



Textran[®] HD

Proven performance heavy-duty transmission and drive train fluids

Product description

Textran HD are proven performance heavy-duty transmission and drive train fluids designed for powershift transmissions and final drives where Caterpillar TO-4 fluids are required.

Textran HD fluids are formulated with mineral base oils in combination with a proven performance non-friction modified additive system.

Customer benefits

- Formulated to offer optimised friction levels to promote fast shifting and maximum transmission power throughput
- Designed to contribute high-level component wear protection
- Oxidation stability aids oil thickening protection and assists in the prevention of harmful sludge, lacquer and deposit formation
- Low temperature fluidity assists rapid lubricant circulation at cold start-up, helping prevent damage through system wear
- Non-VI improver formulation helps prevent in-service viscosity drop, helping maintain lubrication performance and protection
- Compatibility with a wide range of elastomers used in Caterpillar equipment assists in reducing fluid loss through leakage
- Good foam suppression aids continuous effective lubrication performance and component protection

Product highlights

- **Fast shifting and maximum transmission power**
- **High-level component wear protection**
- **Keep-clean transmission performance**
- **Low temperature system wear protection**

Selected specification standards include:

Allison	Caterpillar
Eaton	Komatsu
Meritor Rockwell	Volvo
ZF	

Applications

- The Textran HD product range is designed for use in Caterpillar powershift transmissions, final drives and marine transmissions. They are also suitable for use in other heavy-duty applications that require TO-4 fluids, including Komatsu powershift transmissions
- Textran HD products may also be used in mobile hydraulic systems, hydrostatic transmissions, heavy-duty manual transmissions and final drives for which heavy-duty engine oils are specified. They should not be used in applications that require an EP-type gear oil – for these applications, select a suitable product from the Geartex or Multigear ranges
- Although they are not intended for use in engines, Textran HD products have API CF-2 capability, offering protection against accidental misuse in diesel engines provided that drain intervals are shortened
- Textran HD products are not friction-modified and therefore not recommended for use in systems with wet brakes - for these applications, use Textran TDH Premium or Super Universal Tractor Oil Extra 10W-30. (Note too that friction-modified fluids like these should not be used in TO-4 applications.)
- The choice of viscosity grade will depend on ambient temperature conditions and operating severity. Viscosity grade recommendations are shown below:

SAE grade	10W		30		50	
	Min	Max	Min	Max	Min	Max
Hydraulic systems	-20	+40	-10	+50	-	-
Hydrostatic transmissions	-20	+40	-	-	-	-
Powershift transmissions	-20	+10	0	+35	+10	+50
Final drive/Differential/Gearboxes (except for off-highway trucks)	-30	0	-20	+25	0	+50
Final drive (off-highway trucks)	-30	-10	-20	+15	0	+50

(Note: Caterpillar's primary recommendation for final drives and axles in off-road service is now their newer lubricant performance specification FD-1. TO-4 type lubricants are still acceptable, although with a shorter drain interval).

Approvals, performance and recommendations

Approvals

SAE viscosity grade		10W	30	50
Komatsu	KES 07.868.1	Approved	Approved	Approved
ZF	TE-ML 03C	Approved	Approved	—
ZF	TE-ML 07F	—	Approved	—

Performance

SAE viscosity grade		10W	30	50
Allison	C-4	Performance	Performance	-
Caterpillar	TO-4	Meets requirements ¹	Meets requirements ¹	Meets requirements ¹
Eaton	Fuller/Roadranger manual transmissions	—	Suitable for use ²	Suitable for use ²
Meritor Rockwell	Transmissions	—	—	Suitable for use
Volvo	97305-90	—	—	Meets requirements

¹ Caterpillar does not operate a formal approval system - each supplier is responsible for the performance of their own product.

² Where the torque capacity does not exceed 2500 Nm.

Typical test data				
Test	Test methods	Results		
Viscosity Grade		10W	30	50
Product Code		01961	01954	01971
Density, 15°C, kg/l	ASTM D4053	0.885	0.895	0.904
Pour Point, °C	ASTM D97	-42	-30	-27
Flash Point COC, °C	ASTM D92	222	248	258
Viscosity, Kinematic, 100°C, mm ² /s	ASTM D445	6.6	10.6	19.6
Viscosity, Kinematic, 40°C, mm ² /s	ASTM D445	41	89	230
Viscosity Index	ASTM D2270	112	103	97

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

Disclaimer Chevron accepts no liability for any loss or damage suffered as a result of using this product for any application other than applications specifically stated in any Product Data Sheets.

Health, safety, storage and environmental Based on current available information, this product is not expected to produce adverse effects on health when used for the intended application and in accordance with the recommendations provided in the Material Safety Data Sheet (MSDS). MSDSs are available upon request through your local sales office, or via the Internet. This product should not be used for purposes other than its intended use. When disposing of used product, take care to protect the environment and follow local legislation.

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