RW HYDRAULIC FORCE HV-ZF

DESCRIPTION

RW Hydraulic Force HV-ZF hydraulic fluids are high performance lubricants that use exclusive ashless technology, coupled with highly shear stable viscosity modifiers. They give excellent viscosity control and protection under severe mechanical, thermal and chemical stresses across a wide range of temperatures. They provide outstanding protection and performance in most mobile equipment and other applications subjected to a wide range of ambient or operating temperatures.

APPLICATIONS

- Mobile/exterior hydraulic applications
  Hydraulic and fluid power transmission systems in exposed environments which are subjected to wide variations in temperature. The very high viscosity index of RW Force HV-ZF helps deliver responsive performance from cold start conditions to full load, severe duty operation.
- Precision hydraulic systems
  Precision hydraulic systems require good control of fluid viscosity over the operating cycle and excellent fluid filterability, even when contaminated. RW Force HV-ZF provides these features and an additional level of temperature-viscosity stability compared to many ISO HV fluids.
- Environmental impact
  RW Force HV-ZF has a reduced environmental impact in the event of a leak or accidental spillage compared to conventional zinc-based hydraulic fluids. This is achieved through the use of ashless anti-wear technology and low sulphur base oils.

PERFORMANCE PERFORMANCE FEATURES AND BENEFITS

- Long fluid life – maintenance saving
  RW Hydraulic Force HV-ZF fluids offer an improved capability to extend fluid maintenance intervals and hence reduce equipment downtime through:
- an extended ASTM D 943 TOST lifetime, with an oxidative stability that is longer than the industry minimum;
- excellent resistance to breakdown in the presence of water and heat;
- class leading shear stability to maintain viscosity control.
  These features provide extended maintenance capability without compromising protection or performance, even under severe or extended temperature range applications.
- Outstanding wear protection
  Advanced ashless (zinc-free) anti-wear additives provide protection over a wide range of conditions, including low and severe duty, and high-load operations. The very high viscosity index (VI) of RW Force HV-ZF fluids, in combination with outstanding shear stability, help to ensure that critical oil film thicknesses are maintained in the highly stressed components of the hydraulic system. Protection is maintained even under high temperature and high load conditions.
- Maintaining system efficiency
  Outstanding filterability; coupled with excellent water separation, air release and anti-foam characteristics, all help to maintain or enhance hydraulic system efficiency. The excellent filterability of RW Force HV-ZF is maintained even when the fluid is contaminated with water, with negligible production of the silts or gels that can block fine system filters.

SPECIFICATIONS AND APPROVALS

- DIN 51524/3 HVLP, ISO 11158 HV, AFNOR NFE 48-603 HV Eaton (Vickers), M-2950-S/ I-286-S
- Aditionally for VG 32: Denison HF-0, Cincinnati Machine P-68
- Aditionally for ISO VG 46: Denison HF-1 Cincinnati Machine: P-70
- Aditionally for ISO VG 68: Denison HF-2 Cincinnati Machine P-69, Poclain

COMPATIBILITY

RW Force HV-ZF fluids are suitable for use with most hydraulic pumps.

- Fluid Compatibility
  RW Force HV-ZF fluids are compatible with most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire-resistant fluids).
- Seal and Paint Compatibility
  RW Force HV-ZF fluids are compatible with seal materials and paints normally specified for use with mineral oils.

ADVICE

Advice on applications not covered in this leaflet may be obtained from your Real Wahl Representative.

HEALTH AND SAFETY

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet which can be obtained from your Real Wahl representative.

PROTECT THE ENVIRONMENT

Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

TYPICAL PHYSICAL CHARACTERISTICS

PROPERTY:	METHOD:	RW Hydraulic FORCE HV-ZF			
		22	32	46	68
Kinematic Viscosity at 40°C, mm²/s	ASTM D 445	22	32	46	68
Kinematic Viscosity at 100°C, mm²/s	ASTM D 445	5	6,3	7,7	11,4
Viscosity Index	ISO 2909	155	150	150	155
Density at 15°C, kg/m³	ISO 12185	865	870	875	882
Flash Point (COC),°C	ISO 2592	185	230	200	220
Pour Point,°C	ISO 3016	-24	-39	-36	-36

These characteristics are typical of current production. Whilst future production will conform to Real Wahl's specification, variations in these characteristics may occur.