



## HYDROX ANTI-WEAR FLUID HLP

### HYDRAULIC OIL ISO 32-150

#### Performance Levels: Meets and exceeds:

ISO 6743/4 HM , DIN 51524 P2 HLP , Cincinnati Milacron P 68, P 69, P 70 , Bosch Rexroth RE 90 220 , US steel 136, 127 , Eaton Vickers I-286-S (Ind), M-2950-S (Mob)RE 90 220 , DENISON HF0, HF1, HF2 , SEB 181222 , SAE MS 1004 , AFNOR E48603 CATEGORY HM

Black Bulls **AW (Anti Wear) Hydraulic Oils** are high performance, anti-wear products for all types of hydraulic systems found on industrial, agriculture, construction and automotive equipment. Made from highly refined virgin mineral oil and blended with rust and oxidation inhibitors. All grades of Black Bulls hydraulic fluids meet Cincinnati Milacron and Vickers hydraulic oil specifications.

#### Typical properties:

PROPERTY	TYPICAL VALUES				
	AW 32	AW 46	AW 68	AW 100	AW 150
ISO GRADE					
VISCOSITY @ 40°C, cSt (ASTM D 445)	32.50	46.5	68.50	101	151
VISCOSITY @ 100°C, cSt (ASTM D 445)	5.45	6.85	8.80	11.33	14.71
VISCOSITY INDEX	102	102	100	98	96
RELATIVE DENSITY @ 20°C	0.8750	0.8750	0.8800	0.8850	0.8890
ACIDITY , mgKOH/g	0.50	0.50	0.50	0.50	0.50
AIR RELEASE VALUE @ 50°C	4	8	8	12	18
POUR POINT °C	-30	-24	-24	-24	-21
CLOSED FLASH POINT °C	205	226	228	232	242
FOAM SEQUENCE 1, MINS	NILL/0	NILL/0	NILL/0	NILL/0	NILL/0
DEMULSIFICATION (D 1401) MINS	10	15	15	20	
4 BALL 1HR WEAR @ 30 KG, 1640 RPM, MM	0.4	0.4	0.4	0.4	0.4
FZG (A/8.3/90) FAIL STAGE	11	12	12	12	12
VICKERS HP VANE PUMP TEST	25	25	25		

#### Advantages:

- Environment friendly
- Excellent oxidation and thermal stability
- Excellent anti-wear protection
- Prevent Rust and corrosion
- Improved foam and air entrainment performance
- Minimum viscosity changes over a wide temperature range.
- Meets major pump manufacturer's requirements
- Good stability in the presence of water

#### Performance Specification:

- Meets Cincinnati Milacron and Vickers hydraulic oil specifications.
- Meets major pump manufacturer's requirements

#### Applications:

- Black Bulls AW Hydraulic lubricants are most commonly used for hydraulic systems with vane, piston, or gear-type pumps, also compatible to lubricate lightly loaded reciprocating compressors.

