

CHOICE OF HYDRAULIC OIL

Hydraulic oil provides the hydraulic working processes with energy. In DSH connection this means energy for valve motions.

The viscosity of the different kinds of oil varies according to the temperature; i.e. a high temperature renders a low viscosity and vice versa. Some hydraulic oil types vary more than others. The oil viscosity is an indication of "how sluggish" the oil is. If you change the viscosity, you also change the lubricating characteristics of the oil, especially the adhesion which normally results in the well-known dilemma: to choose a suitable hydraulic oil, which means an oil with suitable viscosities and temperature conditions.

In order to increase operating times and to reduce the power loss in pipes, elbows and various components (solenoid valves etc.), which the oil is to pass on its way to the actuator, the lowest possible viscosity is preferred, whereas the "highest possible" viscosity is preferable in order to protect pumps, solenoid valves and other movable mechanisms.

There are naturally technically and scientifically other conditions than the viscosity (e.g. the vapour pressure) which determine the lubricating characteristics of the oil and minimize the risk of pump cavitation, but based on experience a viscosity within the range

15 cSt. (min.) and 200 cSt.

can comply with the above-mentioned conditions.

The choice of oil is not only a choice of viscosity, but also an evaluation of how cold and warm the oil can get during normal operation under different ambient temperatures (arctical versus tropical conditions).

HYDRAULIC (MINERAL) OILS
LIST OF RECOMMENDED BRANDS AND TYPES FOR
USE UNDER NON-EXTREME CONDITIONS

<u>PRODUCT</u>	<u>ISO NORM</u>	<u>TYPE/NEW INDICATION</u>
BP	15	Energol HLP 15 (Bartran HV)
	22	Energol HLP 22 (Bartran HV)
	32	Energol HLP 32 (Bartran HV)
	46	Energol HLP 46 (Bartran HV)
CASTROL	15	Hyspin AWS 15
	22	Hyspin AWS 22
	32	Hyspin AWS 32
	46	Hyspin AWS 46
	15	Hyspin AWH 15
	32	Hyspin AWH 32
	46	Hyspin AWH 46
CHEVRON	15	Mechanism LPS 15
	32	Mechanism LPS 32
	46	Mechanism LPS 46
ELF	15	Olna 15
	22	Olna 22
	32	Olna 32
	46	Olna 46
ESSO/EXXON	15	Nuto H 15
	32	Nuto H 32
	15	Univis N 15
	32	Univis N 32
	46	Univis N 46
	-	Univis J 26
MOBIL	15	DTE 11 M
	32	DTE 13 M
	46	DTE 15 M
	32	DTE 24
Q8-KUWAIT PETROLEUM	15	Haydn 15
	22	Haydn 22
	32	Haydn 32
	46	Haydn 46
SHELL	15	Tellus T 15
	37	Tellus T 37
	46	Tellus T 46
	22	Tellus S 22
	32	Tellus S 32
	46	Tellus S 46
SUN OIL	15	Sunvis 815-WR
	22	Sunvis 822-WR
	32	Sunvis 832-WR
	46	Sunvis 846-WR
TEXACO	15	Rando HD 15
	22	Rando HD 22
	32	Rando HD 32
	46	Rando HD 46