SECTION B

MAINTENANCE AND LUBRICATION
ALL SERIES

CONTENTS

DIVISION I SPECIFICATIONS AND ADJUSTMENTS

00-7 LUBRICATION CHARTS—1967 BUICK—ALL SERIES

Refer to pages 00-8 through 00-12 for Lubrication Charts.

DIVISION III

SERVICE PROCEDURES

00-8 MAINTENANCE RECOMMENDATIONS —ALL SERIES

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 you use 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 4745-M. Oils conforming to these types contain detergent additives.

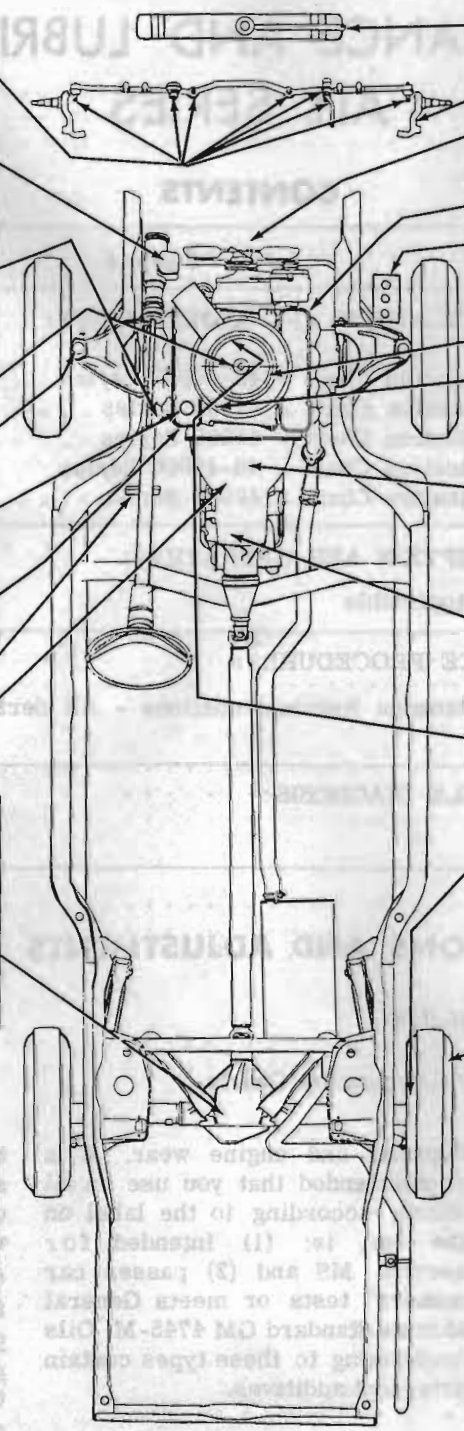
b. Grade or Viscosity

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 on page 00-14.

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 gauge rod; each space between marks represents one quart. Do not fill above the upper mark.

1967 43-44000 SPECIAL - SKYLARK - SPORTWAGON
LUBRICATION CHART



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

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

STD. STEERING GEAR - Check Level -CL- 24,000

ENGINE BELTS - Check Tension 12,000

AIR INJECTION REACTOR - Check Belt For Condition and Proper Tension. (California Cars With Automatic Transmissions) 12,000

TUNE CARE 12,000

UPPER BALL JOINTS -CL- 6,000 or 6 Mos. Whichever Occurs First

ENGINE OIL - Change -CL- -EO- 60 Days

ENGINE OIL FILLER CAP - Wash and Re-Oil. California Cars Clean Breather Assembly 6,000

HEAT CONTROL VALVE - Free Up -HTL- 6,000

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

CLUTCH LASH - Adjust 12,000

STANDARD DIFFERENTIAL
REAR AXLE - Maintain at Filler Opening to 1/4" Below - Flushing & Seasonal Changes Not Recommended -MPG-SAE- 80 or 90 6,000
For Complete Re-Fill Use Only Factory Hypoid Gear Lubricant - Unless Axle in Service 1,000 Miles or More. Then Use -MPG-SAE- 80 or 90

POSITIVE TRACTION DIFFERENTIAL - Maintain at Filler Opening to 1/4" Below - Flushing or Seasonal Change is Not Recommended. Use TL-SAE-80 or 90 6,000

RADIATOR - Maintain at "Fill-Cold" Arrow 60 Days

LOWER BALL JOINTS (2) -CL 6,000 or 6 Mos. Whichever Occures First

AIR CONDITIONER - Check Operation ONCE A YEAR

OIL FILTER ELEMENT - Replace 6,000 or 6 Mos. Whichever Occurs First

ENERGIZER (Battery) PERIODICALLY

AIR CLEANER - Clean and Re-Oil -EP- 12,000

PCV VALVE - Replace 12,000

AUTOMATIC TRANSMISSION
S.T. 300 Check & Maintain Level - Hot - AT - 6,000, Drain & Clean Strainer & Adjust Low Band 24,000 Normal 12,000 Heavy Duty
S.T. 400 - Check & Maintain Level - Hot - At 6,000 - Drain & Replace Oil Filter 24,000 Normal 12,000 Heavy Duty

MANUAL TRANSMISSION - Maintain at Filler Opening - Flushing and Seasonal Changes Not Recommended MPG-SAE-80 or 80-90

FUEL FILTER (V-6) - Remove From Carburetor and Clean 12,000

(V-8) - Replace Element 12,000

BRAKE MECHANISM - Apply at Starwheel Point of Contact and Lightly to 6 Surfaces on Which Shoe Rim Rests -BL- 18,000

TIRES - Rotate 6,000

TIRES - Maintain Pressure PERIODICALLY
Refer to Par. 100-3 for Correct Pressure

LUBRICANTS

BL	Brake Lubricant, Self-adjusting Per Spec. MP 6805
CL	Chassis Lubricant (Long Effectiveness - G.M. Spec. 9985024
AT	Automatic Transmission Fluid, Type A (AQ-ATF) - Suffix A
EO	Engine Oil (Current Viscosity) GM-4745-M*
HBF	Hydraulic Brake Fluid - Delco Supreme No. 11*
MPG	Multi-Purpose Gear Lubricant (MIL-L-2105-B)
EP	Multi-Purpose Grease EP No. 1 Grade
TL	Lube Performing to Buick Specifications No. 723*
HTL	Buick Heat Trap Lube*
PSF	Power Steering Fluid Per GM Spec. 9985010*

*Equivalent Acceptable if it Meets Specifications

CAPACITIES

	V-6	V-8
COOLING SYSTEM		
With Heater - Qts.	11.2	12.7
Without Heater - Qts.	10.5	12.2
With A/C - Qts.	11.2	14.0
		(300 cu. in.) 14.7
		(340 cu. in.)
CRANKCASE		
Refill - Qts.		4-(5*)
Dry Engine - Qts		5-(6*)
*With Dry Oil Filter		
GAS TANK - Gal.		Approx. 20
REAR AXLE - Pts		2.75
TRANSMISSIONS		
S.T. 300 See Re-fill Procedures		
S.T. 400 Paragraph 74-1		
3-Speed Manual (All Series) - Pts		3½
MANUAL STEERING GEAR - Oz.		11
POWER STEERING Hydraulic System - Pts		2½

Refer to Chart on Page 00-13 for Imperial & Metric Measures 00-54A

Figure 00-5—Lubrication Chart - 43 & 44000 Series

1967 44600 G. S. 400 LUBRICATION CHART

STEERING LINKAGE (7) Lube
-CL- 6,000 or 6 mos.
Whichever Occures First

ENGINE BELTS - Check Belt for
Condition & Proper Tension 12,000

AIR INJECTION REACTOR - Check Belt for Condition and Proper Tension 12,000

POWER STEER. RESERVOIR Check Oil Level
Hot -PSF- 6,000

TIRES - Rotate 6,000
Maintain Pressure PERIODICALLY
Refer to Par. 1000-3 for Correct Pressure

ENGINE - Check Oil Level
-EO- PERIODICALLY
Change 60 Days

TUNE CARE 12,000

UPPER BALL JOINT (2)
-CL- 6,000 or 6 mos.
Whichever Occurs First

STD. STEERING GEAR -CL- Check Level 24,000

FILLER CAP—Wash and Re-oil Elements
—EO— California Cars Clean Breather Assembly 6,000

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

HEAT CONTROL VALVE - Free Up
-HTL- 6,000

POSITIVE TRACTION DIFFERENTIAL
Maintain at Filler Opening to 1/4" Below. Flushing & Seasonal Changes Not Recommended
Use TL-SAE-80 or 90 6,000

RADIATOR—Maintain Coolant at "Fill Cold" Arrow PERIODICALLY

LOWER BALL JOINTS (2)
—CL— 6,000 or 6 mos.
Whichever Occurs First

AIR CONDITIONER—
Check Operation ONCE A YEAR

OIL FILTER RECOMMENDATION
Replace at Oil Change Nearest to 6,000 Miles or 6 Mos. Whichever Occurs First

ENERGIZER (Battery) Check Level PERIODICALLY

AIR CLEANER—Clean and Re-oil 12,000

POSITIVE CRANKCASE VENTILATOR - Replace with Correctly Calibrated Valve 12,000

SUPER TURBINE 400
Maintain Level-Hot—AT— 6,000
Drain and Replace Oil Filter
24,000 Normal
12,000 Heavy Duty

FUEL FILTER (V-8)
Replacement of Element Recommended 12,000

MANUAL TRANSMISSION —Maintain at Filler Opening—Flushing & Seasonal Changes Not Recommended—SAE-80 or 80-90 6,000

BRAKE MECHANISM - Apply at Star Wheel Point of Contact and Lightly to 6 Surfaces on Which Shoe Rim Rests
-BL- 18,000

STANDARD DIFFERENTIAL
REAR AXLE—Maintain at Filler Opening to ¼" below—Flushing & Seasonal Changes Not Recommended—MPG- SAE-80 or 90 6,000

For Complete Refill Use Only Factory Hypoid Gear Lubricant—Unless Axle in Service 1000 Miles or More. Then Use -MPG- SAE-80 or 90

LUBRICANTS

BL = Brake Lubricant, Self-adjusting Per Spec. MP 6805
CL = Chassis Lubricant (Long Effectiveness - G.M. Spec. 9985024)
AT = Automatic Transmission Fluid, Type A (AQ-ATF)-Suffix A
EO = Engine Oil (Current Viscosity) -GM-4745-M*
HBF = Hydroulic Broke Fluid-Delco Supreme No. 11*
MPG = Multi-Purpose Geor Lubricant (MIL-L-2105-B)
EP = Multi-Purpose Grease EP No. 1 Grade
TL = Lube Performing To Buick Specifications No. 723*
HTL = Buick Heat Trap Lube*
PSF = Power Steering Fluid Per GM Spec. 9985010*

* EQUIVALENT ACCEPTABLE IF MEETING SPECIFICATIONS

CAPACITIES

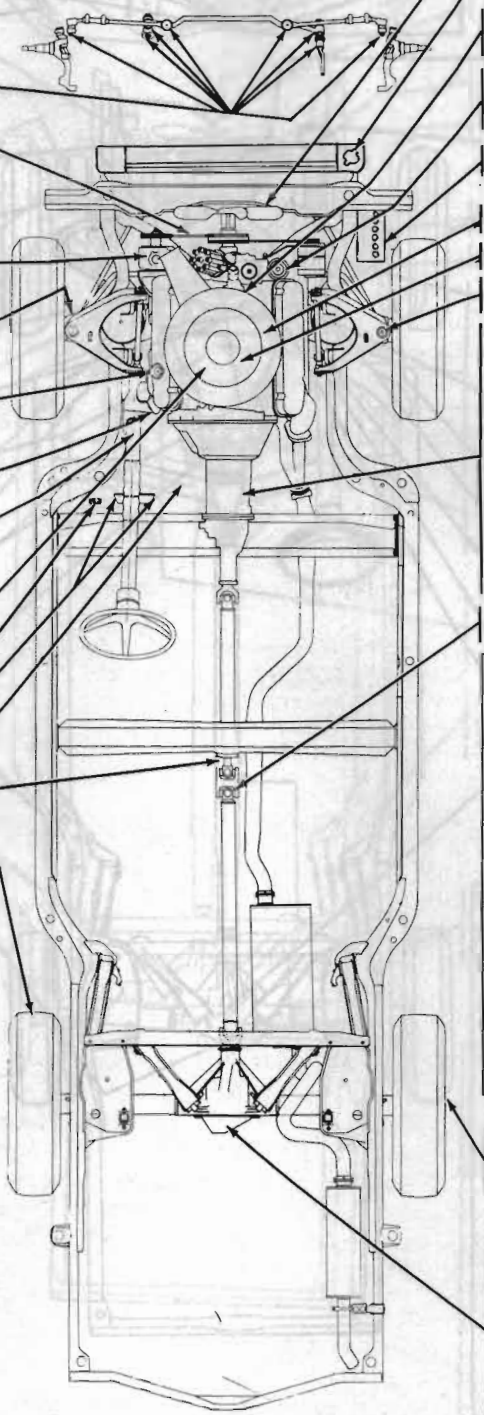
Cooling System	
With Heater—Qts.	16.7
Without Heater—Qts.	16
With A/C - Qts.	17
Crankcase	
Refill—Qts.	4 - (5*)
Dry Engine—Qts.	5 - (6*)
*With Dry Oil Filter	
Gas Tank—Gal.	Approx. 20
Rear Axle—Pts.	2-3/4
Transmission	
SUPER TURBINE - See Refill Procedure, Paragraph 74-1.	
3 Speed Manual - Pts.	3-1/2
4 - Speed Manual - Pts.	3
Manual Steering Gear—Oz.	11
Power Steering	
Hydraulic System—Pts.	2-1/2

Refer to Chart on Page 00-13 for Imperial and Metric Measure

00-55A

Figure 00-6—Lubrication Chart - 44600 G.S. 400

1967 45000 LE SABRE LUBRICATION CHART



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

ENGINE BELTS - Check Condition and Tension 12,000

AIR INJECTION REACTOR - Check Belt for Condition and Proper Tension 12,000

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

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

ENGINE OIL - Drain and Re-fill -EO- 60 Days

ENGINE OIL FILLER CAP - Wash and Re-Oil, California Cars Clean Breather Assembly 6,000

HEAT CONTROL VALVE -HTL- 6,000

STD. STEERING GEAR - Check Level -CL- 24,000

TUNE CARE 12,000

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

ELECTRO-CRUISE FILTER - Clean 6,000

CLUTCH LASH - Adjust 12,000

PROPELLER SHAFT SLIP SPLINE - Remove Plug and Lube -EP- 6,000

TIRES - Rotate 6,000

TIRES - Maintain Pressure PERIODICALLY
Refer to Para. 100-3 for Correct Pressure

AIR CONDITIONER - Check Operation ONCE A YEAR

RADIATOR - Maintain at "Fill-Cold" Arrow 60 Days

FUEL FILTER - Replace With Recommended Element 12,000

OIL FILTER ELEMENT - Replace With Engine Oil 6,000 or 6 Mos. Whichever Occurs First

ENERGIZER (Battery) - Check Level PERIODICALLY

AIR CLEANER - Clean and Re-Oil -EP- 12,000

PCV VALVE - Replace 12,000

UPPER BALL JOINTS (2) -CL- 6,000

AUTOMATIC TRANSMISSIONS
SUPER TURBINE 300
Drain and Clean Strainer and Adjust Low Band -AT- 24,000 Normal 12,000 Heavy Duty

SUPER TURBINE 400 - Drain and Replace Filter -AT- 24,000 Normal 12,000 Heavy Duty

MANUAL TRANSMISSION - Maintain at Filler Opening - Flushing and Seasonal Changes Not Recommended -MPG-SAE-80 or 80-90 6,000

C/V JOINT BALL & SEAT -EP- 6,000

CAPACITIES

COOLING SYSTEM	
With Heater	14.5 Qts.
Without Heater	13.7 Qts.
With Air Conditioner	14.5 Qts.
CRANKCASE	
Refill - Qts	4-(5*)
Dry Engine - Qts	5-(6*)
*With Dry Oil Filter	
GAS TANK	Approx. 25 Gals.
REAR AXLE	2-3/4 Pints
TRANSMISSIONS	
3-Speed Manual	3½ Pts.
Super Turbine 300	
Super Turbine 400	
See Refill Procedures Paragraph 74-1	
MANUAL STEERING GEAR - Oz.	11
POWER STEERING	
Hydraulic System - Pts	2-1/2

Refer to Chart on Page 00-13 for Imperial & Metric Measures

LUBRICANTS

BL	Brake Lubricant, Self-adjusting Per Spec. MP. 6805
CL	Chassis Lubricant (Long Effectiveness - G.M. Spec. 9985024
AT	Automatic Transmission Fluid, Type A (AQ-ATF) - Suffix A
EO	Engine Oil (Current Viscosity) GM-4745-M*
HBF	Hydraulic Brake Fluid Delco Supreme No. 11*
MPG	Multi-Purpose Gear Lubricant (MIL-L-2105-B)
EP	Multi-Purpose Grease EP No. 1 Grade
TL	Lube Performing to Buick Specifications No. 723*
HTL	Buick Heat Trap Lube*
PSF	Buick Power Steering Fluid Per GM Spec. 9986010

*Equivalent Acceptable if it Meets Specifications

BRAKE MECHANISM - Apply to Storwheel Point of Contact and Lightly to 6 Surfaces on Which Shoe Rim Rest -BL- 18,000

STANDARD DIFFERENTIAL
REAR AXLE - Maintain at Filler Opening to 1/4" Below-Flushing and Seasonal Changes Not Recommended -MPG-SAE- 80 or 90 6,000

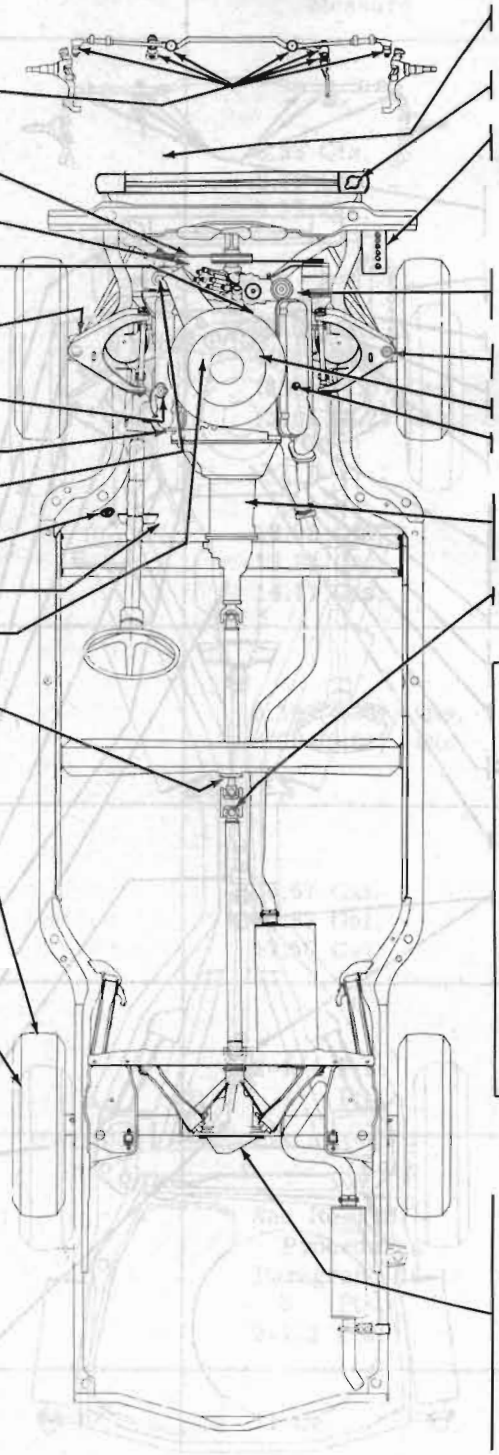
For Complete Re-fill Use Only Factory Hypoid Gear Lubricant - Unless Axle in Service 1,000 Miles ore More. Then Use -MPG-SAE-80 -MPG-SAE- 80 or 90

POSITIVE TRACTION DIFFERENTIAL - Maintain at Filler Opening to 1/4" Below-Flushing or Seasonal Change is Not Recommended. Use TL-SAE-80 or 90 6,000

00-56A

Figure 00-7—Lubrication Chart - 45000 Series

1967 46-48000 WILDCAT - ELECTRA 225 LUBRICATION CHART



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

ENGINE BELTS - Check Tension 12,000

AIR INJECTION REACTOR - Check Belt for Condition and Proper Tension 12,000

FUEL FILTER - Replace With Recommended Element 12,000

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

ENGINE OIL - Drain and Re-fill -EO- 60 Days

ENGINE OIL FILLER CAP - Wash and Re-Oil, California Cars Clean Breather Assembly 6,000

HEAT CONTROL VALVE HTL-- 6,000

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

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

ELECTRO-CRUISE FILTER - Clean 6,000

TUNE CARE 12,000

PROPELLER SHAFT SLIP SPLINE - Remove Plug and Lube -EP-6,000

TIRES - Rotate 6,000

TIRES - Maintain Pressure PERIODICALLY
Refer to Paragraph 100-3 for Correct Pressure

BRAKE MECHANISM - Apply at Storwheel Point of Contact and Lightly to 6 Surfaces on Which Shoe Rim Rest -BL- 18,000

AIR CONDITIONER - Check Operation ONCE A YEAR

RADIATOR - Maintain at "Fill-Cold" Arrow 60 Days

ENERGIZER (Battery) - Check Level PERIODICALLY

OIL FILTER ELEMENT - Reploce With Engine Oil 6,000 or 6 Mos.
Whichever Occurs First

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

AIR CLEANER - Clean and Re-Oil -EO- 12,000

PCV VALVE - Replace 12,000

AUTOMATIC TRANSMISSION
S. T. 400 - Drain and Replace Filter
-AT- 24,000 Normal
12,000 Heavy Duty

C/V JOINT BALL & SEAT -EP- 6,000

CAPACITIES

COOLING SYSTEM	
With Heater	16.7 Qts.
Without Heater	16 Qts.
With Air Conditianer	17 Qts.
CRANKCASE	
Refill - Qts	4-(5*)
Dry Engine - Qts	5-(6*)
*With Dry Oil Filter	
GAS TANK	Approx. 25 Gals.
REAR AXLE	4.25 Pts.
TRANSMISSIONS	
S.T. 300	See Refill Procedure,
S.T. 400	Paragraph 74-1
Power Steering Hydraulic System	2-1/2 Pts.

Refer to Chart on Page 00-13 for Imperial & Metric Measures

LUBRICANTS

BL	Brake Lube, Self-adjusting Per Spec. MP. 6805
CL	Chassis Lubricant (Long Effectiveness - G.M. Spec. 9985024
AT	Automatic Transmission Fluid, Type A (AQ-ATF) - Suffix A
EO	Engine Oil (Current Viscosity) GM-4745-M*
HBF	Hydraulic Brake Fluid - Delco Supreme No. 11*
LUB	Lubriplate*
MPG	Multi-Purpose Gear Lubricant (MIL-L-2105-B)
EP	Multi-Purpose Grease EP EP No. 1 Grade
TL	Lube Performing to Buick Specifications No. 723*
HTL	Buick Heat Trap Lube*
PSF	Buick Power Steering Fluid Per GM Spec. 9986010

*Equivalent Acceptable if it Meets Specifications

STANDARD DIFFERENTIAL

REAR AXLE - Maintain at Filler Opening to 1/4" Below - Flushing & Seasonal Changes Not Recommended -MPG-SAE- 80 or 90

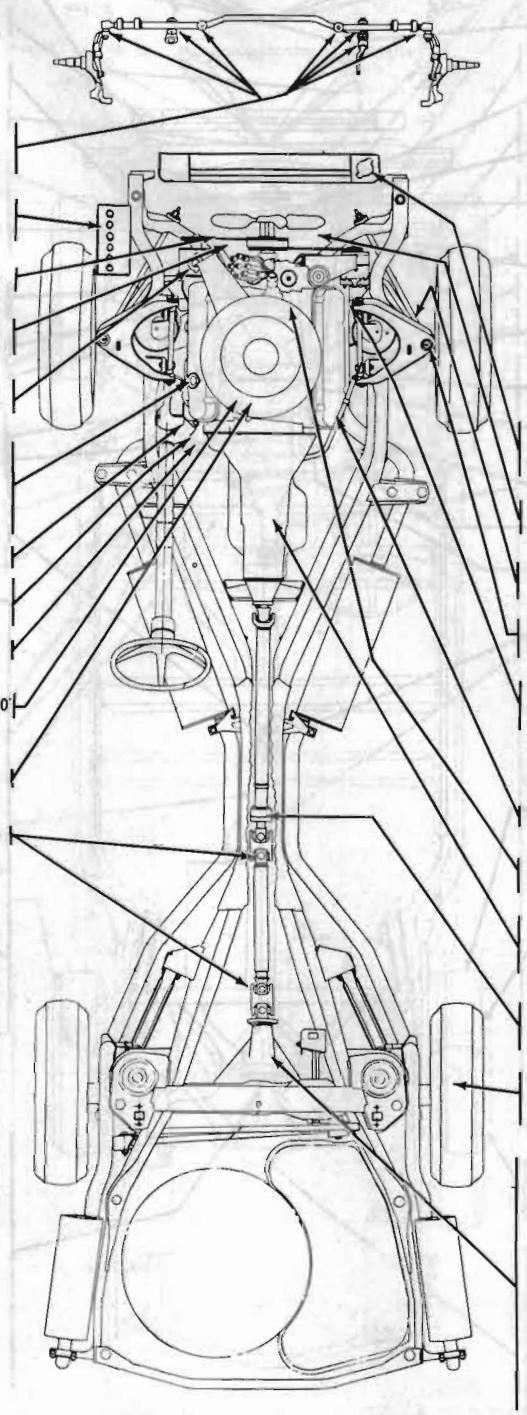
For Complete Re-Fill Use Only Factory Hypoid Gear Lubricant - Unless Axle in Service 1,000 Mi. or more. Then Use -MPG-SAE- 80 or 90

POSITIVE TRACTION DIFFERENTIAL - Maintain at Filler Opening to 1/4" Below Flushing or Seasonal Change is Not Recommended. Use TL-SAE -80 or 90 6,000

00-57A

Figure 00-8—Lubrication Chart - 46-48000 Series

1967 49000 RIVIERA LUBRICATION CHART



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

ENERGIZER (Battery) - Check Level
PERIODICALLY

ENGINE BELTS - Check Tension 12,000

AIR INJECTION REACTOR - Check Belt for Condition and Proper Tension 12,000

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

ENGINE OIL FILLER CAP - Wash and Re-Oil, California Cars Clean Breather Assembly 6,000

ENGINE OIL - Drain and Re-fill -EO- 60 Days

HEAT CONTROL VALVE - Free UP -HTL- 6,000

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

ELECTRO-CRUISE FILTER - Clean 6,000

AIR CLEANER - Clean and Re-Oil. 12,000

TUNE CARE 12,000

C/V JOINT BALL & SEAT -EP- 6,000

CAPACITIES

COOLING SYSTEM
With Heater 16.7 Qts.
Without Heater 16 Qts.
With Air Conditioner 17 Qts.

CRANKCASE
Refill - Qts 4-(5*)
Dry Engine - Qts. 5-(6*)
* With Dry Oil Filter

GAS TANK Approx. 21 Gals.
REAR AXLE 4.25 Pts.
SUPER TURBINE TRANSMISSION
See Refill Procedures, Paragraph 74-1
Power Steering Hydraulic System
2-1/2 Pts.

Refer to Chart on Page 00-13 for Imperial & Metric Measures

LUBRICANTS

CL Chassis Lubricant (Long Effectiveness - G.M. Spec. 9985024
AT Automatic Transmission Fluid, Type A (Having AQ-ATF and identification number, Suffix A embossed on lid of container)
EO Engine Oil (Current Viscosity) GM-4745-M*
HTL Buick Heat Trap Lube*
HBF Hydraulic Brake Fluid - Delco Super No. 11*
MPG Multi-Purpose Gear Lubricant (MIL-L-2105-B)
TL Lube Conforming to Buick Specification No. 723*
EP Multi-Purpose Grease EP No. 1 Grade
PSF Buick Power Steering Gear Liquid or Equivalent Meeting GM Spec. 9986010

*Equivalent Acceptable if it Meets Specifications

RADIATOR - Maintain at "Fill-Cold" Arrow 60 Days

AIR CONDITIONER - Check Operation ONCE A YEAR

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

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

OIL FILTER ELEMENT - Replace With Engine Oil 6,000 or 6 Mos. Whichever Occurs First

PCV VALVE - Replace 12,000

FUEL FILTER - Replace With Recommended Element 12,000

AUTOMATIC TRANSMISSION
-AT- S.T. 400 - Drain and Replace Filter 24,000 Normal 12,000 Heavy Duty

PROPELLER SHAFT SLIP SPLINE - Remove Plug and Lube -EP- 6,000

BRAKE MECHANISM - Apply at Starwheel Point of Contact and Light to 6 Surfaces on which Shoe Rim Rest -BL- 18,000

STANDARD DIFFERENTIAL
REAR AXLE - Maintain at Filler Opening to 1/4" Below - Flushing & Seasonal Changes Not Recommended -MPG-SAE- 80 or 90 6,000

For Complete Re-fill Use Only Factory Hypoid Gear Lubricant - Unless Axle in Service 1,000 Mi. or More. Then Use -MPG-SAE- 80 or 90

POSITIVE TRACTION DIFFERENTIAL - Maintain at Filler Opening to 1/4" Below Flushing or Seasonal Change is Not Recommended. Use TL-SAE 80 or 90 6,000

00-58A

Figure 00-9—Lubrication Chart - 49000 Series

IMPERIAL AND METRIC MEASURE CHART

Item	Imperial Measure	Metric Measure
Cooling System (V-6) 225 Cu. In.		
With Heater	9.33 Qts.	10.6 Liters
Without Heater	8.75 Qts.	9.94 Liters
With Air Conditioner	9.33 Qts.	11.6 Liters
(V-8) 300 & 340 Cu. In.		
With Heater	10.58 Qts.	12.02 Liters
Without Heater	10.17 Qts.	11.54 Liters
With Air Conditioner	(300) 11.67 Qts.	13.25 Liters
	(340) 12.25 Qts.	13.80 Liters
(V-8) 400 & 430 Cu. In.		
With Heater	13.92 Qts.	15.08 Liters
Without Heater	13.32 Qts.	15.14 Liters
With Air Conditioner	14.17 Qts.	16.09 Liters
Crankcase (All Series)		
Refill	3.30-(4.20*) Qts.	3.78-(4.73*) Liters
Dry Engine	4.20-(5.0*) Qts.	4.73-(5.68) Liters
*With Dry Oil Filter		
Gasoline Tank		
43-44000 Series	16.67 Gal.	75.60 Liters
45-46-48000 Series	20.83 Gal.	94.50 Liters
49000 Series	17.50 Gal.	79.38 Liters
Rear Axle		
43-44-45000 Series	2-1/4 Pts.	1.30 Liters
46-48-49000 Series	4 Pts.	2.18 Liters
Transmission		
S.T. 300	See Re-Fill Procedures Paragraph 74-1	See Re-Fill Procedures Paragraph 74-1
S.T. 400	3 Pts.	1.66 Liters
3-Speed Manual	2-1/2 Pts.	1.425 Liters
4-Speed Manual		
Manual Steering Gear (All Series)	11 Oz.	311.85 Grams
Power Steering (All Series) Hydraulic System	2 Pts.	1.19 Liters

c. Engine Oil Change and Viscosity Recommendations

Anticipated Lowest Temperatures	Use SAE Viscosity Number	Change Your Oil at Least
Above Freezing (+32°F.)	SAE 10W-30 SAE 20W	Every 60 days**
Below Freezing (+32°F. to 0°F.)	SAE 10W SAE 10W-30	Every 60 days**
Below 0°F.*	SAE 5W-20 SAE 5W	Every 60 days**

*SAE 5W-30 oil may be used at temperatures below freezing.
**Never exceed 6,000 miles between oil changes. During extreme driving conditions which produce oil contamination by dust, water, or other foreign material, the oil should be changed more frequently than every 60 days. Your authorized Buick dealer is well qualified to advise you.
NOTE: When changing the oil during the Fall and Winter seasons, consider the lowest anticipated temperature for the next 60 days.

- SAE 5W oil is not recommended for sustained high speed driving.
- SAE 30 oil may be used when the prevailing daylight temperature is above 90°F.

d. 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.

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. Use of Buick HD Concentrate

Buick HD Concentrate, available through Buick Parts Department under Group 1.850 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 HD Concentrate 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.

g. 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.

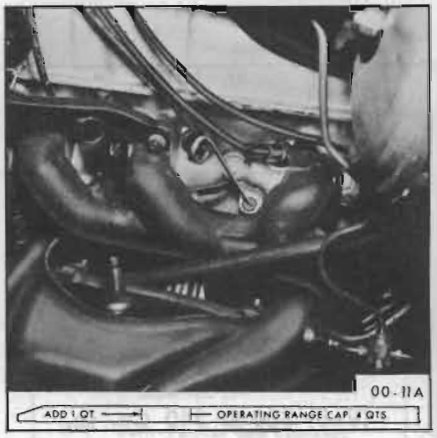


Figure 00-10—Engine Oil Gauge Rod

2. Tires

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

3. Oil Filler Cap

Check periodically for signs of dirt and other accumulations in filter portion of cap. Clean as often as necessary. This can be done by quickly washing in a suitable solvent and dipping in engine oil.

4. Radiator Coolant

Radiator coolant level should be checked when the engine is cold if possible. If the radiator cap is removed when the system is at normal operating temperature, the coolant will boil and spurt out due to the release of pressure. Coolant lost in this manner must be replaced. If coolant should be needed, fill radiator to tip of "Fill Cold" arrow stamped on inside of filler neck. Do not overfill as loss of coolant due to expansion will result. For correct radiator coolant see Page 00-19.

5. Engine Oil

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 00-10.

h. Maintenance Recommendations—Every 6,000 Miles

1. Engine Oil Change

Drain and refill engine crankcase every 60 days or 6,000 miles - whichever occurs first. See subparagraph c for oil recommendations.

2. Engine Oil Filter Change

Replace engine oil filter with the engine oil change which comes nearest 6,000 miles or 6 months - whichever occurs first.

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 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. Oil Filler Cap

Remove oil filler cap, wash in suitable solvent, dry and dip in engine oil. Allow to drain while performing remainder of 6,000 mile check. Just before installation, dip again in engine oil, allow to drain, and reinstall.

4. Front Suspension and Steering Linkage

The front suspension and steering linkage has been lubricated with a long-effectiveness lubricant at the factory and should be re-lubricated with a long-effectiveness lubricant equivalent to General Motors Specification 9985024 every 6,000 miles or six months whichever occurs first.

NOTE: If lubricants not intended for long-effectiveness application are used, the lubrication interval should be shortened and should not exceed 2,000 miles.

Figure 00-11—Lubricating Points on Manifold Heat Control Valve - 225, 300 and 340 Cu. In. Engine

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)

5. Manifold Heat Valve

Place a few drops of "Buick Heat Trap Lube" or equivalent on each end of shaft, and free up if required. See Figure 00-11, or 00-12.

Figure 00-12—Lubricating Points on Manifold Heat Control Valve - 400 and 430 Cu. In. Engine

6. 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 #11 hydraulic brake fluid or equivalent. Never use reclaimed fluid, mineral oil, or fluid inferior to SAE Standard 70-R-3.

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 SAE80 or 80-90 multi-purpose gear lubricant.

NOTE: Draining and flushing transmission is not required.

Automatic Transmission

IMPORTANT: Refer to Paragraph 74-1, subparagraph c for correct refill procedures.

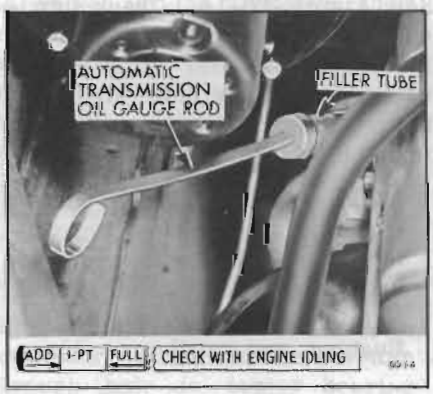


Figure 00-13—Automatic Transmission Oil Gauge Rod

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.

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 or 90 Multi-Purpose Gear Lubricant.

NOTE: Draining and flushing are not recommended. When complete refilling is necessary, SAE 80 or 90 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.

Positive Traction Differential Rear Axle

Identified by a stainless steel plate attached by a rear cover bolt stating "Use limited slip differential lube only" and by an X enclosed in a circle stamped on the bottom of the right axle tube. See Figure 00-14. Check lubricant level after allowing time for lubricant to settle. Level should be maintained not lower than 1/4" below filler plug opening by adding SAE 80 or 90 lubricant.

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.

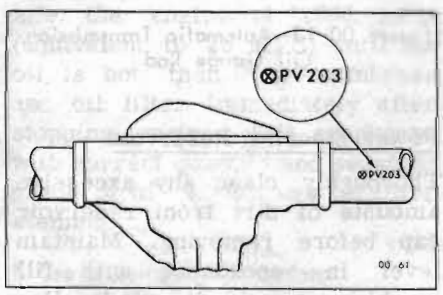


Figure 00-14—Positive Traction Identification

7. 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 Strider - 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.

8. Body Rubber Parts

Door, hood, and rear compartment rubber weatherstrips may be kept pliable and quiet by the application of a light coat of Buick 4-X Compound or suitable silicone lubricant equivalent.

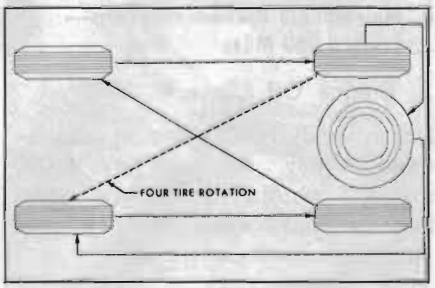


Figure 00-15—Tire Rotation Method

9. Tires

For best tire mileage, switch tires as recommended in Figure 00-15.

10. Electro-Cruise (45-46-48-49000 Series)

Remove Electro-Cruise air filter element by removing the metal cap (45-46-48000 Series) or rubber boot (49000 Series) and bending back the four tabs on the power unit and removing the outer screen, element, and inner screen. See Figure 00-16 or 00-17.

Clean screens and element in a suitable solvent. Squeeze solvent out of element.

NOTE: Do not oil element.

Reinstall inner screen, element, and outer screen; retain with tabs and install cover.

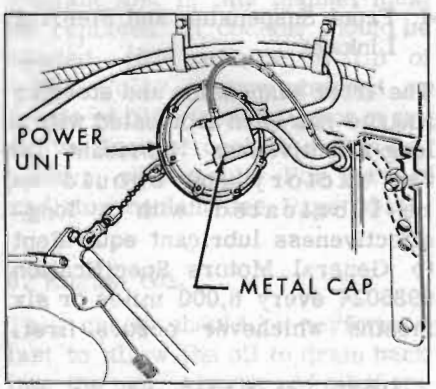


Figure 00-16—Electro-Cruise Air Cleaner (45-46-48000 Series)

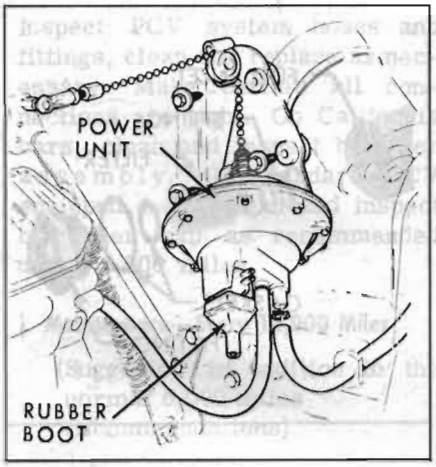


Figure 00-17—Electro-Cruise Air Cleaner (49000 Series)

11. Constant Velocity Universal Joint Centering Ball (45-46-48-49000 Series)

Rotate propeller shaft until fitting is visible through frame tunnel (49000) excessible on 45-46-48000 Series. Insert special grease gun adapter to bear solidly against fitting. One or two shots of grease is sufficient. See Figure 00-18 or 00-21. On the 49000 Series lubricate rear constant velocity Universal joint.

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

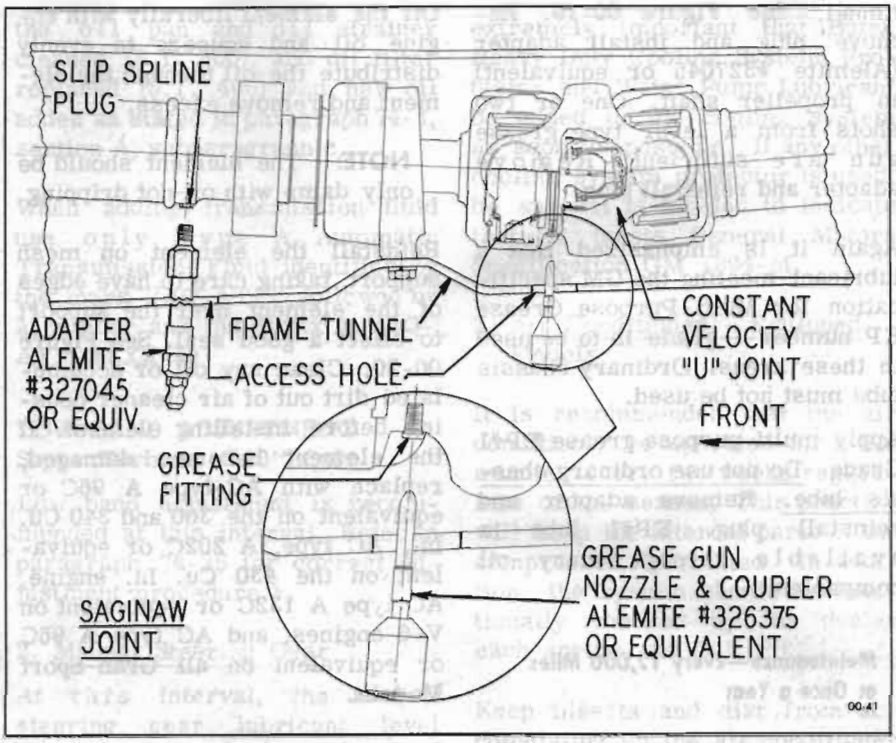


Figure 00-19—Propeller Shaft Lubrication Points (49000 Series)

DO NOT USE ORDINARY CHASSIS LUBE. EP#1 lube is available through most oil companies.

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.

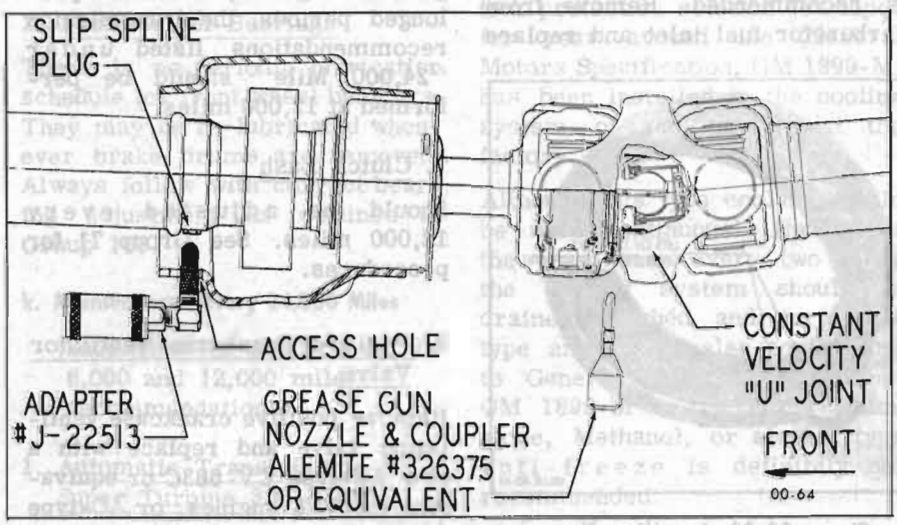


Figure 00-18—Propeller Shaft Lubrication Points (45-56-48000 Series)

12. Propeller Shaft Slip Spline (45-46-48-49000 Series)

45-46-48000

Rotate propeller shaft so plug in propeller shaft is accessible through hole in center bearing support. See Figure 00-18. Remove plug and insert adaptor (J-22513) with rubber cap attached. One or two shots from a lever type grease gun are sufficient. Remove adaptor and reinstall plug.

49000

Rotate propeller shaft so plug in propeller shaft is accessible through front hole in frame

tunnel. See Figure 00-19. Remove plug and install adapter (Alemite #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 lubricant meeting the GM specification for Multi-Purpose Grease EP number 1 grade is to be used in these areas. Ordinary chassis lube must not be used.

Apply multi-purpose grease EP#1 Grade. Do not use ordinary chassis lube. Remove adapter and reinstall plug. EP#1 lube is available through many oil companies.

i. Maintenance—Every 12,000 Miles or Once a Year

(Suggested in addition to the 6,000 mile recommendation)

1. Tune Care

Tune care includes: clean and/or replace spark plugs and ignition points, check compression, battery, cranking system, charging system, fuel pump, choke, hose connections, belts, carburetor, adjust engine timing and idle speed. Refer to Group 69 for further detail and specifications, adjustments and mixtures.

2. Engine Air Cleaner

It is recommended that the air cleaner be serviced every 12,000 miles. If car is operated in dusty territory, check condition of air cleaner element more frequently and clean if dirty.

To clean, carefully remove the element from the mesh support, wash in kerosene and squeeze out.

CAUTION: Take precautions against the possibility of fire. Do not wring the element or it may be torn. Wrap the element in a dry cloth and squeeze to remove all possible solvent.

Oil the element liberally with engine oil and squeeze to evenly distribute the oil through the element and remove excess.

NOTE: The element should be only damp with oil not dripping.

Reinstall the element on mesh support, taking care to have edges of the element over the support to effect a good seal. See Figure 00-20. Clean any oil or accumulated dirt out of air cleaner housing before installing element. If the element becomes damaged, replace with AC-type A 96C or equivalent on the 300 and 340 Cu. In., AC type, A 202C or equivalent on the 430 Cu. In. engine, AC type A 132C or equivalent on V-6 engines, and AC type A 96C or equivalent on all Gran Sport Models.

3. Fuel Filters

V-6

Remove from carburetor fuel inlet, inspect, clean, or replace if necessary. More frequent servicing may be necessary if contaminants have entered the fuel system.

V-8 All

Replacement of disposable filter is recommended. Remove from carburetor fuel inlet and replace

Figure 00-20—Installing Element on Support

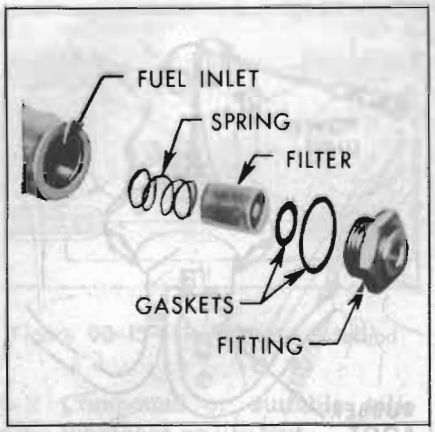


Figure 00-21—V-6 Engine Carburetor Fuel Filter

with filler type GF-427 or equivalent. More frequent servicing may be necessary if contaminents have entered the fuel system.

4. Belts

Inspect engine driven belts for condition and proper tension.

5. Wheel Alignment and Balance

Refer to Group 30.

6. Super Turbine 300 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.

7. Clutch Lash

Should be adjusted every 12,000 miles. See Group 71 for procedures.

8. Positive Crankcase Ventilator Valve

Remove positive crankcase ventilation valve and replace with a new AC-type CV-683C or equivalent for V-8 engines, or AC-type CV-684C or equivalent for V-6 engines.

Inspect PCV system hoses and fittings, clean and replace as necessary. Make certain all connections are tight. On California cars, clean and inspect breather assembly. On standard PCV equipped cars, clean and inspect oil filler cap as recommended under 6,000 miles.

j. Maintenance—Every 18,000 Miles

(Suggested in addition to the normal 6,000 miles recommendations)

1. 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. Lubricate self-adjusting mechanism adjusting screw with Delco Moraine Special Brake Lubricant or equivalent.

2. Front Wheel Bearings

There is no periodic lubrication schedule for front wheel bearings. They may be re-lubricated whenever brake drums are removed. Always follow with correct bearing adjustment as outlined in Group 100.

k. Maintenance—Every 24,000 Miles

(Suggested in addition to the 6,000 and 12,000 mile recommendations)

1. Automatic Transmission-Super Turbine 300 & 400

At this interval the automatic transmission should be drained, the oil pan and oil strainer cleaned (S.T. 300), and oil filter replaced (S.T. 400) and new oil added as stated in paragraph 74-1, section A, subparagraph c.

When adding transmission fluid use only Type A Automatic Transmission Fluid identified by the mark "AQ-ATF" followed by a number and the Suffix A. (AQ-ATF-XXXX-A)

LOW BAND ADJUSTMENT - Super Turbine "300" Only

Low band adjustment is recommended at this interval. Refer to paragraph 74-25 for correct adjustment procedure.

2. Manual Steering Gear

At this interval, the manual steering gear lubricant level should be checked. Remove the bolt on gear cover marked "Lube". Add chassis lubricant conforming to GM Specification 9985024 as necessary.

l. Maintenance—Seasonal (Cooling System and Air Conditioner Services)

1. Anti-Freeze

A permanent glycol type corrosion and anti-freeze cooling system protection solution developed for year around use (General Motors Specification, GM 1899-M) has been installed in the cooling system of the vehicle at the factory.

Although this type coolant should be used continuously throughout the year, once every two years the cooling system should be drained, flushed and permanent type anti-freeze also conforming to General Motors Specification GM 1899-M installed. 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 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 1894-M.

2. Air Conditioner - Equipped Models

It is recommended that the air conditioner be operated for a few minutes every two weeks regardless of the season. This practice will keep the internal parts of the compressor lubricated. In addition, the system should be functionally checked by the dealer each spring and fall.

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

m. 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.

1. 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. Oil Filler Cap - Check for presence of dust and dirt each time car is refueled. Wash and re-oil if necessary.

4. Air Cleaner Element - If oil filler cap is dirty, also remove air cleaner cover and inspect element. If dirty, clean as recommended under 12,000 miles.