LUBRICATION AND PREVENTIVE MAINTENANCE

GENERAL DESCRIPTION

Thorough lubrication and preventive maintenance are necessary at regular and proper intervals, if Cadillac owners are to obtain, mile after mile and month after month, the full benefit of the troublefree performance and rugged dependability that has been engineered into their automobile.

Cadillac lubrication has been designed for simplicity, and the instructions for thorough lubrication are clear and concise. Authorized Service Stations and individual Servicemen can cooperate by following the recommendations of the 1955 Cadillac Lubrication Chart, and by helping to impress owners with the necessity of lubricating their cars according to the schedule recommended by Cadillac.

THE LUBRICATION NOTICE (Fig. 2-1) is a plate on the left front door body pillar. The mileage and date at which a lubrication is performed should be posted here. The engine serial number is also printed on this plate. On coupe styles, this plate is located on the door lock pillar.

THE LUBRICATION CHART (Fig. 2-2) illustrates and explains briefly, each of the various points of lubrication on the car. It should be used for reference until the Serviceman is thoroughly familiar with the 1955 series cars. Complete explanations of each point are given under "Service Information" in this section of the manual.

THE LUBRICATION SCHEDULE recommended by Cadillac is based upon service at two month or 2,000 mile intervals, whichever occurs first. In cases where the car is driven less than 2,000 miles in that period of time, the lubrication should be performed every two months even if the car has only been driven 1500, 1000, or even 500 miles.

Fig. 2-1 Lubrication Notice

THE LUBRICATION AGREEMENT is designed by Cadillac to promote thorough lubrication at scheduled intervals. The owner purchases complete lubrication for his car, including engine oil changes for 12,000 miles and a Hydra-Matic transmission fluid change at 25,000 miles, at a special price paid in advance. This plan assures proper lubrication and encourages owners to bring their cars in at regular intervals for a Cadillac "inspection".

SERVICE INFORMATION

(1) Lubrication Schedule

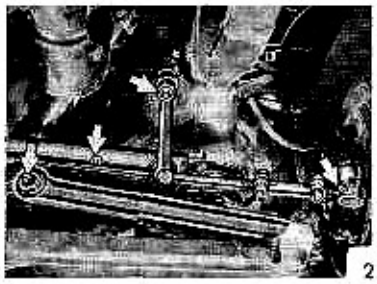
a. Every 2000 Miles

Lubricate chassis fittings.
Lubricate hand brake cables and linkage.
Lubricate accelerator linkage.
Lubricate brake stop switch actuating arm.
Inspect rear axle lubricant level.
Drain and replace engine oil.
Check tire pressures.
Clean filter on crankcase breather cap.
Clean and refill carburetor air cleaner.
Oil generator oil cups.
Lubricate hood catch and hinges.
Oil distributor.
Lubricate neutral switch actuating pin.
Inspect brake fluid level in master cylinder filler tube.
Inspect fluid level in power steering pump reservoir.
Inspect steering gear lubricant level.
Inspect coolant level in radiator.
Inspect transmission fluid level.
Inspect battery fluid level and check specific gravity.
Lubricate body hardware.

b. Miscellaneous Lubrication Operations

Drain and refill Hydra-Matic transmission every 25,000 miles.
Clean, replace and adjust front wheel bearings - every 25,000 miles or at the time that the brakes are relined
Remove and replace engine oil filter cartridge at least every 6,000 miles.

LUBRICATION AND PREVENTIVE MAINTENANCE



Steering and Front Suspension

Idler Arm, Tie Rod, Drag Link, Inner Lower Suspension Arm, Right Side.

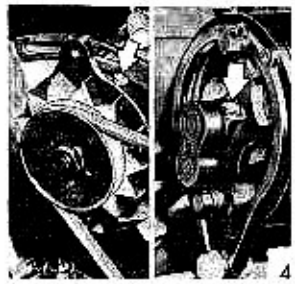
Chassis Lubricant with grease gun.

Every 2000 miles

Breather Cap

Clean copper gauze in a solvent and dip in engine oil.

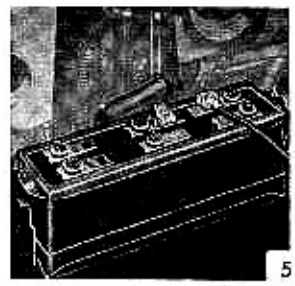
Every 2000 miles



Generator

Fill both cups with 10-W engine oil.

Every 2000 miles

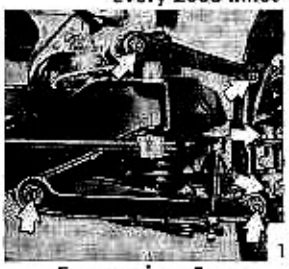


Battery

Add distilled water to bring level up to bottom of slot in well.

Every 2000 miles

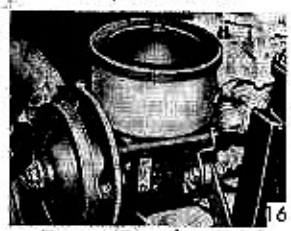
In warm weather check level every two weeks.



Suspension Arms and Steering Knuckle Assy.

Chassis Lubricant with grease gun.

Every 2000 miles

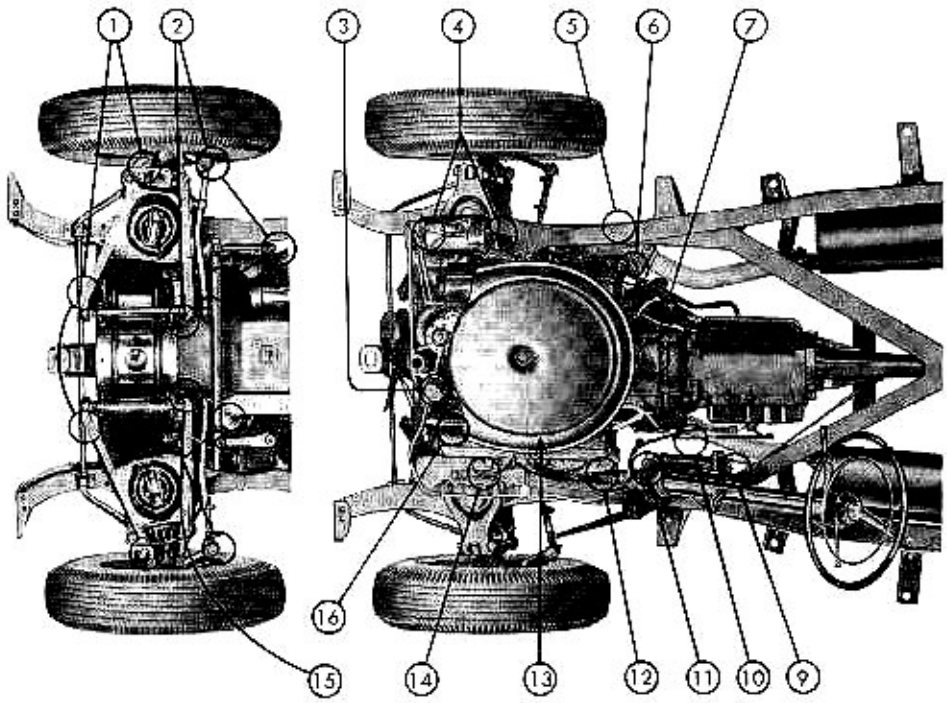


Power Steering Tank

(on cars so equipped)

Check fluid level and fill to mark on tank with AQ-ATF.

Every 2000 miles



Steering and Suspension

Tie Rod, Drag Link, Inner Lower Suspension Arm, Left Side.

Chassis Lubricant with grease gun.

Every 2000 miles

Engine Oil Filter

Replace Filter cartridge

Every 6000 miles

In dusty areas replace more frequently.

Front Wheel Bearings

Remove bearings, clean and repack with wheel bearing lubricant and adjust.

Every 25,000 Miles or at Brake Reline

Rear Axle

Check level and add Multi-Purpose Type gear lubricant to bring level up to filler hole

Every 2000 miles

Drain and refill only when unit is overhauled or when temperatures are consistently below 0°F. in which case 80 SAE viscosity lubricant should be used.

Hood Release Mechanism

Apply a small amount of lubriplate to hood lock bolt and catch.

Every 2000 miles

Radiator

Inspect radiator fluid level.

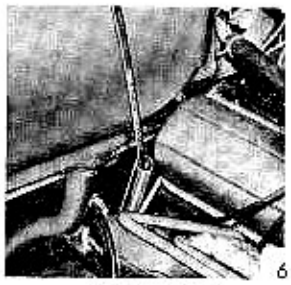
Every 2000 miles

Drain, flush and refill.

Twice a Year

Fig. 2-2 Lubrication Chart

LUBRICATION AND PREVENTIVE MAINTENANCE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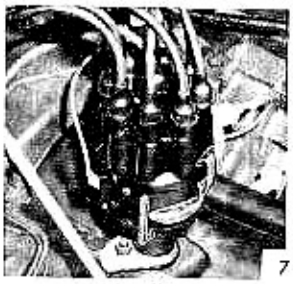
Hydra-Matic Transmission

Check level every 2000 miles.

Drain and refill.

Every 25,000 miles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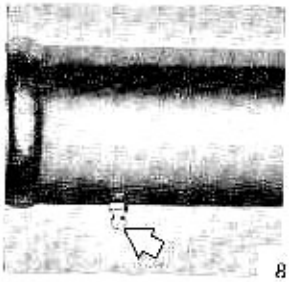
Distributor

Fill tube with 10-W engine oil.

Every 2000 miles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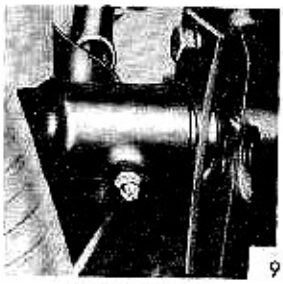
Propeller Shaft Splines

(55-75 and 86 Series Only)

Apply chassis lubricant with grease gun.

Every 2000 miles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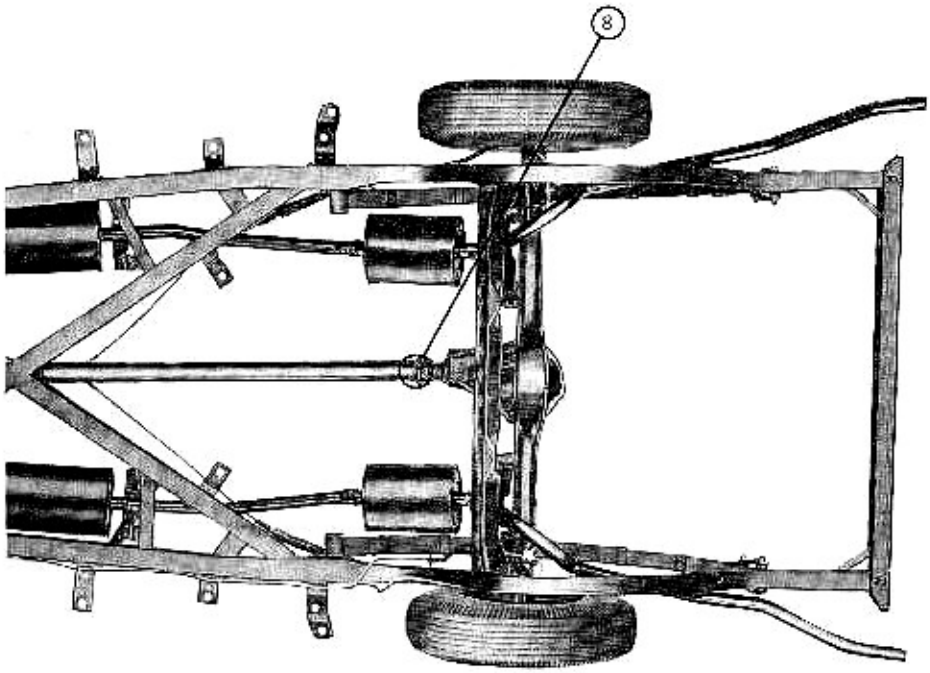
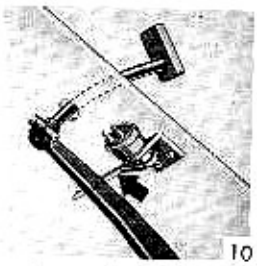
Brake Pedal

1 Fitting

Apply chassis lubricant.

Every 2000 miles

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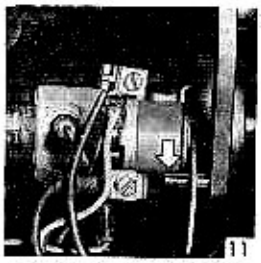
Stop Light Switch

Apply Lubriplate where indicated by arrow.

Every 2000 miles


11

Hydra-Matic Neutral Switch

Apply Lubriplate where indicated by arrows.

Every 2000 miles

Body Lubrication

Apply a few drops of light oil to door hinges, door checks and lock bolt rollers. Clean off dust and old lubricant from door striker plate and apply a slight amount of Lubriplate.

Apply DC-4 silicone compound to door weatherstrips, window run channels, and sealing strip awning gasket on closed coupes.

Every 2000 miles

Apply Lubriplate to seat adjustment track sparingly. Apply a slight amount of powdered graphite to keys and insert in lock cylinders.

Every 6000 miles

Brakes

Inspect master cylinder fluid level.

At every brake adjustment and at reline.

Lubricate brake cables, brackets, and levers with 10W engine oil.

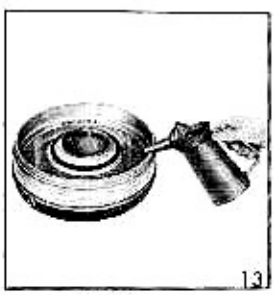
Every 2000 miles

"Oil Can" Lubrication

Apply a few drops of engine oil to hood hinges, clutch linkage, and accelerator linkage.

Every 2000 miles

Tire Inflation			
	55-62, 605	55-75	55-86 Comm.
Inflate tires to....	24 lbs.	28 lbs.	24 lbs. front 30 lbs. rear


13

Air Cleaner

Drain, clean and refill with one pint of oil. Use SAE 40 above 32°F and SAE 20 below 32°F.

Every 2000 miles


12

Steering Gear

Add steering gear lubricant to bring level up to filler plug on manual and power gears.

Every 2000 miles

Fig. 2-2 Lubrication Chart

(2) The 2000 and 4000 Mile Inspections

When new Cadillac cars are brought in for service during the *90 Day - 4,000 Mile Warranty* Period, Servicemen should use the list of inspections and operations, Fig. 2-3, as a guide.

(3) Related Items

In addition to the lubrication operations, there are several regularly required maintenance items which should be brought to each owner's attention. They are as follows:

Clean Power Brake filter every 2,000 miles.
Cooling System - Flush twice a year - Spring and Fall. Add rust inhibitor and DuPont Sealer. See Section 13 for information relative to preparation of cooling system for anti-freeze.
Gasoline lines and strainers - Clean out twice a year - Spring and Fall.
Engine oil pan - Remove and clean once a year, after the "Winter" season.
Tires - Interchange every 4,000 Miles (or less).
Brake System - Clean and flush once a year.

(4) Body

a. Body Hardware

Lubrication of the body hardware is an important part of each 2,000 mile lubrication operation. The *following should be performed:*

Apply a slight amount of petrolatum to the door wedge plates and lubricate both sides of the lock frame at the lift bolt cutout with a thin film of Lubriplate. Also lubricate the bottom surface of the lower guide channel in the striker with Lubriplate. Be sure to wipe off dust and old lubricant before applying the new. Use lubricant sparingly. Apply a drop or two of 10W oil at the lift bolt roller and allow it to drain inside the roller. The door check spring on sedan rear doors should be lubricated with 10W oil. Apply Lubriplate to the hood lock mechanism and oil the hood hinges.

The following additional operations should be performed twice a year or every 6,000 miles: Apply powdered graphite to keys and insert in lock cylinders; clean dust and old lubricant off of front seat adjustment track and apply Lubriplate sparingly.

b. Body Weatherstrips

The mechanical sealing strip hinge on closed coupes should be lubricated along its entire length with Lubriplate.

The sealing strip awning gasket should be lubricated on both sides with DC-4 Silicone Compound every 2,000 miles or as necessary.

Apply DC-4 Silicone Compound every 2,000 miles, if necessary, to door and window weatherstrips and run channels to prevent squeaks. Wipe off any excess lubricant to reduce the possibility of dust sticking to the treated surface.

c. Hydro-Lectric System (Convertible Coupe Styles and Eldorado Only)

*On 1955 series cars, the Hydro-Lectric sys*tem is used only for raising and lowering the top in the Eldorado and Convertible Coupe styles. The Hydro-Lectric system is a sealed unit and is not vented to the atmosphere. Therefore, it is not necessary to replace hydraulic fluid periodically. The system is "self-air bleeding". Should air become trapped in the lines due to replacement of hydraulic units, a few operational cycles of the top will expel the trapped air into the reservoir.

The Hydro-Lectric motor and pump assembly, on Convertible Coupe styles, is located on the trunk floor pan beneath the top well. On the Eldorado, this assembly is located in the trunk on the left side to the rear of the wheel housing. A reservoir filler plug is provided should it become necessary to add fluid. The fluid capacity of the Hydro-Lectric system is 3/4 pint.

(5) Chassis Suspension

The front wheel bearings on all series cars require repacking with wheel bearing grease and adjustment every 25,000 miles, or when brakes are relined. When lubricating these bearings, always use grease meeting the G-12 specifications.

Lubrication fittings are provided where necessary on the chassis of *all 1955 series* cars. These points must be lubricated every 2,000 miles. The locations of these fittings are given in the Lubrication Chart, Fig. 2-2.

The rear upper control arm bushings are fitted with lubrication fittings which point downward on the right side toward the opening between the frame side bar, front cross member and reinforcing brace, and upward on the left side. Use of a 12" extension on the grease gun is required to reach the fitting through the bottom of the opening on the right side.

If any of the lubrication fittings are found to be broken, plugged, or missing, be sure to secure authorization for the installation of new fittings. No point should be left unlubricated.

LUBRICATION AND PREVENTIVE MAINTENANCE

SUGGESTED OPERATIONS AT THE FIRST 2000 AND 4000 MILES

At 2000 Miles

1. Check with the owner concerning his experience with the car and clarify any questions he may have on controls or function of any part of the car.
2. Correct any conditions reported to you by the owner when your inspection also indicates that the car is not normal.
3. Road test the car, checking operation of the following and correct only when necessary:
   - (a) Carburetor and manifold heat control valve.
   - (b) Steering.
   - (c) Brakes.
   - (d) Instruments, all controls, and lights.
   - (e) All accessories.
   - (f) Hydra-Matic transmission.
4. Remove and inspect fuel filter element. Do not attempt to clean. Replace if necessary.
5. Lubricate and change engine oil. The break-in engine oil should have been replaced at 500 miles.
6. Make general inspection for coolant, brake fluid, fuel, or any lubricant leaks. (Do not confuse with normal seepage.)
7. Tighten radiator hoses, upper and lower. Check Heater hoses.
8. Tighten intake and exhaust manifold screws and nuts. (25 - 30 Ft. Lbs.).
9. Tighten rear spring clips and "U" bolts (45 to 52 Ft. Lbs.).
10. On Air Conditioner equipped cars, clean and wash filters.

At 4000 Miles

1. Check with the owner concerning his experience with the car and clarify any questions he may have on controls or function of any part of the car.
2. Correct any conditions reported to you by the owner when your inspection also indicates that the car is not normal.
3. Road test the car, checking operation of the following and correct only when necessary:
   - (a) Carburetor and manifold heat control valve.
   - (b) Steering
   - (c) Brakes.
   - (d) Instruments, all controls, and lights.
   - (e) All accessories.
   - (f) Hydra-Matic transmission.
4. Lubricate and change engine oil. (This operation to be charged to the owner.)
5. Suggest to owner that tires be rotated. (Owner's expense.)
6. Make general inspection for coolant, brake fluid, or any lubricant leaks. (Do not confuse with normal seepage.)
7. Clean and adjust points and spark plugs and reset ignition timing. (Point gap .016", plug gap .035".)
8. Adjust brakes. Check fluid level and free pedal travel.
9. Adjust steering gear.
10. Check toe-in and adjust when necessary. (1/4" preferred.)

Fig. 2-3 Suggested Operations at 2,000 and 4,000 Mile Inspection

(6) Steering Gear

Special Steering Gear Lubricant, meeting G.M. 4673-M specifications, is required in the gear housing of the power steering gear unit. The lubricant level should be inspected every 2,000 miles and additional lubricant added to bring the level to the filler plug opening. Special tubes of Steering Gear Lubricant 4673-M are available at the Factory Parts Department under Part No. 146 1598. Each tube contains sufficient lubricant for one complete refill of the power steering gear.

The fluid level in the pump reservoir should be checked every 2,000 miles and filled with Automatic Transmission Fluid, Type "A".

The Hydra-Matic transmission neutral switch actuating pin should be lubricated every 2,000 miles with a small amount of Lubriplate to prevent undue wear at the switch arm and pin.

(7) Rear Axle

Check the lubricant level in the rear axle every 2,000 miles and add fresh lubricant if necessary. Draining and refilling of the differential is necessary only when the unit is removed for overhaul, or when seasonal temperature changes make it necessary to use a fluid of lower viscosity. SAE 90 Multi-Purpose type gear lubricant should be used except in localities where winter temperatures are consistently below 0°F. In these localities SAE 80 should be used. When a replacement differential is installed, use the special "break-in" lubricant supplied with the differential.

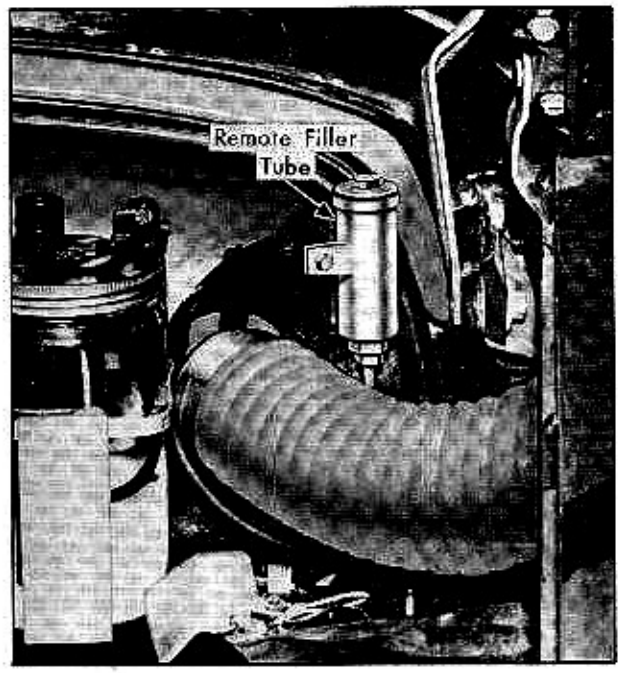


Fig. 2-4 Master Cylinder Remote Filler Tube

(8) Brakes

The fluid level in the brake master cylinder filler tube should be checked every 2,000 miles, and every time the brakes are relined or adjusted. Fill with Delco Super No. 11 brake fluid to 3/4" from the top of the filler cap boss. Fig. 2-4. The remote filler tube is located on the left side of the cowl, near the hood hinge, in the engine compartment. Brake cables, brackets, and levers should be lubricated every 2,000 miles with 10W engine oil.

On cars equipped with Power Brakes, the cylinder air filter should be cleaned every 2,000 miles. This may be done by removing the spring type retainer, screen and filtering element (hair). Wash filtering element (hair) in solvent, shake solvent out thoroughly and reinstall.

In addition, lubricate the vacuum piston leather once a year. This may be done by removing the pipe plug from the cylinder shell and injecting Delco Hydraulic Shock Absorber Fluid up to the point where it runs out of the filler hole.

The brake stop light switch arm, located under the brake pedal, below the floor pan, should be lubricated with Lubriplate every 2,000 miles.

NOTE: The braking system must be flushed once a year. This is particularly important on cars equipped with the Power Brake system where dirt under the ball check will affect operation of the system.

(9) Engine

a. Engine Oil Recommendations

Use of the proper engine oil is of great importance in obtaining maximum performance and satisfaction from the Cadillac engine.

In service, crankcase oils may form sludge, varnish, or corrosive acids unless properly protected. For maximum protection of the Cadillac engine under all normal driving conditions it is recommended that oils designated "For Service MS" or "For Service DG" be used. In addition, only those crankcase oils should be used which have high wear resistant qualities with low combustion chamber deposit forming characteristics, and which have proven, through use, to be satisfactory in the Cadillac high compression engine.

LUBRICATION AND PREVENTIVE MAINTENTNCE

During the first 500 miles of operation, the oil in the crankcase when the car is shipped should be used. When it is necessary to add oil during this period, use nothing heavier than S.A.E. 10W oil in winter or 20 in the summer. Change the oil at the end of 500 miles.

After the first 500 miles, the crankcase oil should be selected to give the best performance under the individual climatic and driving conditions. If the car is driven regularly at high speeds, or if the prevailing temperature averages 90° or above, S.A.E. 30 oil may be used. Recommendations for engine oil viscosities for all 1955 Cadillacs are shown in Fig. 2-5.

Any field attempt to improve lubricants by adding so called "dopes, solvents, friction reducing compounds and other trick materials" to engine oils, Hydra-Matic transmission fluids, and differential lubricants should be avoided. The use of these materials is entirely unnecessary to the proper operation of a Cadillac car.

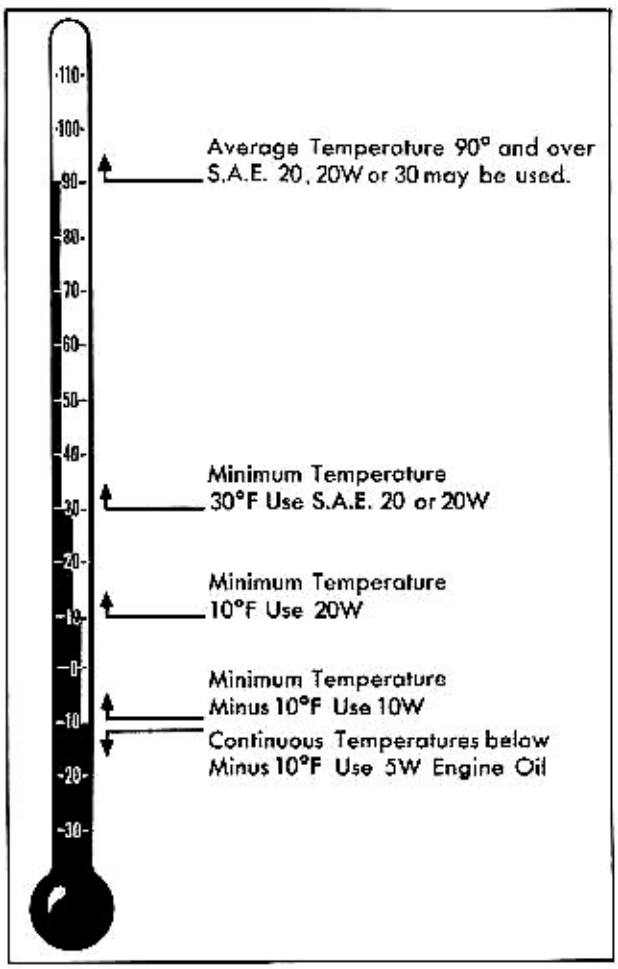


Fig. 2-5 Engine Oil Viscosity Chart

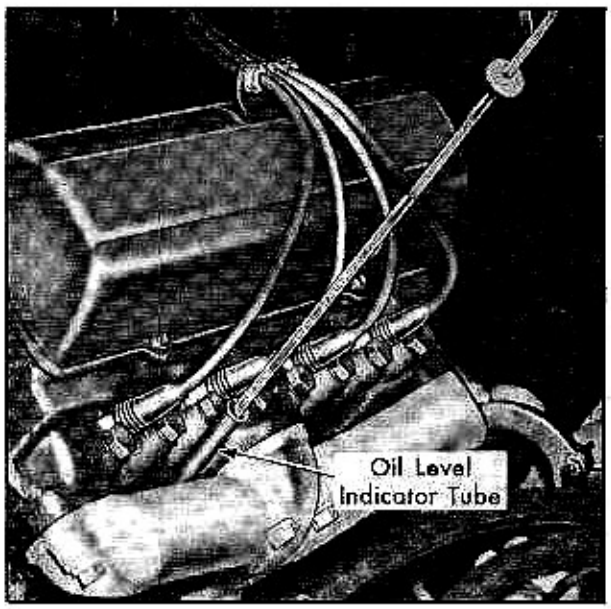


Fig. 2-6 Checking Engine Oil Level

b. Adding Engine Oil

Always maintain the correct oil level. Oil should be added when the level falls to the "ADD OIL" mark on the dipstick. Do not add oil above the "FULL" mark, Fig. 2-6.

c. Changing Engine Oil

After the initial drain at 500 miles and a second oil change at 2,000 miles, engine oil should be drained and replaced every two months or 2,000 miles, whichever occurs first. More frequent changes are required with unusual stop and go operations, dusty road travel or during prolonged cold or wet climatic conditions. In extreme cases, it may be advisable to recommend an oil change after 1,000 or even 500 miles of operation.

Drain the crankcase only after the engine has been heated to normal operating temperature. The benefits of draining are minimized if the crankcase is drained when engine is cold, as some suspended foreign matter will cling to the sides of the oil pan and will not drain out readily with slower moving cold oil. Flushing the crankcase is not recommended. The engine oil pan should be removed and cleaned once a year, after the "Winter" season.

d. Engine Accessories

The generator has two oil cups, one at each end. These cups should be filled with 10W engine oil every 2,000 miles.

NOTE: If the oil reservoir in the commutator

end bearing becomes completely exhausted through failure to lubricate at regular intervals, the reservoir should be restored by filling the oil cup 3 times consecutively, allowing time between fillings for the oil to soak down.

At each 2,000 mile lubrication, 10W engine oil should be added to the filler tube (located at the front of the distributor) until the oil level is brought up to the top of the filler tube.

When the distributor points are adjusted, cleaned, or replaced, the distributor breaker plate bushing, felt, pivot pin, and distributor cam wick should be lubricated with 1 or 2 drops of No. 10W oil. Lubricate the distributor cam at this time using Delco-Remy Cam and Bearing Lubricant (M-31 Lubrico).

Whenever the crankcase oil is changed, the copper gauze in the filler cap should be cleaned in a solvent and dipped in engine oil. This operation of oiling the cap should also be performed when conditioning a new car for delivery. The carburetor air cleaner should also be cleaned and oiled as follows:

1. Loosen wing nut on top of air cleaner and remove shroud, filter element and reservoir as an assembly from the carburetor.

NOTE: On engines equipped with two carburetors, it will be necessary to remove both wing nuts holding air cleaner shroud to carburetors, remove each cleaner from shroud and service in same manner as standard air cleaner.

2. Remove shroud from air cleaner assembly.

3. Lift filter element off of reservoir and pour oil out of reservoir.

4. Wash all parts in solvent.

5. Fill reservoir to correct level as indicated on inside of reservoir, with proper grade of oil. Use SAE 40 oil when average temperature is above 32°F and SAE 20 oil when average temperature is below 32°F.

6. Inspect reservoir to carburetor gasket; replace if damaged or full contact is not observed.

7. Place filter element and shroud on reservoir, and install air cleaner assembly on carburetor.

8. Tighten wing nut finger tight.

It is recommended that the engine oil filter element be replaced every 6,000 miles under normal car usage.

If the car has been subject to severe driving conditions, such as constant travel over dusty roads or excessive stop-and-go driving in cold weather, more frequent replacement of the filter element will be necessary.

Remove the filter cover screw, cover, and gasket, and remove the element. Remove any oil which may be in the housing, and be sure all sludge is cleaned out completely.

Install element, cover with new gasket, and tighten cover screw. Check for leaks at the cover gasket with engine running at fast idle. After engine has run for 3 or 4 minutes, stop engine and check engine oil level. Add oil to bring level to the "Full" mark.

(10) Hydra-Matic Transmission

a. Checking Fluid Level

The dipstick and filler tube for the Hydra-Matic transmission are located under the hood at the right rear side of the engine on all 1955 Cadillac cars, for convenience in checking and filling. The fluid level should be checked every 2,000 miles and fluid added to bring the level to the "Full" mark on the dipstick. The oil level is always checked after the engine has been running to be sure the fluid coupling is full in order to obtain an accurate reading. Run engine with selector lever in "N" (neutral) position, at 800 R.P.M. for 2 minutes. Reduce the engine speed to slow idle, remove and wipe dipstick, and check fluid level. With the engine still running, add fluid through

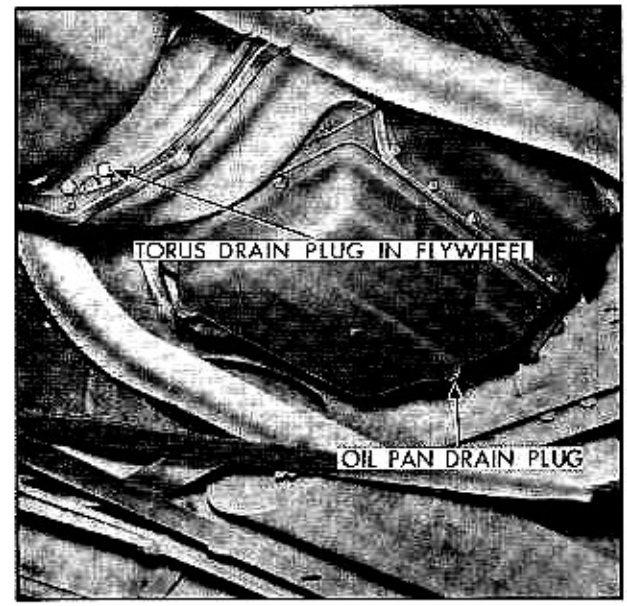


Fig. 2-7 Transmission Drain Plugs

dipstick tube to bring level up to "Full" mark on the dipstick. ("Low" to "Full" marking is 1 quart.)

Whenever the Hydra-Matic transmission is drained and refilled or fluid is added, use only Cadillac Hydra-Matic Transmission Fluid or an Automatic Transmission "Fluid Type "A" with an Armour Qualification number embossed on top of container (Brand Name AQ-ATF ---). This assures the user that the fluid has all the properties essential for correct operation of the Hydra-Matic transmission.

b. To Replace Fluid

1. Remove starter motor.

2. Remove lower flywheel housing cover plate.

3. Remove drain plugs, Fig. 2-7, from transmission oil pan and front face of flywheel.

4. Allow old fluid to drain completely and reinstall drain plugs, lower flywheel cover plate, and starter.

5. Add 7 quarts of Automatic Transmission Fluid into the oil filler tube.

6. Run the engine at a speed of 800 R.P.M. for approximately 1-1/2 minutes with the selector lever in "N" (neutral).

7. Reduce engine speed to slow idle (carburetor off the fast idle step) and add 2-1/2 to 3 quarts of fluid to bring the level up to the "F" mark on the dipstick.

NOTE: The capacity of the Hydra-Matic transmission is approximately 10 quarts for a refill, but the correct level is determined by the mark on the dipstick rather than by the amount added. Do not overfill as foaming may result when the oil is hot.

8. Shut off engine and replace dipstick.

(11) Air Conditioner

Frigidaire 525 viscosity oil is used in the Air Conditioner unit. For information concerning the checking and adding of oil at the compressor, see Air Conditioning, Section 16A.

(12) Series 75 and Commercial Chassis

Instructions for lubrication of 1955 series 75 and 86 Cadillac commercial chassis are included in the Lubrication Chart, Fig. 2-2. The only difference is in the addition of a lubrication fitting at the splined joint at the rear of the rear propeller shaft.

(13) Points Requiring No Lubrication

No lubrication is required at the water pump, the rear wheel bearings, or the universal joints, as all of these bearings are packed at assembly.

No lubrication of the rear springs is required, as the shackles are rubber mounted, and the spring leaves are fitted with waxed interliners. It is important that no lubrication be attempted at these points as lubrication is harmful to the proper functioning of the springs.

(14) Capacities

Unit	1955 Series 62,60S	75	86 Comm.
Rear Axle	5 pints	5 pints	5 pints
Engine Crankcase	5 quarts	5 quarts	5 quarts
When filter element is replaced add	1 quart	1 quart	1 quart
Cooling System			
With Heater	20-1/4 quarts	22-3/4 quarts	20-1/4 quarts
Without Heater	18 quarts	18 quarts	18 quarts
Gasoline Tank	20 gallons	20 gallons	20 gallons
Tire Pressure			
Front	24 lbs.	28 lbs.	24 lbs.
Rear	24 lbs.	28 lbs.	30 lbs.

NOTE: Add 4 lbs. when driving at higher speeds.

LUBRICATION AND PREVENTIVE MAINTENANCE

Capacities (Cont'd.)

Air Conditioner			
Freon 12	5 lbs.	5 lbs.	5 lbs.
Frigidaire #525 Oil			
Dry	12 ozs.	12 ozs.	12 ozs.
Refill	9 ozs.	9 ozs.	9 ozs.
Hydra-Matic Transmission			
Dry	11 quarts	11 quarts	11 quarts
Refill	10 quarts	10 quarts	10 quarts

OTHER NOTES AND REFERENCES