

## Recommended Fluids for Disc Brakes and “LCS” Hydraulic Power Units

### Pressure Fluids/Oil Types

The following oil types are recommended by Twiflex Ltd – other types corresponding to these can be used.

The general temperature range for standard products using hydraulic oil is -20°C to +60°C (-4°F to +140°F). For operating temperatures outside this range please contact Twiflex Ltd.

Mineral Oil	Standard	
	-20°C - +40°C	+10°C - +60°C
	-4°F - +104°F	+50°F - +140°F
Shell	Tellus S2 V32	Tellus S2 V46
Mobil/EXXON	DTE 10 Excel 32	DTE 10 Excel 46
Texaco	Rando HDZ32	Rando HDZ46
Valvoline	Ultramax HVLP32	Ultramax HVLP46
Q8 Oils	Q8 Haydn 32	Q8 Haydn 46

General: Mineral Pressure Fluids according to DIN 51524 Part 3

### Viscosity

Recommended viscosity range: 20-200 cSt at working temperature. Generally, Twiflex hydraulic systems are designed to allow higher viscosity for short periods.

### Filtration

The oil in a hydraulic system and any oil added to the hydraulic system must always be filtered. The level of cleanliness in a hydraulic system is an important factor in the lifetime of the system.

When refilling the hydraulic tank, it is stipulated that the oil added to the system is filtered through a 10-micron purity offline filter unit to the classes listed below.

The hydraulic system, supplied by Twiflex Ltd, has a built-in oil filter with a standard 10-micron purity filter. To maintain a reliable system it is recommended that only hydraulic oil of the following classes of purity is used: NAS 1638, Class 8, or ISO 4406, Class 19/17/14.

It is recommended that the filter is changed at a minimum, once every six months or more often depending on the level of exposure to contamination.

### Service Life of Pressure Fluids

Mineral oil: 8000 Hours or at least once a year.

Other fluids: 2000 Hours or at least once a year.

### Change of Pressure Fluid

Note: The mixing or blending of different brands or types of pressure fluid can cause unintended chemical reactions, such as sludging, gumming etc. The complete hydraulic system should be thoroughly flushed prior to changing from one oil type to another.

The respective manufacturers should be contacted prior to changing from one pressure fluid to another.