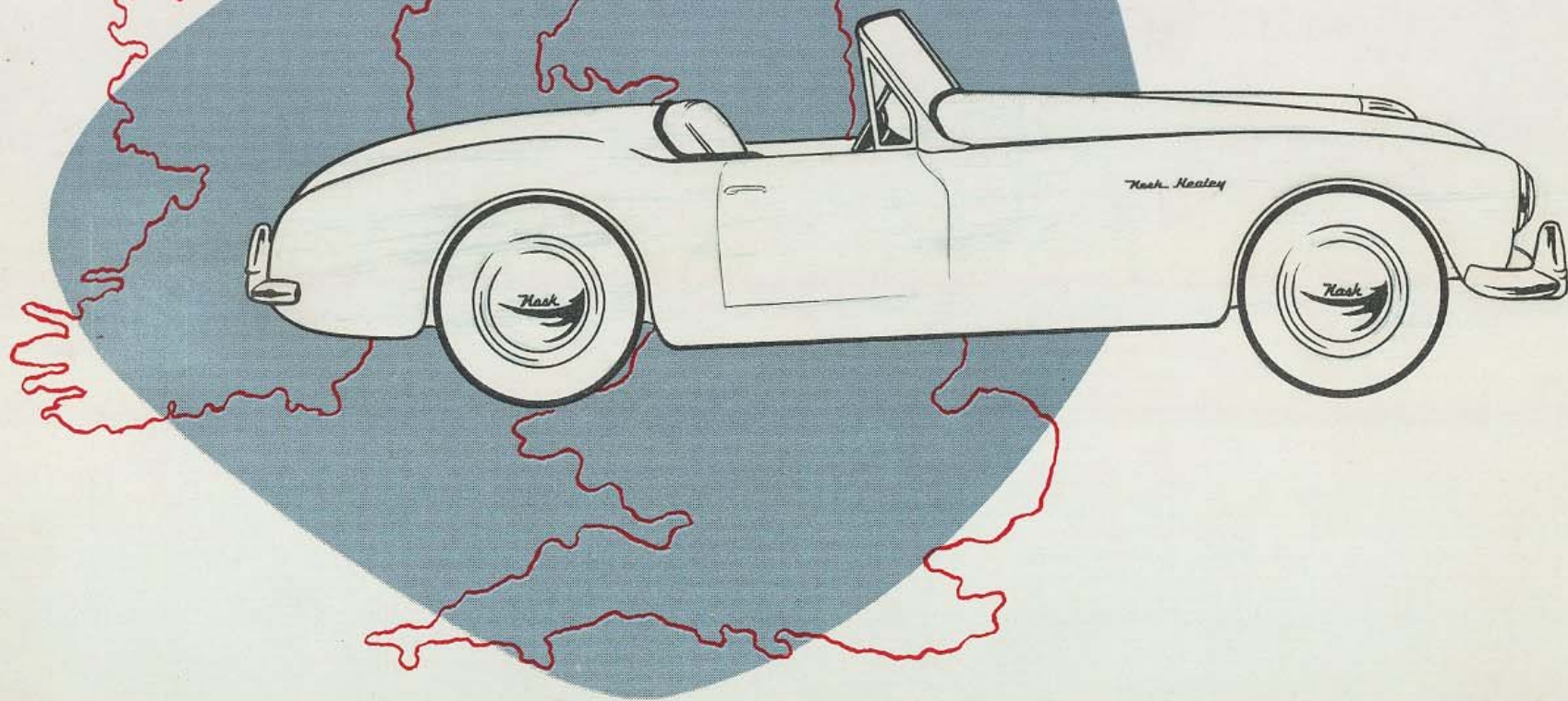


# *Nash-Healey*



1 9 5 1      O W N E R ' S      G U I D E

## FOREWORD

*Your Nash-Healey sports car is the result of Nash Motors' half-century of research and engineering in the automotive industry, combined with traditional British craftsmanship and experience in the building of thoroughbred sports cars. The Nash-Healey is truly a fine sports car and is designed as such, but it should not be considered as a competition car to be used for racing purposes. It is suggested that the factory be contacted for information pertaining to modifications for racing.*

*Like all fine possessions, your Nash-Healey should be accorded proper care and consideration to insure full realization of the pleasure of ownership. This Owner's Guide contains operating and maintenance instructions, which, if carefully followed, will give the maximum in outstanding performance and reliability. Depend on your Nash dealer for service, for he is well-equipped to make repairs and adjustments with factory approved parts in accordance with factory approved procedures.*

*Nash Motors*

DIVISION, NASH-KELVINATOR CORPORATION



# T A B L E O F C O N T E N T S

	Page
Instruments . . . . .	2-3
Driving Controls . . . . .	4-5
Operating Instructions . . . . .	6-7
Lubrication . . . . .	8-9
Body Features . . . . .	10-11
Electrical System . . . . .	12-13
Cooling System . . . . .	14
Engine . . . . .	15
Fuel System . . . . .	16
Carburetors . . . . .	17
Steering Gear and Brakes . . . . .	18
Suspension . . . . .	19
Transmission and Overdrive . . . . .	20
Weather Eye . . . . .	21
Tires . . . . .	22
Specifications . . . . .	23-24

# INSTRUMENTS

**BATTERY CHARGING INDICATOR LIGHT.** Ruby light will come on whenever generator is not charging due to low speed or inoperative generator.

**HIGH-BEAM INDICATOR LIGHT.** Working in conjunction with dimmer switch, light will come on only when headlights are in high-beam position.

**OIL PRESSURE GAUGE.** Under normal conditions of temperature, viscosity, and speed, oil pressure gauge should register approximately 50 pounds pressure. Pressure may rise considerably when first starting a cold engine or at high speeds. If no oil pressure registers, STOP THE ENGINE and INVESTIGATE.

**CLOCK.** To turn on clock light, push snap button up. To reset clock, pull reset button out and turn.

**AMMETER.** Gauge indicates flow of electric current to and from battery. If gauge registers a continuous low or high reading, consult your dealer.

**OVERDRIVE INDICATOR LIGHT.** Small green light will operate only when car is being driven in overdrive. Light goes out when overdrive is disengaged.

**ENGINE TEMPERATURE INDICATOR.** Safe operating range is considered from 170° F. to 195° F. If frequent overheating or underheating is registered on the gauge, consult your dealer.

**SPEEDOMETER AND ODOMETER.** Speedometer is calibrated to register miles per hour. Two odometers are employed for registering the accumulated miles. The upper odometer (trip indicator) may be reset to any desired reading by pushing up on trip reset button and turning it in desired position.

**FUEL (PETROL) GAUGE.** Replenish fuel before a low level is reached to prevent condensation from forming in tank.



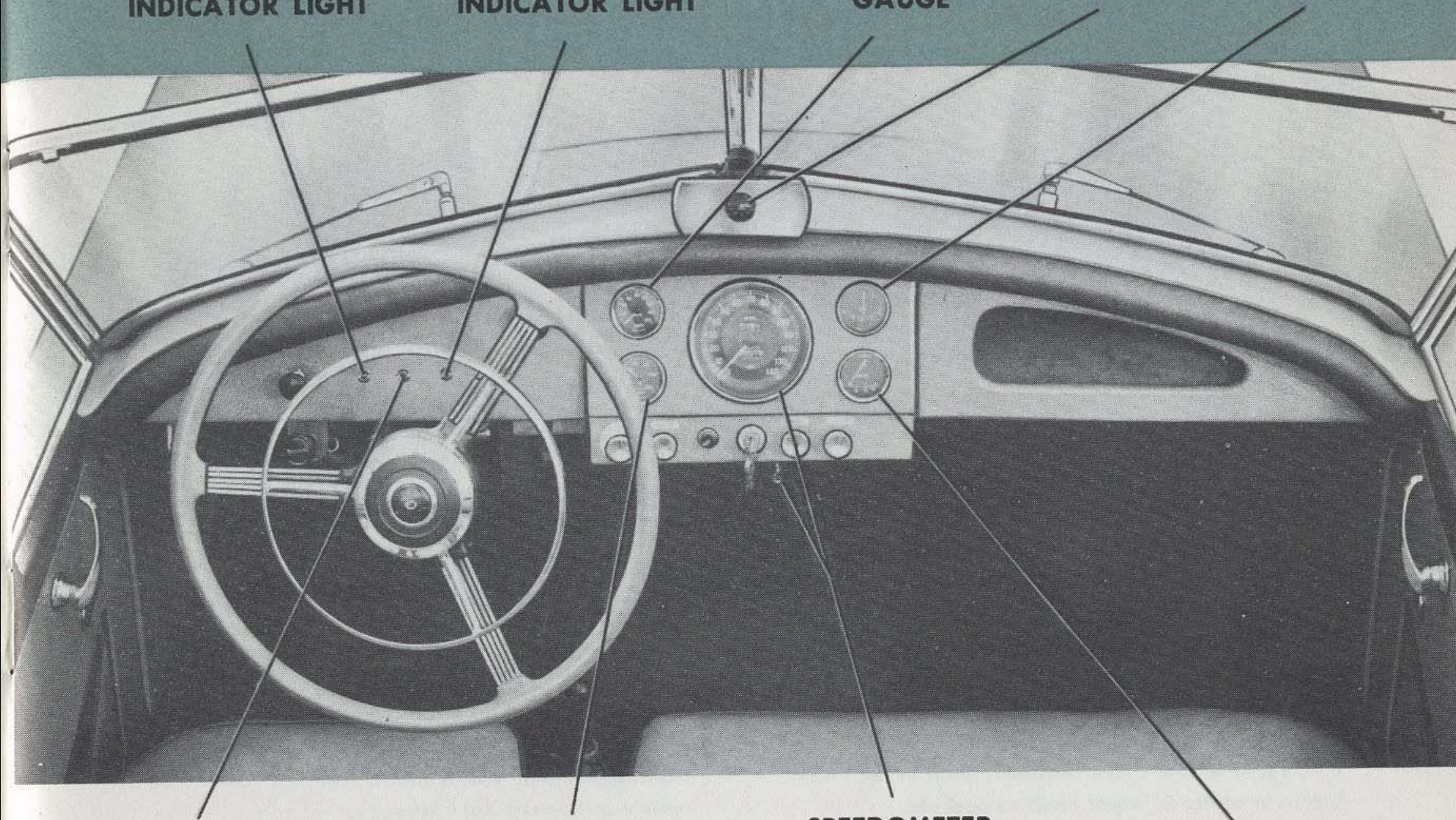
**BATTERY CHARGING  
INDICATOR LIGHT**

**HIGH-BEAM  
INDICATOR LIGHT**

**OIL PRESSURE  
GAUGE**

**CLOCK**

**AMMETER**



**OVERDRIVE  
INDICATOR LIGHT**

**ENGINE TEMPERATURE  
INDICATOR**

**SPEEDOMETER  
AND  
ODOMETER**

**FUEL (PETROL) GAUGE**



# DRIVING CONTROLS

**AUTOMATIC OVERTAKE BUTTON.** Press button to return to conventional third speed from overdrive. Car will remain in third speed as long as foot is held on accelerator. Remove foot from accelerator momentarily to return to overdrive.

**OVERDRIVE CONTROL KNOB.** Push control knob IN to place control in overdrive position. To lock out overdrive, pull control knob OUT.

**COWL VENTILATOR CONTROL.** Pull to close.

**HOOD RELEASE.** Pull to release hood lock.

**DIRECTIONAL TURN SIGNALS.** Move control lever to the right or left as required.

**STARTER BUTTON.** To crank engine, depress starter button until engine starts. Make sure gear shift lever is in neutral position before starting. Do not crank engine for longer periods than 10 seconds.

**WINDSHIELD WIPER SWITCH.** To turn electric windshield wipers on, pull switch knob out. When windshield washers are installed, push in on small button in center of wiper knob to operate.

**HAND BRAKE.** Pull out to set parking brake. Release by turning handle counter-clockwise.

**DIMMER SWITCH.** To raise or lower headlight beam, depress button to limit of travel.

**GEARSHIFT LEVER.** Shift in the usual manner for a standard three-speed transmission.

**STARTING MIXTURE CONTROL KNOB.** Use four position knob when starting a cold engine. Pull knob out to desired setting. To push knob in, turn slightly to right.

**WEATHER-EYE CONTROL.** The amount of heat from Weather-Eye unit increases as knob is pulled out. Rotation of knob to right controls auxiliary fan.

**IGNITION SWITCH.** To turn ignition ON, insert key, and turn switch to right. Turn key to extreme left to operate accessories only.

**LIGHT SWITCH.** Pull to turn on parking lights, main lights, and panel lights. Knob is rotated to control instrument light intensity.



**AUTOMATIC  
OVERTAKE  
BUTTON**

**OVERDRIVE  
CONTROL  
KNOB**

**COWL  
VENTILATOR  
CONTROL**

**HOOD  
RELEASE**

**DIRECTIONAL  
TURN  
SIGNALS**

**STARTER  
BUTTON**

**WINDSHIELD  
WIPER  
SWITCH**

**HAND  
BRAKE**

**DIMMER  
SWITCH**

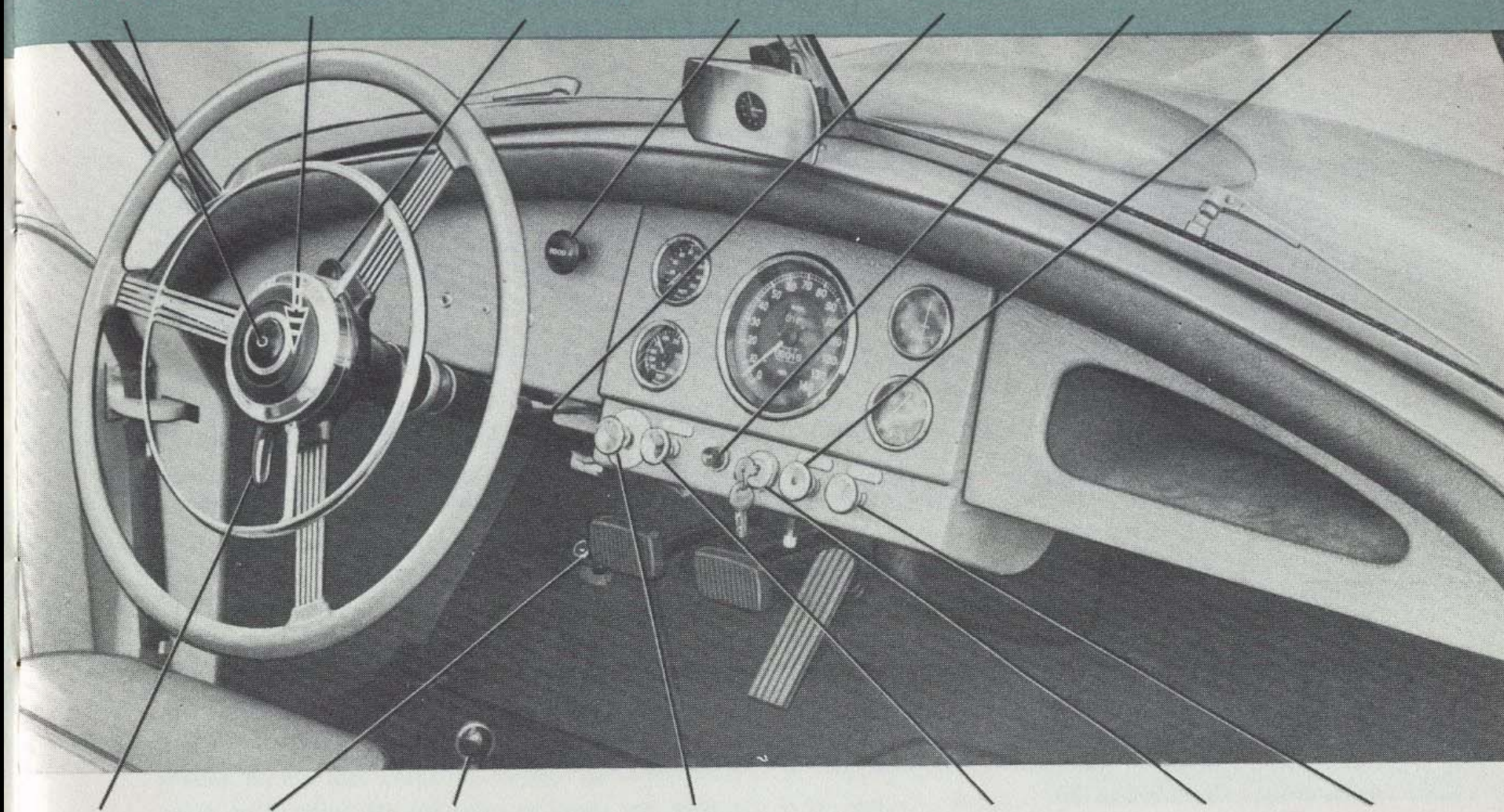
**GEARSHIFT  
LEVER**

**STARTING MIXTURE  
CONTROL KNOB**

**WEATHER-EYE  
CONTROL**

**IGNITION  
SWITCH**

**LIGHT  
SWITCH**





# OPERATING INSTRUCTIONS

**STARTING.** The Nash-Healey operates much in the same manner as other motor cars except that a much higher degree of performance is at the driver's command.

1. Place the gear shift lever in neutral.
2. Pull out the starting mixture control if engine is cold. This control acts in the same capacity as a choke on a conventional car. If the engine is extremely cold pull control out to its full limit before starting. If the engine is only slightly cold, knob may be placed in intermediate positions.
3. Position the overdrive control for either overdrive or conventional operation.
4. Turn the ignition switch to ON position.
5. Press the starter to engage the starting motor. In some instances depressing the accelerator slightly will aid starting.
6. Adjust starting mixture control for smoothest operation as engine reaches normal operating temperature. Rotate knob to right to push in.

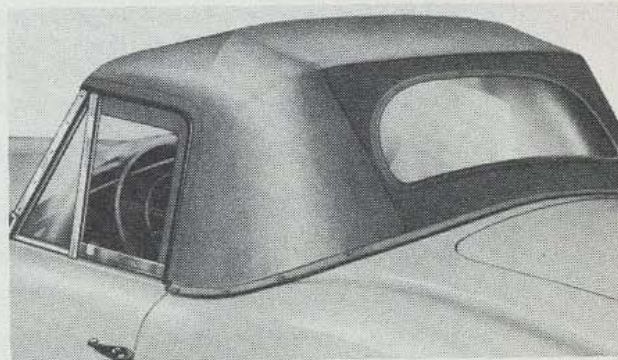
**SHIFTING.** The Nash-Healey is equipped with a Nash synchromesh three speed transmission with an overdrive unit as standard equipment. Gearshift lever positions are: low speed, second speed, third speed, and reverse. If the overdrive control is engaged, the overdrive will automatically cut-in at car speeds above 28 miles per hour when the accelerator pedal is momentarily released. Depressing the automatic overtake button in center of the steering wheel returns the transmission to conventional gear range for rapid acceleration. Releasing the accelerator pedal again returns the transmission to normal overdrive operation. For further information on the overdrive and transmission refer to page 20.



# OPERATING INSTRUCTIONS

**BREAK-IN PERIOD.** The manner in which the first miles are put on your Nash-Healey greatly affect subsequent operation. These rules should be observed. **1.** Avoid full throttle operation for first 50 miles. **2.** Do not exceed 50 mph for first 250 miles. **3.** Short periods of full throttle acceleration are permissible toward end of 250 mile period. **4.** After 250 miles increasingly higher speeds are permissible as mileage accumulates. **5.** Varying speeds with full throttle acceleration are better than steady low speeds. **6.** Light oil (10W) is preferable during break-in period. **7.** If original factory oil is used, change at 300 to 500 miles.

**CONVERTIBLE TOP.** The convertible top of the Nash-Healey is manually operated. To lower the top, unhook the three latches at the top of the windshield. Raise the top header away from the windshield and fold back. Grasp the lower top brace at both sides and pull down to relieve tension. Unfasten all snaps and slide rear bar out of the two brackets. Push down on the top braces until top is even with the top of the seat-back. Fold seat-back forward and push top down behind seat. Take care not to damage rear window. To raise the top, fold seat forward and pull top up. Slide rear bar into brackets and hook all snaps. Grasp header to pull top up. Push upward on the top braces at both sides to increase the tension on the top. Place top header on windshield, hook latches, and pull down on handles. Do not raise or lower top while car is in motion.





# LUBRICATION

**GENERAL.** The life of your car and your enjoyment as a Nash-Healey owner can best be protected by proper lubrication of the engine and running gear at scheduled intervals. In normal use the engine oil is subject to contamination and deterioration from heat, burned gases, water, acids, carbon and dust. This contamination is the reason for oil changes. Too frequent changes waste oil while too infrequent changes will shorten engine life.

**OIL CHANGES.** Under normal conditions draining and refilling at 2,000 mile intervals is a good practice. The initial oil change should be made between 300 and 500 miles as oil is contaminated faster during break-in period. Changes in cold weather should be made more frequently, particularly in short runs or start and stop service, when engine is not allowed to warm up properly. Under these conditions change oil at each 500 miles.

Draining the crankcase when the level is low is an economical practice. Always drain when oil is hot, after running.

**ENGINE OIL.** To insure suitable lubricants for different operating conditions, the oil industry provides two types—Regular and Premium—which are generally approved for automotive engine use.

Straight mineral oils, designed as Regular, are satisfactory for use under normal driving conditions. For severe use, Premium oils keep the engine cleaner, reduce sludge forming tendencies and give superior lubrication.

The Nash-Healey engine should be lubricated with SAE 20, 20W at temperatures above 32° F. Use 10W at temperatures between 32° F. and —10° F. (The "W" indicates oils suited for winter use). The grade used should be determined by the lowest anticipated temperature before the next oil change.

**LUBRICATION OF RUNNING GEAR.** If the car is operated in dusty, wet or slushy weather, and particularly in mud, it is a good practice to lubricate the running gear more frequently. Under these conditions the lubricant tends to be washed out of the fittings that are exposed under the car.



# LUBRICATION GUIDE

ITEM	MILE INTERVALS	LUBRICATION RECOMMENDATIONS
Air Cleaner	1,000	Dry type, remove and blow out with compressed air.
Axle Shaft Bearings (Rear Wheels)	15,000	Repack with wheel bearing lubricant
Brake Controls	1,000	Oil with light engine oil
Carburetor	1,000 or once each month	Remove suction chamber cap and fill reservoir with light machine oil
Carburetor Linkage	1,000	Oil with light engine oil
Clutch and Brake Pedal Shaft	1,000	Chassis lubricant—2 fittings
Distributor Breaker Plate	1,000	Wipe breaker plate with petrolatum jelly
Distributor Rotor Shaft Wick	5,000	Drop of light engine oil on wick
Engine Oil	2,000 under normal conditions	6 Qts. SAE 20 or 20W above 32° F. —10° F. to 32° F. use 10W
Front Suspension		
Trailing Link	1,000	Chassis lubricant—6 fittings
Steering Linkage	1,000	Chassis lubricant—6 fittings
Front Wheel Bearings	10,000	Repack with wheel bearing lubricant
Fuel Pump	5,000	Clean filter screen to remove sediment
Generator	5,000	Light engine oil—2 oil cups
Brake Master Cylinder	1,000 (check)	Lockheed 21 brake fluid
Rear Axle Drive Gears	1,000 (check) Change every 10,000 miles or yearly	Use only SAE 90 rear axle oil suitable for hypoid gear service
Starting Motor	5,000	Light engine oil—2 oil cups
Steering Gear	3,000 (check)	SAE 90 steering gear lubricant
Transmission and Overdrive	1,000 (check) 10,000 change and refill	3½ Pts. SAE 90 mineral oil in warm weather. SAE 80 in cold weather
Water Pump	5,000	Water pump lubricant



# B O D Y F E A T U R E S

**ASH TRAYS.** To open the door-mounted ash trays, press in at the rear of trays and rotate until tray is exposed. To remove, simply pull trays from snaps.

**DASH AND DOOR PANEL COMPARTMENTS.** In addition to the dash compartment, pockets for maps and small articles are located in the door panels. These compartments are divided into two sections.

**DOOR LOCKS.** Only the left door may be locked with a key from the outside. To lock door from the outside, insert key in push button on handle and turn key one-quarter turn to the left or toward the front of car. The key may be withdrawn from either position. Since the door handles are interchangeable, a lock handle may be placed on the right door. In this case use the same procedure to lock and unlock doors. To lock the doors from the inside, push up on the control handle. To unlock or open the door, push down on the control handle.

**HOOD.** A support attached to the underside of the hood is supplied to hold the hood in the raised position. Unclip the support from the hood and place against bracket at rear of engine compartment. The hood will automatically lock when lowered.

**SEAT.** A control lever is located at the lower left edge of the seat to permit moving the seat forward or back. To move the seat, lift up on control lever and move seat. Release lever to lock seat in the desired position. The recessed center arm rest may be lowered by pulling tab downward.



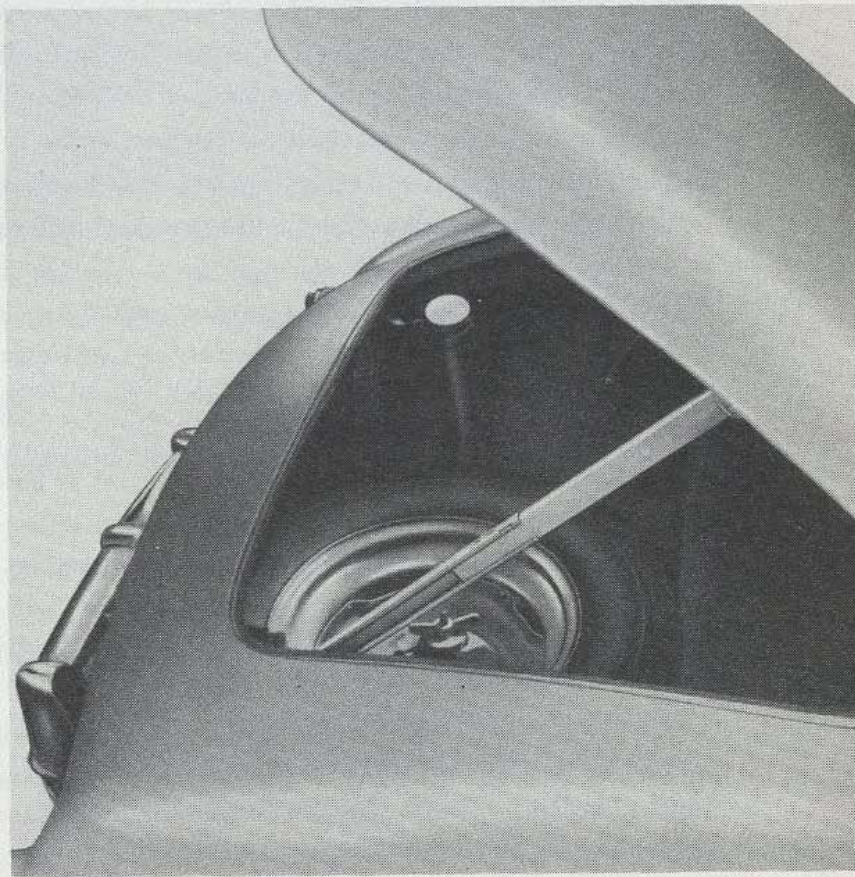
## B O D Y F E A T U R E S

**TRUNK COMPARTMENT.** To open the trunk, insert key in lock, press down on area around trunk lock, and turn key to the left. Do not attempt to force the key without first relieving tension on the lid. Use the key to raise trunk lid until it is open enough to permit grasping with hand. The ratchet type lid support will hold trunk lid open. To lower the trunk lid, lift up on lid to release ratchet, and then lower. Turn key to the right to lock trunk.

**WINDOW CONTROL.** The windows may be raised or lowered by grasping the handle at the upper edge of the window glass and pulling up or down as desired. The windows will automatically stay in any desired position.

**FUEL TANK.** The filler tube and cap are located in the trunk compartment. To fill the fuel tank, raise trunk lid and remove gas cap. Avoid spilling fuel in the trunk compartment.

**SPARE TIRE.** The spare tire is also located in the trunk compartment, and may be easily removed after unfastening the retaining wing nut.





# ELECTRICAL SYSTEM

**DISTRIBUTOR.** Engine operation will be seriously affected if the distributor ignition breaker points are not properly timed and properly spaced. The purpose of the distributor is to distribute the high tension electrical current to the spark plugs at the proper time to cause ignition of the fuel in the combustion chambers of the engine. Ignition points should be checked at least twice a year to make certain they are in proper operating condition. This service should be performed by your local dealer as special equipment is necessary to obtain the correct distributor timing and point adjustment. Correct distributor point gap is .018 inch to .024 inch.

**GENERATOR.** The generator seldom needs attention except for periodic lubrication. However, an occasional check of the generator by your dealer's experienced mechanics is a wise precaution. If the battery charging indicator light flashes red when engine speed is above idling, generator should be checked immediately.

**GENERATOR REGULATOR.** The regulator is designed to prevent overcharging the battery by controlling the generator output when the electrical accessories are not being used. One unit of the regulator restricts the generator output within safe limits to prevent overheating the generator at high car speeds. The other unit—the voltage regulator—“cuts back” the output when the system voltage rises appreciably above that corresponding to a fully charged battery. This latter feature is responsible for lengthening the life of lamp bulbs.

**STARTER.** The starter is actuated by a starter button on the instrument panel and a solenoid mounted on the engine bulkhead. Pressing of the starter button energizes the solenoid which in turn places the starter in motion. The starter has an automatically engaging pinion which meshes with the ring gear on the engine flywheel. The pinion disengages when the engine starts. However, avoid pressing the starter button while the engine is running.



# ELECTRICAL SYSTEM

**SPARK PLUGS.** The spark plugs will require occasional examination, adjustment, cleaning, and eventual replacement. Old spark plugs reduce the engine efficiency and economy. Replace plugs when inspection indicates the old plugs cannot be reconditioned. Use a round type spark plug gauge and set electrode gap to .030 inch.

**HEADLIGHTS.** The Nash-Healey headlights are of the sealed-beam type and are prefocused, both filaments being incorporated in one unit sealed at the factory against dust, moisture, and all foreign substances. The reflector-lens unit is of the highly efficient, all-glass type, which delivers more light on the road for the electrical unit consumed. These units will not grow dim but will stay bright up to the time either one of the filaments burn out.

Any adjustment in headlight aiming to provide correct distribution may be accomplished by changing the relation of the bulb unit to the head lamp recess in the fender. This job should be accomplished by your dealer who has the facilities for quick and efficient aiming.

**BATTERY.** The battery is located under the hood to the left of the engine where it is easily accessible. Keep it supplied with distilled water, but do not overfill. A hydrometer test should be made of the battery once every three months. This can also be done when the car is brought in for its regular lubrication service. The gravity should read 1.250 plus in temperate climates and not less than 1.225 under warmer conditions. The battery hold-down wing nuts should be only finger tight to avoid excessive pressure on the battery. Battery cables and terminals should be kept clean and tight. A light coat of vaseline at the terminals will reduce corrosion while occasional cleaning around the terminals with soda solution or ammonia will prevent accumulation of deposits.



# COOLING SYSTEM

**GENERAL.** The Nash-Healey engine reaches the correct operating temperature quickly through the use of a pressurized cooling system. Water should be added whenever level has dropped to a point where it cannot be seen. Do not overfill radiator. Approximately one quart expansion space is required when filling a cold radiator.

**WATER PUMP.** The water pump is of the packless type. The cartridge seal is installed and serviced as a unit. The cartridge is mounted in the pump body by a rubber ring flexible enough to assure correct alignment and to seal against water leakage. This pump needs only periodic lubrication for normal service. (See page 9.)

**ANTIFREEZE AND INHIBITORS.** Do not place water which contains chemicals in the radiator. Water in certain sections of the country contains scale forming chemicals. An inhibitor in summer will prevent needless corrosion and rusting within the radiator. When adding antifreeze, your dealer should be consulted for proper type and quantity.

**FILLING AND DRAINING.** The radiator cap is of the pressure type which opens to vent the cooling system only after the internal pressure reaches a certain point. To reach the radiator cap the hood must be raised. Turn cap to the left and lift straight up to remove. NOTE: Cap should be turned to the left to the first stop to allow pressure to dissipate before cap is removed. The radiator is drained by turning the petcock at the lower edge of the radiator to the left. Allow water to drain completely. Make sure petcock is fully closed before filling system.

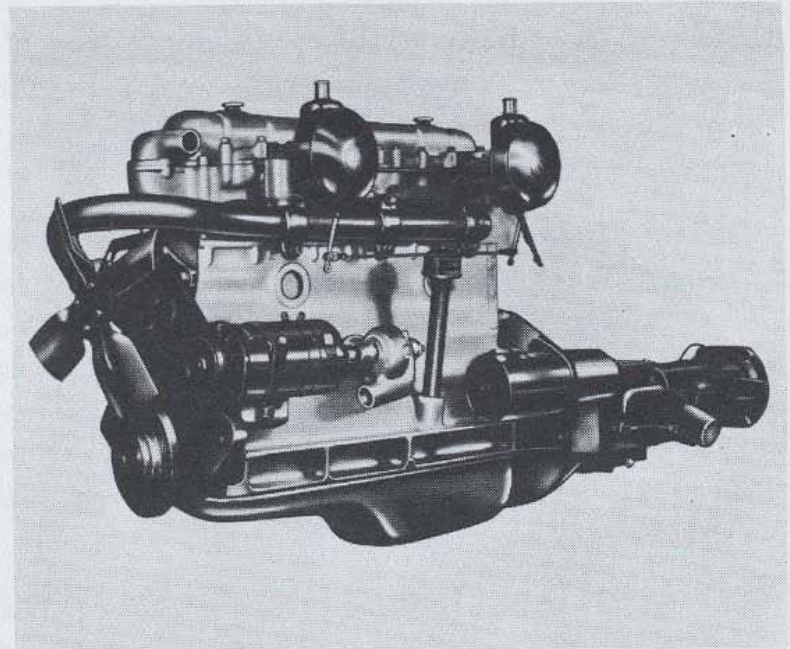
**THERMOSTAT.** A thermostatically operated shut-off valve is employed to insure that the correct operating temperature of the cooling system is reached rapidly, and maintained, regardless of air temperature.



# ENGINE

**DESCRIPTION.** The engine of the Nash-Healey is a modification of the famous Nash Ambassador power plant, retaining the features of high compression with overhead valve arrangement. It is designed to withstand high speeds under extreme conditions provided proper engine maintenance and lubrication is performed at regular intervals. Some of the outstanding features of the Nash-Healey engine are sealed-in intake manifolds, dual carburetion, high compression aluminum cylinder head, overhead valves, seven main bearing crankshaft, four ring pistons and a pressure type lubrication system. Replacement parts are readily available due to interchangeability with the Ambassador engine, and such parts may be installed by your Nash dealer in accordance with authorized service procedures.

**VALVE ADJUSTMENT.** For peak performance and economy, the valves should be adjusted with the engine running at normal operating temperature. Place valve adjusting wrench on valve adjusting nut. Insert feeler gauge between rocker arm and valve stem and tighten valve adjusting nut until proper clearance is obtained. Valve settings are: intake .012 inch and exhaust .016 inch.





# FUEL SYSTEM

**GENERAL.** The fuel system of the motor car type of internal combustion engine is designed to supply liquid fuel and clean air in the proportions of about 10,000 gallons of air to one gallon of gasoline. The liquid fuel is transferred from the tank (capacity 20 gallons) by a fuel pump to the carburetor where it is mixed with air carefully filtered to keep out dust which would increase wear in the engine.

**FUELS.** The Nash-Healey engine is designed for high performance and knock-free operation on good grades of "premium" or "high test" gasoline only. (About 90 octane rating or above). Detonation or "fuel knock", normally absent, is influenced by a number of other factors such as amount of combustion chamber deposits, ignition timing, atmospheric humidity, engine temperatures and other operating conditions. The most common cause of detonation however, is the relatively low octane rating of the particular gasoline used. Retarding ignition timing from the factory setting will reduce or eliminate fuel knock, but tends toward losses in economy and power. No appreciable gain in either economy or power can be achieved in the Nash-Healey engines by advancing the timing beyond the recommended setting.

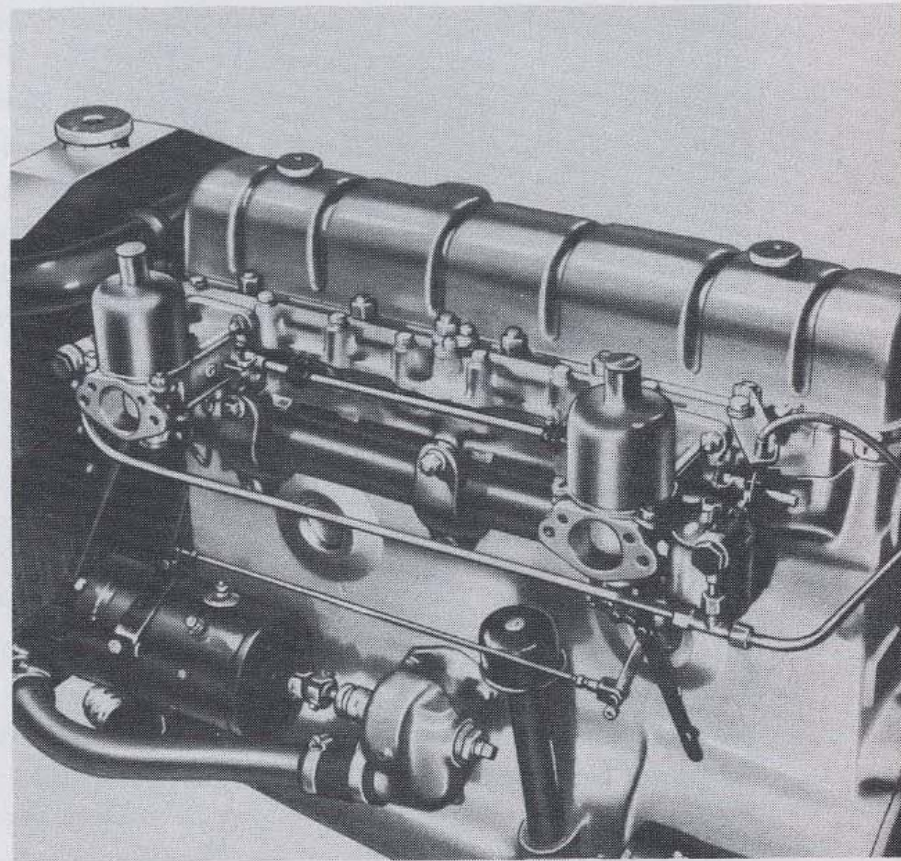
**AIR CLEANERS.** Each of the carburetors is equipped with a separate dry type air cleaner. The purpose of these air cleaners is to filter air entering the carburetor to prevent the entry of harmful dust and dirt. Air cleaners also function as silencers. To clean, remove the air cleaners and blow out with compressed air or wash in kerosene. Dry type cleaners need not be soaked in oil before installation.

**FUEL PUMP.** The fuel pump is mounted on the engine and is driven by the camshaft. Fuel is pumped from the tank by the operation of an oscillating diaphragm. With the pump is incorporated a filter and sediment chamber to clean the fuel delivered to the carburetor. Clean filter and sediment chamber every 5,000 miles.



## FUEL SYSTEM

**CARBURETORS.** Dual carburetion is provided on the Nash-Healey to increase "breathing" capacity of the engine to insure maximum acceleration and high speed performance. Specifically designed and calibrated for use in the Nash-Healey engine the two English S.U. carburetors are of the single jet type. The carburetors are mounted horizontally on the engine and are of the automatic expanding choke type in which the cross sectional area of the main air passage adjacent to the fuel jet, and the effective orifice of the jet are variable. This variation takes place in accordance with the demand of the engine as determined by the degree of throttle opening, the engine speed and load upon the engine. Proper synchronization of the two carburetors is extremely important to obtain maximum performance. Carburetor synchronization and adjustments should be made only by a trained mechanic in accordance with factory approved service procedures. See your Nash dealer if the need for carburetor adjustments becomes apparent.





# STEERING GEAR AND BRAKES

**STEERING GEAR.** The steering mechanism and linkage of the Nash-Healey is of a unique "walking-beam" type. The two tie rods are connected together by the walking beam intermediate arm, which in turn is connected to the drag link and the steering gear mechanism. Regular checking of the lubricant level in the steering gear and periodic lubrication of the drag link and tie rods is usually the only regular service necessary. A roadside collision or severe contact with a curb or other obstruction may disturb the steering adjustments that provide handling ease and safety in your Nash-Healey. The need for adjustment will be evidenced by the development of excess play in the steering wheel. Adjustments are provided to compensate for wear or damage of the moving parts of the steering mechanism. These adjustments should be made by your Nash dealer.

Incorporation of a telescoping steering wheel column permits the driver to adjust the steering wheel to the desired position. To pull the wheel closer to the driver or push it farther away, loosen the nut which clamps the telescoping mechanism. Always be certain that the nut is tightened securely before attempting to drive. In addition, the steering column may be vertically adjusted at the dashboard mounting bracket. However, this adjustment should be performed by a trained mechanic in accordance with authorized service procedures.

**BRAKES.** The Nash-Healey is equipped with Bendix Duo-Servo type brakes identical to those in the Nash Ambassador. Periodic adjustment of the brakes is an essential maintenance operation. Have your dealer inspect the brake shoes as often as necessary. Adjust brake pedal free travel to  $\frac{1}{4}$  to  $\frac{1}{2}$  inch by adjusting length of master cylinder push rod. Major brake adjustments should be performed by your Nash dealer.



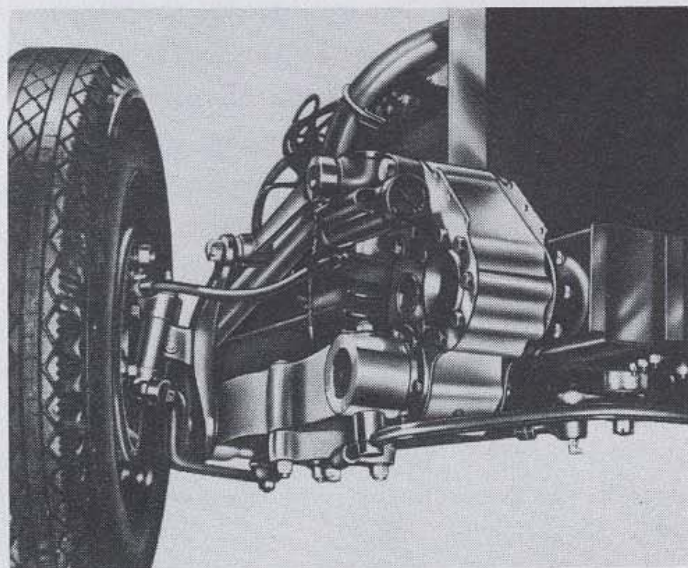
# S U S P E N S I O N

**FRONT SUSPENSION.** The front suspension system used on the Nash-Healey is the "trailing link" type, renowned for its excellent road holding, cornering, and handling characteristics. Each wheel is carried by a swinging arm pivoted ahead of the wheel centerline. This arm acts against a coil spring and in passing over irregularities, each wheel deflects vertically in an arc with no change in tread or camber. The arm of the double acting piston type shock absorber forms the upper control arm. A front stabilizer (sway bar) is provided to further assure good handling and an even "keel" on corners and winding roads.

Front wheel alignment should be checked by your dealer every 6,000 miles and adjustments made if required.

Misalignment of front wheels changes the steering geometry causing poor handling. It also subjects the front wheel mechanism to stress and strain which may result in mechanical failure of parts and rapid tire wear.

**REAR SUSPENSION.** The rear suspension, like the front, is of the coil spring type and is designed to give a comfortable, stable ride. The coil springs, with direct acting shock absorbers, are mounted in towers attached to the chassis frame. The rear springs are relieved of driving strains through the use of the torque tube drive system.

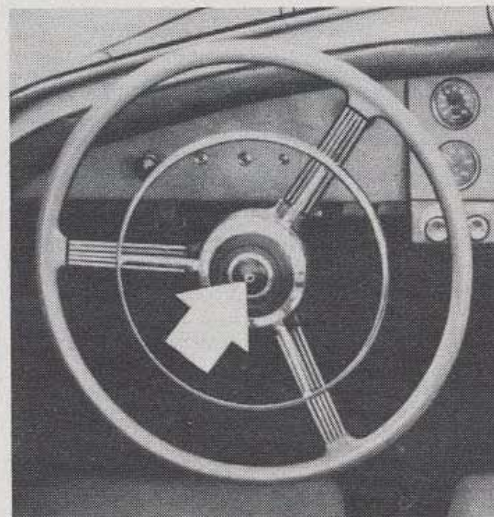




# TRANSMISSION and OVERDRIVE

**TRANSMISSION.** The transmission used on the Nash-Healey is the standard or conventional three speed type with overdrive as an automatic fourth gear. Three speeds forward and one reverse are available by manual selection with the fourth or overdrive gear cutting in automatically at speeds over 28 miles per hour when engaged. The manually operated gear shifting control lever is mounted on the floor to permit easy selection of transmission speeds. Under average operating conditions, the transmission will require only lubrication maintenance service as prescribed in the Lubrication Guide. Gear shifting recommendations with and without overdrive engaged are covered in the Operating Instructions (page 6).

**OVERDRIVE.** The overdrive unit provides the driver with an optional fourth or cruising gear. Controlled manually, the overdrive may be either locked out or engaged by pulling the overdrive control out or leaving it pushed in. When operating in the overdrive gear, one simple operation permits the driver to return to conventional third speed with added power and acceleration. This is accomplished by depressing the automatic overtake control button on the steering wheel. This electric control interrupts the electrical circuit to the overdrive solenoid, allowing the overdrive to become disengaged, returning the car to conventional third speed. After the overtake button is depressed, the driver's foot must be held on the accelerator to keep the car in conventional third speed. To return to the overdrive gear, remove foot from accelerator momentarily, then resume normal operation in overdrive.



*Automatic Overtake Button*



# WEATHER EYE

**DESCRIPTION.** The Weather Eye Conditioned Air System utilizes circulating hot water from the engine to heat fresh, filtered air brought in through the cowl ventilator under pressure created by the forward motion of the car. The heated water flows through a control valve to the oversize heating core of the Weather Eye. When the desired temperature is reached, the thermostatic action of the control valve slows down the flow of water to maintain the correct temperature of air coming from the Weather Eye.

**OPERATION.** The operation of the Weather Eye unit is completely governed by one simple control knob. This control knob should be pulled out until the desired amount of heat is obtained. When the knob is all the way IN, the control valve, metering the flow of water through the heater core, is full OFF. When the knob is pulled completely OUT, the control valve is full ON. A separate motor and fan is provided for additional circulation of air within the passenger compartment when the car is slowly moving or at a standstill. The heater fan is actuated by turning the Weather Eye control knob to the right for either HIGH or LOW speed, as desired. In normal driving, the heater fan need not be used as forward movement of the car will be sufficient to maintain ample flow of air through the cowl ventilator and Weather Eye. The cowl ventilator must be open to operate the heater with or without the use of the fan.

In summer rain or dust, you can ride in comfort with the top up and the windows closed. The air filter should be replaced periodically depending on driving conditions, but at least once every year. Storm water is channeled off at the air intake on the cowl and is disposed of through suitable drains.



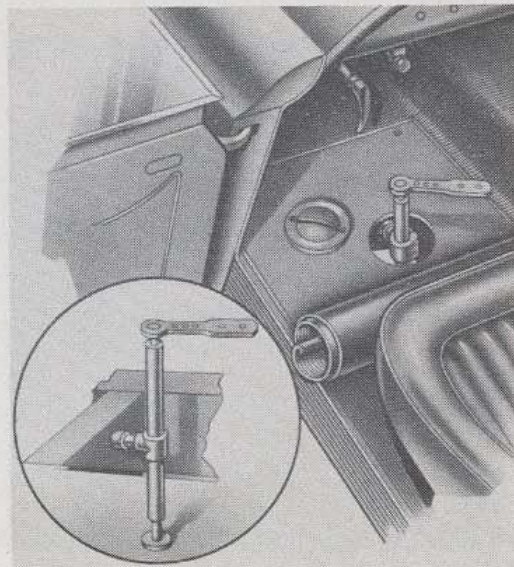
# T I R E S

**TIRE AND WHEEL RECOMMENDATIONS.** Tire mileage is greatly increased by following a regular weekly procedure of checking the tire pressure with an accurate tire gauge. More frequent checking should be made in the usage of the car for long trips or over rough roads. Recommended pressure for normal service is 24-pounds, however, pressures up to 26-pounds may be used if desired. Inflation should be made with the tire cold. The normal increase in tire pressures due to high temperatures will be as much as four or five pounds but this excess air should not be "bled" to reduce this pressure as they will be underinflated when the tires cool.

Maximum tire life is increased by periodic tire rotation. Switch tires according to charts available at your local Nash dealer. Tires out-of-balance due to unequal tire wear or severe brake application can cause wheel "tramp" and excessive vibration at the steering wheel at high speed. Have wheel alignment checked by your dealer.

**JACKING.** The unique jacking system of the Nash-Healey provides for positioning of a screw type jack into the frame on either side raising both wheels simultaneously. Apply parking brake and roll back floor carpet. Remove cover plate on floor and fit jack pilot into tube. To raise jack, turn handle to the right (clockwise); to lower, turn handle to the left (counterclockwise). Remove spare tire from trunk compartment before jacking car up. Do not use a bumper jack.

**NOTE:** Early models not equipped with this jacking system must be jacked up at frame supports with a conventional jack.





# SPECIFICATIONS

## EXTERIOR

Wheelbase	102 inches
Overall Length	172 inches
Maximum Width	66 inches
Height—to top of windshield	52 $\frac{3}{4}$ inches
Tread—Front	53 inches
Tread—Rear	54 $\frac{7}{8}$ inches
Turning Radius	17 $\frac{1}{2}$ feet
Road Clearance	6 inches
Shipping Weight	2690 pounds

## ENGINE

Type	6 Cyl. Valve-in-head
Bore and Stroke	3 $\frac{3}{8}$ x 4 $\frac{3}{8}$ inches
Piston Displacement	234.8 cu. in.
Taxable Horsepower	27.34
Brake Horsepower	125 @ 4,000 R.P.M.
Maximum Torque	210 @ 1600 R.P.M.
Compression Ratio	8.1 to 1
Oil System	
Oil Pump Type	Gear
Oil Pressure	30 pounds at 20 M.P.H.
Oil Pressure Release	50-58 pounds
Piston Rings	
Number	Four
Width Compression Rings	$\frac{3}{32}$ inch
Width Oil Rings	$\frac{5}{32}$ inch
Type Lower Oil Ring	U-Flex, Steel
Connecting Rods and Bearings	
Main Bearings	Seven
Bearing Type	Replaceable
Crank Pin Diameter	2.000 inch
Bearing End Play	.006-.014 inch

Piston Pin Diameter	.8748/.8745
Diameter of Crankshaft Journal	2.479 inch
Crankshaft End Play	.006 to .008 inch
End Thrust Taken By	Center Main Bearing
Bearing Cap Adjustment	66 to 70 ft. lbs. (dry)

## MECHANICAL

Front Suspension Type	Trailing Link Coil Spring
Rear Springs	Coil
Drive from Rear Axle	Torque Tube
Track Bar at Rear	Yes
Sway Bar at Front	Yes
Brakes—Type	Duo-Servo
Total Foot Braking Area	176 sq. inches
Front Cylinder Diameter	1 $\frac{1}{16}$ inch
Rear Cylinder Diameter	$\frac{7}{8}$ inch
Pedal Free Play	$\frac{1}{4}$ to $\frac{1}{2}$ inches
Drum Diameter	10 inches
Clearance Toe	.015 inch
Clearance Heel	.015 inch
Wheel Size	15 inches
Tire Size—Standard	6.40 x 15 inches
Tire Pressure (Cold)	24 lbs.
Transmission	
Ratios—1st	2.57:1
2nd	1.55:1
3rd	1.00:1
Overdrive	0.70:1
Clutch Plate Diameter	10 inches
Axle Ratio	4.1 to 1



# SPECIFICATIONS

## ELECTRICAL

Generator	
Model	Delco Remy 1102730
Type	Shunt
Rotation	RH Drive End
Voltage Regulator	
Model	Delco Remy 1118302
Voltage Regulator Volts	7.0 to 7.7 adjust to 7.4
Current Regulator Amperes	32-40 amps adjust to 36
Amperes to open Reverse Current	4.6 amps
Cut-Out Relay Voltage at Closing	5.9 volts adjust to 6.2
Battery	
Model	Auto-Lite
Ampere Hours: 20 Hour Rating	105
Amperes: 20 Minute Rating	133
Number of Plates	15
Distributor	
Model	Delco Remy 1110225
Max. Automatic Advance (Degrees R.P.M.)	14 Degrees at 1350 R.P.M.
Max. Vacuum Advance Degrees	6 Degrees
Vacuum in Inches	15
Dwell Angle	35 Degrees
Rotation	Right Hand
Timing Mark Location	Vibration Damper
Firing Order	1-5-3-6-2-4
Spark Plug Make	Auto-Lite
Model	AL-5
Thread	14 mm

Starter	
Model	Delco Remy 1107950
Brush Spring Tension	24 to 28 ounces
Volts	3.0
R.P.M.	6000

## SERVICE SPECIFICATIONS

Engine Idle	600 to 650 R.P.M.
Float Level	Adjust to obtain a fuel level $\frac{1}{8}$ to $\frac{1}{4}$ inch below bridge in each carburetor
Spark Plug Gap	.030 inch
Distributor Point Gap	.018 to .024 inch
Ignition Timing	T.D.C.
Breaker Arm Tension	17 to 21 ounces
Breaker Points Open	T.D.C.
Cylinder Head Torque	55-60 ft. lbs. cold (dry)
Valve Clearance (engine hot and running)	.012 intake, .016 exhaust
Caster Angle	1° Positive
Camber Angle (fixed)	$\frac{1}{2}$ ° Negative to $1\frac{1}{2}$ ° Positive
Toe-In (15° above road)	$\frac{3}{16}$ inch

## CAPACITIES

Fuel Tank	20 gallons
Cooling (with Weather Eye)	17 quarts
Engine Oil	6 quarts
Transmission	2 $\frac{1}{4}$ pints
Overdrive	1 $\frac{1}{4}$ pints
Rear Axle	4 pints



# A . M . A . — U N I F O R M    W A R R A N T Y

"The Manufacturer warrants each new Motor Vehicle manufactured by it, to be free from defects in material and workmanship under normal use and service, its obligation under the Warranty being limited to making good at its factory any part or parts thereof, including all equipment or trade accessories (except tires) supplied by the Motor Vehicle Manufacturer, which shall, within ninety (90) days after making delivery of such vehicle to the original purchaser or before such vehicle has been driven 4,000 miles, whichever event shall first occur, be returned to it with transportation charges prepaid, and which its examination shall disclose to its satisfaction to have been thus defective; this Warranty being expressly in lieu of all other warranties expressed or implied and of all other obligations or liabilities on its part, and it neither assumes nor authorizes any other person to assume for it any liability in connection with the sales of its vehicle.

"This Warranty shall not apply to any vehicle which shall have been repaired or altered outside of an Authorized Nash Service Station in any way so as, in the judgment of the manufacturer, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident."

**Nash Motors Division reserves the right to make changes in design or to make additions to or improvements in its product without imposing any obligation upon itself to install them on its products previously manufactured.**



# **G O O D      O P E R A T I N G      R U L E S**

1. When starting car observe all starting precautions and rules. Run engine slowly until normal operating temperature is reached and normal oil pressure registers.
2. Use Premium fuels only.
3. Check engine oil level at each refueling. Change engine oil at regularly scheduled periods, or more frequently if dirty oil is noticed. Do not allow oil level to drop below "Add Oil" mark.
4. Check instruments for normal readings frequently while driving.
5. Follow the Lubrication Guide and have the lubrication attended to at the specified intervals.
6. Check the tires at least once a week for proper air pressure and make frequent inspections of tread for indications of unusual wear. Switch or rotate tires on a regular schedule and have the wheels checked for proper alignment.
7. Check water level of the battery every two weeks in hot weather, every four weeks in cold. Where car is in constant use and operated in extreme heat, check every other day.
8. Flush cooling system at least twice a year and add inhibitors and antifreeze when needed.
9. Keep brakes properly adjusted. Keep fluid level in master cylinder up to proper level. Use only approved brake fluid.
10. Keep headlights in proper adjustment and replace all burned out units immediately.