

**LINCOLN**

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# Capabilities

INFORMATION FROM THE LEADER IN THE LUBRICATION INDUSTRY

## Solutions for Commercial Vehicle Applications

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# When the Going Gets Tough . . .

Municipalities, fleet operations and transportation companies are constantly under pressure to save money, increase productivity and make every investment in commercial vehicles last longer. Since tight schedules, demanding customers and Mother Nature never seem to make things easier, operations managers have to find ways to lower costs and improve efficiencies through better vehicle maintenance practices.

Commercial vehicles operate in punishing environments that contribute to extreme wear and tear on moving parts—constant exposure to rain, dust, dirt, salt and snow; heavy loads; and long intervals between scheduled maintenance events. As a result, frequent breakdowns can occur.

## You Need Effective Lubrication

Proper, consistent lubrication can help eliminate these problems. Just a small amount of grease is needed to protect wear surfaces and prevent damage.

- Well-maintained vehicles meet deadlines and have fewer breakdowns
- Workers use less grease, which cuts cost and protects the environment
- Productivity, profitability and reliability are increased
- Safety practices are improved
- Reduced repairs allow workers to concentrate on vital fleet operations
- Vehicles incur fewer costs for repairs and spare parts
- Vehicles have a longer life

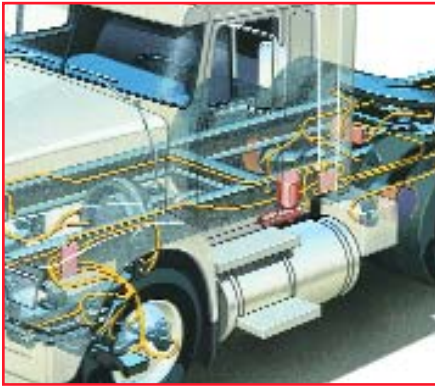
## The Lincoln Advantage

Lincoln has been inventing and improving lubrication practices for all types of vehicles since 1910. The company has been awarded more U.S. patents for lubrication equipment than all other competitors combined. With so many innovations in vehicle lubrication, and a worldwide network of knowledgeable distributors, mechanics trust Lincoln quality and service.

As the world leader in the lubrication industry, Lincoln provides numerous options. Lincoln designs and manufactures everything you need—from automated lubrication systems to a full line of manual lubrication tools and equipment.



# It's Your Choice: 3 Lubrication Options



## **Automated Lubrication: Feeds All Points on a Vehicle while it's Operating**

Lincoln automated lubrication systems combine an integrated pump/controller, unique one-piece metering valves, supply lines and fittings. The system delivers grease in small, precise amounts at regular intervals. Vital chassis components are lubricated while the vehicle is operating—when all the surfaces that bear the load are continuously being exposed. As a result, grease can penetrate the entire wear surface while purging contaminants. Our automated lubrication systems can increase vehicle service intervals to 30,000 miles. Several major U.S. freight carriers have experienced a 200 to 500 percent increase in chassis component life because they're using Lincoln automated lubrication systems.



## **Centralized Lubrication: Feeds Multiple Components from a Single Point**

Centralized lubrication is very efficient and economical. The operator or mechanic uses a grease gun and applies lubricant to a conveniently placed central divider valve that feeds grease directly to the chassis components—without having to climb on or under equipment. These single point systems save time, ensure all points are lubricated and improve safety practices.



## **Manual Lubrication: Performed Point-by-Point**

Manual lubrication defines the process of lubricating equipment one component at a time using a grease gun. Usually performed during routine maintenance in the shop, the process can take 30 minutes to an hour to lubricate every point on a vehicle. Manual lubrication can be effective if performed on a regular basis as part of an overall in-shop maintenance program. However, the goal to increase service intervals to 30,000 miles often cannot be achieved using this approach.

## **Is It Time To Change Your Lubrication Practices?**

The decision to change from the traditional point-by-point manual lubrication approach to a centralized, single-point system or an automated system will be based on several factors. If you are planning to extend service intervals you'll need to consider automated systems. If you are currently experiencing high costs for labor and replacement parts due to lubrication related failures, you can save money by upgrading your approach. If you want to improve the efficiency of your maintenance shop, centralized and automated systems will free your mechanics to complete more critical assignments.

In the pages that follow, we will review applications and the options available to improve your approach to vehicle lubrication. If your circumstances warrant a change in your practices, we think you'll find we offer the very best lubrication technology in the business. If you choose to stay with your in-shop lubrication program, Lincoln will be happy to continue supporting your efforts with the pumps, reels, and controls you'll need to keep doing the work safely and efficiently.

# On-Road Applications

## Why Should You Install a Lincoln Automated System?

Our systems can have a positive impact on service and component costs as well as increase the length of the service life of your vehicles. They also reduce overall time required to perform regular maintenance by as much as one third. Listed below is a range of applications.

### Military Vehicles

The system protects chassis components and body lubrication points on equipment often used in harsh off-road conditions. When the government was looking for ways to improve their efficiency and use commercial technology, Lincoln was the system of choice.



### Over-the-Road Tractors and Trailers

For tractors, the system protects key chassis lubrication points while equipment is in use, extending service intervals and extending component life. Use of standard grease protects wear on fifth-wheel faceplate and pins. For trailers, two options are available—a centralized system or a unique automated system.



### Garbage/Refuse Trucks

The system guards high-use points found on rear-, side- and front-loader bodies and chassis lubrication points. It protects during daily operation with constant vehicle stops and starts. It also protects during exposure to off-road conditions when working in landfills.

It eliminates manual lubrication by maintenance personnel that exposes them to potential germ-ridden conditions.



## Concrete Trucks: Mixers & Pumps

The system protects critical bearings on the piston-pumping mechanism and on the drum rollers. It increases uptime and keeps bearings well lubricated in a corrosive environment. It can also be expanded to cover the chassis lubrication points.



## Busses

Serving this massive market, the system covers key chassis points that are often difficult to access on over-the-road buses. It protects during frequent turns, stops and starts.



## Class #3-7 Trucks

The system protects the chassis against wear caused by constant stops and starts during pickup and delivery operations. Because these trucks are usually part of a huge fleet that works to meet tight deadlines, the system promotes uptime and reliable performance.



## Street Sweepers

These vehicles require a complex system covering more than 50 lubrication points. These points are often difficult to access and are subjected to a dirty, wet environment. It also protects during frequent turns, stops and starts. Lincoln has just the lubrication system to stand up to these harsh environments.



## Fire Trucks

The system protects chassis and aerial (ladder extension) points on these critical emergency vehicles that are exposed to wet environments and heavy loads.



# Choose What's Right For You



## Quicklub® Automated Lubrication

Lincoln's Quicklub system gives you the ability to supply a precise amount of grease to each and every wear point on your equipment while it's operating. The heart of the system is the rugged, one-piece Quicklub SSV divider valve. This valve, utilizing unique internal pistons, "divides" the grease and sends the appropriate amount to each lubrication point.

As a system is designed for a specific application, multiple valves are used, each one configured to meet the unique lubrication requirements of every lubrication point on the vehicle. The electric pump that powers the system is programmed to activate at regular intervals while the equipment is on the road and on the job.

## Quicklub® 203 Electric Pump

Our best seller, the 203 pump, is perfect for most over-the-road applications. Top equipment manufacturers feature the Quicklub 203 pump as part of automated lubrication systems they offer as standard equipment, factory-fit option or as aftermarket options available through their dealer networks.



Lincoln's Quicklub 203 Electric Pump comes standard with an integrated timer.

Some of the features include:

- Large, clear reservoir with available capacities of 2, 4 or 8 liters
- Vibration- and shock-resistant
- Unique, lightweight synthetic housing
- Integrated timer with manual override
- Ability to pump industry-preferred standard NLGI #2 chassis grease
- Low-level monitored
- Data logger available to download system information to a laptop computer or palm device via an infrared interface.



## Quicklub® QLS 301

If you require a system for vehicles with fewer lubrication points, the QLS 301 is for you. A complete system, QLS 301 comes pre-assembled with a pump, integrated controls and a metering valve. Complete and ready to go "out of the box," the fully automatic QLS 301 can supply up to 18 lubrication points with NLGI #2 grease. QLS 301 can handle temperatures between -25°C and +70°C and stands up to the rough environment of commercial vehicles.

With a built-in safety valve, overfill protection, blocked-line detection, low-level detection and much more, the QLS 301 is a great value anyone can afford.



## #2 Is #1: All Grease Is Not Created Equal

Here are the benefits of using NLGI #2 grease versus fluid greases:

- Impervious to washdowns
- Maintains grease seal
- Does not drip—higher viscosity
- Does not require unique filling system—no need to stock special fluid greases (0, 00 or 000)

### Quicklub® QLS 321 Trailer Lubrication System

Accurate lubrication without the need for continuous power—that's what over-the-road trailers need. That's exactly what Lincoln's QLS 321 supplies. With a unique controller card that keeps track of the time a trailer is in use by monitoring its vibration, the QLS 321 delivers lubricant when it's needed—by using the power of the trailer's brake lights.



Because it doesn't need power to monitor the time between lubrication events, the QLS 321 is ready when its controller card says, "go." And the QLS 321 keeps lubricating each time the trailer's brakes are applied until its controller card adds up the "on times" and determines that the pre-set time for a complete lubrication cycle has been reached. It comes in 12 and 24 VDC versions, handling 6, 12 or 18 outlets.

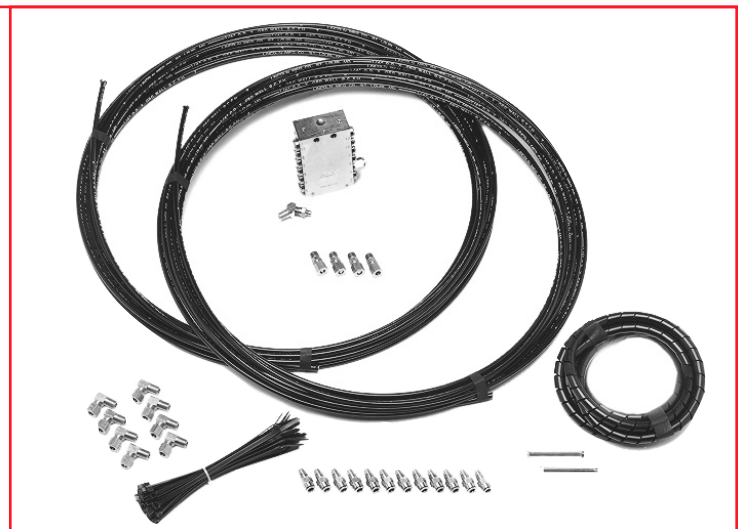


The QLS 321 is easy to install. With the optional installation kit you have everything you need to install the system—out of the box.

### Centralized Lubrication

Our single-point kit ensures quick and proper maintenance on trailers, and tractors. The results are dramatic: It reduces lubrication time by more than 90 percent and extends the life of chassis components because there are no missed fittings.

The sealed system reduces risk of contamination and safety hazards are virtually eliminated. The system works by installing an easily accessible primary divider valve on your vehicle. Lines are run from the valve to the various lubrication points. Using a power operated or manual grease gun you hit one fitting on the top of the divider valve and grease is distributed to all of the lubrication points on your vehicle. There is an indicator pin on the valve to detect blocked or plugged components anywhere on the vehicle and to show complete cycles of the valve.



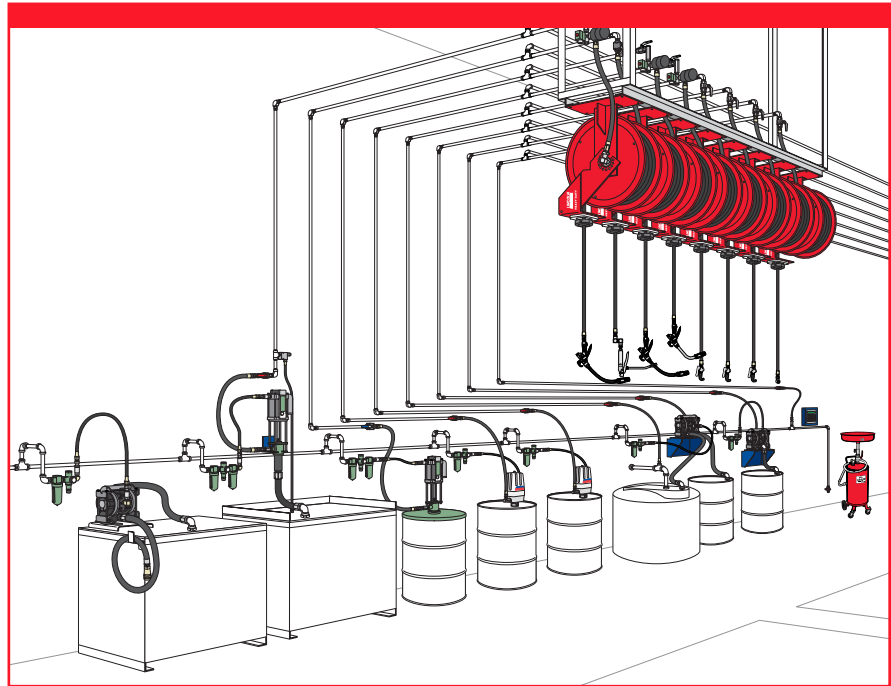
**Remember. . .** Series 203 Pump, QLS 301 and QLS 321 are all designed to pump and meter standard NLGI #2 chassis grease specified by major OEMs. They all handle temperatures from -13°F to +158°F.

# In-Shop Vehicle Maintenance

When designing or updating your shop, our comprehensive line of performance-proven pumps, hose reels, controllers, grease guns and lubrication accessories offers you everything you need to build a fully equipped lube station.

## Pumps

We offer a wide range of medium- and high-pressure pumps used for pumping grease, oil, antifreeze, windshield washer fluid and other vital materials used to maintain your fleet. Choose from air-operated Series 20, 25 or 40 and PowerMaster® reciprocating pumps, diaphragm and transfer pumps, bulk oil systems and all the installation accessories to do the job right.



## Hose Reels

Decades of experience and engineering refinement mean better performance. Our Standard, Heavy-Duty Series and High Flow units are ideal for service and fleet applications. You can get everything you need, from decorative cabinets to complete lubrication and fluid-dispensing stations plus mounting gear and other accessories.

## Control Systems and Accessories

Lincoln offers the very best selection of control meters and accessories for every type of fluid and application. In addition, we can help you manage your fluids with a choice of three inventory control systems to meet your specific needs. Options include an enhanced PC interface package, a totally wireless communication system, and an entry level system.

### Your System, from Design through Maintenance

Lincoln's worldwide network of full-service distributors can design a system that's right for your fleet operation. They know how to correctly match the system components to your applications and conditions. Their knowledgeable technicians can also install the system or work with your personnel to make sure the job is done correctly. After installation, you can count on these professionals to help you choose the maintenance option that ensures your system's optimum function, safety and long service life.

Each distributor stocks a full inventory of pumps, metering devices, controllers, monitors and accessories. Each continues to meet our stringent requirements for product, systems and service knowledge.

### Capabilities

contains product information for Lincoln customers.

Please direct ideas, comments or questions to:

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