



# Gear Coupling Lubrication

## Why Coupling Grease?

Adequate lubrication is essential for satisfactory gear coupling operation. Lovejoy Gear Coupling Grease is specifically designed for gear coupling applications to increase coupling life while drastically reducing maintenance time. Its high viscosity base oil and tackifier combine to keep the grease in place and prevent separation and it is in complete compliance with ANSI/AGMA 9001-B97 lubrication recommendations.

Lovejoy Gear Coupling Grease is dark brown in color and manufactured with a lithium soap/polymer thickener, which has superior resistance to oil separation when subjected to the high centrifugal forces normally found in couplings. Bearing or general purpose greases tend to separate and lose effectiveness due to the high centrifugal forces acting on the various ingredients at high rotational speeds. These high centrifugal forces encountered in couplings separate the base oil from the thickeners. Heavy thickeners, which have no lubrication qualities, accumulate in the gear tooth mesh area resulting in premature coupling failure. Lovejoy Gear Coupling Grease is designed to be highly resistant to centrifugal separation of the oil and thickener, which allows the lubricant to be used for a relatively long period of time.

One of the secrets to the success of Lovejoy Gear Coupling Grease is the variable consistency throughout the working cycle of the application. The consistency of our gear coupling grease changes with the operating conditions. Working of the lubricant under actual service conditions causes the grease to become semi-fluid, functionally splash lubricating the wear surfaces of the coupling. As the grease cools, it returns to its original consistency, thereby preventing leakage.

Lovejoy Gear Coupling Grease is available from stock, in 14 oz. tubes, 1 lb. and 5 lb. cans.

## Benefits

- Resistance to centrifugal separation
- Extended relubrication frequency
- High load carrying capabilities
- Minimizing of coupling wear
- Staying in place under high speeds
- Resistance to water washing
- Corrosion and rust protection
- Use at temperatures up to 325° F
- Minimizing of coupling wear
- Reduction in down time & maintenance costs

Lovejoy Gear Coupling Grease has a consistency which overlaps the NLGI grades 0 and 1. This grease is specially formulated with a lithium/polymer thickener and fortified with corrosion, oxidation, extreme pressure, and an effective rust inhibitor additive package.

## Typical properties of Lovejoy Gear Coupling Grease

NLGI Grade	0/1
Appearance	Dark Brown, Tacky
Lithium Soap / Polymer, wt%	10.0
Viscosity	
@ 40° C, cSt	>3200
@ 100° C, cSt	>50
Penetration. Dmm	
Worked, 60X	350
Worked, 10,000X, % Change	10
Dropping Point, °F	320+ (160°C)
Centrifugal Oil Separation, vol%	None
Water Spray-Off, wt%	<3
Rust Protection	Pass
Timken, OK Load, lbs	40+
Four-Ball EP	
Load Wear Index, kgf	68
Weld Point, kgf	400
Four-Ball Wear, mm	
1 hr, 75° C, 1200rpm, 40 kgf	0.4
Guide to Usable Temperature	
Min, °F	Below -20° (-29°C)
Continuous Service, Max, °F	250° (121°C)
Short Exposure, Max, °F	325° (163°C)

**The Lubricants listed** are typical products only and should not be construed as exclusive recommendations. This list is solely for the convenience of our customers and does not constitute an endorsement. This list is not intended to be complete nor necessarily current.

**Coupling Grease NLGI 0**

Manufacturer	Lubricant
BP Lubricants	Energrease LS-EP 0
Castrol	HD Lithium 0
Chevron	Coupling Grease 0/1
Chevron	Dura-Lith Greases EP 0
<b>LOVEJOY</b>	<b>Coupling Grease 0/1</b>
Shell	Alvania Grease CG 0/1
Shell	Alvania Grease EP 0
Texaco	Coupling Grease 0/1
Texaco	Multifak EP 0

**Coupling Grease NLGI 1**

Manufacturer	Lubricant
BP Lubricants	Energrease LS-EP 1
Castrol	HD Lithium 1
Chevron	Coupling Grease 0/1
Chevron	Dura-Lith Greases EP 1
ConocoPhillips	Dynalike CG 0.5/1
ConocoPhillips	Triton 460 1.5
Exxon	Ronex Extra Duty 1
Kendall	SHP Grease 1
<b>LOVEJOY</b>	<b>Coupling Grease 0/1</b>
Mobile	Mobilegrease XTC 1
Mobile	Mobilith SHC 221 1
Mobile	Mobilith SHC 460 1.5
Mobile	Mobilux EP 111 1
Shell	Alvania Grease CG 0/1
Shell	Alvania Grease EP 1
Texaco	Coupling Grease 0/1
Texaco	Multifak EP 1

**Normal handling precautions should be observed as with any petroleum based products.**

**Gear Grease**

Prior to assembly of gear couplings a coating of grease should be applied to the teeth. The tacky nature of the Lovejoy Gear Coupling Grease makes hand packing the preferred method for newly installed couplings to ensure even distribution throughout.

For normal service and ambient operating temperatures of -30°F (-34°C) to 200°F (93°C) use a NLGI #1 extreme pressure (EP) grease. If the coupling speed is less than thirty percent of the maximum speed as listed in the Lovejoy catalog you may use a NLGI #0 extreme pressure grease. Lovejoy coupling grease meets both of the above requirements. For extreme operating conditions contact Lovejoy Application Engineering.

**Coupling Oil**

EP Oils may be a more effective lubricant than grease when the coupling speed is less than or equal to ten percent of the maximum speed as listed in the Lovejoy catalog. Contact Lovejoy Application Engineering for additional information.

**Coupling Oil**

Manufacturer	Lubricant
BP Lubricants	Engerol GR-XP 680
Castrol	Molub-Alloy 170W/680
Chevron	Gear Compounds EP 680
Chevron	Tegra Synthetic Gear 680
Chevron	Ultra Gear Lubricants 680
Exxon	Spartan EP Gear Oil 680
Mobile	Mobilgear 636
Mobile	SHC 22M
Mobile	SHC 46M
Shell	Omala Oil 680
Shell	Omala Oil HD 680
Texaco	Meropa 680

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