TORC®

TORC® Transmission Drive Train Oils are designed to meet the rigid performance requirements and demanding environment for heavy-duty equipment found in the agriculture, commercial, construction and forestry industries. These oils are made to protect powershift/hydrostatic transmissions, final drives, differentials, torque converters, wet brakes, hydraulics and gear boxes. TORC® oils meet the requirements of the Caterpillar TO-4 and, in the appropriate product, the TO-4M performance specification. Choose TORC® for your heavy-duty equipment.

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8 | TORC® SERIES HXA (HYDRAULIC/HYDROSTATIC)

TORC®

10W, 30, 50

PRODUCT DESCRIPTION

TORC® is recommended to meet the rigid performance requirements and demands of heavy-duty off-highway equipment.

The unique engineered formula increases component life in Caterpillar transmission and applications calling for the TO-4 performance specification.

PERFORMANCE FEATURES

- Top-quality single season performance
- Excellent performance for gears, bearings and friction disc materials
- Minimizes clutch wear and brake chatter
- Minimizes foaming which can lead to cavitation and overall loss of fluid
- Exceptional transmission shifting
- Excellent load carrying capacity

APPLICATIONS

TORC® protects the major components in Caterpillar powershift transmissions, final drives, wet brake components, hydrostatic transmission and hydraulics. TORC® products are also recommended for Allison powershift transmissions, Komatsu transmissions and final drives.

TECHNICAL PROPERTIES

The values listed below are typical of current production. As variations may occur, these numbers do not constitute a specification.

PROPERTIES	TEST METHODS	SAE GRADE		
		10W	30	50
Kinematic Viscosity cSt @ 40°C	ASTM D445	43	101	224
Kinematic Viscosity cSt @ 100°C	ASTM D445	6.8	11.4	19
Viscosity Index	ASTM D2270	114	99	95
Pour Point, °C	ASTM D97	-42°	-36°	-27°
Flash Point, °C	ASTM D92	230°	232°	280°
Brookfield Viscosity, cP @ °C	ASTM D2983	32,000 @ -35°		
MRV, cP @ °C	ASTM D4684	<5,000 @ -25°	5,100 @ -15°	14,000 @ -10°
Foaming Sequence 1/2/3	ASTM D892	20/0,40/0,0/0	0/0,50/0,0/0	-

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All others are trademarks of their respective companies. Toutes les autres sont des marques de leurs sociétés.

TORC®

10W, 30, 50

PERFORMANCE SPECIFICATIONS

TORC® is approved and/or recommended and backed by the Federated Co-operatives Limited Oil Guarantee for use in the following applications:

INDUSTRY / OEM	TORC® SPECIFICATIONS
ALLISON	C-4
CATERPILLAR	TO-4/TO-2
DANA	*POWERSHIFT
EATON VICKERS	35VQ-25
KOMATSU	KES 07.868.1
	*DRESSER
ZF	*TE-ML 03C/TE-ML 07F

*Meets the performance requirements of (10W & SAE 30 grades only)

APPLICATION	TORC®		
	10W	30	50
Powershift Transmission, °C	-20° to +10°	0° to +35°	10° to +50°
Hydrostatic Transmission, °C	-20° to +40°	0° to +50°	N/A
Final Drives, °C	-30° to 0°	-30° to +35°	-15° to +50°
Drive Axles (Large), °C	-30° to 0°	-25° to +25°	-15° to +50°
Drive Axles (Medium), °C	-30° to 0°	-25° to +43°	-15° to +50°
Hydraulic System, °C	-20° to +40°	0° to +32°	N/A

Note: The values quoted are guidelines only. Always refer to Caterpillar Machine Fluids Recommendations service publication or the operators manual for correct fluid application.

PRODUCT SELECTION

Product availability can vary by location. Please contact your local retail Co-op for further details.

PRODUCT SIZES	TORC®		
	10W	30	50
18.9 L Pail	✓	✓	✓
208 L Drum	✓	✓	✓
1000 L Tote	✓	✓	

SAFETY DATA SHEETS

Product-specific safety data sheets (SDS) can be obtained by contacting your local retail Co-op or Federated Co-operatives Limited (see contact information below) or by going online at business.crs.

RECYCLING OF USED LUBRICANTS AND CONTAINERS

Please protect the environment when disposing of petroleum products. All products should be taken to an authorized collection facility or picked up by a qualified organization. This ensures the products will be disposed of in an environmentally sensitive manner. For additional information on used-oil recycling programs, please see the following:

- Saskatchewan – www.usedoilrecyclingsk.com
- Alberta – www.usedoilrecyclingab.com
- British Columbia – www.interchangerecycling.com
- Manitoba – www.usedoilrecyclingmb.com

CONTACT INFO

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CO-OP® PREMIUM LUBRICANTS

TORC® SERIES M SYNTHETIC BLEND

MULTI-SEASON

PRODUCT DESCRIPTION

TORC® SERIES M SYNTHETIC BLEND is formulated to meet the performance requirements and demands of heavy-duty off-highway equipment.

The unique engineered formula increases component life in Caterpillar applications calling for the performance specification TO-4M.

PERFORMANCE FEATURES

- Vast operating temperature range for multi-season use
- Specialized synthetic blend engineered to optimize protection for OEM equipment
- Extended clutch and bearing life, which reduces maintenance
- Provides shear-stability protection that promotes overall component life extensibility for heavy-duty equipment
- Minimizes foaming which can lead to cavitation and overall loss of fluid

APPLICATIONS

TORC® SERIES M SYNTHETIC BLEND protects the major components in Caterpillar powershift/hydrostatic transmissions, final drives, differentials, torque converters, wet brakes, hydraulics and gear boxes. TORC® SERIES M SYNTHETIC BLEND is also recommended for Allison powershift transmissions, Komatsu transmissions and final drives.

TECHNICAL PROPERTIES

The values listed below are typical of current production. As variations may occur, these numbers do not constitute a specification.

PROPERTIES	TEST METHODS	TORC® SERIES M SYNTHETIC BLEND MULTI-SEASON
Kinematic Viscosity cSt @ 40°C	ASTM D445	106
Kinematic Viscosity cSt @ 100°C	ASTM D445	14.5
Viscosity Index	ASTM D2270	141
Pour Point, °C	ASTM D97	-36°
Flash Point, °C	ASTM D92	225°
Brookfield Viscosity cP @ °C	ASTM D2983	31,000 @ -30°
MRV, cP @ °C	ASTM D4684	28,000 @ -30°
Foaming Sequence 1/2/3	ASTM D892	-

TORC® SERIES M SYNTHETIC BLEND

MULTI-SEASON

PERFORMANCE SPECIFICATIONS

TORC® SERIES M SYNTHETIC BLEND is approved and/or recommended and backed by the Federated Co-operatives Limited Oil Guarantee for use in the following applications:

INDUSTRY / OEM	TORC® SERIES M SYNTHETIC BLEND SPECIFICATIONS
ALLISON	C-4
CATERPILLAR	TO-4M/TO-4/TO-2
DANA	*POWERSHIFT
EATON VICKERS	35VQ-25
KOMATSU	KES 07.868.1
	*DRESSER
ZF	*TE-ML 03C/TE-ML 07F

*Meets the performance requirements of

APPLICATION	TORC® SERIES M SYNTHETIC BLEND
	MULTI-SEASON
Powershift Transmission, °C	-15° to +43°
Hydrostatic Transmission, °C	N/A
Final Drives, °C	-30° to +25°
Drive Axles (Large), °C	-25° to +22°
Drive Axles (Medium), °C	-25° to +40°
Hydraulic System, °C	-15° to +50°

Note: The values quoted are guidelines only. Always refer to Caterpillar Machine Fluids Recommendations service publication or the operators manual for correct fluid application.

CONTACT INFO

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fuelteam@fcl.crs • business.crs

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PRODUCT SELECTION

Product availability can vary by location. Please contact your local retail Co-op for further details.

PRODUCT SIZES	TORC® SERIES M SYNTHETIC BLEND
	MULTI-SEASON
18.9 L Pail	✓
208 L Drum	✓
1000 L Tote	✓

SAFETY DATA SHEETS

Product-specific safety data sheets (SDS) can be obtained by contacting your local retail Co-op or Federated Co-operatives Limited (see contact information below) or by going online at fuel.crs.

RECYCLING OF USED LUBRICANTS AND CONTAINERS

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- Saskatchewan – www.usedoilrecyclingsk.com
- Alberta – www.usedoilrecyclingab.com
- British Columbia – www.interchangerecycling.com
- Manitoba – www.usedoilrecyclingmb.com

CO-OP® PREMIUM LUBRICANTS

TORC® SERIES CW SYNTHETIC

0W-20

PRODUCT DESCRIPTION

TORC® SERIES CW SYNTHETIC is specially formulated to meet the performance requirements for off-highway equipment operating in harsh environments with a temperature range of -40°C to 10°C for powershift/hydrostatic transmissions and -40°C to 40°C for hydraulics.

Recommended where rigid demands of the CAT TO-4 performance specifications are called for.

PERFORMANCE FEATURES

- Full synthetic multi-grade, specialized winter formulation
- Outstanding thermal stability and oxidation resistance
- Extended drain intervals possible with used oil analysis
- Minimizes clutch wear and brake chatter
- Minimizes foaming which can lead to cavitation and overall loss of fluid
- Top level corrosion inhibitor package
- Excellent load carrying capacity

APPLICATIONS

TORC® SERIES CW SYNTHETIC provides superior performance and protects the major components in Caterpillar powershift/hydrostatic transmissions, final drives, differentials, torque converters, wet brakes, hydraulics and gear boxes at extremely low temperatures. TORC® SERIES CW SYNTHETIC is also recommended for Allison powershift transmissions, Komatsu transmissions and final drives.

TECHNICAL PROPERTIES

The values listed below are typical of current production. As variations may occur, these numbers do not constitute a specification.

PROPERTIES	TEST METHODS	SAE GRADE
		0W-20
Kinematic Viscosity cSt @ 40°C	ASTM D445	34.1
Kinematic Viscosity cSt @ 100°C	ASTM D445	7.3
Viscosity Index	ASTM D2270	185
Pour Point, °C	ASTM D97	-45°
Flash Point, °C	ASTM D92	170°
Brookfield Viscosity cP @ °C	ASTM D2983	7,580 @ -40°
MRV, cP @ °C	ASTM D4684	7,100 @ -40°
Foaming Sequence 1/2/3	ASTM D892	-

TORC® SERIES CW SYNTHETIC

0W-20

PERFORMANCE SPECIFICATIONS

TORC® SERIES CW SYNTHETIC is approved and/or recommended and backed by the Federated Co-operatives Limited Oil Guarantee for use in the following applications:

INDUSTRY / OEM	TORC® SERIES CW SYNTHETIC SPECIFICATIONS
ALLISON	C-4
CATERPILLAR	TO-4/TO-2
DANA	*POWERSHIFT
KOMATSU	KES 07.868.1
	*DRESSER
ZF	* TE-ML 07F/TE-ML 03C

*Meets the performance requirements of

APPLICATION	TORC® SERIES CW SYNTHETIC
	0W-20
Powershift Transmission, °C	-40° to +10°
Hydrostatic Transmission, °C	-40° to +40°
Final Drives, °C	-40° to 0°
Drive Axles (Large), °C	-40° to 0°
Drive Axles (Medium), °C	-40° to 0°
Hydraulic System, °C	-40° to +40°

Note: The values quoted are guidelines only. Always refer to Caterpillar Machine Fluids Recommendations service publication or the operators manual for correct fluid application.

PRODUCT SELECTION

Product availability can vary by location. Please contact your local retail Co-op for further details.

PRODUCT SIZES	TORC® SERIES CW SYNTHETIC
	0W-20
18.9 L Pail	✓

SAFETY DATA SHEETS

Product-specific safety data sheets (SDS) can be obtained by contacting your local retail Co-op or Federated Co-operatives Limited (see contact information below) or by going online at business.crs.

RECYCLING OF USED LUBRICANTS AND CONTAINERS

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CO-OP® PREMIUM LUBRICANTS

TORC® SERIES HXA

10W

PRODUCT DESCRIPTION

TORC® SERIES HXA is a hydraulic/hydrostatic fluid designed to meet the performance requirements and protect heavy-duty off-highway equipment hydraulic systems and hydrostatic transmission components from excessive wear.

Contains emulsifier additives specifically designed to hold water in suspension, allowing for proper lubrication in hydraulic/hydrostatic operations.

PERFORMANCE FEATURES

- Extended drain intervals up to 6,000 hours or more possible with Co-op oil analysis, oil must be tested every 500 hours with Co-op oil analysis program
- Improved oxidation stability formulation to provide longer oil and hydraulic system life
- Wide operating temperature range -20°C to 40°C
- Specialized ZDDP (Zinc Dialkyldithiophosphates) formula to provide wear protection to critical hydraulic system pumps and parts
- Minimizes foaming which can lead to cavitation and overall loss of fluid
- Top level corrosion inhibitor package

APPLICATIONS

TORC® SERIES HXA is a long-life emulsifying hydraulic/hydrostatic fluid designed to meet the performance requirements of OEM equipment that requires the fluid to emulsify water (hold in suspension), where a water drain valve is absent from the system.

TECHNICAL PROPERTIES

The values listed below are typical of current production. As variations may occur, these numbers do not constitute a specification.

PROPERTIES	TEST METHODS	SAE GRADE
		10W
Kinematic Viscosity cSt @ 40°C	ASTM D445	46
Kinematic Viscosity cSt @ 100°C	ASTM D445	7
Viscosity Index	ASTM D2270	104
Pour Point, °C	ASTM D97	-39°
Flash Point, °C	ASTM D92	240°
Brookfield Viscosity cP @ °C	ASTM D2983	39,415 @ -35°
MRV, cP @ °C	ASTM D4684	13,500 @ -30°
Foaming Sequence 1/2/3	ASTM D892	10/0,0/0,10/0

TORC® SERIES HXA

10W

PERFORMANCE SPECIFICATIONS

TORC® SERIES HXA is recommended and backed by the Federated Co-operatives Limited Oil Guarantee for use where Hydraulic/Hydrostatic emulsifying fluid is required in a 10W grade.

TORC® Series HXA is designed to eliminate water dispersion throughout the hydraulic system, falling in line with Caterpillar's recommendations for hydraulic applications in legacy to new models.

APPLICATION	TORC® SERIES HXA
	10W
Powershift Transmission, °C	N/A
Hydrostatic Transmission, °C	-20° to +40°
Final Drives, °C	N/A
Drive Axles (Large), °C	N/A
Drive Axles (Medium), °C	N/A
Hydraulic System, °C	-20° to +40°

Note: The values quoted are guidelines only. Always refer to Caterpillar Machine Fluids Recommendations service publication or the operators manual for correct fluid application.

SAFETY DATA SHEETS

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PRODUCT SELECTION

Product availability can vary by location. Please contact your local retail Co-op for further details.

PRODUCT SIZES	TORC® SERIES HXA
	10W
18.9 L Pail	✓

RECYCLING OF USED LUBRICANTS AND CONTAINERS

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CO-OP® PREMIUM LUBRICANTS