



ROYAL

HIGH PERFORMANCE OILS & GREASES

TREAT YOUR EQUIPMENT LIKE A KING™



PERFORMANCE GREASE GUIDE

WE'VE GOT A SUPERIOR GREASE FOR THAT

 **HEAVY DUTY** **2**

 **MULTIPURPOSE** **7**

 **SPECIALTY** **13**



ADVANCED ISOGOLD™ TECHNOLOGY

Royal's Advanced ISOGOLD™ Technology is a proprietary blend of high-performance additives engineered to protect and lengthen the life of equipment.

OUR DIVERSE PRODUCT LINE SERVICES A WIDE RANGE OF INDUSTRIES



AUTO



FARM



INDUSTRIAL



MARINE



MINING



ON HIGHWAY



OFF HIGHWAY



OIL FIELD



RAILWAY



STEEL

MOST ROYAL GREASES COME IN A RANGE OF SIZES TO FIT ANY NEED



Royal started over 100 years ago by supplying automotive, farm and oil field lubricants in and around Tulsa, Oklahoma. Royal now supplies a full line of extended duty high-performance oils and greases, worldwide, that have proven their ability to outperform most lubricants available for mining, construction and industrial equipment. This includes a full line of synthetic oils and greases, food grade lubricants as well as biodegradable lubricants.

Supplying a comprehensive line of lubricating oils and greases to all of the USA and 24 other countries throughout the world, Royal offers the ultimate in high-quality heavy equipment protection.



SCHERTZ, TX



TULSA, OK





GREASE COLOR: BLACK



CROWN ROYAL MOLY EP GREASE

This high-temperature lithium complex grease is fortified with molybdenum disulfide and graphite to provide excellent protection against shock loading and extreme pressures in harsh environments. These characteristics are especially valuable in heavy-duty applications with sliding or oscillating motion.


NLGI 1 2 **220**

LITHIUM COMPLEX

-  **EXTREME PRESSURE**
-  **HIGH TEMPERATURE**
-  **SHOCK LOAD**
-  **CORROSION PROTECTION**


ADVANCED ISOGOLD™ TECHNOLOGY


GREASE COLOR: RED

ROYAL 876 GREASE

A heavy-duty lithium complex grease designed for high-load capabilities. Formulated with high-viscosity base oils and a synergistic combination of high-quality extreme pressure (EP) and heavy-duty additives, it offers excellent structural and oxidation stability and high resistance to water washout. Also contains a tackiness additive enhancing stay-in-place properties.


PERFORMANCE KING **NLGI 1 2** **460**

LITHIUM COMPLEX

-  **EXTREME PRESSURE**
-  **WATER RESISTANT**
-  **EXTENDED SERVICE**
-  **HIGH TEMPERATURE**
-  **HIGH VISCOSITY**
-  **HIGH TACK**

EXTENDED COMPONENT LIFE



GREASE COLOR: BLUE



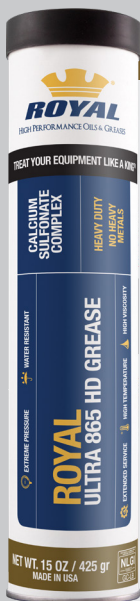
ROYAL ATLANTIS GREASE

The newest generation of environmentally friendly superior performance, heavy-duty grease; exhibiting outstanding film strength and outstanding water resistance even under corrosive saltwater environments due to its ability to absorb water without losing thickener consistency.



CALCIUM SULFONATE COMPLEX

- EXTREME PRESSURE
- WATER RESISTANT
- EXTENDED SERVICE
- HIGH TEMPERATURE
- SHOCK LOAD
- CORROSION PROTECTION
- ENHANCED ADHESION



ROYAL ULTRA 865 HD GREASE

Suitable for heavily loaded conditions, wet environments, and where high temperatures exist. Will perform virtually in all industrial applications, especially environments with concurrent high temperatures and water ingress.



GREASE COLOR: AMBER

CALCIUM SULFONATE COMPLEX

- EXTREME PRESSURE
- WATER RESISTANT
- EXTENDED SERVICE
- HIGH TEMPERATURE
- HIGH VISCOSITY
- SHOCK LOAD
- CORROSION PROTECTION



GREASE COLOR: BLACK

ROYAL ULTRA 865M GREASE

High-viscosity base oil and overbased calcium sulfonate complex thickener system fortified with molybdenum and our proprietary Advanced ISOGOLD™ technology. Contains 5% lubricating solids. A perfect choice for heavily loaded applications in hot or wet and corrosive environments.



PERFORMANCE KING

NLGI 1 2

ISO 460

CALCIUM SULFONATE COMPLEX

-  EXTREME PRESSURE
-  WATER RESISTANT
-  EXTENDED SERVICE
-  HIGH TEMPERATURE
-  HIGH VISCOSITY
-  SHOCK LOAD
-  CORROSION PROTECTION

ADVANCED ISOGOLD™ TECHNOLOGY



GREASE COLOR: GREY

ROYAL HAMMER PASTE

A high-performance grease specifically designed for hydraulic hammers and other tools requiring anti-seize compounds. Hydraulic hammers and other such tools experience extreme shock and axial loads that can lead to rapid wear and tear of contact surfaces and guide bushings.



NLGI 2

ISO 460

CALCIUM SULFONATE COMPLEX

-  EXTREME PRESSURE
-  EXTENDED SERVICE
-  HIGH TEMPERATURE
-  SHOCK LOAD



VALUE PROPOSITION: ROYAL HAMMER PASTE

ROTARY AND ROTARY-PERCUSSION BLASTHOLE DRILLS AND DOWN-THE-HOLE HAMMERS



CIRCUMSTANCE

A gold mine located in Mexico evaluated **Royal Hammer Paste** in several applications. The mine was not only interested in extending bit life, but also performing makeup and breakout tasks quicker and extending the life of costly shock subs.

REDUCED PART WEAR & PRESSURE

\$17,000

SAVINGS TO MINE

HYDRAULIC TOOL: \$800

Whether the breakout tool is a chain clamp type or wrench, Royal Hammer Paste's low friction solids significantly reduce breakout torque making disassembly easier, faster and safer.

WORKER SAFETY

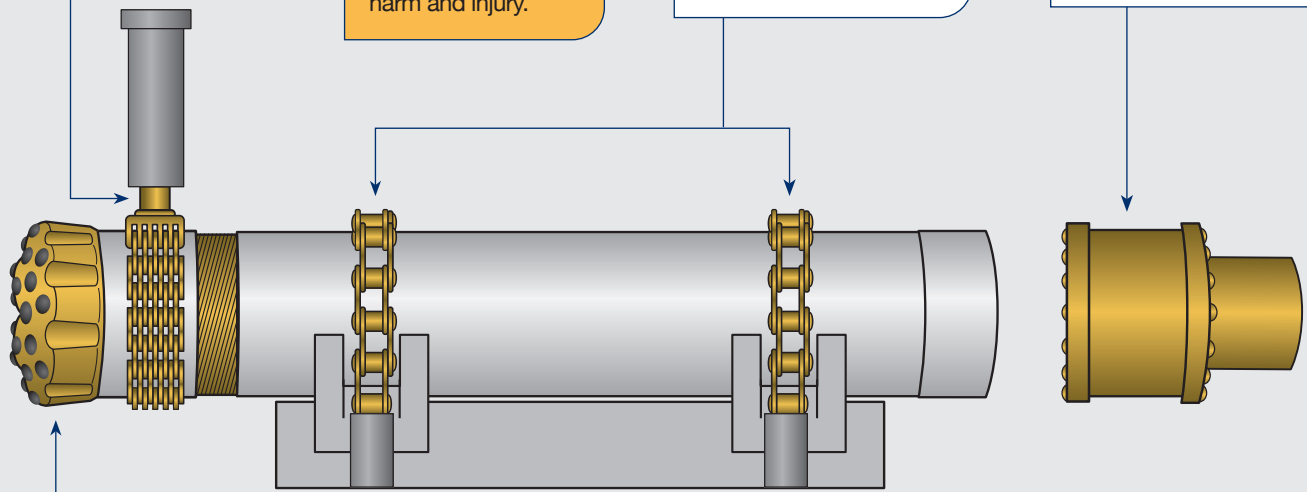
Reducing the force required to disarm the bits reduces the likelihood of a chain or screw snapping — which can cause devastating bodily harm and injury.

BREAKOUT BENCH HYDRAULIC CLAMPS: \$200

Proper lubrication with Royal Hammer Paste reduced friction and force at the drill bit to support the clamp securely during assembly in the BOB. Reduced force equals improved worker safety.

SHOCK SUB: \$11,000

Applying Royal Hammer Paste reduced the extreme shock and axial loads in the shock absorbers allowing for optimum performance. Royal Hammer Paste also reduced wear and prolonged equipment life.



DRILL BIT: \$2,000

Whether it is a rotary or rotary-percussion blasthole drill or a down-the-hole hammer, Royal Hammer Paste's low friction solids reduce breakout torque and protect threads from galling, wear and corrosion. Applying Royal Hammer Paste allows for assembly and disassembly of bits without heating, keeping its original form. Thread cords without fractures are also maintained.

HYDRAULIC TOOL \$2,800

Used to grip and hold down the parts of the bit during assembly and disassembly. Applying proper lubrication with Royal Hammer Paste increased the life of various parts of this equipment and reduced the risk of broken parts resulting in injury.

ROYAL VALUE PROPOSITION: ULTIMATE 1000 GREASE

ENHANCING BUSHING LONGEVITY IN MINING CRUSHERS TO PREVENT DOWNTIME

CIRCUMSTANCE

A mine in Peru operating a crusher performed a scheduled inspection for maintenance after the end of the crusher's cycle, and during that inspection, the engineer determined over 3 millimeters of bushing wear. In order for the crusher to perform without failure, the bushing must be replaced.

If wear exceeds 3mm, the bushing must be replaced, requiring extensive maintenance, resulting in COSTLY DOWNTIME.

SOLUTION

Royal's technical sales expert recommended **Royal Ultimate 1000 Grease** as a solution to dramatically improve bushing wear and reduce downtime for maintenance. This grease can withstand extremely heavy loads while protecting moving parts from wear, rust and corrosion.

The mining engineer replaced the original grease and ran the crusher's cycle.

PROVEN PERFORMANCE

After the 12-month crusher cycle was completed and the scheduled inspection was performed, the bushing wear was dramatically reduced (less than 3mm) by applying the Royal Ultimate 1000 Grease.

The mine is expected to gain an entire new cycle operating the crusher without replacing the bushing, resulting in significant COST SAVINGS!



BUSHING REPLACEMENT COSTS

LABOR (PER BUSHING)
\$8,000

PARTS (PER BUSHING)
\$60K

DOWNTIME: 12 HOURS
\$560K

\$628,000

TOTAL SAVINGS TO MINE



ROYAL ULTIMATE 1000 GREASE

A premium, semi-fluid grease with high viscosity base oil and does not contain any asphalt. It provides superior EP, anti-wear (AW) protection, while withstanding extremely heavy loads — perfect for slow moving, large open gear drives operating in very hostile environments. Can be applied by spray systems and also through dipping or brushing procedures.



GREASE COLOR: BLACK

ALUMINUM COMPLEX

- EXTREME PRESSURE
- WATER RESISTANT
- HIGH TACK
- HIGH TEMPERATURE
- ANTI-WEAR



MULTIPURPOSE



GREASE COLOR: GREEN



MONARCH™ SYNPLEX EP GREASE

This full-synthetic lithium complex multipurpose grease provides a broad range of operating temperatures with superior cold weather performance. A lithium complex soap base thickener formulated with polyalphaolefin (PAO) base oil extends life in arctic or sub-zero temperatures. Meets or exceeds NLGI GC-LB requirements.



LITHIUM COMPLEX

- EXTREME PRESSURE
- WATER RESISTANT
- EXTENDED SERVICE
- LOW TEMPERATURE
- HIGH SPEED

GREASE COLOR: RED



ROYAL 760 EP GREASE

Royal 760 EP is preferred by users with multiple grease applications operating at moderate load carrying capacities, pressure and temperature ranges. Fortified with additives that provide very good EP/AW protection, rust and oxidation resistance. Compatible with other lithium and lithium complex greases.



LITHIUM 12-HYDROXY STEARATE

- EXTREME PRESSURE
- WATER RESISTANT
- HIGH/LOW TEMPERATURE
- HIGH TACK



GREASE COLOR: BLUE-GREEN

ROYAL 98 GREASE

This multipurpose lithium complex grease contains antioxidants, corrosion inhibitors, EP/AW additives and meets or exceeds NLGI GC/LB specifications. It is recommended for extended service in a wide range of heavy-duty equipment and high-temp wheel bearings, roller & ball bearings, throw-out bearings, fifth wheel, and many other applications.



LITHIUM COMPLEX

-  EXTREME PRESSURE
-  WATER RESISTANT
-  EXTENDED SERVICE
-  HIGH TEMPERATURE
-  HIGH TACK






GREASE COLOR: AMBER

ROYAL ENVIROGUARD EP GREASE

Designed for superior performance in environmentally sensitive applications. Will meet VGP requirements and is readily biodegradable. This grease has been fortified with environmentally safe additives enabling superior performance under heavy load, water ingress, and moderately high temperatures.



LITHIUM COMPLEX

-  EXTREME PRESSURE
-  WATER RESISTANT
-  CORROSION PROTECTION



“ Major improvement since changing over to Royal. No gap sled crashes, no water leaks due to split open bearing housings, no bearings falling apart in the slab. Motor current and current spikes reduced. No reports of cracked slabs or surprise segment changes. Millcraft also reports that your grease seems to adhere to parts better. ”

— Plant Manager
Steel Mill, Oklahoma



ROYAL WHITE LITHIUM EP GREASE

A light colored, multipurpose lithium grease made from highly refined base oils. The lithium 12-hydroxystearate thickener gives the grease a dropping point of over 360°F. Formulated with rust and corrosion inhibitors.



GREASE COLOR: WHITE

LITHIUM 12-HYDROXY STEARATE

-  CORROSION PROTECTION
-  HIGH PUMPABILITY
-  LOW/MODERATE LOAD







GREASE COLOR: RED

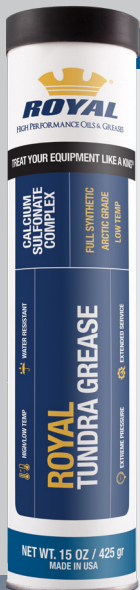
ROYAL NOVA GREASE

A premium, high-temperature, multipurpose grease fortified with premium additives to provide excellent lubrication and high-temperature properties. The non-melting, inorganic bentonite clay thickener, supported by additives, provides excellent high-temperature performance and a wider operating temperature range than most soap based greases.



BENTONE

-  EXTREME PRESSURE
-  HIGH TACK
-  HIGH TEMPERATURE
-  HIGH IMPACT



GREASE COLOR: BLUE

ROYAL TUNDRA GREASE

A long life, fully synthetic, calcium sulfonate complex grease embodied with solid lubricants specially designed to extend service life in arctic climate conditions. This grease is formulated with fully synthetic polyalphaolefin (PAO) base oil and is engineered with compatible synergistic additives to provide the highest performance under heavy/shock load applications.



CALCIUM SULFONATE COMPLEX

-  EXTREME PRESSURE
-  WATER RESISTANT
-  EXTENDED SERVICE
-  HIGH/LOW TEMP
-  SHOCK LOAD



GREASE COLOR: BLACK



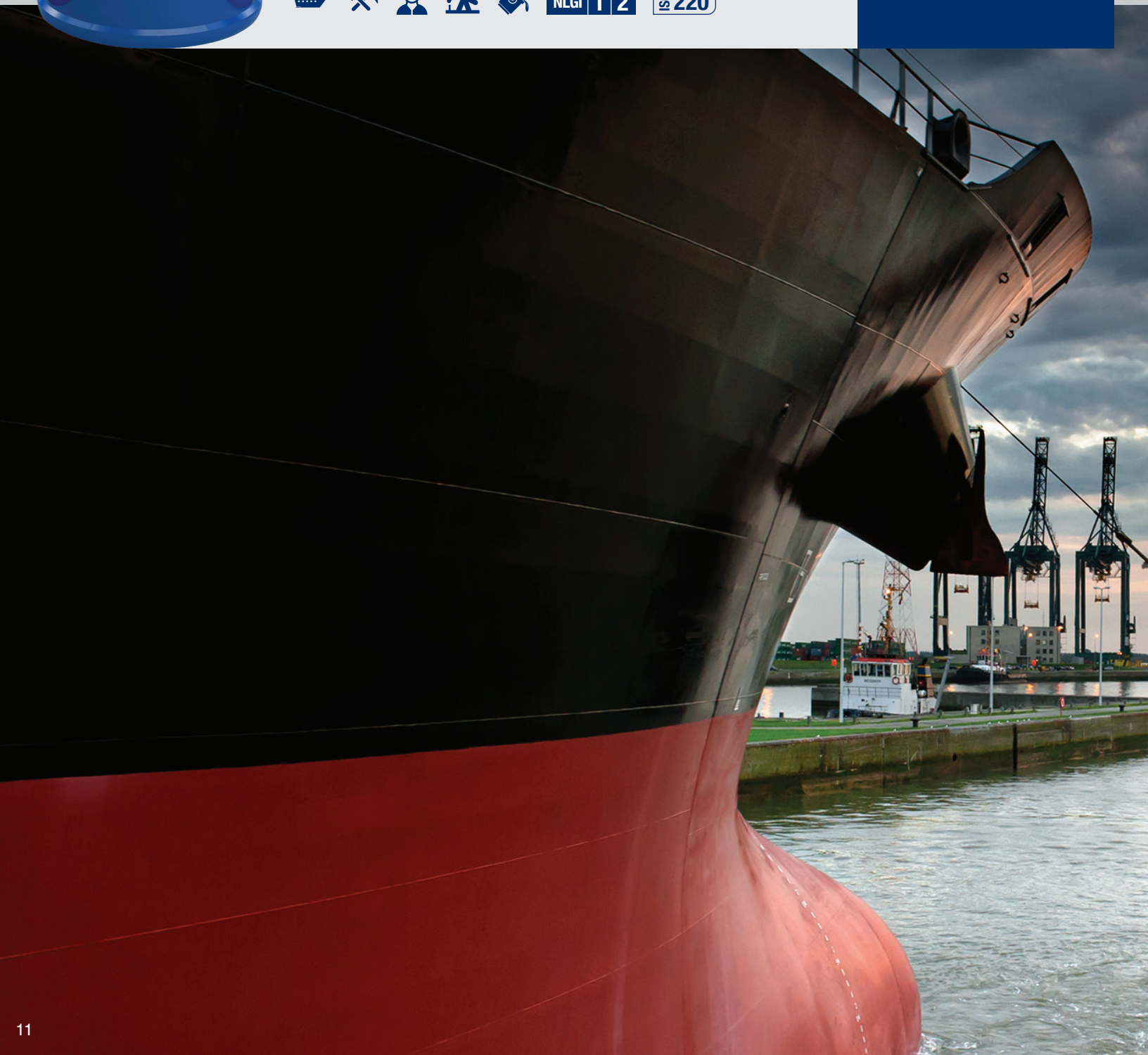
ROYAL TUNDRA MOLY GREASE

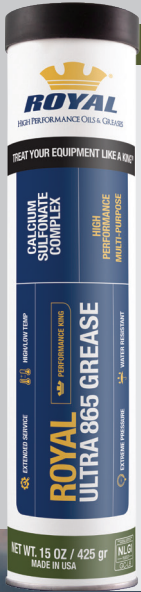
A long life, fully-synthetic grease specially designed to extend service life in arctic climate conditions. Formulated with fully synthetic polyalphaolefin (PAO) base oil and engineered to provide the highest performance under heavy/shock load applications.



**CALCIUM SULFONATE
COMPLEX**

-  **EXTREME PRESSURE**
-  **WATER RESISTANT**
-  **EXTENDED SERVICE**
-  **HIGH/LOW TEMP**
-  **CORROSION PROTECTION**





ROYAL ULTRA 865 GREASE

Recommended where high-load carrying, corrosion-resistant grease is required. Outstanding film strength and resistance to corrosive saltwater environments. An excellent high-temperature grease that works well in and around water. This product is environmentally friendly and contains no heavy metals.



PERFORMANCE KING

NLGI 1 2

220

CALCIUM SULFONATE COMPLEX

-  **EXTREME PRESSURE**
-  **WATER RESISTANT**
-  **EXTENDED SERVICE**
-  **HIGH/LOW TEMPERATURE**
-  **CORROSION PROTECTION**





GREASE COLOR: GREEN



ROYAL CORN HEAD GREASE

Formulated specifically for use in corn head gear cases and most other slow moving gear box applications requiring an NLGI 0 grease. Royal Corn Head grease is fortified with extreme pressure additives, rust and corrosion inhibitors, exhibits good high-temperature operation, low-temperature pumpability and resists water washout.



NLGI 0

POLYUREA

- EXTREME PRESSURE
- WATER RESISTANT
- EXTENDED SERVICE
- HIGH/LOW TEMP
- HIGH SPEED

GREASE COLOR: GREEN



ROYAL COTTON PICKER SPINDLE GREASE

Formulated for protection of cotton picker spindle heads, can be used in general purpose applications where a NLGI #00 is recommended. Extra protection against wetting agents, defoliants, and plant juices.



NLGI 00

LITHIUM 12 HYDROXY

- CORROSION PROTECTION
- ANTI-WEAR



GREASE COLOR: AMBER

ROYAL SUGAR MILL GREASE

Specially designed for lubricating sugar mill crusher roll journal bearings, bushings, and open gears. This high-performing grease is based on modified calcium thickeners, encapsulated with overbased sulfonate wafers to combat the most severe operating conditions.



NLGI

1.5

ISO

1000

CALCIUM SULFONATE COMPLEX



EXTREME PRESSURE



WATER RESISTANT



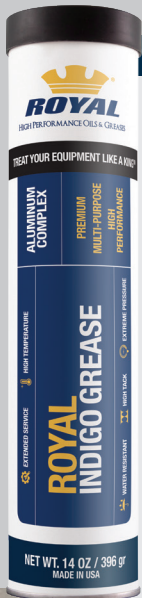
SHOCK LOAD



CORROSION PROTECTION



ADVANCED ISOGOLD™ TECHNOLOGY



GREASE COLOR: BLUE

ROYAL INDIGO GREASE

Robust aluminum complex grease for a wide range of applications. It has excellent water resistance and will not wash out, is not affected by hydrogen sulfide (H₂S), and resists saltwater corrosion.



NLGI

00

2

ISO

220

ALUMINUM COMPLEX



EXTREME PRESSURE



WATER RESISTANT



EXTENDED SERVICE



HIGH TACK



HIGH TEMPERATURE



CORROSION PROTECTION

**HIGH PERFORMING LUBRICANTS
TO COMBAT HARSH CONDITIONS**



GREASE COLOR: BLACK



ROYAL NLZ TOOL JOINT COMPOUND

Anti-seize compound specifically formulated for drill pipe, weight pipe and collars. Special formula prevents metal-to-metal contact under severe operating conditions and provides protection against seizure, galling and breakdown. Pipe dope designed for making breakouts and connections.



LITHIUM COMPLEX

- EXTREME PRESSURE
- WATER RESISTANT
- HIGH/LOW TEMP



GREASE COLOR: BLACKISH COPPER

ROYAL PREMIUM COPPER CLAD GREASE

A calcium sulfonate complex thickener based high temperature premium quality copper anti-seize and thread lubricant. This premium-quality lubricant contains super fine copper flakes fortified with other synergistic solid lubricants.



CALCIUM SULFONATE COMPLEX

- WATER RESISTANT
- HIGH/LOW TEMPERATURE
- CORROSION PROTECTION






GREASE COLOR: TAN

ROYAL PLUG VALVE GREASE

This peanut butter grease is ideal for plug and various other valve applications with excellent lubricity and sealant capabilities. Resists water, gas, condensate, gasoline, chemical vapors, solvents, etc. Unaffected by hydrogen sulfide (H₂S) and resistant to saltwater corrosion.



SILICON COMPLEX

-  EXTREME PRESSURE
-  WATER RESISTANT
-  CORROSION PROTECTION



REDUCED CONSUMPTION
AND DOWNTIME

**ROYAL RAIL LUBRICANTS ARE SUPERIOR PRODUCTS
ENGINEERED TO PROVIDE SUPERIOR SOLUTIONS.**



GREASE COLOR: GRANITE



ROYAL CURVE RAIL GREASE




Designed to lubricate rail track curves, reducing friction and wheel wear. This grease is especially engineered for rail applications with proven performance.



NLGI 00 1

220/460

LITHIUM 12-HYDROXY
STEARATE

-  WATER RESISTANT
-  HIGH PUMPABILITY
-  SHOCK LOAD



ROYAL ENVIROGUARD CURVE RAIL GREASE




Designed to minimize friction, reduce temperature, and prevent wear between wheel flange and rail especially on curve. Easily dispensable by rail lubricator, is highly water resistant, and exceeds the requirements of curve rail applications.



NLGI 1

GREASE COLOR: GRANITE

LITHIUM-CALCIUM

-  WATER RESISTANT
-  HIGH PUMPABILITY
-  SHOCK LOAD



GREASE COLOR: BLUE

ROYAL VOLT GREASE

A premium, EP, multipurpose, long life, electric motor grease which exhibits excellent thermal stability, excellent high and low temperature capabilities, and superior shear stability when compared to typical polyurea greases. This grease has excellent water resistance characteristics and will not wash out.



PERFORMANCE KING

NLGI 2

220

POLYUREA

-  EXTREME PRESSURE
-  EXTENDED SERVICE
-  SEALED FOR LIFE
-  HIGH TEMPERATURE
-  CORROSION PROTECTION



GREASE COLOR: GRANITE

ROYAL MOLY HI-TEMP GREASE




A premium high-temperature, multipurpose grease with excellent high-temperature performance, and a wider operating temperature range than most soap-based greases. Its specialized additives provide a chemical barrier protecting lubricated parts against rust and corrosion.



NLGI 2

220

BENTONITE CLAY

-  WATER RESISTANT
-  HIGH TEMPERATURE
-  CORROSION PROTECTION





WE'VE GOT A SUPERIOR GREASE FOR THAT

HEAVY DUTY

Crown Royal Moly EP Grease	2
Royal 876 Grease	2
Royal Atlantis Grease	3
Royal Ultra 865 HD Grease	3
Royal Ultra 865M Grease	4
Royal Hammer Paste	4
Royal Ultimate 1000 Grease	6

MUTIPURPOSE

Monarch™ Synplex EP Grease	7
Royal 760 EP Grease	7
Royal 98 Grease	8
Royal Enviroguard EP Grease	8
Royal White Lithium EP Grease	9
Royal Nova Grease	10

Royal Tundra Grease	10
Royal Tundra Moly Grease	11
Royal Ultra 865 Grease	12

SPECIALTY

Royal Corn Head Grease	13
Royal Cotton Picker Spindle Grease	13
Royal Sugar Mill Grease	14
Royal Indigo Grease	14
Royal NLZ Tool Joint Compound	15
Royal Premium Copper Clad Grease	15
Royal Plug Valve Grease	16
Royal Curve Rail Grease	17
Royal Enviroguard Curve Rail Grease	17
Royal Volt Grease	18
Royal Moly Hi-Temp Grease	18