PYDRAUL Provides Excellent ~~The~~ Lubricating Qualities ~~Of Premium Petroleum Oil~~

NEED DATA

TABLE 3
~~FILM STRENGTH~~ FALEX FAILURE LOAD

	JAW LOAD (LBS.)	TORQUE (LBS. INCHES)
Pydraul 625	4100	89
Pydraul AC	3600	98
Pydraul AC Winter Grade 28	3700	92

TABLE 4
FALEX **WEAR ~~UNDER CONTINUOUS LOAD~~**

	1st 10 MINUTES	2nd 10 MINUTES
Pydraul 625	0.000618	0.000332
Pydraul AC	0.000428	0.000285
Pydraul AC Winter Grade 28	0.000450	0.000330

TABLE 5
TIMKEN ~~(EXTREME PRESSURE)~~*

	OK LOAD	FILM STRENGTH
Pydraul 625-A	30 lbs. ~~21,200 psi~~	11,700 psi
Pydraul AC-A	45 lbs. ~~23,250 psi~~	15,100 psi
Pydraul AC-A Winter Grade 28	24 lbs. ~~18,000 psi~~	8,600 psi

*Film strength—Typical Petroleum Oil (measured by Timken Extreme Pressure)—5,000 to 8,000 psi.

TABLE 6
SHELL FOUR-BALL WEAR
(167°F., 1 hour, 630 rpm., mm scar diameter)

STEEL ON STEEL	PYDRAUL 625-A	PYDRAUL AC-A	PYDRAUL AC-A WINTER GRADE 28
10 kg	0.23 ~~0.26~~	0.33 ~~0.38~~	~~0.80~~ 0.42
40 kg	~~0.62~~ 0.60	~~0.78~~ 0.67	~~0.60~~ 0.66
STEEL ON BRONZE			
10 kg	0.46	0.48	0.43

TABLE 7
PUMP TEST*
(Vickers #105-E., 140°F., 1000 hours.)

	PYDRAUL 625	PYDRAUL AC
Ring, grams (loss or gain)	−0.0013	−0.0076
Vane, grams (loss or gain)	−0.0015	+0.0014
Bushing 2015 grams (loss or gain)	−0.0045	+0.0040
Bushing 2016 grams (loss or gain)	−0.0050	+0.0045

*No data is presently available on Pydraul AC Winter Grade 28.

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DROP SIZE

Drop size of a lubricant is important to determine an adequate lubricant injection rate to insure proper compressor lubrication. The rate of lubrication is controlled by noting the drops per unit of time.

The drop size for the fluids tabulated below were determined by noting the number of drops formed at room temperature (75°F.) on a 1 mm I.D. by 3½ mm O.D. glass tip. (Larger or smaller drops will result if different sized tips are used.)

Fluid	Drops per cubic centimeter
Medium weight petroleum oil	33
Pydraul AC	39

This copy, from p. 11, to be Reworded, too.

All copy on this pg. changed; Table 4 or 5 dropped. New data from Dave.

When installing new equipment, it is best to start with an increased lubricant feed rate and reduce this rate by successive increments. Inspection of cylinder walls and valves will indicate the proper degree of wetting.

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OK.

PYDRAUL Is Used As A Lubricant For Air Compressors Made By All Major Manufacturers

New air compressors of most types and sizes produced by major compressor manufacturers can be manufactured for lubrication with Pydraul. The manufacturers listed (right) have manufactured compressors equipped for Pydraul, upon specification of the buyer, for over ten years. Many compressors have operated on Pydraul lubricants continually with exhaust air temperatures of 350°F. Pydraul is also used to lubricate cylinders in compressors operating at pressures over 4500 psig.

PYDRAUL AC-A, PYDRAUL 625-A, and PYDRAUL AC-A WINTER GRADE 28 ARE COMPLETELY MISCIBLE IN ALL PROPORTIONS WITH COMPETITIVE SYNTHETIC LUBRICANTS SUCH A FYRQUEL 150, 220, 300, 500; and HOUGHTO-SAFE 1010, 1120, 1130.

Mixing Compatibility

TABLE 8
PYDRAUL WITH OTHER HYDRAULIC FLUIDS

FYRQUEL (Formerly Cellulube)	625	AC	AC-WG28
90	YES	YES	YES
150	YES	YES	YES
220	YES	YES	YES
300	YES	YES	YES
550	YES	YES	YES
HOUGHTO-SAFE			
1010	YES	YES	YES
1055	YES	YES	YES
1120	YES	YES	YES
1130	YES	YES	YES

Change from Table to Copy.

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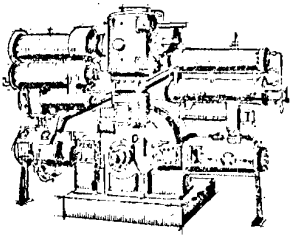
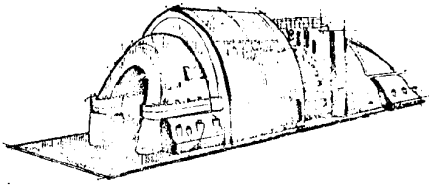
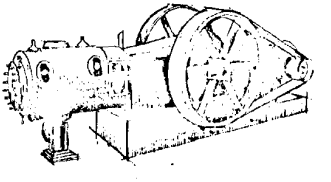
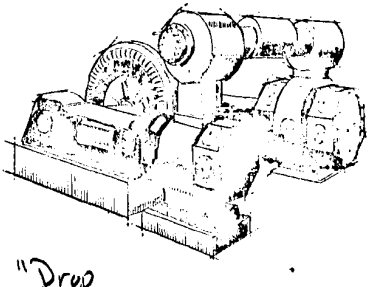


American Messer Corporation
Bury Compressor Company
Carrier Corporation
Chicago Pneumatic Tool Company
Clark Brothers Company,
division of Dresser Industries
Cooper-Bessemer Corporation
DeLaval Steam Turbine Company
Gardner-Denver Company
Ingersoll-Rand Company
Joy Manufacturing Company
Kinney Manufacturing,
division of The New York
Air Brake Company
Norwalk Company, Incorporated
Schramm, Incorporated
Worthington Corporation







When installing new equipment, it is best to start with an increased lubricant feed rate and reduce this rate by successive increments. Inspection of cylinder walls and valves will indicate the proper degree of wetting.

↓ Move to "Drop Size", p.9

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ANIMAL TOXICITY SCREENING STUDIES INDICATE PYDRAUL 625-A, PYDRAUL AC-A, PYDRAUL AC-A WINTER GRADE 38 MAY BE CONSIDERED ONLY "SLIGHTLY TOXIC" FROM THE STANDPOINT OF ACCIDENTA INGESTION OR SKIN ABSORPTION. IT DOES NOT APPEAR TO HAVE ANY SIGNIFICANT POTENTIAL FOR SKIN OR EYE IRRITATION. BECAUSE THESE FLUIDS HAVE EXCELLENT SOLVENT PROPERTIES, REPEATED OR PROLONGED SKIN CONTACT COULD LEAD TO DE-FATTING AND DRYING OF THE SKIN; THUS REASONABLE PERSONAL HYGIENE PRACTICES ARE RECOMMENDED TO AVOID PROLONGED AND REPEATED SKIN EXPOSURE.

Cut to 1 P, Copy from Wheeler

Safe Handling

There has been no reported case in many years of service to indicate any special health hazard with Pydraul air compressor lubricants. However, as with all specialized industrial fluids, certain precautions are advisable.

and lubricants

~~**Skin contact.** Repeated or continuous skin contact with Pydraul fluids should be avoided. Pydraul fluids act as a solvent and repeated or prolonged skin contact can cause dry skin and chapping.~~

~~**Eye contact.** Although eye irritation studies using Pydraul fluids at full strength indicate Pydraul to be an irritant, there is no evidence to show Pydraul causes permanent eye tissue damage.~~ If Pydraul fluids are splashed or sprayed into the eyes, moderately severe pain and irritation may result. Eyes should be thoroughly flushed with water and the workman referred to a physician. To relieve irritation, physicians have used 1% pontocaine solution, as well as the ophthalmic cortisone acetate solution.

Vapor inhalation. At room temperatures, there is no vapor inhalation hazard from Pydraul fluids. Although there has been no problem with high concentrations of vapors, inhalation of vapors at high temperatures should be prevented.

~~Air samples were taken from the line of a Joy Manufacturing air compressor which had operated on Pydraul AC for three years. Filter paper and silica gel samples were collected and analyzed using a Beckman Spectrophotometer after iso-octane or iso-propanol extraction. No concentrations of the major components of Pydraul AC could be detected.~~

~~No serious hazard is anticipated from vapors of Pydraul fluids, however,~~ If the compressed air is to be used for air line masks, respirators, and other inhalation equipment, it is always recommended that a commercial filter cartridge for air-supplied masks be incorporated in the compressor air line to remove any foreign matter. This is ~~simply~~ good industrial practice for any compressor fluid or lubricant.

THERE IS NO EVIDENCE TO SHOW PYDRAUL CAUSES PERMANENT EYE TISSUE DAMAGE

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