

## **INDUSTRIAL FLUID SYSTEMS**

Starting a dredger gearbox when the oil is cold puts tremendous strain on gears, bearings and the entire drive package. Running the gearbox with hot or dirty oil is just as bad. A lube conditioning system was the key to extending their life.

## **System Requirements**

Heat gear lube oil to 110F for startup

Cool gear lube oil with air cooled heat exchanger when temperature exceeds 130 F.

Filter lube oil once it reaches 100F to extend oil and bearing life

Engineer lube conditioning system controls to operate system from the bridge

Provide engineering and technical support to dredger engineer.

Provide installation and startup assistance on dredger as required

## **Equipment Provided**

GLCS-8G-12KW-15G Gearbox Lube Conditioning System

- 8 GPM Lube filter/heater pump
- 12kW Heater w/PID controller
- Duplex oil filters
- 15 GPM Cooling Pump
- Control Panel w/ interface
- Sample Ports
- Pressure Gauge

Air cooled heat exchanger Installation and startup assistance on dredger

Operational & Maintenance
Manual w/ Spare Parts List

Temperatures in the southern united states have been hitting new lows, and highs, for several years. The cold temperatures were causing bearing failures and excessive wear on gearboxes in offshore dredgers. The solution to the problem was to heat the gear lube for several hours before starting the dredger so oil flowed freely and bearings were warm. High temperatures were also an issue and so the system was designed to include an air cooled heat exchanger to help cool the oil once it reached 130F.



Prior to building this system IFS worked with the gearbox manufacturer to establish the flow rate, temperature requirements and oil quality required to maximize performance and gearbox life.

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