

#### **Features**

Meets or exceeds the following and other manufacturers requirements and test standards:

- Denison HF-0 (includes P-46 piston and T5D-42 vane pump tests)
- Cincinnati-Milacron P-68, P-69,
- P-70 (grades 32, 68 and 46 respectively)
- Racine model 'S' 1000 hour variable volume vane pump wear test
- Vickers M-2950-S and I-286-S (includes 35VQ25 vane pump test)
- ASTM D-2882 (includes Vickers
- V-104C vane pump test)
- Bosch Rexroth Corp.
- Sundstrand
- Linde DIN 51524 Part 2

#### **Benefits**

- Excellent corrosion and wear protection for long pump life
- Superior foam resistance for efficient pump operation
- Excellent water tolerance where contamination is unavoidable
- Outstanding oxidation resistance for long service life
- Expanded operating temperature range

## **HYDRAULIC LP**

## High Performance Hydraulic Oil

HYDRAULIC LOW POUR oils are high performance multi-grade antiwear hydraulic oils. They offer the same wear and corrosion protection as traditional hydraulic oils but operate over a wider range of operating temperatures. The usefulness of hydraulic oil is limited by minimum and maximum allowable temperatures. Low temperatures will cause hydraulic oils to thicken. If the temperature is too low, the oil will become so thick that it will be unable to feed the pump fast enough causing noise and wear damage. With high temperatures oils become thinner, reducing the thickness of the film between moving parts of the machine. If the temperature is too high, the oil becomes too thin to keep moving surfaces separated, increasing friction and wear.

HYDRAULIC LOW POUR oils are true multi-grade hydraulic oils specially formulated to stand up to the high-shear environment of hydraulic pumps and motors without losing their multi-grade nature. For a given grade, this oil allows lower start-up temperature and higher operating temperatures than the comparable single grade hydraulic oil. This wider operating temperature range provides improved productivity, better operational flexibility and the possibility of using one grade of hydraulic oil year round. These oils are particularly suited for use in mobile machinery and fixed machinery located primarily outdoors.

**HYDRAULIC LOW POUR** oils are suitable for use with all types of hydraulic pumps and motors, even at pressures as high as 5,000 psi (350 Bar). They are NOT recommended for use with those pumps that contain silver-plated parts.

HYDRAULIC LOW POUR grades 22, 32 and 46



# **HYDRAULIC LP**

### Typical performance results

HYDRAULIC OIL	15	22	32	46	68	100
COLOUR (ASTM D1500)	1.0	1.0	1.0	1.0	1.0	1.0
VISCOSITY (D-445)						
CST @ 40°C	14.9	22.9	31.9	44.6	69.3	102.2
CST @ 100°C	3.9	5.0	6.4	8.1	11.0	14.9
DENSITY (D-4052), KG/L	0.8531	0.8616	0.8688	0.8745	0.8823	0.8841
BROOKFIELD VISCOSITY (D-2983), CP @ -30°C	1000	1524	3180	5286	14560	28050
VISCOSITY INDEX (D-2270)	167	151	159	158	150	152
POUR POINT (D-97), °C	-50	-45	-45	-39	-36	-36
FLASH POINT (D-92), °C	180	184	194	210	234	218
OXIDATION LIFE (D-943), HRS	4000+	4000+	4000+	4000+	4000+	4000+
CORROSION RUST PROTECTION	PASS	PASS	PASS	PASS	PASS	PASS
COPPER CORROSION	1a	1a	1a	1a	1a	1a
3HR/100 °C	Ta	Ta	Ta	Ta	Ta	1a
ZINC CONTENT, %WT	0.04	0.04	0.04	0.04	0.04	0.04
USEFUL OPERATING TEMP RANGE, °C – MIN/MAX	-27/46	-22/58	-18/69	-10/80	-4/93	2/104
DEMULSE (D-1401), TIME TO 40/40/0, MIN.	5	10	5	10	10	5
DIELECTRIC BREAKDOWN VOLTAGE (D-877), KV	48		48			

### Available sizes & part numbers

Hydraulic LP	18.9L Pail (5.0 US gal)	205L Drum (54.2 US gal)	1000L Cube (264 US gal)	Bulk
Hydraulic LP15	F0081840	F0028350	F0028360	B0028301
Hydraulic LP22	F0088440	F0013550	F0007560	B0007501
Hydraulic LP22B*	F0088540	F0007650		B0007601
Hydraulic LP32	F0088640	F0013650	F0007760	B0007701
Hydraulic LP32B*		F0028450		B0028401
Hydraulic LP46	F0081740	F0050450		B0028201
Hydraulic LP46B*				
Hydraulic LP68	F0081640	F0033450	F0028160	B0028101
Hydraulic LP100		F0025050	_	B0028001

Check with sales representative or website for the latest product approvals.



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