



Industrial Oils  
**hyrax**® HLP



### Description

**Hyrax HLP** is a range of premium quality anti-wear (AW) type hydraulic fluids manufactured with high quality base stocks and premium additives system primarily designed for used in hydraulic system in industrial and mobile application which requires heavy-duty, anti-wear hydraulic fluids with excellent water separating characteristics.

### Applications

**Hyrax HLP** is recommended for use in all heavy-duty hydraulic application (mobile and stationary), all hydraulic pumps designs (vane, gear, axial and radial piston pump), plain and anti-friction bearings, automated machine tools, presses, diecasting machines, circulating system and hydraulic control system. The heavier viscosity grades is also suitable for used as gear lubrication where EP type gear oil is not required. The actual requirements of viscosity grades should be in accordance with the original equipment manufactures' recommendations.

### Benefits

- Possess excellent oxidation resistance and thermal stability to provide long service life without formation of sludge and deposits, prevent blocking of ports, valves and controls
- Possess good demulsibility properties, enabling ready separation of entrained water and prevent the formation of stable emulsions with the consequent loss of lubricating power
- Superior anti-rust property to protect against rusting of metal surfaces

### Typical Characteristics

Properties	Method	ISO VG							
		10	15	22	32	46	68	100	150
Density @ 15°C, Kg/L	ASTM D4052	0.833	0.840	0.845	0.852	0.857	0.862	0.891	0.894
Flash Point, °C	ASTM D92	>140	>150	>150	>190	>210	>210	>210	>210
Pour Point, °C	ASTM D97	-33	-30	-27	-21	-18	-18	-18	-18
Viscosity at 40°C, cSt	ASTM D445	10.7	15.0	22.0	32.0	46.0	68.0	100.0	150.0
Viscosity at 100°C, cSt	ASTM D445	2.83	3.6	4.6	5.9	7.5	9.3	11.7	14.9
Viscosity Index	ASTM D2270	110	125	127	130	128	114	105	99
Rust Characteristics	ASTM D665B	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

### Performance

- GM LS-2
- SAE MS1004
- U.S. Steel 126
- JCMAS HK P041
- ZF TE-ML 07H / 21M
- DIN 51524 PART 2 HLP
- ISO 11158 HL / HM / HV
- ASTM D6158 HL, HM, HV
- Bosch Rexroth RDE-90235
- Eaton Brochure 03-401-2010
- Danieli 0.000.001 Type 10 & 11
- Parker Denison HF-0 / HF-1 / HF-2
- Fives Cincinnati P-68 / P-69 / P-70
- Swedish Standard SS 155434:2015
- Chinese Standard GB 11118.1 L-HL & L-HM
- Eaton Lubricant Specification E-FDGN-TB002-E



Premium quality anti-wear  
(AW) type hydraulic fluids



Excellent oxidation resistance  
and thermal stability to provide  
long service life



Preventing stable emulsions  
of losing lubricating power



Superior anti-rust property  
to protect against rusting