



Industrial Oils

hyrax® HLP FZ



Premium quality zinc-free
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

Description

Hyrax HLP FZ is a range of premium quality zinc-free anti-wear (AW) type hydraulic fluids manufactured with high quality base stocks and premium ashless additives technology 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 FZ 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
- Zinc-free technology for compatibility with hydraulic system with yellow metals components
- Excellent filterability

Typical Characteristics

Properties	Method	ISO VG						
		10	22	32	46	68	80*	100
Density @ 15°C, Kg/L	ASTM D4052	0.834	0.845	0.852	0.857	0.862	0.873	0.891
Flash Point, °C	ASTM D92	>180	>180	>190	>210	>210	>210	>210
Pour Point, °C	ASTM D97	-33	-24	-21	-18	-18	-18	-18
Viscosity at 40°C, cSt	ASTM D445	10.5	22.0	32.0	46.0	68.0	80.0	100.0
Viscosity at 100°C, cSt	ASTM D445	2.8	4.6	5.8	7.4	9.4	10.4	11.6
Viscosity Index	ASTM D2270	111	127	125	124	116	113	104
Rust Characteristics	ASTM D665B	Pass	Pass	Pass	Pass	Pass	Pass	Pass

(*) Not an ISO VG Grade Number

Performance

- DIN 51524 part II HLP
- MAG IAS P-68 / P-69 / P-70
- Parker Denison HF-0 / HF-1 / HF-2
- Eaton Brochure 03-401-2010