










## Lubricating Instructions

### Mining Systems

Excavators • Stackers • Belt Conveyors • Handling Equipment • Bucket Wheel Reclaimers

Application	Method of lubrication	Brand DIN 51502										
Bucket wheel drive	Circulating system	CLP 220	Aral Degol BG 220	BP Energol GR-XP 220	CASTROL ALPHA SP 220	FALCON CLP 220	NUTO 220 SPARTAN EP 220	RENOLIN CLP 220, RENOLIN CLP 220 PLUS	Mobilgear 630	Shell Tellus Öl C 220, Shell Omala Öl 220	LUKOIL STEELO 220	
	Unpressurized circulating system	CLP 460	Aral Degol BG 460	BP Energol GR-XP 460	CASTROL ALPHA SP 460	FALCON CLP 460	NUTO 460 SPARTAN EP 460	RENOLIN CLP 460, RENOLIN CLP 460 PLUS	Mobilgear 634	Shell Tellus Öl C 460, Shell Omala Öl 460	LUKOIL STEELO 460	
	Splash lubrication	CLP 460	Aral Degol BG 460	BP Energol GR-XP 460	CASTROL ALPHA SP 460	FALCON CLP 460	NUTO 460 SPARTAN EP 460	RENOLIN CLP 460, RENOLIN CLP 460 PLUS	Mobilgear 634	Shell Tellus Öl C 460, Shell Omala Öl 460	LUKOIL STEELO 460	
Bevel gears Worm gears	Circulating system	CLP 150	Aral Degol BG 150	BP Energol GR-XP 150	CASTROL ALPHA SP150	FALCON CLP 150	NUTO 150 SPARTAN EP 150	RENOLIN CLP 150, RENOLIN CLP 150 PLUS	Mobilgear 629	Shell Tellus Öl C 150, Shell Omala Öl 150	LUKOIL STEELO 150	
	Spur gears	CLP 320	Aral Degol BG 320	BP Energol GR-XP 320	CASTROL ALPHA SP 320	FALCON CLP 320	NUTO 320 SPARTAN EP 320	RENOLIN CLP 320, RENOLIN CLP 320 PLUS	Mobilgear 632	Shell Tellus Öl C 320, Shell Omala Öl 320	LUKOIL STEELO 320	
Worm gears	Splash lubrication Worm running in oil bath	CLP 320	Aral Degol BG 320	BP Energol GR-XP 320	CASTROL ALPHA SP 320	FALCON CLP 320	NUTO 320 SPARTAN EP 320	RENOLIN CLP 320, RENOLIN CLP 320 PLUS	Mobilgear 632	Shell Tellus Öl C 320, Shell Omala Öl 320	LUKOIL STEELO 320	
	Splash lubrication Worm wheel running in oil bath	CLP 460	Aral Degol BG 460	BP Energol GR-XP 460	CASTROL ALPHA SP 460	FALCON CLP 460	NUTO 460 SPARTAN EP 460	RENOLIN CLP 460, RENOLIN CLP 460 PLUS	Mobilgear 634	Shell Tellus Öl C 460, Shell Omala Öl 460	LUKOIL STEELO 460	
Idler bearings (antifriction bearings)	Grease fill	Grease gun, by hand	K 2 K - 20(Li) Lithium soap	Aral Aralub HL 2	BP Energrease LS 2	CASTROL LZV-EP CASTROL SPHEEROL EPL-2	GLISSANDO 283 EP 2LF  PARAGON EP 2 GLISSANDO 20	BEACON 2 EXXON MEHRZWECKFETT	RENOLIT FWA 160 RENOLIT MP	Mobilux 2 Mobilux EP 2	Shell Alvania Fett R 2, Shell Alvania Fett G2 Shell Alvania EP Fett 1 Shell Calithia EP Fett T2	
Pulley bearings and other antifriction bearings		Mech. grease lubricator through long line										
Labyrinth seals												
Turbocoupling (see sparate list)	Oil fill	HLP 32	Aral Degol BG 32	BP Energol HL-XP 32	CASTROL HYSPIIN AWS 32	ASTRON HLP 32 PENTRAN 32	NUTO 32, ESSO TORQUE FLUID N45	RENOFLUID TF 1500	Mobilfluid 125, Mobil DTE 24	Shell Tegula Öl 32		
Plain bearings Turas bearings	Grease fill	Grease gun, by hand	K 2 K - 20(Li)	Aral Aralub HL 2	BP Energrease LS 2	CASTROL LZV-EP CASTROL SPHEEROL EPL-2	GLISSANDO 20	BEACON 2	RENOLIT FWA 160 RENOLIT MP	Mobilux 2	Shell Alvania Fett R 2 Shell Alvania Fett G 2	
Ball and socket bearings		Mech. grease lubricator through long line	K 1K - 20(Li)	Aral Aralub HLP 1,5	BP Energrease LS 1	CASTROL SPHEEROL EPL-1	GLISSANDO EP 1	BEACON EP 1	RENOLIT FWA 120	Mobilux EP 1	Shell Alvania EP Fett 1 Shell Calithia EP Fett T1	
King pins Universal joints	Mech. oil lubricator or reservoir type of lubrication	CL/CLP 100	Aral Degol CL 100	BP Energol GR-XP100	CASTROL ALPHA SP 100	DEA ETERNA 100	NUTO 100	RENOLIN DTA 100	Mobilgear 627	Shell Tellus Öl C 100	LUKOIL STEELO 100	
Open and semi-closed gears	by hand	BB	Aral Sinit FZ 2	BP Energol WRL,	CASTROL GRIPPA 60 S	SPECTRON ZKF EP 0	CAZAR K1 (OG 1 C-30)	DUOTAC F315L HOCH- LEISTUNGSSPRAY	Mobiltac 375 NC	Shell Cardium Fluid C		
Wire ropes / Guideways	automatic	through lubricating pinion	OG	Aral	-	-	SPECTRON ZKF EP 0	EP GREASE 350 PEN-O-LED EP GREASE	Mobilgear OGL 007	Shell		
		to be sprayed with air		Aral Sinit LFZ 1					GRAFOLIT ZGO-07	Shell Fett s. 8327		
Ball races	Grease fill	Grease gun, by hand	K 2 K - 20(Li)	Aral Aralub HL 2	BP Energrease LS 2	CASTROL LZV-EP CASTROL SPHEEROL EPL-2	GLISSANDO 283 EP 2 LF	BEACON 2	RENOLIT FWA 160	Mobilux 2	Shell Alvania Fett R 2 Shell Alvania Fett G 2	
		Mech. grease lubricator through long line	K 1K - 20(Li)	Aral Aralub HLP 1,5	BP Energrease LS 1	CASTROL SPHEEROL EPL-1	GLISSANDO EP 1	BEACON EP 1	RENOLIT FWA 120	Mobilux EP 1	Shell Alvania EP Fett 1 Shell Calithia EP Fett T1	
	Oil lubrication	Splash lubrication	CLP 680	Aral Degol BG 680	BP Energol GR-XP 680	CASTROL ALPHA SP 680	FALCON CLP 680	SPARTAN EP 680	RENOLIN CLP 680, RENOLIN CLP 680 PLUS	Mobilgear 636	Shell Omala Öl 680	LUKOIL STEELO 680
		Circulating system	CLP 150	Aral Degol BG 150	BP Energol GR-XP 150	CASTROL ALPHA SP 150	FALCON CLP 150	SPARTAN EP 150	RENOLIN CLP 150, RENOLIN CLP 150 PLUS	Mobilgear 629	Shell Omala Öl 150	LUKOIL STEELO 150
Ball bearing slewing rings	For antifriction bearings please refer to the ball races	K 2 K - 20(Li)	Aral Aralub HL 2	BP Energrease LS 2	CASTROL LZV-EP CASTROL SPHEEROL EPL-2	GLISSANDO 283 EP 2 LF	BEACON 2	RENOLIT FWA 160 RENOLIT MP	Mobilux 2 Mobilux EP 2	Shell Alvania Fett R 2 Shell Alvania Fett G 2		
	For toothing please refer to open and semi-closed gears	OG	Aral Sinit LFZ 1	-	-	SPECTRON ZKF EP 0	EP GREASE 350, PEN-O-LED EP GREASE	GRAFOLIT ZGO-07	Mobilgear OGL 007	Shell Fett S. 8327		
Links of bucket chain	Grease gun, by hand	K 2 K - 20(Li)	Aral Aralub HL 2	BP Energrease LS 2	CASTROL LZV-EP CASTROL SPHEEROL EPL-2	SPECTRON FO 20 EP	BEACON 2	RENOLIT FWA 160 RENOLIT MP	Mobilux 2	Shell Alvania Fett R 2 Shell Alvania Fett G 2		
Air filter	Oil wetted	AN 100	Aral Dural MR 100	BP Energol CS 100	CASTROL MAGNA 100	SERA 100	NURAY 100	RENOLIN AR 16/19	Mobil Vactra Oil Heavy	Shell Vitrea Öl 100		
Eldro brake thrustor	Oil fill	HL/CL 10	Aral Vitam GF 10	BP Energol HLP-HM10	CASTROL HYSPIIN AWS 10	ASTRON HL 10	SPINESSO 10	RENOLIN B3 VG 10 RENOLIN MR 3 VG 10	Mobil Velocite Oil No. 6	Shell Tellus Öl C10		
Reciprocating compressors	Splash lubrication	VDL 100	Aral Motanol HE 100	BP Energol RC 100	CASTROL AIRCOL PD 100	ACTRO EP VDL 100	VERDICHTEROEL 3021 N	RENOLIN 504 RENOLIN VDL 100 DD	Mobil Rarus 427	Shell Corena Öl H100 D, Shell corena Oil P 100		
Screw compressors		ISO VG 46**		BP Energol RC-R46	CASTROL ALPHASYN T 46	ACTRO EP VDL 46	KOMPRESSOR-KÜHLOEL 46	RENOLIN SC 46 RENOLIN SC 46 MC	Mobil Rarus 425	Shell Comptella Öl s46; Shell Comptella Oil 46		
Hydraulic system	Oil fill	see separate list	**Manufacturers instructions are to be noticed									