HYDRAULIC OILS

According to their application, hydraulic oils are classified as follows:

MH-L/HL – For lubrication of hydrostatic oil systems and frictional mechanisms with circulative lubrication, which require lubricants with high stability against oxidation and good protective qualities (according to DIN 51524-1 standard).

MHM-M/HLP- For lubrication of hydrostatic oil systems and frictional mechanisms with circulative lubrication, which require lubricants with high stability against oxidation and good protective qualities, as well as increased anti-scratch and anti-wear properties (according to DIN 51524-2 standard).

MH-MV/HVL – Hydraulic oils with anti-oxidation, anti-corrosion and anti-wear additives, high viscosity index and a low pour temperature (according to DIN 51524-3 standard).

MH-MVD/HVLPD – Hydraulic oils with anti-oxidation, anti-corrosion, anti-wear, detergent and dispersive additives with a high viscosity index.

HYDRAULIC OILS MH-L

№	Index	Viscosity classes						Testing method
		22	32	46	68	100	150	
1.	Kinematic viscosity 40ºC , mm/s²	19.8-24.2	28.8 - 35.2	41.4 - 50.6	61.2-74.8	90.0 - 110.0	135.0 - 165.0	EN ISO 3104
2.	Viscosity index ≥	95	95	95	95	95	95	ISO 2909
3.	Flash point,ºC ≥	165	180	190	200	205	210	EN ISO 2592
4.	Pouring temperature, ºC, ≤	-25	-25	-25	-20	-20	-20	ISO 3016
5.	Water content,%,≤	none	none	none	none	none	none	EN ISO 12937
6.	Anticorrosion properties in destilled water	ok	ok	ok	ok	ok	ok	ISO 7120
7.	Corrosion on metal plate ≤	2b	2b	2b	2b	2b	2b	ISO 2160
8.	Foaming: -tendency towards foaming ≤ cm³, -foam stability , ≤ cm³	100-50-100 0-0-0	100-50-100 0-0-0	100-50-100 0-0-0	100-50-100 0-0-0	100-50-100 0-0-0	100-50-100 0-0-0	ISO 6247
9.	Demulsifier properties ,cm³/min	40-37-3/20	40-37-3/20	40-37-3/20	40-37-3/20	40-37-3/20	40-37-3/20	ISO 6614

HYDRAULIC OILS MH-M

№	Index	Viscosity classes						Testing method
		22	32	46	68	100	150	
1.	Kinematic viscosity 40ºC , mm/s²	19.8 - 24.2	28.8 - 35.2	41.4 - 50.6	61.2 - 74.8	90.0 - 110.0	135.0 - 165.0	EN ISO 3104
2.	Viscosity index ≥	95	95	95	95	95	95	ISO 2909
3.	Flash point,ºC ≥	165	180	190	200	205	210	EN ISO 2592
4.	Pouring temperature, ºC, ≤	-25	-25	-25	-20	-20	-20	ISO 3016
5.	Water content,%,≤	none	none	none	none	none	none	EN ISO 12937
6.	Mechanical particulates,%,	none	none	none	none	none	none	EN 12662
7.	Anticorrosion properties in destilled water	ok	ok	ok	ok	ok	ok	ISO 3016
8.	Corrosion on metal plate ≤	2b	2b	2b	2b	2b	2b	ISO 2160
9.	Air release capability in min/at max ºC	5/50	5/50	10/50	10/50	10/50	15/75	ISO 9120
10.	Foaming: -tendency towards foaming ≤ cm³, -foam stability , ≤ cm³	100-50-100 0-0-0	100-50-100 0-0-0	100-50-100 0-0-0	100-50-100 0-0-0	100-50-100 0-0-0	100-50-100 0-0-0	ISO 6247
11.	Demulsifier properties ,cm³/min	40-37-3/20	40-37-3/20	40-37-3/20	40-37-3/20	40-37-3/20	40-37-3/20	ISO 6614
12.	Anti-wear properties FZG A 8.9/90 with degree of loading with damage not less than	12	12	12	12	12	12	ASTM D 5182

HYDRAULIC OILS MH-MV

№	Index	Viscosity classes			Testing method
		32	46	68	
1.	Kinematic viscosity 40ºC , mm/s²	28.8 - 35.2	41.4 - 50.6	61.2 - 74.8	EN ISO 3104
2.	Kinematic viscosity at 0ºC,mm²/s	200	300	550	EN ISO 3104
3.	Viscosity index ≥	190	185	180	ISO 2909
4.	Flash point,ºC ≥	180	190	200	EN ISO 2592
5.	Pouring temperature, ºC, ≤	-42	-33	-30	ISO 3016
6.	Water content,%,≤	none	none	none	EN ISO 12937
7.	Mechanical particulates,%,	none	none	none	EN 12662
8.	Anticorrosion properties in destilled water	ok	ok	ok	ISO 3016
9.	Corrosion on metal plate ≤	2b	2b	2b	ISO 2160
10.	Air release capability in min/at max ºC	5/50	10/50	10/50	ISO 9120
11.	Foaming: -tendency towards foaming ≤ cm³, -foam stability , ≤ cm³	100-50-100 0-0-0	100-50-100 0-0-0	100-50-100 0-0-0	ISO 6247
12.	Demulsifier properties ,cm³/min	40-37-3/20	40-37-3/20	40-37-3/20	ISO 6614
13.	Anti-wear properties FZG A 8.9/90 with degree of loading with damage not less than	12	12	12	ASTM D 5182
14.	Acidity number ,mgKOH/g,typ.	0.8	0.8	0.8	DIN 51588

HYDRAULIC OILS MH-MVD

№	Index	Viscosity classes			Testing method
		32	46	68	
1.	Kinematic viscosity 40ºC , mm/s²	28.8 -35.2	41.4 - 50.6	61.2 - 74.8	EN ISO 3104
2.	Kinematic viscosity at 0ºC,mm²/s	400	600	1000	EN ISO 3104
3.	Viscosity index ≥	105	105	105	ISO 2909
4.	Flash point,ºC ≥	180	190	200	EN ISO 2592
5.	Pouring temperature, ºC, ≤	-33	-30	-27	ISO 3016
6.	Water content,%,≤	none	none	none	EN ISO 12937
7.	Mechanical particulates,%,	none	none	none	EN 12662
8.	Anticorrosion properties in destilled water	ok	ok	ok	ISO 3016
9.	Corrosion on metal plate ≤	2b	2b	2b	ISO 2160
10.	Air release capability in min/at max ºC	5/50	10/50	10/50	ISO 9120
11.	Foaming: -tendency towards foaming ≤ cm³, -foam stability , ≤ cm³	100-50-100 0-0-0	100-50-100 0-0-0	100-50-100 0-0-0	ISO 6247
12.	Anti-wear properties FZG A 8.9/90 with degree of loading with damage not less than	12	12	12	ASTM D 5182
13.	Acidity number ,mgKOH/g,typ.	1.0	1.0	1.0	DIN 51588