

SHELL TELLUS OIL T15

HIGH VISCOSITY INDEX HYDRAULIC OIL

DESCRIPTION

Shell Tellus Oil T15 is a premium grade, very high viscosity index, anti-wear hydraulic oil especially designed for use in hydraulic power and control systems in mobile or stationary equipment that are subjected to extremes of temperature, or which are particularly sensitive to changes in temperature.

Shell Tellus Oil T15 may be used in extremes of temperature such as fork lift trucks in cold stores or in brick kilns, in hydraulically operated machine tools where speed must remain constant throughout the working day. Shell Tellus Oil T15 is also recommended for use as a circulating oil for rolling bearings when a wide variation in ambient temperature is expected. This product should not be used in systems containing silver components, eg some Lucas pumps.

Shell Tellus Oil T is also available in ISO viscosity grades 37, 46, 68 and 100.

PERFORMANCE FEATURES

THERMAL STABILITY

The high thermal stability of Shell Tellus Oil T15 improves its ability to resist degradation and sludging at high temperatures. This is particularly beneficial in hydraulic systems operating under extreme temperature conditions and especially where reservoir capacities are small.

OXIDATION LIFE

The life expectancy of a hydraulic oil at elevated temperatures is determined by its ability to resist oxidation in the presence of air, water and metals. This oxidation produces sludges and acidic products. Shell Tellus Oil T15 has shown an oxidation life in the standard TOST test of up to four times that of some other hydraulic oils.

ANTI-WEAR PERFORMANCE

Shell Tellus Oil T15 has been formulated to provide exceptionally good anti wear performance under both high and low load conditions. This can be seen by outstanding results in the vickers 35VQ25 and V104C tests. These lubrication properties are enhanced by low frictional characteristics to prevent the occurrence of stick slip.

LOW VARIATION IN VISCOSITY AND GOOD SHEAR STABILITY

The unique temperature viscosity relationship of Tellus Oil T15 ensures both constant equipment operation as well as suitability over a wide temperature range (both starting and running temperatures). The very high viscosity index of Tellus Oil T15 is achieved by the use of low molecular weight polymer viscosity index improvers which are very stable to mechanical and thermal "shear down". This shear stability ensures that the desirable viscosity is maintained throughout the life of the lubricant.

FILTERABILITY

Extensive testing has demonstrated the excellent filterability characteristics of Shell Tellus Oil T15. This eliminates the premature blocking of the filters by reaction products formed via contamination.

WATER SEPARATION

Shell Tellus Oil T15 has excellent water separation properties (demulsibility) to resist formation of potentially harmful highly viscous emulsions.

AIR RELEASE AND ANTIFOAM

SHELL TELLUS OIL T15

HIGH VISCOSITY INDEX HYDRAULIC OIL

An ideal balance has been achieved in Shell Tellus Oil T15 between these two conflicting requirements. This helps to avoid cavitation and compressibility problems.

Contamination of Shell Tellus Oil T15 with other oils must be avoided, as it can seriously impair the air release, anti-foaming and demulsibility properties of Shell Tellus Oil T15.

SUMMARY OF BENEFITS

- Low variation in viscosity with temperature which leads to;
 - suitability for very high and very low ambient temperature conditions
 - rationalisation of number of grades required to cover temperature ranges
 - reduced wear at start up.
- Improved equipment life and decreased down time due to superior wear prevention, corrosion protection and filterability.
- Long fluid life due to enhanced chemical and thermal stability.
- Excellent air release and antifoam properties to prevent cavitation.
- Very high shear stability ensures constant oil viscosity for uniform equipment operation.

HEALTH & SAFETY

Information is available on the relevant Material Safety Data Sheet

SPECIFICATIONS/APPROVALS

ISO VISCOSITY GRADE	15
DENISON	HFO(HF1, HF2)
SWEDISH STANDARD	SS 155434
EXCEEDS CETOP STANDARD	RP91H CATEGORY HV
MIL-H-24459(SHIPS)	VISCOMETRIC AND ANTIWEAR REQUIREMENTS
DIN	51524 PART 2 & 3(PROPOSED)
SMR	HIGH VI HYDRAULIC OIL SPECIFICATION

TYPICAL CHARACTERISTICS

DESCRIPTION	UNITS	METHODS	TYPICAL
APPEARANCE	-	VISUAL	C&B
DENSITY @ 15°C	kg/L	ASTM D4052/D1298	0.874
FLASH POINT	°C	ASTM D92	140
VISCOSITY AT 40°C	mm ² /s	ASTM D445	15
VISCOSITY AT 100°C	mm ² /s	ASTM D445	3.8
VISCOSITY INDEX	-	ASTM D2270	154
POUR POINT	°C	ASTM D97	-45
COLOUR	-	ASTM D1500	<0.5
TAN	mg KOH/g	ASTM D664	1.0

Document Information

SHELL TELLUS OIL T15

HIGH VISCOSITY INDEX HYDRAULIC OIL

PDS Number:	2986
Date Revised:	12/11/1998