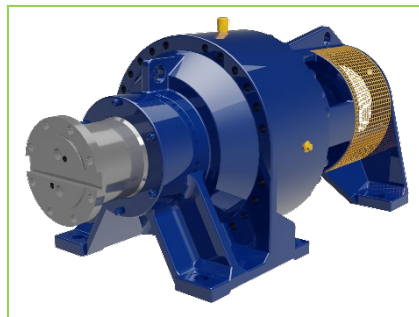
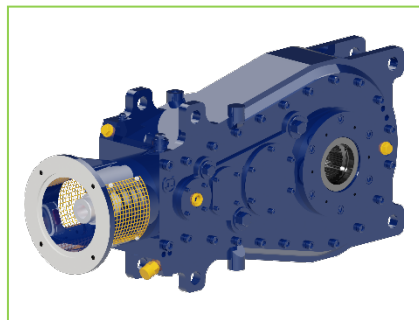


ZIMM Industrial gearboxes

Spiral bevel, angle, spur, transfer,
planetary and bevel planetary gear units

Lubricant selection tables



Original operating manual

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Technical support

The lubricant selection was made with the kind support of SET-AK, the open working group of UNITI e.V. (the German Federal Association of Medium-Sized Mineral Oil Companies), and VSI e.V. (the German Industrial Lubricant Association).

Lubricant selection tables

! NOTE

Changes to the brand names and the product and safety data sheets are not subject to the ZIMM revision service.

Brand	Product data sheet	Safety data sheet
	https://addinol.oilfinder.net/login	Addinol Safety Datasheets
	https://msdspdscastrol.com/msdspdscastrol.com/msdspdscastrol.com/CastrolSearch?	
	https://www.exxonmobil.com/en/pds	https://sds.exxonmobil.com/
	https://www.fuchs.com/de/de/produkte/download-center/	
	https://www.fuchs.com/lubritech/de/produkte/download-center/	
	https://www.klueber.com/de/de/downloads/	
	https://www.epc.shell.com/	
	https://sdstotalms.total.com/TotalPullWebsite/en	
	https://setral.net/en/	https://setral.net/en/
	https://www.kajo.de/produkte/	

Tab. 1: Web link to product and safety data sheet

Table M Mineral oil							CLP (ISO VG)
Brand	CLP 68	CLP 100	CLP 150	CLP 220	CLP 320	CLP 460	CLP 680
		ADDINOL Gear Oil 100F	ADDINOL Gear Oil 150F	ADDINOL Gear Oil 220F	ADDINOL Gear Oil 320F	ADDINOL Gear Oil 460F	ADDINOL Gear Oil 680F
	ADDINOL ECO GEAR 68 M ⁽¹⁾	ADDINOL ECO GEAR 100 M ⁽¹⁾	ADDINOL ECO GEAR 150 M ⁽¹⁾	ADDINOL ECO GEAR 220 M ⁽¹⁾	ADDINOL ECO GEAR 320 M ⁽¹⁾	ADDINOL ECO GEAR 460 M ⁽¹⁾	ADDINOL ECO GEAR 680 M ⁽¹⁾
	Alpha SP 68	Alpha SP 100	Alpha SP 150	Alpha SP 220	Alpha SP 320	Alpha SP 460	Alpha SP 680
	Optigear BM 68 ⁴⁾	Optigear BM 100 ⁴⁾	Optigear BM 150 ⁴⁾	Optigear BM 220 ⁴⁾	Optigear BM 320 ⁴⁾	Optigear BM 460 ⁴⁾	Optigear BM 680 ⁴⁾
	Optigear EP 68 ⁴⁾	Optigear EP 100 ⁴⁾	Optigear EP 150 ⁴⁾	Optigear EP 220 ⁴⁾	Optigear EP 320 ⁴⁾	Optigear EP 460 ⁴⁾	
		Optigear 1100/100 ⁴⁾	Optigear 1100/150 ⁴⁾	Optigear 1100/220 ⁴⁾	Optigear 1100/320 ⁴⁾	Optigear 1100/460 ⁴⁾	Optigear 1100/680 ⁴⁾
	Mobilgear 600 XP 68	Mobilgear 600 XP 100	Mobilgear 600 XP 150	Mobilgear 600 XP 220	Mobilgear 600 XP 320	Mobilgear 600 XP 460	Mobilgear 600 XP 680
	RENOLIN CLP 68	RENOLIN CLP 100	RENOLIN CLP 150	RENOLIN CLP 220	RENOLIN CLP 320	RENOLIN CLP 460	RENOLIN CLP 680
	RENOLIN CLP 68 Plus	RENOLIN CLP 100 Plus	RENOLIN CLP 150 Plus	RENOLIN CLP 220 Plus	RENOLIN CLP 320 Plus	RENOLIN CLP 460 Plus	RENOLIN CLP 680 Plus
				RENOLIN HighGear 220 ^{3),4)}	RENOLIN HighGear 320 ^{3),4)}	RENOLIN HighGear 460 ^{3),4)}	
	GEARMASTER CLP 68	GEARMASTER CLP 100	GEARMASTER CLP 150	GEARMASTER CLP 220	GEARMASTER CLP 320	GEARMASTER CLP 460	GEARMASTER CLP 680

Table M Mineral oil							CLP (ISO VG)
Brand	CLP 68	CLP 100	CLP 150	CLP 220	CLP 320	CLP 460	CLP 680
	Klüberoil GEM 1-68N	Klüberoil GEM 1-100N	Klüberoil GEM 1-150N	Klüberoil GEM 1-220N	Klüberoil GEM 1-320N	Klüberoil GEM 1-460N	Klüberoil GEM 1-680N
 Shell	Shell Omala S2 GX 68	Shell Omala S2 GX 100	Shell Omala S2 GX 150	Shell Omala S2 GX 220	Shell Omala S2 GX 320	Shell Omala S2 GX 460	Shell Omala S2 GX 680
	CARTER EP 68	CARTER EP 100	CARTER EP 150	CARTER EP 220	CARTER EP 320	CARTER EP 460	CARTER EP 680
	CARTER XEP 68	CARTER XEP 100	CARTER XEP 150	CARTER XEP 220	CARTER XEP 320	CARTER XEP 460	CARTER XEP 680
	MI-setral- GEAR/EPL 68	MI-setral- GEAR/EPL 100	MI-setral- GEAR/EPL 150	MI-setral- GEAR/EPL 220	MI-setral- GEAR/EPL 320	MI-setral- GEAR/EPL 460	MI-setral- GEAR/EPL 680

Table HC Synthetic oils (poly-alpha-olefins)							CLP HC (ISO VG)
Brand	CLP HC 68	CLP HC 100	CLP HC 150	CLP HC 220	CLP HC 320	CLP HC 460	CLP HC 680
	ADDINOL ECO GEAR 68 S-T ⁽¹⁾	ADDINOL ECO GEAR 100 S ⁽¹⁾	ADDINOL ECO GEAR 150 S ⁽¹⁾	ADDINOL ECO GEAR 220 S ⁽¹⁾	ADDINOL ECO GEAR 320 S ⁽¹⁾	ADDINOL ECO GEAR 460 S ⁽¹⁾	ADDINOL ECO GEAR 680 S ⁽¹⁾
			Alphasyn EP 150	Alphasyn EP 220	Alphasyn EP 320	Alphasyn EP 460	Alphasyn EP 680
	Optigear Synthetic PD 68 ES	Optigear Synthetic PD 100 ES	Optigear Synthetic PD 150 ES	Optigear Synthetic PD 220 ES	Optigear Synthetic PD 320 ES	Optigear Synthetic PD 460 ES	Optigear Synthetic PD 680 ES
			Mobil SHC Gear 150	Mobil SHC Gear 220	Mobil SHC Gear 320	Mobil SHC Gear 460	Mobil SHC Gear 680
	Mobil SHC 626	Mobil SHC 627	Mobil SHC 629	Mobil SHC 630	Mobil SHC 632	Mobil SHC 634	Mobil SHC 636
	RENOLIN UNISYN CLP 68	RENOLIN UNISYN CLP 100	RENOLIN UNISYN CLP 150	RENOLIN UNISYN CLP 220	RENOLIN UNISYN CLP 320	RENOLIN UNISYN CLP 460	RENOLIN UNISYN CLP 680
			RENOLIN HighGear Synth 150	RENOLIN HighGear Synth 220	RENOLIN HighGear Synth 320	RENOLIN HighGear Synth 460	RENOLIN HighGear Synth 680
	GEARMASTER SYN 68		GEARMASTER SYN 150	GEARMASTER SYN 220	GEARMASTER SYN 320	GEARMASTER SYN 460	GEARMASTER SYN 680
	Klübersynth GEM 4-68N	Klübersynth GEM 4-100N	Klübersynth GEM 4-150N	Klübersynth GEM 4-220N	Klübersynth GEM 4-320N	Klübersynth GEM 4-460N	Klübersynth GEM 4-680N
	Shell Omala S4 GXV 68	Shell Omala S4 GXV 100	Shell Omala S4 GXV 150	Shell Omala S4 GXV 220	Shell Omala S4 GXV 320	Shell Omala S4 GXV 460	Shell Omala S4 GXV 680

Table HC Synthetic oils (poly-alpha-olefins)							CLP HC (ISO VG)
Brand	CLP HC 68	CLP HC 100	CLP HC 150	CLP HC 220	CLP HC 320	CLP HC 460	CLP HC 680
 TotalEnergies			CARTER SH 150	CARTER SH 220	CARTER SH 320	CARTER SH 460	CARTER SH 680
 setral® Competence in Lubricants			SYN-setral-GEAR 150 N	SYN-setral-GEAR 220 N	SYN-setral-GEAR 320 N	SYN-setral-GEAR 460 N	SYN-setral-GEAR 680 N

Table PG Synthetic oils (polyglycols)							CLP PG (ISO VG)
Brand	CLP PG 68	CLP PG 100	CLP PG 150	CLP PG 220	CLP PG 320	CLP PG 460	CLP PG 680
		ADDINOL Poly Gear PG 100	ADDINOL Poly Gear PG 150	ADDINOL Poly Gear PG 220	ADDINOL Poly Gear PG 320	ADDINOL Poly Gear PG 460	ADDINOL Poly Gear PG 680
		Optigear Synthetic 800/100	Optigear Synthetic 800/150	Optigear Synthetic 800/220	Optigear Synthetic 800/320	Optigear Synthetic 800/460	Optigear Synthetic 800/680
				Optigear Synthetic 1300/220		Optigear Synthetic 1300/460	Optigear Synthetic 1300/680
		Mobil Glygoyle 100	Mobil Glygoyle 150	Mobil Glygoyle 220	Mobil Glygoyle 320	Mobil Glygoyle 460	Mobil Glygoyle 680
	RENOLIN PG 68	RENOLIN PG 100	RENOLIN PG 150	RENOLIN PG 220	RENOLIN PG 320	RENOLIN PG 460	RENOLIN PG 680
	GEARMASTER PGP 68	GEARMASTER PGP 100	GEARMASTER PGP 150	GEARMASTER PGP 220	GEARMASTER PGP 320	GEARMASTER PGP 460	GEARMASTER PGP 680
	Klübersynth GH 6-80	Klübersynth GH 6-100	Klübersynth GH 6-150	Klübersynth GH 6-220	Klübersynth GH 6-320	Klübersynth GH 6-460	Klübersynth GH 6-680
			Shell Omala S4 WE 150	Shell Omala S4 WE 220	Shell Omala S4 WE 320	Shell Omala S4 WE 460	Shell Omala S4 WE 680
			CARTER SY 150	CARTER SY 220	CARTER SY 320	CARTER SY 460	CARTER SY 680
			CARTER SG 150	CARTER SG 220	CARTER SG 320	CARTER SG 460	CARTER SG 680
			SYN-setral-GEAR/PGB 150 FD	SYN-setral-GEAR/PGB 220 FD	SYN-setral-GEAR/PGB 320 FD	SYN-setral-GEAR/PGB 460 FD	SYN-setral-GEAR/PGB 680 FD
	SYN-setral-GEAR/PGW 68	SYN-setral-GEAR/PGW 100	SYN-setral-GEAR/PGW 150	SYN-setral-GEAR/PGW 220	SYN-setral-GEAR/PGW 320	SYN-setral-GEAR/PGW 460	

Table E Biodegradable oilsCLP E
(ISO VG)

Brand	CLP E 68	CLP E 100	CLP E 150	CLP E 220	CLP E 320	CLP E 460	CLP E 680
		ADDINOL ECO GEAR EL 100 ⁽¹⁾	ADDINOL ECO GEAR EL150 ⁽¹⁾				
				Performance Bio GE 220 ESS	Performance Bio GE 320 ESS		
	PLANTOSYN 68 HVI	PLANTOGear 100 S	PLANTOGear 150 S	PLANTOGear 220 S	PLANTOGear 320 S	PLANTOGear 460 S	PLANTOGear 680 S
		GEARMASTER ECO 100	GEARMASTER ECO 150	GEARMASTER ECO 220	GEARMASTER ECO 320	GEARMASTER ECO 460	GEARMASTER ECO 680
	Klüberbio EG 2-68	Klüberbio EG 2-100	Klüberbio EG 2-150		Klüberbio EG 2-320		
	CARTER BIO 68	CARTER BIO 100	CARTER BIO 150	CARTER BIO 220	CARTER BIO 320	CARTER BIO 460	

Table G I

Gear greases - mineral base oils

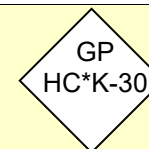
in accordance with DIN 51826 (*), consistency classes/NLGI grades in accordance with DIN 51818



Brand	GP 000 G-10	GP 00 G-10	GP 0 G-10
	ADDINOL fluid grease LIC 000	ADDINOL fluid grease SGR 4-00-9P	ADDINOL fluid grease SGA 600
			ADDINOL Addilith EP 0
		Spheerol EPL 00	Spheerol EPL 0
		Tribol GR 100-00 PD ⁴⁾	Tribol GR 100-0 PD ⁴⁾
	Tribol GR 3020/1000-000 PD ⁴⁾	Tribol GR 3020/1000-00 PD ⁴⁾	Tribol GR 3020/1000-0 PD ⁴⁾
		Mobilux EP 004	Mobilux EP 0
	RENOLIT SF 7-041	RENOLIT GFW 00	RENOLIT CX-EP 0
	GEARMASTER ZSA	GEARMASTER LI 400 (TS)	URETHYN HG 0
	CENTOPLEX GLP 500	MICROLUBE GB 00	MICROLUBE GB 0
		Shell Gadus S2 V220 00	Shell Gadus S2 V220 0
	MULTIS ZS 000	MULTIS EP 00	MULTIS EP 0
	MI-setral-LI/PD 000	MI-setral-LI/PD 00	MI-setral-LI/PD 0

Table G II**Gear greases - synthetic base oil**

in accordance with DIN 51826 (*), consistency classes/NLGI grades in accordance with DIN 51818



Brand	GP HC 000 K-30	GP HC 00 K-30	GP HC 0 K-30
		ADDINOL FG Grease AL 00	
		Tribol GR ALR 100-00 PD ⁴⁾	Tribol GR EB 100-0.5 (NLGI 0-1)
		Optileb GR UF 00	
		Mobilith SHC 007	
		RENOLIT CT-B 00	RENOLIT CT-B 0
		GEARMASTER-LXG00	
		URETHYN GE 00	URETHYN HG 0
	CASSIDA GREASE RLS 000 (H1)	CASSIDA GREASE RLS 00 (H1)	CASSIDA GREASE RLS 0 (H1)
	Klüberfood NH1 94-6000	Klübersynth UH1 14-1600	Klübersynth G 34-130
			
		Multis Complex SHD 00	
	SYN-setral-AL/C 00 FD		SYN-setral-AL/C FD
			SYN-setral-CA/C0-30 FD

Tafel G III Gear greases, synthetic base oils (polyglycols)⁽⁵⁾ in accordance with DIN 51826 (*), consistency classes/NLGI grades in accordance with DIN 51818			
GP PG*K-30			
Brand	GP PG 000 K-30	GP PG 00 K-30	GP PG 0 K-30
		ADDINOL fluid grease LPG 00	
			
		RENOLIT LST 00	RENOLIT LST 0
	X	X	X
		Klübersynth PEG 46-1200	
		Shell Gadus S5 V142W 00	
		Marson SY00	
	SYN-setral-LI/C/PG00-380		

Table K I Rolling bearing greases, mineral base oils

in accordance with DIN 51826 (*), consistency classes/NLGI grades in accordance with DIN 51818

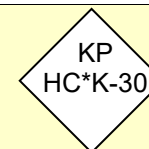


Brand	KP 1 G-10	KP 2 G-10	KP 3 G-10
	ADDINOL EP Mehrbereichsfett LM 1 EP	ADDINOL EP Mehrbereichsfett LM 2 EP	ADDINOL EP Mehrbereichsfett LM 3 EP
	Spheerol EPL 1	Spheerol EPL 2	Spheerol EPL 3
	Tribol GR 100-1 PD ⁴⁾	Tribol GR 100-2 PD ⁴⁾	Tribol GR 400-3 PD ⁴⁾
		Tribol GR 4020/220-2 PD ⁴⁾	Tribol GR 4020/220-1 PD ⁴⁾
	Mobilux EP 1	Mobilux EP 2	Mobilux EP 3
	KAJO Wälzlagerfett L 221	KAJO Wälzlagerfett L 222	KAJO Wälzlagerfett L 223
	RENOLIT FEP 1	RENOLIT FEP 2	RENOLIT FEP 3
	LAGERMEISTER BF 1	LAGERMEISTER BF 2	URETHYN 160
		LAGERMEISTER EPX 2	
		LAGERMEISTER XXL	
	MICROLUBE GL 261	CENTOPLEX 2 EP	CENTOPLEX 3
	Shell Gadus S2 V 100 1	Shell Gadus S2 V 100 2	Shell Gadus S2 V 100 3
	Multis EP 1	Multis EP 2	Multis EP 3
	MI-setral-LI/PD 1	MI-setral-LI/PD 2	

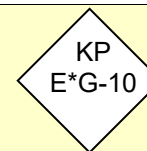
Tafel K II

Rolling bearing greases, synthetic base oils

in accordance with DIN 51826 (*), consistency classes/NLGI grades in accordance with DIN 51818



Marke	KP HC 1 K-30	KP HC 2 K-30	KP HC 3 K-30
	ADDINOL Hightemp XFT 2 Plus	ADDINOL Wear Protect RS 2 Syn Plus	
		ADDINOL Eco Grease PD 2-400 Plus	
	Spheerol SY 1501	Spheerol SY 2202	
	Tribol GR SW 460-1	Tribol GR XT 2 HT	
	Optitemp SB 100-1	Tribol GR 4747/220-2 HT ⁴⁾	
	Mobilith SHC 460	Mobilith SHC 100	
	Mobilith SHC Grease 460 WT ²⁾	Mobilith SHC 220	
	RENOLIT HLT 1	RENOLIT HLT 2	
		RENOLIT HI-TEMP 220	
	STABYL LX 460 SYN ^{2), 3)}	STABYL LT 50	
	URETHYN LT 60	URETHYN XHD 2 ^{2), 3)}	
	Klüberplex BEM 41-141	Klüberplex BEM 34-132	PETAMO GHY 133N
		Shell Gadus S5 V 100 2	
	MULTIS COMPLEX SHD 460	MULTIS COMPLEX SHD 32	
	SYN-setral-AL/C1 FD	SYN-setral-LI/C 400 PD	
	SYN-setral-PG 814 ³⁾	SYN-setral-PU 2	

Table K III Rolling bearing greases, biodegradable*in accordance with DIN 51826 (*), consistency classes/NLGI grades in accordance with DIN 51818*

Brand	KP E 1 G-10	KP E 2 G-10	KP E 3 G-10
		ADDINOL Ökosynth Super 2 LE	
	Performance Bio GR 9488		
		Mobil SHC Grease 102 EAL	
		PLANTOGEL 2S	
		STABYL ECO EP2	
		STABYL EOS E2 ²⁾ , 3)	
		Klüberbio M 72-82	
		Klüberbio BM 32-142	
		Shell Naturelle Grease S5 V120P 2	
		BIOMULTIS EP2	
		SYN-setral-CA 2 B	

5.1 Notes

- (1) High-performance gear oil with Surftec agent combination for extended oil change intervals
- (2) Synthetic high-performance grease for use in wind turbines
- (3) Please use lubricant only in accordance with the application; please consult the lubricant manufacturer
- (4) High-performance lubricants with special PD additives
- (5) Compatibility with the related coating materials must be verified



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