



TECHNICAL DATA

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2003 HD Mill Lube

HD Mill Lube is a high viscosity, extreme pressure, solvent free, non-asphaltic petroleum resin base fluid type open gear lubricant. HD Mill Lube has been formulated to lubricate heavily loaded open gears and bushings such as those found in sugar mills, ball mills, pebble mills, grinding mills, bowl mills and cement kilns and dryers. HD Mill Lube may be applied using either an automatic lubrication system or a sump type system, where an oiler wheel drags the lubricant and deposits it on the pinion gear. HD Mill Lube is pumpable using Lincoln and Farval systems down to -1°C (30°F).

HD Mill Lube is a high-viscosity base fluid combined with a synergistic blend of anti-wear and extreme pressure additives, antioxidants, corrosion inhibitors and demulsifiers which provide the following:

- High viscosity provides higher film strength and hydrodynamic lubrication film for separation of the gear teeth and the contacting metal surfaces of bearings, bushings and rollers in very severely loaded applications.
- Exceptional anti-wear and extreme pressure properties that provide protection against pitting, spalling, scuffing and metal deformation under severely loaded conditions.
- Formation of an almost indestructible adhesive film that provides a “cushioning effect” during boundary lubrication conditions and very slow speeds.
- Excellent resistance to “squeeze out”, fling off, and throw-out due to the product’s ability to cling tenaciously to the gears, bushings and rollers.
- Remains soft and pliable to prevent hardening or build-up in gear tooth roots.
- Drains freely from the gear guards.
- Excellent resistance to corrosion and protection of bronze and brass components.
- Excellent resistance to water and washout due to the product’s high viscosity and the tenacity of the lubricant film.

Typical Properties

Viscosity @ 40°C, cSt (ASTM D445)	20,000 -28,700
Viscosity @ 100°C, cSt (ASTM D445)	299 – 347
Viscosity Index (ASTM D2270)	97
Flash Point °C (°F) Pensky Martens Closed Cup (ASTM D92)	176° (349°)
Four Ball E.P. (ASTM D2596)	
Weld Point, kg	800
Load Wear Index	111.7
Four Ball Wear (ASTM D4172)	
Sar diameter, mm	0.62
FZG Load Stage Failure DIN 51354	+13
Lincoln Ventmeter	
kPa (Psi) @ 10°C (50°F)	1241 (180)
kPa (Psi) @ -1°C (30°F)	2116.7(307)