SECTION 1-B
OTHER LUBRICARE INSTRUCTIONS

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SERVICE BULLETIN REFERENCE

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1-7 CHANGING ENGINE OIL

a. When to Change Engine Oil

Under normal driving conditions when the car is operated at stabilized temperatures most of the time, such as on long trips, and there is reasonable freedom from dust or other contaminating conditions, draining and filling with fresh oil every 2000 to 3000 miles is recommended.

Under light driving conditions when frequent starts and stops do not let the engine oil reach a stabilized temperature, particularly in cold weather, it is necessary to change oil more frequently to compensate for dilution and sludge formation. It is necessary to change oil more frequently when the car is habitually operated on dusty roads. Bad dilution or dust conditions may require draining and refilling as often as every 500 miles.

It is necessary to change engine oil whenever it becomes contaminated with harmful materials. The following conditions cause contamination of engine oil and shorten its useful life:

1. *Short runs with a cold engine,* particularly in extremely cold weather, increase "dilution" and water condensation in crankcase.

2. *Hard driving* causes oil to oxidize more rapidly. When fresh oil is added, oxidized oil will deposit "granular carbon" and "varnish" on internal engine parts.

3. *Dusty roads or dust storms* cause contamination of engine oil even though the crankcase is protected by filters.

b. Crankcase Flushing

Flushing the crankcase with oils or solutions other than a good winter grade (10-W) engine oil is not recommended. Use 3 quarts of 10-W oil (4 qts. if oil filter is drained) and idle the engine at 1000 RPM (equivalent to 20 MPH) until the oil is hot, then drain immediately and fill with correct seasonal grade of engine oil.

1-8 ENGINE OIL RECOMMENDATIONS

a. Choice of Oil

1. *Regular Type Motor Oil.* This term designates motor oil generally suitable for use in internal combustion engines *under moderate operating conditions.*

2. *Premium Type Motor Oil.* This term designates motor oil having the oxidation stability and bearing corrosion preventive properties necessary to make it generally suitable for use in internal combustion engines where operating conditions are more severe than regular duty.

Under normal driving conditions where the engine is required to develop greater power for a greater percentage of the time the *Premium Type Motor Oils* are recommended.

b. SAE Viscosity Numbers for Oils

SAE viscosity numbers indicate the body or fluidity of the oil. They are the index for light or heavy bodied oil for use in cold or hot operating conditions respectively.

Anticipated Minimum Air Temperature	Use SAE Grade
Not below 32° F.	20-W or 20
As low as 10° F.	20-W
As low as —10° F.	10-W
Below —10° F.	5-W if available or 10-W plus 10% kerosene

c. Break-In Oils and Other Compounds

"Break-In" oils or compounds are not necessary in Buick engines. They should not be used in either the engine oil or gasoline under any circumstances unless the supplier can furnish satisfactory proof that the compound does not contain harmful ingredients.

1-9 DRAINING, FLUSHING, REFILLING REAR AXLE

a. Original Factory Lubricant

All Buick rear axles are filled at the factory with a Special Hypoid Gear Lubricant. *Under no circumstances should the factory lubricant be drained from a rear axle to be replaced with any other type of lubricant.*

b. Draining Rear Axle

It is not necessary at any time to drain the original Factory Hypoid Gear Lubricant, except when it has become contaminated, or when draining is required for inspection of parts or for repairs.

If rear axle lubricant has become contaminated, the rear axle should be flushed and refilled with new approved lubricant.

c. Flushing and Refilling Rear Axle

1. With rear axle jacked up so that wheels are clear of the floor, drain rear axle housing by removing lower cover bolts, then reinstall bolts.

2. Thoroughly flush rear axle housing with SAE 10-W or flushing oil. *Do not use water, steam, gasoline, kerosene, alcohol, or other cleaning fluids for flushing.* When flushing, put transmission in high gear and run rear axle slowly for one or two minutes. CAUTION: *Do not suddenly accelerate or "gun" engine and do not exceed a speed of 25 MPH.*

3. Drain housing, remove cover and wipe out housing with clean cloths. Install housing cover, using a new gasket and coating bolt threads with white lead to avoid oil leaks. Align filler plug with first bolt hole to right of lower center bolt hole in housing. This change from straight down position increases oil level to 4 pints.

4. Refill rear axle housing to filler plug opening with approved lubricant specified below.

d. Approved Rear Axle Lubricant

1. If the rear axle, or a replacement gear set, has been in service *less than 10,000 miles,* use only *Factory Hypoid Gear Lubricant.*

Factory Hypoid Gear Lubricant may be ordered from any Buick Parts Warehouse under Group 5.535, Part No. 1393524. This is the two-quart can as supplied with 1946-47-48-49 Model service ring and pinion gear sets.

2. If the rear axle, or a replacement gear set, has been in service *10,000 miles or more* an SAE 90 "Multi-Purpose" Type Gear Lubricant conforming to and approved under U. S. Army Specification 2-105B can be used.

1-10 NON-PERIODIC LUBRICARE INSTRUCTIONS

The Lubricare instructions covered in this paragraph are not normally required for proper maintenance of the car. They are listed here to furnish complete information on Lubricare and should be used only to correct the conditions specified.

Since these lubrication procedures are used during repair operations they are placed in the repair sections of the manual where they may be found by reference to the indicated paragraphs.

a. Clutch Internal Lubricare

Lubrication of internal working parts of the clutch is usually required only at time clutch is assembled and installed; however, if lubrication becomes necessary to eliminate squeaks or correct excessive pedal pressure, follow instructions given in paragraph 4-8.

b. Brake Lubricare

Lubrication of all metal contact points at wheel brake assemblies is normally performed during the major brake adjustment (par. 8-15) or may be performed whenever a brake drum is removed.

Lubrication of parking brake cables is also performed during the major brake adjustment;

however, operation under conditions where mud and water are frequently encountered may require more frequent lubrication. See paragraph 8-14.

c. Rear Wheel Bearing Lubricare

Rear wheel bearings need not be lubricated more often than 20,000 miles. Whenever rear brakes are relined, or axle shafts are removed for other work, it is advisable to inspect rear wheel bearings and oil seals. Replace seals if leaking or worn. Fill rear wheel bearings and space between oil seals with wheel bearing lubricant. Coat leather edges of seals with lubricant before installation of axle shafts.

d. Speedometer Cable Lubricare

The speedometer cable is factory lubricated with special grease which will last indefinitely under normal operating conditions. In extremely hot climates, or where considerable dust and water is encountered it may be necessary to lubricate the cable at intervals of approximately 20,000 miles or every two years. See paragraph 10-68.

e. Lubricare of Miscellaneous Rubber Parts

Rubber parts such as door weatherstrips, cowl ledge lacing, stabilizer bushings, etc., do not require Lubricare unless they are causing squeaks. If Lubricare becomes necessary, make certain that the lubricant used is not injurious to rubber. Where the lubricant can be spread on the rubber part use Lubriplate or white vaseline. Where a penetrating liquid lubricant is required use G. M. Ru Glyde (Group 8.786).