Oil Viscosity Recommendations

Multigrades

SAE 20W-40 SAE 10W-40 or SAE 10W-30	Where temperatures are consistently above +32°F.
SAE 10W-30 or SAE 10W-40	Suitable for year long operation in many parts of the U.S.; may be used where temperatures occasionally drop as low as −10°F.
SAE 5W-30 or SAE 5W-20	Recommended where minimum temperatures are consistently below +10°F.

Single Grades

SAE 30	Where temperatures are consistently above +32°F.
SAE 10W	Where temperatures range between +32°F. and −10°F.

IMPORTANT: If the vehicle is to be used for maximum performance service (very high speeds or very rapid acceleration), the engine requires heavier than normal lubricating oil. This is due to the high speeds, loads, and temperature of moving parts developed in these engines during this type of operation.

FOR BEST PROTECTION OF THE ENGINE UNDER THESE CONDITIONS, THE HEAVIEST ENGINE OIL OF MS QUALITY SHOULD BE USED THAT WILL PERMIT SATISFACTORY COLD STARTING. SAE 30 AND 40 ARE RECOMMENDED. MULTI-VISCOSITY OILS SAE 20W-40 AND 20W-50 MAY ALSO BE USED.

When outside temperatures are consistently below 30°F, SAE 10W-30 or SAE 10W-40 are recommended for ease in cold starting. However, even in cold weather, these grades should not be used if the vehicle is driven in competition or other forms of maximum operation.

MATERIALS ADDED TO ENGINE OILS

It is not necessary to add any other products to engine oils for most types of driving when MS quality oils are used.

In some instances, such as infrequent operation or short trips only, and during break-in after a major overhaul, addition of special materials containing anti-rust and anti-scuff additives is beneficial. A product suitable for this purpose is Engine Oil Supplement, Part Number 1879406 or equivalent.

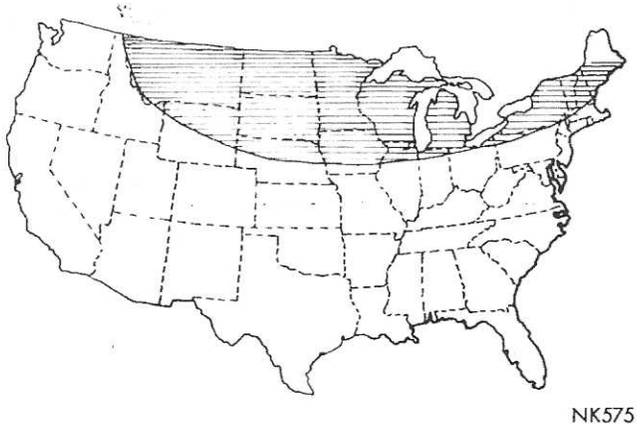

Fig. 16—Shaded Area Cover Region Where Minimum Temperatures May Be Consistently Below +10°F During Some Winter Months

FREQUENCY OF ENGINE OIL CHANGES

The by-products of combustion, such as unburned fuel, condensation and carbon deposits, in addition to dust and other abrasive materials, tend to contaminate engine oil. If permitted to remain in the crankcase for too great a period of time, the contaminants reduce the lubricating qualities of the oil causing excessive wear which can materially affect the operating efficiency of the engine.

To provide maximum protection to engine parts, it is recommended under normal operating conditions, that engine oil be drained and replenished with new oil of the proper viscosity and API classification, every three (3) months or 4,000 miles, whichever occurs first.

When draining the old oil, it is recommended that the engine be at normal operating temperature, as the warmed oil will drain more readily and carry with it such foreign matter which might otherwise cling to the sides of the crankcase and the various moving parts.

A greater degree of contamination of the engine oil takes place when the vehicle is operated under adverse conditions, such as frequent driving in dusty areas, short trips, stop-and-go driving and where long periods of idling are experienced. For oil change frequencies under these operating conditions, refer to the recommendations in the paragraphs under Severe Operating Conditions and Taxi and Police Operation.

During Break-In

Cars should be driven moderately during the first 300 miles. Speeds up to 50 to 60 mph are desirable. While cruising, brief full-throttle accelerations contribute to a good break-in. Wide-open throttle accelerations in low gear can be detrimental and should be avoided for at least 500 miles.

The oil installed in the engine at the factory is a high quality lubricant, classified "For Service MS," and **should be retained** until the first regularly scheduled three-month or 4,000 mile oil change, whichever occurs first. If it becomes necessary to add oil during this initial period, an oil with the "For Service MS" classification and of the proper viscosity grade should be used. **Nondetergent or straight mineral oils must never be used.**

Oil level should be checked during each stop for