



TECHNICAL DATA SHEET

ANTIWEAR HYDRAULIC OILS ISO 22, 32, 46, 68, 100, 150, 220

ISO 22 PRODUCT # 11169, 11171, 11172

ISO 32 PRODUCT # 10401, 10403, 10414, 18057

ISO 46 PRODUCT # 10404, 10406, 10415, 18058

ISO 68 PRODUCT # 10407, 10409, 10416, 18059

ISO 100 PRODUCT # 10503, 11188, 11189, 11190

ISO 150 PRODUCT # 11106, 10672, 11126

ISO 220 PRODUCT # 10961, 10962, 10963

GRADE, ISO	ASTM	22	32	46	68
API Gravity	D-1298	33.76	32.27	31.1	30.21
Specific Gravity @ 60°F	D-1298	.856	.864	.870	.875
Density @ 60°F, Lbs/US Gal	D-1298	7.126	7.210	7.25	7.294
Flash Point, PMCC °F	D-93	>400	>400	>400	>400
Viscosity @ 40°C, cSt	D-445	23.2	32.0	46.6	68
Viscosity @ 100°C, cSt	D-445	4.7	5.56	7.32	9.1
Viscosity Index	D-2270	122	110	119	105
Color	Visual	0.5/ Clear	Pale Yellow	Pale Yellow	Pale Yellow
ISO Cleanliness Rating	ISO 4406				
	Particle Count	16/14/11	16/14/11	16/14/11	16/14/11
RPVOT (minutes)	D-2272	>540	>540	>540	>540

GRADE, ISO	ASTM	100	150	220
API Gravity	D-1298	30.11	29.45	29.3
Specific Gravity @ 60°F	D-1298	.875	.879	.88
Density @ 60°F, Lbs/US Gal	D-1298	7.287	7.317	7.324
Flash Point, PMCC °F	D-93	>400	>400	>400
Viscosity @ 40°C, cSt	D-445	101.1	155.76	213.3
Viscosity @ 100°C, cSt	D-445	11.78	15.43	20.2
Viscosity Index	D-2270	105	100	110
Color	Visual	0.5/ Clear	0.5/ Clear	0.5/ Clear
ISO Cleanliness Rating	ISO 4406			
	Particle Count	16/14/11	16/14/11	16/14/11
RPVOT (minutes)	D-2272	>540	>540	>540

ANTI-WEAR HYDRAULIC OILS - CONT.

LUCAS Anti-Wear Hydraulic Oils are blended from premium paraffinic base oils and compounded with multiple chemical components to produce a product with superior performance.

Features:

- Dispersants – same level as used in premium Automatic Transmission Fluids (ATF)
- Antioxidants
- Copper Passivators (Copper alloy corrosion inhibitors)
- Friction Modifiers
- Four Times more total additive than typical AW HF
- ISO Cleanliness to 16/14/11 by extreme filtration

Benefits that result from the features listed above:

- Cleaner hydraulic system, from pumps to valves & actuators and hydraulic motors
- Longer fluid life with less lacquer and varnish
- Protection of parts made of copper alloys like brass and bronze
- Less wear-and-tear on the entire hydraulic system
- Less energy consumed in the operation of the hydraulic system due to lower frictional losses

LUCAS Anti-Wear Hydraulic Oils resist oxidation for longer life and greater machine cleanliness. In industry standard oxidation tests, Lucas AW Hydraulic Fluids exceeded the performance of industry leading products by between double and four times. Dispersancy is a major feature of Lucas AW Hydraulic Fluids so that lacquer and gums do not accumulate on hydraulic components. Friction modifiers reduce energy consumption and wear-and-tear on expensive components, reducing the likelihood of equipment failure. Copper passivators inhibit corrosion of copper alloys. Finally, Lucas Hydraulic Fluids are filtered before packaging to an ISO Cleanliness rating of 16/14/11. It is generally acknowledged that suspended particles in hydraulic oil is the major contributor to wear in hydraulic systems.

Hydraulic fluid life varies according to the severity of the operation, but Lucas Anti-Wear Hydraulic Fluids will outlast standard hydraulic oil by double, **up to 12,000 hours of service.**

LUCAS Anti-Wear Hydraulic Oils are suitable for use in:

AFNOR E 48-603
AFNOR NF E 48-690
AFNOR NF E 48-691
AIST 126
AIST 127
AIST 136
ANSI/ AGMA 9005-E02-RO
ASTM D6158 HM
BF Goodrich 0152
Bosch Rexroth RE 90220
Cincinnati Machine P68
Cincinnati Machine P69
Cincinnati Machine P70
Denison HF-0
Denison HF-1
Denison HF-2
DIN 51524, Part 2
DIN 51506 VDL
Husky HS 207
Vickers I-286-S
Vickers M2950-S
Ford- M-6C32
GM LH-04-1
GM LH-06-1
GM LH-15-1
GM LS-2
ISO 11158 HM
JCMAS P041 HK Hydraulic Specification
Jeffrey #87
Lee-Norse 100-1
Racine, variable volume vane pumps
SAE MS 1004 (HM)
SEB 181222
KraussMaffei equipment (ISO 46)