



RW
REAL WAHL

Oil

motor
Lubricants Antifreeze
Industrial Marine

RW HYDRAULIC FORCE HM

DESCRIPTION

RW Hydraulic Force HM fluids are high performance hydraulic fluids that use unique technology to provide outstanding protection and performance in most manufacturing and many mobile equipment operations. They resist breakdown under heat or mechanical stress and help prevent damaging deposit formation that can decrease the efficiency of your hydraulic power system.

APPLICATIONS

- **Industrial hydraulic systems**
With an extensive range of equipment maker approvals and recommendations, RW Hydraulic Force HM fluids are suitable for a wide range of hydraulic power applications found in manufacturing and industrial environments.
- **Mobile hydraulic fluid power transmission systems**
RW Hydraulic Force HM fluids can be used effectively in mobile hydraulic power applications such as excavators and cranes, except where significant ambient temperature variations are encountered. For these applications we recommend the RW Hydraulic Force «V» series.
- **Marine hydraulic systems**
Suitable for marine applications where ISO HM category hydraulic fluids are recommended.

PERFORMANCE PERFORMANCE FEATURES AND BENEFITS

- **Long Fluid Life – Maintenance Saving**
RW Hydraulic Force HM fluids help extend equipment maintenance intervals by resisting thermal and chemical breakdown. This minimizes sludge formation and provides excellent performance in the industry standard ASTM D 943 TOST test (Turbine Oil Stability Test), providing better reliability and system cleanliness.
RW Hydraulic Force HM fluids also have good stability in the presence of moisture, which ensures long fluid life and reduces the risk of corrosion and rusting, particularly in moist or humid environments.
- **Outstanding wear protection**
Proven zinc-based anti-wear additives are incorporated to be effective throughout the range of operating conditions, including low load and severe duty high load conditions. Outstanding performance in a range of piston and vane pump tests, demonstrates how RW Hydraulic Force HM fluids can help system components last longer.
- **Maintaining system efficiency**
Excellent filterability and high performance water separation, air release and anti-foam characteristics all help contribute to maintaining or enhancing the efficiency of hydraulic systems.
The unique additive system in RW Hydraulic Force HM, helps reduce the impact of contaminants on filter blocking, allowing both extended filter life and use of finer filtration for extra equipment protection.
RW Hydraulic Force HM fluids are formulated for fast air release without excessive foaming to help efficient hydraulic power transfer and minimise fluid and equipment impacts of cavitation-induced oxidation that can shorten fluid life.

SPECIFICATIONS AND APPROVALS

DIN 51524, 2 HLP; FZG 12; Vickers Vane Pump

COMPATIBILITY

RW Hydraulic Force HM fluids are suitable for use with most hydraulic pumps. However, please consult your Real Wahl Representative before using in pumps containing silver plated components

- **FLUID COMPATIBILITY**

RW Hydraulic Force HM 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 & PAINT COMPATIBILITY**

RW Hydraulic Force HM 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 HM							
		7	10	15	22	32	46	68	220
Kinematic Viscosity at 40°C, mm ² /s	ASTM D 445	7	10	15	22	32	46	68	220
Kinematic Viscosity at 100°C, mm ² /s	ASTM D 445	2,03	2,6	3,4	4,3	5,35	6,9	8,7	18,8
Viscosity Index	ISO 2909	75	90	101	96	98	103	102	95
Density at 15°C, kg/m ³	ISO 12185	839	852	873	863	860	869	878	896
Pour Point, °C	ISO 2592	150	172	175	195	205	215	220	246
Flash Point (COC), °C	ISO 3016	-40	-30	-35	-35	-30	-30	-25	-20
Acid number, mgKOH/g	ASTM D 664	0,4	0,3	0,4	0,4	0,4	0,4	0,4	0,4

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