

FAMILY OF PRODUCTS // **MEROPA**[®]



Protect your gearboxes and protect your operation.



INDUSTRIAL
LUBRICANTS

Our focus helps drive your performance.

To compete in today's industrial world, you have to be more enterprising and more aggressive than ever. You have to use advanced equipment and push it faster and harder. To succeed at this pace, we know you must find innovative ways to boost reliability, minimize downtime and optimize performance across your operation. That's why we're here.

Caltex Industrial Lubricants delivers focused expertise, advanced products and tailored programs to create comprehensive lubrication solutions for today's industries. We work with you to take a holistic approach to improving productivity - an approach that helps you solve critical challenges, reach for your goals, and compete to win.



INDUSTRIAL
LUBRICANTS

Keep the heart of your operation healthy.

We know what you're up against. Gearboxes are critical to keeping your operation running. If they fail, your productivity is compromised. Yet, your gearboxes are constantly attacked by severe operating conditions and damaging contaminants, which can lead to downtime and even complete failures. We developed the Meropa® family of gear oils to help you fight back.

Meropa® lubricants are formulated to provide the relentless protection needed to keep your gearboxes working hard and efficiently, under the heaviest loads and harshest conditions, in the most remote locations. Our gear oils help control corrosion, deposits, oxidation, foam, micropitting and excess heat. All of this protection helps minimize premature wear on gears, bearings and seals, so you can get more reliability, long life and high performance out of every gearbox. In short, we help your equipment and your operation Run Better Longer.



Meropa® Family Comparison Chart

Performance attribute	TIER 1		TIER 2	TIER 3	SPECIALTY				
	Meropa EliteSyn™ XM	Meropa® Synthetic EP	Meropa® XL	Meropa®	SYNTHETICS			Meropa® WM	Meropa® WG
					Meropa EliteSyn™ WL	Meropa EliteSyn™ WS	Meropa® Synthetic WM		
Micropitting Protection	✓✓✓	✓	✓✓✓	✓	✓✓✓	✓✓✓	✓✓	✓	✓
Bearing Wear Protection	✓✓✓	✓✓	✓✓✓	✓✓	✓✓✓	✓✓✓	✓✓	✓✓	✓
Long Lubricant Life	✓✓✓	✓✓✓	✓✓	✓	✓✓✓	✓✓✓	✓✓✓	✓	✓
OEM Approvals	✓✓	✓	✓✓	✓	✓✓✓	✓✓	✓	✓	✓
Extended Temperature Range	✓✓✓	✓✓✓	✓✓	✓	✓✓✓	✓✓✓	✓✓✓	✓	✓
Reduced Operating Temperature	✓✓✓	✓✓✓	✓	/	✓✓✓	✓✓✓	✓✓✓	/	/
Energy/Operational Efficiency	✓✓✓	✓✓✓	✓	/	✓✓✓	✓✓✓	✓✓✓	/	/

← Best
← Better
← Good
← Best
← Better
← Good

Meropa EliteSyn™ XM

Customer Benefits:

- Maximise efficiency
- Reduced operating temperatures
- Long lubricant life
- Wide temperature range
- Provides micropitting resistance

Performance Standards:

Approved against Siemens MD (Flender) Rev.16 (Approval No.ACHA-20180824)

(T7300 Table A-g semisynthetic standard oils for FLENDER helical, bevel-helical, planetary gear boxes and 'Marine gear units without multi-disk clutches')

Meropa EliteSyn™ XM gear oils meet the requirements of:

- DIN 51517-3
- ANSI/AGMA 9005-F16-AS
- David Brown S1.53.101 (5E)
- Hitachi AC Final Drive Gear
- ISO 12925-1 CKD, 12925-1 CKC
- US Steel 224
- GE OHV motorized wheel gearbox oil specifications D50E35 A-E categories (ISO 150 - 680)

Premium industrial gear oils are formulated to be our ultimate offering that meets or exceeds many industry performance standards. Meropa EliteSyn™ XM is formulated to recognize the equipment manufacturers desire for efficiency improvements in designing gearboxes that are smaller, lighter and more energy efficient.

Meropa EliteSyn™ XM contains additives to protect paint coatings and provide compatibility with multiple types of seals to minimize the possibility of leaking seals and paint blistering on the inside of the gearbox. Competitive products with overaggressive chemistries will attack the paint coatings and cause filter plugging.

Meropa EliteSyn™ XM maximizes the performance for industrial gear and provides excellent wear reduction.

Meropa® Synthetic EP

Customer Benefits:

- Thermally stable
- Protects metal surfaces
- Proven performance

Performance Standards:

Meets the requirements:

- ANSI/AGMA Standard 9005-E02 EP
- DIN 51517 Part 3 CLP
- AIST No. 224 (US Steel Specification No. 224)
- Joy TO-SMEP (ISO 220) and TO-SHEP (ISO 320)
- Approved by Hitachi Construction Truck Manufacturing Ltd. for AC Final Drive Gear Oil (ISO 460 and ISO 680)

Is a premium performance, synthetic EP gear oil and circulating oil designed for use in a wide range of industrial equipment operating under severe conditions, such as heavy and/or shock loading and elevated temperatures, where short service life with conventional lubricants can be expected.

Meropa® Synthetic EP is formulated with a combination of poly-alpha-olefin and synthetic ester base fluids and selected additives to provide outstanding EP performance and wear protection, increased thermal/oxidation stability and protection against corrosion and rust.

Meropa® Synthetic EP is suitable for all kinds of industrial gears and is excellent in high-pressure durability.

TIER 2

Meropa® XL

Gear oils are high performance synthetic blend extreme pressure gear oils with excellent load carrying capacity, micropitting wear protection, water demulsibility, oxidation stability and corrosion protection.

Meropa® XL gear oils are designed for many types of industrial and marine geared and non-geared lubrication services where extreme loads and shock loadings are high.

Meropa® XL advanced micropitting resistant formulation provides excellent wear protection.

Customer Benefits:

- Premium performance
- Excellent thermal stability
- Expanded operating temperature

Performance Standards:

- Siemens Rev.15 (Approval No.A-CH: A-20160404) (Table A-a Standard Mineral Oils for FLENDER helical, bevel-helical, planetary gear boxes and 'Marine gear units without multi-disk clutches' as well as geared motors)
- ANSI/AGMA EP 9005-E02
- Fives Cincinnati (Cincinnati Machine)
- DIN 51517 Part 3 (CLP)
- US Steel 224
- ISO 12925-1

TIER 3

Meropa®

A high performance, mild EP, industrial gear lubricant formulated with a sulfur phosphorus additive system, which also provides rust and oxidation inhibition, a corrosion and oxidation inhibitor and a metal passivator.

Meropa® is specifically designed primarily for industrial gear lubrication services where loads and shock loadings are high.

Meropa® maintains clean gear and bearing surfaces and minimizes deposits which obstruct lubricant effectiveness.

Customer Benefits:

- Maintains gear set efficiencies
- Protects metal surfaces
- Effective oxidation stability

Performance Standards:

- ANSI/AGMA 9005-E02 EP
- AIST 224 (formerly U.S. Steel 224) (Grades 68 to 320)
- David Brown, Table E, approved (Grades 68 to 1000)
- DIN 51517 Part 3 CLP (Grades 68 to 680)



Meropa EliteSyn™ WS

Customer Benefits:

- Significantly longer oil life compared to mineral oils to lower service costs
- Outstanding micropitting performance
- Excellent EP properties
- High thermal stability and oxidation resistance
- Low risk for sludge and deposit formation (cleaning properties)
- Good wear and corrosion protection
- Improved energy efficiency

Performance Standards:

- Siemens Flender T 7300 Revision 16 approval (Table A-b) - Helical-, Bevel- and Planetary Gear Units
- Siemens Flender T 7300 Revision 16 approval (Table B-b) - Worm Gear Units
- DIN 51517 Part 3 CLP
- David Brown Type G Lubricant
- ISO 12925: CSPG, CTPG

Meropa EliteSyn™ WS is a synthetic industrial gear lubricant range showing superior performance under demanding operating conditions. It is based on water soluble polyalkylene glycols, thus providing outstanding micropitting and EP performance. Furthermore, the product shows excellent thermal stability and good corrosion protection.

Meropa EliteSyn™ WS enhances lubrication performance, minimizes wear rates and prevents seal failure.

Meropa® WG

Customer Benefits:

- Protects metal surfaces
- Improves operation
- Extends oil service life

Performance Standards:

- ANSI/AGMA 9005-E02 Type CP (Compounded)

Oil is a premium quality, high viscosity, industrial gear oil with low carbon residue, compounded with selected fatty oils together with rust and foam inhibitors.

Meropa® WG has also been designed for steam cylinder and valve lubrication where the steam is wet or of poor quality.

Meropa® WG is the effective inhibitor system protects components against rust and corrosion.



Achieve protection and performance in any industrial environment.

Meropa® Family is precisely formulated for today's hardest-working gearboxes, in the most extreme environments and toughest industrial applications. It provides relentless protection, to help your equipment and your operation Run Better Longer.

For more information, visit www.caltex.com

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