



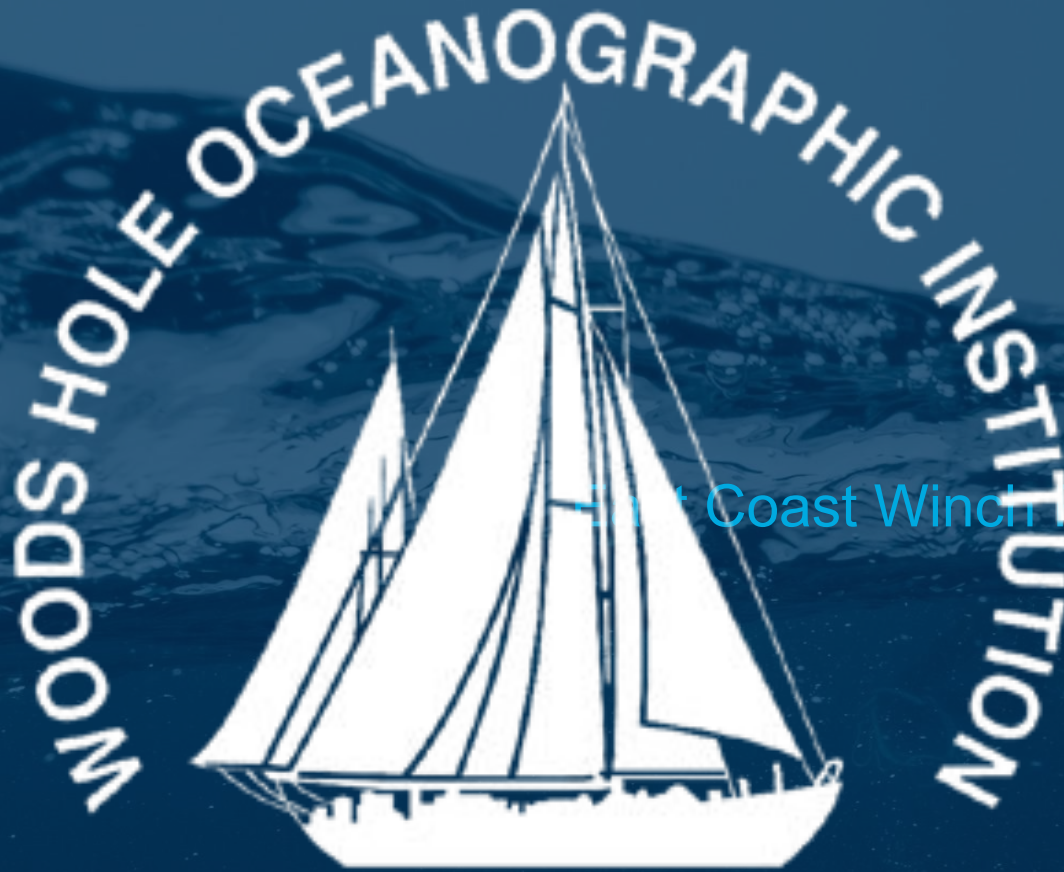
# ECWP

East Coast Winch Pool Update  
RVOC 2025



WOODS HOLE  
**OCEANOGRAPHIC**  
INSTITUTION





1930



ECWP

East Coast Winch Pool Update  
RVOC 2025



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ECWP

on Pool Update  
RVOC 2025



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ECWP

Pool Update  
RVOC 2025



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INSTITUTION







# ECWP

East Coast Winch Pool Update  
RVOC 2025



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INSTITUTION







1

# **Winch Pool Purpose**

Why is Josh talking again?



# | Purpose



# | What Do We Do For You

## Winch Rental

- Hertz Rental of Winches
- From Super Cars to Daily Drivers



# | What Do We Do For You

Push the  
Advancement  
of OHS  
Components

- Push Manufacturers to Make Better Equipment

Winch Rental

- Hertz Rental of Winches
- From Super Cars to Daily Drivers



# What Do We Do For You

Joint O  
Contact

- Answer all Winch Questions
- Provide Purchase Assistance
- Provide Design Assistance

Push the  
Advancement  
of OHS  
Components

- Push Manufacturers to Make Better Equipment

Winch Rental

- Hertz Rental of Winches
- From Super Cars to Daily Drivers







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## **Personnel**

The people behind the magic



# | East Coast Winch Pool Personnel



## Joshua Eaton

Brainy





# | System Maintenance

Jamie Haley

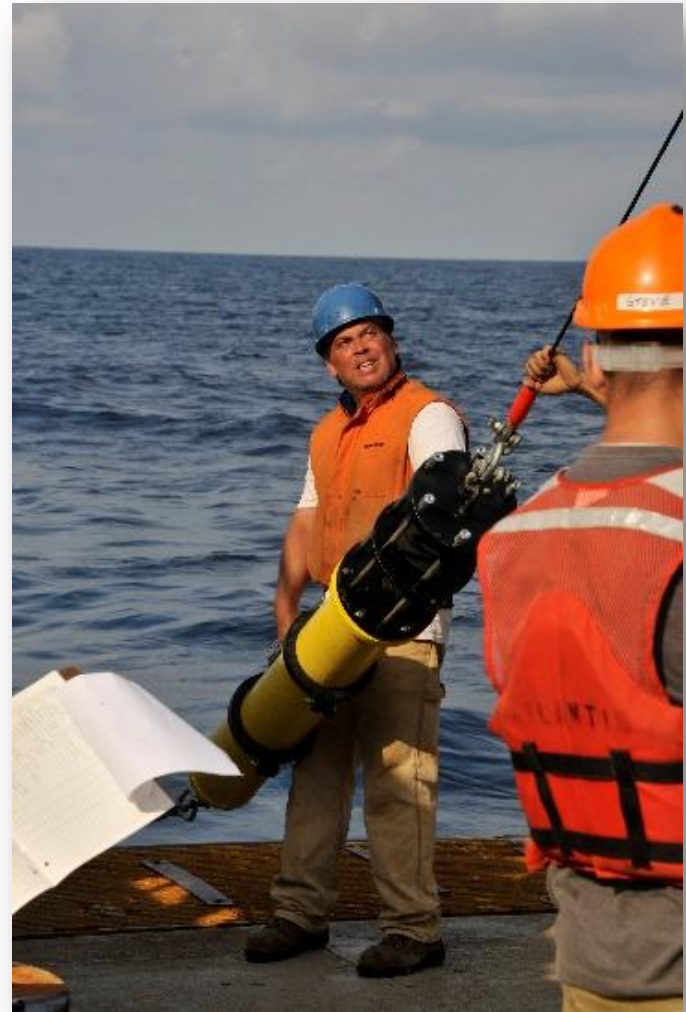
Wrenchy





## Brian Guest

Bookie





## Brian Guest

Retired





# | Manager



# | Manager

Sean Whelan  
New Guy







**3**

## **Assets**

What we've got



# | Winches



# | Winches



Moe  
MASH2K-1



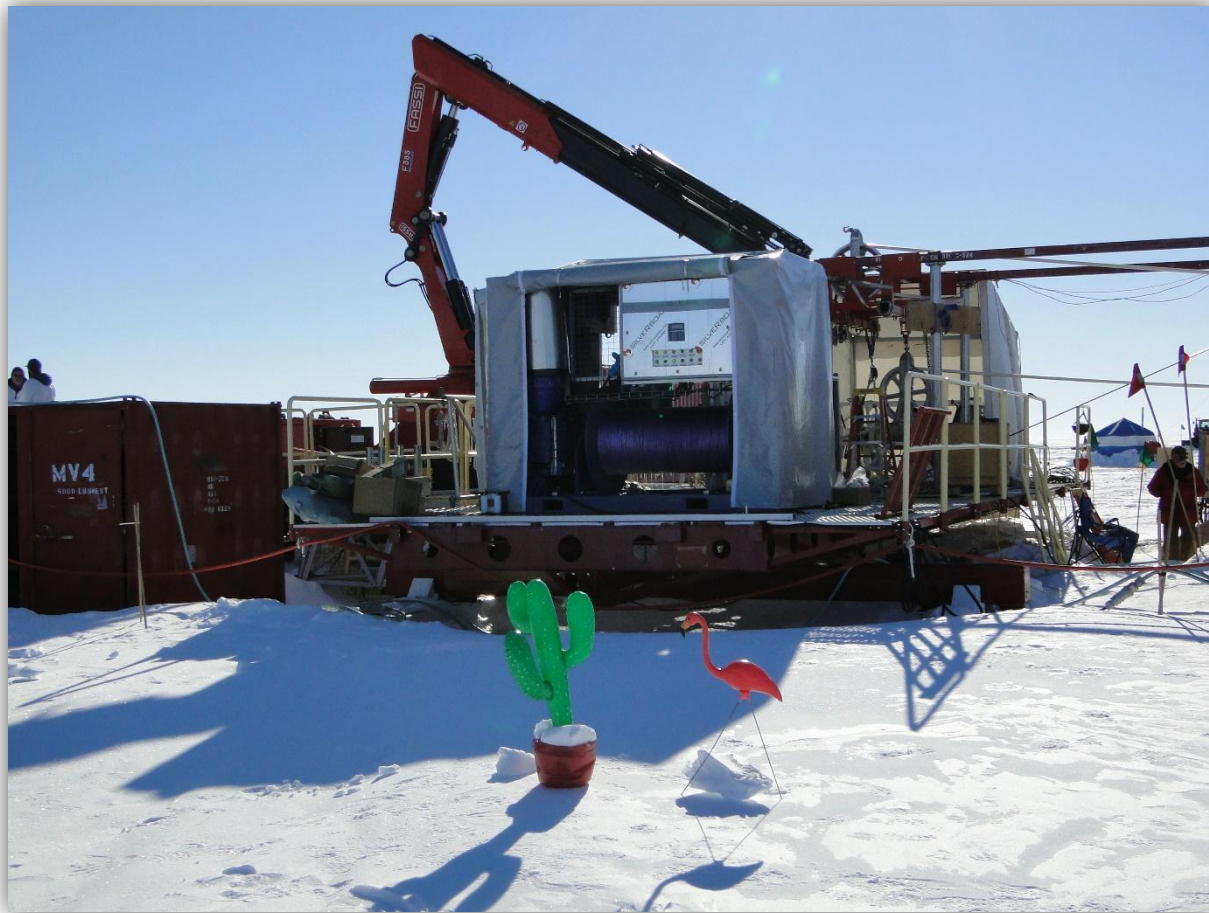
# | Winches



Larry  
MASH2K-2



# | Winches



Curly  
MASH4K-1



# Winches



Shemp  
MASH4K-2



# | Winches



Gloria  
SPRE-2530 S



# | Winches



Godzilla  
SPRE-3464



# | Winches



Monk  
Dynacon 1007



# | Winches

Donnie  
Dynacon 10030





# | Winches

## Marie Dynacon 10030





# | Winches

Joe  
SPRE- 2648





# Winches



## Cletus & Cooter

SD-70



# | Winches



Jay Jay  
IOS TM



# Sheaves

½" Harken  
Block

0.322 Harken  
Block

0.322 Trace  
Metal Block

36" 0.681 Block

Wide Groove  
Metering Block

¼ " Trace Metal  
Block







# Other Assets

2 MRUs

Electrical  
Sliprings

Fiber Optic  
Rotary Joints

Load Cells

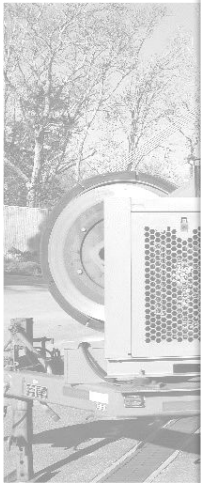
220 to 480  
Transformer

Winch Turn  
Tables



# Tensioners

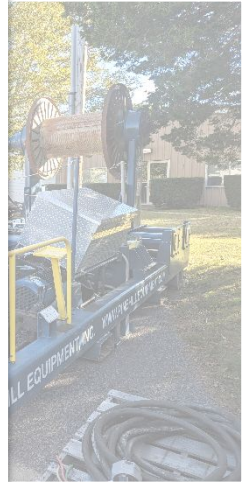
## Pine Hill





# Tensioners

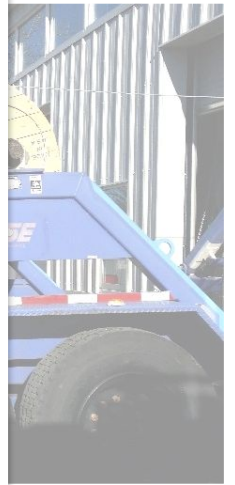
## Barney





# Tensioners

## Leitheiser











4

## Usage

Our stuff: Is it being used?



## Fulfilled Winch Requests

2 winches have not left the shop this year: Donnie, & Marie

The shop has been empty since March.







**5**

## **Issues and Repairs**

What broke this time?



# Problems encountered this year

1

## Load Pin Failure

Gloria's load pin sent out for repair and re-installed.

2

## Pine Hill

Various sensors failed, as well as remote control potentiometer.

Electrical enclosure replaced.

3

## Encoder Wobble

Jay Jay's encoder shaft was bent previously, Even with the repaired shaft the wobble was present. Encoder Wobble Caused speed fluctuations



Most important  
thing

1 If something breaks  
**Call Us**

2 If something is damaged  
**Call Us**

3 Any questions  
**Call Us**





**6**

# **Improvements**

We can build it better



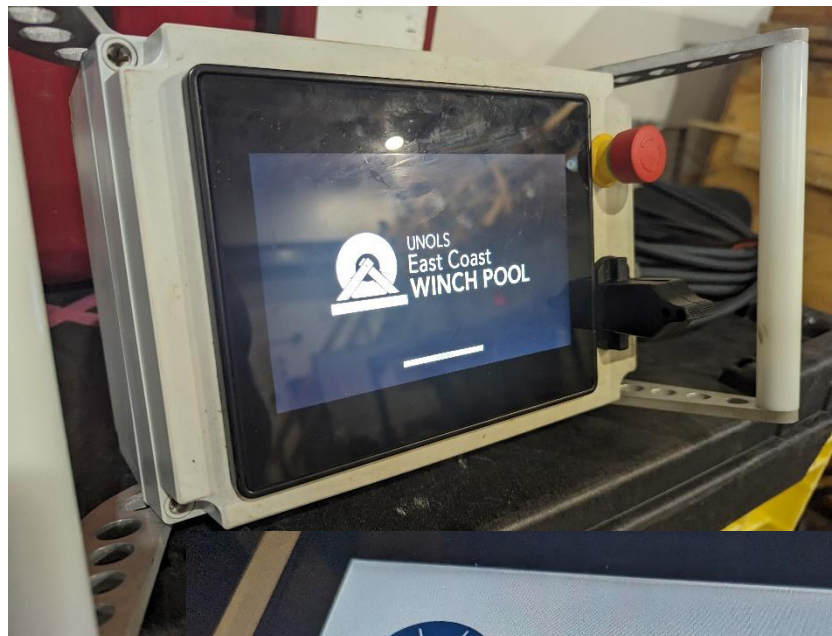
# ECWP Remote

User  
Interface

Connection  
Process

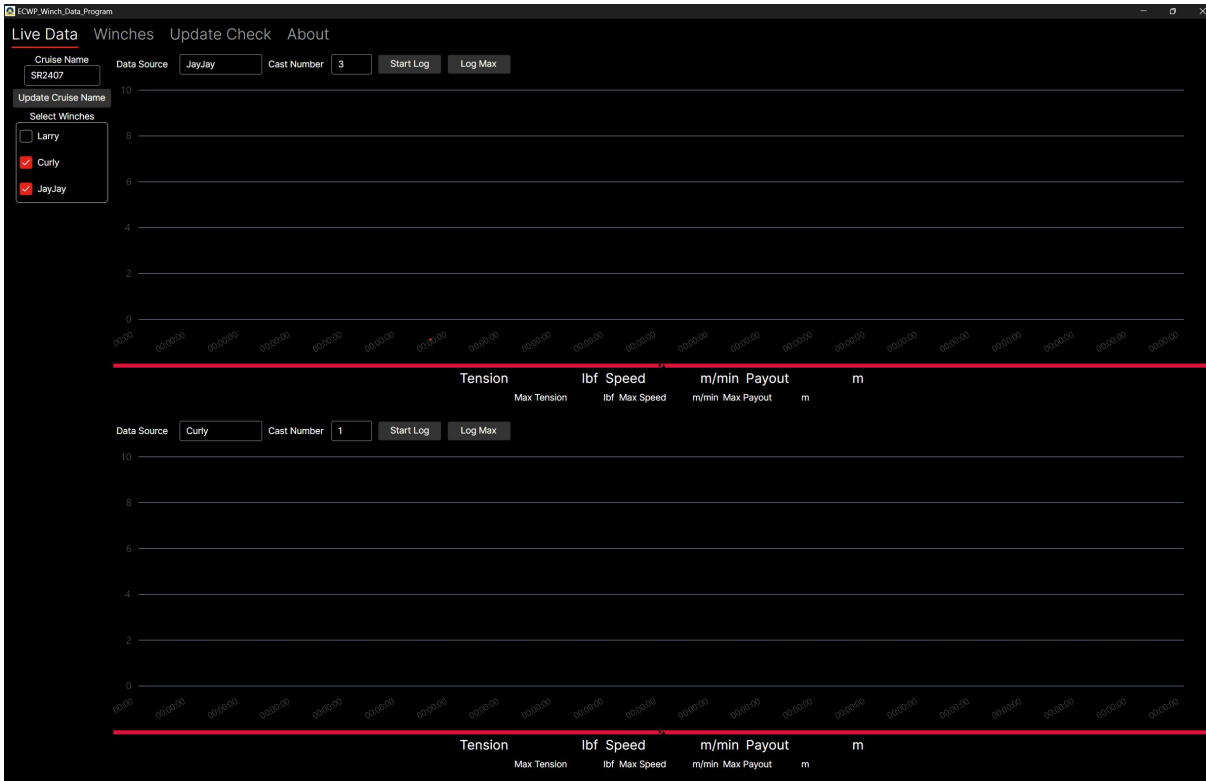
Splash  
Screen

Long  
Extensions





# ECWP Data Collection Program



Supports  
Additional  
Winches

Multi-Winch  
Plotting

Cross Platform

Appendix A Visual  
Warnings and  
Alarms

UNOLS Wire Pool  
Compliant Log



# ECWP Data Collection Program

## Improvements

Add  
additional  
devices

Allow the  
user to define  
input string

Create sheave  
path  
diagrams

ECWP\_Winch\_Data\_Program

Live Data Winches Update Check About

Add New | Winch Information

Larry Tension Member

Curly Logging Parameters

JayJay Incoming Data

Outgoing Data

UNOLS Event Log

Log Processing

Ship Name Savannah

Winch Name Larry

Winch Manufacturer MacArtney

Winch Model MASH2K

Winch Serial Number Enter Serial Number

Set Raw Path C:\Winch Pool\MASH\Log MASH2K-2\202407\_Spooling

Set UNOLS Path C:\Winch Pool\MASH\Log MASH2K-2\202407\_Spooling

Add/Update Winch Remove Winch



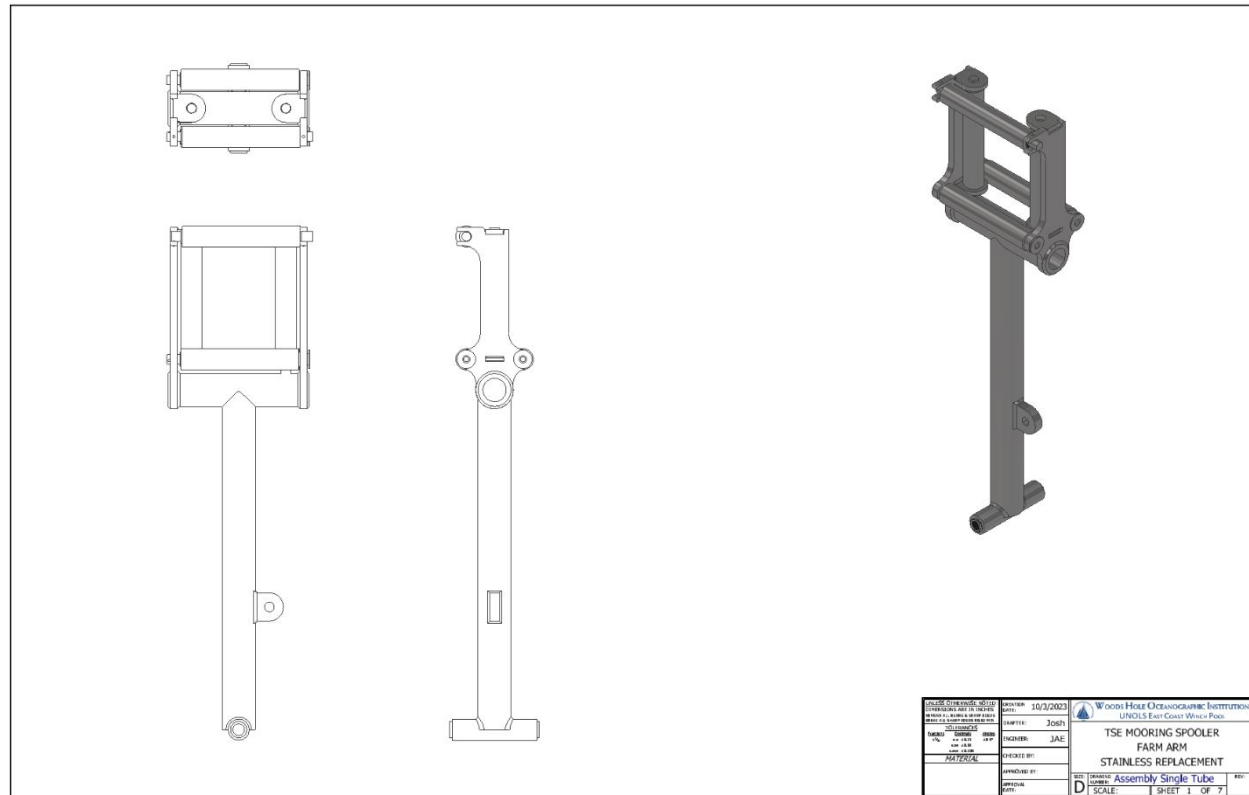


# Cletus & Cooter

Stainless Steel Rollers (Both)

Stainless Steel Farm Arm (Cletus)

New Arm Has Proved Robust







# Jay Jay

Operator  
Platform

Improved  
Metering

Removed  
Encoder  
Wobble



# Godzilla

Grind  
Drum  
Welds

Power  
Cord  
Storage





AutoSave On EMT Calcul... Last Modified: March 27

File Home Insert Draw Page Layout Formulas Data Review View Automate Help Acrobat

Clipboard Font Alignment Number Conditional Formatting Format as Table Cells Editing Sensitivity Add-ins Analyze Data Create a PDF Webex

B8 50

Expected Maximum Tension Worksheet		
Item	Value	Unit
Cable Air Weight	1000	lbf
Cable Water Weight	0	lbf
Instrument Air Weight	1000	lbf
Instrument Water Weight	900	lbf
Sample Air Weight	500	lbf
Sample Water Weight	50	lbf
Instrument Frontal Area	60	in^2
Instrument Drag Coefficient	0.82	u/l
Velocity	1	m/s
Pull Out Tension	0	lbf
Calculated Values		
Static Load	950	lbf
Dynamic Load	1875	lbf
Transient Load	0	lbf
Quasi-Static	3.639675059	lbf
Total	2828.639675	lbf
Change values in green cells		
Constants		
Density of Sea Water	63.677	lbm/ft^3
Heave Acceleration Factor	0.75	
Meters to Feet	3.281	ft/m
Feet to Inches	12	in/ft
Gravity	32.174	ft/s^2

Sheet1

Ready Accessibility: Good to go

# Estimated Maximum Tension Programs

Standalone

Spread sheet



EMT Estimator

## Estimated Maximum Tension Calculator

From UNOLS RVSS Appendix A

☐ EMT at Termination

☒ EMT at Head Sheave/Winch

Cable Air Weight	1000	lbf
Cable Water Weight	900	lbf
Instrument Air Weight	500	lbf
Instrument Water Weight	300	lbf
Sample Air Weight	0	lbf
Sample Water Weight	0	lbf
Instrument Frontal Area	20	in <sup>2</sup>
Instrument Drag Coefficient	.5	
Velocity	1	m/s
Pull Out Tension	0	lbf
<b>Calculated EMT</b>	<b>2325.7397</b>	<b>lbf</b>

# Estimated Maximum Tension Programs





# Drum Calculator Program

Standalone

Winch\_Capacity\_Estimator

Estimator

Winches

Tension Members

Maximum Length

1680.62

Number of Layers

13

Turns per Layer

73

Actual Free Flange

.891

Choose Winch

MASH2K

Drum Diameter

18

Flange Height

6

Drum Width

28.7

Choose Tension Member

393 EOM

Tension Member Diameter (in)

0.393

Weight in Water (lbf/ft)

219

Tension Member Length Unit

m

Free Flange Minimum

2\*TM Diameter

Spooling Efficiency (%)

96

Calculate Drum Table

Spooling Chart

Layer	TM on Drum	TM on Layer	TM Off Drum	Layer Line Pull (lbf)	Live Load (lbf)
1	102.9	102.9	1577.72	3288.21	2154.6
2	210.19	107.29	1470.43	3153.45	2096.9
3	321.88	111.69	1358.74	3029.3	2053
4	437.96	116.09	1242.65	2914.56	2021.7
5	558.45	120.48	1122.17	2808.19	2001.9
6	683.33	124.88	997.29	2709.31	1992.8
7	812.61	129.28	868.01	2617.16	1993.5
8	946.28	133.68	734.33	2531.07	2003.5
9	1084.36	138.07	596.26	2450.47	2022.1
10	1226.82	142.47	453.79	2374.84	2048.8
11	1373.69	146.87	306.92	2303.74	2083.2
12	1524.95	151.26	155.66	2236.77	2124.9
13	1680.62	155.66		2173.58	2173.6





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# **Projects**

Not just winches



# USAP Winch Platform





# Test Tower







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## **Other Services**

Help us help you



# Services

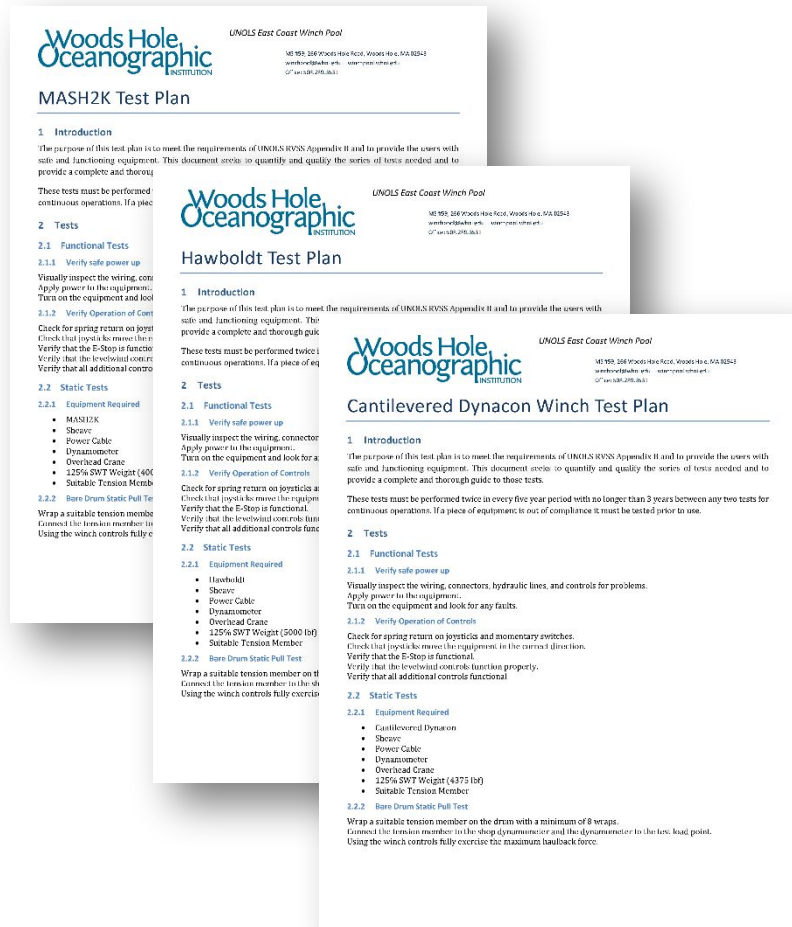
Acquisition  
Assistance

Testing Plans

Training

LCI-90i &RPC-  
90x Oversight

Technical  
Assistance





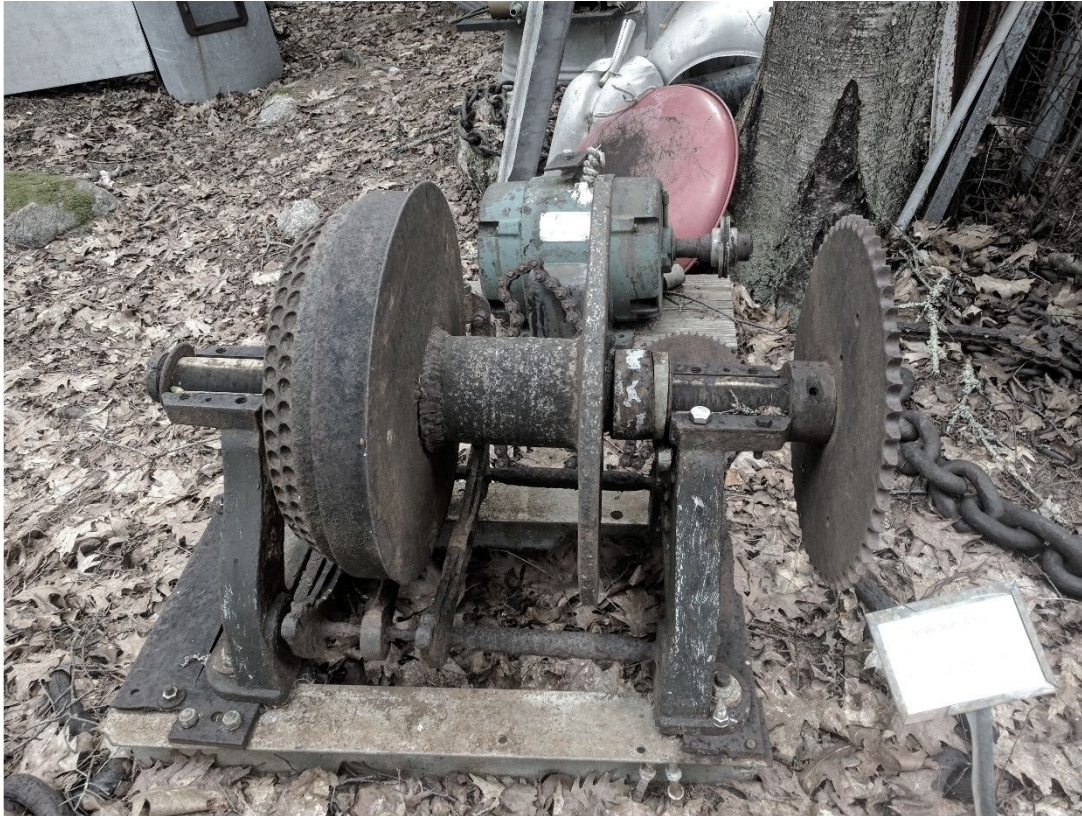


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## **Future**

A look into the crystal ball





# Upcoming

Additional  
Tracemetal  
Winch

Micro  
Winch

Ultra Light  
Duty Winch

Test Tower  
Completion



# Questions?



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