

Gladiator 460™

TM

Trailer & Steering Axle Hub Synthetic Semi-Fluid 00 Grease

28 oz. (850 mL) P/N: 7700460-28 NLGI 00 EP Grease - ISO 460 PAO Gear Lube

TRUCK & TRAILER NON-DRIVE AXLE HUB / WHEEL END. USE OEM technical directive for unit fill need

EASY USE - CARTRIDGE DESIGN provide's portion control for precise measured amount - application.

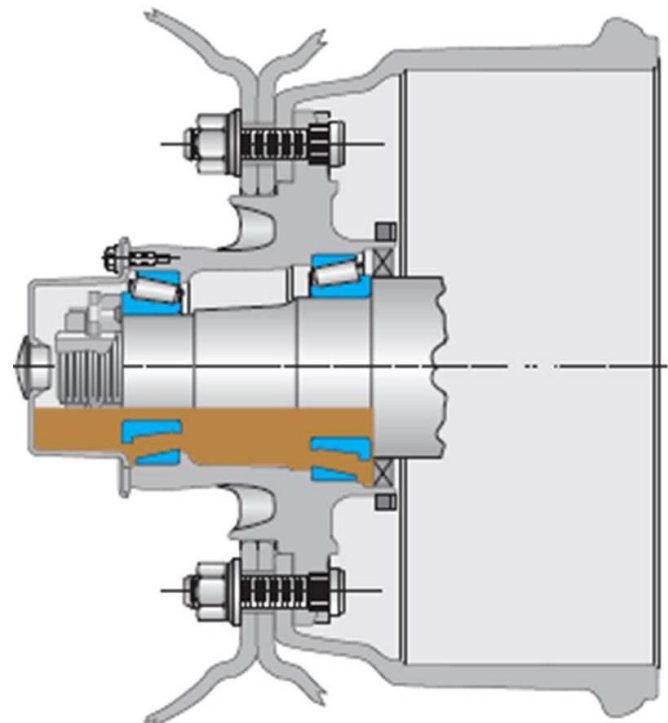
PERFORMANCE FEATURES: Lithium Complex Extreme Pressure Grease with AEROSPACE full synthetic PAO Gear Lube provides; high shock load film strength anti-corrosion - oxidation, water resistance protection & arctic cold flow (-40F). Reduced friction & wear improves overall bearing & seal performance extending hub service life.

SALES & SUPPORT for INSTRUCTION - TECHNICAL DATA - MSDS - PRODUCT WARRANTY - VISIT: gladiator460.com



SpartaMax Specialty Products
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*Gladiator 460 Semi-Fluid 00 fulfills: TMC RP 631
Technical & Maintenance Counsel - Recommended Practice
Wheel End Lubrication regarding: Truck & Trailer (non-drive) Axle Hubs
for the American Trucking Association & Similar Military Specifications.*



Gladiator 460

Spartamax Specialty Products - TECHNICAL DATA SHEET - Gladiator 460™ P/N 7700460 Truck-Steering & Trailer NON-Drive Axle Hub Full Synthetic Semi-Fluid 00 EP Grease

Gladiator 460™ – FULL Synthetic Semi-Fluid 00 EP Grease Product Information:

- FULL Synthetic Semi-Fluid 00 EP Grease is an advanced aerospace / synthetic design for all season, energy efficient product. **Fulfills TMC RP 631, 631A, 631B Technical & Maintenance Counsel – Recommended Practice for Wheel End Lubrication regarding Truck & Trailer (non-drive) Axle Hub** application. Formulated with a specific combination of Lithium Complex Extreme Pressure Grease, PAO Full Synthetic ISO 460 Gear Lube and sophisticated additive package, providing a premium protection system which reduces wear and prevents damage. These advanced extreme pressure additives provide superior protection and performance in shock loading applications.
- Performance repeatability within bearing contact surfaces & seals with high temperature durability, cooler operation temperatures, reduced friction & long lasting features. Tacky Stay-ability upon surfaces with cleaner component performance increases overall component lifecycles.
- ALL SEASON protection includes water resistance, anti-corrosion, anti-oxidation & cold flow -40°C [-40°F] for both hot & arctic (all weather) conditions. Safe for Modern OEM Grease Seal applications.

Commercial Applications & Use:

- Truck Trailer Axle Hubs, Truck Steering Axle Hubs (non-drive), Truck Wheel Axle Hubs (non-drive).
- Primary Semi-Fluid 00 EP synthetic grease premium product design and formulation recommendation as outlined for the use of a semi-fluid grease for this application can be found within the **TMC RP 631 (Technology & Maintenance Counsel Recommended Practice) of the American Trucking Assoc.**
- **SPECIAL NOTE:** To insure performance **USE Gladiator 460™ 100% ONLY with FACTORY CLEAN PARTS** (bearings, spindle, axle hub assembly & seals). **PREVENT CROSS-CONTAMINATION** do not mix Gladiator 460™ with any other grease or gear lube even if it is the same (Lithium or PAO) as this effects specific chemical balance of the product. Stay within OEM factory fill & volume directives.
- **DRIVE AXLE BEARING PRE-PACK PREPARATION** during service of drive axle, seals & bearings; Gladiator 460 semi-fluid will help protect axle bearings & easily mix w/ synthetic drive axle gear lubes.
- Universal for all related applications which require a FULL Synthetic Semi-Fluid 00 EP Grease.

Features & Benefits:

- **Gladiator 460™ tube applicator helps fill axle wheel end (hub) w/ proper amount (OEM state: 40% to 50% MAX OR 4 & 8 o'clock fill level assembled with bearings “pre-loaded”-“pre-packed”).**
- Over or under greasing is virtually eliminated, which improves safety and can help prevent premature seal, bearing and component failure. **CONSULT OEM TECHNICAL DIRECTIVE FOR FILL AMOUNT.**
- Lithium complex thickener & aerospace FULL synthetic PAO base fluids (gear lube) provides stability & staying power in all operating & ambient temps with ability to **lubricate & protect bearings to -40C.**
- Combining stay-put power of a grease & mobility of a gear lube to maximize service & component life.
- **Thixotropic to reduce leakage** relative to gear oils, naturally tacky for adherence to Metal Surfaces.
- **Greatly reduces wheel seals from leaking;** which pose a threat to brake shoes, increased maintenance costs and compromise the safety of the truck, trailer and most important – the driver.
- Protects bearings while **preventing rust and corrosion on critical wheel end (hub) components** as a result of using **high quality anti-wear & extreme pressure additives**
- **SHOCK LOAD PROTECTION** (shock loading can lead to rupture of the oil film and then to Metal-to-metal contact a major cause of severe wear). Gladiator 460™ EP additives coat and react with the surface to reduce or even prevent the damage that leads to worn surfaces.

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Spartamax Specialty Products - TECHNICAL DATA SHEET - Gladiator 460™ P/N 7700460 Truck-Steering & Trailer NON-Drive Axle Hub Full Synthetic Semi-Fluid 00 EP Grease

Gladiator 460™ Product Cross-Reference or Direct Replacement:

- **Shell Renitax® Grease TL 00** - Trailer Wheel & Hub Lube PN 70460 (Lithium Complex / PAO 460)
- **Mobilith SHC 007 00** - Synthetic Grease ISO 460 PN GPHC00K-30 (Lithium Complex / PAO 460)
- **AMSOIL GSF** - Semi-Fluid 00 Synthetic EP Grease (Lithium Complex / PAO 460)
- **Castrol SHL 00** - Semi-Fluid EP Grease PN 464309 (Lithium Complex / PAO 460)
- **Chevron Delo SF** - Semi-Fluid PN 235253 (*Polyurea** / PAO 130) **does not mix w/ Lithium Complex*

- When a **Semi-Fluid 00 EP Grease Product has a PAO Base Oil (Viscosity Index)** of ISO-460; Historic Performance, shows improved component durability as the **premium choice for TMC-RP 631**

Typical Properties of Neo-Brake Gladiator 460™ Semi-Fluid 00 EP Grease P/N 7700460

<u>NLGI Grade</u>	00
Color	Red
Structure	Smooth
Thickener	Lithium Complex
Worked Penetration@77°F	
60 strokes	D 217..... 400-430
10,000 strokes, % change	D 217..... <9
<u>PAO Base Fluid Viscosity</u>	ISO-460 PAO
cSt @ 40°C	D 445..... 420-502
cSt @ 100°C	D 445..... 20-38
Pour Point °C [°F] -40°C [-40°F]
Dropping Point °C [°F]	D 2265 246°C [475°F]
Corrosion Protection,	
5% Synthetic Sea Water	D 1743 Modified PASS
Copper Corrosion	D 4048 1b
Timken OK Load, lb.	D 2509 51
Four-Ball EP, Load Wear Index	D 2596 48
Four-Ball EP, Weld, kg	D 2596 210
<u>Guide to Usable Temperature</u>	
Min, °C [°F] -40°C [-40°F]
Continuous Service, Max °C [°F] 177°C [350°F]
Short Exposure, Max °C [°F] 233°C [450°F]

Gladiator 460™ Product Warranty information:

- Before Installation and use of Gladiator 460 Full Synthetic Semi-Fluid 00 EP Grease Product – user is advised to fully read and understand the product warranty Information. Warranty procedures (which compliment OEM TD procedures for no cross contamination to help product & component long life.

Handling & Safety information:

- Gladiator 460 Full Synthetic Semi-Fluid 00 EP Grease produces no adverse effects to personal health when properly handled and used based upon toxicology information.
- No special handling requirements are necessary beyond good personal hygiene, including but not limited to, washing skin contact areas with soap and water and cleaning oil soaked clothing.
- Additional information on the safe handling and use of this product, refer to its (MSDS) Material Safety Data Sheet at www.gladiator460.com

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PRODUCT LIMITED LIABILITY WARRANTY TERMS, CONDITIONS & COVERAGE SPARTAMAX SPECIALITY PRODUCTS dba SPARTACUS GROUP, INC.

Gladiator Products "Gladiator" warrants the quality of all our lubricants. Gladiator contends that the Gladiator 460 Product (00 semi-fluid grease product) will meet or exceed the specification for which it was designed; providing Gladiator 460 is used for the intended application and use as described within TMC RP 631 Technical & Maintenance Counsel- Recommended Practice regarding Wheel End Lubrication regarding Truck & Trailer (non-drive) Axle Hub for American Trucking Association; further described by technical directive specifications (written approval) of Original Equipment Manufacturer. Gladiator 460 product shall be used within (2) two years of initial product purchase. Gladiator 460 Product cannot be re-packaged in any form.

Installation, maintenance, fill amount & application shall to be within TMC-RP & OEM directives. Further, at time of wheel end Installation and fill it is required that the Gladiator 460 product shall be used 100% not mixed with or using any combination with any other similar or non-similar product - no matter the reason. At time of Installation a new spindle/wheel end seal(s) of OEM designed of equal or improved / approved seal material shall OEM designed for use with Synthetic 00 Semi-Fluid Grease Product. Use like new set of bearings (or less than 2 years / 200,000 miles old). Hub shall be 100% clean of any previous lube product. Used like new bearings: within record history it must be proven previous use of a Synthetic Semi-Fluid Lithium Complex NGLI 00 Grease ISO 460 following TMC-RP 631& revised specifications. IF any other product, no matter if it was OEM factory fill was previously used (ISO 140, Polyurea thickener, non-synthetic base etc.) as these other product formulation designs cause premature damage as compared to a Synthetic ISO 460 Lithium Complex type product & do not mix even with slight residual - NEW BEARINGS & SEALS will be required.

REQUIRED HISTORIC MAINTENANCE PROOF OF PURCHASE - INSTALLATION RECORDS: Historic Maintenance Records for use and installation as required, performed under TMC-RP & OEM directives, billing record (facility computer printed documentation) showing shop facility at of time of installation (preferable with ASE certified/trained mechanic), mileage when installed with proof of purchase and proof used with new seals or new or like new clean bearings - required as stated above.

If the Gladiator 460 00 Semi-Fluid ISO 460 product is suspect of failure; it is the responsibility of the end user to contact Gladiator Products or through exclusive distributor within (10) ten calendar days of the failure incident in writing. End-user shall provide documents as stated above, including when the failure occurred describing in detail exactly what happened. End-User is required to provide (10) ten ounces of the suspect product from each axle/hub unit for immediate examination by Gladiator Products. Upon End-User presentation of required documentation (stated above); End-User shall also request from Gladiator Products a "return authorization number" (RA) along with direct shipping instructions to expedite return (cost of End-User).

Gladiator Products will replace any Gladiator Product deemed defective with similar or updated product ONLY. NO OTHER WARRANTY IS GIVEN, WRITTEN OR IMPLIED. Gladiator will not be responsible for any product or other damages or claims as a result of misuse, lack of maintenance, lack of inspection or review of fill levels, neglect due to overloading or accidents. **ANY WARRANTY CLAIM SHALL BE DETERMINED BY GLADIATOR PRODUCTS & CONSIDERED THE FINAL DECISION.**

Gladiator 460 00 Semi-Fluid Grease Synthetic ISO 460 product may contain one or more of the following; Solvent refined highly-finished paraffin base oils, polyalphaolefin, synthetic base oils, lithium complex thickener, tackiness agents, including the following CAS#: 64742-54-7, 64742-65-0, 64741-88-4l, 64742-62-7.

All lubricants should be changed or installed within TMC-RP & OEM directive recommendation(s) as stated above. Exposure to abnormal high and or low temperature, high moisture and high dirt / contamination level may result in less than optimal performance and accelerated wear. Application for a standard (80,000 lbs.) type semi-truck trailer or other vehicle operating within OEM directives.

Gladiator Products warrants that the product will meet the advertised specifications of the product and may be changed or modified at any time without notice depending on the formulation improvements and or applications. This Product Limited Liability Warranty document is publically available for view & download at: www.gladiator460.com/warranty **PRODUCT USE SHOULD NOT BE INSTALLED OR USED ETC. WITHOUT READING, UNDERSTANDING & ACCEPTING TERMS STATED HEREIN.**

Gladiator Products only warrants to the original purchaser (documented sales proof - stated above) & no third party sales.

Gladiator Products ONLY assumes complete legal responsibility of warrant terms stated above - not distributor or retailer.

Further information concerning warranty information use contact page: www.gladiator460.com or CONTACT the Spartacus Speciality Products (Spartacus Group, Inc.) PO Box 16072, Loves Park, IL USA (815) 637-1574.