Reduce maintenance costs for off-shore cranes

With SKF and Lincoln automatic lubrication systems

Vibration, high mechanical loads, contamination and moisture are all threats to bearing service life. Like any mechanical system, slewing rings and bearings in deck cranes and pulleys on cantilever arms require proper lubrication to function optimally.

Reliable lubrication of difficult-to-access points

SKF and Lincoln automatic lubrication systems deliver the exact quantity of the appropriate lubricant to the right place at the right time while the equipment is running – without downtime. Automatic lubrication systems are able to pump long distances within a wide temperature range and can reliably service difficult-to-access points.

A Lincoln Lubrication Pinion LP2 is mounted directly at the slewing ring of a vessel crane to provide the lubricant directly to the tooth flange.

Prevent unscheduled downtime

Precise automatic lubrication provides a significant benefit for operators. Reliably delivering lubricant from a central source to all of the connected friction points, automatic lubrication systems help prevent bearing damage and unscheduled machine downtime, while optimizing manpower resources.

Minimize the risk of accidents

When an automatic lubrication system is installed, it will function virtually maintenance free, reducing total cost of operation. Also, reducing manual lubrication results in fewer potential accidents, and crew members can be utilized for other tasks.

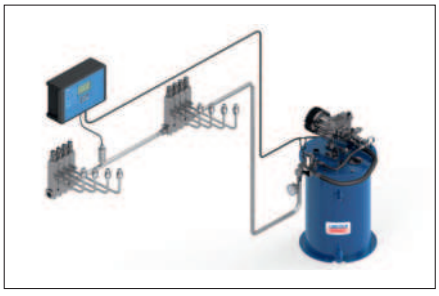
Reduce operating costs

Automatic lubrication can reduce lubricant consumption significantly and is much cleaner than manual lubrication, resulting in less lubricant to affect the environment.

A complete portfolio of lubrication solutions

SKF offers a complete product portfolio of the industry's most advanced automatic lubrication systems. Drawing upon their comprehensive knowledge of tribology and industrial demands, our engineers and technicians have developed highly efficient lubrication systems for marine applications.

SKF also can assist you in optimizing lubrication settings and intervals and in developing a customized lubrication programme.



Single-line lubrication systems

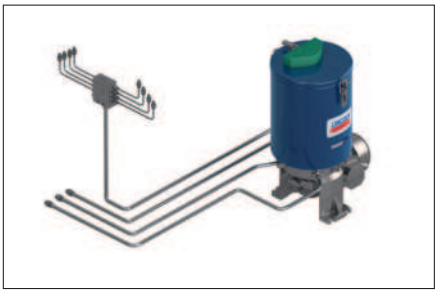
In SKF MonoFlex and Lincoln Centro-Matic single-line lubrication systems, a pump feeds the lubricant via the main line to the lubricant metering devices, where it is metered and fed to the lubrication points. The individual lubricant requirements for each lubrication point can be adjusted.

Advantages:

- Cost-effective
- Easy to understand, install and maintain
- Simple to adjust and expand
- Lubricates small and large bearings at the same time

Applications:

- Slewing bearings
- Pulleys on cantilever arm



Progressive and multi-line lubrication systems

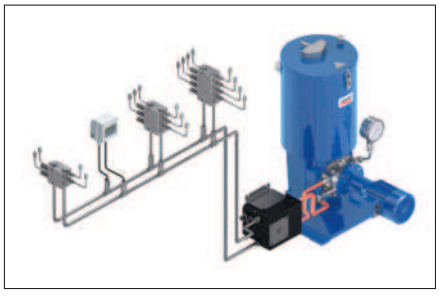
In SKF ProFlex and MultiFlex or Lincoln Quicklub progressive automatic lubrication systems, a piston pump supplies a defined amount of lubricant through the main line to the metering device that serves each outlet.

Advantages:

- Delivers frequent and measured amounts of grease to each lubrication point – preset lubrication volumes keep field adjustments to a minimum
- Cost effective for smaller lubrication systems
- Easy system monitoring and simple blockage control

Applications:

- Slewing rings
- Slewing bearings
- Pulleys on cantilever arms



Dual-line lubrication systems

SKF dual-line systems, including SKF DuoFlex and Lincoln Helios, utilize two main lines that are supplied alternately with lubricant. These systems are ideal for applications with many lubrication points over long distances in harsh environmental conditions.

Advantages:

- Very reliable when using high-viscosity greases
- Flexibility in adjusting metered quantity
- Parallel metering device setup enables simple system design
- Easy to monitor

Applications:

- Slewing rings
- Slewing bearings
- Pulley on cantilever arms

Comprehensive range of lubrication components

No matter which lubrication system best suits the application, SKF offers a comprehensive range of quality lubrication pumps, metering devices, control and monitoring units and all necessary accessories. Individual components are coated for protection against corrosion (C5 M) and combined with stainless steel components for long life. Also, explosion-approved and class-certified components are available upon request.

Most products are available for explosion group IIC/IIIC (flammable vapors and gases) and equipment protection level (EPL) Gb/Db (see IEC / EN 60079-0).

Lubrication pumps

SKF's portfolio ranges from single-point, automatic lubricators to pump units with integrated grease reservoirs.

SKF offers mechanically, electrically, hydraulically and pneumatically driven pumps. All pump housings are weather-resistant, and saltwater-resistant versions are available. In addition, the pumps are suitable for oil and standard greases up to and including NLGI Grade 3, as well as for use in low working temperatures.

Criteria, such as ambient conditions, required delivery rates, lubricants employed and service intervals, determine which lubrication pump should be selected. Pumps are available with various control and monitoring options.

Lubricant metering devices

Different lubrication systems require different metering devices. All SKF and Lincoln lubricant metering devices are high-precision components, available in special materials for various climates. Several designs are suitable for high-pressure applications, and system operation can be verified easily through electronic or visual monitoring.

Lubrication pinions

SKF lubrication pinions lubricate the tooth flanks of open gears, such as large slewing bearings. The rolling motion of this device continuously applies 100% lubricant film coverage to the tooth flank, thus reducing wear and simultaneously providing corrosion protection to the gear drive.

Wire rope lubricator systems

Wire rope lubricators clasp the rope and penetrate it directly with grease. Also, air-operated barrel pumps are available to handle special rope lubricant with high MoS2 or graphite content.

See further publications available on skf.com/lubrication

→ **PUB LS/S2 14673 EN**
Lubrication solutions for the marine industry

→ **PUB LS/P2 16063 EN**
Wire rope lubrication system

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