

# PLANT ENGINEERING'S Interchangeable lubricants

Joseph L. Foszcz, Senior Editor, Plant Engineering Magazine

**W**hen, where, how much, and with what — these are the fundamental questions that have to be answered in equipment lubrication. The answers are normally provided by the builders of process and manufacturing equipment.

However, maintenance personnel must sometimes address the “with what” question when finding substitutes for previously used lubricants. This exclusive guide, published at 3-yr intervals, provides quick identification of major lubricant sources and cross referencing of products.

The ideal lubricant would last forever and retain all of its properties. In reality, leaks, evaporation, heat, oxidation, and contamination combine to limit its service life. Properly answering the “when” question requires monitoring, by means of oil analysis, which is a fundamental component of modern lubrication and preventive/predictive maintenance programs.

Regular laboratory analysis indicates the health of both lubricant and machine. Viscosity, contamination, oxidation, acidity, and metals content are examples of parameters analyzed.

The “where” and “how much” concerns are good candidates for the visual approach to total productive maintenance. For example, lube fittings, filler caps, oil cans, and grease guns can be color-coded for the type



of lubricant and the point of application. Captive plastic dirt caps for zerk fittings are available in a variety of colors. Color-coding is often carried over to lube diagrams, which are laminated and attached to equipment or carried on lube routes.

## Using the guide

This exclusive guide presents products from 118 companies who responded to our request for information. Some chose not to respond and you will find them missing. Product names, listed in each category, were provided by the manufacturers.

Presenting the data does not reflect the quality of the lubricant, imply the performance expected under particular operating conditions, or serve as an endorsement. Lubricant and equipment manufacturers should be consulted for specific applications or questions.

## Viscosity a key factor

Viscosity is the property most widely accepted for identifying lubricants within a category. This characteristic serves as the basis for PLANT ENGINEERING magazine's product listings. Viscosity can be specified in several ways. The Viscosity/grade comparison chart compares commonly used systems. In this guide, lubricants within each category are arranged according to ISO viscosity grade, with the corresponding Saybolt viscosity shown for reference.

**Viscosity/grade comparison chart**

ISO viscosity grade	Kinematic viscosity Cst @ 40 C	Saybolt viscosity SUS @ 100 F	Gear lubricant specification	EP gear lubricant	Worm gear lubricant
2	1.98-2.42	32	-	-	-
3	2.88-3.52	36	-	-	-
5	4.14-5.06	40	-	-	-
7	6.12-7.48	50	-	-	-
10	9-11	60	-	-	-
15	13.5-16.5	75	-	-	-
22	19.8-24.2	105	-	-	-
32	28.8-35.2	150	-	-	-
46	41.4-50.6	215	AGMA 1	-	-
68	61.2-74.8	315	AGMA 2	EP 2	-
100	90-110	465	AGMA 3	EP 3	-
150	135-165	700	AGMA 4	EP 4	-
220	198-242	1000	AGMA 5	EP 5	-
320	288-352	1500	AGMA 6	EP 6	-
460	414-506	2150	AGMA 7	EP 7	Comp 7

*Note that this guide covers only mineral oil-based products. A similar triennial guide is published for synthetic lubricants (PE, July 2003, p 30, File 8010). The guide is available on our web site at [plantengineering.com](http://plantengineering.com). Enter the archives, and then select the July 2003 issue.*



# 2004 Interchangeable lubricants

ISO Viscosity grade	Viscosity, SUS at 100 F	Acme Refining Cleveland, OH	American Agip Co., Inc. Cabot, PA americanagip.com	American Lubricants, Inc. Buffalo, NY	American Refining Group, Inc. Brad Penn Lubricants Bradford, PA amref.com	American Refining Group, Inc. Gulf Lubricants Bradford, PA amref.com
<b>General purpose lubricants</b>						
32	135-165	Machine Oil ISO 32	R&O Turbine 32	Hyd ISO 32 *	Premium R&O 32	Harmony R&O 32
46	194-236	Machine Oil ISO 46	R&O Turbine 46	Hyd ISO 46 *	Premium R&O 46	Harmony R&O 46
68	284-346	Machine Oil ISO 68	R&O Turbine 68	Hyd ISO 68 *	Premium R&O 68	Harmony R&O 68
150	630-770	Machine Oil ISO 150	R&O Turbine 150	Hyd ISO 150 *	Premium R&O 150	Harmony R&O 150
220	900-1100	Machine Oil ISO 220	R&O Turbine 220	Hyd ISO 220 *	Premium R&O 220	Harmony R&O 220
460	1935-2365	Machine Oil ISO 460	R&O Turbine 460	Hyd ISO 460 *	Premium R&O 460	Harmony R&O 460
<b>Antiwear hydraulic oil</b>						
32	135-165	AW Hyd. Oil Light	AW 32 Hydraulic	AW Hyd 32	Premium R&O AW 32	Harmony R&O AW 32
46	194-236	AW Hyd. Oil Medium	AW 46 Hydraulic	AW Hyd 46	Premium R&O AW 46	Harmony R&O AW 46
68	284-346	AW Hyd. Oil Medium-Heavy	AW 68 Hydraulic	AW Hyd 68	Premium R&O AW 68	Harmony R&O AW 68
<b>Spindle oil</b>						
2	29-35	Spindle Oil 30	—	Spindle Light	—	—
10	54-66	Spindle Oil 60	Spindle 10	Spindle 60	—	—
22	95-115	Spindle Oil 100	Spindle 22	Spindle 100	—	—
<b>Way oil</b>						
32	135-165	Waylube ISO 32	Waylube 32	Way 32	ISO VG 32	Gulfway ISO VG 32
68	284-346	225 Waylube	Waylube 68	Way 68	ISO VG 68	Gulfway ISO VG 68
220	900-1100	950 Waylube	Waylube 220	Way 220	ISO VG 220	Gulfway ISO VG 220
<b>Extreme pressure gear oil</b>						
68	284-346	EP Gear Oil ISO 68	Ind Gear EP 68	Gear Oil EP 68 *	2 EP Ind. Gear Lube	2 EP Lubricant HD
150	630-770	EP Gear Oil ISO 150	Ind Gear EP 150	Gear Oil EP 150 *	4 EP Ind. Gear Lube	4 EP Lubricant HD
320	1350-1650	EP Gear Oil ISO 320	Ind Gear EP 320	Gear Oil EP 320 *	6 EP Ind. Gear Lube	6 EP Lubricant HD
<b>Worm gear oil</b>						
460	1935-2365	ISO 460	Cylinder 460	Worm Gear 460	Compound Gear Oil	Senate 460
<b>Cling type gear sheild (open gears)</b>						
—	—	Cling Gear Oil	Open Gear	Super Gear Shield	—	—
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	712 EP Grease	Lithium EP-2	Lith EP 2	Multi-Purpose EP	Gulfcrown EP
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	712 EP Grease Moly	Lithium Moly EP-2	Moly 2	LC5 Moly EP	Gulflex Moly EP, Gulflex 5% Moly EP
ISO Viscosity grade	Viscosity, SUS at 100 F	C&C Oil Co. Kennesaw, GA ccoilco.com	Castrol Industrial Americas White Cloud, MN lubecon.com	Certified Labs Irving, TX certifiedlabs.com	CFB, Inc. Bristol, IN customformulating.com	CGF, Inc. Rockford, IL
<b>General purpose lubricants</b>						
32	135-165	Precision R&O 32	Series I/M	HOC 32 *	RO-32	CG 32 AW *
46	194-236	Precision R&O 46	Molub-Alloy MWO 10	HOC 46 *	RO-46	CG 46 AW *
68	284-346	Precision R&O 68	Molub-Alloy MWO 20	Certop Ind 68	RO-68	CG 68 AW *
150	630-770	Precision R&O 150	Molub-Alloy MWO 35	Certop Ind 150	RO-150	CG 150 AW *
220	900-1100	Precision 220	Molub-Alloy MWO 40	Certop Ind 220 *	RO-220	CG 220 AW *
460	1935-2365	Precision 460	Molub-Alloy MWO 50	Certop Ind 460 *	RO-460	—
<b>Antiwear hydraulic oil</b>						
32	135-165	Precision AW 32	Tribol 943 AW 32	HOC 32 *	Hyd-32 AW	CG 32 AW
46	194-236	Precision AW 46	Tribol 943 AW 46	HOC 46 *	Hyd-46 AW	CG 46 AW
68	284-346	Precision AW 68	Tribol 943 AW 68	HOC 68 *	Hyd-68 AW	CG 68 AW
<b>Spindle oil</b>						
2	29-35	Precision ISO 2	Hyspin Spindle Oil	—	SP-2	CG 2
10	54-66	Precision ISO 10	Hyspin Spindle Oil	SOC 10	SP-10	CG 10
22	95-115	Precision ISO 22	Hyspin Spindle Oil	—	SP-22	CG 22
<b>Way oil</b>						
32	135-165	Industrial 32	—	—	Way-32	CG Way 32
68	284-346	Industrial 68	Molub-Alloy MWO 20	Waylube 68	Way-68	CG Way 68
220	900-1100	Industrial 220	Molub-Alloy MWO 40	WOC 220	Way-220	CG Way 220
<b>Extreme pressure gear oil</b>						
68	284-346	Complex 68	Tribol 1100/68	Certop Ind 68	Gear-68	CG 68 EP
150	630-770	Complex 150	Tribol 1100/150	Certop Ind 150	Gear-150	CG 150 EP
320	1350-1650	Complex 320	Tribol 1100/320	Certop Ind 320	Gear-320	CG 320 EP
<b>Worm gear oil</b>						
460	1935-2365	Complex 460	Optimal Optigear BM	Certop Ind 460	WGO-460	CG 460 WGO
<b>Cling type gear sheild (open gears)</b>						
—	—	EP 10 S	Molub-Alloy 82 EP	Hi Gear 20/20	—	—
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	Crescent Lithicom Red EP	Molub-Alloy 860-2 ES	Lithiplex	—	—
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	Crescent H/T Moly EP	Molub-Alloy 860	Premalube Xtreme *	—	—



<b>Amsoil, Inc.</b> Superior, WI amsoil.com	<b>Apollo America Corp.</b> Southfield, MI apolloamerica.com	<b>Baum's Castorine Co., Inc.</b> Rome, NY	<b>Beacon Lubricants, Inc.</b> Edinboro, PA beaconlubricants.com	<b>Benz Oil</b> Milwaukee, WI benzoil.com	<b>BP Lubricants N.A.</b> Baltimore, MD bplubricants.com
RCH RCI RCJ RCL RCM RCO	Daphne Fluid 32 Daphne Fluid 46 Daphne Fluid 68 Daphne Fluid 150 Daphne Fluid 220 Daphne Fluid 460	Tena-Film 150TH Tena-Film 300LTH Tena-Film 300MTH Tena-Film 400TH Tena-Film 500TH Tena-Film 2500TH	R&O Turbine 32 * R&O Turbine 46 * R&O Turbine 68 * R&O Turbine 150 * R&O Turbine 220 * R&O Turbine 460 *	Hy Circ 32 Hy Circ 48 Hy Circ 68 Hy Circ 150 Hy Circ 220 Hy Circ 460	Energol HL-C 32 Energol HL-C 46 Energol HL-C 68 Energol HL-C 150 Energol HL-C 220 Energol HL-C 460
AWH AWI AWJ	Daphne Fluid AW 32 Daphne Fluid AW 46 Daphne Fluid AW 68	Tena-Film 150TH Tena-Film 300LTH Tena-Film 300MTH	Hydraulic Anti-Wear 32 * Hydraulic Anti-Wear 46 * Hydraulic Anti-Wear 68 *	Petraulic 32 Petraulic 46 Petraulic 68	Energol HLP-HM 32 Energol HLP-HM 46 Energol HLP-HM 68
— RCE RCF	Daphne Fluid 2 Daphne Super Multi 10 Daphne Fluid 22	— Tena-Film 75TH Tena-Film 100TH	Spindle 2 * Spindle 10 * Spindle 22 *	Petraspeed 3 Petraspeed 10 Petraspeed 22	— Spindle Oil 10 Spindle Oil 22
— WLJ —	Daphne Waylube 32 Daphne Waylube 68 Daphne Waylube 220	Tena-Film EP 150ST Tena-Film EP 300ST Tena-Film EP 1000ST	Way Lubricant 32 Way Lubricant 68 Way Lubricant 220	Waylube 32 Waylube 68 Waylube 220	Energol SW 32 Energol SW 68 Energol SW 220
— SGL SGN	Daphne Gearlube 68 Daphne Gearlube 150 Daphne Gearlube 320	Tena-Film EP 300 Tena-Film EP 700 Tena-Film EP 1400	Industrial Gear EP 68 Industrial Gear EP 150 Industrial Gear EP 320	Gearol 68 Gearol 150 Gearol 320	Energol GR-XP 68 Energol GR-XP 150 Energol GR-XP 320
RCO	—	Cylinder 180	Industrial Gear EP 460	Gearol 7	Energol DC-C 460
GFW	—	Tena-Film Moly 08470	Extreme Cling 2200	—	—
GLC	Daphne Grease #0, #1, #2	Tena-Film No. 2-EP	Lithium Complex EP 2	Multi Service EP 2	Energrease LS-EP 2
GHD	Daphne Mo Grease #2	Tena-Film Moly 0-23	Lithium Complex Moly EP 2	Moly Alumaplex EP 2	Energrease LC-M2

  

<b>Champion Brands, LLC</b> Clinton, MO championbrands.com	<b>Chemsearch</b> Irving, TX chemsearch.com	<b>Chemtool, Inc.</b> Crystal Lake, IL chemtool.com	<b>ChevronTexaco Global Lubricants</b> Chevron Branded Lubricants San Ramon, CA chevrontexacolubricants.com	<b>ChevronTexaco Global Lubricants</b> Texaco Branded Lubricants San Ramon, CA chevrontexacolubricants.com	<b>CHS, Inc.</b> Inver Grove Heights, MN Cenex.com
Champion ISO 32 Champion ISO 46 Champion ISO 68 AW R&O Champion ISO 150 AW R&O Champion ISO 220 AW R&O Quantum All Season 4600	Advansys 5W-20 Advansys 5W-20 Lubra-Tech 68 Advansys 10W-40 Advansys 10W-40 LubraTech 460	CT R&O 32 CT R&O 46 CT R&O 68 CT R&O 150 CT R&O 220 CT R&O 460	AIO ISO 32 * AIO ISO 46 * AIO ISO 68 * AIO ISO 150 * AIO ISO 220 * AIO ISO 460 *	Regal R&O ISO 32 Regal R&O ISO 46 Regal R&O ISO 68 Regal R&O ISO 150 Regal R&O ISO 220 Regal R&O ISO 460	XL 32 XL 46 XL 68 XL 150 XL 220 XL 460
Champion SG ISO 32 AW R&O Champion SG ISO 46 AW R&O Champion SG ISO 68 AW R&O	LubraGuard 32 * LubraGuard 46 * LubraGuard 68 *	CT AW 32 * CT AW 46 * CT AW 68 *	Rykon AW 32 Rykon AW 46 Rykon AW 68	Rando HD 32 * Rando HD 46 * Rando HD 68 *	Indol ISO 32 Indol ISO 46 Indol ISO 68
— — —	— Spindle —	CT 2 CT 10 CT 22	— — CP Oil ISO 22	— Spindura 10 Spindura 22	— — XL 22
— Champion Waylube ISO 68 Champion Waylube ISO 220	— Waylube 68 WOC 220	CT NZ 32 CT NZ 68 CT NZ 220	Vistac D ISO 32 Vistac D ISO 68 Vistac D ISO 220	— Way lubricant 68 Way lubricant 220	InPro Waylube ISO 32 InPro Waylube ISO 68 InPro Waylube ISO 220
Champion Ind. Gear EP ISO 68 Champion Ind. Gear EP ISO 150 Champion Ind. Gear EP ISO 320	LubraTech 68 LubraTech 150 LubraTech 320	CT EP 68 CT EP 150 CT EP 320	EP ISO 68 * EP ISO 150 * EP ISO 320 *	Meropa 68 Meropa 150 Meropa 320	AGMA/EP 2EP AGMA/EP 4EP AGMA/EP 6EP
—	LubraTech 460	CT 460	Ultra Gear ISO 460 *	Vanguard 460	—
—	Top Gear Plus	CT OGL-Heavy	Open Gear Grease	Crater	—
Champion Poly 7	LubraPlex	Chemliith EP 2A	Dura-Lith Grease EP	Multifak EP	Blue Gard 500+ #2EP
Champion Moly EP	MaxiLube, MaxiLube Extreme	Chemliith MY 2B	Moly Grease EP	Starplex Moly	Molyplex 500+ #2/#1 EP



# 2004 Interchangeable lubricants

ISO Viscosity grade	Viscosity, SUS at 100 F	Cincinnati Vulcan Co. Cincinnati, OH vulcanoil.com	Citgo Petroleum Corp. Tulsa, OK citgo.com	Clark Oil & Chemical Co. Cleveland, OH	CLC Lubricants Geneva, IL clclubricants.com	Coast Oil Co., LLC San Jose, CA coastoil.com
<b>General purpose lubricants</b>						
32	135-165	Pandora 32	Pacemaker 32 *	Cochem 238-4	HO 149	—
46	194-236	Pandora 46	Pacemaker 46 *	Cochem 238-5	HO 199	—
68	284-346	Pandora 68	Pacemaker 68 *	Cochem 238-7	HO 299	—
150	630-770	Pandora 150	Pacemaker 150 *	Cochem 238-9	HO 699	—
220	900-1100	Pandora 220	Pacemaker 220 *	Cochem 238-10	HO 999	—
460	1935-2365	Pandora 460	Pacemaker 460 *	Cochem 238-11	HO 2200	—
<b>Antiwear hydraulic oil</b>						
32	135-165	Aries 32	AW Hydraulic 32 *	Cochem 237-4	HVI 32 AW	A/W Hydraulic ISO 32
46	194-236	Aries 46	AW Hydraulic 46 *	Cochem 237-5	HVI 46 AW	A/W Hydraulic ISO 46
68	284-346	Aries 68	AW Hydraulic 68 *	Cochem 237-7	HVI 68 AW	A/W Hydraulic ISO 68
<b>Spindle oil</b>						
2	29-35	Pandora 2	—	Cochem 237-0	Clear Spin 30	—
10	54-66	Pandora 10	Diamond Oil #7	Cochem 237-1	Clear Spin 60	—
22	95-115	Pandora 22	Diamond Oil #20	Cochem-237-2	Clear Spin 100	—
<b>Way oil</b>						
32	135-165	Stearocling 150S	Sliderite 32	Cochem 233-1	Way Clear 32	—
68	284-346	Stearocling 300S	Sliderite 68	Cochem 233-3	Way Clear 68	—
220	900-1100	Stearocling 1000S	Sliderite 220	Cochem 233-10	Way Clear 220	—
<b>Extreme pressure gear oil</b>						
68	284-346	Hercules 2	EP Compound 68	Cochem 264-2	IGO 300	EP Gear 68
150	630-770	Hercules 4	EP Compound 150	Cochem 264-4	IGO 700	EP Gear 150
320	1350-1650	Hercules 6	EP Compound 320	Cochem 264-6	IGO 1500	EP Gear 320
<b>Worm gear oil</b>						
460	1935-2365	Vulcan 600W Cylinder Oil	Cylinder 400-S	Cochem 1439	2200 Worm Gear Oil	—
<b>Cling type gear sheild (open gears)</b>						
—	—	—	Citgear OGL-A	Cochem 1412	—	—
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	—	Premium Lith EP 2	Maxilube 2	Lubrimax LR 12	—
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	—	Lithoplex MP 2	Maxilube MEP 2	Lubrimax ML 2	—
ISO Viscosity grade	Viscosity, SUS at 100 F	Dow Corning Corp. Midland, MI dowcorning.com	DR Lubricants Ft. Wayne, IN	DSI Fluids Tyler, TX directsynthetics.com	Dylon Industries, Inc. Cleveland, OH dylon.com	Fuchs Lubricants Co. Harvey, IL fuchs.com
<b>General purpose lubricants</b>						
32	135-165	L0532 *	HO 150 R/O	Microblend Lube ISO 32	Supercut R&O 32	Renolin RO 32 *
46	194-236	L1240	HO 200 R/O	Microblend Lube ISO 46	Supercut R&O 46	Renolin RO 46 *
68	284-346	L1468 *	HO 300 R/O	Microblend Lube ISO 68	Supercut R&O 68	Renolin RO 68 *
150	630-770	L1115 *	HO 500 R/O	Microblend Lube ISO 150	Supercut R&O 150	Renolin RO 150 *
220	900-1100	L1122 *	HO 1000 R/O	Microblend Lube ISO 220	Supercut R&O 220	Renolin RO 220 *
460	1935-2365	L1146 *	HO 2500 R/O	Microblend Lube ISO 460	—	Renolin RO 460 *
<b>Antiwear hydraulic oil</b>						
32	135-165	L0532 *	HO 150	Microblend HO ISO 32	Hydraglide 32	Renolin AW 32 *
46	194-236	L0346 *	HO 200	Microblend HO ISO 46	Hydraglide 46	Renolin AW 46 *
68	284-346	L0368 *	HO 300	Microblend HO ISO 68	Hydraglide 68	Renolin AW 68 *
<b>Spindle oil</b>						
2	29-35	L1605	SO 2	—	—	Renolin SP 2
10	54-66	—	SO 10	—	Superspin 10	Renolin SP 10 *
22	95-115	—	SO 22	—	Superspin 22	Renolin SP 22 *
<b>Way oil</b>						
32	135-165	—	WO 150	—	Superway 32	Renolin WL 32 *
68	284-346	L1468 *	WO 300	—	Superway 68	Renolin WL 68 *
220	900-1100	—	WO 1000	—	Superway 220	Renolin WL 220 *
<b>Extreme pressure gear oil</b>						
68	284-346	—	EP 68	Microblend EP ISO 68	—	Renolin EP 68 *
150	630-770	L0115 *	EP 150	Microblend EP ISO 150	ML 150	Renolin EP 150 *
320	1350-1650	—	EP 320	Microblend EP ISO 320	ML 320	Renolin EP 320 *
<b>Worm gear oil</b>						
460	1935-2365	L1146	Worm GO 460	—	—	Renolin CS 460 *
<b>Cling type gear sheild (open gears)</b>						
—	—	—	—	Microblend Tacky	LB 355, LB 380	Centak 11 H *
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	BR-2, G-4700	Lithcomp EP 2	—	GR 424	Renolit Replex 2 *
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	G-4700	Molyolith EP 2	—	GR F13, GR 424, GR 650	Renolit HDCG 2 *



Colorado Petroleum Products Denver, CO colopetro.com	ConocoPhillips Ponca City, OK conocophillips.com	Corrigan Oil Co. Whitmore Lake, MI	CPI Engineering Services, Inc. Midland, MI cpieng.com	Crescent Oil Co., Inc. Indianapolis, IN	W. S. Dodge Oil Co., Inc. Maywood, CA
Rugged	Multipurpose R&O 32 *	R&O 32	CP-9001-32 *	DuraLife ISO 32 R&O	DeoLube 32-S
Rugged	Multipurpose R&O 46 *	R&O 46	CP-9001-46 *	DuraLife ISO 46 R&O	DeoLube 46-S
Rugged	Multipurpose R&O 68 *	R&O 68	CP-9001-68 *	DuraLife ISO 68 R&O	DeoLube 68-S
Rugged	Multipurpose R&O 150 *	R&O 150	CP-9001-150 *	DuraLife ISO 150 R&O	DeoLube 150-S
Rugged	Multipurpose R&O 220 *	R&O 220	CP-9001-220 *	DuraLife ISO 220 R&O	DeoLube 220-S
Rugged	Multipurpose R&O 460 *	R&O 460	CP-9001-460 *	DuraLife ISO 460 R&O	DeoLube 460-S
Rugged	Super Hyd. Oil 32 *	AW-32	CP-9000-32 *	DuraWear ISO 32 AW	DeoLube 32-AW
Rugged	Super Hyd. Oil 46 *	AW-46	CP-9000-46 *	DuraWear ISO 46 AW	DeoLube 46-AW
Rugged	Super Hyd. Oil 68 *	AW-68	CP-9000-68 *	DuraWear ISO 68 AW	DeoLube 468AW
Rugged	Ultra Clean Spindle 2	Spindle 2	—	—	—
Rugged	Ultra Clean Spindle 10	Spindle 10	CP-9001-10	Clingolene ISO 10 R&O	DeoLube 10-S
Rugged	Ultra Clean Spindle 22	Spindle 22	CP-9001-22	Clingolene ISO 22 R&O	DeoLube 22-S
Rugged	Multi-Way Machine Lube 32	Waylube 32	—	Clingolene ISO 32	Safway Lube 32
Rugged	Multi-Way Machine Lube 68	Waylube 68	—	Clingolene ISO 68	Safway Lube P-47
Rugged	Multi-Way Machine Lube 220	Waylube 220	—	Clingolene ISO 220	Safway Lube P-50
Rugged	Hydroclear EP Gear 68 *	EP-68 Gear	CP-9020-68 *	Clingolene ISO 68 EP	Industragear 2-EP
Rugged	Hydroclear EP Gear 150 *	EP-150 Gear	CP-9020-150 *	Clingolene ISO 150 EP	Industragear 4-EP
Rugged	Hydroclear EP Gear 320 *	EP-320 Gear	CP-9020-320 *	Clingolene ISO 220 EP	Industragear 6-EP
Rugged	Inca 460	460 Worm Gear	—	ISO 460-L	7-C
Rugged	Gearshield NC	—	—	—	DeoPlex Open Gear
Rugged	EP Conolith	—	—	—	DeoPlex Green *
Rugged	Tanca M5	—	—	—	DeoPlex Moly EP, Lithium #2
G-C Lubricants San Carlos, CA	G&G Oil Co. of Indiana Muncie, IN ggoil.com	Goldenwest Lubricants, Inc. South El Monte, CA goldenwestlubricants.com	Guard Dog Moly Lubricants, Inc. Houston, TX guarddogmoly.com	Halocarbon Products Corp. River Edge, NJ halocarbon.com	Lee Helms, Inc St. Louis, MO leehelms.com
Elapa R&O 32 *	Royal R&O 32	Uni-Lube 32 *	GD-604L	27 Oil	Turbine Oil 33
Elapa R&O 46 *	Royal R&O 46	Uni-Lube 46 *	—	—	Turbine Oil 46
Elapa R&O 68 *	Royal R&O 68	Uni-Lube 68 *	GD-604M	56 Oil	Turbine Oil 68
Elapa R&O 100 *	Royal R&O 150	Uni-Lube 150 *	—	—	Turbine Oil 150
Elapa R&O 220 *	Royal R&O 220	Uni-Lube 220 *	GD-604H	200 Oil	Turbine Oil 220
Elapa R&O 460 *	Royal R&O 460	Uni-Lube 460 *	—	—	Turbine Oil 460
Light AW R&O *	Royal Hyd 32 *	Premium AW Hyd 32 *	GD-630 AW #32	—	H-Hydraulic AW 32
Medium AW R&O *	Royal Hyd 46 *	Premium AW Hyd 46 *	GD-630 AW #46	—	H-Hydraulic AW 46
Heavy Medium AW R&O	Royal Hyd 68 *	Premium AW Hyd 68 *	GD-630 AW #68	—	H-Hydraulic AW 68
Spindle Oil #000 *	Royal Spindle HS	Uni-Lube 2	—	4.2 Oil	—
Spindle Oil #00 *	Royal Spindle 10	Uni-Lube10	—	—	Spinit 10
Spindle Oil #0 *	Royal Spindle 22	Uni-Lube 22	—	—	Spinit 22
Way Lube 1405 *	Waylube 32	Premium Way Lube 32	—	—	Femus 32
Way Lube 80 *	Waylube 68	Premium Way Lube 68	—	—	Femus 68
Way Lube 90 *	Waylube 220	Premium Way Lube 220	—	—	Femus 220
Multipurpose EP 68 *	Ind Gear 68 *	EP Ind Gear 68	GD-201 80W90	—	H-Gear EP 68
Multipurpose EP 150 *	Ind Gear 150 *	EP Ind Gear 150	GD-201 80W90	—	H-Gear EP 150
Multipurpose EP 320 *	Ind Gear 320 *	EP Ind Gear 320	GD-201 80W90	—	H-Gear EP 320
85 WA Steam Cylinder Oil *	Steam Cylinder 460	EP Ind Gear 460	—	400 Oil	Cylinder Oil 460
—	Open Gear Grease SC	Premium Open Gear 35	—	—	Open Gear Lube
—	LS EP 2	Multi-Purpose EP Lith 2	—	—	Licon EP 2
—	Moly EP 2	Multi-Purpose EP Moly 2	GD-501 Moly EP-2	MT-31	Hi-Temp Moly



# 2004 Interchangeable lubricants

\* Indicates food grade available



ISO Viscosity grade	Viscosity, SUS at 100 F	Houghton Intl., Inc. Valley Forge, PA houghtonintl.com	Huskey Specialty Lubricants Norco, CA huskey.com	ID Corp. Carson City, NV idcorporation.com	Illinois Oil Products, Inc. Rock Island, IL illinoisoilproducts.com	Industrial Oils Unlimited, Inc. Tulsa, OK	ITW Rocol North America Glenview, IL rocolnorthamerica.com
<b>General purpose lubricants</b>							
32	135-165	—	HLO Series SAE 10 *	R&O # 150	ISO 32	Hi Tek R&O 32 *	—
46	194-236	—	HLO Series ISO 46 *	R&O # 225	ISO 46	Hi Tek R&O 46 *	—
68	284-346	—	HLO Series SAE 20 *	R&O # 300	ISO 68	Hi Tek R&O 68 *	—
150	630-770	—	HLO Series SAE 40 *	R&O # 700	ISO 150	Hi Tek R&O 150 *	—
220	900-1100	—	HLO Series SAE 50 *	R&O # 1000	ISO 220	Hi Tek R&O 220 *	—
460	1935-2365	—	HLO Series ISO 460 *	R&O # 2100	ISO 460	Hi Tek R&O 460 *	—
<b>Antiwear hydraulic oil</b>							
32	135-165	Hydro-Drive HP 150	HLO Series SAE 10 *	AW # 150	ISO 32	Hi Tek AW 32 *	—
46	194-236	Hydro-Drive HP 200	HLO Series ISO 46 *	AW # 225	ISO 46	Hi Tek AW 46 *	—
68	284-346	Hydro-Drive HP 300	HLO Series SAE 20 *	AW # 300	ISO 68	Hi Tek AW 68 *	—
<b>Spindle oil</b>							
2	29-35	—	—	# 30	ISO 2	ISO 2 *	—
10	54-66	—	Spindle ISO 10	# 60	ISO 10	ISO 10 *	—
22	95-115	—	Spindle ISO 22	# 100	ISO 22	ISO 22 *	—
<b>Way oil</b>							
32	135-165	—	—	WayLube # 1	ISO 32	Superfilm Waylube 32	—
68	284-346	—	—	WayLube # 2	ISO 68	Superfilm Waylube 68	Tri-Logic V6-68
220	900-1100	—	—	WayLube # 4	ISO 220	Superfilm Waylube 220	—
<b>Extreme pressure gear oil</b>							
68	284-346	—	Gear ISO 68 *	EP # 300	ISO 68	Super EP 68	—
150	630-770	—	Gear ISO 150 *	EP # 700	ISO 150	Super EP 150	—
320	1350-1650	—	Gear ISO 320 *	EP # 1500	ISO 320	Super EP 320	—
<b>Worm gear oil</b>							
460	1935-2365	—	Gear ISO 460 *	—	—	460 Steam Cylinder Oil	—
<b>Cling type gear sheild (open gears)</b>							
—	—	—	Open Gear	—	—	Super Blue 600	—
<b>General purpose extreme pressure lithium based grease</b>							
—	NLGI 2	—	Coolplex	—	HD Lithium	Superfilm Hi Temp #2	—
<b>Molybdenum disulfide extreme pressure grease</b>							
—	NLGI 2	—	Molyplex	—	3% HD Moly	Superfilm HMA #2	—
<b>General purpose lubricants</b>							
ISO Viscosity grade	Viscosity, SUS at 100 F	Jenkin-Guerin, Inc. St. Louis, MO jenkin-guerin.com	Johnson Diversey (DuBois) Cincinnati, OH	Jonell Oil Corp. Irwindale, CA	Kendall Ponca City, OK conocophillips.com	Kent Oil Co., Inc. Lakeland, FL	
32	135-165	150 AW	MPO-10 *	Jo-Lube 1521	—	Moly-NRG Special Duty 10	
46	194-236	200 AW	HOP-46 *	Jo-Lube 1523	—	Moly-NRG Special Duty 15	
68	284-346	300 AW	MPO-20 *	Jo-Lube 1522	—	Moly-NRG Special Duty 20	
150	630-770	700 AW	—	Jo-Lube 1527	Non-detergent 30	Moly-NRG Special Duty 40	
220	900-1100	1000 AW	—	Jo-Lube 1525	—	Moly-NRG Special Duty 50	
460	1935-2365	2000 AW	—	Jo-Lube 1528	—	Moly-NRG Special Duty 70	
<b>Antiwear hydraulic oil</b>							
32	135-165	150 AW	MPO-10 *	Jo-Lube 1511	FourSeasons AW 32	Moly-NRG Hydro-Servoil 303	
46	194-236	200 AW	HOP-46 *	Jo-Lube 1512	FourSeasons AW 46	Moly-NRG Hydro-Servoil 304	
68	284-346	300 AW	MPO-20 *	Jo-Lube 1513	FourSeasons AW 68	Moly-NRG Hydro-Servoil 305	
<b>Spindle oil</b>							
2	29-35	35 AW	—	Jo-Lube 1509	—	Moly-NRG Spindle Extra Light	
10	54-66	60 AW	—	Jo-Lube 1519	—	Moly-NRG Spindle Light	
22	95-115	100 AW	—	Jo-Lube 1510	—	Moly-NRG Spindle Medium	
<b>Way oil</b>							
32	135-165	SAE 75	—	Jo-Lube 1501	—	Moly-NRG Way 10	
68	284-346	SAE 80	—	Jo-Lube 1502	—	Moly-NRG Way 20	
220	900-1100	SAE 90	—	Jo-Lube 1504	Kenoil EP 220	Moly-NRG Way 50	
<b>Extreme pressure gear oil</b>							
68	284-346	#99 SAE 80	Unit Oil 60 *	Jo-Lube 1590-20	Industrial Gear 68	Moly-NRG Super Gear 89	
150	630-770	#99 SAE 85	Unit Oil 150 *	Jo-Lube 1590-30	Industrial Gear 150	Moly-NRG Super Gear 90	
320	1350-1650	#99 SAE 120	Unit Oil 320 *	Jo-Lube 1590-140	Industrial Gear 320	Moly-NRG Super Gear 123	
<b>Worm gear oil</b>							
460	1935-2365	SAE 140	—	Jo-Lube 1595	—	Moly-NRG ISO 460	
<b>Cling type gear sheild (open gears)</b>							
—	—	Open Gear Lube	—	—	—	Moly-NRG Gear Spray-Reg	
<b>General purpose extreme pressure lithium based grease</b>							
—	NLGI 2	All-Season Lith	CLG-2	Jo-Lube 1588 EP 2	EP Lithium	Moly-NRG 7 Plus Poly Moly 2	
<b>Molybdenum disulfide extreme pressure grease</b>							
—	NLGI 2	Moly EP	—	Jo-Lube 1587 Moly EP 2	L-428 Tough Tac	Moly-NRG 7 Plus Poly Moly 2	



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ISO Viscosity grade	Viscosity, SUS at 100 F	Keystone Lubricants - Div. Total Lubricants USA, Inc. Linden, NJ kestonelubricants.com	Kost USA Maineville, OH	The Lockrey Co., Inc. Merchantville, NJ	LPS Laboratories Tucker, GA lpslabs.com	LubLine Corp. Diamond Bar, CA lubline.com
<b>General purpose lubricants</b>						
32	135-165	KLC Antiwear 32 *	Kostgard R&O 32	—	—	Hydraulic 32
46	194-236	KLC Antiwear 46 *	Kostgard R&O 46	—	—	Hydraulic 46 *
68	284-346	KLC Antiwear 68 *	Kostgard R&O 68	—	—	Hydraulic 68 *
150	630-770	KLC Antiwear 150 *	Kostgard R&O 150	—	—	Hydraulic 150
220	900-1100	KLC Antiwear 220 *	Kostgard R&O 220	—	—	Hydraulic 220
460	1935-2365	KLC Antiwear 460 *	Kostgard R&O 460	—	—	Hydraulic 246
<b>Antiwear hydraulic oil</b>						
32	135-165	KLC Antiwear 32 *	Kostgard AW 32	—	—	Hydraulic AW 32
46	194-236	KLC Antiwear 46 *	Kostgard AW 46	—	—	Hydraulic AW 46
68	284-346	KLC Antiwear 68 *	Kostgard AW 68	—	—	Hydraulic AW 68
<b>Spindle oil</b>						
2	29-35	—	Kostgard Hi-Speed S 2	—	—	Spindle Oil 2
10	54-66	—	—	—	—	Spindle Oil 10
22	95-115	Keyspin 22	Kostgard Hi-Speed S 22	—	—	Spindle Oil 22
<b>Way oil</b>						
32	135-165	—	Kostgard Slide Oils	—	—	Way Oil 32
68	284-346	Keyway 68	Kostgard Slide Oils	—	—	Way Oil 68
220	900-1100	Keyway 220	Kostgard Slide Oils	—	—	Way Oil 220
<b>Extreme pressure gear oil</b>						
68	284-346	—	Kostgard EP Industrial Oils	—	—	EP Gear Oil 68
150	630-770	Keygear 150 *	Kostgard EP Industrial Oils	—	—	EP Gear Oil 150
320	1350-1650	Keygear 80/140 *	Kostgard EP Industrial Oils	—	—	EP Gear Oil 320
<b>Worm gear oil</b>						
460	1935-2365	Keygear 460; K600 *	—	—	—	Worm Gear 460
<b>Cling type gear sheild (open gears)</b>						
—	—	Moly 29 Open Gear Compound*	—	—	—	—
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	81 EP 2 *	—	—	Thermaplex Multipurpose	—
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	—	—	Liqui-Moly PBMG	Thermaplex Hi-Load	—
ISO Viscosity grade	Viscosity, SUS at 100 F	McCollister & Co. Council Bluffs, IA mccollister.com	Metalworking Lubricants Co. Pontiac, MI metalworjnglubricants.com	Mid-Town Petroleum, Inc. Bridgeview, IL midtownoil.com	Miller Oil of Indiana, Inc. Indianapolis, IN milleroilinc.com	Momar, Inc. LuBest Div. Atlanta, GA momar.com
<b>General purpose lubricants</b>						
32	135-165	#3043	Metlube 32	Super R&O 32	Supro R&O 32	Ivory Sol ISO 32 *
46	194-236	#3044	Metlube 46	Super R&O 46	Supro R&O 46	Ivory Sol ISO 46 *
68	284-346	#3045	Metlube 68	Super R&O 68	Supro R&O 68	Ivory Sol ISO 68 *
150	630-770	#3047	Metlube 150	Super R&O 150	Supro R&O 150	Ivory Sol ISO 150 *
220	900-1100	#3048	Metlube 220	Super R&O 220	Supro R&O 220	Ivory Sol ISO 220 *
460	1935-2365	—	Metlube 460	Super R&O 460	Supro R&O 460	Ivory Sol ISO 460 *
<b>Antiwear hydraulic oil</b>						
32	135-165	#3043	Metlube H150AW Ultra Servo 13/10	Super AW Hyd 32	Priority WR 32	ISO 32 Syn
46	194-236	#3044	Metlube H200AW Ultra Servo 13/10	Super AW Hyd 46	Priority WR 46	ISO 46 Syn
68	284-346	#3045	Metlube H300AW Ultra Servo 13/10	Super AW Hyd 68	Priority WR 68	ISO 68 Syn
<b>Spindle oil</b>						
2	29-35	—	Metspindle 30	Super Spindle 2	Superspin 2	—
10	54-66	#4760	Metspindle 60	Super Spindle 10	Superspin 10	—
22	95-115	#4761	Metspindle 100	Super Spindle 22	Superspin 22	ISO 22 Syn
<b>Way oil</b>						
32	135-165	#4353	Metway 150	Super Waylube 32	Coolside 32	Slide Way ISO 32 Syn
68	284-346	#4355	Metway 300	Super Waylube 68	Coolside 68	Slide Way ISO 68 Syn
220	900-1100	#4358	Metway 1000	Super Waylube 220	Coolside 220	Slide Way ISO 220 Syn
<b>Extreme pressure gear oil</b>						
68	284-346	#4376	Metgear 68	Super NL Gear Comp 68	Supergear EP 68	Ind Gear EP #2 Syn
150	630-770	#4370	Metgear 150	Super NL Gear Comp 150	Supergear EP 150	Ind Gear EP #4 Syn
320	1350-1650	#4373	Metgear 320	Super NL Gear Comp 320	Supergear EP 220	Ind Gear EP #6 Syn
<b>Worm gear oil</b>						
460	1935-2365	#3131	Metgear WG 460	Super Cylinder 460	Cylinder Oil 460	Worm Gear ISO 460 Syn
<b>Cling type gear sheild (open gears)</b>						
—	—	—	Metkling	Super Open Gear	—	Titan 444
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	—	Lubemet 2	Super Premium Lith Complex	DA-Redplex 00,0,1,2	Titan 555
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	—	Metlith 2	Super Premium EP Moly D	DA-Multiplex #1,2	Titan 777



LubePlanet.com Evanston, IL lubeplanet.com	Lubricants, USA Plano, TX finalube.com	LuBriko Lubricants Crystal Lake, IL lubriko.com	Lubriplate Div. Fiske Bros. Refining Co. Newark, NJ lubriplate.com	Macro Specialty Industries, Inc. Napoleon, OH macrospecialtyindustries.com	Mantek Irving, TX mantek.com	
ISO 32	Fina Eolan ISO 32 *	Lubriko 32	HO 0 *	—	Lubra Guard ISO 32 *	
ISO 46	Fina Eolan ISO 46 *	Lubriko 46	HO 1 *	—	Lubra Guard ISO 46 *	
ISO 68	Fina Eolan ISO 68 *	Lubriko 68	HO 2 *	—	Lubra Guard ISO 68	
ISO 150	Fina Eolan ISO 150 *	—	HO 3 *	—	Lubra Guard ISO 150	
ISO 220	Fina Eolan ISO 220 *	Lubriko 220	SPO 255 *	—	Lubra Guard ISO 220 *	
ISO 460	Fina Eolan ISO 460 *	Lubriko 460	SPO 277 *	—	Lubra Guard ISO 460 *	
ISO 32 *	Fina Hyban 32 *	Lubriko AW 32 *	HO 0 *	—	Lubra Guard 32 *	
ISO 46 *	Fina Hyban 46 *	Lubriko AW 46 *	HO 1 *	—	Lubra Guard 46 *	
ISO 68 *	Fina Hyban 68 *	Lubriko AW 68 *	HO 2 *	—	Lubra Guard 68 *	
ISO 2	—	—	—	—	—	
ISO 10	Fina Spindle Oil 10	—	No. 0 *	—	Lubra Systems Spindle Oil	
ISO 22	Fina Spindle Oil 22	—	No. 1 *	—	—	
ISO 32	Fina Artac 32	—	10 R *	MSI-45 *	—	
ISO 68	Fina Artac 68	—	SPO 222 *	MSI-75 *	LD MWL 68	
ISO 220	Fina Artac 220	—	SPO 255 *	MSI-220 *	M/M Way Lube 220	
ISO 68	Fina Pontonic N 68	Lubriko 68 EP *	APG 80 *	MSI-75 *	Lubra Tech ISO 68	
ISO 150	Fina Pontonic N 150	Lubriko 150 EP *	APG 80W-90 *	MSI-150 *	Lubra Tech ISO 150	
ISO 320	Fina Pontonic N 320	Lubriko 320 EP *	APG 80W-140 *	MSI-350 *	Lubra Tech ISO 320	
ISO 460	Fina Cylan Cylinder Oil 460	Lubriko GO 460	SPO 277 *	MSI-460 *	Lubra Tech ISO 460	
—	Fina Marson	—	Gear Shield Extra Heavy *	—	Top Gear Plus	
EP Lithium *	Fina Marson EPL, Lipler *	Lubriko L206 EP, Lubriko M24	No. 1242	LRG-500 *	Lubra Plex	
Multi-Purpose w/Moly	Fina Marson Lipler Moly, Moly ET	Lubriko LM203, Lubriko LM206	No. 3000	—	Elite Supreme	
Moore Oil Co. Milwaukee, WI mooreoil.com	Moraine Liquid Technologies Oconomowoc, WI hdpluslubricants.com	Moroil Technologies Davidson, NC moroil.com	Motor Oil, Inc. Eik Grove Village, IL motoroilinc.com	Mullen Circle Brand, Inc. Chicago, IL	Mystik Lubricants Tulsa, OK citgo.com	National Chemsearch Irving, TX
—	HD Plus R&O 32	Indlube 5-32	Multi-Purpose 32	9410	Premium AW 32 *	Lubra Guard ISO 32 *
—	HD Plus R&O 46	Indlube 5-46	Multi-Purpose 46	9415	Premium AW 46 *	Lubra Guard ISO 46 *
—	HD Plus R&O 68	Indlube 5-68	Multi-Purpose 68	9420	Premium AW 68 *	Lubra Tech ISO 68
—	HD Plus R&O 150	Indlube 5-150	Multi-Purpose 150	9440	—	Lubra Tech ISO 150
—	HD Plus R&O 220	Indlube 5-220	Multi-Purpose 220	9450	—	Lubra Tech ISO 220 *
—	HD Plus R&O 460	Indlube 5-460	Multi-Purpose 460	9470	—	Lubra Tech ISO 460 *
MorFlo Hydraulic AW 32	HD Plus AW 32	AW/AL 32	EP 32	ISO 32	AW/AL 32 *	Lubra Guard ISO 32 *
MorFlo Hydraulic AW 46	HD Plus AW 46	AW/AL 46	EP 46	ISO 46	AW/AL 46 *	Lubra Guard ISO 46 *
MorFlo Hydraulic AW 68	HD Plus AW 68	AW/AL 68	EP 68	ISO 68	AW/AL 68 *	Lubra Guard ISO 68 *
—	HD Plus Spindle 2	Spindle 2	—	4005	—	—
—	HD Plus Spindle 10	Spindle 10	Spindle 10	4010	—	Lubra Systems Spindle Oil
—	HD Plus Spindle 22	Spindle 22	Spindle 22	4022	—	—
—	HD Plus Waylube 32	Waylube 32	Waylube 32	856	—	—
MorFlo Way Lube 68	HD Plus Waylube 68	Waylube 68	Waylube 68	858	Way Oil 68	Way Lube 68
MorFlo Way Lube 220	HD Plus Waylube 220	Waylube 220	Waylube 220	865	Way Oil 220	Way Lubricant 220
—	HD Plus AGMA 2 EP	Indlube 10-68	Industrial Gear 68	2 EP	—	Lubra Tech ISO 68
MorFlo EP Gear Oil 150	HD Plus AGMA 4 EP	Indlube 10-150	Industrial Gear 150	4 EP	EP Gear 150	Lubra Tech ISO 150
—	HD Plus AGMA 6 EP	Indlube 10-320	Industrial Gear 220	6 EP	—	Lubra Tech ISO 320
—	HD Plus AGMA 7	Indlube 460 WG	Cylinder Oil 460X	—	EP Gear 460	Lubra Tech ISO 460
—	—	—	—	—	OG-5	Top Gear Plus
—	HD Plus PG-2 Green	LMP	—	#725	JT-6 Hi-Temp 2	Lubraplex
—	HD Plus MPZ w/Moly	MOG	—	#735	Tetrimoly Extreme Duty	Maxilube Ultra



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ISO Viscosity grade	Viscosity, SUS at 100 F	Niagara Lubricant Co., Inc. Buffalo, NY niagaralubricant.com	Northland Products Co. Waterloo, IA	The Orelube Corp. Plainview, NY orelube.com	Perkins Products, Inc. Bedford Park, IL perkinsproducts.com	Petro-Canada Lubricants Mississauga, ON petro-canada.com
<b>General purpose lubricants</b>						
32	135-165	Nia-Vis R&O 32	Rodaka 150	CO-10	Perlube RO-32	Premium R&O 32
46	194-236	Nia-Vis R&O 46	Rodaka 215	CO-20 *	Perlube RO-46	Premium R&O 46
68	284-346	Nia-Vis R&O 68	Rodaka 315	G-10/50 *	Perlube RO-68	Premium R&O 68
150	630-770	Nia-Vis R&O 150	Rodaka 700	CO-10/50 *	Perlube RO-150	Premium R&O 150
220	900-1100	Nia-Vis R&O 220	Rodaka 1000	GL-220 *	Perlube RO-220	Premium R&O 220
460	1935-2365	Nia-Vis R&O 460	Rodaka 2150	GL-460 *	Perlube RO-460	Premium R&O 460
<b>Antiwear hydraulic oil</b>						
32	135-165	Nia-Vis R&O AW 32	Talamar 150	HA 1	Perlube AW-32	Hydrex AW 32 *
46	194-236	Nia-Vis R&O AW 46	Talamar 215	HA 2 *	Perlube AW-46	Hydrex AW 46 *
68	284-346	Nia-Vis R&O AW 68	Talamar 315	HA 3 *	Perlube AW-68	Hydrex AW 68 *
<b>Spindle oil</b>						
2	29-35	—	Spintec 35	—	Perlube S-2	—
10	54-66	Spindol 10	Spintec 70	—	Perlube S-10	Premium R&O 10
22	95-115	Spindol 22	Spintec 105	Spindle Oil LT	Perlube S-22	Premium R&O 22
<b>Way oil</b>						
32	135-165	Waylube 32	Waylube 150	—	Perlube WL-32	—
68	284-346	Waylube 68	Waylube 315	Way Oil 68	Perlube WL-68	Accufflo TK 68
220	900-1100	Waylube 220	Waylube 1000	Way Oil 220	Perlube WL-220	Accufflo TK 220
<b>Extreme pressure gear oil</b>						
68	284-346	Aragain 68	Techata 315	GL 68 *	Perlube EP-68	Ultima EP 68
150	630-770	Aragain 150	Techata 700	GL 150 *	Perlube EP-150	Ultima EP 150 *
320	1350-1650	Aragain 320	Techata15700	GL 320 *	Perlube EP-320	Ultima EP 320 *
<b>Worm gear oil</b>						
460	1935-2365	Aragain 460	Spiron 460	G 90/140	Perlube 460-F	Senate 460
<b>Cling type gear shield (open gears)</b>						
—	—	—	—	G 1650	Perlube 6-X	Gear Shield
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	Five Star EP #2	Norplex Blue EP11	—	Perlube EP-2	Multipurpose
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	Five Star Ultra-Tac	Molytac II EP	Neptune 7	Perlube MC-2	Precision Moly
ISO Viscosity grade	Viscosity, SUS at 100 F	Petron Corp. New Berlin, WI petroncorp.com	Petronomics Mfg. Group, Inc. Hutchinson, KS petronomics.com	Phillips 66 Ponca City, OK conocophillips.com	PhyMet, Inc. Springboro, OH micropolylubricants.com	PICO Chemical Corp. Chicago Heights, IL picochemical.com
<b>General purpose lubricants</b>						
32	135-165	Petro Dyne R&O 32	52070, 55170 *	Magnus 32	—	Picolube Pro 32
46	194-236	Petro Dyne R&O 46	52072, 55172 *	Magnus 46	—	Picolube Pro 46
68	284-346	Petro Dyne R&O 68	52074, 55174 *	Magnus 68	—	Picolube Pro 68
150	630-770	Petro Dyne R&O 150	52078, 55162 *	Magnus 150	MPF-0779, MPI-0779 *	Picolube Pro 150
220	900-1100	Petro Dyne R&O 220	52080, 55164 *	Magnus 220	—	Picolube Pro 220
460	1935-2365	Petro Dyne R&O 460	52084, 55168 *	—	MPI 2000, 2400, MPF 2731 *	—
<b>Antiwear hydraulic oil</b>						
32	135-165	Petro Dyne AW 32	52100, 52142 *	Magnus A 32	—	Picolube PAW 32
46	194-236	Petro Dyne AW 46	52102, 52144 *	Magnus A 46	—	Picolube PAW 46
68	284-346	Petro Dyne AW 68	52104, 52146 *	Magnus A 68	—	Picolube PAW 68
<b>Spindle oil</b>						
2	29-35	Petro Dyne 2	42002 *	—	—	Picolube PSO 3
10	54-66	Petro Dyne 6	51450, 51506 *	—	—	Picolube PSO 6
22	95-115	Petro Dyne 10	51454, 51510	—	—	Picolube PSO 10
<b>Way oil</b>						
32	135-165	Petro Glyde 32	55125	—	—	Picolube PWL 1
68	284-346	Petro Glyde 68	55126	—	—	Picolube PWL 3
220	900-1100	Petro Glyde 220	55137	Way Lube 220	—	Picolube PWL 9
<b>Extreme pressure gear oil</b>						
68	284-346	Gear 3	52074, 51074 *	All Purpose Philgear 68	—	Picolube PGO 2
150	630-770	Gear 4	52078, 51092 *	All Purpose Philgear 150	—	Picolube PGO 4
320	1350-1650	Gear 7	52082, 51096 *	All Purpose Philgear 320	—	Picolube PGO 6
<b>Worm gear oil</b>						
460	1935-2365	RG-7	52084, 51098	Hector 460 S	—	—
<b>Cling type gear shield (open gears)</b>						
—	—	Gearshield NC	53900, 53910 *	Philstik	—	—
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	Petroplate L2	00880 *	Philube High-temp EP	—	Picolube Ambient PLC
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	Petroplate EP 2 Moly	00800	Philube M, MW	—	—



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ISO Viscosity grade	Viscosity, SUS at 100 F	Premium Oil Co. Rockford, IL premiumoil.com	Pro-Chem-Co, Inc. Lake Station, IN pro-chem-co.com	Quaker Chemical Corp. Conshohocken, PA quintolubric.com	Rock Valley Oil & Chemical Co. Rockford, IL rockvalleyoil.com	Royal Purple, Ltd Porter, TX royalpurple.com
<b>General purpose lubricants</b>						
32	135-165	Superior 32	Pro-Hyd 32	Quakerlubric R&O 32 *	Trojan 32	Synfilm GT 32 *
46	194-236	Superior 46	Pro-Hyd 46	Quakerlubric R&O 46 *	Trojan 46	Synfilm GT 46 *
68	284-346	Superior 68	Pro-Hyd 68	Quakerlubric R&O 68 *	Trojan 68	Synfilm GT 68 *
150	630-770	Superior 150	Pro-Hyd 150	Quakerlubric R&O 150 *	Trojan 150	Synfilm GT 150 *
220	900-1100	Superior 220	Pro-Hyd 220	Quakerlubric R&O 220 *	Trojan 220	Synfilm GT 220 *
460	1935-2365	Supereior 460	Pro-Hyd 460	Quakerlubric R&O 460 *	Trojan 460	Synfilm GT 460 *
<b>Antiwear hydraulic oil</b>						
32	135-165	Superior AW 32	Pro-Hyd 32 AW	Quakerlubric AW 32 *	Trojan 32 AW	Syndraulic 32 *
46	194-236	Superior AW 46	Pro-Hyd 46 AW	Quakerlubric AW 46 *	Trojan 46 AW	Syndraulic 46 *
68	284-346	Superior AW 68	Pro-Hyd 68 AW	Quakerlubric AW 68 *	Trojan 68 AW	Syndraulic 68 *
<b>Spindle oil</b>						
2	29-35	Tru Spin 60	Pro-Spindle 2	—	Rockspin 2	—
10	54-66	Tru Spin 10	Pro-Spindle 10	—	Rockspin 10	Synfilm GT 10 *
22	95-115	Superior 22	Pro-Spindle 22	—	Rockspin 22	Synfilm GT 22 *
<b>Way oil</b>						
32	135-165	Waylube 32	Pro-Way 32	—	Rockway 32-S	Synway 32
68	284-346	Waylube 68	Pro-Way 68	—	Rockway 68-S	Synway 68
220	900-1100	Waylube 220	Pro-Way 220	—	Rockway 220-S	Synway 220
<b>Extreme pressure gear oil</b>						
68	284-346	Gearep 68	Pro-Gear 68 EP	Quakerlubric ERGO 68 *	EP Gear S 68	Synergy 68 *
150	630-770	Gearep 150	Pro-Gear 150 EP	Quakerlubric ERGO 150 *	EP Gear S 150	Synergy 150 *
320	1350-1650	Gearep 320	Pro-Gear 320 EP	Quakerlubric ERGO 320 *	EP Gear S 320	Synergy 320 *
<b>Worm gear oil</b>						
460	1935-2365	Steam Cylinder 460	Worm-Gear 460	—	Cylinder 460	Synergy Worm 460 *
<b>Cling type gear sheild (open gears)</b>						
—	—	—	—	—	—	Thermyl Tuff
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	Premium EP 2	—	Quakerlubric Dynachem LC	Lith EP 2	—
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	Lithoplex MP 2	—	Quakerlubric Dynachem LC w/Moly	Lith EP 2 w/Moly	—
<b>Schaeffer Mfg. St. Louis, MO schaefferoil.com</b>						
<b>Scot Lubricants of PA, Inc. Allentown, PA scotlubricants.com</b>						
<b>Sentinel Lubricants Corp. Miami, FL sentinelsynthetic.com</b>						
<b>76 Lubricants Ponca City, OK conocophillips.com</b>						
<b>General purpose lubricants</b>						
32	135-165	#112 HTC 32, #254 HTC Sypreme 32 *	McMillan Straight Mineral 32	SMPO 10 *	Turbine 32	
46	194-236	#112 HTC 46, #254 HTC Sypreme 46 *	McMillan Straight Mineral 46	SMPO 10W/20 *	Turbine 46	
68	284-346	#112 HTC 68, #254 HTC Sypreme 68 *	McMillan Straight Mineral 68	SMPO 20 *	Turbine 68	
150	630-770	#112 HTC 150, #254 HTC Sypreme 150 *	McMillan Straight Mineral 150	SMPO 40 *	Turbine 150	
220	900-1100	#112 HTC 220, #254 HTC Sypreme 220 *	McMillan Straight Mineral 220	SMPO 50 *	Turbine 220	
460	1935-2365	—	McMillan Straight Mineral 460	SMPO 460 *	Turbine 460	
<b>Antiwear hydraulic oil</b>						
32	135-165	#112 HTC 32, #254 HTC Supreme 32 *	McMillan Hydraulic AW 32	SH 10 *	Unax AW 32	
46	194-236	#112 HTC 46, #254 HTC Supreme 46 *	McMillan Hydraulic AW 46	SH 10/20 *	Unax AW 46	
68	284-346	#112 HTC 68, #254 HTC Supreme 68 *	McMillan Hydraulic AW 68	SH 20 *	Unax AW 68	
<b>Spindle oil</b>						
2	29-35	—	—	Spindle L *	—	
10	54-66	#324 Moly Spindle Oil ISO 10	McMillan Spindle Oil 70	Spindle LM *	—	
22	95-115	#324 Moly Spindle Oil ISO 22	McMillan Spindle Oil 100	Spindle M *	Spindle Wet	
<b>Way oil</b>						
32	135-165	#160 Moly Slide & Way Lube ISO 32	McMillan Way Oil 32	S 10 *	Way HD 32	
68	284-346	#160 Moly Slide & Way Lube ISO 68	McMillan Way Oil 68	S 20 *	Way HD 68	
220	900-1100	#160 Moly Slide & Way Lube ISO 220	McMillan Way Oil 220	S 50 *	Way HD 220	
<b>Extreme pressure gear oil</b>						
68	284-346	#2035 Supreme Industrial Oil ISO 68	McMillan Industrial Gear Oil 68	S 75/80 *	Extra Duty Gear 2 EP	
150	630-770	#293 Supreme Gear Lube ISO 150 *	McMillan Industrial Gear Oil 150	S 80/90 *	Extra Duty Gear 4 EP	
320	1350-1650	#293 Supreme Gear Lube ISO 320 *	McMillan Industrial Gear Oil 320	S 90/140 *	Extra Duty Gear 6 EP	
<b>Worm gear oil</b>						
460	1935-2365	—	McMillan Industrial Gear Oil 460	SWG0 460 *	Compounded Gear 7	
<b>Cling type gear sheild (open gears)</b>						
—	—	#322 Black Beauty OGL, 200S Silver Streak Special	—	SL-0G *	Triton Syn-OG, Gearite HD C, Gearshield	
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	#221 Moly Ultra 800 EP *, #229 Red *, #238 Supreme *	—	SL-123R *	Multiplex EP, Unoba EP	
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	#221 Moly Ultra 800 EP *, #229 Red *, #238 Supreme *	—	SL-M2	Megaplex XD	



# 2004 Interchangeable lubricants

\* Indicates food grade available



ISO Viscosity grade	Viscosity, SUS at 100 F	Shell Lubricants Houston, TX shell-lubricants.com	Southeast Oil & Grease Co., Inc. Albany, GA alithicon.com	Southwestern Petroleum Corp. Fort Worth, TX swepecousa.com	Specialty Lubricants Corp. Macedonia, OH speclubes.com	Specialty Products Co. Jersey City, NJ specialtyproductscs.com
<b>General purpose lubricants</b>						
32	135-165	Turbo Oil T 32	Alithicon 6510 Para/Syn *	Swepeco 708 ISO 32	HLO Series SAE 10 *	Hydralube 8
46	194-236	Turbo Oil T 46	Alithicon 6520 Para/Syn *	Swepeco 708 ISO 46	HLO Series ISO 46 *	Hydralube 10
68	284-346	Turbo Oil T 68	Alithicon 6522 Para/Syn *	Swepeco 708 ISO 68	HLO Series SAE 20 *	Hydralube 20
150	630-770	Marlin Oil 150	Alithicon 6540 Para/Syn *	Swepeco 708 ISO 150	HLO Series SAE 40 *	Hydralube 40
220	900-1100	Marlin Oil 220	Alithicon 6550 Para/Syn *	Swepeco 708 ISO 220	HLO Series SAE 50 *	Hydralube 50
460	1935-2365	Marlin Oil 460	Alithicon 6560 Para/Syn *	—	HLO Series ISO 460 *	—
<b>Antiwear hydraulic oil</b>						
32	135-165	Tellus Plus Oil 32 *	Alithicon 6510 Para/Syn *	Swepeco 704 ISO 32	HLO Series SAE 10 *	Hydralube 8
46	194-236	Tellus Plus Oil 46 *	Alithicon 6520 Para/Syn *	Swepeco 704 ISO 46	HLO Series ISO 46 *	Hydralube 10
68	284-346	Tellus Plus Oil 68 *	Alithicon 6522 Para/Syn *	Swepeco 704 ISO 68	HLO Series SAE 20 *	Hydralube 20
<b>Spindle oil</b>						
2	29-35	—	Alithicon 6602 *	—	—	Spindle 81
10	54-66	Spindle Oil 10	Alithicon 6610 *	—	Spindle ISO 10	Spindle 82
22	95-115	Spindle Oil 22	Alithicon 6622 *	—	Spindle ISO 22	Spindle 83
<b>Way oil</b>						
32	135-165	Tonna Oil V 32	Alithicon WL-32	Swepeco 708 ISO 32	—	—
68	284-346	Tonna Oil V 68	Alithicon WL-68	Swepeco 708 ISO 68	—	Way 28
220	900-1100	Tonna Oil V 220	Alithicon WL-220	Swepeco 708 ISO 220	—	Way 58
<b>Extreme pressure gear oil</b>						
68	284-346	Omala Oil 68	Alithicon SGO-68 *	Swepeco 717 SynchroMesh	Gear ISO 68 *	EP 20
150	630-770	Omala Oil 150 *	Alithicon SGO-150 *	Swepeco 201 Gear ISO 150	Gear ISO 150 *	EP 80
320	1350-1650	Omala Oil 320 *	Alithicon SGO-320 *	Swepeco 201 Gear ISO 320	Gear ISO 320 *	EP 110
<b>Worm gear oil</b>						
460	1935-2365	Valvata Oil J 460 *	Alithicon SGO-460 *	Swepeco 201 Gear 460	Gear ISO 460 *	EP 140
<b>Cling type gear sheild (open gears)</b>						
—	—	Malleus GL	Alithicon OG-7000 Para/Syn	Swepeco 604 Outside Gear	Open Gear	Adherol 7, 11
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	Alvania EP 2	Alithicon 9992-TL *	Swepeco 601 Moly EP 2	Coolplex	Reversol EP 2
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	Retinax EPX 2	Alithicon M-888	Swepeco 101 Moly EP 2	Molyplex	Black Magic 2
ISO Viscosity grade	Viscosity, SUS at 100 F	D.A. Stuart Co. Warrenville, IL dastuart.com	Sunbelt Lubricants, Inc. Tampa, FL sbl1.com	Superior Lubricants Co. North Tonawanda, NY superiorlubricants.com	Taurus Lubricants Corp. Tewksbury, MA	Texas Refinery Corp. Fort Worth, TX texasrefinery.com
<b>General purpose lubricants</b>						
32	135-165	—	Sunol GP 32	13-32 Hyd R&O 32	RTO 32	Special Universal 32
46	194-236	—	Sunol GP 46	13-46 Hyd R&O 46	RTO 46	Special Universal 46
68	284-346	EPPCO Machine Oil 68	—	13-68 Hyd R&O 68	RTO 68	Special Universal 68
150	630-770	—	—	13-150 Hyd R&O 150	RTO 150	Special Universal 150
220	900-1100	EPPCO Machine Oil 220	—	13-220 Hyd R&O 220	RTO 220	Special Universal 220
460	1935-2365	—	—	13-460 Hyd R&O 460	RTO 460	—
<b>Antiwear hydraulic oil</b>						
32	135-165	EPPCO Premium Hyd 32	Sunray AW 32	14-32 Hyd AW 32	AW 32	Hydraulic 32
46	194-236	EPPCO Premium Hyd 46	Sunray AW 46	14-46 Hyd AW 46	AW 46	Hydraulic 46
68	284-346	EPPCO Premium Hyd 68	Sunray AW 68	14-68 Hyd AW 68	AW 68	Hydraulic 68
<b>Spindle oil</b>						
2	29-35	—	—	Super Spin 2	—	—
10	54-66	EPPCO Spindle Oil 10	Spinray 10	Super Spin 10	Spindle 10	—
22	95-115	EPPCO Spindle Oil 22	Spinray 22	Super Spin 22	Spindle 22	Special Universal 22
<b>Way oil</b>						
32	135-165	EPPCO Way Oil 32	Wayex D 32	8-32 Slide Away 32	Way Oil 32	Rock Drill 10
68	284-346	EPPCO Way Oil 68	Wayex D 68	8-68 Slide Away 68	Way Oil 68	Rock Drill 20
220	900-1100	EPPCO Way Oil 220	Wayex D 220	8-220 Slide Away 220	Way Oil 220	Rock Drill 50
<b>Extreme pressure gear oil</b>						
68	284-346	EPPCO Premium 68 EP	—	9-68 EP HD Gear 68	Indugear 68	Industrial Gear 68
150	630-770	EPPCO Premium 150 EP	—	9-150 EP HD Gear 150	Indugear 150	Industrial Gear 150
320	1350-1650	EPPCO Premium 320 EP	—	9-320 EP HD Gear 320	Indugear 320	Industrial Gear 320
<b>Worm gear oil</b>						
460	1935-2365	—	—	Steam Cylinder Oil 167	Cylinder Oil 460	Worm Gear 460
<b>Cling type gear sheild (open gears)</b>						
—	—	EPPCO Open Gear Compound	—	Open Gear Oil	—	Takilube
<b>General purpose extreme pressure lithium based grease</b>						
—	NLGI 2	EPPCO Lithium EP 2	—	Lithium EP 2	—	Lithplex
<b>Molybdenum disulfide extreme pressure grease</b>						
—	NLGI 2	EPPCO Molyplex 2 EP	—	Moly Lithium EP 2	—	Moly 880 Crown & Chassis



# 2004 Interchangeable lubricants

\* Indicates food grade available



ISO Viscosity grade	Viscosity, SUS at 100 F	Total Lubricants USA, Inc. Linden, NJ totallube-us.com	Tower Oil & Technology Co. Chicago, IL toweroil.com	Tribology/Tech-Lube Yaphank, NY tribology.com	Tri State Industrial Lubricants, Inc Bensenville, IL tristateoil.com	Ultrachem, Inc. New Castle, DE ultracheminc.com	U.S Industrial Lubricants Cincinnati, OH usindustriallubricants.com
<b>General purpose lubricants</b>							
32	135-165	Cirkan RO 32	Hydroil CC	T-32 *	HydroFlo 15	P-ACO 32	Power-Flo R&O 32 *
46	194-236	Cirkan RO 46	Hydroil D	T-46 *	HydroFlo 2	P-ACO 46	Power-Flo R&O 46 *
68	284-346	Cirkan RO 68	Hydroil EE	T-68 *	HydroFlo 3	P-ACO 68	Power-Flo R&O 68 *
150	630-770	Cirkan RO 150	Hydroil F	T-150 *	HydroFlo 65	P-ACO 150	Power-Flo R&O 150 *
220	900-1100	Cirkan RO 220	Hydroil G	T-220 *	HydroFlo AW1000	—	Power-Flo R&O 220 *
460	1935-2365	Cirkan RO 460	Duroil J	T-460 *	HydroFlo A 2000	—	Power-Flo R&O 460 *
<b>Antiwear hydraulic oil</b>							
32	135-165	Azolla ZS 32	Hydroil AW 3	T-Hyd 32 *	HydroFlo AW15	P-ACO 32	Power-Flo AW 32 *
46	194-236	Azolla ZS 46	Hydroil AW 4	T-Hyd 46 *	HydroFlo AW2	P-ACO 46	Power-Flo AW 46 *
68	284-346	Azolla ZS 68	Hydroil AW 5	T-Hyd 68 *	Hydr-Flo AW3	P-ACO 68	Power-Flo AW 68 *
<b>Spindle oil</b>							
2	29-35	—	Quadroil AA	T-SPO 2	Spindle 30	—	Spindle 2
10	54-66	Drosera MS 10	Quadroil A	T-SPO 10	Spindle 60	—	Spindle 10
22	95-115	Drosera MS 22	Hydroil B	T-SPO 22	Spindle 1	—	Spindle 22
<b>Way oil</b>							
32	135-165	Drosera MS 32	32 SD	Way Lube 32	StaLube 15	—	Way 32
68	284-346	Drosera MS 68	68 SD	Way Lube 68	StaLube 3	—	Way 68
220	900-1100	Drosera MS 220	220 SD	Way Lube 220	StaLube 9	—	Way 220
<b>Extreme pressure gear oil</b>							
68	284-346	Carter EP 68	Duroil EP 20	T-68 EP	Gearmate 3	—	Gear EP 68
150	630-770	Carter EP 150	Super Gear 150	T-150 EP	Gearmate 65	—	Gear EP 150
320	1350-1650	Carter EP 220	Express Gear GH 90	T-320 EP	Gearmate 1600	—	Gear EP 320
<b>Worm gear oil</b>							
460	1935-2365	Carter EP 460	Express Gear J	—	Gearmate EP-90	—	WGO 340-2
<b>Cling type gear sheild (open gears)</b>							
—	—	Moly 29	—	TRI 333	—	—	Open Gear Compound 800
<b>General purpose extreme pressure lithium based grease</b>							
—	NLGI 2	Keystone 81 EP 2	Grezall RL 2	T-777 #2	GL-85	—	Everstay 100 *
<b>Molybdenum disulfide extreme pressure grease</b>							
—	NLGI 2	—	Grezall ML 1	Tri Moly #2	GL-88	—	Everstay Moly XD-2 *
ISO Viscosity grade	Viscosity, SUS at 100 F	Viking Chemical Rockford, IL vikingchemical.com	David Weber Oil Co. Carlstadt, NJ weberoil.com	The Whitmore Group Rockwall, TX whitmores.com	Wolverine Oil & Supply Co., Inc. Dearborn, MI wolverineoil.com	O.F. Zurn Co. Philadelphia, PA	
<b>General purpose lubricants</b>							
32	135-165	Admiral 32	R&O 32 *	Hyperion 32 *	A-1 R&O Hyd 150	Zurnpreem 15A	
46	194-236	Admiral 46	R&O 46 *	Hyperion 46 *	A-1 R&O Hyd 200	Zurnpreem 21A	
68	284-346	Admiral 68	R&O 68 *	Hyperion 68 *	A-1 R&O Hyd 300	Zurnpreem 30A	
150	630-770	Admiral 150	R&O 150 *	Hyperion 150 *	A-1 R&O Hyd 700	Zurnpreem 70A	
220	900-1100	Admiral 220	R&O 220 *	Hyperion 220 *	A-1 R&O Hyd 1000	Zurnpreem 95A	
460	1935-2365	Admiral 460	R&O 460 *	—	A-1 R&O Hyd 2100	Zurnpreem 140A	
<b>Antiwear hydraulic oil</b>							
32	135-165	Admiral AW 32	Premium AW 32 *	Hyperion 32 *	A-1 AW Hyd 150	Zurnpreem 15A	
46	194-236	Admiral AW 46	Premium AW 46 *	Hyperion 46 *	A-1 AW Hyd 200	Zurnpreem 21A	
68	284-346	Admiral AW 68	Premium AW 68 *	Hyperion 68 *	A-1 AW Hyd 300	Zurnpreem 30A	
<b>Spindle oil</b>							
2	29-35	Spinrite 40	Spindle 2	—	A-1 Spindle 30	Zurnpreem 3A	
10	54-66	Spinrite 60	Spindle 10	—	A-1 Spindle 60	Zurnpreem 6A	
22	95-115	Spinrite 100	Spindle 22	—	A-1 Spindle 100	Zurnpreem 10A	
<b>Way oil</b>							
32	135-165	Sliderite 150	Way 32	—	A-1 Way 150	HW 15, Waylube 1	
68	284-346	Sliderite 310	Way 68	Way Oil 68	A-1 Way 300	Waylube 80	
220	900-1100	Sliderite 1000	Way 220	Way Oil 220	A-1 Way 1000	Waylube 90	
<b>Extreme pressure gear oil</b>							
68	284-346	Luberite EP 68	AGMA 2 EP *	Paragon 68 *	A-1 Bearing & Gear 300 EP	EP 35	
150	630-770	Luberite EP 150	AGMA 4 EP *	Paragon 150 *	A-1 Bearing & Gear 700 EP	EP 70	
320	1350-1650	Luberite EP 320	AGMA 6 EP *	Paragon 320 *	A-1 Bearing & Gear 1500 EP	EP 120	
<b>Worm gear oil</b>							
460	1935-2365	Cylinder Oil 460	AGMA 7 Compound	Paragon Gold 460 *	A-1 Worm Gear 2100	Gear 150	
<b>Cling type gear sheild (open gears)</b>							
—	—	—	—	Surtac 2000	A-1 Open Gear	Open Gear	
<b>General purpose extreme pressure lithium based grease</b>							
—	NLGI 2	—	High EP 2	Omnilith 500 *	A-1 Lith 2	Ultraplex 2 EP	
<b>Molybdenum disulfide extreme pressure grease</b>							
—	NLGI 2	—	Molyliitho 2	Caliber M	A-1 Moly 2	MD 2 Moly	