

Pro Guard AW

Hydraulic Oil

No. 304

ISO: 22, 32, 46, 68, 100

DESCRIPTION:

Pro Guard AW is a premium quality, ashless, anti-wear lubricant, blended from high viscosity index (VI) hydroprocessed group II+ base oils and specially selected additives. This lubricant can be used in a wide variety of low or high pressure hydraulic applications where manufacturers recommend R&O or AW type oil. Special anti-oxidation additives make this an extremely long-life lubricant.

PERFORMANCE CHARACTERISTICS:

- **Oxidation resistant (15,000 hours in the ASTM-D943 Oxidation Test)**
Outstanding resistance to oxidation and varnish formation at both high and low temperatures.
- **Provides excellent anti-wear protection**
Ashless anti-wear additives provide the highest level of protection against wear and scuffing in all types of pumps. Exclusive friction reducing additives provide reduced wear, operating temperature, and horsepower requirements.
- **Superior rust protection**
Inhibitors protect both steel and yellow metal surfaces against rust and corrosion
- **Demulsibility**
Designed to separate rapidly from water.
- **High foam resistance**
Foam inhibitors provide a high level of foam resistance to prevent pump starvation and damage
- **High viscosity index (VI)**
Maintains fluid viscosity at low and high temperature. Increases hydraulic efficiency
- **Superior filterability**

SERVICE APPLICATIONS:

Pro Guard AW Hydraulic meets and exceeds the following service requirements for hydraulic pumps:

Vickers 1-286-S, M-2950-S
Cincinnati Machine P-68, P-69, P-70
Lee Norse 100-1
Ford M-6C32
B.F. Goodrich 0152
DIN 51524 Part 1, 2 & 3
ISO 11158HM, HV
SS 155434

Denison HF-0, HF-1, HF-2
General Motors LH-04-1, LH-06-01, LH-15-1
Jeffrey No. 87
U.S. Steel 126, 127, 136
Commercial Shearing
ASTM- D6158
SEB 181, 222
AFNOR NF E 48-603 HM, HV

*Also recommended for use in circulating oil systems and in moderately loaded gear sets.

SUMMARY:

Hydraulic systems are constantly subjected to adverse conditions such as moisture, heat, long operating intervals, and high pressures. Each of these factors affects the ability of the system to provide maximum output when needed. Bearing, pump, valve, gear, motor, and cylinder wear are very common. Gum and varnish buildup lead to deterioration of seals, O-rings and overall system performance. Oil deterioration and oxidation results not only in excessive wear, but frequent fluid changes and higher labor costs.

Pro Guard AW Hydraulic Oil is formulated to greatly reduce these problems and provide maximum system efficiency.

PERFORMANCE PRODUCTS GUARANTEED

P.O. BOX 1777 • LODI • CA 95241 • (209) 334-6353 • (800) 807-4496 • www.FrontierLubricants.com

TYPICAL SPECIFICATIONS:

Oxidation Stability, TOST, hr ¹	ASTM D-943	15,000+
Four Ball Wear Test 40 KG, 1 hour @ 167° F	ASTM D-2266	Scar 0.4
Copper Strip Corrosion	ASTM D-130	1a
Corrosion test, Steel,	ASTM D-665	Pass
Foam Test	ASTM D-892	Pass
Rust Test	ASTM D-665	Pass
Demulsibility Test	ASTM D-1401	Pass
Dielectric Strength, kV ^a	ASTM D-877	35

ISO Grade	22	32	46	68	100
SAE Grade	10W	10	20	20	30
Viscosity					
@ 40° C, cSt:	21.4	32.0	46.0	64.6	95.0
@ 100° C, cSt:	4.4	5.4	6.8	8.5	11.0
Viscosity Index:	116	100	101	101	103
Flash Point, COC, °F	401	432	440	473	504
Pour Point, °F:	-30	-27	-20	-15	-10
Color, Saybolt:	+30	+30	+30	+30	+25
API Gravity:	34.2	32.7	32.0	31.7	31.4

Values shown here are typical and may vary.

- a. Dielectric strength value applies only to point of blend where packaged products are produced at our facility. The oil can quickly lose its high dielectric strength value when exposed to contamination and to very small amounts of moisture or humidity.