## RECOMMENDED LUBRICANTS FOR PALM OIL MILLS



Machine parts to be lubricated		<b>Operating conditions</b>	Lubricants recommended
Loading Ramp	- Hydraulic unit - Bearings	Intermittent operation	Bechem Staroil NR 46 or NR 68* hydraulic oil Bechem L-474-3 grease
Boogies (Cage) Wheel	- Plain Bearings - Rolling Bearings	High temperatures 126-130°C, contaminants, steam, moisture, high loads.	Megaline OGL 66 grease Bechem Berutox MB II H grease
Sterilizer	- Fasteners - Door hinges	High temperatures 126-130°C, contaminants, steam, moisture, high loads.	Bechem Berulub VPN 13 anti-seize compound Megaline OGL 66 grease
Overhead crane	- Gearboxes - Wire ropes	Pulsating and reversing loads Sliding wear, lubricant penetrating requirement	Bechem Staroil G 220 or G 320* gear oil Bechem WR400 grease
Cage Transfer Carriage	- Gearbox - Drive Chain - Bearings	Pulsating and reversing loads Sliding wear, lubricant penetrating requirement	Bechem Staroil G 220 or G 320* gear oil Bechem WR 400 grease Bechem L-474-3 grease
Cage Winch	- Wire Rope - Bearings	Sliding wear, lubricant penetrating requirement	Bechem WR 400 grease Bechem L-474-3 grease
All Fruit Conveyor /Elevators	- Gearbox - Chain - Bearings	Severe sliding wear and presence of contaminants.	Bechem Staroil G 220 or G 320* gear oil Bechem Berulit IKP chain oil Bechem L-474-3 grease
Threshing Drum	- Gearbox - Bearings - Tyre ring - Hydraulic coupling	Low speed, heavy and vibratory loads Wear on tyre	Bechem Staroil G 220 or G 320* gear oil Bechem FA 50 or FA 50 Mo grease Megaline OGL 66 grease Bechem NR 46 or NR 68* hydraulic oil
Digester	- Gearbox - Hydraulic coupling - Bearings	Severe high load, sometime with pitting, temperatures 90°C.	Berusynth EP 320 or EP 460* synthetic gear oil Bechem NR 46 or NR 68* hydraulic oil Bechem L-474-3 grease

Machine parts to be lubricated		<b>Operating conditions</b>	Lubricants recommended
Screw Press	- Gearbox	Severe high load, sometime with pitting, temperatures 48°C.	Berusynth EP 320 or EP 460* synthetic gear oil Bechem Berugear GS 320 BM or GS 460 BM* gear repairing gear oil for pitted gears
	- Bearings		Bechem FA 50 or FA 50 Mo grease
	- Hydraulic system		Bechem NR 46 or NR 68* hydraulic oil
Decanter/separator	- Bearings	Temperatures 65-73°C, high speed.	Bechem FA 67-II or FA 67-220 grease Selection depends on the speed
	- Gearboxes	High load, no sludge formation.	Berusynth EP 150 or EP 220* synthetic gear oil
Kernel Transport	- Bearings		Bechem L474-3 grease
Kernel Heating Fan	- Bearings		Bechem L474-3 grease
Nut Silo Fan	- Bearings		Bechem L474-3 grease
Nut Polishing Drum	– Gearbox – Bearings	Low speed, heavy load	Bechem Staroil G 220 or 320 gear oil Bechem FA 50 grease
Vibrating Screen	- Bearings	Vibratory loads	Bechem L-474-3 or FA67-220 grease
Boiler	- Induced draft fan bearings	High temperatures of 75°C+, moderate speeds (~1000 rpm)	Bechem Multiplex 23/ Bechem Alutherm B2/ Berutox M 21 KN for lasting performance
	- Forced draft fan	Temperatures 45-48°C	Bechem L-474-3 grease
	- Fasteners, door hinges	High temperatures, rust and seizure.	Bechem Berulub VPN 13 anti-seize compound
Power House	- Alternator bearings	Continuous and critical operation.	Bechem FA 67-II grease
	- Switchgears	Sliding wear, overheating	Bechem-Rhus SU 2 electrical contact grease
	- Busbar connections	Overheating, oxidation, loose connections.	Bechem-Rhus SU 2 electrical contact grease
	- TG fasteners	High temperatures, rust and seizure.	Bechem Berulub VPN 13 anti-seize compound
Waste Water Ponds	- Aerator motor bearings	Continuous operation, presence of water.	Bechem L474-3 grease

IMPORTANT! Please check the operating temperatures, speeds and gearbox ISO VG requirements before selection of the right Bechem lubricants.