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LUBRIPLATE ZF HYDRAULIC OILS

LUBRIPLATE ZF Hydraulic Oils are premium ashless anti-wear fluids designed to perform in the most demanding hydraulic applications. These heavy-duty, high performance oils can withstand elevated temperatures and high pressures resulting in lower maintenance costs as well as extended oil life.

LUBRIPLATE ZF Hydraulic Oils do not contain any zinc or silicone compounds.

LUBRIPLATE ZF Hydraulic Oils meet the following requirements:

<u>OEM</u>	Specification
Vickers (Eaton)	M-2950-S and I-286-S
General Motors	LS-2
Cincinnati Machine	P-68, P-69, P-70
Bosch Rexroth (formerly	
Mannesman Rexroth)	RE 90 220
German Steel Industry	SEB 181222
DIN 51524	Part I & II
AFNOR NF E 48-603	Part I & II
U.S. Steel	No. 126, 127, 136
SAE	MS 1004

LUBRIPLATE ZF Hydraulic Oils are non-toxic to aquatic life, exceeding *U.S. EPA LC50 test* requirements adopted by the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency. These environmentally safe hydraulic oils are compatible with other mineral based hydraulic oils and are easily recyclable.

<u>Typical Tests</u>	<u>ZF-32</u>	<u>ZF-46</u>	<u>ZF-68</u>	<u>ZF-100</u>
Viscosity cSt @ 40°C	34.79	46.34	69.83	101.1
Viscosity cSt @ 100°C	5.2	6.4	8.2	11.25
Viscosity SUS @ 100°F	173	240	328	522
Viscosity SUS @ 210°F	47	51	55	65.4
SAE	10	20	20	30
ISO	32	46	68	100
Viscosity Index	129	117	106	97
Flash Point	440°F/227°C	470°F/243°C	475°F/246°C	475°F/246°C
Fire Point	480°F/249°C	510°F/266°C	510°F/266°C	545°F/285°C
Pour Point	-40°F/-40°C	-35°F/-37°C	-20°F/-29°C	-10°F/-23°C
Gravity	32.3	32.0	31.8	29.2
Color	L-1	L-1	L-1.5	L-2.5
Aniline Point	220°F	240°F	250°F	259°F
Oxidation ASTM D-943	Typically Above 3000 Hours			
Dielectric Strength	Typically Above 35 kv			

LUBRIPLATE ZF HYDRAULIC OILS - Cont'd:

LUBRIPLATE ZF-32

Test Method Description

ASTM D-877 Dielectric Breakdown Voltage of Insulating Liquids 3 kv/sec ramp rate, 0.10 inch electrode gap, 1 inch disk electrodes

Results

Breakdown Voltage (kilovolts)

Run 1	42.56
Run 2	35.26
Run 3	40.69
Run 4	32.74
Run 5	37.52
Average Breakdown	37.75

LUBRIPLATE ZF-46

FEATURES

- $\sqrt{\text{Good hydrolytic stability}}$
- $\sqrt{\text{Superior anti-wear protection}}$
- $\sqrt{\text{Good oxidative \& thermal stability prevents sludge and controls deposit}}$
- $\sqrt{\text{Outstanding demulsifying, foaming & air release properties}}$
- $\sqrt{\text{Excellent rust \& corrosion protection}}$
- $\sqrt{\text{Excellent filterability}}$
- $\sqrt{\text{Compatible with Calcium \& Zinc containing fluid}}$
- $\sqrt{No ZnDTP}$ & metal free
- $\sqrt{\text{Low phosphorus \& low sulphur EP/AW}}$ additive package

BENEFITS

- $\sqrt{\text{Reduces pump wear \& protects against cavitation}}$
- $\sqrt{\text{Keeps the hydraulic system corrosion free}}$
- $\sqrt{\text{Enables smooth functioning of servo valves & extends the life of oil & filters}}$
- $\sqrt{\text{Provides a long service life under severe wet & dry operating conditions}}$
- $\sqrt{\text{Helps}}$ extend maintenance intervals & increases equipment uptime
- $\sqrt{\text{Lowers overall maintenance costs which helps production efficiency}}$
- $\sqrt{\text{Being ashless (metal free) helps minimize disposal & effluent treatment costs}}$
- $\sqrt{\text{Supports}}$ the trend to limit heavy metal contamination of the environment

Packaging Available:	<u>ZF-32</u>	<u>ZF-46</u>	<u>ZF-68</u>	<u>ZF-100</u>
5 Gallon Pail	L0948-060	L0949-060	L0950-060	L0953-060
55 Gallon Drum	L0948-062	L0949-062	L0950-062	L0953-062