Fluid Considerations

Property	A-200B	Pydraul 312-A	Monsanto X V-29/D-300	Santosafe Water/Glycol	Pydraul 312-C	Phosphate Esters: Cresylic	Phosphate Esters: Reofos	Phosphate Esters: Monsanto
Fire Resistance								
- Level	4-5	3-4	0-4	0-5	3-4	4-5	4-5	4-5
- FM Approval	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Change Over								
- Fluid Comp.	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
- Elastomer Comp.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
- Time	None	None	None	Some	None	None	None	None
- Cost (Labor & Equip.)	None	None	None	Some	None	None	None	None
Pollution								
- Phenolics	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
- PCB	Yes	Yes	No	No	No	No	No	No
- Oil	No	Yes	Yes	No	Yes	No	No	No
- BOD	No	No	No	Yes	No	No	No	No
- Treatment Cost	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Reclamation								
- Collectable	Yes	Yes	No	No	Probably	Yes	Yes	Yes
- Reclaimable	Yes	Yes			Yes	Yes	Yes	Yes
- FR	Less	Less			Least	Less	Still less	~Same
Supply	??	??	Good	Good	Good	?	Good	Good
Operation								
- Fluid Mntnce.	None	None	None	Yes	None	None	None	None
- Machine Mntnce.	Low	Low	Low	More	Low	Low	Low	Low
Cost								
- Fluid (T/L Drums)	$3.10	$2.35	$2.05	$1.80		$3.65	$3.65	$3.65
- Stability	Good	Good	Poor	Good	Good	Good	Good	Best

0065811

TOWOLDMON0056177

Fluid Considerations

Fluids	Specific Gravity	Wt./Gal.	* Oil Solubility
Water	1.00	8.33	
Pydraul 312A	1.115	9.29	5-10%
Pydraul A-200B	1.210	10.08	5-15%
Pydraul 50E	1.176	9.80	3-5%
Pydraul 65E	1.167	9.72	3-5%
Houghtosafe 1120 (Reofos type)	1.150	9.58	10-20%
Fyrquel 220 (Cresylic type)	1.120	9.34	5-10%
Pydraul 312-C	1.02 (?)	8.50	5-10%
Dasco 300	.980	8.16	All proportions
Vital 29	.966	8.05	All proportions
Santosafe W/G 20	1.08	9.00	

* Depends on type of oil (aromatic more soluble), molecular weight of oil (lower molecular weight more soluble), and temperature.

0065812

TOWOLDMON0056178

Fluid Considerations

Property	A-200B	Pydraul 312-A	Monsanto X V-29/D-300	Santosafe Water/Glycol	Pydraul 312-C	Phosphate Esters: Cresylic	Phosphate Esters: Reofos	Phosphate Esters: Monsanto
Fire Resistance								
- Level	4-5	3-4	0-4	0-5	3-4	4-5	4-5	4-5
- FM Approval	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Change Over								
- Fluid Comp.	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
- Elastomer Comp.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
- Time	None	None	None	Some	None	None	None	None
- Cost (Labor & Equip.)	None	None	None	Some	None	None	None	None
Pollution								
- Phenolics	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
- PCB	Yes	Yes	No	No	No	No	No	No
- Oil	No	Yes	Yes	No	Yes	No	No	No
- BOD	No	No	No	Yes	No	No	No	No
- Treatment Cost	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Reclamation								
- Collectable	Yes	Yes	No	No	Probably	Yes	Yes	Yes
- Reclaimable	Yes	Yes			Yes	Yes	Yes	Yes
- FR	Less	Less			Least	Less	Still less	~Same
Supply	??	??	Good	Good	Good	?	Good	Good
Operation								
- Fluid Mntnce.	None	None	None	Yes	None	None	None	None
- Machine Mntnce.	Low	Low	Low	More	Low	Low	Low	Low
Cost								
- Fluid (T/L Drums)	$3.10	$2.35	$2.05	$1.80		$3.65	$3.65	$3.65
- Stability	Good	Good	Poor	Good	Good	Good	Good	Best

0065813

TOWOLDMON0056179

Fluid Considerations

Fluids	Specific Gravity	Wt./Gal.	* Oil Solubility
Water	1.00	8.33	
Pydraul 312A	1.115	9.29	5-10%
Pydraul A-200B	1.210	10.08	5-15%
Pydraul 50E	1.176	9.80	3-5%
Pydraul 65E	1.167	9.72	3-5%
Houghtosafe 1120 (Reofos type)	1.150	9.58	10-20%
Pyrquel 220 (Cresylic type)	1.120	9.34	5-10%
Pydraul 312-C	1.02 (?)	8.50	5-10%
Dasco 300	.980	8.16	All proportions
Vital 29	.966	8.05	All proportions
Santosafe W/G 20	1.08	9.00	

* Depends on type of oil (aromatic more soluble), molecular weight of oil (lower molecular weight more soluble), and temperature.

0065814

TOWOLDMON0056180