

FUCHS Special Applications

Specialty Lubricants for mobile telescopic cranes



MOVING YOUR WORLD

LUBRICANTS.
TECHNOLOGY.
PEOPLE.



FUCHS LUBRICANTS GERMANY

We do not just develop lubricants. We develop intelligent solutions for highly complex challenges.

To this end, we have pooled our expertise and experience from a wide range of application areas: FUCHS SCHMIERSTOFFE and FUCHS LUBRITECH became FUCHS LUBRICANTS GERMANY. Our goal: to keep our customers' world in motion. Efficient, sustainable, reliable. Today and tomorrow.

What can we move for you?

FUCHS LUBRICANTS GERMANY

Facts and figures

Company: FUCHS LUBRICANTS GERMANY GmbH,
a company of the FUCHS Group

Locations: Based in Mannheim, with sites in
Bremen, Dohna, Hamburg, Kaiserslautern, Kiel and Wedel;
approx. 1,400 employees

Product range: A full range of more than 3,000 products
for all application areas

Certifications i. a.: ISO 9001, IATF 16949, ISO 14001,
ISO 45001, ISO 50001, ISO 21469, HALAL, KOSHER
(detailed certifications at www.fuchs.com/de/en)

CO₂ neutral production*

Since 1931, we have been pursuing the same goal: to keep the world moving. With innovative and technological lubricant solutions that have a sustainable impact on the future. Unconditional reliability is our top priority, it is the foundation of our company and basis for everything that defines us.

Reliability is both a driver and a demand. And it's a promise to all our customers in the fields of automotive suppliers and OEMs, mechanical engineering, metal processing, mining and exploration, aerospace, energy, construction and transport, agriculture and forestry, as well as the paper, steel, metal, cement, forging and food industries, but also qualified lubricant dealers, car dealerships and workshops.

Long-term experience, high development strength and the fulfillment of far-reaching standards are the basis for the special quality of our world-leading product brands. We deliver solutions that are simply more efficient and therefore more sustainable. We always think in holistic solutions. For the development of individual solutions, we enter into an intensive customer dialog with you. This is the way we live up to our claim of moving your world.

MOVING YOUR WORLD

*Partially also based on compensation

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 LUBRICANTS GERMANY 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



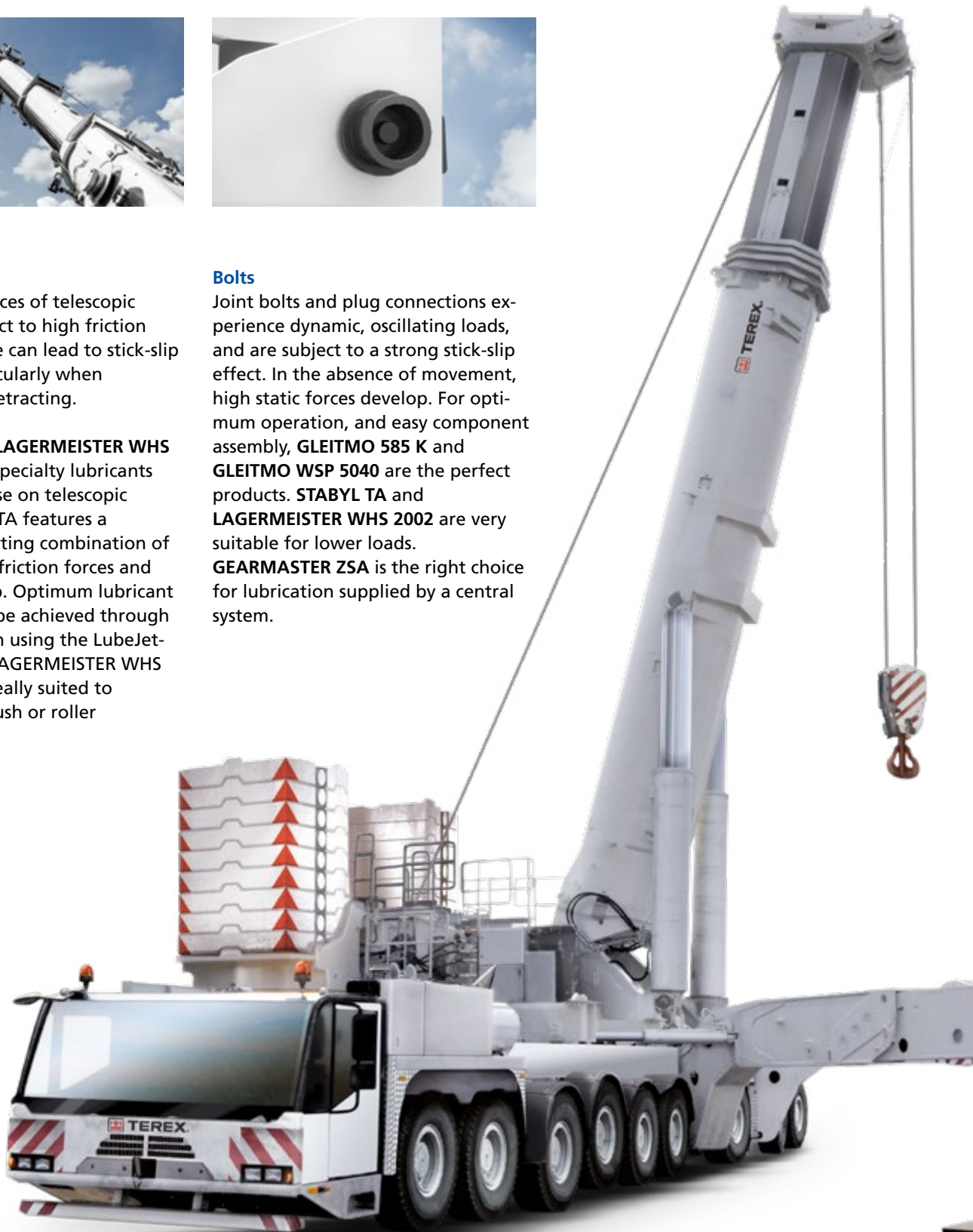
Telescopic boom

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.

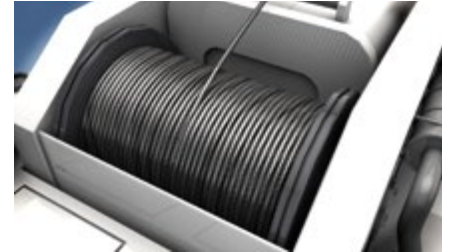


Revolving joints

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. Wire 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/de

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 FUCHS 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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