Cat® Arctic TDTO™ SYN

Synthetic transmission and drive train oil for Caterpillar and other original equipment manufacturer transmissions, wet brakes, and hydraulic systems.

SAE 0W-20

Recommended Use

This synthetic blend provides outstanding protection and performance in transmissions, torque converters, final drives, hydraulics, and wet brakes as well as machines with combined systems in Caterpillar and other original equipment manufacturer equipment, particularly during cold temperature operation.

Cat Arctic TDTO SYN is a unique multi-grade oil that permits all-season performance with a wide ambient temperature operating range. This high performance oil provides outstanding protection for Caterpillar and other machines requiring Cat TO-4 specification lubricants. Cat Arctic TDTO is also recommended for applications with the following original equipment manufacturer requirements:

- Caterpillar® TO-4
- Allison C-4
- Komatsu Micro-Clutch
- Vickers 35VQ25

With the use of Caterpillar S•O•S℠ Oil Analysis and Cat Filters, Cat Arctic TDTO is capable of extended oil change intervals.

Note: Cat Arctic TDTO should not be used in engines. This use would cause excessive piston deposits.

Advanced Formula for Maximum Performance and Protection

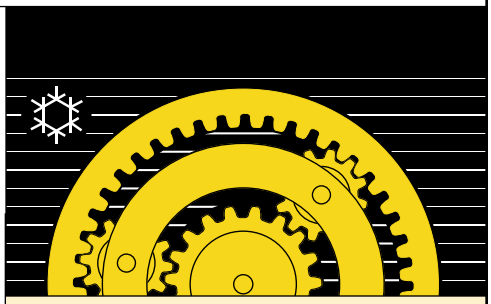
The Cat Arctic TDTO formulation is a carefully balanced blend of top quality conventional base stocks and Group IV polyalphaolefin base stocks with a unique additive package. It is designed to provide efficient transmission clutch operation and optimum torque transfer.

It is fully compatible with all elastomers and transmission friction materials, resulting in longer component life and reduced oil seal leakage.

Cat Arctic TDTO is formulated to provide excellent anti-wear and foam resistance resulting in extended fluid life, as well as optimum component life. It has outstanding thermal stability and oxidation resistance. It contains top performance viscosity modifier additives, which are very shear-stable to minimize viscosity loss.

Multiple Compartment Use

Cat Arctic TDTO can be used in several different compartments such as transmissions, final drives, wet brakes, and hydraulics on most machine models. This can reduce the number of oils required to support the machine. Refer to the appropriate Operation & Maintenance Manual for each machine model or "Caterpillar Machine Fluids Recommendations," SEBU6250 for recommended applications.



For worldwide use.

Applications

Cat Arctic TDTO is the preferred transmission and drive train oil for all-season performance and wide ambient temperature operating ranges.

Cat Arctic TDTO has been designed to provide maximum productivity, long life and low operating costs in Cat machines and engines.

Caterpillar. The difference counts.™

Cat® Dealers define world-class product support. We offer you the right parts and service solutions, when and where you need them.

The Cat Dealer network of highly trained experts keeps your entire fleet up and running to maximize your equipment investments.

CATERPILLAR®

Cat Arctic TDTO SYN

Typical Characteristics*

SAE Viscosity Grade	0W-20
Gravity @ 16˚C (60˚F)	
API (ASTM D287)	30.8
Specific	.872
Flash Point @ ˚C (ASTM D92)	170
Pour Point @ ˚ C (ASTM D97)	-54
Kinematic Viscosity (ASTM D445)	
cSt @ 40˚C	32.9
cSt @ 100˚C	7.5
Brookfield Viscosity (ASTM D2983)	
cP @ -40˚C	7000
Total Base Number (TBN) (ASTM D664)	7.9
Low Temperature Pumpablity @ ˚C (ASTM D4684)	-54
Phosphorus, ppm	1060
Zinc, ppm	1250
Calcium, ppm	3000
Sulfated Ash, % wt.	1.2

* The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Improved Engine Starting Ability**

In very cold weather, viscous transmission oil may create considerable drag on the engine during startup. Transmission drag may prevent the engine from starting. The low temperature performance of Cat Arctic TDTO improves cold weather engine starting ability.

**Do NOT use in the engine crankcase.

Ambient Temperature Recommendations in Transmissions

Recommended Ambient Temperature Range***

	˚C		˚F	
Cat Oil Type	min.	max.	min.	max.
Cat TDTO SAE 30	0	+35	32	+95
Cat TDTO SAE 10W	-20	+10	-4	+50
Cat Arctic TDTO 0W-20	**-40**	**+10**	**-40**	**+50**

Ambient Temperature Recommendations in Final Drives

Recommended Ambient Temperature Range***

	˚C		˚F	
Cat Oil Type	min.	max.	min.	max.
Cat TDTO SAE 30	-25	+25	-13	+77
Cat TDTO SAE 10W	-30	0	-22	+32
Cat Arctic TDTO 0W-20	**-40**	**0**	**-40**	**+32**

*** For final drives in Caterpillar machine models, where TO-4 oils are recommended, except for final drives in Cat Off-highway Trucks, 994 Wheel Loaders, Articulated Trucks, Pipelayers, Track Skidders, and Track-Type Tractors (steel track machines with elevated final drives). Recommendations may vary. Refer to the appropriate Operation & Maintenance Manual for each particular machine model or to "Caterpillar Machine Fluids Recommendations" (SEBU6250).

Health and Safety

Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin, or respiratory irritation. Always observe good hygiene guidelines. For more information, contact us or refer to the Material Safety Data Sheet at www.catmsds.com.

Customer benefits

Cat Arctic TDTO provides the following benefits:

- Controls transmission and brake disc slippage
- Increased transmission clutch life
- Controls clutch chatter
- Provides greater machine rim pull
- Increased machine breakout force
- Multiple compartment use, minimizing the number of oils required
- Excellent compatibility with seals and elastomers, including fluorelastomers, and all disc materials used in Cat machines
- Excellent protection for components during cold temperature operation
- Improved cold weather engine starting ability
- Extended oil drain capability with the use of Cat S•O•S Oil Analysis and Cat Filters
- Better oxidation stability than single grade Cat TDTO

For more information, see us today or visit our Web site at www.CAT.com

CATERPILLAR®

PEHJ0007 Printed in the U.S.A.