

Shell TELLUS® Oils STX

Ashless zinc free hydraulic oils for severe duty and extended temperature ranges

Shell TELLUS® Oils STX are 'top-tier' hydraulic oils based on latest ashless anti-wear technology, selected high quality mineral base oils and a shear stable viscosity index improver to enhance and maintain excellent viscosity/temperature characteristics. Shell TELLUS® Oils STX are indicated for severe duty or where significant variation in oil temperature during service are encountered.

Performance Features and Benefits

- **Extended operating temperature range**

The use of selected viscosity index improver and Group II base oils reduce the viscosity variation with temperature allowing the systems to operate in an extended oil temperature range with more consistent performances.

- **Maintained viscometric characteristics unchanged with time**

The high shear stability of the viscosity index improver used allows retention of the original viscosimetric characteristics preventing the oil from becoming thinner at high temperature and therefore preventing the reduction of the max operating temperature and the system efficiency.

- **Outstanding anti-wear performance**

Latest ashless anti-wear technologies are incorporated to be effective throughout the range of operating conditions, including low and severe duty load conditions. Outstanding performance in a range of piston and vane pump tests have been obtained including the newest Denison T6H (the so called hybrid pump), the tough Denison T6C (dry and wet versions) and the demanding Vickers 35VQ25. Shell TELLUS® Oils STX help system components last longer.

- **Hydrolytic stability**

Shell TELLUS® Oils STX have excellent chemical stability in the presence of moisture, which helps to ensure long oil life and reduce the risk of corrosion and rusting.

- **Superior filterability**

Shell TELLUS® Oils STX are suitable for ultra-fine filtration, an essential requirement in today's hydraulic systems. They are typically unaffected by the usual products of contamination, such as water and calcium, which are known to cause blockage of fine filters.

- **Oxidation resistant**

Resists oxidation in the presence of air, water and copper. Thanks to the combination of additives and base oils used, the Turbine Oil Stability Test (TOST) results are outstanding in terms of low acidity, low sludge formation, low copper loss; therefore helping to extend oil drain intervals and minimizing maintenance costs.

- **Thermal stability**

Thermally stable in modern hydraulic systems working in extreme conditions of load and temperature, Shell TELLUS® Oils STX are highly resistant to degradation and sludge formation therefore improving system reliability and cleanliness.

- **Excellent air release and anti-foam properties**

Additives have been carefully selected to ensure quick air release without excessive foaming.

- **Good water separation**

Good water separation properties (demulsibility). Resists the formation of water-in-oil emulsions and prevents consequent hydraulic system and pump damage.

- **Reduced environmental impact**

The use of ashless anti-wear technology and low sulfur base oils reduces the impact on the environment due to usage of Shell TELLUS® Oils STX.

Main Applications

- Hydraulic and fluid power transmission systems subjected to significant variations in temperature or where very low viscosity change with fluctuating temperature is required.

Certain critical hydraulic systems can only tolerate very small variations in viscosity with fluctuating temperature if efficiency and responsiveness are to be maintained. Hydraulic oils, such as Shell TELLUS® Oils STX, which exhibit multigrade viscosity characteristics may be used to particular advantage in these circumstances.

Advice on applications not covered in this handbook may be obtained from your Shell representative.

Specifications, Approvals, and Recommendations

Shell TELLUS® Oils STX have the following approvals:

CINCINNATI P-68 (ISO 32)

CINCINNATI P-70 (ISO 46)

CINCINNATI P-69 (ISO 68)

DENISON HF-0

DENISON HF-1

DENISON HF-2

Eaton (Vickers) M-2950 S

Eaton (Vickers) I-286 S

Shell TELLUS® Oils STX meet the requirements of:

Swedish Standard SS 15 54 34 AM

ISO 11158

AFNOR NF-E 48-603

Compatibility

Shell TELLUS® Oils STX are compatible with all components, pumps, seal and paints, normally considered to be used with mineral oils.

Handling and Safety Information

For information on the safe handling, storage, or use of this product, refer to its Material Safety Data Sheet at <http://www.epc.shell.com/>. If you are a Shell Distributor, please call 1+800-332-6457 for all of your service needs. All other customers please call 1+800-237-8645 for all of your service needs.

Protect the Environment

Do not discharge into drains, soil, or water.

Typical Physical Characteristics

Shell TELLUS® Oil STX			32	46	68
ISO Oil Type			HV	HV	HV
Kinematic Viscosity	@ -20°C	cSt	1000	1850	2900
	@ 40°C	cSt	32	46	68
	@ 100°C	cSt	6.5	8.4	11.4
Viscosity Index			162	162	162
Density	@ 15°C	kg/L	0.870	0.875	0.880
Flash Point (PMCC) (Cleveland Open Cup)		°F	428	437	446
Pour Point		°F	-44	-44	-38

These characteristics are typical of current production. While future production will conform to Shell specifications, variation in these characteristics may occur.