Product Data

Molub-Alloy 860/220

Greases

Description

High performance **Molub-Alloy 860/220** Greases are multi-service lubricants designed to extend the service life of bearings in heavy-duty applications and at elevated temperatures. **Molub-Alloy 860/220** Greases are intended to provide a heavier oil film for applications at slower speeds, higher loads, and/or higher temperatures sustained for longer periods of time. These greases match the rugged service requirements associated with mills producing primary metals, chemicals, cement, glass and paper.

The following performance characteristics were emphasized in the development of **Molub-Alloy 860/220** Greases:

- Higher viscosity base oil, ISO VG 220, to increase the load carrying capacity.
- Temperature stability to withstand elevated and intermittently high temperatures.
- Shear stability to match the anticipated service life of precision anti-friction bearings.
- Highly resistant to water and contain a combination of corrosion inhibitors.

Molub-Alloy 860/220 Greases are part of Tribol's Eco-Solutions™ product offering. Formulated to address environmental concerns, they are free of lead, chlorinated solvents, and barium.

Molub-Alloy 860/220-0 and Molub-Alloy 860/220-2 meet NLGI Consistency Grades No. 0 and No. 2 respectively.

The load-carrying and anti-wear capabilities of **Molub-Alloy 860/220** Greases exceed conventional complex greases. High performance is the result of chemical additives working synergistically with select Molub-Alloy lubricating solids, which are dispersed uniformly throughout the grease. These lubricating solids offer their greatest benefit at slow speeds or when bearings must endure heavy loads and shocks. Solids also protect newly machined bearing surfaces during the critical period of "running in". Good bearing surfaces are essential for long service life.

Molub-Alloy 860/220 Greases can maintain a high degree of mobility in the work zone of a bearing for its anticipated service life without losing their original consistency. This critical physical property is due to the use of a highly stable, advanced lithium complex thickening system and special manufacturing techniques.

Molub-Alloy 860/220 Greases are formulated from premium petroleum base oils, ISO VG 220. In addition to lubricating solids, these lubricants contain a combination of corrosion inhibitors specifically chosen for protection against corrosive process waters.

Still other premium components in the balanced additive package provide excellent oxidation resistance for very long service life.

Castrol Industrial - Australia
Level 6, 636 St Kilda Road, Melbourne 3004
Technical Advice Line 1300 557 998
www.castrol.com.au
Sydney 02 9795 4800
Melbourne 03 9268 4200
Brisbane 07 3850 9300
Adelaide 08 8347 6200
Perth 08 9268 9288

PDSA 2677-9 03/02
Bulk Item Code – 114100 – Molub-Alloy 860/220-0
Bulk Item Code – 114101 – Molub-Alloy 860/220-2

TYPICAL APPLICATIONS

- General – **Molub-Alloy 860/220** Greases should be used when loads are moderate to heavy, temperatures are elevated (up to 230ºC), and speeds are slow to moderate. **Molub-Alloy 860/220** Greases have been used successfully in antifriction bearings, bushings and couplings. Apply **Molub-Alloy 860/220-2** by hand packing, with a grease gun, or by automatic dispensing systems capable of pumping higher base oil viscosity greases. As minimum ambient temperatures approach 0ºC, change to **Molub-Alloy 860/220-0**, which pumps at lower temperatures.

- Primary Metals, Including Steel - Use **Molub-Alloy 860/220** near hot ingots, soaking pits, and reheat furnaces to lubricate pit cover carriages, mill stand screws/nuts, slipper couplings, roll bearings, manipulators and guide/pinch/bending rolls for continuous casters.

- Paper and Forest Products - On paper machines, use **Molub-Alloy 860/220** on the "wet end" couch, suction, and press roll bearings where corrosive process waters, and high temperatures prevail.

REAPPLICATION FREQUENCY - HIGH TEMPERATURE USAGE Molub-Alloy 860/220
Greases are designed to extend service life in all applications. At temperatures above 120ºC, regular applications of **Molub-Alloy 860/220** must be considered. Establish reapplication intervals by inspection. See "Notes": regarding temperatures and speeds. Generally, for continuous service at temperatures near 177ºC, weekly reapplications of **Molub-Alloy 860/220** are suggested. For continuous service near 200ºC, reapply **Molub-Alloy 860/220** daily or once each shift. **Molub-Alloy 860/220** Greases have been used above 230ºC. However, frequent reapplication of grease is necessary to prevent deterioration of the petroleum base oil. Reapply before the grease in the bearing stiffens.

ADVANTAGES
Molub-Alloy lubricating solids permit extending the lubrication interval while providing an extra measure of anti-wear protection. **Molub-Alloy 860/220** stays in the bearing. **Molub-Alloy 860/220** is formulated to withstand extreme pressures and heavy shock loads.

The grease does not thin despite prolonged shearing, nor does it melt at temperatures up to 260ºC.

Molub-Alloy 860/220 offers excellent oxidation stability and resists washing out, even when exposed to the action of hot process water. **Molub-Alloy 860/220** Greases pass the tough Emcor Rust Test (see Typical Properties below) and provides protection from corrosive process waters.

NOTES
For lower temperatures and/or higher speeds, a lighter base oil viscosity may be desired. **Molub-Alloy 860/220** Greases are not compatible with sodium or inorganic base greases.

Typical Characteristics

	860/220–0 ES	860/220–1 ES	860/220–2 ES
NLGI Grade	0	1	2
Thickener Type	Lithium Complex	Lithium Complex	Lithium Complex
Worked Penetration, ASTM D217, mm/10	355-385	310-340	265-295
Dropping Point, ASTM D2265, °C/°F	N/A	260+/500+	260+/500+
Base Oil Properties			
Viscosity, ASTM D445, ASTM D2161			
@40°C cSt	213	213	213
@100°C, cSt	16.6	16.6	16.6
@100°F, cSt/SUS	245/1135	245/1135	245/1135
@210°F, cSt/SUS	17.1/86	17.1/86	17.1/86
Flash Point, ASTM D92, °C/°F	233/451	233/451	233/451
Pour Point, ASTM D97, °C/°F	-15/+5	-15/+5	-15/+5
Water Washout, ASTM D1264			
@ 79°C/175°F, % loss	N/A	6	4
Rust Prevention Properties, ASTM D1743, rating	Pass	Pass	Pass
Emcor Rust Test, ASTM D 6138, IP 220/85	0/0 (Pass)	0/0 (Pass)	0/0 (Pass)
Roll Stability, ASTM D1831, % change	N/A	10	10
Timken EP Test, ASTM D2509			
OK Value, kg/lbs	23/50	23/50	23/50
Four Ball EP Test, ASTM D2596:			
Load Wear Index, kg	60	60	60
Weld Load, kg	500	500	500
Molub-Alloy Solids, Grade Classification	Multipurpose	Multipurpose	Multipurpose

Subject too Usual Manufacturing Tolerances

Health, Safety and Environment

In line with safe handling practices, it is recommended that the handling instructions outlined in the Castrol Material Safety Data Sheet be followed.

Spillage: Slippery when spilt. Avoid accidents, clean up immediately. Isolate leaking containers and stop leak if safe to do so. Use absorbent (soil or sand, sawdust, inert material, vermiculite).

Disposal: Sweep up, but avoid generating dust. Collect and seal in properly labelled drums for disposal.