WINCH MONITORING SYSTEM - 3PS

3PS Calibration Date: 2-Nov-17

Calibration Instrument: Dillon Tension Electronic Dynamometer model EDXtreme

S/N: EDX2600306

Calibration Date: 2017-August-17

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dynamometer + 2 large shackles, weight = 38.5 lbs

CABLE: **Working Load:** 15,595 lbs
Trawl

TEST#1 - compare dynamometer readings to present calibration values

Reading #	Dynamometer Reading	3PS Reading		Error	Error %
1	0	0		0	0.0
2	5600	6290		690	12.3
3	11140	13150		2010	18.0
4	16840	20100		3260	19.4

TEST#2 - compare dynamometer readings to present calibration values

Reading #	Dynamometer Reading	3PS Reading		Error	Error %
1	0	0		0	0.0
2	4520	5060		540	11.9
3	4680	5120		440	9.4
4	4760	5190		430	9.0
5	2780	2960		180	6.5

SUMMARY: Although the tension values registered on the 3PS are pretty good at the lower values (when the dynamometer is reading from 0-4000 lbs) the error increases and is not adequate at higher values (when dynamometer is reading 5000-15000 lbs).

CALIBRATION

2-Point calibration					
1	0	capture / set	Lo Sensor Value: 3930.386 Lo Display Value: 0		
2	14820	capture / set	Hi Sensor Value: 10260.35 Hi Display Value: 14820		

TEST#3 - compare dynamometer readings to present calibration values for new calibration values

Reading #	Dynamometer Reading	3PS Reading		Error	Error %
1	0	-12		-12	0.0
2	4980	4660		-320	-6.4
3	9480	9410		-70	-0.7

TEST#4 - compare dynamometer readings to present calibration values for new calibration values - start again - initial value was off and some crane issues ended Test #3

Reading #	Dynamometer Reading	3PS Reading		Error	Error %
1	0	-12		-12	0.0
2	7740	7710		-30	-0.4
3	10180	10100		-80	-0.8
4	15300	15410		110	0.7
5	15260	15380		120	0.8

TEST#5 - compare dynamometer readings to present calibration values for new calibration values - check a few lower values again

Reading #	Dynamometer Reading	3PS Reading		Error	Error %
1	2240	2130		-110	-4.9
2	2260	2160		-100	-4.4
3	2400	2250		-150	-6.3

SUMMARY: The new calibration values match the dynamometer readings better at all values measured. The error is now slightly larger at lower tension values than it is at higher (5% at lower dynamometer readings; ~1% at high dynamometer readings).