



Molub-Alloy 777-2 ES

High performance grease

Description

Castrol Molub-Alloy™ 777-2 ES grease is designed for very heavy duty service in adverse environments.

It is blended and compounded to withstand heavy and shock loading, commonly found in the mining, construction and offshore industries.

Molub-Alloy 777-2 ES grease is made using a blend of high quality petroleum oils, polymers and a proprietary blend of Molub-Alloy lubricating solids. These lubricating solids work synergistically with chemical anti-wear and extreme pressure (EP) additives to reduce contact temperatures and wear while providing the ultimate in extreme pressure and shock load anti-weld protection. This blend together with a shear stable thickening system provides a uniquely effective seal against loss of grease or contamination from the atmosphere, even where mechanical seals may be damaged.

Rust and oxidation inhibiting characteristics are maximised to afford effective rust protection and long life of the grease.

Molub-Alloy 777-2 ES is a Bucyrus certified grease (with lubricating solids <5% by weight and <10µm max particle size).

Application

Molub-Alloy 777-2 ES is a multipurpose grease that operates effectively in plain and roller bearings. It exhibits excellent adhesive and cohesive characteristics and is highly resistant to mechanical shearing.

Typical applications in severe environments include dragline slew bearings, crane slew rings and FPSO Turret bearings where loads are heavy and speeds low

Features and Benefits

- Excellent friction reduction characteristics due to Molub-Alloy solid lubricants - easier start-up, reduced heat and reduced energy leading to longer bearing life.
- Excellent mechanical stability - grease keeps its consistency in service ensuring long term protection.
- Easily pumpable in central lubrication systems.
- Superior adhesion - continuous lubrication and reduced consumption as the film stays between lubricated surfaces.
- Exceptional water resistance - coating film stays on the surface even in the presence of water.
- Resistant to copper and steel corrosion - extends bearing life and performance.
- Excellent EP and anti-wear properties - protects equipment against extreme/shock loading and helps minimise bearing components wear and hence extends equipment life.
- Compounded - optimum protection and long life to seals, as well as forming a protective barrier in damaged seals.

Technical Data

Name	Method	Units	Molub-Alloy 777-2 ES
Appearance	Visual		Dark grey
Thickener			Lithium
Base Oil			Mineral oil
NLGI Grade			2
Density @ 20°C	ASTM D1475	g/ml	0.883
Worked Penetration, 60 Strokes @ 25°C	ISO 2137 / ASTM D217	1/10 mm	265 - 295
Worked Penetration, 100,000 Strokes @ 25°C	ISO 2137 / ASTM D217	1/10 mm	22
Dropping point	ISO 2176 / ASTM D2265	°C	180+
Base Oil Viscosity @ 40°C	ISO 3104 / ASTM D445	mm ² /s	950
Base Oil Viscosity @ 100°C	ISO 3104 / ASTM D445	mm ² /s	85.5
Base Oil Flash Point	ISO 2592 / ASTM D92	°C	230
Rust Test, 48 hrs @ 52°C	ASTM D1743	Rating	Pass
Corrosion Protection (SKF Emcor)	ISO 11007 / ASTM D6138	Rating	0/0
Copper Corrosion, 24 hrs @ 100°C	ISO 2160 / ASTM D4048	Rating	1b
Four Ball EP Test Load Wear Index	ASTM D2596	kg	100+
Four Ball EP Test Weld Load	ASTM D2596	kg	620
Four Ball Wear Test (1 hr, 40 kg, 1200 rpm, 75°C), Scar Diameter	ASTM D2266	mm	0.55
Four Ball Wear, (1000 N, 1 min) Scar Diameter	DIN 51350-5E	mm	0.9
Timken EP Test, OK Load	ASTM D2509 / IP 326	kg/lbs	23/50
Water Washout @ 38°C	ASTM D1264	% loss	1.6
Water Washout @ 79°C	ASTM D1264	% loss	3.2
Water Resistance, 90°C, 3 hr	DIN 51807-1	Rating	1
Roll Stability, 2 hrs, 25°C, Penetration Change	ASTM D1831	% change	5
Wheel Bearing Test (6 hrs @ 104°C)	ASTM D1263	% loss	0.06
Pressure Oil Separation (Cake Separation)	US Steel	% change	1.79
Grease Mobility	US Steel	g/s	0.3 @ 0°F
Pumpability by Lincoln Ventmeter	US Steel	psi	520 @ 20°F
DIN Classification	DIN 51502		KPF 2 K-20
ISO Classification	ISO 6743/9		L-XBCHB-2

The figures above are typical of those obtained with normal production tolerance and do not constitute a specification.

Care and Handling

Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

Packaging and Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and the obliteration of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

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