



ISO-9001 Registered Quality System.
ISO-21469 Compliant.

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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:

OEM

*Denison
Vickers (Eaton)
General Motors
Cincinnati Machine
Bosch Rexroth (formerly
Mannesman Rexroth)
German Steel Industry
DIN 51524
AFNOR NF E 48-603
U.S. Steel
SAE

Specification

HF0, HF1, HF2, T6H 20C
M-2950-S and I-286-S
LS-2
P-68, P-69, P-70

RE 90 220
SEB 181222
Part I & II
Part I & II
No. 126, 127, 136
MS 1004

| <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 ----- | | | |

***Note: LUBRIPLATE ZF-46 is HF0, HF1, HF2 Approved. Approval number: 174(3)**

(Additional Testing Continued)

LUBRIPLATE ZF HYDRAULIC OILS - Cont'd:

LUBRIPLATE ZF-32

| <u>Test Method</u> | <u>Description</u> | <u>Results</u> | |
|--------------------|--|-------------------------------|-------|
| ASTM D-877 | Dielectric Breakdown Voltage of Insulating Liquids 3 kv/sec ramp rate, 0.10 inch electrode gap, 1 inch disk electrodes | 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

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

BENEFITS

- √ Reduces pump wear & protects against cavitation
- √ Keeps the hydraulic system corrosion free
- √ Enables smooth functioning of servo valves & extends the life of oil & filters
- √ Provides a long service life under severe wet & dry operating conditions
- √ Helps extend maintenance intervals & increases equipment uptime
- √ Lowers overall maintenance costs which helps production efficiency
- √ Being ashless (metal free) helps minimize disposal & effluent treatment costs
- √ 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> |
|----------------------|--------------|--------------|--------------|---------------|
| Carton 4/1 Gal. Jugs | ----- | ----- | L0950-057 | ----- |
| 5 Gallon Pail | L0948-060 | L0949-060 | L0950-060 | L0953-060 |
| 55 Gallon Drum | L0948-062 | L0949-062 | L0950-062 | L0953-062 |