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**TECHNICAL DATA SHEET**

# **HB-590**

## **HI-LOAD**

### **Extreme Impact Grease and Open Gear Lubricant**

#### **DESCRIPTION:**

- Deep blue adhesive grease which provides complete protection and lubrication for all exposed gears, cables, guide rails, flanges, fifth wheels, roll pins and virtually any type of equipment in any exposed environment or frictional load carrying capacity
- Uses only highest quality components
- Ease of application, versatility and long-lasting protective features make it the ultimate open gear and extreme impact lubricant

#### **COMPOSITION:**

- HB-590 is a complete departure from the old form of open gear lubrication
- Most compounds are asphalt or tar-like residues and extremely messy
- They either are extremely difficult to apply because heating is required, or they contain a high percentage of highly volatile solvent cut-back which is not only dangerous but is material paid for which merely evaporates, leaving a hardened material which is not really a lubricant
- Hi-Load is carefully compounded with an exclusive process utilizing a completely synthetic non-melt thickener base which is chemically treated to make it hydrophobic, or totally waterproof, which is permanent and stable up to 930°F
- Hi-Load thickener base imparts superior mechanical stability and "structural viscosity" rather than typical stratified lattice structure. This means other greases or chemical contaminants will not cause HB-590 to break down
- Base fluid of Hi-Load is a highly viscous, shear-stable, high molecular weight polymer and a highly refined mineral oil for superior lubricating qualities and high film strength
- The base fluid and thickener is compounded with Moly-G; our special molybdenum compound for superior extreme-pressure protection and anti-wear qualities, as well as additional additives for exceptional rust and corrosion protection, oxidation inhibition, and tenacious adherence to metal surfaces

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**PERFORMANCE CHARACTERISTICS:**

- The highest degree of extreme pressure protection is attained in HB-590
- Liquid chemical EP additives are combined with our Moly-G solids, a unique molybdenum compound offering the ultimate in protection against wear for metal surfaces
- A plating action is actually formed which is a practically impenetrable barrier against metal to metal contact
- Provides a perfect seal of protection against all elements in exposed applications
- Completely waterproof, even against salt water, and cannot be washed off
- Powerful rust and corrosion inhibitors resist all types of chemical attack including acids and alkalines
- Resists the penetrating effect of solvents
- Hi-temp, non-melt grease. Uses an extremely high viscosity index base fluid that thins out very little at high temperatures compared to asphalts and conventional greases
- Heavy grease, but remains very pliable at low temperatures, unlike other products which completely harden
- Will not pound out, sling off, or wash out, and its tremendous affinity for metal surfaces makes it highly adhesive, yet it is not so stringy that it pulls off or is difficult to work with.

**USES:**

- Heavy, generally slow-moving or stationary applications where the metal is exposed to destructive elements or requires maximum extreme pressure protection.
- Especially useful in special situations underwater or high temperature applications.

**APPLICATIONS:**

Jackup Grease, Dragline Boom Gears, Crane Booms & Slide Plates, Some Drill Bits, Fifth Wheels, Almond Shaker Pads, Underwater Drilling Rig Cables, Dam Floodgate Devices Dipper Sticks on Shovels, Kiln Bearings, Rigs, Paper Mill Lubrication, Guide Rails, Exposed Flanges, Cables, Chains, Gears, Drilling Perforating Gun Holes (plug up to protect charges) Steel Mill Lubrication (coke oven doors, cooling bed bearings), Wire Ropes and Exposed Gears of Scrap Iron Handling Equipment, Walking Beams and Jackposts on Drilling Rigs, Exposed Cables, Chains, or Gears in Open Pit Mining or Quarrying Elevator Cable Car and Counterweights Glass Machinery - Near Molten Glass, Power Shovels (rack and pinion, swing gear, and pinion and hoist gear of shovel)

**SPECIFICATIONS:**

NLGI Grade	3	4-Ball Wear Test,	0.85
Color	Blue	4-Ball Weld Load, kg	315
Texture	Smooth	4-Ball Load Wear	50.2
ASTM Penetration (60 Strokes)	220-250		
Mechanical Stability, %			
Consistency	5% Max		
Drop Point Test	Non-melt		
Base Fluid Characteristics:			
SUS @ 100°F	2300		
SUS @ 210°F	220		
Viscosity Index	180		
Timken E.P. Test	60		
Scar Width, mm	2.1		
Oxidation Stability (ASTM D942)			
psi loss @ 100 hrs.	1		
Hrs. for 25 psi loss	2500		
Water Resistance	Waterproof		
Rust Prevention Test (ASTM)	Pass (1,1,1)		