



BULLETIN

Date	Bulletin
2/22/2013	142

Item	Description	Qty	Rate	Total
LE 3750-0035LBS	LE 3750 ALMAGUARD NLGI 0 35 LBS	0	0.00	0.00T
LE 3750-0120LBS	LE 3750 ALMAGUARD NLGI 0 120 LBS	0	0.00	0.00T
LE 3750-0420LBS	LE 3750 ALMAGUARD NLGI 0 420 LBS	0	0.00	0.00T
LE 3750-2800LBS	LE 3750 ALMAGUARD NLGI 0 2,800 LBS	0	0.00	0.00T
LE 3751-0035LBS	LE 3751 ALMAGUARD NLGI 1 35 LBS	0	0.00	0.00T
LE 3751-0040TBS	LE 3751 ALMAGUARD NLGI 1 CASE OF 40 TUBES 14.5 OZ TUBES	0	0.00	0.00T
LE 3751-0120LBS	LE 3751 ALMAGUARD NLGI 1 120 LBS	0	0.00	0.00T
LE 3751-0420LBS	LE 3751 ALMAGUARD NLGI 1 420 LBS	0	0.00	0.00T
LE 3751-2800LBS	LE 3751 ALMAGUARD NLGI 1 2,800 LBS	0	0.00	0.00T
LE 3752-0035LBS	LE 3752 ALMAGUARD NLGI 2 35 LBS	0	0.00	0.00T
LE 3752-0040TBS	LE 3752 ALMAGUARD NLGI 2 CASE OF 40 TUBES 14.5 OZ TUBES	0	0.00	0.00T
LE 3752-0120LBS	LE 3752 ALMAGUARD NLGI 2 120 LBS	0	0.00	0.00T
LE 3752-0420LBS	LE 3752 ALMAGUARD NLGI 2 420 LBS	0	0.00	0.00T
LE 3752-2800LBS	LE 3752 ALMAGUARD NLGI 2 2,800 LBS	0	0.00	0.00T
	Sales Tax OCT 2011 TO PRESENT		8.75%	0.00

IMPORTANT: Bulletins are date sensitive, these may be superseded by quotes, new bulletins, etc. Items may be discontinued for new models or without notice. See terms & conditions at our website. HOSE LINE 6060 San Fernando Rd Glendale CA 91202 USA www.HoseLine.Net Phone +1 818 547 3010 Fax +1 818 547 3339 Sales@HoseLine.Net

Product Information



Almagard® Vari-Purpose Lubricant (3752-3750)

Long-lasting Red Grease Stays Put & Runs Cool

Customers who rely upon Almagard Vari-Purpose Lubricant appreciate its cool-running, long-lasting, water-resistant performance. It dramatically lengthens grease intervals, eliminates bearing failures, can extend bearing life by up to threefold, and does not harden with age.

Recommended for extended service applications, Almagard is extremely tacky and will not wash off, pound out or melt and run, even in severe conditions. It is ideal for on-and off-road equipment where high impact occurs, as well as many in-plant applications.

Beneficial Qualities

Withstands Pressure & Reduces Wear

- Demonstrates superior extreme pressure characteristics
- Provides exceptional anti-wear protection
- Exhibits long-lasting mechanical stability, does not change consistency after being worked thousands of times
- Maintains a seal against outside contaminants throughout its lifetime
- Protects costly bearing surfaces – even bronze and alloy – from rust and corrosion

Stays Put

- Clings tenaciously to metal, resisting repeated impact

- Won't pound out or sling off
- Stays in contact zone, even in high-moisture environments
 - Won't wash out of bearings

Takes the Heat & the Cold

- Performs well in a broad temperature range
- Has a dropping point of up to 282°C (540°F)
- Resists oxidation and won't melt and run from bearings
- 3750 (NLGI Grade 0) offers reliable pumpability at temps as low as -29°C (-20°F)

Available Grades

- NLGI 2 (3752)
- NLGI 1 (3751)
- NLGI 0 (3750)



Proprietary Additives

LE's proprietary additives are used exclusively in LE lubricants. Almagard Vari-Purpose Lubricant contains Almasol and Quinplex.

Almasol® solid wear-reducing additive is able to withstand extremely heavy loads, chemical attack and temperatures up to 1,900°F (1,038°C). It is attracted to metal surfaces, forming a microscopic layer but not building on itself or affecting clearances. Almasol minimizes metal-to-metal contact and the resulting friction, heat and wear.

Quinplex® impact-resistant additive contributes to outstanding water resistance, tackiness and enhanced mechanical stability, and helps to form a barrier against corrosion.



Almagard® Vari-Purpose Lubricant

	<u>3752</u>	<u>3751</u>	<u>3750</u>
Thickener Type	Lithium Complex	Lithium Complex	Lithium Complex
Texture	Smooth w/Tack	Smooth w/Tack	Smooth w/Tack
Color	Red	Red	Red
NLGI Grade	2	1	0
Worked 60 Penetration ASTM D217	275	320	365
Dropping Point °C (°F), ASTM D2265	282 (540)	260 (500)	218 (425)
Base Fluid Characteristics			
Viscosity @ 100°C, cSt, ASTM D445	11.70	11.70	11.70
Viscosity @ 40°C, cSt, ASTM D445	144.0	144.0	144.0
Oxidation drop in psi @ 100 hrs, ASTM D942	5	5	5
Oxidation drop in psi @ 1,000 hrs, ASTM D942	30	—	—
Corrosion Prevention DI H ₂ O, ASTM D1743	Pass	Pass	Pass
Corrosion Prevention Sea H ₂ O, ASTM D5969	Pass	Pass	Pass
Timken OK Load lbs, ASTM D2509	70	70	70
Water Spray-off % Loss, ASTM D4049	8.6 typical / 20 max.	—	—

Performance Requirements Met or Exceeded

- 3752: Mack MG-C, Stord Rotadisc-Driers & Sweco-Vibro Equipment

Recommendations

- 3751 can be used in anti-friction bearings up to 6,000 rpm.
- 3752 can be used in anti-friction bearings up to 3,000 rpm.

Typical Applications

- Chassis
- Wheel bearings
- Front axle arrangements
- U-joints
- Bucket pins
- Bearings



Customer Testimonial



Almagard® Vari-Purpose Lubricant (3750)

Pittsfield Fire Department – Pittsfield, Mass.

Spring Hanger

- Eliminated spring hanger failure
- Saves \$9,000 per year on equipment repairs

Customer Profile

The Pittsfield Fire Department has been protecting the citizens of Pittsfield, Massachusetts for more than 110 years. Since receiving its first ladder truck in 1913, the Pittsfield Fire Department has grown to seven engines, two ladders and various other rescue equipment, housed in five fire stations operated by a highly trained, highly skilled emergency response crew of 92 people, including four civilians. Not only does the Pittsfield Fire Department fight fires, but it plays an active role in preventing fires, responding timely to prevent crisis situations, and saving lives. It has always been, and will always remain the mission of the Pittsfield Fire Department to protect lives and property while averting tragedy.

Application

Fire apparatus are designed and built for particular types of fires and emergency response. The designs take into account variable key factors such as fire load, fire department geographical terrain, vehicle ease of operation and much more. The design is also based on a standard truck chassis with heavy duty suspensions, brakes, tires, transmission and cooling systems.

Challenge

A common problem with fire engines and ladder trucks is spring hanger failure, partially due to the weight of the body exerted on the chassis components. Spring hanger failure is sometimes attributed to insufficient or inadequate component greasing. The cost to replace a single spring hanger can easily exceed \$2,000.

Prior to 2006, the Pittsfield Fire Department was experiencing, on average, a spring hanger failure every two years on every single pieces of equipment. The cause for failure was attributed to a combination of body weight on the chassis and insufficient lubrication. The failures caused the unavailability of the critical rescue equipment and produced costly repair bills for the



City of Pittsfield. A solution was needed that ensured proper lubrication of the fire apparatus chassis.

Solution

In 2006, David Piangerelli, LE Lubrication Consultant, contacted the Pittsfield Fire Department's Deputy Chief, Kenneth Spaniel, and offered a solution to reduce spring hanger failures and to increase the reliability of the fire engines and ladder trucks. Mr. Piangerelli recommended installing a Centralized Lubrication System on the Fire Apparatus as well as using Almagard® Vari-



Purpose Lubricant (3750). The centralized lubrication system delivers a metered, precise amount of Almagard 3750 to each lubrication point, whenever the vehicle is in motion.

Almagard 3750 is a multi-functional, extreme pressure lubricant for extended service under extreme conditions in on and off-road vehicles and in many plant applications. The lubricant is rust and corrosion inhibited. It was recommended because it is very tacky, it has excellent water resistance and does not pound out.

For this particular application, Mr. Piangerelli recommended installing a multi-line centralized lubrication system in which each lubrication point is serviced by its own individual feed line, via a dedicated pumping unit. A multi-line system ensure that an accidental line damage affects only one lubrication point and does not render the entire system inoperable.

Each centralized lubrication system is used to lubricate the entire Fire Apparatus chassis including:

- King pins
- Drag links
- Slack adjusters
- "S" cams
- Tie rods
- Spring pins
- Spring shackles

Results

Since installing the systems in 2006, the Pittsfield Fire Department has not experienced a single spring hanger failure and saved, to date, an estimated total of \$27,000, or \$9,000 per year, on equipment repairs. Most importantly, the department has the confidence the equipment will be available for use in an emergency.

Tom Scherben, the Pittsfield Fire Department master mechanic, states: "We used to purchase the cheapest lubricants we found, now with Almagard 3750 my front end parts and king pins last longer, the life of the spring hangers has been extended, and the old grease still looks red!" On using Oil Safe for vehicles lubricant transfer, Tom said, "Oil Safe



is practical and easy to use, most notably, the containers ensure the clean delivery of lubricants from the storage tanks to the vehicles."

Calculations

\$2,000 per spring hanger X 1 failures per truck every 2 years X 9 fire apparatus = \$ 18,000

$\$18,000 \div 2 \text{ years} = \$9,000 \text{ per year savings}$

$\$9,000 \text{ per year} \times 3 \text{ years} = \$27,000 \text{ total savings to date}$



Tom Scherben

Thank you to Kenneth Spaniel, deputy chief, Tom Scherben, master mechanic, and to Dave Piangerelli, LE lubrication consultant, for providing the information used in this report.



Dave Piangerelli

Almagard® is a registered trademark of Lubrication Engineers, Inc.

Based on actual user experience. Individual results may vary. Not intended to supersede manufacturer specifications.

CUSTOMER TESTIMONIAL

3751/3752 ALMAGARD® VARI-PURPOSE LUBRICANT

CAPE MAY COUNTY BRIDGE COMMISSION, Cape May, NJ

Open Gear Driven Drawbridges • SIC 9199 General Government

- * Customer for over 18 years
- * Extremely long lasting in service
- * Withstands ocean spray washout



CUSTOMER PROFILE

The Cape May County Bridge Commission is located in Cape May, New Jersey. They are responsible for the operation and maintenance of all the area drawbridges in Cape May County. These bridges service all of the local waterways in and around Cape May, Ocean City and the Wildwoods located in the southern most portion of New Jersey.

AREA OF INTEREST

The bridges were originally built between 1944 and 1948. They all operate with an open gearing system that raises and lowers the drawbridge. The open gearing system is lubricated with grease by

hand. The problem with regular greases is the salt-water washout and exposure to the harshest of environments. Standard greases that are exposed to the elements could not stay in place, and frequent greasing intervals had to be set to try and keep up with maintenance needs of the bridges.

LE SOLUTION

Phillip Elston, buyer for Cape May County, stated that a lot of greases were tried before the introduction of Lubrication Engineers products. After LE 3751 ALMAGARD Vari-Purpose Lubricant was introduced, Phillip and the rest of the bridge commission employees noticed that the grease was staying in place longer than any other product they had used before.

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CUSTOMER COST SAVINGS

When asked his opinion of Lubrication Engineers products, Phillip Elston stated the following, “18 years ago **when we made the switch to start using LE products, we were looking for a good product with good prices. We found this entirely with LE. Not only do they have good products at good prices, they also offer great service to me, and my staff. LE is a perfect fit for what my guys are doing. We have used LE products for so long, why would we change?**”

OTHER INFORMATION

Cape May County has decided to perform a winter/summer mix of LE ALMA-GARD Lubricants. LE 3751 for winter and LE 3752 for summer are used each year. One case of grease will last two full years and the entire bridge commission uses no other lubricants but LE.



Drawbridges in Cape May County, New Jersey

Lubrication Engineers, would like to thank Mr. Phillip Elston, Buyer for the Cape May County Bridge Commission, and Lubrication Consultant Jennifer Rybacki for compiling the data for this report.



Jennifer Rybacki

Customer Testimonial



Almagard® Vari-Purpose Lubricant (3751-3752)

Merritt's Gravel, Inc. – Chapel Hill, N.C.

Extec 2000 Screen Mobile

- Has not replaced any grease lubricated parts on Extec screen since new 10 years ago

Customer Profile

Merritt's Gravel, Inc. is a quarry and landfill. The owner, Tony Merritt, uses various heavy equipment to dig and load Chapel Hill Granite (a weathered granite rock that is only found in this area). The stone crushes easily and is used in various applications such as foundations on buildings, roads, driveways and golf courses. It makes an excellent foundation material and is very permeable to water. Several years ago, Tony started accepting construction waste such as soil, rock, concrete, brick, block, etc. Merritt's Gravel has been in business more than 43 years and an LE customer for more than 42 years. Tony uses every LE lubricant he can in his operation and personal vehicles. Tony's dad started using LE lubricants shortly after they opened. He was losing bearings on one of his machines. The local LE lubrication consultant at that time recommended an LE grease and the problem was fixed. They have been an LE customer ever since.

Application

Merritt's uses an Extec 2000 screen mobile to shake and screen out the larger pieces of stone.

Challenge

The screen is operated outside in the weather. The quarry is dusty and is of course subjected to the weather elements. Merritt's needed a grease that would stay in place, withstand the vibration of the equipment, and not wash out.

Solution and Results

Tony purchased the Extec screen mobile in 2000. Shortly after, the company representative came out to visit and



help with set up and any questions. Tony stated that, "the rep pulled out a grease that looked like Vaseline®. He told me I would have to use their grease if I wanted to keep the warranty." Tony told him, "If I have to take a chance on which grease to use, I will put my faith in my red grease (LE's Almagard® Vari-Purpose Lubricant 3751-3752)." That is exactly what he did. From day one, Tony has lubricated the Extec screen mobile with Almagard 3752 most of the year and Almagard 3751 during the



coldest part of the winter since it will pump better in cold weather. Tony has not replaced any lubricated parts on the Extec since he bought it over nine years ago.

Tony is very faithful in his use and support of LE products. He likes to tell of the time years ago when he accidentally ran out of LE grease. He went to the local distributor and told them he wanted the best grease they had for heavy equipment. He brought it back and used it in his equipment but it wouldn't hold up and ran out when it got hot. Needless to say, he makes sure he doesn't run out of LE grease anymore.

Tony has a simple philosophy about LE products. He says he can stop the wear on his equipment anywhere he can use LE lubricants. "I'm a lazy mechanic. I would rather pay a little more for LE, pour oil and pump grease, than turn wrenches and replace steel. It's a lot less expensive too."



Other Products Used

- Duolec® Vari-Purpose Gear Lubricant in gear oil applications (1605-1606)
- Wirelife™ Monolec® Penetrating Lubricant on all wire ropes (2001)
- Monolex® Penetrating Oil & Lubricant (2059)
- L-X® Heavy Duty Chemical Supplement (2300) as a fuel conditioner in gas motors
- BTU+ Diesel Fuel Improvers (2410-2420) in all diesel fuel
- Monolec® Power Fluid (7500) in transmissions and equipment with common reservoir for hydraulics, wet brakes, power steering, etc.
- Power Transmission Fluid (CAT T0-4) (7510)
- Power Transmission Fluid (7530) for CAT applications
- Monolec® GFS Engine Oil (8430) in large equipment diesel engines
- Monolec GFS Engine Oil (8450) in differential applications on CAT equipment
- Monolec Ultra® Engine Oil (8800) in other diesel and gas engine applications
- Oil Safe® containers to store and dispense lubricants

Thank you to Tony Merritt, owner, and to Jeff Boyles, LE lubrication consultant (pictured), for providing the information used in this report.



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Based on actual user experience. Individual results may vary. Not intended to supersede manufacturer specifications.

SIC 1794

LI70619 12-10

3751 ALMAGARD® VARI-PURPOSE LUBRICANT

CINTAS, Traverse City, MI

Washex Industrial Laundry Washers • SIC 7218 Industrial Launderers

Lubricant Consumption Dropped 33%!

CUSTOMER PROFILE

Cintas is an industrial laundry and supply company. They have been an LE customer since 1984.

APPLICATION

Major pieces of equipment in this laundry facility are the Washex units. These units are four-pocket, float-air suspension systems and are capable of holding 700 lbs. of laundry in one cycle.

AREA OF INTEREST

The washer units are in constant use washing rugs, linens and uniforms. While using a commercial grade lubricant in the bearings, they were experiencing premature failures. Because bearings are exposed to constant water and detergent, the commercial grade lubricant was mixing with water and washing out of the bearings.

LE SOLUTION

LE's 3751 ALMAGARD® Vari-Purpose Lubricant was recommended as it is a truly multifunctional lubricant that provides extended service even under extreme conditions. It can be used

in all types of equipment where a very tacky lubricant is required. LE's 3751 offers excellent water resistance and maintains superb temperature characteristics. It will not pound out, even under excessive loads. LE's 3751 has superior EP (Extreme Pressure) characteristics. Because it clings tenaciously, rust and corrosion do not have a chance to form.

CUSTOMER COST SAVINGS

The performance of LE's 3751 was graphically demonstrated when it was pumped into a bearing that was in need of replacement. LE's 3751 was being used as a stopgap measure until a new bearing could be scheduled for installation. It was six months before the bearing was replaced. The maintenance personnel were astounded. While using the commercial grade grease, they were replacing six bearings annually. Since converting to LE's 3751, there have been virtually no failures.

Cintas was also experiencing severe wear in the washer drive bearings. LE's 3751 was installed and has drastically reduced wear. The maintenance personnel have also noticed a reduction in noise and vibration.

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OTHER PRODUCTS USED

The Compair 20 hp and DeVilbiss 15 hp air compressors were requiring one quart of makeup oil per week using a commercial grade air compressor oil. After converting to LE's 6404 MONOLEC® R&O Compressor/Turbine Oil, drain intervals have been extended from 200 hours to 2,000 hours.

Temperatures and consumption have also been reduced. The maintenance personnel at Cintas can now drain off any condensation that forms and makeup oil has been reduced to one quart every two months.

LE's 605 ALMASOL® Vari-Purpose Gear Lubricant has safely extended drain intervals on all gearboxes throughout the facility. These gearboxes are subjected to water and the commercial grade lubricant they had been purchasing was emulsifying. Because LE's 605 offers excellent water separation characteristics, the water is now drained off, and the gearboxes have been running considerably cooler.

LE's 1275 ALMAPLEX® Industrial Lubricant is being used for all electric motors. LE's 1275 is working very well in the moist environment of the laundry.



We wish to thank Roger Jones, Head of Maintenance and LE Representative Greg Klang for the information provided to prepare this report.

Greg Klang

Customer Testimonial



Almagard® Vari-Purpose Lubricant (3751)

Dutchess Quarry & Supply Company – Goshen, N.Y.

Stansteel Asphalt Plant

- Reduced bearing replacement costs and production loss by \$20,000 per year
- Extended bearing life by six times (from 4 months to two years)
- Kept plant running with fewer problems and less downtime

Customer Profile

Dutchess Quarry & Supply Company is a manufacturer of asphalt and ready-mix concrete. It has been an LE customer since 2000. It operates two asphalt plants at the Goshen location. The Stansteel plant was built in 1974 and is a 5-ton batch plant. The Cedar Rapids plant was built in 1953 and is a 3-ton batch plant.

Application and Challenge

Using Shell lubricants at both of its asphalt plants, the company was having a problem with the spiral conveyors in its bag house dust collectors. It was experiencing two to three bearing failures every year, and each time they had to replace a bearing, they lost a half day of production. This meant a loss of approximately \$10,000 per bearing failure.

LE Solution

David O'Connor, LE lubrication consultant, recommended to Dutchess that it replace its Shell lubricants with LE's Almagard Vari-Purpose Lubricant (3751), an extreme pressure lubricant for extended service, that won't wash off, pound out, or melt and run, even with extended service in severe conditions.

Results

The switch to Almagard 3751 helped the bearings last six times longer than they had previously. Before the switch, each bearing lasted approximately 4 months. After the



Spiral conveyor end shaft bearing using 3751.

switch, each bearing lasted more than two years. The company was pleased with the results and is now using Almagard 3751 throughout both plants.

Another critical area is the fan bearing on the dryer that dries the stone. Using Almagard 3751, the bearings have not failed in more than 10 years.

Other LE Products Used

- Pyroshield® Syn Open Gear Grease (5182)
- Monolec® Synthetic Industrial Oil (9032)
- Wirelife™ Monolec® Penetrating Lubricant (2001)



Chris Lazzar

Thank you to Chris Lazzar, plant operator, and to David O'Connor, LE lubrication consultant, for providing the information used in this report.



Dave O'Connor

3751 ALMAGARD® VARI-PURPOSE LUBRICANT

MAJOR MINE OPERATION , Central Montana

Primary Crusher • SIC 1081 Metal Mining Services

CUSTOMER TESTIMONIAL

CUSTOMER PROFILE

This open pit precious metals mine operation is located in Central Montana.



APPLICATION

They operate a primary crusher. It is an older model jaw crusher that has Babbitt bearings. As you can see by the



Primary crusher bearing housing

pictures this is no ordinary jaw crusher; it is very large. There are 16 points of lubrication on the main bearing housing.



Conveyor



Primary crusher structure

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LI70647
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AREA OF INTEREST

The primary crusher has not been in service for almost two years. The mine determined that their production of ore was very limited and that they would need to bring the primary back on line to hit their production goals. However, the reliability of the crusher was very poor at the point it was last used.

LE SOLUTION

Two years ago, Lubrication Consultant Jim Pezoldt began researching this application to try to determine the lubrication problems associated with the crusher. He found that the lubrication system was inadequate and grease was being restricted through the lines. To offset that problem, all the lines were heated and an unrestricted amount of lubricant was continuously fed to the bearings. This caused a significant amount of over greasing and a very noticeable housekeeping problem. Additionally, in cold weather the restrictions still occurred.

After spending a lot of time researching the problems with LE Technical Services Manager Steve Mauritz, and asking questions of several of his peers, a solution began to emerge. Multiple recommendations were made. The piping, lines and fittings all needed to be bigger to keep the grease from being restricted. A different type of lubricant and delivery system needed to be used as well. Early in Spring 2007, the mine began replacing all of its 1 inch pipe in favor of 2 inch 10k psi pipe. They eliminated all the 3000 psi hydraulic line for 5000 psi line. They changed all their fittings



to 3/8 from 1/4". The single farval system remained but plans to add another system is on their way. Last but not least LE 3751 ALMAGARD® Vari-Purpose Lubricant was installed via a steel tote. A Liquidynamics air operated grease pump specifically designed for totes was installed (mdl 11396 as shown in picture).



Grease tote setup

CUSTOMER COST SAVINGS

With all these improvements the primary crusher went back on line on August 29, 2007. Jim was on site for the initial run and all pictures shown were taken at that time. It has been clearly determined thus far that there is a non restricted free flow of grease and that the excess grease seen in the past can be controlled. Additionally, the use of LE 3751 has also made a difference in the grease consumption and housekeeping concerns, which in the past were very costly due to the amount of downtime needed to correct the situation.

Additional benefits such as more control of housekeeping related problems and overall grease consumption will be addressed once the second farval system is installed.

Lubrication Engineers would like to thank the crew at the mine and LE Lubrication Consultant Jim Pezoldt for the information provided to prepare this report.



Jim Pezoldt

3752 ALMAGARD® VARI-PURPOSE LUBRICANT
DONALD D ENTERPRISES, INC., Corcoran, California
1962 Gradall 2460 • SIC 1629 Heavy Construction, Not Elsewhere Classified

**3752 Reduced Grease Intervals From 12 to 14 Times a Day to
2 Times a Day!**

CUSTOMER PROFILE

Donald D. Enterprises, Inc. works 12 to 14 hour cycles cleaning and shaping large irrigation canals for some of California's largest farming companies. Water is always critical in Central California and properly shaped and maintained canals are necessary for the timely, economical delivery of Central Valley irrigation water to the various crops grown.



APPLICATION

Donald D. operates a 1962 Gradall 2460 modified with a 7 foot wide 3+ cubic yard bucket to clean and shape the large irrigation canals.



AREA OF INTEREST

The bucket boss bar wore out in one year using a commercial grade moly EP, water resistant grease, costing \$1500 for replacement in addition to the downtime. Donald D. does their own repair work, but time in the shop means less time in the field working. In addition the double bushing in the swing arm for the upper house of the Gradall 2460 needed to be lubricated every hour with the commercial grade grease (12 to 14 times per day), and replacements were needed 3 times per year.

LE SOLUTION

LE Lubrication Consultant Mark Nickel recommended 3752 ALMAGARD® Vari-Purpose Lubricant. LE's 3752 is a multi-functional, EP lubricant for extended service under extreme conditions. It is very tacky, has excellent water resistance, will not pound out, and is rust and corrosion inhibited. It contains ALMASOL®, LE's exclusive wear-reducing additive.

CUSTOMER COST SAVINGS

Since using LE's 3752, the bucket boss bar is still in service, lasting over four years and saving over \$6000 in replacement part costs alone.

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The grease intervals went from 12 to14 times a day to two times a day in the double bushing in the swing arm since converting to LE's 3752. They now only grease before beginning the work day and at lunch break. They have replaced zero bushings in this application in almost two years. This greatly improves the up-time and the number of feet of canal worked per day. . . by which they are paid. Additionally, the Owner Operator Don Dynge states, ***"With the competitive***

grease, and with the hydraulics disconnected they had to hook a pick-up truck to the upper house to turn it to work on the unit; now with 3752 one person can turn it by hand! “ On his most recent order Donald asked, ***“Did you notice I didn't ask how much it cost? Your grease is fairly priced in my opinion. Nothing else on the market even comes close to it's value and protection for hard working, production orientated equipment.”***

We would like to thank Owner/Operator Donald Dynge and LE Lubrication Consultant Mark Nickel (pictured) for the information provided to prepare this report.



Customer Testimonial



Almagard® Vari-Purpose Lubricant (3752)

Interstate Safety Service – Clarks Summit, Penn.

Autocar & Freightliner Trucks

- Eliminated king pin failures
- Significantly reduced grease consumption, from three drums per year to one

Customer Profile

Interstate Safety Service (ISS) is a highway service company that manufactures and installs concrete barriers on the highway system in central and eastern Pennsylvania. It has been an LE customer since 2005.

Application

ISS has a fleet of Autocar and Freightliner tri-axle, bi-axle and semi trailers that haul cement and concrete.

Challenge

Using a commercial grade lubricant, ISS was using three to four 420-lb drums per year and losing four to six king pins per year.

LE Solution

Kevin Chapin, LE lubrication consultant, recommended LE's Almagard Vari-Purpose Lubricant (3752), which is a multifunctional EP lubricant for extended service under extreme conditions. It is very tacky, water-resistant and rust- and corrosion-inhibited. It will not pound out.

Results

Since the switch to Almagard 3752, king pin failure has stopped completely. ISS has not had a single king pin failure in the six years they have been an LE customer. Grease consumption has dropped significantly, from three to four 420-drums per year to only one.

ISS's Chris Colombo said, "I was the guy who said grease was grease and wouldn't spend the money. Now I won't use anything else."



Other LE Products Used

- Oil Safe® containers

Thank you to Chris Colombo of ISS, and to Kevin Chapin, LE lubrication consultant (pictured), for providing the information used in this report.



Almagard® is a registered trademark of Lubrication Engineers, Inc. Oil Safe is a registered trademark of Reliability Brands, LLC.



The Lubrication Reliability Source™

www.LElubricants.com
800-537-7683

Customer Testimonial



Almagard® Vari-Purpose Lubricant (3752)

Ring Container Technologies – Belle Fourche, South Dakota

Liberty Blow Molding Machines

- Saved \$12,777 in a four-year period
- Provided protection for wear components, eliminating need for replacements
- Kept production consistent and prevented out-of-spec occurrences

Customer Profile

Ring Container is a U.S.-based company with manufacturing plants in 18 states, plus one in the U.K. and one in Canada. This plant has three production lines and produces poly containers using blow mold machinery. It has been in business and has been an LE customer since 2005.

Application

Ring Container uses three Liberty RSI 3500 blow molding machines to manufacture 1.5- and 4-gallon poly containers used by adjacent bentonite plants to package granular bentonite marketed as kitty litter.

Challenge

Machine ways, slides, shafts and bearings require a durable lubricant with high anti-wear characteristics. Wear on these components will result in loss of precision in the molding process and a high rejection rate.

Solution

Mike Carter, LE lubrication consultant, recommended Almagard® Vari-Purpose Lubricant (3752) which is a multifunctional EP lubricant for extended service under extreme conditions. It is very tacky, water-resistant and rust- and corrosion-inhibited. It will not pound out.

Results

Almagard Vari-Purpose Lubricant has provided excellent wear protection for all the precision wear components of the machinery. This has kept production of containers



consistent and prevented out-of-spec occurrences. There has been no replacement of wear components necessary in four years of operation. At other Ring plants it is necessary to replace these components every two years.

- Cost of replacement wear components is \$2,500 per machine x 3 machines = \$7,500. Twice in 4 years = \$15,000.
- Cost of Almagard Vari-Purpose Lubricant over four years is \$2,223.
- Ring Container has saved \$12,777 in a four-year period.



Other LE Products Used

- Duolec® Vari-Purpose Gear Lubricant (1605)
- Monolec® Wire Rope Lubricant (2001)
- Monolex® Penetrating Oil & Lubricant (2059)
- Quinplex® Food Machinery Lubricant (4025)
- Monolec® Hydraulic Oil (6120)
- Monolec® Synthetic Industrial Oil (9046)
- Monolec® Synthetic Industrial Lubricant (9220)
- Des-Case® hygroscopic breathers

Thank you to Ring Container's Gene Secrest, maintenance manager, and to Mike Carter, LE lubrication consultant (pictured), for providing the information used in this report.



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Based on actual user experience. Individual results may vary. Not intended to supersede manufacturer specifications.

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Customer Testimonial



Almagard® Vari-Purpose Lubricant (3752)

Wake Electric Membership Coop – Youngsville, N.C.

Fleet of Trucks and Heavy Equipment

In more than 20 years of service, parts failure reduced dramatically.

In the past 12 years:

- Replaced fewer than five U-joints and only two ball joints
- No pins and bushings have been replaced due to lubrication

Customer Profile

Wake Electric Membership Coop is an electric membership cooperative covering seven counties with more than 35,000 members in north central North Carolina. Their main shop in Youngsville is managed by Brad Coley, fleet maintenance manager.

Application

Wake Electric has more than 60 vehicles and pieces of heavy equipment. These include a mixed fleet of bucket trucks, line trucks, vans, pickups, excavators, backhoes, trenchers and various other equipment. The fleet was much larger until some of their work was contracted out in recent years.

Challenge

Wake Electric had been having a problem with parts failing where the grease did not hold up. Chassis parts, U-joints and ball joints on the large trucks, and pins and bushings on the field equipment were requiring frequent replacements.

LE Solution

The former LE lubrication consultant introduced LE's Almagard Vari-Purpose Lubricant (3752) to the fleet maintenance manager. This heavy-duty, multifunctional grease is designed for exceptional mechanical stability, extreme pressure and high-temperature capabilities. It is ideally suited for use in industrial plants and the demanding needs of mobile equipment. Almagard Vari-Purpose Lubricant protects equipment and reduces downtime through the use of LE's exclusive additives, Almasol® and Quinplex®. Almasol provides increased wear reduction by

bonding to the metal to prevent metal-to-metal contact. Quinplex provides extreme tackiness, ensuring the grease will not pound out or sling off and is water resistant.

Results

After making the switch to Almagard Vari-Purpose Lubricant, the manager noticed downtime and parts replacement due to grease problems decreased significantly. Brad Coley, the current fleet maintenance manager, started working in the shop 12 years ago. The previous manager filled him in on his experience with Almagard and how it had



The shop uses Almagard Vari-Purpose Lubricant from an air-operated pump in a barrel.



reduced downtime, parts replacement and costs. During Brad's time he can remember replacing no more than five U-joints and two ball joints on the trucks. On the excavators, backhoes, trenchers and related equipment, he can remember replacing no pins and bushings due to lubrication.

Brad is extremely pleased with the performance of Almagard Vari-Purpose Lubricant and the other LE lubricants he is using.

According to Brad, "LE costs a little more but is more than worth the extra cost in return for less downtime, fewer breakdowns and reduced overall costs."

Other LE Products Used

- Dexron® VI ATF (1136)
- Duolec® Vari-Purpose Gear Lubricant (1605)
- Wirelife™ Monolec® Penetrating Lubricant (2001)
- BTU⁺ Power Supplement & Cleaner (2420)
- Monolec® Hydraulic Oil (6520)
- Monolec® Power Fluid (7500)
- Synolec® All-Climate Gear Lubricant (9919)
- Clear Grease Guns
- Oil Safe® containers

Thank you to Brad Coley, fleet maintenance manager, and to Jeff Boyles, LE lubrication consultant (pictured), for providing the information used in this report.



One of the bucket trucks that uses Almagard Vari-Purpose Lubricant, Monolec Hydraulic Oil, Synolec All-Climate Gear Lubricant, Monolec Power Fluid, and BTU⁺ Power Supplement & Cleaner.



The main shop for Wake Electric Membership Coop is in Youngville, N.C..

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Based on actual user experience. Individual results may vary. Not intended to supersede manufacturer specifications.

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CUSTOMER TESTIMONIAL

3752 ALMAGARD® VARI-PURPOSE LUBRICANT

WESTFARM FOODS (DARIGOLD), Chehalis, WA

Disk Bearings on Aerator • SIC 2022 Cheese, natural and processed

LE's 3752 has saved \$18,000.00 over the past eight years!

CUSTOMER PROFILE

Westfarm Foods is a major dairy processing plant located in Chehalis, Washington. They process several million gallons of wastewater per day.



APPLICATION

Aerator disk bearings.

AREA OF INTEREST

Plant Supervisor Frank Klovertanz was looking for a grease that would help make the disk bearings last longer, as well as seal out the constant presence of water. The previous commercial grade greases they used, when mixed with the constant water, would run out of the bearings causing overheating and premature bearing failure and even shaft damage.

LE SOLUTION

3752 ALMAGARD® Vari-Purpose Lubricant was recommended. LE's 3752 is a multi-functional, Extreme Pressure (EP) lubricant for extended service under extreme conditions. For use in all types of vehicles, on and off road, as well as in many in-plant applications. LE's 3752 is very tacky, has excellent water

resistance, will not pound out, and is rust and corrosion inhibited. LE's 3752 Contains LE's proprietary additives ALMASOL® and QUINPLEX®.

CUSTOMER COST SAVINGS

Westfarm Foods previously averaged one bearing failure a year at the cost of \$1200.00 plus the labor to replace it, which consisted of four men at \$37.50 per hour for 6-8 hours. One time the bearing failed so badly the entire shaft had to be dismantled. They had to bring in a crane to lift out the shaft and have it machined. This cost approximately \$5,000.00. Since the conversion to LE's 3752 in 1996, they have not had a single bearing failure. Frank stated, "The best savings so far is that my crew does not have to suit up and dive into the nasty sludge anymore."

**LUBRICATION
ENGINEERS, Inc.**

Leaders in Lubricants



Savings over the past 8 years:

**\$1200.00 per bearing x 8 years = \$9,600.00 in bearing savings
28 labor hours @ \$37.50 x 8 years = \$8,400.00 in labor hour savings**

LE 3752 has saved \$18,000.00 over the past eight years!

OTHER PRODUCTS USED

The plant also uses LE 1605 DUOLEC™ Vari-Purpose Gear Lubricant on all of their gearboxes. This has virtually stopped all of the previous leaks.

Lubrication Engineers wishes to thank Plant Supervisor Frank Klovertanz and local LE Lubrication Consultant John Kowsky, Jr (pictured right), for the information provided to prepare this report.



Frank Klovertanz