

Specialty Lubricants for mobile telescopic cranes



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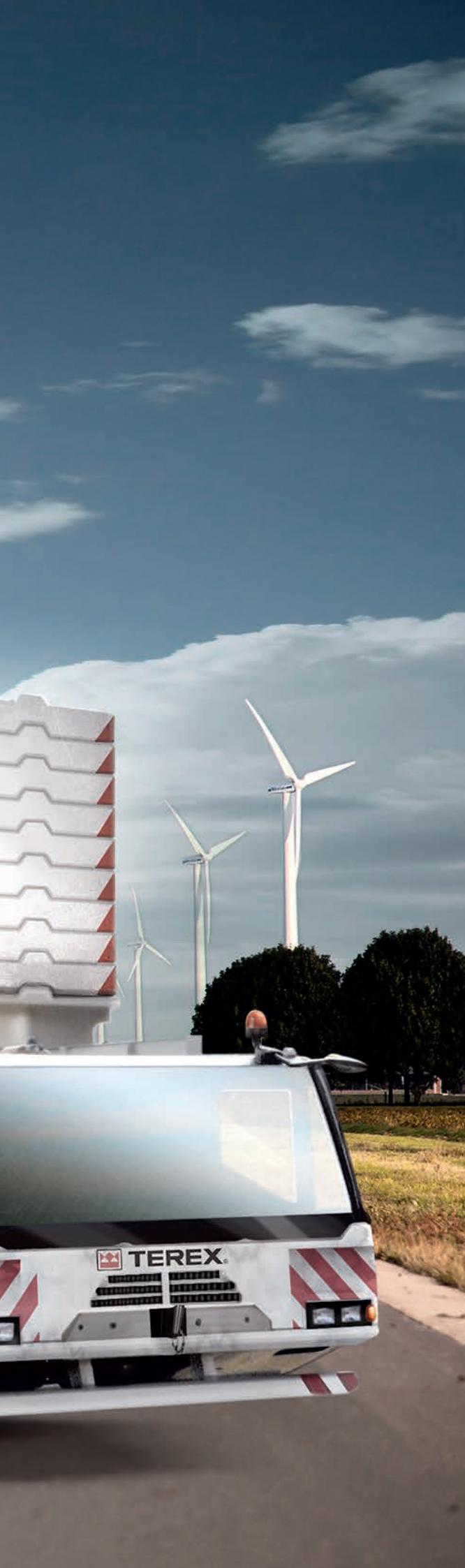
LUBRITECH
Special Application Lubricants

FUCHS LUBRITECH – SPECIAL APPLICATION LUBRICANTS

The FUCHS Group has developed, produced and sold lubricants and related specialties for more than 80 years – for virtually all applications and sectors. With over 100,000 customers and 50 companies worldwide, we are the world's leading independent lubricant supplier.

Within the FUCHS Group, FUCHS LUBRITECH is the expert for special application lubricants. A team of more than 500 specialists around the world work to meet your needs. However demanding the application, we offer a specialised solution.

FUCHS LUBRITECH specialty lubricants stand for highest performance and sustainability, safety and reliability, and efficiency and cost savings. They represent a promise: technology that pays back.



Mobile telescopic cranes

Mobile telescopic cranes have not stopped growing over recent decades. Loads of more than 1,000 tonnes, and cranes more than 100 m high are no longer exceptional. The demand for ever-greater loading capacities and increasing telescopic boom means that the challenges faced by the lubricant are even greater. High surface pressures, stick-slip effects, fretting corrosion, varying temperatures and environmental concerns are just a few of the conditions and challenges that a lubricant must meet. Working with machine manufacturers, we develop innovative speciality lubricants that make a valuable contribution to function and preservation, as well as to extending service life.

Mobile telescopic cranes are used wherever loads have to be transported flexibly, precisely and safely. Due to the wide range of cranes now available for every loading and mast length, it is no longer possible to imagine the assembly of industrial plants, loading and unloading goods, or the recovery of heavy loads without them. The challenges faced by crane providers are enormous, and both a flexible portfolio of machines and professional time management are expected. High-quality lubricants should always be used in order to avoid downtimes due to wear which can result from inadequate lubrication, or from the use of incorrect or poor quality lubricants. FUCHS LUBRITECH is your competent partner whenever it comes to speciality lubricants with exceptional reliability.

Effective lubrication of the telescopic boom



STABYL TA – developed for use on linear guides

STABYL TA stands out due to its excellent sliding friction characteristics with steel-plastic and plastic-plastic sliding pairs.

The partially synthetic, lithium-soap special grease offers:

- **outstanding corrosion protection,**
- **maximum resistance to weathering,**
- **very good protection against wear,**
- **very good adhesion, and**
- **reliable protection against stick-slip.**

STABYL TA can be applied using air-operated spray units, such as the LubeJet-eco, or manually, using a brush or a roller.

Lube-Shuttle® grease spray gun LubeJet-eco

The air-operated grease spray gun allows greases to be sprayed directly from the Lube-Shuttle® system cartridge without using any propellant or other chemical additives such as solvents. Drying time is therefore unnecessary, and the telescopic boom can be extended and retracted immediately after application.

LubeJet-eco features easy handling and precise nozzle regulation. This allows large areas to be accurately sprayed with a homogeneous lubricant film.

Lubricant applications on mobile telescopic cranes



Telescopic boom

The sliding surfaces of telescopic booms are subject to high friction forces, and these can lead to stick-slip behaviour, particularly when extending and retracting.

STABYL TA and **LAGERMEISTER WHS 2002 FLUID** are specialty lubricants developed for use on telescopic booms. STABYL TA features a synergistically acting combination of solids to reduce friction forces and prevent stick-slip. Optimum lubricant application can be achieved through spray application using the LubeJet-eco spray gun. LAGERMEISTER WHS 2002 FLUID is ideally suited to conventional brush or roller application.

Bolts

Joint bolts and plug connections experience dynamic, oscillating loads, and are subject to a strong stick-slip effect. In the absence of movement, high static forces develop. For optimum operation, and easy component assembly, **GLEITMO 585 K** and **GLEITMO WSP 5040** are the perfect products. STABYL TA and **LAGERMEISTER WHS 2002** are very suitable for lower loads. **GEARMASTER ZSA** is the right choice for lubrication supplied by a central system.



Outriggers

The outriggers of a mobile telescopic crane are indispensable and ensure stable standing on difficult ground. **STABYL TA** or **LAGERMEISTER WHS 2002** are ideally suited to slideway lubrication. Both products provide a long-lasting lubricant film that withstands even very difficult conditions.

Revolving joints

The slow movements of the gear pairs do not generate any hydrodynamic lubrication, and the torsional moments increase the wear on the tooth flank. The action of the weather and unfavourable environmental conditions only make matters worse, placing additional and unusual demands on the lubricants. **CEPLATTYN KG 10 HMF** (for automatic lubrication) and **CEPLATTYN 300** (for manual application) meet these demands. The high adhesion of the **CEPLATTYN** lubricants ensures optimum lubrication in mixed friction areas.

The component manufacturers strictly specify a grease with EP additives as a result of the high pressures in the ball bearing slewing ring. **LAGERMEISTER XXL** fully satisfies this requirement. The special polyurea thickener agent demonstrates significantly less oil separation than standard lithium greases and has an exceptional pressure resistance.

If special protection against fretting corrosion is required, **GLEITMO 585 K** is the lubricant to use. It features a synergistically acting combination of white solid lubricants. A tribochemical separation of the friction partners is created and this reduces fretting corrosion, such as may be caused by engine vibrations. **GLEITMO 585 K** damps down the shock loads, effectively reducing frictional wear caused by oscillating movements.

Rope winch

The rope winch is often mounted externally and is subject to all weather conditions, also involving considerable dust exposure of the wire rope. Wires ropes are internally lubricated during manufacture, but must be relubricated and protected from the outside periodically in order to minimise wear and prevent the onset of rust, especially at the points of reversal of direction.

CEPLATTYN 300 and **CEDRACON DS** are often used in combination. **CEDRACON DS** penetrates deeply into the strands, lubricating the rope from the inside. **CEPLATTYN 300** provides adequate external lubrication. The reliable graphiting of the rope lubricants provides not only very good lubrication and emergency running properties, but also an outstanding corrosion protection that lengthens the lifetime of the wire ropes by a significant factor.



Lubricating products for mobile telescopic cranes

Machine component	Lubricant specification	Product
Telescopic boom	High-performance greases	STABYL TA (spray application) LAGERMEISTER WHS 2002 FLUID (brush or roller application)
Bolts, connectors	High-performance grease, paste	GLEITMO 585 K GLEITMO WSP 5040
Outriggers	High-performance greases	STABYL TA LAGERMEISTER WHS 2002
Revolving joints: gear rim	Adhesive lubricant	CEPLATTYN KG 10 HMF (for automatic lubrication) CEPLATTYN 300 (for manual lubrication)
Revolving joints: bearing system	Long-life EP grease High-performance grease	LAGERMEISTER XXL LAGERMEISTER EP 2 GLEITMO 585 K
Rope winch	Wire rope lubricant	CEDRACON DS (also available as spray) CEPLATTYN 300 (also available as spray)
Roller and plain bearings	Long-life EP grease	LAGERMEISTER XXL LAGERMEISTER EP 2
Automatic lubrication systems	Semi-fluid grease	GEARMASTER ZSA
Hydraulics	Hydraulic oil	RENOLIN B series RENOLIN B HVI series ECO-HYD S series (biodegradable)

Note: These product recommendations correspond to our experiences or the guidelines of the machine and plant manufacturers.
 For detailed information please make use of our Product Information or contact us directly at www.fuchs.com/lubritech

Innovative lubricants need Experienced application engineers

Every lubricant change should be preceded by expert consultation on the application in question. Only then the best lubricant system can be selected. Experienced LUBRITECH engineers will be glad to advise on products for the application in question and also on our full range of lubricants.



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