



# HYDRAN

## (Premium Hydraulic Oils—ISO 22 to 68\*)

Every day, more and more demands are being placed on hydraulic systems - more production, hotter conditions, higher pressures, and longer operating hours. All these factors place more stress on the oil used to drive these systems. **HYDRAN** antiwear hydraulic oils are well suited for today's high pressure, high output hydraulic systems. **HYDRAN** antiwear hydraulic oils are high performance oils and have the capability to withstand the stress of high temperatures, pressures and constant use.

**HYDRAN** antiwear hydraulic oils are formulated from the finest, high quality base stocks and are further fortified with high performance additives to enhance their capability. Highly effective anti-wear additives minimize pump wear, even in high speed, high-pressure systems which utilize vane, piston or gear pumps.

Water is a common contaminant in hydraulic systems. The additives used in some hydraulic oils react with water forming deposits that hamper performance and plug filters. **HYDRAN** antiwear hydraulic oils utilize additives that are specially selected to perform in the presence of water. **HYDRAN** antiwear hydraulic oils produced excellent results in the rigorous Dennison HF-O filterability test where the oil is mixed with water and filtered through a 1.2 micron filter.

**HYDRAN** antiwear hydraulic oils contain potent oxidation inhibitors limiting the formation of sludge, varnish and other deposits. This keeps systems cleaner and extends oil life. Rust inhibitors prevent corrosion even when water is present.

Foaming can cause erratic operation and can also damage pumps. **HYDRAN** antiwear

hydraulic oils contain foam inhibitors that prevent foaming and provide more reliable operation.

### BENEFITS:

- EXCELLENT WEAR PROTECTION
- SUPERIOR OXIDATION STABILITY REDUCES SLUDGE VARNISH, AND DEPOSITS
- DESIGNED FOR HIGH-SPEED, HIGH-PRESS SYSTEMS
- EXCELLENT DEMULSIBILITY
- GOOD ANTIFOAM AND AIR RELEASE PROPERTIES

### APPLICATIONS:

**HYDRAN** anti-wear hydraulic oils satisfy the requirements set by all major hydraulic equipment manufacturers including Vickers, Hagglunds-Denison, Racine, Cincinnati Lamb (formerly Cincinnati Machine), Lee-Norse, Jeffrey and others. They are recommended for all types of hydraulic systems, especially those that operate up to 10,000 psi.

**HYDRAN** anti-wear hydraulic oils can be used in systems containing all types of hydraulic pumps including gear, radial piston, vane, and axial piston pumps. They are suitable for both stationary and mobile equipment service.

**HYDRAN** anti-wear hydraulic oils are also recommended for many bearings, machine tools, chains, light to moderately loaded gears and other areas where general-purpose oil is required.

\*For grades ISO 100 to 320 see separate data sheet.



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### TYPICAL CHARACTERISTICS

ISO Viscosity Grade	22	32	46	68
Product Code	15050	15060	15061	15062
API Gravity (ASTM D-1298)	31.1	32.5	31.0	30.9
Viscosity (ASTM D-445):				
cSt @ 40°C	21	31	45	66
cSt @ 100°C	4.2	5.2	6.6	8.4
SUS @ 100°F	110	160	232	342
SUS @ 210°F	40	44	48	55
Viscosity Index (ASTM D-2270)	95	96	97	96
Pour Point (ASTM D-97)				
°F	-20	-20	-20	-15
(°C)	(-29)	(-29)	(-29)	(-26)
Flash Point (ASTM D-92)				
°F	400	405	410	430
(°C)	(204)	(207)	(210)	(221)
Color (ASTM D-1500)	1.0	1.5	2.0	2.5
Turbine Oil Oxidation Test (ASTM D-943)				
Hours	3,000	3,000	2,800	2,500
Rotary Bomb Oxidation Test (ASTM D-2272) minutes	470	450	400	350
Rust Resistance (ASTM D-665)				
Distilled Water	Pass	Pass	Pass	Pass
Synthetic Seawater	Pass	Pass	Pass	Pass
Dielectric Strength, KV**	25+	25+	25+	25+
Cincinnati Lamb Approval	-	P-68	P-70	P-69

\* For ISO grades 100 to 320 see separate data sheet.

\*\* Dielectric strength will decrease if the oil becomes contaminated with even a small amount of water or dirt. Value is the expectations at the point of manufacture.

The above data is subject to usual manufacturing variation. For more information and availability, call 1-800-442-LUBE.  
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