

## Castrol Molub-Alloy 777 NG Range

Greases

### Description

MOLUB ALLOY™ 777 NG greases were designed for very heavy-duty service under severe ambient conditions. They are blended and compounded to withstand shock loads as well as heavy loads, conditions commonly found in the steel and construction industries, in mining and forestry.

- MOLUB ALLOY 777 NG greases are made with a blend of high-viscosity mineral oils and polymers which produce a tough lubricating film capable of withstanding shock loads and vibrations.
- The shear-stable thickener provides an excellent sealing effect against contamination from the atmosphere, even if mechanical seals are damaged or missing (grease collar in the bearing).
- The lubricating greases contain solid lubricants whose structure is best suited for the rugged conditions in heavy industry. The solids are treated to increase their natural affinity to metal surfaces.
- Corrosion and oxidation inhibitors maximize the corrosion protection and aging stability of the base oil.
- 777 NG greases are free of antimony, lead, zinc and other heavy metals.

### Application

- Typical applications are in all types of rolling and sliding bearings, spindles, joint couplings (except for high-speed precision couplings), running gears, cams and general grease lubricating points, especially where heavy loads and low speeds prevail.
- MOLUB ALLOY 777 NG greases are especially suited for the lubrication of heavy machines e.g. forging presses or hauling machines. Due to the extremely stable lubricating film, supported by the solid lubricant combination in the mixed friction area as well as the excellent sealing effect, a quantity reduction and an improved lubricating condition can be ensured.

### Advantages

- Due to their good adhesion these greases provide an optimum sealing effect.
- The MOLUB-ALLOY solid lubricants achieve reduced friction in the boundary and mixed friction areas. This is most evident during frequent start-ups, low speeds and/or high loads as well as shock loads.
- Overall savings are derived from the above which in turn result in less repair work and downtime, longer service life of components and extended lubrication intervals.

## Typical Characteristics

Name	Method	Units	777-1 NG	777-2 NG
Colour	Visual	-	Black	Black
Thickener type	-	-	Lithium	Lithium
Worked Penetration (60 strokes @ 25°C / 77°F)	ISO 2137 / ASTM D217	0.1 mm	310-340	265-295
Worked Penetration (100,000 strokes @ 25°C / 77°F) - change from 60 strokes	ISO 2137 / ASTM D217	0.1 mm	max. 30	max. 30
Dropping Point	ISO 2176 / ASTM D566	°C/°F	> 180/356	> 180/356
Base Oil Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	860	860
Base Oil Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	60	60
Viscosity Index	ISO 2909 / ASTM D2270	-	94	94
Flash Point - open cup method	ISO 2592 / ASTM D92	°C/°F	>220/428	>220/428
Water Wash-out	ISO 11009 / ASTM D1264	% wt loss	< 8.0	< 5.0
Water Resistance	DIN 51807-1	Rating	0	0
Rust Test (distilled water)	ASTM D1743	Pass	Pass	Pass
Rust Test - EMCOR (distilled water)	ISO 11007 / ASTM D6138	Rating*	0/1	0/1
Copper Corrosion (24 hrs, 100°C / 212°F)	ASTM D4048	Rating*	1	1
Four Ball Weld Load test - Weld Point	ISO 11008 / ASTM D2596	kgf	typical 400	typical 400
Four Ball Wear test - Weld Load	DIN 51350-4A	N	> 3800	> 3800
Four Ball Wear test - Wear Scar Diameter (40 kgf / 75°C / 1200 rpm / 1 hr)	ISO 51350 / ASTM D2266	mm	< 0.65	< 0.50
Four Ball Wear test - Wear Scar Diameter	DIN 51350-5E	mm	< 1.20	< 1.00
Flow pressure @ -20°C / -4°F	DIN 51805	mBar	<700	<700
Operating Temperature	-	°C	-20 / 120	-20 / 120

Subject to usual manufacturing tolerances.

## Additional Information

- MOLUB ALLOY 777 NG greases should not be mixed with lubricating greases which have a different thickener base.
- Lubrication intervals should be increased gradually to ensure complete removal of the previous lubricant and to guarantee the deposit of the solid lubricant layer at the lubricating points. The greases may be applied with a manual grease gun or via automatic dispensing systems which are suited for the given worked penetration.

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Australia Level 8 (QV1 Building), 250 St. Georges Terrace, Perth WA 6000, Australia. Customer Service Number +61 (0)8 9420 1825

Dubai City Tower 2, 6th Floor PO BOX 1699, Sheikh Zayed Road, Dubai, U.A.E. Customer Service Number +971 4 3079304

Norway Drammensveien 167, Box 153 Skoyen, 0212 Oslo, Norway. Customer Service Number +47 22 51 12 43 501

Singapore Keppel Bay Towers, 1 Harbourfront Avenue 02-01, Singapore 098632, Singapore. Customer Service Number +65 6371 8478

United Kingdom BlueSky Business Space, Westpoint House, Pavilion 2 Prospect Park, Prospect Road, Arnhall Business Park, Westhill. AB32 6FJ, UK.  
Customer Service Number +44 (0)1224 270365

USA 501 Westlake Park Boulevard, Houston, Texas 77079, USA. Customer Service Number +1 800 339-7157., Brazil Avenida Itaoca, 2.400, Inhauma, Rio de Janeiro, Zip code 21061-020, customer service +55 11 4133 7835

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