



Mobil Dynagear Series

Mobil Industrial , United States

Multi-Season, Multipurpose Lubricants for Open Gears

Product Description

The Mobil Dynagear Series of premium performance open gear lubricants is designed to provide outstanding protection of heavily loaded open gear sets exposed to a wide range of operating conditions. The Mobil Dynagear Series is based on lithium thickener technology, carefully chosen high performance additives and high viscosity semi-synthetic base fluids. These components synergistically provide a lubricant film that firmly adheres to lubricated surfaces. All members of the Mobil Dynagear Series are formulated solvent free and provide excellent dispensability without the use of chlorinated or hydrocarbon solvents.

The Mobil Dynagear Series' solvent free technology can help to significantly reduce run-off that can occur during lubricant application. Reduced run-off can help to establish a cohesive lubricating film quickly and enable optimization of the lubricant dispensing systems. A properly set-up dispensing system helps produce less waste while delivering the optimum lubricant film required to protect the gear set. The Mobil Dynagear Series can help reduce handling and waste disposal costs and the impact of fugitive emissions on the environment associated with the use of hydrocarbon solvents.

The Mobil Dynagear Series does not contain carbon black or asphalt. Additionally, the Mobil Dynagear Series does not form hardened tar like materials in the gear tooth root, does not flake off at low temperatures, can help keep spray injectors from plugging and has excellent low temperature pumpability. The Mobil Dynagear Series premium performance technology enables simpler and potentially less expensive clean-up of the gear teeth and guard, helping to reduce the amount of maintenance and inspection work necessary on critical open gear systems.

Features and Benefits

Mobil Dynagear 800 Extra, 600 SL, 2000, and 4000 are leading members of the Mobil Industrial Lubricants offered greases. The Mobil Dynagear Series of products have been specifically designed by ExxonMobil formulation technologists and are backed by our worldwide technical support staff.

The Mobil Dynagear Series was specifically formulated to meet the needs of heavily loaded gearsets commonly found in the mining industry that require exceptional EP /Anti-Wear performance and which would remain in place even in tough conditions of water spray, dust and dirt, and high and low temperatures. These greases offer the following features, advantages, and potential benefits:

Features	Advantages and Potential Benefits
Solvent free formulation	Higher lubricant flash points can help improve safety performance and reduce waste and associated disposal costs
Asphalt free formulation	Helps maintain system cleanliness, clean spray nozzles, prevents root build up and prevent flaking.
Carbon Black Free formulation	Carbon black is not used in the formulation and thereby does not contribute to potential health effects related to exposure to carbon black.
Excellent water resistance	"Stay in Place" performance and the ability to absorb moderate amounts of water with little change to the lubricant film
Excellent anti-rust, corrosion control	Long life for protected parts helps reduce maintenance associated with damaged surfaces
Very good low temperature pumpability and mobility for use in centralized systems	Provides excellent low temperature pumpability and start-up performance, a key feature for remote applications.
Powerful EP (extreme pressure) protection enhanced with solid lubricants	Helps protect mating surfaces against damaging wear in contact zones, helping to extended component life and reduce unplanned maintenance and repairs

Applications

- The Mobil Dynagear Series of open gear lubricants are highly recommended for shovel dipper sticks and racks, swing gears (circle), propel system bushings, crowd gears, sheave bearings and undercarriage lubrication points.
- Mobil Dynagear 800 Extra and Mobil Dynagear 600 SL are recommended as all season multi-purpose greases and as low temperature open gear lubricants.
- Mobil Dynagear 2000 is specifically designed for use in applications operating at higher ambient temperatures and requiring greater film thickness.
- Mobil Dynagear 800 Extra meets the requirements of P&H SHOVELS 464 OGL for the lubrication of open gears.
- Mobil Dynagear 4000 is recommended by ExxonMobil for the lubrication of the hoist gear on Caterpillar Mining Electric Shovel Hoist Drum Gear sets and in applications where an extra heavy open gear lubricant is desired.
- The Mobil Dynagear Series is recommended by ExxonMobil for use in mining, grinding, mill applications and other industrial applications, where the grease is dispensed through central grease systems
- Mobil Dynagear 800 Extra is suitable for use as an all-season, multi-purpose grease for on-board systems on heavy duty equipment where NLGI 00 grade greases are recommended.

To help you select the correct grade of Mobil Dynagear for your equipment and operation, please contact your Sales Representative, or the ExxonMobil Technical Help Desk at 800 268 3183.

Specifications and Approvals

This product meets or exceeds the requirements of:	DYNAGEAR 800 EXTRA
P&H Shovels 464 OGL	X

Properties and Specifications

Property	DYNAGEAR 2000	DYNAGEAR 4000	DYNAGEAR 600 SL	DYNAGEAR 800 EXTRA
Grade	NLGI 00.5	NLGI 00.5	NLGI 0.5	NLGI 00.5
Base Oil Viscosity of Greases @ 100 C, mm ² /s, AMS 1700	120		60	60
Base Oil Viscosity of Greases @ 40 C, mm ² /s, AMS 1697		4000	620	
Base Oil Viscosity, As Charged, @ 40 C, cSt, CALCULATED				680
Copper Strip Corrosion, 24 h, 100 C, Rating, ASTM D4048			1	1
Copper Strip Corrosion, Rating, ASTM D4048	1	1		
Dropping Point, °C, ASTM D2265	193	177	198	175
Flash Point, Base Oil, °C, ASTM D92	243	268	204	158
Four-Ball Extreme Pressure Test, Weld Point, kgf, ASTM D2596		800		
Four-Ball Extreme Pressure Test, without Diluent, Load Wear Index, kgf, ASTM D2596	145	145	145	145
Four-Ball Extreme Pressure Test, without Diluent, Weld Point, kgf, ASTM D2596	800		800	800

Property	DYNAGEAR 2000	DYNAGEAR 4000	DYNAGEAR 600 SL	DYNAGEAR EXTRA 800
Four-Ball Wear Test, Scar Diameter, mm, ASTM D2266	0.5			0.55
Four-Ball Wear Test, Scar Diameter, 40 kg, 1200 rpm, 1 h, 75 C, mm, ASTM D2266		0.42	0.6	
Lincoln Ventmeter, -30 F, psi, Lincoln - Grease Ventability by Lincoln Ventmeter			0	
Lincoln Ventmeter, -6 F, psi, Lincoln Ventmeter		300		
Mineral oil viscosity at 40C, cSt, CALCULATED	2000			
Penetration, 60X, 0.1 mm, ASTM D217	380	390	335	400
Pumpability, Lincoln Ventometer, psi, PQP 3.48	117 @ -20C		183 @ -35C	200 @ -40C
Rust Protection, Rating, ASTM D1743	PASS	PASS	PASS	PASS
Thickener, wt%, AMS 1699	>2.0	>2.0	>2.0	
Thickener Content, wt %, CALCULATED				>2.0
Timken Extreme Pressure Test, No Score, lb, ASTM D2509			25	25
Timken OK Load, lb, ASTM D2509	25	25	25	
Timken Retention, US Steel, 4 g/30 min/25 lbs, kg, PQP 5.20(mod)	PASS			
Timken Retention, US Steel, 4 g/30 min/30 lbs, kg, PQP 5.20(mod)		PASS	PASS	PASS
Viscosity, Apparent @ 20 s-1, P, ASTM D1092	2000 @ 0°C 9000 @ -15°C	2500 @0°C 9200 @-10°C	10,000 @ -30°C 38,000 @ -40°C	10,000 @-40°C

Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.aspx>

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobil.com

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