

Product Data Sheet

Mobiltrans HD Series Commercial Automotive Transmission Oil

Product Description and Application

Mobiltrans HD Series oils are latest technology products designed to optimise performance of off-highway transmissions, drive trains, and hydraulic systems without the compromises inherent in the mixed-fleet engine oils previously used in these applications. These lubricants are formulated to provide outstanding oxidation stability, elastomer compatibility, corrosion and rust control, and maximum protection against foaming.

The three grades, SAE 10W, 30 and 50, have optimum shear stability and excellent high-temperature/high-shear viscosity. The SAE 10W grade has very good low temperature pumpability and a low pour point.

Mobiltrans HD Series lubricants meet Caterpillar's latest TO-4 specification which cannot be satisfied by commercial engine oil technology. This specification supersedes and replaces Caterpillar TO-2 requirements which have been in place since 1977. Whereas Cat TO-2 measured friction retention in bronze clutches only, Cat TO-4 meets very strict friction requirements for bronze as well as three paper and two elastomer disc materials including Viton elastomer. This ensures a markedly extended clutch life and improved transmission slippage control, even during high-load operation on a highly inclined slope at extreme temperatures. The technology provides an optimum balance between static and dynamic friction in a variety of clutch materials used in powershift transmission drive-train clutches, steering clutches, and wet brakes. It also minimises chatter in oil-cooled disc brakes. These attributes provide optimised durability for extended service.

Mobiltrans HD Series products are designed to lubricate the most demanding transmissions, drive trains, clutches and hydraulic systems in Caterpillar, Case, Komatsu and other contractor, off-highway contractor, logging, mining and farming equipment. They are also suitable for most automotive hydraulic applications. Mobiltrans HD Series products are recommended for most spur, helical, bevel and worm gear bosses, even under severe-duty applications.

Benefits

Mobiltrans HD Series products offer the following benefits :

- Optimised clutch-friction retention and slippage control
- Significantly improved clutch life compared to the best API CD / Cat TO-2 engine oils
- Greatly improved control of gear wear in transmissions, gear boxes and drive trains
- Top performance in wet brakes, excellent control of brake chatter
- Excellent hydraulic oil stability and protection against high pressure pump wear
- Outstanding FZG load-carrying capability and FZG gear wear protection
- Excellent pitting control
- Mobiltrans HD lubricants have passed General Motors THOT oxidation test used in ATF and Allison C-4 qualification

Specifications

Mobiltrans HD Series products meet or exceed the following specifications:

- Caterpillar TO-4
- ZF TE-ML-03
- Vickers 35 VQ 25 pump test
- Mobiltrans HD 10W and Mobiltrans HD 30 satisfy the requirements of Allison C-4

Health and Safety

Based on available toxicological information, it has been determined that these products pose no significant health risk when used and handled properly.

Details on handling, as well as health and safety information, can be found in the Material Safety Data Bulletin which can be obtained through Mobil Oil Company Ltd., by telephoning 01372 22 2000.

Typical physical characteristics are given in the table. These are intended as a guide to industry and are not necessarily manufacturing or marketing specifications.

Typical Characteristics

Mobiltrans	HD 10W	HD 30	HD 50
SAE Viscosity Grade	10W	30	50
ISO Viscosity Grade	32	100	220
Viscosity, cSt at 40°C	39	100	195
Viscosity, cSt at 100°C	6.9	11.6	18.3
Flash Point, °C (ASTM D92)	202	224	240
Viscosity Index	97	96	96
Pour Point, °C (ASTM D97)	-36	-15	-15

Due to continual product research and development, the information contained herein is subject to change without notice.

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