



OIL - HYDRAULIC, Anti Wear.

U-MC006-8004

1. Scope.

The material desired under this standard is an HM Type Hydraulic oil in accordance with ISO 6743/4 consisting of a severe solvent refined or severe hydrotreated mineral oil compounded with suitable additives to improve its antifoam properties, resistance to wear, oxidation and its corrosion preventing characteristics. It precludes the use of reclaimed oils.

2 Application.

2.1 This material is used as a general purpose hydraulic oil in tight hydraulic systems operating with minimum water contamination and where oxidation must be kept to a minimum.

2.2 Consumption Tax/Excise Law

2.2.1 In Germany the product is subject to tax advantages in accordance with mineral oil tax law, for approved purposes.
Contravention is subject to prosecution.

2.2.2 In Belgium the product is free of excise duty for approved purposes, in accordance with excise law. It may not be used for other purposes.
Contravention is subject to prosecution.

* Viscosity grade 46 is preferred for use in all new hydraulic systems.

3. Requirements.

3.1 General

Oils to this standard in the viscosity range ISO VG 10 - 100 shall meet DIN 51524 part 2 HLP requirements except for the following which shall take precedence.

Standard No	U-MC006-8004-	10	22	32	46*	68	100
Viscosity	ISO VG-	10	22	32	46	68	100
ISO 3448							
3.2 Flashpoint	°C Minimum	125	165	175	185	195	205
DIN/ISO 2592.							

3.3 Foaming tendency/stability

ASTM D 892, IP 146

max foam volume (ml)

@ 24 °C	<	50/nil	>
@ 93,5 °C	<	50/nil	>
@ 24 °C after test at 93,5 °C	<	50/nil	>

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Viscosity ISO VG- | 10 | 22 | 32 | 46 | 68 | 100 |

3.4 Wear characteristics

3.4.1 FZG Normal test A/8,3/90 | | | | | |
 DIN 51354 pt 2 | | | | | |
 Failure load stage | | < 11 minimum > |
 Specific wear | | < less than 0,3 mg/kWh > |

3.4.2 Vane pump test

Sperry Vickers 35VQ25

Weight loss - Ring | | < less than 75 mg > |
 " " - Vane Total | | < less than 15 mg > |

3.5 Antiwear additive.

Rate and report type used and values of elements

3.6 Filterability

Denison Specification HF-0, Filter test
 1,2 micron filter (TP-02100)

Filtration time , dry (in seconds) Rate and
 Report
 Filtration time , + 2% water (in seconds) Rate and
 Report
 Wet : Dry Ratio 2 : 1 maximum

3.7 Seal Compatability

ISO 6072, IP278 or DIN 53521

Rate and Report

3.8 Contamination.

The material shall be clear and bright with no visible impurities.
 In the initial sample test at supplier/manufacturers production line
 dispensing facility the solid particulate contaminants in the hydraulic
 oil shall be evaluated according to Contaminant Code ISO 4406, CETOP
 RP70H and BS 5540 pt 4.
 Indicate test method used.
 Rate and report contamination if greater than 16/11.

3.9 Miscibility.

All materials in accordance with this standard must be homogeneous and
 completely miscible under all conditions.

3.10 Infrared Spectrophotometry.

All materials supplied to this specification shall have an infrared
 spectrum that corresponds to the master spectrum of the sample
 originally approved, on file in the Quality Office or test laboratory.

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