

MAINTENANCE AND LUBRICATION

ALL SERIES

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MAINTENANCE AND ADJUSTMENTS

The complete vehicle maintenance schedule is shown in Figure 0C-1. The following information explains in detail each item on the schedule.

Vehicle operation under conditions such as heavy dust, continuous short trips, use of other than unleaded or low lead fuels or pulling trailers, is not considered normal use and therefore more frequent maintenance will be required. Such additional maintenance requirements are included where applicable.

CHASSIS LUBRICATION

HD8 Front Suspension and Steering Linkage

The front suspension and steering linkage should be lubricated with a water resistant extreme pressure EP No. 2 Multi-Purpose grease equivalent to GM Specification 6031-M every four months or 6,000 miles whichever occurs first.

If lubricants not meeting GM Specification 9985038 are used, the lubrication interval should be shortened and should not exceed 2,000 miles.

Wipe dirt from the lubrication fittings and apply lubricant under pressure at the following points:

Upper Ball Joints (2 fittings)

Lower Ball Joints (2 fittings)

Steering Linkage (7 fittings)

Propeller Shaft C.V. Joint (use multi-purpose grease E.P. No. With J-24812 propeller shaft hand lubrication gun.

Minor Lubrication

Occasionally lubricate the pivot points at the following locations with the recommended material.

Hood Hinge - Lubriplate or equivalent.

Hood Latch

(1) Wipe off any accumulation of dirt or contamination on latch parts.

(2) Apply lubriplate, or equivalent, to latch pilot bolts and latch locking plate.

(3) Apply light engine oil to all pivot points in release mechanism, as well as primary and secondary latch mechanisms.

Door Hinges - Lubriplate or equivalent.

Door Lock Cylinders - powdered graphite. **DO NOT USE OIL.**

Gas Tank Door Hinge - Engine Oil.

Door Lock Fork Bolt - Stick Type Lubricant.

Rear Compartment lid lock - Lubriplate or equivalent.

Door Jam Switch - Lubriplate or equivalent.

LUBE AND GENERAL MAINTENANCE

Every 4 months or 6,000 miles	1	Chassis Lubrication
	2	* • Fluid Levels
	3	*Engine Oil
	4	Air Conditioning System
Every 6,000 miles	5	Tire Rotation
At 1st oil change—then every 2nd	6	*Engine Oil Filter
Every 12,000 miles	7	Rear-Axle
Every 12 months of 12,000 miles	8	*Cooling System
Every 24,000 miles	9	Wheel Bearings
	10	*Automatic Transmission
Every 36,000 miles	11	Manual Steering Gear

SAFETY MAINTENANCE

Every 4 months or 6,000 miles	12	Owner Safety Checks
	13	Tires and Wheels
	14	Exhaust System
	15	*Engine Drive Belts
	16	Suspension and Steering
Every 6,000 miles	17	Brakes and Power Steering
	18	Disc Brakes
Every 12 months or 12,000 miles	19	Drum Brakes and Parking Brake
	20	Throttle Linkage
	21	Headlights
	22	Underbody
	23	Bumpers

EMISSION CONTROL MAINTENANCE

At 1st 4 months or 6,000 miles Then at 12 months or 12,000 mile intervals	24	Thermostatically Controlled Air Cleaner
	25	Engine Choke
	26	Timing, Dwell, Carb, Idle Speed, Distributor and Coil
	27	Manifold Heat Valve
Then at 24,000 mile intervals	28	Carburetor Mounting
Every 6,000 miles	29	Spark Plugs (Vehicles using leaded fuels)
Every 12,000 miles	29	Spark Plugs (using low lead or unleaded fuels)
Every 12 months or 12,000 miles	30	Carburetor Fuel Inlet Filter
	31	Thermal Vacuum Switch and Hoses
	32	Transmission controlled Ignition Advance Control
	33	Idle Stop Solenoid
	34	PCV System
Every 24 months or 24,000 miles	35	EGR System (vehicles using leaded fuels)
	35	EGR System (using low lead or unleaded fuels)
	36	Engine Compression
	37	ECS System
	38	Fuel Cap, Tank and Lines
Every 24,000 miles	39	AIR System
	40	Air Cleaner Element
At 1st 24/24-then every 12/12	41	Spark Plug and Ignition Coil Wires

*Also an Emission Control Service

•Also a Safety Service

4BOC1

Figure OC-1 Complete Vehicle Maintenance Schedule

Front Seat Adjuster Tracks - Lubriplate or equivalent.

Convertible Top Mechanism - Lubriplate or equivalent.

Station Wagon Folding Seat Linkage - Dripless Oil.

Tail Gate Lock Striker - Stick type lubricant.

Tail Gate Hinges - Dripless Oil.

Folding Top Lift Cylinder Piston - With folding top in raised position, wipe exposed portion of each top lift cylinder piston rod with a cloth dampened with brake fluid to remove any oxidation or accumulated grime. With another clean cloth apply a light film of brake fluid to act as a lubricant. Do not allow brake fluid to come in contact with any painted or trimmed parts of the body.

Body Rubber Parts

Door, hood, and rear compartment rubber weatherstrips may be kept pliable and quiet by the application of a light coat of GM Part No. 1050110 Lubricant or suitable silicone lubricant equivalent.

FLUID LEVELS

Check level of fluid in brake master cylinder, power steering pump, battery, engine, axle, transmission and windshield washer. Engine coolant should be checked for proper level and freeze protection to at least -20 degrees F. or to the lowest temperature expected during the period of vehicle operation. Proper engine coolant also provides corrosion protection.

Any significant fluid loss in any of these systems or units could mean that a malfunction is developing and corrective action should be taken immediately. On cars with disc brakes, a low fluid level in the brake master cylinder front reservoir could also be an indicator that the disc brake pads need replacing.

ENGINE OIL

Engine Oil Recommendations

Engine oils have a definite effect on ease of starting, oil economy, combustion chamber deposits and engine wear. For these reasons, it is recommended that an oil, which according to the label on the can, (1) passes vehicle manufacturers tests and (2) is intended for service SE, be used in Buick engines.

It is also recommended that the proper viscosity oil be used relative to the temperature range in which

the vehicle will be driven as illustrated in the following chart.

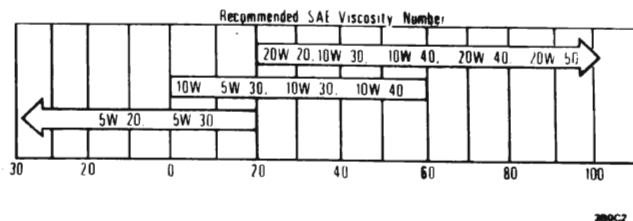


Figure OC-2 Recommended Oil Viscosities

SAE 5W-20 oils are not recommended for sustained high-speed driving. SAE 30 oils may be used at temperatures above 40 degrees F. SAE 5W-30 viscosity oils are recommended for all seasons use in vehicles normally operated in Canada.

Engine Oil Supplement

Engine oil supplement or equivalent is a compound of the materials used by oil refiners to manufacture high detergent motor oils. Although this compound may be used continually, it is normally unnecessary unless engines are operated under such restricted conditions as short trips, frequent stops and slow speeds where such symptoms as sticking valves, valve lifters and/or piston rings are noticed.

Engine Oil Level

The engine oil level should be checked frequently during the break-in period since higher oil consumption is normal until piston rings become seated. The oil level should be maintained within the safety margin, neither above the "Operating Range" line nor below the "Add 1 Qt." line on the oil gauge rod.

To obtain the most accurate oil level reading, the level should be checked before operating the engine or as the last step at a fuel stop by removing the gauge rod, wiping it clean, fully reinserting, then again removing it for visual inspection.

Crankcase Flushing

Flushing the crankcase with oils or solutions other than a good grade of 10W engine oil is not recommended. When flushing is required, drain crankcase and oil filter, add 4 quarts of the 10W oil to the crankcase, start and let engine idle at 1000 rpm until oil is hot, then drain crankcase and dispose of oil filter immediately after stopping engine. Clean oil filter base, install new oil filter after lubricating its seal, fill crankcase with correct quantity and seasonal grade of oil.

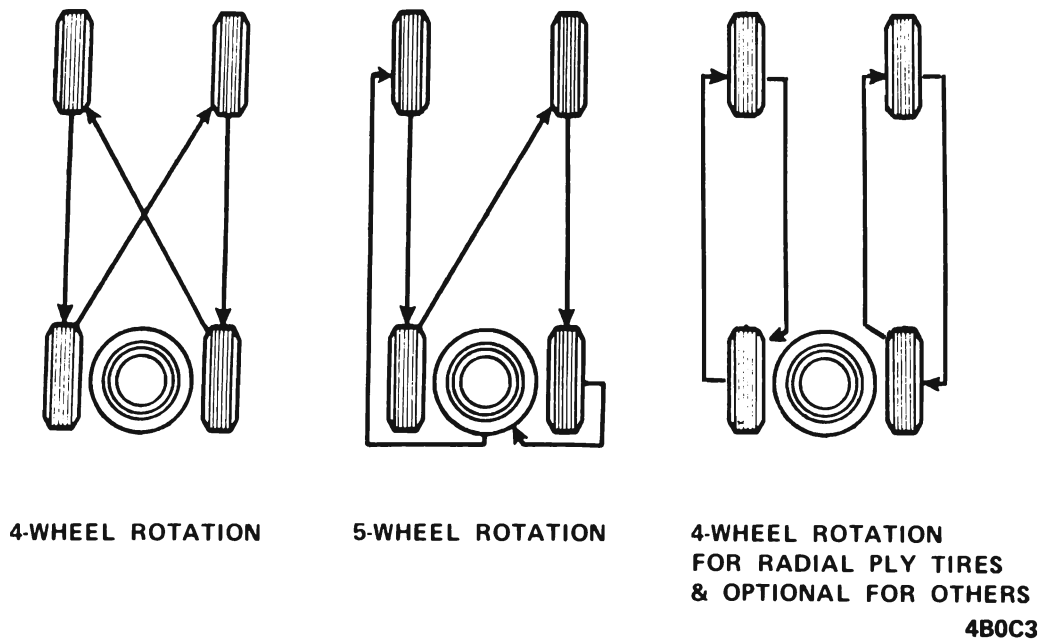


Figure OC-3 Tire Rotation (Standard and Radial)



Figure OC-4 Tread Wear Indicators

Engine Oil Change

Drain and refill engine crankcase every 4 months. If more than 6,000 miles are driven in a 4-month period, change oil every 6,000 miles.

Certain driving conditions including prolonged operation in sub-zero temperatures, trailer hauling and extensive idling necessitates more frequent oil changes. Under these conditions oil change intervals should not exceed 2 months or 3,000 miles, whichever occurs first.

AIR CONDITIONING SYSTEM

Check condition of air conditioning system hoses

and refrigerant charge at sight glass. Replace hoses and/or refrigerant if need is indicated.

It is recommended that the system should be functionally checked by the dealer each spring.

Keep insects and dirt from accumulating on the air conditioner condenser.

TIRE ROTATION

For best tire mileage, rotate tires every four months or 6,000 miles. Figure OC-3 illustrates the recommended tire rotation for standard tires, and radial tires. After tire rotation, adjust tire pressure to the recommended pressure.

A decrease in traction and anti-skid properties, as well as road hazard resistance, occurs as tires become worn out. The original equipment tires incorporate built-in tread wear indicators to assist in judging when tires should be replaced. These indicators are molded into the bottom of the tread grooves and will appear as 1/2 inch wide bands when tire tread depth becomes 1/16 of an inch. When the indicators appear in two or more adjacent grooves, tire replacement is recommended. See Figure OC-4.

ENGINE OIL FILTER

Replace engine oil filter at the first engine oil change and every second oil change thereafter.

To change, screw filter off the filter base and discard. Wipe the gasket area of the base clean and install a new gasket in the groove of a new AC type PF-24 filter (V-8), or equivalent. Lubricate the gasket and screw the filter on the nipple until the gasket just touches the base; tighten filter 2/3 of a turn more. Start engine. Do not accelerate engine beyond the normal idle speed until oil pressure light goes out. Check the filter area for leaks after the engine has run for five (5) minutes.

REAR AXLE

Change lubricant at first 12,000 miles on positive traction differential. Change lubricant every 12,000 miles on all type rear axles when using vehicle for heavy duty operation.

Check lubricant level after allowing time for lube to settle. Clean surrounding area before removing filler plug. Level should be maintained not lower than 3/8 inch below filler plug opening. 3/4 on "B" wagon.

Standard Rear Axle - Lubricant Recommendation

For standard rear axles, use SAE 80 or SAE 90 GL-5 gear lubricant.

For those vehicles normally operated in Canada, use SAE 80GL-5 gear lubricant.

Draining and flushing are not recommended. When complete refilling is necessary, SAE 80 or Gear Lubricant may be used, provided the axle has been in service for 1,000 miles or more. Axles with less than 1,000 miles must not be completely refilled with any lubricant other than Factory Hypoid Lubricant or equivalent.

Positive Traction Axle - Lubricant Recommendation

U.S. Built Axles

Identified by a stainless steel plate attached by a rear cover bolt, or red plastic tag on filler plug, stating "Use positraction differential lube only" and by a stamped code on the bottom of the left axle tube. See Figure OC-5.

Canadian Built Axles

Identified by a red plastic tag attached to the filler plug stating "USE POSITRACTION DIFF. LUBRICANT ONLY" and by an E stamped below the production month and date on the front face of right axle tube. See Figure OC-6.

If Positive Traction Differential lube becomes contaminated, the axle assembly may be flushed with

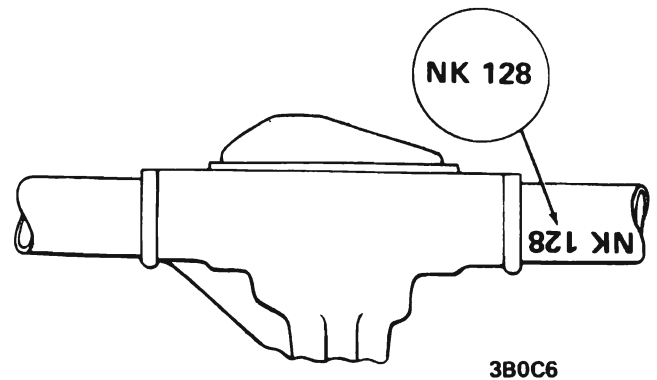


Figure OC-5 Positive Traction Identification - U.S. Built Axles

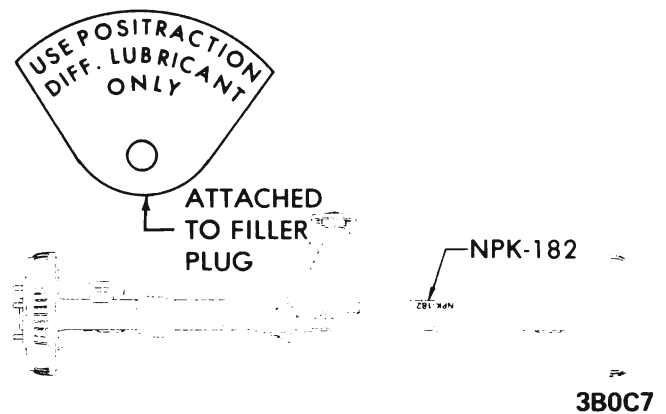


Figure OC-6 Positive Traction Identification - Canadian Built Axles

engine oil. Refer to Group 4 for complete flushing and refill procedures.

In rear axles equipped with Positive Traction and operated in either the United States or Canada, use special positive traction lubricant Part No. 1051022 or equivalent only when changing or adding to the level.

COOLING SYSTEM

At 12 month or 12,000 mile intervals, wash radiator cap and filler neck with clean water, pressure test system and radiator cap for proper pressure holding capacity (tighten hose clamps and inspect condition of all cooling and heater hoses). Replace hoses every 24 months or 24,000 miles or earlier if checked, swollen or otherwise deteriorated.

Also each 12 months or 12,000 miles, clean exterior of radiator core and air conditioning condenser.

An ethylene glycol type anti-corrosive and anti-freeze cooling system protection solution, developed for year around use (GM Specification 1899-M), has been installed in the cooling system of the vehicle at

the factory for protection to -20 degrees F. (-32 degrees F. in Canada) to provide adequate cooling performance and corrosion protection.

Although this type coolant should be maintained to at least -20 degrees F. (-32 degrees F. in Canada) throughout the year, once every two years the cooling system should be drained, flushed and ethylene glycol type anti-freeze (also conforming to GM Specification 1899-M) installed. At this time, also add GM cooling system inhibitor and sealer, or equivalent. *Water alone, Methanol, or alcohol-type anti-freeze is definitely not recommended.*

If water alone must be used as coolant in an emergency, it is extremely important that Buick Heavy Duty Cooling System Protector and Water Pump LUBRICANT OR EQUIVALENT, BE ADDED TO THE COOLING system as soon as possible. If any other cooling system protector is used, be sure it is labeled to indicate that it meets GM Specification 1899-M.

WHEEL BEARINGS

Inspect and lubricate with a premium high melting point wheel bearing grease meeting GM Specification 9048-P when brakes are serviced. Always follow with correct bearing adjustment, as outlined in Group 3.

AUTOMATIC TRANSMISSION

Under normal driving conditions, change the transmission fluid and service the sump filter every 24,000 miles. Under unusual conditions such as constant driving in heavy city traffic during hot weather, trailer pulling, etc., these services should be performed at 12,000 mile intervals.

Use only automatic transmission fluid identified with the mark DEXRON® or DEXRON®-II, or equivalent. This fluid has been especially formulated and tested for automatic transmission use and is available through your parts department.

The transmission fluid level should be checked at each engine oil change period. To make an accurate fluid level check:

1. Drive car several miles, making frequent stops and starts, to bring transmission fluid up to normal operating temperature (approx. 190 degrees F).
2. Park car on a level surface.
3. Position selector lever in "Park" and leave engine running.
4. Remove dipstick and wipe clean.

5. Reinsert dipstick until cap seats.
6. Remove dipstick and observe reading.

The fluid level should be maintained within the safety margin, neither above the "FULL" mark nor below the "ADD" mark on the dipstick. One pint of fluid raises the level from the "ADD" mark to the "FULL" mark, see Figure OC-7.

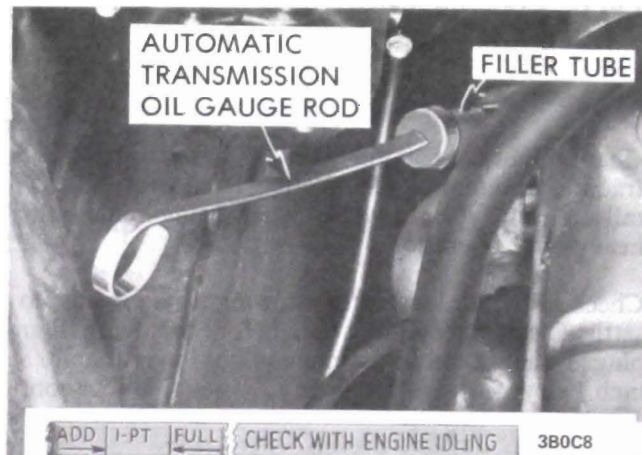


Figure OC-7 Automatic Transmission Oil Gauge Rod

MANUAL STEERING GEAR

Check for seal leakage around the pitman shaft and housing. If leakage is evident (solid grease oozing out not just oily film), it should be corrected immediately.

Manual steering gears are lubricated for life during assembly. If additional lubricant should be required or the steering gear is overhauled, use only a calcium soap No. 2 grease meeting G.M. Spec. 4673M for filling.

BRAKES AND POWER STEERING

Check lines and hoses for proper attachment, leaks, cracks, chafing, deterioration, etc. Any questionable parts noted should be replaced or repaired immediately. When abrasion or wear is evident on lines or hoses, the cause must be corrected.

Brake Fluid Recommendation

All models are equipped with dual master cylinders. Maintain fluid level 1/4 inch plus or minus 1/8 inch below top of each filler opening. When adding brake fluid, use Delco Supreme No. 11 hydraulic brake fluid or equivalent. Never use reclaimed fluid, mineral oil, or fluid inferior to SAE Standard J1703.

Power Steering Fluid Recommendation

Thoroughly clean any excessive amounts of dirt from reservoir cap before removing. Maintain level in accordance with fill marking on cap dip stick.

When adding fluid to the power steering system, power steering fluid Part No. 1050017 or equivalent or DEXRON® and DEXRON®-II or equivalent may be used. In cases where the power steering system is being flushed or overhauled, only power steering fluid Part No. 1050017 or equivalent should be used for refill.

TIRES AND WHEELS

Check tires for excessive wear, nails, glass, cuts or other damage, Make certain wheels are not bent or cracked and wheel nuts are tight. Uneven or abnormal tire wear may indicate the need for alignment service. Tire inflation pressure should be checked by the owner at least monthly, or more often if daily visual inspection indicates the need. Refer to tire placard on glove box door for recommended pressures.

EXHAUST SYSTEM

Check complete exhaust system and nearby body areas and trunk lid for broken, damaged, missing or mispositioned parts, open seams, holes, loose connections or other deterioration which could permit exhaust fumes to seep into the trunk or passenger compartment. Dust or water in the trunk may be an indication of a problem in one of these areas. Any defects should be corrected immediately. To help insure continued integrity, exhaust system pipes and resonators rearward of the muffler must be replaced whenever a new muffler is installed. Use genuine GM parts.

ENGINE DRIVE BELTS

Check belts driving fan, AIR pump, alternator, power steering pump and air conditioning compressor for cracks, fraying, wear and tension. Adjust or replace as necessary.

It is recommended that belts be replaced every 24 months or 24,000 miles, whichever occurs first.

SUSPENSION AND STEERING

Check for damaged, loose or missing parts, or parts showing visible signs of excessive wear or lack of lubrication in front and rear suspension and steering system. Questionable parts noted should be replaced by a qualified mechanic without delay.

OWNER SAFETY CHECKS

Listed below are the safety checks that should be made by the owner. These checks should be made at least every 4 months or 6,000 miles, whichever occurs first, or more often, when the need is indicated. Any deficiencies should be brought to the attention of an authorized Buick dealer or another service outlet, as soon as possible, so the advice of a qualified mechanic is available regarding the need for repairs or replacements.

Steering Column Lock - Check for proper operation by attempting to turn key to LOCK position in the various transmission gears with car stationary. Key should turn to LOCK position only when transmission control is in PARK on automatic transmission models or in reverse on manual transmission models. Key should be removable only in LOCK position.

Lap and Shoulder Belts - Check belts, buckles, retractors and anchors for cuts, fraying or weakened portions, loose connections, damage, and for proper operation. Check to make certain that anchor mounting bolts are tight.

Steering - Be alert to any changes in steering action. The need for inspection or servicing may be indicated by "hard" steering, excessive free play or unusual sounds when turning or parking.

Windshield Wipers and Washers - Check operation of wipers, as well as condition and alignment of wiper blades. Check amount and direction of fluid sprayed by washers during use.

Defrosters - Check performance by moving controls to "DEF", and noting amount of air directed against the windshield.

Wheel Alignment and Balance - In addition to abnormal tire wear, the need for wheel alignment service may be indicated by a pull to the right or left when driving on a straight and level road. The need for wheel balancing is usually indicated by a vibration of the steering wheel or seat while driving at normal highway speeds.

Brakes - Be alert to illumination of the brake warning light or changes in braking action, such as repeated pulling to one side, unusual sounds when braking or increased brake pedal travel. Any of these could indicate the need for brake system inspection and/or service.

Parking Brake and Transmission "Park" Mechanism - Check parking brake holding ability by parking on a fairly steep hill and restraining the vehicle with the parking brake only. On cars with automatic transmissions, check the holding ability of the "PARK" mechanism by releasing all brakes after

transmission selector lever has been placed in the "P" position.

Glass - Check for broken, scratched, dirty or damaged glass on vehicle that could obscure vision or become an injury hazard.

Lights and Buzzers - Check all instrument panel illuminating and warning lights, seat belt reminder light and buzzer, ignition key buzzer, interior lights, license plate lights, side marker lights, headlamps, parking lamps, tail lamps, brake lights, turn signals, backup lamps and hazard warning flashers. Have someone observe operation of each exterior light while you activate the controls.

Transmission Shift Indicator - Check to be sure automatic transmission shift indicator accurately indicates the shift position selected.

CAUTION: *Before making the two checks below, be sure to have a clear distance ahead and behind the car, set the parking brake and firmly apply the foot brake. Do not depress accelerator pedal. Be prepared to turn off ignition switch immediately if engine should start.*

Neutral Start Switch (Automatic Transmission Cars) - Check starter safety switch by placing the transmission in each of the driving gears while attempting to start the engine. The starter should operate only in the Park ("P") or Neutral ("N") positions.

Starter Interlock (Manual Transmission Cars) - To check, place the shift lever in neutral, depress the clutch halfway, and attempt to start. The starter should operate only when clutch is fully depressed.

Horn - Blow the horn occasionally to be sure that it works.

Seat Back Latches - Check to see that seat back latches are holding by pulling forward on the top of each folding seat back. Close doors to check if equipped with automatic seat back latches.

Rearview Mirrors and Sun Visors - Check that friction joints are properly adjusted so mirrors and sun visors stay in the selected position.

Door Latches - Check for positive closing, latching and locking.

Hood Latches - Check to make sure hood closes firmly by lifting on the hood after each closing. Check also for broken, damaged or missing parts which might prevent secure latching.

Fluid Leaks - Check for fuel, water, oil or other fluid leaks by observing the ground beneath the vehicle

after it has been parked for a while. (Water dripping from air conditioning system after use is normal.) If gasoline fumes or fluid are noticed at any time, the cause should be determined and corrected without delay because of the possibility of fire.

Exhaust System - Be alert to any change in the sound of the exhaust system or a smell of fumes which may indicate a leak.

Head Restraints - Check that head restraints adjust properly in the up detent positions, and that no components are missing, damaged or loose.

DISC BRAKES

Check brake pads and condition of rotors while wheels are removed during tire rotation. Although linings may not be excessively worn, this check will indicate when another inspection should be made.

Observe friction pad thickness through the inspection opening in the caliper. Refer to Group 5 for service procedure and specifications.

If required, use Buick-approved replacement linings and friction pads, or equivalent. Lubricate self adjusting mechanism adjusting screw with Delco Moraine Special Brake Lubricant, or equivalent.

All 1974 Buicks with disc brakes have a wear sensor which will produce an audible warning, high-frequency sound similar to brake squeal, at the beginning of front brake lining wear out.

Front disc brakes are standard on all models except for the "X" Series.

DRUM BRAKES AND PARKING BRAKE

Check drum brake linings and other internal brake components at each wheel (drums, wheel cylinders, etc.). Parking brake adjustment also should be checked whenever drum brake linings are checked.

NOTE: *More frequent checks should be made if driving conditions and habits result in frequent brake application.*

THROTTLE LINKAGE

Check for damaged or missing parts, interference or binding. Any deficiencies should be corrected without delay by a qualified mechanic.

HEADLIGHTS

Check for proper aim. Correct as necessary. More frequent checks should be made if oncoming motor-

ists signal when you are already using your low beams, or if illumination of the area ahead seems inadequate.

UNDERBODY

In geographic areas using a heavy concentration of road salt or other corrosive materials for snow removal or road dust control, flush and inspect the complete under side of the car at least once each year, preferably after a winter's exposure. Particular attention should be given to cleaning out underbody and frame members where dirt and other foreign materials may have collected.

BUMPERS

Check the front bumper system at 12-month/12,000-mile intervals to be sure the impact protection and clearance originally designed into the system remains in a state of full readiness. It also should be checked whenever there is obvious bumper misalignment, or whenever the vehicle has been involved in a significant collision in which the bumper was struck, even when slight or no damage to the bumper system can be seen.

THERMOSTATICALLY CONTROLLED AIR CLEANER

Inspect installation to make certain that all hoses and ducts are connected and correctly installed. Also, check valve for proper operation.

ENGINE CHOKE

Check choke mechanism for free operation. A binding condition may have developed from petroleum gum formation on the choke shaft or from damage.

TIMING, DWELL, CARBURETOR IDLE SPEED, DISTRIBUTOR AND COIL

Adjust ignition timing, dwell and carburetor idle speed accurately (following the specifications shown on the label under the hood) at the first 4 months or 6,000 miles of operation then at 12 month or 12,000 mile intervals. Adjustments must be made with test equipment known to be accurate.

Replace distributor points and rotate cam lubricator 180° every 12 months or 12,000 miles and replace cam lubricator every 24 months or 24,000 miles. In addition, carefully inspect the interior and exterior of the distributor cap, distributor rotor and coil for cracks, carbon tracking, and terminal corrosion. Clean or replace as necessary at 24-month/ 24,000-

mile intervals to prevent misfiring and/or deterioration.

Proper functioning of the carburetor is particularly essential to control of emissions. Correct mixtures for emission compliance and idle quality have been preset by Buick. Plastic idle mixture limiters have been installed on the idle mixture screws to discourage unauthorized adjustment. These idle limiters are not to be removed unless some major carburetor repair or replacement which affects the idle screw adjustment has been necessary.

At 24 months or 24,000 miles intervals or in case of a major carburetor overhaul, or when poor idle quality exists, idle mixture should be adjusted by use of a CO meter when an accurate meter is available. If an accurate CO meter is not available the alternate mechanical method (lean drop) should be used to adjust idle mixture.

MANIFOLD HEAT VALVE

L-6 engines are equipped with a manifold heat valve which should be inspected and repaired as necessary to insure free operation.

CARBURETOR MOUNTING

Torque carburetor attaching bolts and/or nuts to 15 ft.lbs. to compensate for compression of gasket at first 4 months or 6,000 miles of vehicle operation then at every 24,000 miles thereafter.

SPARK PLUGS

Replace at 6,000 mile intervals when operating with leaded fuels or at 12,000 mile intervals when using unleaded fuels. Use of leaded fuels results in lead deposits on spark plugs and can cause misfiring at mileages less than 12,000 miles. Where misfiring occurs prior to 6,000 miles, spark plugs in good condition can often be cleaned, tested and reinstalled in an engine with acceptable results.

EXHAUST GAS RECIRCULATION SYSTEM (EGR)

Check system operation at 12 month/12,000 mile intervals when operating with leaded fuels or at 24 month/24,000 mile intervals when using unleaded fuels. Remove, inspect, and if deposits exist, clean the EGR valve and passages in intake manifold as required. A valve with a damaged diaphragm must be replaced.

CARBURETOR FUEL INLET FILTER

Replace filter at 12 month/12,000 mile intervals or more frequently if clogged.

THERMAL VACUUM SWITCH AND HOSES

Check for proper operation. A malfunctioning switch must be replaced. Check hoses for proper connection, cracking, abrasion or deterioration and replace as necessary.

**TRANSMISSION CONTROLLED IGNITION
ADVANCE CONTROL**

Check both the vacuum and electrical functions of this valve. An inoperative or leaking valve must be replaced. Check condition of wires and connections. Check hoses for proper connection, cracking, abrasion or deterioration and replace as necessary.

IDLE STOP SOLENOID

Check for proper operation. An inoperative solenoid must be replaced.

**POSITIVE CRANKCASE VENTILATION SYSTEM
(PCV)**

Check the PCV system for satisfactory operation at 12 month or 12,000 mile intervals using a tester. Replace the PCV valve at 24 month or 24,000 mile intervals, blow out PCV valve hose with compressed air and replace the filter. The PCV valve should be replaced at 12 month or 12,000 mile intervals when the vehicle is used in operations involving heavy dust, extensive idling, trailer pulling, and short trip use at freezing temperatures when engine does not become thoroughly warmed-up. The PCV filter should be replaced at 12 month/12,000 mile intervals under dusty driving conditions.

ENGINE COMPRESSION

Test engine cranking compression. If a problem exists, have correction made. Minimum compression recorded in any one cylinder should not be less than 70 percent of highest cylinder. For example, if the highest pressure in any one cylinder is 150 pounds, the lowest allowable pressure for any other cylinder would be 105 pounds ($150 \times 70\% = 105$).

EVAPORATION CONTROL SYSTEM (ECS)

Check all fuel and vapor lines and hoses for proper connections and correct routing as well as condition.

Remove canister and check for cracks or damage. Replace damaged or deteriorated parts as necessary. Replace filter in lower section of canister.

FUEL CAP, FUEL LINES AND FUEL TANK

Inspect the fuel tank, cap and lines for damage which could cause leakage. Inspect fuel cap for correct sealing ability and indications of physical damage. Replace any damaged or malfunctioning parts.

**AIR INJECTION REACTOR (AIR) SYSTEM HOSES
AND CONNECTIONS**

Check AIR system hoses and fittings for loose connections and deterioration. Test diverter valve for proper operation. Malfunctioning diverter valves and deteriorated hoses must be replaced.

AIR CLEANER ELEMENT

Replace the engine air cleaner element under normal operating conditions every 24,000 miles on V-8 engines and 12,000 miles on L-6 engines. Operation of vehicle in dusty areas will necessitate more frequent element replacement.

CAUTION: *Do not operate the engine without the air cleaner unless temporary removal is necessary during repair or maintenance of the vehicle. When the air cleaner is removed, backfiring can cause fire in the engine compartment.*

SPARK PLUG WIRES AND IGNITION COIL WIRES

Inspect spark plug and ignition coil wires for evidence of checking, burning, or cracking of exterior insulation and tight fit at distributor cap, coil, and spark plugs. Exterior of wires should be cleaned; any evidence of corrosion on end terminals removed and wires replaced as necessary to prevent misfiring and/or deterioration.

SPECIFICATIONS

1974 LUBRICATION CHART - ALL MODELS

<p>STEERING LINKAGE LUBE (7) -CL- 6,000 Mi. or 4 Mos. Whichever Occurs First</p>		<p>AIR CONDITIONER - Functional Check Once a Year</p>
<p>DISTRIBUTOR CAM LUBRICATOR Replace 12,000</p>		<p>RADIATOR Check Coolant level at each oil change. Replace every 24,000 Miles or 24 Months</p>
<p>ENGINE BELTS - Check Condition and Proper Tension 6,000 Mi. or 4 Mos.</p>		<p>ENERGIZER (Battery) - Check Level Periodically</p>
<p>EVAPORATION CONTROL CANISTER FILTER Replace filter on underside of canister every 12 months or 12,000 miles, whichever occurs first.</p>		<p>CRANKCASE VENTILATION ELEMENT AND AIR CLEANER ELEMENT - Inspect at each oil change replace if necessary. Replace at least every 24,000 miles - more often under dusty conditions.</p>
<p>FUEL FILTER - Replace With Recommended Element 12,000 or 12 Mos. Whichever Occurs First</p>		<p>FRONT WHEEL BEARINGS - (Disc Type Brakes) Inspect and lubricate with a premium high melting point wheel bearing grease when brakes are serviced. Part No. 1051344 or equivalent)</p>
<p>WINDSHIELD WASHER FLUID Check Level Periodically</p>		<p>OIL FILTER ELEMENT - Replace With First Oil Change and Then at Alternate Oil Changes.</p>
<p>LOWER BALL JOINTS (2) - CL - 6,000 Miles or 4 Mos. Whichever Occurs First</p>		<p>UPPER BALL JOINTS (2) -CL- 6,000 Mi. or 4 Mos. Whichever Occurs First</p>
<p>ENGINE OIL - Drain and Refill - EO - 4 Mos. Never exceed 6,000 miles between changes.</p>		<p>PCV VALVE - Replace 24,000 miles or 24 months</p>
<p>STD. STEERING GEAR - Lubed for Life SG - Used for refill after repair only</p>		<p>TURBO HYDRAMATIC 350-375B Replace Filter at - 24,000 Normal 12,000 Heavy Duty</p>
<p>Lubricate rear C.V. Joint B.C.E. series 6,000 Mi. or 4 Mos.</p>		<p>TURBO HYDRAMATIC 400 Replace Filter at - 24,000 Normal 12,000 Heavy Duty</p>
<p>POWER STEERING RESERVOIR - Check Fluid Level -PSF- Whichever Occurs First 4 mos. or 6,000</p>		<p>STANDARD DIFFERENTIAL - REAR AXLE - Maintain at filler opening to 3/8" below - Flushing & seasonal changes NOT recommended. MPG - SAE - 80 or 90. (SAE 80 in Canada)</p>
<p>BRAKE MASTER CYLINDER - Maintain Level 1/4" ± 1/8" Below Top of Each Reservoir - HBF - Whichever Occurs First 4 mos. or 6,000</p>		<p>For complete Refill use only factory hypoid gear lubricant - Unless axle in service 1,000 miles or more. Then use MPG - SAE - 90 (SAE 80 in Canada)</p>
<p>MANUAL TRANSMISSION - Maintain at Filler Opening - Flushing & Seasonal Changes NOT Recommended. M.P.G. - S.A.E. - 80 or 90 GL-5 (SAE 80 in Canada)</p>		<p>POSITIVE TRACTION DIFFERENTIAL - Change lube every 12,000 miles. Maintain at filler opening to 3/8. below - Use Part No. 1051022 or equivalent)</p>
<p>CHECK CLUTCH LASH - ("X" Series Only) Adjust if necessary 6,000</p>		<p>If vehicle is used for trailering, drain and refill every 12,000 miles using lubricants recommended for standard and positive traction differentials.</p>
<p>BRAKE MECHANISM Apply at Starwheel Point of Contact and Lightly to 6 Surfaces on Which Shoe Rim Rests BL 12,000</p>	<p>LUBRICANTS</p> <p>CL Chassis Lubricant - Water Resistant Ex- treme Pressure EP No. 2 Multi-purpose Grease Which Meets G.M. Spec. 6031M</p> <p>AT DEXRON[®] or DEXRON[®] II Automatic Transmission Fluid G.M. Part No. 1050568-69-70 or Equivalent</p> <p>EO Engine Oil (Current Viscosity) SE*</p> <p>HBF Hydraulic Brake Fluid - Delco Super No. 11* or equivalent</p> <p>BL Brake Lube, Self-adjusting Per Spec. M.P. 6805</p> <p>MPG Multi-Purpose Gear Lubricant GL-5</p> <p>TL Lube Conforming to G.M. Specification 1051022</p> <p>SG Calcium Soap # 2 Meeting G.M. Spec. 4673M. Do Not Use CL</p> <p>PSF Buick Power Steering Gear Fluid or Equivalent Meeting G.M. Part No. 1050017 or equivalent</p>	
<p>TIRES - Rotate Maintain Pressure Periodically Refer to Group 3 For Correct Pressure 6,000</p>	<p>*Equivalent Acceptable if it Meets Specifications</p>	

U.S., IMPERIAL AND METRIC MEASURE CHART

	U.S. Measure	Imperial Measure	Metric Measure
COOLING SYSTEM			
250 Cu. In. ("X" Series) With Heater and/or H.D.C.	14.0 Qts.	11.7 Qts.	13.2 Liters
350 Cu. In. ("X" Series) With Heater	16.5 Qts.	13.7 Qts.	15.6 Liters
With A/C and/or H.D.C.	17.0 Qts.	14.2 Qts.	16.1 Liters
350 Cu. In. ("A" Series) With Heater	17.3 Qts.	14.4 Qts.	16.4 Liters
With A/C and/or H.D.C. 20" Fan Shroud	17.6 Qts.	14.7 Qts.	16.7 Liters
With A/C and/or H.D.C. 22" Fan Shroud	17.2 Qts.	14.3 Qts.	16.3 Liters
350 Cu. In. ("B" Series) With Heater	17.3 Qts.	14.4 Qts.	16.4 Liters
With A/C and/or H.D.C.	17.2 Qts.	14.3 Qts.	16.3 Liters
455 Cu. In. ("A" Series) With Heater	19.4 Qts.	16.2 Qts.	18.4 Liters
With A/C and/or H.D.C.	19.9 Qts.	16.6 Qts.	18.8 Liters
455 Cu. In. (B-C-E Series) With Heater	19.6 Qts.	16.3 Qts.	18.5 Liters
With A/C	19.8 Qts.	16.5 Qts.	18.7 Liters
With H.D.C. All	21.6 Qts.	18.0 Qts.	20.4 Liters
Crankcase (All Series)			
Refill	4 Qts.	3.30 Qts.	3.78 Liters
With Oil Filter Change	5 Qts.	4.20 Qts.	4.73 Liters
Gasoline Tank			
All "X" Series	Approx. 21.5 Gal.	17.9 Gal.	81.28 Liters
All "A" Series and Estate Wagon	Approx. 22 Gal.	18.3 Gal.	83.16 Liters
All "B, C and E" Series less Estate Wagon	Approx. 26 Gal.	21.63 Gal.	98.41 Liters
Rear Axle			
"X" Series all 8-1/2"	4-1/4 Pts.	3-1/2 Pts.	2.01 Liters
"A" Series Less Wagons 350 Cu. In. 8-1/2"	4-1/4 Pts.	3-1/2 Pts.	2.01 Liters
"A" Series Wagons 350 Cu. In. 8-7/8"	5-1/4 Pts.	4-1/4 Pts.	2.48 Liters
"B" Series Less Wagons 350 Cu. In. 8-1/2"	4-1/4 Pts.	3-1/2 Pts.	2.01 Liters
350 Cu. In. 8-7/8"	5-1/4 Pts.	4-1/4 Pts.	2.48 Liters
"B" Series Less Wagons 455 Cu. In. 8-7/8"	5-1/4 Pts.	4-1/4 Pts.	2.48 Liters
"B" Series Wagon 455 Cu. In. 9-3/8"	5-1/2 Pts.	4-1/2 Pts.	2.60 Liters
"C" and "E" Series 455 Cu. In. 9-3/8"	5-1/2 Pts.	4-1/2 Pts.	2.60 Liters