



Ultra Heavy Duty Grease

- *Exceptional load-carrying capability*
- *Special mixed-base multi-complex thickener system*
- *Formulated without solid lubricant to minimize risk of deposit formation*
- *Excellent resistance to corrosion & water washout*
- *Ultimately extends service lives of bearings and other grease-lubricated components exposed to wet conditions & heavy loads*

TRUST *Save Money*
OMEGA *Enhance Performance*
TO *Extend Service Life*



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SPECIAL FEATURES

OMEGA 89 Ultra Heavy Duty Grease is quality designed with a special formulation to satisfy maintenance professionals' needs of efficient and effective heavy-duty greases.

- **OMEGA 89** is formulated with special mixed-base multi-complex thickener, thereby combining and modifying the benefits of different types of complex thickener systems - including load-carrying EP performance and water washout resistance.
- **OMEGA 89** does not contain any solid lubricant (additive), reducing the risk of deposit formation in the bearing systems or other grease-lubricated components.
- **OMEGA 89** offers excellent pumpability due to its special thickener – making it suitable for use in the central lubrication system of heavy-duty equipment.

OUTSTANDING PROPERTIES

OMEGA 89 Ultra Heavy Duty Grease is quality engineered to protect and lubricate virtually all types of bearings frequently exposed to very high loads and wet operating conditions.

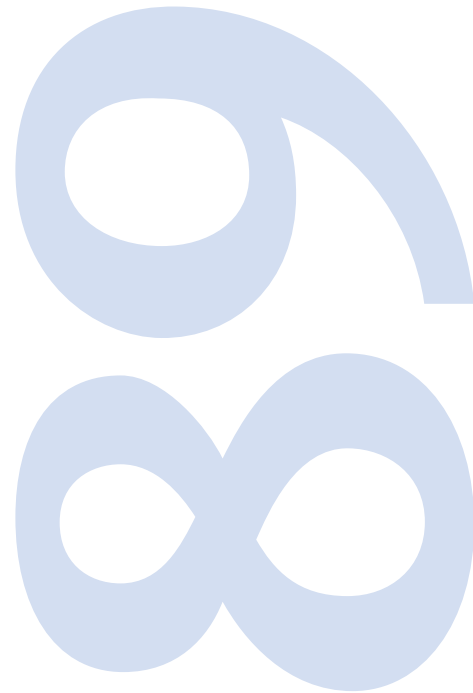
- **OMEGA 89** is proven to withstand not less than 800 kgf in the "Four-Ball Weld Load" test - an outstanding load-carrying property to protect bearings from very high loads.
- **OMEGA 89** offers excellent water washout and corrosion resistance to protect bearings from wet working conditions common in many heavy industries.
- **OMEGA 89** can be used on heavy-duty bearings operated at medium to high speeds over a wide range of operating temperatures (from -30°C to 150°C).

USE FOR

OMEGA 89 is ultimately functioned to extend the lubrication interval and service lives of bearings of heavy-duty equipment operated in harsh conditions.

Use **OMEGA 89** to lubricate and protect the roller & ball bearings of equipment frequently subjected to very high loads and wet conditions in the industries such as: agriculture, cement, construction, mining & quarrying, etc.

OMEGA 89 is suitable for use in central lubrication system designed for NLGI#2 greases. It can also be applied by using a standard grease gun (400gram cartridges available).



Omega

The Ultimate Lubricant

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The Ultimate Lubricant

89

DESCRIPTION:

Omega 89 Ultra Heavy Duty Grease is a premium grease designed to protect and lubricate heavy-duty bearings operated at a wide range of speeds in moist operating condition. It is formulated with mixed-base multi-complex thickener and a package of advanced additives to offer exceptional load-carrying properties, excellent corrosion

protection and water washout resistance over a wide range of temperatures. This grease is highly recommended, ultimately, to prolong the service lives of bearings and other grease-lubricated components of heavy-duty machineries/equipment in industries such as agriculture, cement, construction, mining, quarrying, etc.



EXCEPTIONAL LOAD-CARRYING CAPABILITY:

Quality designed to outperform all conventional EP (Extreme Pressure) greases, Omega 89 is formulated with an innovative mixed-base multi-complex thickener with outstanding EP performance. Based upon a mixture of lithium and calcium metal soaps processed with complexing agents, this special thickener offers outstanding lubricity, anti-wear property and load-carrying capability. The EP performance of Omega 89 is further enhanced by the addition of an advanced EP additive. To evaluate the EP performance of lubricating greases, a generally accepted test called “Four Ball (4-ball) Weld Load” test is used. Typically, greases with rating of over 250 kgf in the 4-ball weld load test can be classified as EP greases. Omega 89 out-performs the conventional EP greases by over three times with a rating of not less than 800 kgf. In the market, this exceptional rating is unmatched by 95% of the EP greases without the use of solid additives.

VERSATILE APPLICATIONS:

The exceptional load-carrying capability of Omega 89 is achieved by the special thickener matrix fortified with advanced EP additive. It does not contain solid lubricants and extra-heavy base fluid to boost the EP performance. By excluding these two kinds of ingredients in the formulation, Omega 89 reduces the risk of over-accumulation of solid additives at low temperatures and eliminates the speed limitation of extra-heavy base fluid. Subsequently, Omega 89 effectively lubricates and protects heavy-duty bearings operating at a wide range of speeds and temperatures (please refer to the dN factors and operating temperatures of Omega 89 in the table of typical data).

In addition, the unique thickener system of Omega 89 is developed to offer excellent pumpability for better application via central lubrication system designed for NLGI#2 greases.

EXCELLENT WATER WASHOUT RESISTANCE:

In heavy industries, bearings of heavy-duty equipment are subjected to moist operating conditions. To effectively lubricate and protect these bearings, in addition to EP performance, greases must physically withstand water washout and help prevent corrosion catalyzed by moisture. No matters how impressive are the EP properties or how versatile are the applications, greases become useless if they are easily washed away by water. Inherent to the special thickener with excellent water washout resistance, Omega 89 stays in place to protect the lubricated components exposed to frequent pounding of water. To lower the risk of corrosion on the bearings, Omega 89 is fortified with proprietary anti-corrosion agent.

APPLICATIONS:

Omega 89 is recommended for providing prolonged protection and lubrication to all types of bearings of heavy-duty equipment (including off-road equipment) subjected to arduous working conditions in the heavy industries, especially cement, construction, mining, and quarrying.

Note:

Omega 89 can be applied via the central lubrication system designed for NLGI#2 grease. However, it is highly recommended to purge the system before changing over to Omega 89 due to its special thickener system. Likewise, as with other methods of application, check compatibility with the grease applied previously and if necessary purge the bearings prior to application of Omega 89.

TYPICAL DATA:

TEST	TEST METHOD	TEST RESULT
Appearance	-	Smooth, Red
Specific Gravity	-	0.9
Thickener	-	Li/Ca Multi-Complex
Base Fluid	-	Mineral Oil
Dropping Point, °C	ASTM D-2265	>260
Worked Penetration	D-217	285 - 315
Four Ball Weld Load, Kg	IP 239 (ASTM D-2596)	>800
Water Washout, % Loss @ 38°C	ASTM D-1264	<1
Copper Corrosion	IP 112	Pass
dN Factor @ 100°C:		
Deep groove ball bearing	-	400,000
Spherical/cylindrical bearing	-	200,000
Recommended Operating Temperature Range, °C	-	-30 to 150

The characteristics given above are typical of current production only and slight batch to batch variations should be expected.