Molub-Alloy 936 SF Heavy Spray

Open Gear Compounds (Solvent Free)

Description

Castrol Molub-Alloy™ 936 SF Heavy Spray is a uniquely compounded open gear lubricant developed specifically for use on heavy duty equipment in the extremes of environments. It is compounded to give maximum protection whilst minimizing potential pollutants to the environment. A highly refined, viscous, paraffinic mineral oil is the foundation of a blended base fluid with excellent natural chemical and thermal stability.

A proprietary blend of Molub-Alloy lubricating solids is included to promote antiwear and load carrying properties beyond those of conventional lubricants. These lubricating solids work synergistically with chemical antiwear and extreme pressure (EP) additives to reduce contact temperatures while providing excellent antiweld protection under extreme pressure and shock loading.

The structural integrity and strength of the lubricating film is particularly valuable in the critical process of seating new gears because of the natural occurrence of high spots (asperities) in newly machined surfaces. The lubricating film must separate the mating surfaces to cushion the effect of the impact of asperities, and minimze initial pitting which could lead to progressive and destructive pitting later.

Application

Molub-Alloy 936 SF Heavy Spray is suitable for use on all types of open gears, racks and pinions or skidding applications, it can be applied either manually or by heavy duty automatic systems.

This product is used extensively in mining, construction, onshore drilling operations and offshore installations facilitating efffective lubrication and protection on:

- Rack and pinion jacking mechanisms.
- Cantilever skidding systems.
- Mooring winch open gearing and slides.
- FPSO offloading systems.
- Crane slew ring & pinion.
- Exposed threads on penstock valves.
- Heavy duty top dressing for the ultimate protection of wire ropes.

Advantages

- Forms a tough durable film with 'cushioning' effect - even under extreme pressures and at very low speeds, the semi-dry working film resists erosion from rain or sleet, resists peeling in dusty environments and resists film destruction by contamination oils and greases migrating from nearby mechanisms.
- Excellent rust and oxidation resistance - protects the equipment and the lubricating film against the elements in severe climates.
- Unique compounding technology - flows readily in the film-forming process yet it resists 'squeeze-out' and clings tenaciously even to gear teeth in vertical orientation.
- Formulated to address environmental concerns - it is free from solvents, lead, antimony and barium.

Typical Characteristics

Name	Method	Units	Molub-Alloy 936 SF Heavy Spray
Specific Gravity @ 25°C / 77°F	ISO 3675 / ASTM D1298	-	1.002
Density of finished grease @ 15°C / 59°F	In-house test	lb/gallon	8.35
Consistency	ISO 2137 / ASTM D217	NLGI Grade	0
Worked Penetration (60 strokes @ 25°C / 77°F)	ISO 2137 / ASTM D217	0.1 mm	345-360
Brookfield Viscosity	ISO 9262 / ASTM D2983	cP	144,000
Base Oil Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm^2/s	2030
Base Oil Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm^2/s	57
Flash Point - open cup method	ISO 2592 / ASTM D92	°C/°F	158/316
Four Ball Weld Load test - Load Wear Index (27°C / 1770 rpm)	ISO 11008 / ASTM D2596	-	130
Four Ball Weld Load test - Weld Point	ISO 11008 / ASTM D2596	kgf	800
Four Ball Wear test - Wear Scar Diameter (40 kgf / 75°C / 1200 rpm / 1 hr)	ISO 51350 / ASTM D2266	mm	0.7
Rust Test (distilled water)	ASTM D1743	Pass	Pass
Copper Corrosion (24 hrs,100°C / 212°F)	ASTM D4048	Rating	1b
Lubricating solids, particle size	-	microns	nominal 15,maximum 45

The above figures are typical of those obtained with normal production tolerance and do not constitue a specification.

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