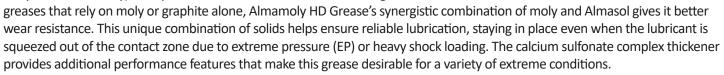
Product Information

Almamoly® HD Grease (1488-1487)

Solid Lubricant Grease with Calcium Sulfonate Complex Thickener Provides Lasting Protection for Heavy Mobile Equipment

Lubrication Engineers, Inc. formulated its solid lubricant-containing, calcium sulfonate-thickened Almamoly® HD Grease for use in severe conditions such as high temperatures, heavy loads and water. This high-performance grease is intended for long-lasting use in heavy-duty mobile equipment such as that used in construction, agriculture, open pit mining and road-building. It is available in two grades — NLGI 1 and 0 — to meet the needs of a variety of applications. The 0 grade grease is recommended for use in centralized lubrication systems at low temperatures.

Almamoly HD Grease contains Almasol®, LE's proprietary solid additive as well as 5 percent molybdenum disulfide (also known as molydisulfide or moly). Compared to other solid lubricant-containing





Beneficial Qualities

Solid additive combination

- Contains proprietary combination of Almasol and 5% moly
- Provides better wear-resistance than other greases containing solid lubricants, including those containing 5% moly alone
- Meets requirements of major OEMs

Calcium sulfonate complex thickener

- Inherently prevents rust & corrosion, in contrast to other thickeners
- Has very high dropping point
- Exhibits excellent mechanical stability
- Imparts outstanding EP properties, providing wear protection even when pound-out conditions occur

Reliable, long-lasting formula

- Has very low oil separation
- Stays in place for extended lubrication intervals

Available Grades

- NLGI 1 (1488)
- NLGI 0 (1487)



Proprietary Additives

LE's proprietary additives are used exclusively in LE lubricants. Almamoly® HD Grease contains Almasol.

Almasol® solid wear-reducing additive is able to withstand extremely heavy loads, chemical attack and temperatures up to 1,900°F (1,038°C). It is attracted to metal surfaces, forming a microscopic layer but not building on itself or affecting clearances. Almasol minimizes metal-to-metal contact and the resulting friction, heat and wear.







Almamoly® HD Grease

	1488	<u>1487 </u>
Thickener Type	Calcium Sulfonate Complex	Calcium Sulfonate Complex
Texture	Smooth	Smooth
Color	Gray	Gray
NLGI Grade	1	0
Worked 60 Penetration ASTM D217	329	368
Worked 10K Penetration ASTM D217	327	372
Worked 100K Penetration ASTM D217	331	371
Dropping Point °C (°F), ASTM D2265	316 (600)	316 (600)
Base Fluid Characteristics		
Flash Point °C (°F), ASTM D92	260 (500)	260 (500)
Viscosity @ 100°C, cSt, ASTM D445	14.39	14.39
Viscosity @ 40°C, cSt, ASTM D445	143.5	143.5
Viscosity Index ASTM D2270	98	98
Oxidation drop in psi @ 100 hrs, ASTM D942	5	5
Oxidation drop in psi @ 500 hrs, ASTM D942	10	10
Corrosion Prevention DI H ₂ O, ASTM D1743	Pass	Pass
Oil Separation 30 hrs @ 100°C, % bleed, ASTM D6184	1.00	1.00
Timken OK Load lbs, ASTM D2509	60	60
Four-Ball EP Weld Point kgf, ASTM D2596	620	620
Four-Ball EP Load Wear Index kgf, ASTM D2596	102.2	102.2
Four-Ball Wear @ 75°C, 1,200 rpm, 40 kgf, 60 minutes, mm wear, ASTM D2266	0.45	0.45
Copper Corrosion 24 hrs @ 100°C, ASTM D4048	1b	1b
Evaporation 22 hrs @ 100°C, % loss, ASTM D972	0.75	0.75

Performance Requirements Met or Exceeded

- Can be used for equipment that requires or specifies greases containing solid lubricants
- Can be used for heavy-duty mobile equipment requiring 5% moly grease, including Caterpillar*, Hyundai*, John Deere* and Komatsu*

Recommendations

- Both grades can be used with single- or multipoint automatic lubrication systems
- 1487 is good for use in centralized lube systems at temps lower than 15°F (-9.4°C)

Typical Applications

- Large mobile equipment used for agriculture, construction, open pit mining and roadbuilding, including articulated trucks, backhoes, bulldozers, conveyors, crushers, excavators, loaders and shovels.
- Swiveling and pivoting parts including articulated joints, bucket pins, sleeve bearings, pivot bearings, hinge pins, latches, locks, spindles, threaded parts, cams, and slides.
- Other applications such as continuous casters, motor-operated steam valves, and underwater applications.





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