FIRE-RESISTANCE TESTS OF PYDRAUL 30E, "90E" AND "115E"

Test	Results
High Pressure Spray Test (AMS-3150C and Federal Test Method St. 791). Test fluid sprayed at 1000 psi through orifice, passing through flame of oxy-acetylene torch, 6000°F.	Does not flash or ignite up to 3-1/2 feet from orifice.
Atomized Spray Test (procedure used by Factory Mutual Engineering Division). Test fluid heated to 140°F. sprayed at 1000 psi from atomized cone type nozzle. A torch is passed through this spray 2 feet and 2 to 6 inches from the orifice.	Local burning by torch at 6 inches and 2 feet from orifice. Flames self-extinguish immediately when torch removed.
Hot Manifold Test (Federal Test Method Std. 791). Test fluid dripped on tube at 1300°F.	Does not flash or burn.
Molten Metal Ignition Test. (Test fluid exposed to the surface of aluminum alloy at 1200°F., to test for spontaneous ignition.	Does not ignite.

(All data is based upon samples tested in the laboratory and is not guaranteed for all samples. Write us for complete sales specifications.)

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FORE MORE INFORMATION

... that will assist you to evaluate Pydraul air compressor lubricants, simply fill in the following postcard. Monsanto can recommend the suitable choice of Pydraul lubricant for your equipment and furnish guidance for the simple steps required to convert from oil to a fire resistant lubricant.

Please supply further data on Pydraul lubricants for:

Type of Compressor _____

Volume Capacity of Lubricating System _____

Approx. Cylinder-Exit Air Temperature _____ psi _____

Name _____ Title _____

Company _____

Address _____

City _____ State _____ Zip _____

[Postage Paid Reply Indicia]

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SANTOSAFE W/G SERIES

Water-Glycol Fluids

Designed for systems with unavoidable fluid loss and where recovery is impractical.

FLUID SANTOSAFE®		W/G 15	W/G 20	W/G 30
Appearance		Red Liquid with a slight haze		
Specific Gravity @ 20/20°C		1.076	1.08	1.073
Water Content (% by weight)		43.4	43.0	40.0
Viscosity				
Centistokes	@ 130°F	21.1	28.0	29.7
	100°F	32.6	47.0	59.3
	0°F	499.6	700	1050
Saybolts as measured				
	130°F	97	130	140
	100°F	150	200	275
	0°F	2300	2600	4600
Absolute Saybolts (SSU x density)	130°F	104	140	150
	100°F	161	216	296
	0°F	2475	2808	4950
Viscosity Index		155 min.	155 min.	155 min.
Pour Point Min.		−40°F	−40°F	−40°F
pH at 25°C		9.4	9.4	9.3
Alkaline Content (ml. 0.1N HCl to neutralize 100 ml. of fluid to pH 5.5)		164	165	176
Rust Test (ASTM)		Pass	Pass	Pass
Flash Point (COC)		None	None	None
Weight per gallon, lbs @ 60°F		9.00	9.00	9.00

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COPY

DATE October 23, 1975

JOB Monsanto Fire Resistant Hydraulic Fluic

(W. D. Lubic, MICC, BINB; 4-2630)

IC/FF-

Cover

Pydraul
Pydraulic

PYDRAUL®

~~MONSANTO~~

FIRE RESISTANT ~~HYDRAULIC~~ FLUIDS and lubricants

designed for optimum operating efficiency, greater safety and minimum maintenance.

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Monsanto was the pioneer in the development of synthetic fire resistant lubricants. Over the past quarter century, specialized functional fluids have been developed to meet essentially every required operating condition in a wide variety of specialized hydraulic equipment.

~~The fluids range from all synthetic phosphate ester based products to economical water glycol fluids. All fluids are fire resistant~~ ~~type lubricants.~~ A broad choice of viscosity/temperature characteristics is now available to give optimum machine response and dependable operation even under severe climatic and operating conditions. ~~are necessary.~~

Check over the range and types of hydraulic fluids that are available. Monsanto will provide you with detailed performance information on the ones that interest you.

Solved on 66 card

Monsanto

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1. "The Carbon-Oxygen Complex as a Possible Initiator of Explosions and Formation of Carbon Monoxide in Compressed Air Systems," by Busch, Berger, and Schrenk, Bureau of Mines paper R.I.4465, June 1949.

2. "The Mechanism of Explosions in Starting Air Lines," by Ridgway, Robert S., Petroleum Refiner, June 1958.

3. "Oil Combustion Phenomena in High Pressure Air Systems," M. W. Weibel, Water Kidde & Co., Inc., Report R-831, copyright 1952.

4. 30-E, 90-E and 115-E

Pydraul air compressor lubricants are ~~phosphate-ester base lubricants, especially developed to~~ especially formulated to eliminate the petroleum oil mist and oil's carbonacous deposits that have been found to be the causes of receiver fires and compressor explosions. These synthetic phosphate-ester base lubricants reduce deposit build-up in pipes, coolers and on exhaust valves -- saving down time and cleaning. Aside from greater safety many users find the savings in maintenance alone warrants use of Pydraul compressor lubricants.

Include 30E, 90E, 115E write-up

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4. "Fire-Resistant Lubricants for Refinery Air Compressors" C.S. McCoy, F.J. Hanly, Chevron Research Co, National Petroleum Refiners Association. Paper F&L 75-54, Sept. 1975.

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