

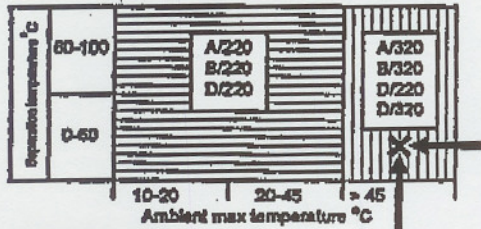
010 - 542831

RECOMMENDED LUBRICATING OILS

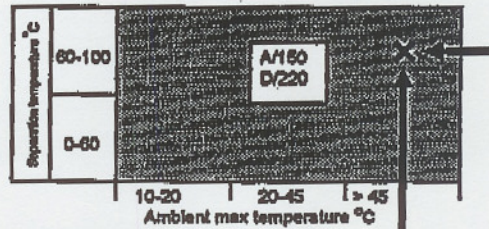
Selection tables

Three different groups of lubricating oil are listed in the tables.

They are designated as lubricating oil groups A, B and D. The oil groups recommended at the maximum separating and ambient temperatures expected or experienced are found in the selection tables below, e.g. A/320 = oil group A and viscosity class VG 320.

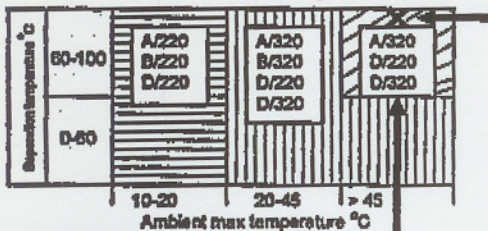


GEAR DRIVE
MAB 102, 103, 104, 204, 205
MA/MOPX 204, 205
WHPX/FOPX/LOPX 05
Ex. 1

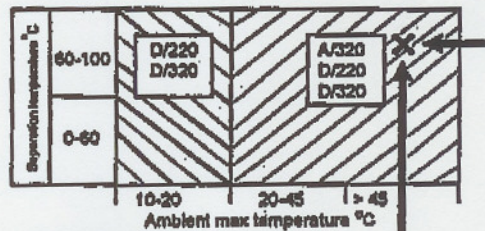


BELT DRIVE
MMB 304, 305, MSPX 303
MMPX 303, 304, MFPX 307
Ex. 2

MMB 203 has direct drive and requires no oil lubrication.



GEAR DRIVE
MA/MOPX 07-13
MAB 206, 207, 209
WHPX 507, 508, WHPX/FOPX/LOPX 13
Ex. 3



GEAR DRIVE
WHPX/FOPX/LOPX 07/09/10
FOPX 611
Ex. 4

Examples how to read the tables:

- An installation where the ambient temperature sometimes reaches +50°C
- Separators:
 1. MAB 104 for diesel oil. Separating temperature +30°C
 2. MMPX 304 for auxiliary engine lube oil. Separating temperature +85°C
 3. FOPX 613 for heavy fuel oil. Separating temperature +98°C
 4. LOPX 709 for lube oil. Separating temperature +90°C

1. MAB 104:
A/320, B/320, D/220 or D/320
2. MMPX 304:
A/150 or D/220
- 3,4. LOPX 709 and FOPX 613:
A/320, D/220 or D/320

Depending on the availability of these specific oils from the oil supplier concerned, a choice of the above oils is made, in this case for instance:
MAB 104, LOPX 709 and FOPX 613:
A/320 or D/320
MMPX 304: A/150 or
For all separators D/220.

Recommended oil groups and viscosity grades are found in the four tables above. The corresponding commercial oils are found in the lists on the following two pages.

List of commercial oil brands

Oil type	Designation		Supplier											
	Lube oil group	Visc. grade VG ¹⁾	Alfa Laval	BP	Castrol	Chevron	ELF	Esso / Exxon / Statoil	Fina	Mobil	Optimol Otworke	GS / Gulf	Shell	Texaco / Caltex
Paraffin base mineral oil with AW- and stabilizing inhibitors	A	150	Article No. 548098- -80 20 l -81 4 l -82 208 l -83 1 l	Bartran 150	Alpha ZN 150	-	-	Teresso 150 Terestic 150	-	DTE oil Extra Heavy	-	Gulf Harmony AW 150	Morlina oil 150	Regal R&O 150 Paper machine oil HD 150
	A	220	-	Bartran 220	Alpha ZN 220	-	Polytell 220	Teresso 220 Terestic 220	-	DTE oil BB	Ultra 220	Gulf Harmony AW 220	Morlina oil 220	Regal R&O 220 Paper machine oil HD 220
	A	320	Article No. 546089- -80 20 l -81 4 l -82 208 l -83 1 l	Bartran 320	Alpha ZN 320	-	Polytell 320	Nuto 320 Teresso 320 Terestic 320	-	DTE oil AA	Ultra 320	Gulf Harmony AW 320	Morlina oil 320	Regal R&O 320 Paper machine oil HD 320
Paraffin base mineral oil with inhibitors and EP-additives	B	220	-	Energol GR-XP 220	Alpha SP 220	Ultra-gear 220 Gear Compound 220	Epona Z 220	Spartan EP 220	Gran 220	Mobilgear 630 Mobilgear SHC 220	Optigear BM 220	Goya 220 Gulf EP HD 220	Omala 220	Meropa 220
	B	320	-	Energol GR-XP 320	Alpha SP 320	Ultra-gear 320 Gear Compound 320	Epona Z 320	Spartan EP 320	Gran 320	Mobilgear 632 Mobilgear SHC 320	Optigear BM 320	Goya 320 Gulf EP HD 320	Omala 320	Meropa 320
High temperature oil, usually a synthetic oil of polyalpha-olefine type with inhibitors	D	220	Article No. 542880- -80 20 l -81 4 l -82 208 l -83 1 l	Energol HTX 220	Alpha Syn T 220	Tegra 220	Epona SA 220	Teresso SHP 220 Terestic SHP 220	-	SHC 630	-	Schumann 220	-	Pinnacle Marine Gear 220
	D	320	Article No. 542880- -84 20 l -85 4 l -86 208 l -87 1 l	Energol HTX 320	Alpha Syn T 320	-	Epona SA 320	Teresso SHP 320 Terestic SHP 320	-	SHC 632	-	Schumann 320	-	-

¹⁾ According to ISO 3448/3104

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