




Increase productivity

with SKF and Lincoln automatic lubrication systems



The Power of Knowledge Engineering



The global network of SKF's Lubrication Business Unit, including its lubrication distributors, provides customers with the local support they need anywhere in the world.

Typically, customers are no more than one hour away from assistance.



SKF and Lincoln have joined forces to provide the world's most complete portfolio of lubrication solutions, from manual lubricators to the most advanced centralized and automatic lubrication systems on the market. Together, we provide a full range of lubrication tools and expert services, from turnkey installation and set-up to testing and training.

Drawing on more than 200 years of combined friction management experience, we can help you improve machine reliability, reduce maintenance costs, improve productivity, enhance safety and optimize manpower resources.

Two leading brands. One global resource.

Combined knowledge of applications and products



Unmatched experience

With the combination of SKF and Lincoln portfolios, you now can draw upon more than 200 years of lubrication knowledge and experience to provide the right solution for your application.

For decades, construction equipment owners have utilized our lubrication solutions to increase productivity, improve equipment life and maximize the return on their investment.

One resource for superior lubrication systems

Representing both brands, your local system house distributor maintains a comprehensive product offering and can help determine the best solution to meet your needs.

Best-in-class lubrication services

With SKF, you receive global support on a local basis, including installation, repair and available inventory. Our industry-leading distribution network is capable of providing assistance whenever or wherever needed.

Our knowledgeable market specialists can help you address issues such as life cycle management and environmental concerns, as well as service contracts and equipment monitoring.



SKF and Lincoln – A powerful formula for reliability:

- **Superior product innovation:**
The broadest and most advanced lubrication offering in the industry
- **Unequaled global support:**
Two teams of lubrication experts join forces
- **World-class installation support:**
The combined expertise to install the right solution

To explore our solutions, visit skf.com/TheFormula

Pins and bushings fail without proper lubrication

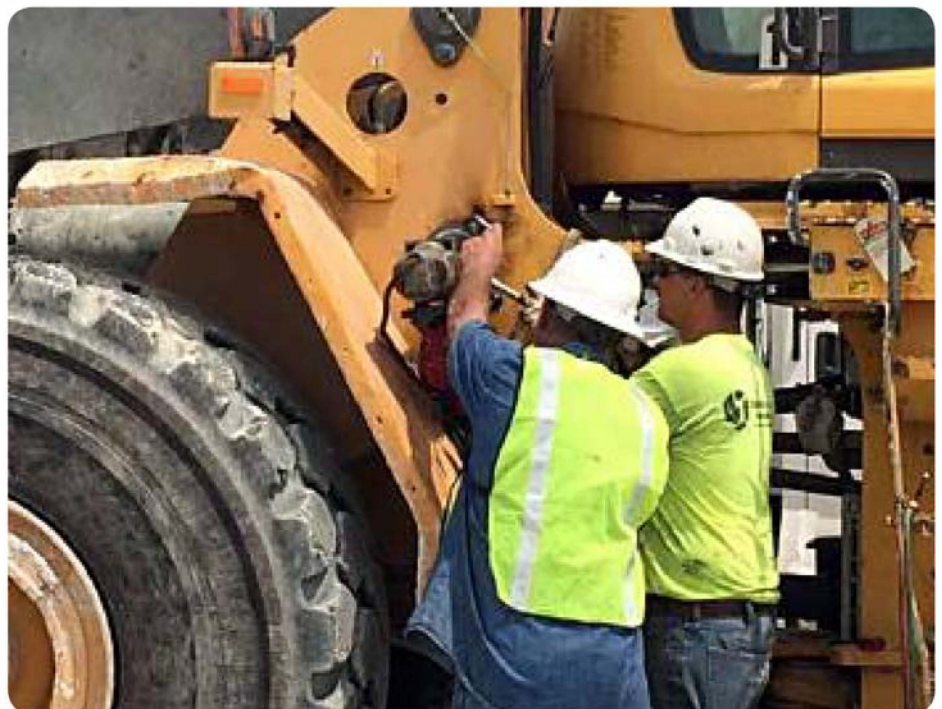
Manual lubrication is rarely done properly and takes at least 30 minutes per shift, per machine.



The cost of improper manual lubrication:

- Lost production due to unexpected breakdowns
- Increased spending for replacement components
- Lower resale value for used equipment
- Increased possibility for worker injury while manually lubricating equipment
- Wasted lubricant from improper lubrication
- Environmental issues resulting from over lubrication

Failure to lubricate every lubrication point, on every machine, every shift, can have a negative effect on schedules, maintenance costs and "on-time" performance. When rock dust, dirt, sand and water are allowed to work their way into components, a "grinding compound" forms that can reduce bearing life substantially. This causes unplanned downtime and reduced productivity.



Maximize productivity with proper lubrication

Automatic lubrication dispenses frequent, small amounts of lubricant while the equipment is operating

Benefits from automatic lubrication:

- Gain at least 30 minutes per shift, per machine
- Improve production with more uptime
- Reduce replacement part costs when equipment is properly lubricated
- Improve resale value when lube system is on board
- Reduce potential for worker injury
- Minimize lubricant costs
- Reduce environmental concerns through controlled lubrication



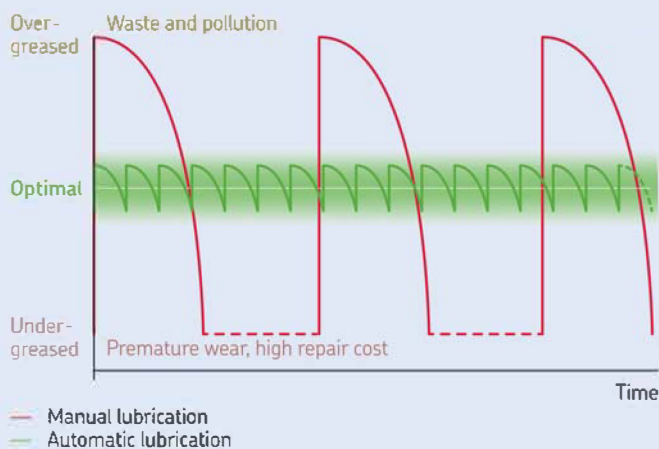
Automatic lubrication systems supply the correct amount of grease at the best time to lubricate – while the bearing is in motion. Frequent lubrication maintains the proper lubricant film to reduce wear, as well as purges the pins and bushings of contaminants.

Consider your current costs for manual lubrication:

- Production value per hour?
- Number of lubrication-related repairs?
- Number of lost production hours?
- Average parts cost per repair?
- Average man hours per repair?
- Average man-hour cost?
- Service truck trip charge?
- Lubrication frequency per week?
- Time required to lubricate?
- Equipment resale value?
- Fleet utilization rate?

Maximize production, reduce life cycle costs, optimize equipment utilization and enhance resale value with automatic lubrication.

Automatic vs. manual lubrication



Experience in a wide range of applications

SKF offers a complete selection of high-performance lubrication systems for construction equipment, which are tailored to the customer's specific requirements. We also can provide support by monitoring machine component and sub system health, as well as the lubrication system. Many original equipment manufacturers (OEMs) offer SKF and Lincoln lubrication systems as factory-installed options.



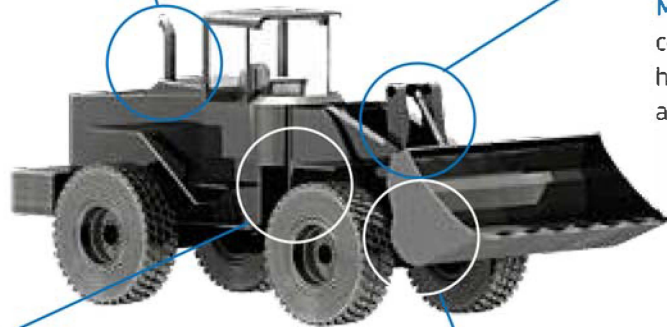
Dash mounted controls
from simplistic to sophisticated



Customized pump mounting
for ease of monitoring and refilling



Metering devices
correctly positioned out of harm's way and properly anchored to stay that way



Center pivot area
requires proper grease line arrangement to accommodate oscillation



High impact areas
where most of the grease is used and system is heavily guarded



Solutions for any environment

Whether it involves heavy articulation, long reach, demolition, sand, water, rock or dirt, SKF has a lubrication solution for the job at hand.



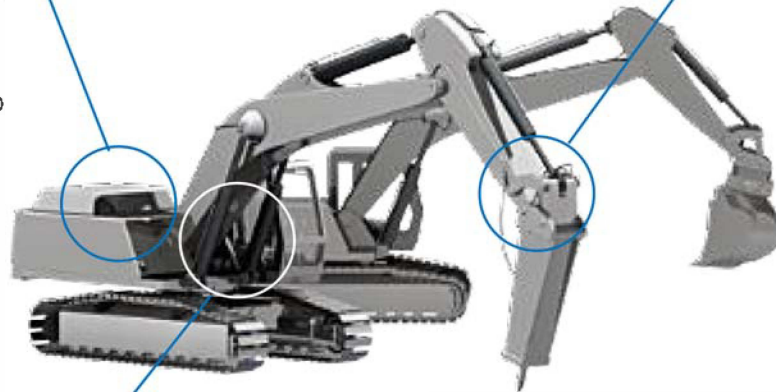
Nose and H-Link

require the most lubricant; experienced installers determine appropriate guarding to provide maximum durability



Pump location

visible, out of way; with a variety of reservoir sizes to match service intervals



Installation

performed by knowledgeable technicians for system efficiency and quality



Hydraulic attachments

minimize wear with SKF and Lincoln hydraulically driven pumps

Other mobile applications

The SKF and Lincoln network of qualified distributors has experience installing systems on many types of mobile construction equipment.



Other common applications include:

- Haul trucks
- Graders
- Scrapers
- Dozers
- Drills (horizontal and vertical)
- Backhoes
- Tool carriers
- Skid steers
- Planers, profilers, reclaimers
- Cold recyclers
- Soil stabilizers
- Telebelts
- Compactors
- Mixer trucks
- Boom pumps
- Pavers
- Hammers
- Pulverizers
- Shears
- Grapples



Plant and maintenance garages

In addition to mobile applications, SKF offers lubrication solutions for stationary processing equipment and maintenance garages.

Plant equipment

Stationary processing equipment, such as loaders, crushers, conveyors, control stations, air track drillers, rotary kilns, bucket elevators, pedestal breakers and shaker screens, must be lubricated regularly to run reliably and efficiently. Unplanned downtime of this equipment can be costly in terms of replacement parts, as well as in lost productivity. SKF- and Lincoln-branded lubrication solutions can help to optimize plant operations.



Complete in-shop and truck maintenance equipment

Whether used for pumping and dispensing or tracking the use of fluids, oils and greases, SKF offers dependable solutions for in-shop vehicle maintenance applications.

In addition, our SKF network of distributors has the expertise to help build and maintain the finest lubrication vehicles in the industry.



Continuous lubrication with customized progressive systems



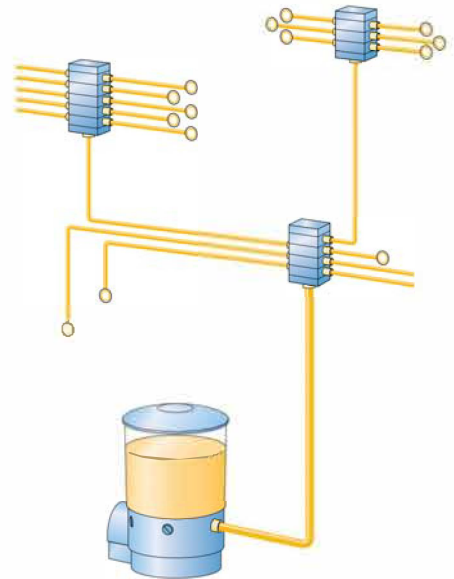
In progressive automatic lubrication systems, a piston pump supplies a defined amount of lubricant through the main line to the metering device that serves each outlet. SKF ProFlex and Lincoln Quickclub systems are designed for specific applications and can be configured to meet the unique lubrication requirements of every lubrication point on the equipment.

Advantages:

- Continuous delivery of lubricant during pump running time
- Easy system monitoring
- Datalogger models track pump performance and notify operator if system requires service

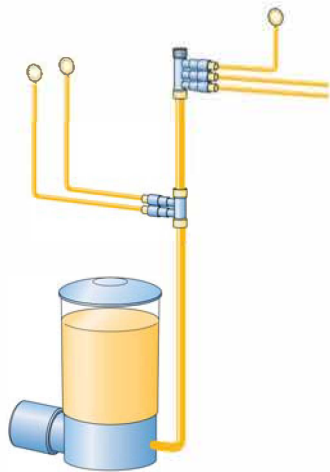
Features:

- Reservoir capacity: 2–20 litres (4,4–44 lbs)
- Pressures: up to 350 bar (5 000 psi)
- Drive: 12 / 24 V DC
- Internal or external controllers
- Grease or oil



Scalable, single-line lubrication systems for large equipment

In 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.

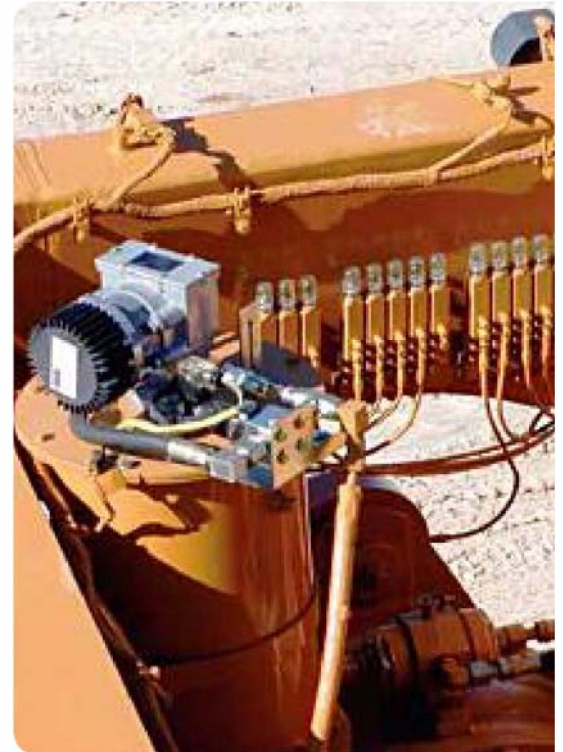


Advantages:

- Can be used at high pressure
- Easy to modify and expand: Modularity allows the system to be changed quickly without disconnecting pipes and hoses
- Modular concept provides low-cost replacement of components

Features:

- Reservoir capacity: 1–180 litres (2,2–400 lbs)
- Pressures: 200–300 bar (2 900–4 350 psi)
- Drive: 12 / 24 V DC or hydraulic
- Internal or external controllers
- Grease or oil



Complete in-shop maintenance equipment

Our comprehensive line of performance proven pumps, hose reels, dispense valves, grease guns and fluid inventory control systems offer everything needed to build a fully functional lubrication station.

Advantages:

- Complete offering from storage tank to dispense points
- Ability to design systems for any length of run, lubricant/ fluid, temperature and flow rate
- Fluid inventory control systems accurately track lubricant dispensing

Features:

- Proven pump designs for any type of container and lubricant
- Provide range of hose reels with varying lengths and diameters
- Complete offering of metered and non-metered dispense valves for all weather conditions, including temperature and moisture
- Complete used fluid handling offering, including portable drains and pump-operated systems



State-of-the-art lubrication trucks

Many contractors rely on the services of a good lubrication truck to maintain equipment in the field. These trucks feature on-board pumps, reels, dispense valves and accessories that enable quick, on-site equipment lubrication.

Advantages:

- Proven installations withstand rough, off-road driving and severe weather conditions
- Flexibility provided by range of products and features

Features:

- Heavy-duty reels with narrow footprints endure flexing and vibration
- Family of metered and non-metered dispense valves designed for high flows
- Option of using hydraulically or air-operated pumps



Power when no automatic lubrication is available

Lincoln's offering of manual lubrication tools is designed with power and performance in mind.

Advantages:

- Most extensive offering of hand-operated lubrication tools
- Provide easy, point-by-point lubrication

Features:

- Lincoln's PowerLuber family provides a wide range of pressure and volumes



Global experience, global support, local installation

More than 200 years of combined SKF and Lincoln experience

By uniting the worldwide experience, portfolios and distribution networks of the SKF and Lincoln brands, we offer the industry's most complete range of lubrication management solutions across the globe.

Whatever the size or design of your machines, SKF has the products and resources to help you increase bearing life, machine uptime and safety, while minimizing manpower hours, maintenance costs and environmental impact.

A network of experienced partners

SKF- and Lincoln-branded products, systems and services are available through a global network of distributor partners, supported by one unified sales organization committed to your success. System house distributors around the world offer turnkey solutions and extensive aftermarket support.



Retrofitting lubrication systems

- On-site, professional retrofitting of centralized lubrication systems at your location
- Custom design and installation of systems on most pieces of equipment

Service and repair

- On-site installation, service and maintenance contracts
- Training for operators and maintenance personnel

Turnkey engineering

- Working together with customers to develop tailor-made lubrication solutions to meet specific needs
- 3D CAD data are available in native format in the online product catalogue
- SKF LubCAD app for mobile devices
- Investment in research and development, resulting in numerous patents



Here for you, wherever you are

With lubrication application centres located on every continent and a worldwide distributor network, SKF has the people, products and support you need to optimize your lubrication management programme.

For more information, contact your SKF representative or visit skf.com/TheFormula.

- Customized lubrication system design
- System installation and start up
- Service and repair
- Lubrication analysis and testing
- Lubrication management training
- Warranty support
- System maintenance contracts
- Surveys and recommendations
- Return-on-investment (ROI) analysis
- Guidance on safety and environmental issues
- Pre-assembled lubrication kits for easy retrofitting
- Local inventory of system components and spare parts
- Procurement logistics and synchronized production



Global availability

- Worldwide distributor network
- Comprised network of experienced partners



The Power of Knowledge Engineering

Combining products, people, and application-specific knowledge, SKF delivers innovative solutions to equipment manufacturers and production facilities in every major industry worldwide. Having expertise in multiple competence areas supports SKF Life Cycle Management, a proven approach to improving equipment reliability, optimizing operational and energy efficiency and reducing total cost of ownership.

These competence areas include bearings and units, seals, lubrication systems, mechatronics, and a wide range of services, from 3-D computer modelling to cloud-based condition monitoring and asset management services.

SKF's global footprint provides SKF customers with uniform quality standards and worldwide product availability. Our local presence provides direct access to the experience, knowledge and ingenuity of SKF people.

© SKF is a registered trademark of the SKF Group

© Lincoln, Centro-Matic, PowerLuber and Quicklub are registered trademarks of Lincoln Industrial Corp.

™ ProFlex is a trademark of the SKF Group

© SKF Group 2014

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

PUB LS/S2 14482 EN · December 2014

This publication supersedes publications PUB LS/P2 10705 EN (1-8057-EN), PUB LS/P2 13531 EN (442989) and PUB LS/S2 12801 EN (FORM W-188-EN-0412)

Certain image(s) used under license from Shutterstock.com

