



ZCC-42305R100

Internal Rescue Hoist Repair

The Internal Rescue Hoist Assembly has been repaired and returned to service by Zephyr International as required to be in condition to operate safely. It was evaluated and tested according to the submitted final test report and it passed the test as per the results in the submitted test data record.

Internal Rescue Hoist Assembly
PN: 42305R100 SN: 207

Repair Order Issued By: AVPRO

Repair Order No: ARO-16-4010

End Customer: Chelan County Fire District 1

Qty: 1

Signed:

Elizabeth Bleisa-Mitchell
Owner/Executive Administrator

Date: 2/2/2017

Zephyr International llc 5015 Enoch Road, Conway, SC 29526 USA
Phone: 843-365-2675 Fax: 843-362-2677 zephyradmin@zephyrintl.com www.zephyrintl.com
EIN# 71 0895223 CAGE# 3CAT3 DUNS# 122368439
Serving Helicopter Rescue Hoist Users Worldwide

Hoist was received pictures were taken.



Hour meter read 6.4 hours.

Hoist was received minus umbilical cable, Chain Cover, Power On Indicator, and no Identification Label.

The shipping container is marked S/N 207.

Hoist was mounted on test frame.



Repair Order Report
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Hoist 42305R100 s/n 207
Fabricated a new umbilical cable, installed new chain cover.



1-18-2017

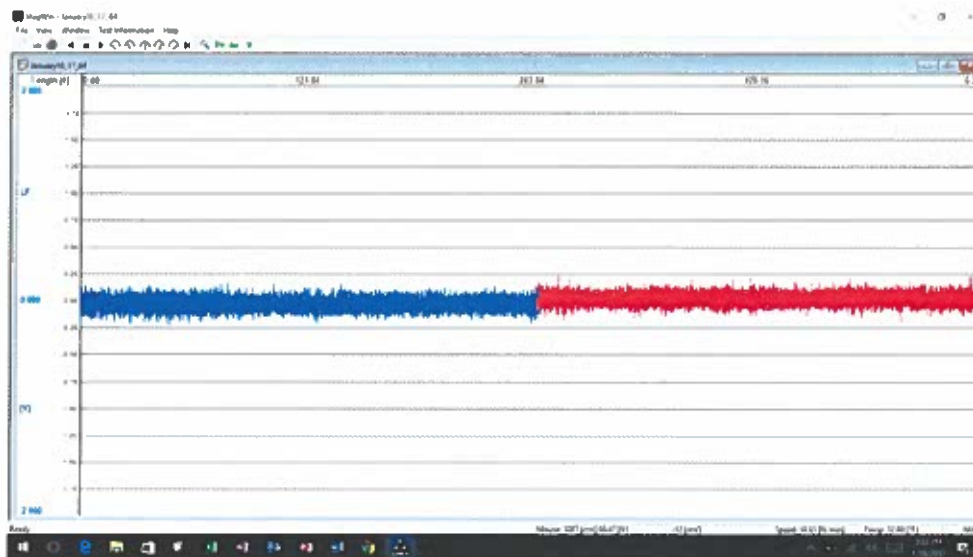


Preliminary checks:

- Hoist runs.
- Gearbox leaks.
- Boom operates both directions.



The cable was checked with the MagSens see Run 1-Data. The cable is good.



Run 1

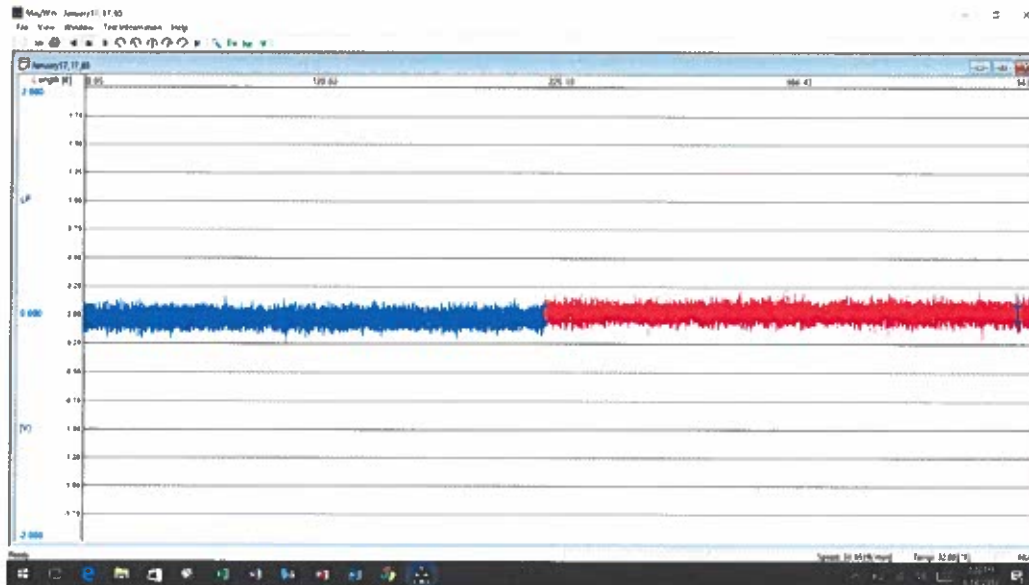
- Hour meter reading -6.6 hours.
- Hoist was disassembled and a new O-Ring was installed under main cover.
- Hoist was reassembled and filled with oil, no leaks from the gearbox or the traction sheaves.

Made another run- See test data 2

Mode	Cable Speed (FPM)	Cable Load (Lbs)	Current (amps)
Extend	190	33	n-a
Retract	132	374	83.7

- Extending hoist speed was 190 ft./min and 33 lbs. load
- Retracting speed was 132 ft./min and 374 lbs. load at 83.7 amps
- Note speeds are for reference only. Hoist speed varies from layer to layer.
- Hoist was in low speed

Run 2



- Hour meter now 7.1 hours.
- Replaced Power on Indicator and bulb.
- Replaced the bulb on the pendant caution indicator.
- Adjusted the full in limit switch actuators.
- No oil leak.



Final Checks Test Results: Run 3

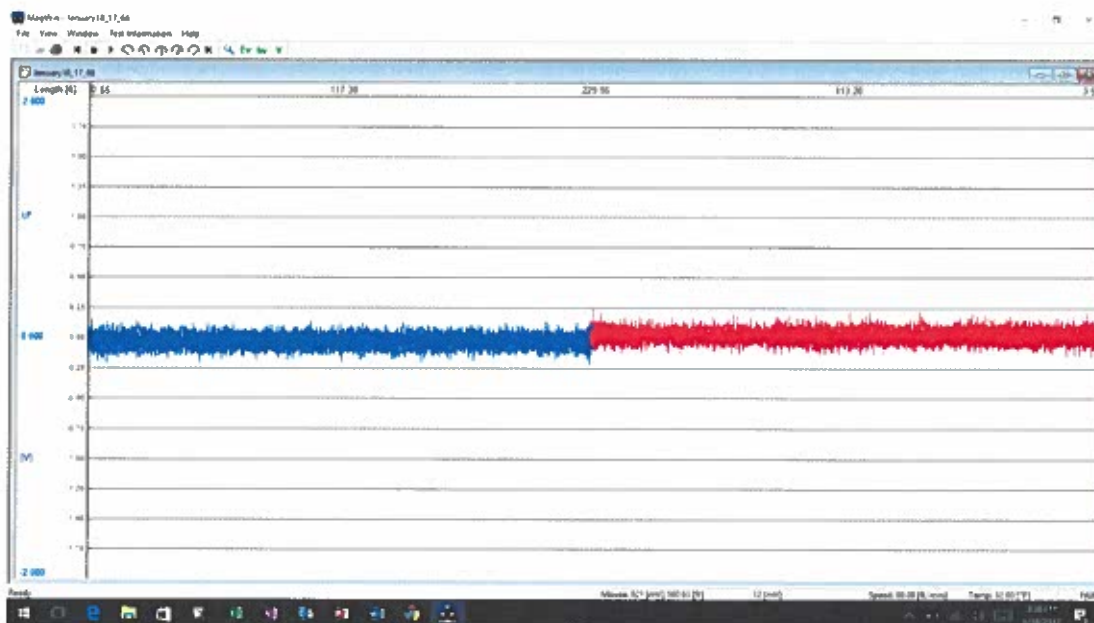
Hoist in High Speed

Mode	Cable Speed (FPM)	Cable load (lbs)	Current (Amps)
Extend	220	118	68.1
Retract	220	320	120

- Extending max speed is 220 ft/min, at 118 lbs load and amps were 68.1 A
- Retracting max speed is 220 ft/min at 320 lbs load and amps were 120 A

Run 3 MagSens Data

- Extending at 118 lbs and Retracting at 320 lbs.



Run 3

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Run 4



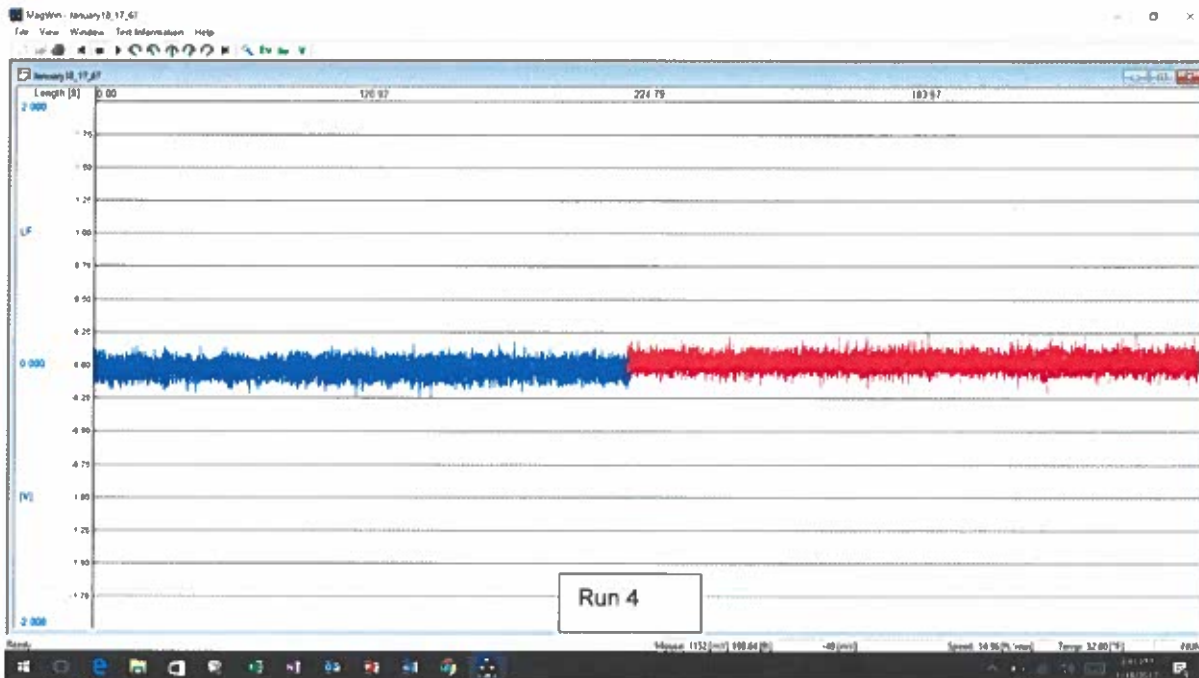
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- Hoist in Slow Speed
- Final Retract @600 lbs.

Mode	Cable Speed (FPM)	Cable load (Lbs)	Current (Amps)
Extend	230	126	69
Retract	134	620	125

- Extending at 230 ft. / min and 126 lbs and drawing 69 amps
- Retracting at 134 ft/min and 620 lbs and drawing 125 amps.

Run 4 MagSens Data



Lifted a 600 lbs dead weight three times starting and stopping.

Hoist held load, and lowered 600 lbs smoothly. Brake is good.



Checked Boom Extend and Retract, they checked well.

Hour meter was at 7.5 hours.

Oil was removed from the gearbox and the traction sheave drives.

Hoist was repainted.