

SECTION B

MAINTENANCE AND LUBRICATION ALL SERIES

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DIVISION I SPECIFICATIONS AND ADJUSTMENTS

00-7 LUBRICATION AND CAPACITY CHARTS

- a. Refer to lubrication charts.
- b. Refer to U.S., Imperial and Metric Measure Chart.

1970 LUBRICATION CHART- ALL MODELS EXCEPT RIVIERA

STEERING LINKAGE -Lube (7)
-CL- 6,000 Mi. or 4 Mos.
Whichever Occurs First

DISTRIBUTOR CAM LUBRICATOR
Replace 12,000

ENGINE BELTS - Check Condition and Proper Tension 12,000

FUEL FILTER - Replace With Recommended Element 12,000 or 12 Mos.
Whichever Occurs First

WINDSHIELD WASHER FLUID
Check Level Periodically

LOWER BALL JOINTS (2) -CL- 6,000 Mi. or 4 Mo.
Whichever Occurs First

ENGINE OIL - Drain and Re-fill - EO
Refer to Page 00-15

STD. STEERING GEAR - Lubed for Life
SG - Used for refill after repair only

CHECK HEAT CONTROL VALVE-HTL--6,000
L-8 and 350 Engine only

POWER STEERING RESERVOIR - Check Fluid Level -PSF- 6,000

BRAKE MASTER CYLINDER - Maintain Level 1/8" Below Top of Each Reservoir -HBF- 6,000

CHECK CLUTCH LASH - Adjust if necessary 6,000

TIRES - Rotate
Maintain Pressure Periodically
Refer to Paragraph 100-3 For Correct Pressure 6,000

BRAKE MECHANISM - Apply at Starwheel Point of Contact and Lightly to 6 Surfaces on Which Shoe Rim Rest -BL- 12,000

AIR CONDITIONER - Functional Check Once A Year

RADIATOR - Check Coolant level at each oil change. Replace every 24 Months.

ENERGIZER (Battery) - Check Level PERIODICALLY

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

FRONT WHEEL BEARINGS - Inspect and lubricate with a high melting point wheel bearing grease when brakes are serviced.

OIL FILTER ELEMENT - Replace With First Oil Change and Then at Alternate Oil Changes

UPPER BALL JOINTS (2) -CL- 6,000 Mi. or 4 Mos.
Whichever Occurs First

PCV VALVE - Replace 12,000 or 12 Mos.

MANUAL TRANSMISSION - Maintain at Filler Opening - Flushing & Seasonal Changes NOT Recommended
M.P.G. - SAE - 80

TURBO HYDRAMATIC 350
Clean Strainer - AT 24,000 Normal
12,000 Heavy Duty

TURBO HYDRAMATIC 400
Replace Filter - AT 24,000 Normal
12,000 Heavy Duty

STANDARD DIFFERENTIAL
REAR AXLE - Maintain at Filler Opening to 1/4" Below - Flushing & Seasonal Changes NOT Recommended -MPG-SAE-80

For Complete Re-Fill Use Only Factory Hypoid Gear Lubricant - Unless Axle in Service 1,000 Mi. or more. Then Use -MPG-SAE-80

POSITIVE TRACTION DIFFERENTIAL - Maintain at Filler Opening to 1/4" Below Flushing or Seasonal Change is NOT Recommended. Use TL

	CAPACITIES (U.S. MEASURE)			
	L-4	350 (Except LeSabre)	350 (LeSabre)	455 (GS455)
COOLING SYSTEM				
With Heater	16.04	16.45	16.20	19.70
With Air Conditioner	16.04	16.52	16.55	19.67
CRANKCASE (All Series)				
Refill - Qts.	4			
With Oil Filter Change	5			
GAS TANK (Gals.)	<u>43-44000 Series</u>	<u>Sportwagon</u>	<u>Estatewagon</u>	<u>45-46-48000 Series</u>
Approx.	20	23	24	25
REAR AXLE (Pts.)	<u>U.S. Built</u>	<u>43-44000 Series</u> <u>Canada Built</u>	<u>45000 Series</u>	<u>46-48000 Series</u>
TRANSMISSION	3	3 1/2	3	4 1/4

Turbo Hydra-matic 350 See Refill Procedure, Paragraph 75-1
Turbo Hydra-matic 400
3-Speed Manual 3 1/2 Pts.
4-Speed Manual 3 Pts.

MANUAL STEERING GEAR (All Series) 11oz.
POWER STEERING RESVOIR (All Series) 1 1/4 Qts.

NOTE: Refer to Measures Chart for Imperial & Metric Measures

LUBRICANTS

CL Chassis Lubricant - Water Resistant Extreme Pressure EP No. 2 Multi-purpose Grease Which Meets G.M. Spec. 6031 M

AT DEXRON® Automatic Transmission Fluid G.M. Part No. 72535B-59-60 or Equivalent

EO Engine Oil (Current Viscosity) G.M. 6041-M*

HTL Heat Riser Valve Lubricant G.M. Part No. 1050422

HBF Hydraulic Brake Fluid - Delco Super No. 11*

BL Brake Lub., Self-adjusting Per Spec. MP. 6805

MPG Multi-Purpose Gear Lubricant (MIL-L-2105-B)

TL Special Lubricant Part No. 725985

EP Multi-Purpose Grease EP No. 1 Grade Meeting G.M. Spec. 6040-M

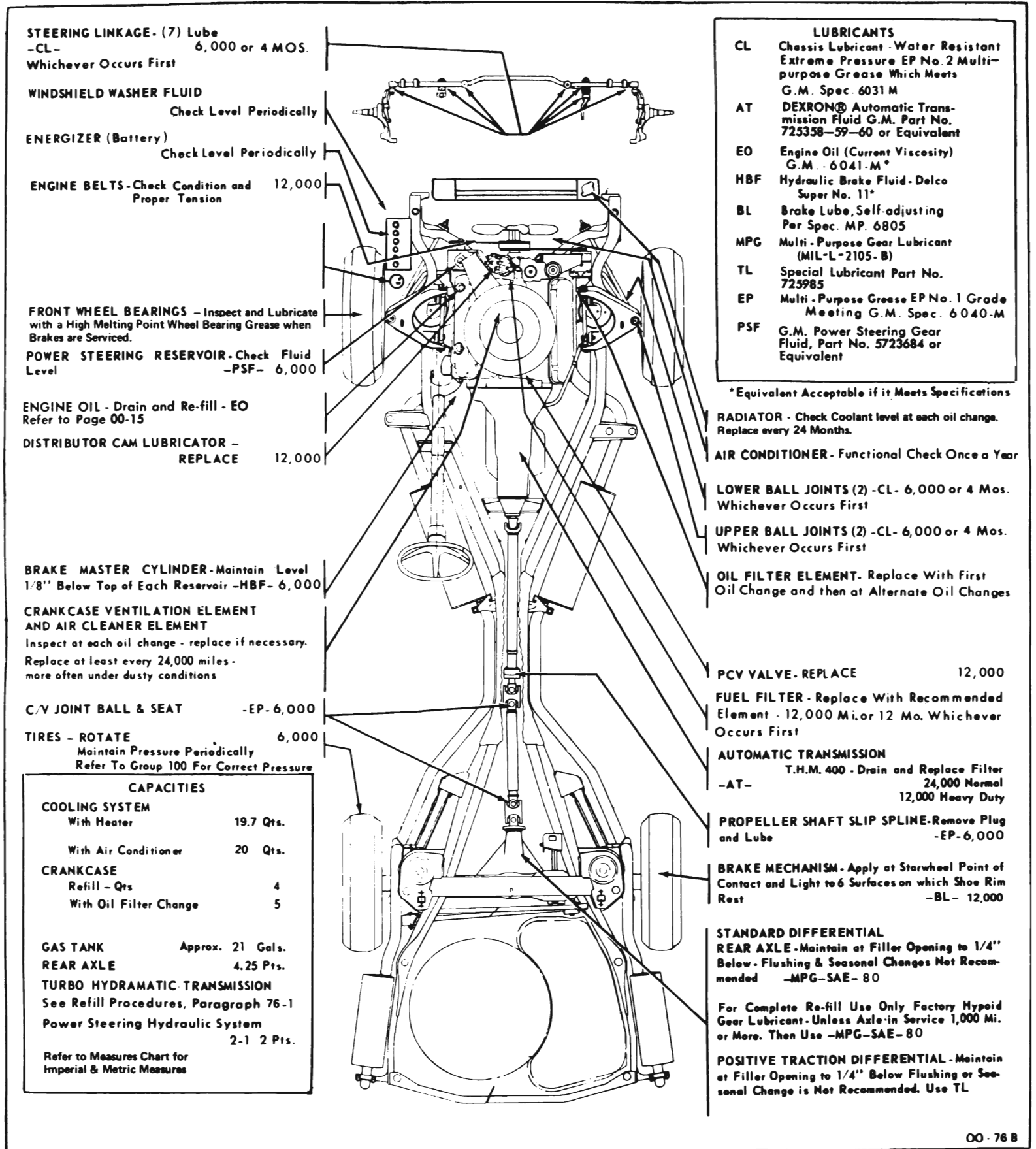
SG Calcium Soap #2 Meeting G.M. Spec. 4673M Do Not Use CL

PSF G.M. Power Steering Gear Fluid, Part No. 5723684 or equivalent

* Equivalent Acceptable if it Meets Specifications

Figure 00-II - Lubrication Chart - All Models Except Riviera

1970 RIVIERA LUBRICATION CHART



LUBRICANTS	
CL	Chassis Lubricant - Water Resistant Extreme Pressure EP No. 2 Multi-purpose Grease Which Meets G.M. Spec. 6031 M
AT	DEXRON® Automatic Transmission Fluid G.M. Part No. 725358-59-60 or Equivalent
EO	Engine Oil (Current Viscosity) G.M. - 6041-M*
HBF	Hydraulic Brake Fluid - Delco Super No. 11*
BL	Brake Lube, Self-adjusting Per Spec. MP. 6805
MPG	Multi-Purpose Gear Lubricant (MIL-L-2105-B)
TL	Special Lubricant Part No. 725985
EP	Multi-Purpose Grease EP No. 1 Grade Meeting G.M. Spec. 6040-M
PSF	G.M. Power Steering Gear Fluid, Part No. 5723684 or Equivalent

*Equivalent Acceptable if it Meets Specifications

CAPACITIES	
COOLING SYSTEM	
With Heater	19.7 Qts.
With Air Conditioner	20 Qts.
CRANKCASE	
Refill - Qts	4
With Oil Filter Change	5
GAS TANK	Approx. 21 Gals.
REAR AXLE	4.25 Pts.
TURBO HYDRAMATIC TRANSMISSION	
See Refill Procedures, Paragraph 76-1	
Power Steering Hydraulic System	2-1 2 Pts.
Refer to Measures Chart for Imperial & Metric Measures	

Figure 00-12 - Lubrication Chart - Riviera

U.S., IMPERIAL AND METRIC MEASURE CHART

	U.S. Measure	Imperial Measure	Metric Measure
Cooling System (L-6) 250 Cu. In. w/Heater w/Air Conditioner	16.04 Qts. 16.04 Qts.	13.37 Qts. 13.37 Qts.	15.18 Liters 15.18 Liters
350 Cu. In. (All Except LeSabre) w/Heater w/Air Conditioner	16.45 Qts. 16.52 Qts.	13.71 Qts. 13.77 Qts.	15.57 Liters 15.63 Liters
350 Cu. In. (LeSabre) w/Heater w/Air Conditioner	16.20 Qts. 16.55 Qts.	13.50 Qts. 13.79 Qts.	15.33 Liters 15.66 Liters
455 Cu. In. (GS455) w/Heater w/Air Conditioner	19.17 Qts. 19.67 Qts.	15.97 Qts. 16.39 Qts.	18.14 Liters 18.61 Liters
455 Cu. In. w/Heater w/Air Conditioner	19.70 Qts. 20.0 Qts.	16.42 Qts. 16.67 Qts.	18.64 Liters 18.93 Liters
Crankcase (All Series) Refill With Oil Filter Change	4 Qts. 5 Qts.	3.30 Qts. 4.20 Qts.	3.78 Liters 4.73 Liters
Gasoline Tank 43-4400 Series Sportwagon Estatewagon 45-46-4800 Series 4900 Series	Approx. 20 Gal. Approx. 23 Gal. Approx. 24 Gal. Approx. 25 Gal. Approx. 21 Gal.	16.67 Gal. 19.17 Gal. 20.00 Gal. 20.83 Gal. 17.50 Gal.	75.60 Liters 86.94 Liters 90.72 Liters 94.50 Liters 79.38 Liters
Rear Axle 43-44000 Series (U.S. Built) 43-44000 Series (Canada Built) 45000 Series 46-48-49000 Series	3 Pts. 3½ Pts. 3 Pts. 4¼ Pts.	2½ Pts. 3 Pts. 2½ Pts. 3½ Pts.	1.42 Liters 1.68 Liters 1.42 Liters 2.18 Liters
Transmission T.H.M. 350 T.H.M. 400 3 Speed Manual 4-Speed Manual	See Paragraph 75-1 See Paragraph 76-1 3½ Pts. 3 Pts.	3 Pts. 2½ Pts.	1.66 Liters 1.43 Liters
Manual Steering Gear (All Series)	11 Oz.	11 Oz.	311.85 Grams
Power Steering (All Series) Hydraulic System	2½ Pts.	2 Pts.	1.19 Liters

DIVISION III

SERVICE PROCEDURES

00-8 ENGINE OIL RECOMMENDATIONS

a. Engine Oil

Engine crankcase oils have a definite effect on ease of starting, oil economy, combustion chamber deposits and engine wear. It is recommended that an oil which, according to the label on the can, is: (1) intended for service MS and (2) passes car makers' tests or meets General Motors Standard GM 6041-M be used. Oils conforming to these types contain detergent additives.

b. Grade or Viscosity

The grade or viscosity (SAE number) of engine oil should be selected for the lowest anticipated temperature at which cold engine starting will be required as recommended in the temperature-viscosity chart in subparagraph d.

Oil level should be checked more frequently during the break-in period since somewhat higher oil consumption is normal until piston rings become seated.

The oil level should be maintained between the "operating range" marks on the gage rod; the space between marks represents one quart. Do not fill above the upper mark.

c. Oil Color

The color of "Service MS" type oil does not indicate its condition since it normally becomes dark (black or gray) after only a few hundred miles of driving. This is because the detergent content envelopes and holds in suspension extremely fine but harmless soot (soft carbon) and lead particles. The oil filter element does not remove this harmless material but it does remove harmful particles such as road dust, metal chips and hard carbon.

d. Engine Oil Change and Viscosity Recommendations

The following engine oil viscosity grade is *recommended* for all season operation —

5W-30

Alternate engine oil viscosity grades are permissible but must be used in accordance with the temperature ranges shown below:

Below 20°F.	5W-20, 5W
Above 20° F.	10W-40, 10W-30, 10W, 20W-40, 20W

e. Crankcase Flushing

Flushing the crankcase with oils or solutions other than a good grade of 10-W engine oil is not recommended. When flushing to remove contamination appears advisable, use 3 quarts 10-W oil (4 quarts if filter is drained) and idle the engine at 1000 RPM (equivalent to 20 MPH) until the oil is hot, then drain crankcase and oil filter immediately after stopping engine. Fill crankcase with correct quantity and seasonal grade of oil. Install new oil filter element.

f. Engine Oil Supplement

Engine Oil Supplement or equivalent is a compound of the materials used by oil refiners to manufacture high detergent motor oils. It is intended for use in engines operating under aggravated conditions where engine deposits, rust and corrosion cannot be adequately retarded by motor oils readily available to the average motorist. It is especially recommended for engines operated under restricted conditions such as frequent stops, short trips and slow speeds where such symptoms as sticking valves, valve lifters and rings are noticed.

Although Engine Oil Supplement may be used continually, it is normally unnecessary to use it with every crankcase refill. When used, the instructions on the container should be carefully observed.

00-9 PERIODICALLY WHILE VEHICLE IS BEING REFUELED

1. Battery - Check Level.

If necessary, add colorless, odorless drinking water to bring level to split ring at bottom of filler wells.

CAUTION: DO NOT OVERFILL.

2. Tires

For maximum tire life with corresponding good ride characteristics, maintain the tire pressure recommended in Group 100.

3. Engine Oil

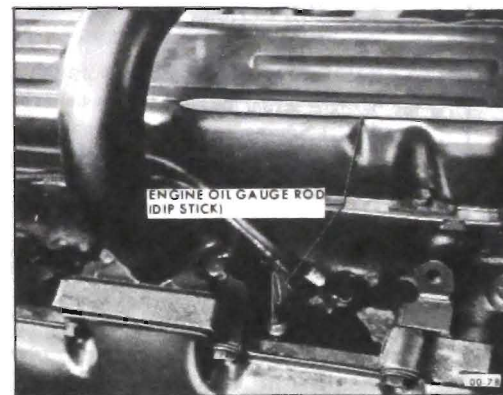


Figure 00-13 - Engine Oil Gauge Rod

This check should be performed last to allow the oil to drain back into the pan. Always add oil if the level is below the lower mark on the dip stick. See Figure 00-13.

4. Windshield Washer Solvent

If necessary, add solvent using GM Optikleen or equivalent. Follow instruction on label for correct concentration of solvent and water.

00-10 MAINTENANCE RECOMMENDATIONS EVERY 2 OR 4 MONTHS

1. Engine Oil Change

Under no circumstances should the oil change interval exceed the time limitations shown for the type of operation listed.

Every 2 Months—Oil Change Interval.

Under cold weather operation where temperatures fall below 32°F.

Where operation consists primarily of trips 10 miles or less.

Under conditions where engine is idled extensively.

Under dusty operating conditions or when hauling a trailer.

NOTE: Oil change interval must not exceed 3000 miles in the 2 month period under these operating conditions.

Every 4 Months—Oil Change Interval

This oil change interval should be used under ideal operating conditions, such as: temperatures consistently above 32°F., frequent trips of more than 10 miles and where dust, excessive idling or trailer hauling are not governing factors.

NOTE: Oil change interval must not exceed 6000 miles in the 4 month period under these operating conditions.

2. Engine Oil Filter Change

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), PF-25 (L-6) 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.

3. Emission Control

Check engine idle speed, ignition timing, idle fuel mixture and Positive Crankcase Ventilation System at first oil change (as specified under Engine Oil Change). Subsequent checks should be made every 12 months or 12,000 miles whichever occurs first.

00-11 MAINTENANCE RECOMMENDATIONS EVERY 6,000 MILES OR FOUR MONTHS

1. Front Suspension and Steering Linkage

The front suspension and steering linkage should be lubricated with a water resistant extreme pressure EP number 2 Multi-Purpose grease equivalent to GM Specification 6031-M every 6,000 miles or four months whichever occurs first.

NOTE: 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)

2. Manifold Heat Valve

Spray Heat Riser Valve Lubricant and Penetrating Fluid, GM Part No. 1050422 or equivalent on end of shaft, and free up if required. See Figure 00-14 or 00-15.

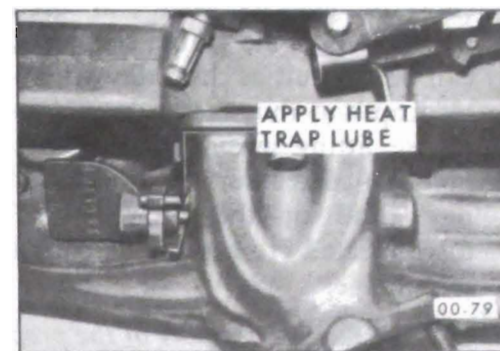


Figure 00-14 - Lubricating Points on Manifold Heat

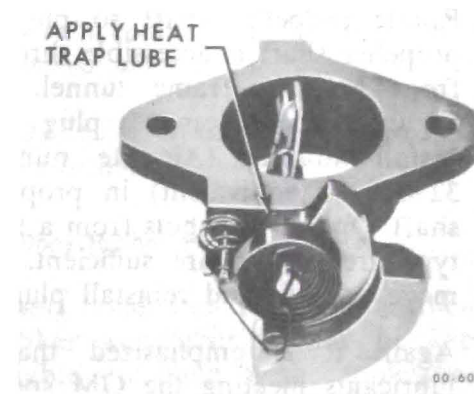


Figure 00-15 - Lubricating Points on Manifold Heat Control Valve - 350 Engine

3. Clutch Lash

Should be adjusted every 6,000 miles. See Group 71 for procedures.

4. Constant Velocity Universal Joint Centering Ball 49000 Series

Rotate propeller shaft until fitting is visible through frame tunnel (49000) Series. Insert special grease gun adapter to bear solidly against fitting. One or two shots of grease is sufficient. See Figure 00-17. On the 49000 Series lubricate rear constant velocity Universal joint.

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NOTE: Multi-Purpose Grease EP number 1 grade is the only lubricant applicable at this point.

NOTE: DO NOT USE ORDINARY CHASSIS LUBE. An EP number 1 lube is available through the Parts Department under Group 8.800.

On the 49000 series lubricating the constant velocity joint on certain hoists such as the frame contact type can be difficult as they allow the axle to drop and thus move the CV joint grease fitting away from the access hole. To correct, either the axle must be raised or the propeller shaft disconnected from the rear companion flange.

CAUTION: Reassembly of the propeller shaft should carefully be done as instructed in Group 40.

5. Propeller Shaft Slip Spline 49000 Series

Rotate propeller shaft so plug in propeller shaft is accessible through front hole in frame tunnel. See Figure 00-16. Remove plug and install adapter (Alemite number 327045 or equivalent) in propeller shaft. One or two shots from a lever type grease gun are sufficient. Remove adapter and reinstall plug.

Again it is emphasized that a lubricants meeting the GM specification 6040-M for Multi-Purpose Grease EP number 1 grade is to be used in these areas. *Ordinary chassis lube must not be used.* An EP number 1 lube is available through the Parts Department under Group 8.800.

6. Tires

For best tire mileage, rotate tires every four months or 6,000 miles as shown in Figure 00-17. After tire rotation, adjust tire pressure to the recommended pressure listed in Group 100.

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

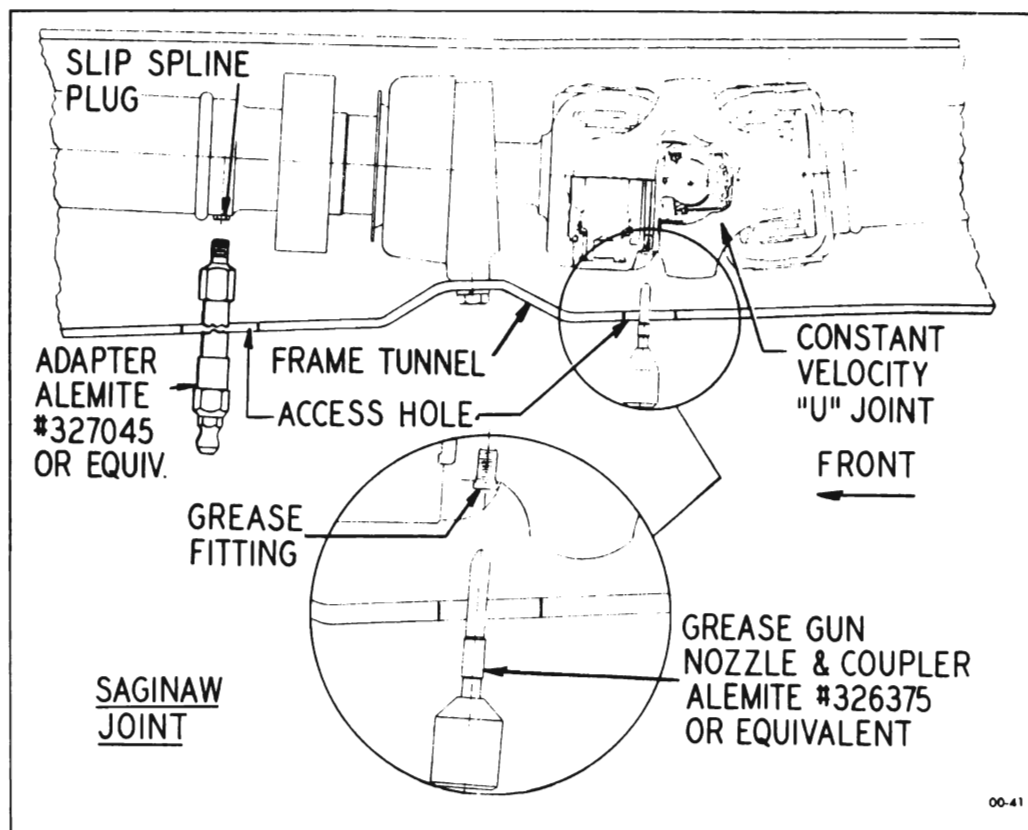


Figure 00-16 - Propeller Shaft Lubrication Points (49000 Series)

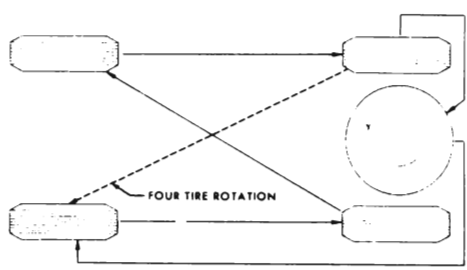


Figure 00-17 - Tire Rotation Method



Figure 00-18 Tread Wear Indicators

indicators are molded into the bottom of the tread grooves and will appear as 1/2 inch wide bands when tire tread depth becomes a 1/16 of an inch. When the indicators appears in two or more adjacent grooves, tire replacement is recommended. See Figure 00-18.

7. Check Fluid Level

Brake Master Cylinder All models are equipped with dual master cylinders. Maintain fluid level 1/8" below top of each filler opening. When adding brake fluid, use Delco Supreme number 11 hydraulic brake fluid or equivalent. Never use reclaimed fluid, mineral oil, or fluid inferior to SAE Standard J1703.

Manual Transmission Check oil level,

after allowing time for oil to settle. Clean the surrounding area before removing filler plug. Level should be maintained at filler plug opening by adding SAE 80 multi-purpose gear lubricant.

NOTE: Draining and flushing transmission is not recommended.

Automatic Transmission IMPORTANT: Refer to Paragraph 75-1, subparagraph e. for correct refill procedures.

Power Steering Reservoir Thoroughly clean any excessive amounts of dirt from reservoir cap before removing. Maintain level in accordance with fill marking on cap dip stick. Use only Power Steering Fluid meeting GM Specification 9985010.

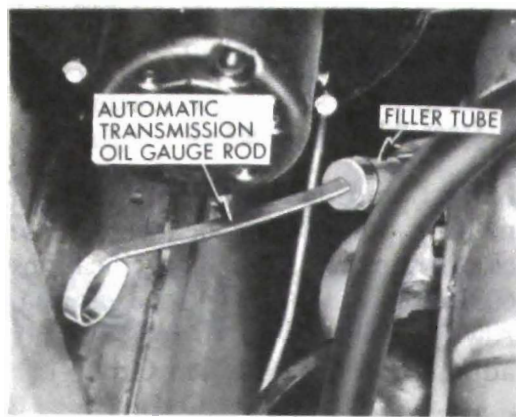


Figure 00-19 - Automatic Transmission Oil Gauge Rod

Standard Differential Rear Axle Check lubricant level after allowing time for lube to settle. Clean surrounding area before removing filler plug. Level should be maintained not lower than 1/4" below filler plug opening by adding SAE 80 Multi-Purpose Gear Lubricant meeting MIL-L-2105B specification.

NOTE: Draining and flushing are not recommended. When complete refilling is necessary, SAE 80 Multi-Purpose 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 Differential Rear Axle U.S. Built Axles

Identified by a stainless steel plate attached by a rear cover bolt starting "Use limited slip differential lube only" and by an X enclosed in a circle stamped on the bottom of the left axle tube. See Figure 00-20.

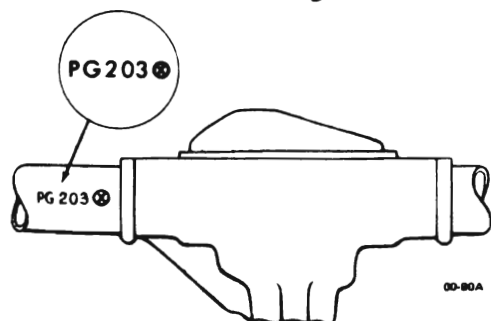


Figure 00-20 - Positive Traction Identification - U.S. Built Axles

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 00-21.

Check lubricant level after allowing time for lubricant to settle.

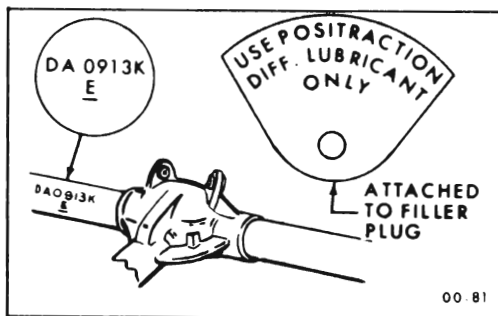


Figure 00-21 - Positive Traction Identification - Canadian Built Axles

Level should be maintained not lower than 1/4" below filler plug opening by adding special lubricant available under Part No. 725985.

NOTE: If Positive Traction Differential lube becomes contaminated, the axle assembly may be flushed with engine oil. Refer to Group 40 for complete flushing and refill procedures.

8. Minor Lubrication

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

Hood Hinge - Lubriplate or equivalent.

Door Hinges - Lubriplate or equivalent.

Door Lock Cylinders - Powered 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.

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.

NOTE: Do not allow brake fluid to come in contact with any painted or trimmed parts of the body.

NOTE: Do not lubricate carburetor or throttle linkage.

9. 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.

00-12 MAINTENANCE RECOMMENDATIONS - EVERY 12,000 MILES

I. Ignition Points, Timing, Spark Plugs, Point Dwell and Idle Speed Mixture

It is recommended that the spark plugs be cleaned and gapped or, if necessary replaced at 12,000 miles. Also the ignition points should be replaced and the engine timing, point dwell and idle speed mixture should be set to specifications as stated in Group 69.

NOTE: More frequent service may be

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required depending on driving conditions.

2. Fuel Filters

Replacement of fuel filter is recommended at 12,000 miles or 12 months whichever occurs first. Remove from carburetor inlet and replace with filter type GF-427 or equivalent for L-6 and 350 2 bbl. or GF-441 or equivalent for all V-8's with 4 bbls. More frequent servicing may be necessary if contaminants have entered the fuel system.

3. Distributor Cam Lubricator

It is recommended that the distributor cam lubricator be replaced every 12,000 miles. Remove from post on distributor plate and replace with a new wick. See Figure 00-22.



Figure 00-22 - Distributor Cam Lubricator

4. Positive Crankcase Ventilator Valve

Replace PCV valve at 12,000 miles or 12 months whichever occurs first. Remove positive crankcase ventilation valve and replace with a new AC-type CV- 679C or equivalent for V-8 engines, or AC-type CV- 723C or equivalent for L-6 engines.

Inspect PCV system hoses and fittings, clean and replace as necessary. Make certain all connections are tight.

5. Belts

Inspect engine driven belts for condition and proper tension.

6. Wheel Alignment and Balance

Refer to Group 30.

7. Turbo Hydra-matic 350 and 400

If transmission is subjected to heavy duty usage, such as heavy city traffic during hot weather, or in commercial use, when engine is regularly idled for prolonged periods, the transmission recommendations listed under "24,000 Mile" should be performed at 12,000 miles.

8. Air Conditioner-Equipped Model

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.

00-13 MAINTENANCE RECOMMENDATIONS - EVERY 18,000 MILES

I. Brakes

Examine brake linings for wear and the self-adjusting mechanism for proper functioning. Although linings may not be excessively worn, this check will indicate when another inspection should be made.

If equipped with Disc brakes observe friction pad thickness through the inspection opening in the caliper. Refer to Group 50 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.

2. Front Wheel Bearings

Inspect and lubricate with a high melting point wheel bearing grease conforming to GM specifications 6031M when brakes are serviced. Always follow with correct bearing adjustment as outlined in Group 100

00-14 MAINTENANCE RECOMMENDATIONS - EVERY 24,000 MILES

I. Automatic Transmission Turbo Hydra-matic 350 and 400

At this interval the automatic transmission should be drained, the oil pan and oil strainer cleaned (Turbo Hydra-matic 350), and oil filter replaced (Turbo Hydra-matic 400) and new oil added as stated in paragraph 75-1 or 76-1.

When adding transmission fluid use only DEXRON Automatic Transmission Fluid or Automatic Transmission Fluid identified with the mark DEXRON on the container.

2. Engine Air Cleaner Element

Replacement of element is required every 24,000 miles. If car is operated in dusty territory, check condition of air cleaner element more frequently and replace if necessary. Service with the following AC type air cleaner element or equivalent for maximum engine protection.

ELEMENT		
USAGE	REGULAR	HEAVY DUTY
L-6 A11	A169W*	A227C*
350 2 & 4-BBL	A329C*	A368C*
455 A11	A212CW*	A279C*
*Or Equivalent		00-868

Air Cleaner Element Chart

3. Crankcase Ventilation Filter

Inspect at every oil change - replace if necessary with AC type FB-59 or equivalent. Replace at least every 24,000 miles - more often under dusty conditions. See Figure 00-23.

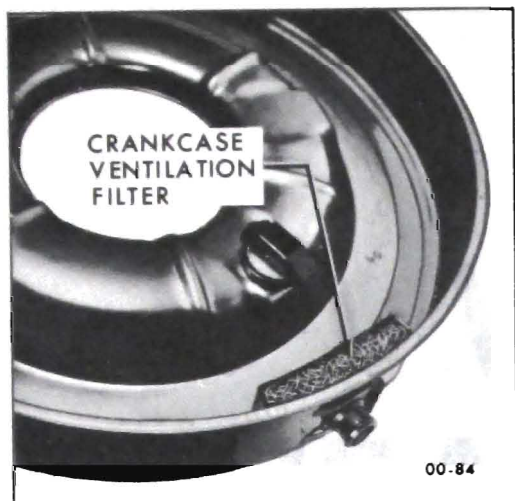


Figure 00-23 - Crankcase Ventilation Filter Location

4. Cooling System Inhibitor

It is required that GM cooling system inhibitor and sealer or equivalent be added every 24,000 miles.

00-15 MAINTENANCE RECOMMENDATIONS - SEASONAL (COOLING SYSTEM)

I. Anti-Freeze

An ethylene glycol type anti-corrosive and anti-freeze cooling system protection solution developed for year around use (General Motors Specifications, GM 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).

Although this type coolant should be maintained to at least 0 degrees F throughout the year, once every two years the cooling system should be drained, flushed and ethylene glycol type anti-freeze also conforming to General Motors Specification GM 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 General Motors Specification GM 1899-M.

00-16 VEHICLE OPERATION UNDER DUSTY CONDITIONS

When cars are operated in adverse dusty climates or conditions, the following precautions should be taken to prevent dirt and other foreign materials from entering the engine.

I. Change Engine Oil.

Change more often than is recommended in subparagraph C. The severity of the conditions should determine the frequency of oil changes.

2. Oil Filter.

Change each time that the oil is changed under these conditions.

3. Air Cleaner Element.

Inspect element. If dirty, replace as recommended under subparagraph k.

4. Manual Steering Gear.

If gear is disassembled for inspection or repairs, refill with 11 ounces of calcium grease conforming to (General Motors Specifications, GM 4673M). *Do not use chassis lube because of adverse cold weather characteristics.*