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 greases that rely on moly or graphite alone, Almamoly HD Grease's synergistic combination of moly and Almasol gives it better wear resistance. This unique combination of solids helps ensure reliable lubrication, staying in place even when the lubricant is squeezed out of the contact zone due to extreme pressure (EP) or heavy shock loading. The calcium sulfonate complex thickener provides additional performance features that make this grease desirable for a variety of extreme conditions.

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.

Technical Data

Almamoly® HD Grease

	1488	1487
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_2O, 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 multi-point 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 road-building, 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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LE operates under an ISO 9001 Certified Quality System.

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