



HYDRAN NZ

(Non-Zinc AW hydraulic Oils)

Every day, more demands and restrictions are being placed on hydraulic systems – more production, hotter operating conditions, higher operating pressures and longer operating hours while more stringent environmental impact restrictions are on the increase. All these factors are incorporated in **HYDRAN NZ** oils.

HYDRAN NZ (no-zinc) oils are designed for today's high-pressure, high-output hydraulic systems but it is more environmentally friendly than traditional zinc antiwear hydraulic fluids.

HYDRAN NZ oils are compatible with way oils, industrial gear oils and R&O oils unlike many zinc antiwear fluids. Compatible fluids can make plant wastewater treatment easier.

HYDRAN NZ hydraulic oils are formulated from high quality base stocks and fortified with high performance additive to enhance their capability. Highly effective additives minimize pump wear, including 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 NZ** oils utilize additives that are specially selected to perform in the presence of water. **HYDRAN NZ** oils produced excellent results in the rigorous Denison HF-0 filterability test where the oil is mixed with water and filtered through a 1.2 micron filter.

HYDRAN NZ oils contain superior oxidation inhibitors to limit the formation of sludge, varnish and other deposits thus keeping systems cleaner and extending oil life. Rust inhibitors prevent corrosion even when water is present. Foaming can cause erratic operation and can also damage pumps. **HYDRAN NZ** oils contain foam inhibitors that prevent foaming and provide more reliable operation.

HYDRAN NZ oils have low toxicity towards aquatic life. The mineral oil base used in these fluids is inherently biodegradable.

BENEFITS:

- FORMULATED W/O ZINC REDUCES ENVIRONMENTAL IMPACT FROM SPILLS
- IMPROVED COMPATIBILITY
- SUPERIOR OXIDATION STABILITY TO REDUCE SLUDGE, VARNISH AND DEPOSITS
- DESIGNED FOR HIGH-SPEED, HIGH-PRESSURE SYSTEMS
- EXCELLENT DEMULSIBILITY, ANTIWEAR, ANTIFOAM AND AIR RELEASE PROPERTIES

APPLICATIONS:

HYDRAN NZ anti-wear hydraulic oils satisfy the requirements set by all major hydraulic equipment manufacturers including Vickers, Hagglunds-Denison, Racine, Cincinnati Machine, Lee-Norse, Jeffrey and others. They are recommended for all types of hydraulic systems, especially those that operated above 1,000 psi.

HYDRAN NZ can be used in systems containing all types of hydraulic pumps including gear, radial piston, van and axial piston pumps. They are suitable for both stationary and mobile equipment service.

HYDRAN NZ oils are recommended for many bearings, machine tools, chains, light to moderately loaded gears and other areas where general-purpose oils are required.



HYDRAN NZ (Non-Zinc AW hydraulic Oils)

ISO Viscosity Grade	32	46	68	460
Product Code	15040	15041	15042	15047
API Gravity (ASTM D 1298)	32.5	31.0	30.9	26.0
Viscosity (ASTM D-445)				
cSt @ 40° C	31	45	66	460
cSt @ 100° C	5.2	6.6	8.4	30.5
SUS @ 100° F	160	232	342	2465
SUS @ 210° F	44	48	55	150
Viscosity Index (ASTM D 2270)	96	97	96	95
Pour Point (ASTM D 97)				
°F	-20	-20	-15	+5
(°C)	(-29)	(-29)	(-26)	(-15)
Flash Point (ASTM D 92)				
°F	405	410	430	550
(°C)	(207)	(210)	(221)	(288)
Color (ASTM D 1500)	1.5	2.0	2.5	6.5
Phosphorus, ppm	380	380	380	380
Turbine Oil Oxidation Test (D-943)	4,500	4,000	3,500	-
Rotary Bomb Oxidation test (D 2272)	450	400	350	-
Rust Resistance (ASTM D-665)				
Distilled Water	pass	pass	pass	pass
Synthetic Sea Water	pass	pass	pass	pass
Cincinnati Lamb Approval	-	-	-	-

The above data is subject to usual manufacturing variation. For more information and availability, call 1-800-442-LUBE.
7/14/04