

Frank Foundation Ltd.

Bonnyville, Alberta

Bill [REDACTED] Mechanic

Cell: [REDACTED] Home: [REDACTED]

March 30, 2005

CRANE CHANGE-OVER TO LUBRITHERM ALL-TEMP HYDRAULIC FLUID

Re: Grove Crane (mid 70's) Converted to a Pile Driver.

This crane would be running 10 hours a day until each job is done. This crane runs at 2,350 rpm and the hydraulic pump is a direct-mount running at 2,200 psi. Its winch pump section runs at 45 gallons per min.

LubeCorp's water-based hydraulic fluid (Lubritherm All-Temp Hydraulic Fluid) was installed by the mechanic Bill Cole in late June of 2003.

Notable results of Lubritherm All-Temp Hydraulic Fluid install:

1. All hydraulic leaks were easy to locate, easing the repairs considerably.
2. No mess to clean up if a leak occurs; machine can be hosed-down with water because there are no environmental problems.
3. It is really noticeable that dirt does not stick to cylinders, etc. like it does with hydraulic oil.
4. Cooler operating temperatures were obtained.
5. In hot weather (80°F to 90°F) crane functions remained optimal.
6. In cold weather (-40°F below) the crane functions as if it were running continuously, pile driving movement was normal, with no slowdown due to cold fluid.

Crane Switchover Procedure:

- Drain hydraulic oil reservoir and all lines, pumps, controllers, etc.
- Drain all the hydraulic rams.
- Change filter(s) out, avoid paper filters.
- Re-fill entire hydraulic system with Lubritherm All-Temp Hydraulic Fluid.
- Run hydraulic system for 3 hours, while periodically skimming the oil off the Lubritherm in the reservoir with old newspapers or shop vac. until the oil is all gone (oil, being lighter than the Lubritherm, will float to the top of the reservoir).
- Top-up hydraulic system with Lubritherm.

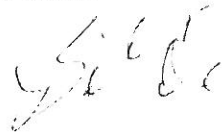
What was noticed about the crane prior to switchover and before using Lubritherm All-Temp:

1. In timing the amount of times the Pile Driver comes down in 60 seconds, to see if the viscosity is thinning, it was noticed that the amount of hits per minute went down, meaning more friction.
2. The cooling fans on the hydraulic system come on and stay on.

Noticed after the switchover with the Lubritherm All-Temp in place:

1. In timing the Pile Driver again, it was noticed that the driver comes down consistently the same, in hot or cold weather. It's now gone through 2 summers and winters, no fluid changes, no problems.
2. The cooling fans only kick in about every half hour for about 5 minutes at a time.
3. In very cold weather the crane moves like it was indoors but without warming up the Lubritherm hydraulic fluid prior to use.

Bill [REDACTED]





AKHURST



Manufacturing Inc.
ISO 9001:2000 Certified

Hi George,

As you very well know it was a hard sell, selling the Lubritherm hydraulic fluid to management due to his higher cost than our traditional hydraulic oil, but we did and we're all very pleased with it's awesome performance to date and feel it was well worth the initial investment.

Our Anglemaster and Beamline to date has gone through some very extreme weather , severe cold as well as extreme heat and never slowed either machine down one bit (we've had weather as cold as -40 C), and have not had one day of down-time in regards to the fluids. I only wish this had been developed a few years earlier so we could have used it on our hydraulic crane outside in my stock yard, we replaced the crane due to the fact it wouldn't operate effectively on cold days. I am confident if we had the Lubritherm fluid in it we'd still be using it today and for years to come.

Another fact I like about the oil is it does not break down and does not need to be changed annually as traditional oil does, therefore saving us on maintenance costs as well as the inconvenience of having to dispose of the old oil.

Sincerely,

John [REDACTED]

Shop superintendent

Triangle Steel – Calgary, Alberta, Canada

