

Lubricant Types—Construction and Industrial Machinery

1. **Scope**—Table 1 lists the components of construction and industrial equipment and the various lubricants which may be used. Table 2 lists lubricant types and identifying abbreviations. Lubricants that had common usage in the past are retained in Table 2 to show where the new specifications originated.

TABLE 1—LUBRICATION OF EQUIPMENT COMPONENTS⁽¹⁾

Component	Lubricants Used
Engine crankcase (diesel and gasoline)	EO
Diesel fuel injection pump housing	EO
Air cleaner, oil bath	EO
Clutches and brakes (wet)	EO, ATF
Hydraulic wheel brake systems	BF, EO
Hydraulic control systems	EO, ATF, HTF, HYDO, FRF
Hydraulic transmissions	EO, ATF, HTF
Transmissions	EO, RGL, MPL
Bevel gear and final drive gears	EO, RGL, MPL
Limited slip differentials	MPL
Gear compartments (other than above)	EO, RGL, MPL, MPG
Open gears	MPL, OGL
Wheel bearings	MPG, MPL, WBG
Bearings, shafts, levers, drivelines	MPG, MPGM, EO
Track rollers	EO, TRL, MPL, MPG
Alternator, generator, electric motor	EO, MPG, HTG

1. Several lubricants may be shown. They should not be mixed.
To minimize the number of lubricants used, specify engine oil, multipurpose type grease, and multipurpose type gear lubricant wherever possible.
Special lubricants may be required in any of the mentioned components.

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TABLE 2—LUBRICANT TYPES AND IDENTIFYING ABBREVIATIONS⁽¹⁾

Abbreviation	Lubricant Type
EO	Engine Crankcase Oil (diesel and gasoline), described in SAE J183, J300, J304, and J307 SA CA SB CB SC *CC *SD *CD *SE
ATF	Automatic Transmission Fluid, described in SAE J311 Type A Type A, Suffix A Dexron® Type F
HTF	Hydraulic Transmission Fluid Type C-1 *Type C-2
BF	Brake Fluid, described in SAE J1702 and SAE J1703 SAE J1702 *SAE J1703 (formerly SAE 70R3)
HYDO	Hydraulic Oil MIL-H-5606 Industrial hydraulic oil resistant to rust, oxidation and foaming Industrial hydraulic oil with antiwear additives, resistant to rust, oxidation and foaming
FRF	Fire Resistant Fluid (hydraulic) Oil/Water Emulsion Water Glycol Fluid Phosphate Ester Type Fluid
RGL	Regular Type Gear Lubricant, described in SAE J306, SAE J307, SAE J308, and ASTM RR25-D2 (addendum 10/68) Straight Mineral Oil or API Service GL-1
MPL	Multipurpose Type Gear Lubricant, described in SAE J306, SAE J307, SAE J308, and ASTM RR25-D2 (Addendum 10/68) API Service GL-4 or MIL-L-2105 *API Service GL-5 or MIL-L-2105B API Service GL-6
OGL	Open Gear Lubricant
TRL	Track Roller Lubricant
MPG	*Multipurpose Type Grease, described in SAE J310
MPGM	Multipurpose Type Grease with Molybdenum Disulfide
WBG	Wheel Bearing Grease, described in SAE J310
HTG	*High Temperature Grease
SPC	Special Lubricant

1. The specifications, classifications, or lubricants marked with an asterisk are found in common use today. It is strongly recommended that on any single machine a minimum number of lubricants be used. It is further recommended that engine oil, multipurpose type grease, and multipurpose type gear lubricant be used wherever possible.

These lubricants may be known by specific trade names or performance specifications.

Original factory lubrication may deviate from field recommendations because of special requirements, such as breakin.

Lubricant viscosity grade should be selected for various climatic conditions (described in SAE J300 and SAE J307).