

OILS

1. GENERAL

- 1.01** This section covers a list of oils.
- 1.02** This section is reissued to omit Lubricants, KS-2832, KS-7506 and KS-8559, and to revise ordering information for Oil Lubricating, Diesel Group 1.
- 1.03** Authority for the use of oils listed herein shall be obtained from the applicable individual Plant Series section. Where this section lists various options under a group name, such as Oil, 130-170 S 210, any of the products listed under this group name are considered satisfactory for any application for which the group name has been specified in the individual Plant Series section. Where an individual item is specified in a Plant Series section, this section is not authority for any substitution.
- 1.04** The application notes given under various headings are generalizations to assist in selecting a lubricant for apparatus not covered by BSP and indicate roughly the field of application for that lubricant. The specific recommendations in any particular section take precedence over these generalizations.
- 1.05** The order should be worded in terms of the group name or, in the case of diesel lubricating oil, in terms of group name and group number.

Example: (Quantity) gal Oil, Lubricating, Diesel, SAE (number) Group 2 [MIL-L-2104A SUPPLEMENT 1 (S-1)].

Orders in terms of the group name make it possible for supply organizations to furnish the option most advantageous from the standpoint of price, availability, etc.

- 1.06** Where a particular item under the group name is desired or where only one option is listed, the order should be worded in accordance with the individual item.

Example: (Quantity) bottle KS-6232 Light Mineral Oil, (4-oz bottle).

Where the order calls for a particular item, this section is not authority for supply organizations to substitute.

- 1.07** The ordering unit should be listed after the quantity in the order. Quantities should be in multiples of the listed ordering units.

Example: (Quantity) gal Oil, 80-100 S 210 (5 gal container).

Example: (Quantity) bottle Lubricant, KS-16832 L2 (2-oz. bottle).

- 1.08** Viscosity ratings for oils are given by SAE numbers or in Saybolt Universal Seconds. SAE viscosity ratings are familiar to automobile users. The higher SAE numbers indicate higher viscosity which means thicker, slower flowing oil. A Saybolt viscosity rating of 58-65 S 210 means that it requires from 58 to 65 seconds at 210°F for a fixed amount of oil to flow through a standard orifice. Oils listed as tested at 210°F are of higher viscosity than those listed as tested at 100°F. For the same test temperature, a greater number of seconds indicates an oil of higher viscosity. These viscosity ratings are given for comparison purposes and not as a basis for substituting unlisted oils. Where the order is by group name and the Saybolt rating, example, Oil 130-170 S 210, is the group name, it becomes part of the order; but where the Saybolt rating or the SAE rating, example (90-100 S 100) is given in parentheses, they are for information only and should not be included in the order.

- 1.09** Container sizes listed are those considered standard by the supplier and generally available. Other sizes can be obtained in some areas and local arrangements can sometimes be made for delivery in bulk or in smaller than listed sizes.

SECTION 065-330-110

1.10 The term kerosene engine as used herein does not include diesel engines even though the particular diesel engine may be burning kerosene.

2. LIST OF OILS (in order of viscosity from heavier to lighter)

GREASE, SEMIFLUID, KS-14413

For use on dials.
(1, 5, 10, or 35 lb)

LUBRICANT, KS-16832 L2

For use on 197- and 198-type switches and 2.06 and similar type selectors.
(2-oz bottle or 1-pt can)

OIL, CELL CEMF

Replaced by Oil, Mineral, For Countercells.

OIL, PRESSURE, EXTREME

Replaced by Oil, Extreme Pressure, SAE 140.

OIL, 190-230 S 210

For rocking, guide, and low-speed bearings; where noncreeping characteristics are desirable, for operator chairs, and for gasoline or kerosene engine pressure fittings.

KS-6438 Oil (1-pt can).

OIL, EXTREME PRESSURE, SAE 140 (150-200 S 210)

For gear cases of mercury-type ringing interrunder when specified.

Options

Western Electric Co purchase contract
Houghton Hypoid Gear Lubricant SAE 140 (25, 100, or 420 lb) from Western Electric Co or telephone company's usual place of supply.

Esso Standard Division of Humble Oil and Refining Co — Pen-O-Led EP 6 (35, 100, or 400 lb)

Gulf Oil Corp — Transgear Lubricant EP SAE 140 (5, 14, or 55 gal)

Quaker State Oil Refining Co — Super Quadrolube Gear Lubricant 140 (40, 100, or 400 lb)

Shell Oil Co — Spirax 140 EP (5 or 55 gal)

Sinclair Refining Co — Opaline Gear Lubricant CX (5 or 10 gal, or 100 lb)

Socony-Mobil Oil Co — Mobilube GX 140 (100 or 400 lb)

Sun Oil Co — H.V. Cylinder Oil (55 gal)

Texaco, Inc — Meropa Lubricant No. 6 (55 gal, 35 or 100 lb)

Tidewater Associated Oil Co —
Eastern Division — Tycol Apreslube 95 (100 or 400 lb)

Tidewater Associated Oil Co —
Western Division — Veedol Super Film A140 (1, 5, 10, 15, or 55 gal, or 100 lb)

OIL, 130-170 S 210

For speed reducers and similar gears.

Options

Esso Standard Division of Humble Oil and Refining Co — Cylesso 150 (5 or 55 gal)

Gulf Oil Corp — Senate Cylinder Oil B (5 gal) or Senate Oil 155 (5 or 55 gal)

Shell Oil Co — Valvata 79 (5 or 55 gal). This oil has pour-point of 10°F and is recommended where room temperature may at times be abnormally low.

Sinclair Refining Co — Valve Oil Dark (55 gal)

Socony Mobil Oil Co — Mobil 600-Super Cylinder Oil (1, 5, 30, or 55 gal)

Standard Oil (Ind) Division of American Oil Co — Standard Worm Gear Oil (5 gal, barrel, or half barrel)

Sun Oil Co — Occident Cylinder Oil (55 gal)

Texaco, Inc — Cylinder Oil 650T (5 or 55 gal)

Tidewater Oil Co — Tycol Apacyl 91 (5 or 55 gal)

OIL, POUR-POINT, LOW (85 S 210 — 500 S 100)

For rotary selectors and banks.

KS-8370 Low Pour-Point Oil (4- or 8-oz, or 1-qt can)

OIL, 80-100 S 210 or SAE 50

OIL, 68-75 S 210 or SAE 40

OIL, 58-65 S 210 or SAE 30

OIL, 50-55 S 210 or SAE 20

OIL, 44-47 S 210 or SAE 10

For gasoline or kerosene engine crankcases and for overrunning clutches and gear cases of mercury-type ringing interrupters when specified.

Options

Western Electric Co purchase contract Motor Vehicle Engine Oil for Service MM obtainable in 55-gal containers from Western Electric Co or telephone company's usual place of supply. In an emergency, where Western Electric contract oil is not available, any oil for Service MM of the correct SAE rating from local supplier and approved by the telephone company may be used.

OIL, EXTREME PRESSURE, SAE 80 (55-65 S 210)

For overrunning clutch of 20-kw KS-5636 gasoline engines.

Options

Western Electric Co purchase contract Hypoid SAE 80 obtainable in 25-, 100-, or 400-lb containers from Western Electric Co or telephone company's usual place of supply.

Gulf Oil Corp — Gulf Hypoid Gear Lubricant 80 (100 or 400 lb)

Quaker State Oil Refining Co — Super Quadrolube Gear Lubricant 80 (40, 100, or 400 lb)

Socony Mobil Oil Co — Mobilube GX 80 (25, 100, or 400 lb)

OIL, LUBRICATING, DIESEL

SAE 50, 30, 20, 10, or 10W. Some oils are not available in all grades. All grades are available in 5 and 55 gal containers.

The following list of oil suppliers and brand name oils is intended only as a guide in the selection of oils. In general, one or more of the following oils will be available anywhere in the United States. These and additional suppliers

and oils are listed by the Internal Combustion Engine Institute, Chicago, Illinois in the booklet Lubricating Oils for Industrial and Heavy Duty Automotive Engines. There are three types of oils listed in the booklet. The first type meets the requirements of MIL-L-2104A, the second type meets the requirements of MIL-L-2104A, SUPPLEMENT 1 (S-1), and the third type meets the requirements of the Superior Lubricants Series 3.

Diesel Lubricating Oils are listed in three groups headed GROUP 1, GROUP 2, and GROUP 3 previously listed as TYPE A, TYPE B, and TYPE C, respectively.

GROUP 1 (MIL-L-2104A)

For use in diesel engines using Water White Kerosene or D-1 Diesel Fuel as covered in Section 065-320-301.

Options

Esso Standard Division of Humble Oil and Refining Co — Essolube HD

Gulf Oil Corp — Gulflube Motor Oil HD

Shell Oil Co — Shell Rotella Oil

Sinclair Refining Co — Sinclair Tenol

Socony Mobil Oil Co, Inc — Mobil DTE Oil D Series

Standard Oil Co of Calif — RPM DELO Multiservice Oil

Standard Oil (Ind) Division of American Oil Co — American HD-M Motor Oil

Sun Oil Co — Sunoco Ocnus HD (MIL)

Texaco, Inc — Ursa Oil HD

Tidewater Oil Co (Eastern Division) — Veedol HD-M

Tidewater Oil Co (Western Division) — Veedol HD S-1

GROUP 2 [MIL-L-2104A, SUPPLEMENT 1 (S-1)]

For use in diesel engines using Water White Kerosene or D-1 or D-2 Diesel Fuel as covered in Section 065-320-301.

Options

Esso Standard — Essolube HDX

Shell Oil Co — Shell Rotella Oil

SECTION 065-330-110

Sinclair Refining Co — Sinclair Super Tenol
Socony Mobil Oil Co, Inc — Mobil DTE Oil S-100 Series

Standard Oil Co of Calif — RPM DELO
Special Lubricating Oil

Standard Oil (Ind) Division of American Oil
Co — American S-1 Motor Oil

Sun Oil Co — Sunoco Ocnus HD (2200 Series
Oil)

Texaco, Inc — Ursa Oil Sup One

Tidewater Oil Co (Eastern Division) —
Veedol HD S-1

Tidewater Oil Co (Western Division) —
Veedol HD S-1

GROUP 3 (SERIES 3)

For use in KS-15521 L10, L11, and L12,
KS-15899, and KS-15954 Diesel Engine Alternators only, regardless of the grade of fuel used.

Options

Esso Standard Division of Humble Oil and
Refining Co — Estor D-3

Shell Oil Co — Shell Rimula Oil

Sinclair Refining Co — Sinclair Tenol Extra
S-3; Hyvis HD Extra S-3

Socony Mobil Oil Co, Inc — Delvac Oil S-200
Series

Standard Oil Co of Calif — RPM DELO Super-
charged-3 Lubricating Oil

Standard Oil (Ind) Division of American Oil
Co — American S-3 Motor Oil

Sun Oil Co — Sunoco Ocnus HD, Series 3

Texaco, Inc — Ursa Oil Super Duty

Tidewater Oil Co (Eastern Division) —
Veedol Adelbus S-3; Veedol HD S-3

Tidewater Oil Co (Western Division) —
Veedol HD S-3

OIL, 220-260 S 100

For motors, generators, centrifugal exhausters, and gear cases of friction roll drives.

When KS-16326 L1 oil is specified in the individual section, do not substitute.

Options

KS-16326 L1 Oil (1-pt can, 1 or 5 gal)

Esso Standard Division of Humble Oil Refining Co — Teresso 47 (5 or 53 gal)

Sinclair Refining Co — Sinturlite C
(5 or 55 gal)

Socony Mobil Oil Co — DTE Medium
(5, 30, or 55 gal)

OIL, MINERAL, MEDIUM (185-210 S 100)

When specified for dials, timers, etc.

KS-7470 Lubricating Oil (1-qt can, 1 or 55 gal)

OIL, MINERAL, FOR COUNTERCELLS

American Fluoride Corp — Gulf Mineral
Seal (1 pt)

OIL, PETROLEUM, HEAVY (61-68 S 210)

For use in air dryers and compressors.

KS-16729 L1 Oil (1 pt, 1 or 5 gal)

OIL, 130-190 S 100

Replaced by Oil, 220-260 S 100.

OIL, 140-160 S 100

Replaced by Oil, 220-260 S 100.

OIL, MINERAL, LIGHT (90-110 S 100)

KS-6232 Light Mineral Oil (4-oz bottle or 8-oz can)

OIL, WATCH (95-100 S 100)

For instruments.

Nye's Watch Oil (1/4-oz bottle)

OIL, DASHPOT (84-92 S 100)

KS-8321 Dashpot Oil (5- or 13-cc bottle, 8-oz or 1-qt can)

Note: Replaces C.H. and G.E. dashpot oil and KS-6201 dashpot oil. It does not replace Westinghouse S-841399 specified in Section 024-485-301 for UV-AG voltage regulators.

OIL, FLUSHING (70-105 S 100)**Options**

Western Electric Co purchase contract flushing oil mixed half and half with 50-55 S 210 Oil. The contract flushing oil is obtainable in 5- or 55-gal containers from the Western Electric Co or from telephone company's usual place of supply. The Western Electric Co purchase contract flushing oil is designed for gear flushing and is highly solvent. When used for crankcase flushing, oil is added to provide some lubrication during the flushing process. The following commercial flushing oils may be used as furnished for flushing engine crankcases.

Esso Standard Division of Humble Oil and Refining Co — Forum 40 (5 or 53 gal)

Gulf Oil Corp — Crankcase Cleaning Oil (55 gal)

Shell Oil Co — Donax F (5 or 55 gal)

Sinclair Refining Co — Conditioning Oil (55 gal)

Socony Mobil Oil Co — Sovalent A (1, 5, or 55 gal)

Sun Oil Co — Circo X Light Flushing Oil (55 gal)

Texaco, Inc — Motor Flushing Oil (5 or 55 gal)

Tidewater Associated Oil Co — Tycol Andarin 46 (5, 30, or 55 gal)

OIL, MOTOR, CALCULAGRAPH

Calculagraph Co — Calculagraph Synchronous Electric Motor Oil-30-134 (2-oz, 4-oz, 1/2-pt, or 1-pt bottle)

OIL, CLOCK, CALCULAGRAPH

Calculagraph Co — Calculagraph Clock Oil — 152 (1-, 2-, 4-, 8-oz, or 1-pt bottle)

OIL, SWITCH (54-57 S 100)

For oil switches and starting compensators.

General Electric Co — No. 10C Switch Oil (1, 1.5, 2, 3, 5, or 55 gal)

OIL, SILICONE

Used on KS-15513 Westinghouse Time-Delay Relays.

Westinghouse Electric Corp — No. S-1723639 Oil Silicone (1-oz bottle) or No. S-1724231 Vial (oil in a vial with syringe) (1-oz vial)