CHEVROLET—CENTRAL OFFICE

DIVISION OF GENERAL MOTORS CORPORATION
DETROIT 2, MICHIGAN

ATTENTION: SERVICE MGR.

TECHNICAL SERVICE BULLETIN

Technical Service Department

SUBJECT: ENGINE OIL CONSUMPTION - ALL MODELS - ALL SERIES

BULLETIN NO. DR #620

SECTION VI

TO: ALL CHEVROLET DEALERS

DATE October 28, 1963

Since the introduction of the recommended 6,000 mile or 60 day oil change intervals, an increased number of comments on oil consumption have been received. It has been brought to our attention that many owners are of the erroneous opinion that present day Passenger Car and Truck engines should not use any noticeable amount of oil between oil changes. This bulletin is being issued to assist Dealer personnel to understand and deal with this situation.

At the Assembly Plants, all engines are filled with the proper amount of a good quality oil. This oil contains additives which are especially suitable during the break-in period. Because of these additives, it is best to leave this oil in the engine for the recommended 60 days or 6,000 miles, whichever comes first. After the factory oil has been drained, an oil of known good quality should be used according to the current Owner's Manuals.

As modern engines are equipped with hard chrome face piston rings which exert a low ring to cylinder wall pressure, they may take up to 5,000 miles to "seat" in. Initially this may result in some apparent oil consumption but it will be more than offset by the considerably reduced rate of engine wear and reduced oil consumption at higher mileages. This, in fact, is the major reason most current model automobile engines can run so many miles before re-ringing is necessary, where in the past, new rings were required in engines with considerably less mileage.

Maintaining a proper oil level is also an important factor in controlling oil consumption. An overfull crankcase will allow oil to be splashed by the reciprocating parts onto the cylinder walls in greater quantities than the rings can control. This excess oil will consequently be drawn into the combustion chamber and burned. In extreme cases, the oil may also become aerated, causing it to foam and be thrown from the filler neck. An over-supply of oil may be added if the dipstick markings are not understood. The space between the "full" and "add" marks in most instances represents one quart and it is not necessary to add oil unless the level is at or below the "add" mark.

When checking oil levels, the engine should be warm, vehicle must be level, the dipstick pushed down to the stop and sufficient time, ap-

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SERVICE MANAGER	SHOP FOREMAN	SERVICE SALESMEN	SERVICE TECHNICIANS
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proximately 5 minutes, must be allowed for oil to drain back from the upper engine cavities to the pan, or a false reading may be obtained.

When an owner reports an engine using an excessive amount of oil, consideration should be given to the operating conditions of the vehicle before assuming any internal malfunction. Higher speeds, increased engine output and greater torque are not to be overlooked in diagnosis of the problem. Increased oil consumption may be expected in any automobile engine driven continuously at high speeds in excess of 60 MPH or during high speed driving, following slow speed city driving. When an engine is used principally for slow speed city driving under conditions where considerable crankcase dilution occurs, a rapid lowering of the oil level may result when the car is driven for some distance at high speed. This is due to the dilution from city driving being removed from the crankcase by the heat of high speed driving. This is a normal condition and should not be mistaken for excessive oil consumption.

If, however, it can be definitely determined that oil usage is due to some possible mechanical malfunction, an inspection for leaks should be made. A careful check must be carried out, especially in areas such as rocker cover gaskets, oil pan gaskets, side cover gaskets and crankshaft seals, front and rear. In addition, a check should also be made to assure either the valve guides or stems are not worn excessively or that the valve stem seals are not mispositioned or damaged. If any of the above possible conditions are present, they should be rectified and the vehicle placed in service to once again carry out a reasonable oil mileage check.

This should be determined by draining the sump and re-filling it with the recommended quantity of fresh oil (not above the "full" mark on the dipstick). The owner should be requested to drive the vehicle, following his normal driving habits for 500 miles. During this period, no oil is to be added unless the level falls below the "add" mark on the dipstick. In this event, the owner should, if possible, return the vehicle to the Dealer for re-filling.

After 500 miles operation, the oil level should be carefully checked after the engine has been shut off for a minimum period of five minutes. The dipstick reading will then permit dealer personnel to accurately estimate the rate of oil consumption.

In conclusion, it must be emphasized that every internal combustion engine should use a certain amount of oil to act as a lubricating and cooling agent, especially during the break-in period and that the initial rate of consumption will gradually decrease until it becomes stabilized after approximately 5000 miles operation.

Director, Technical Service Department

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