# UNOLS EAST COAST WINCH POOL

Joshua Eaton
Manager

Facility, Assets, and Capabilities

# Facility

# Facility



- Large Workshop
- Electronics & Termination Area
- UNOLS Bolt Down Pattern

# Assets

# Winches



**Two MASH4000 Winches**


**Two MASH2000 Winches**

# Winches



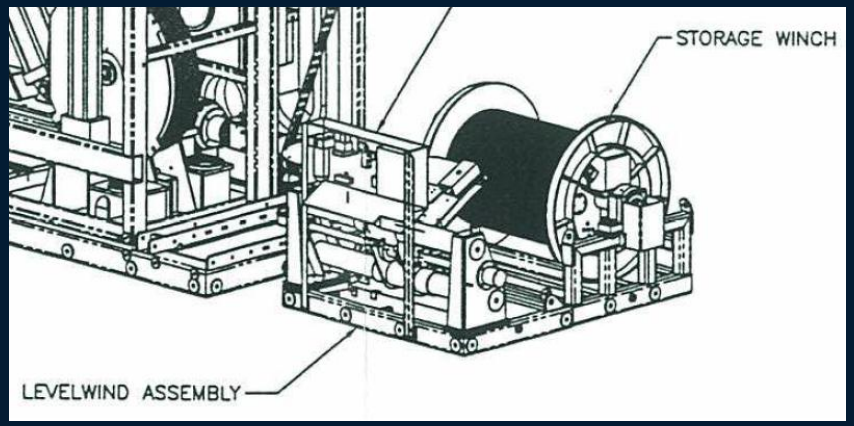
**Hawboldt Winch**

**Cantilevered Dynacon**

# Winches



**Dynacon .68 Winch**

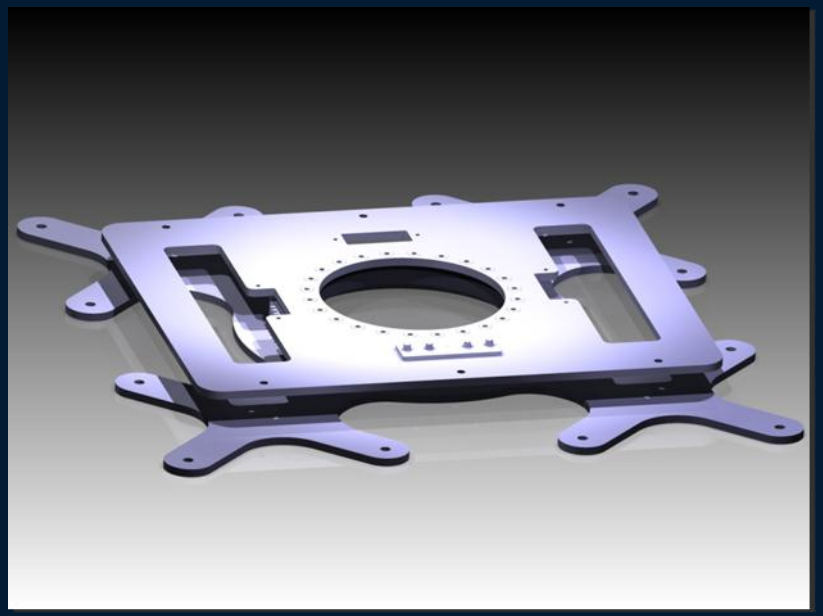



**TSE Mooring Spooler**

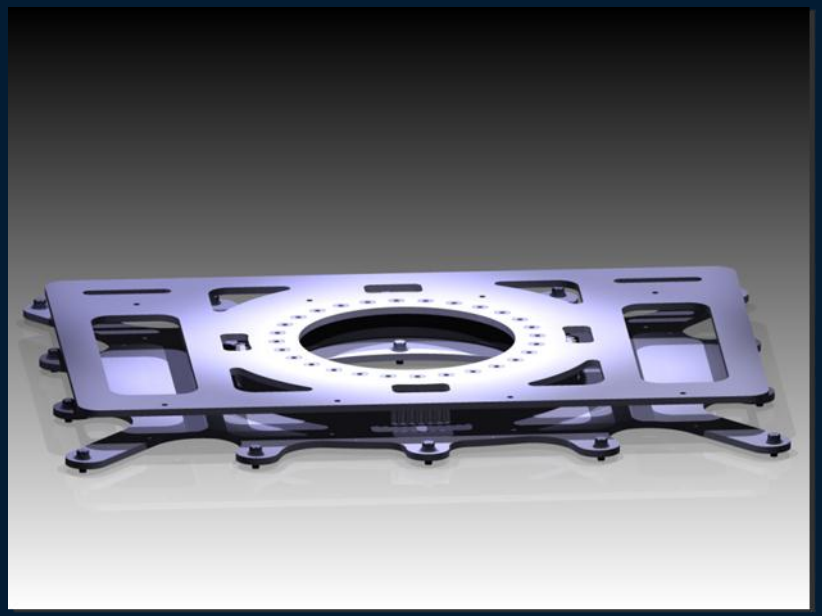
# Ancillary Equipment



**Small Turntable**



**Large Turntable**

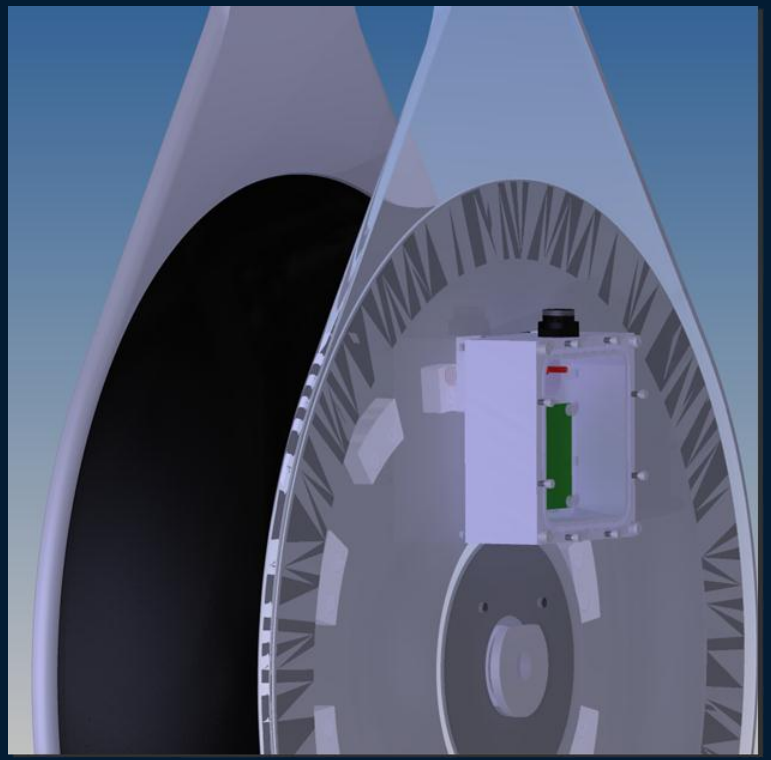


# Ancillary Equipment



## Dynamometer


## Metering Block

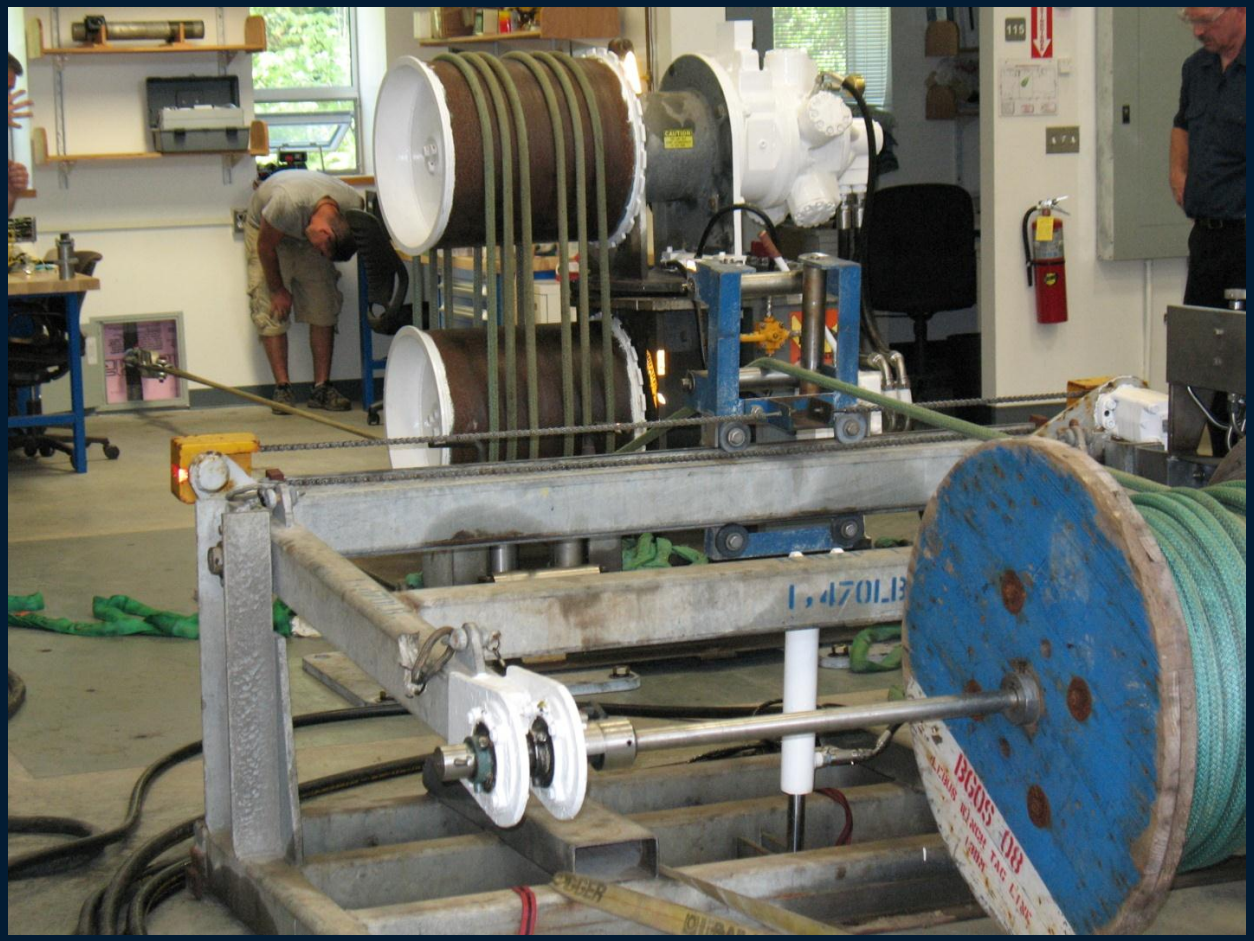


# Capabilities

# Facility Capabilities

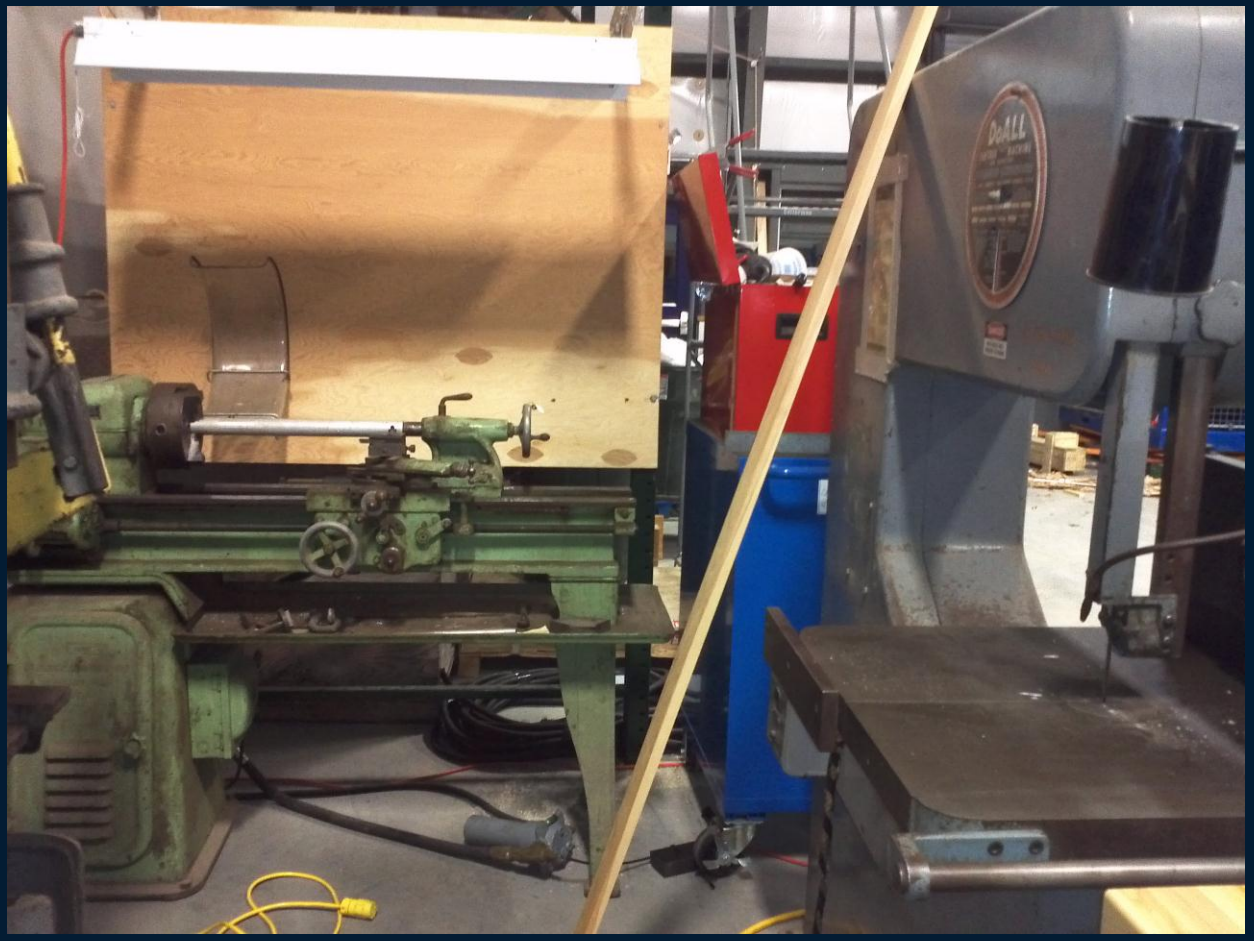


- Winch Testing
- Winch Overhaul
- Wire Spooling



# Engineering Services






- Winch Design
- Turntable Design
- Hydrostatic Wire Cutter Design
- Base Plate Design

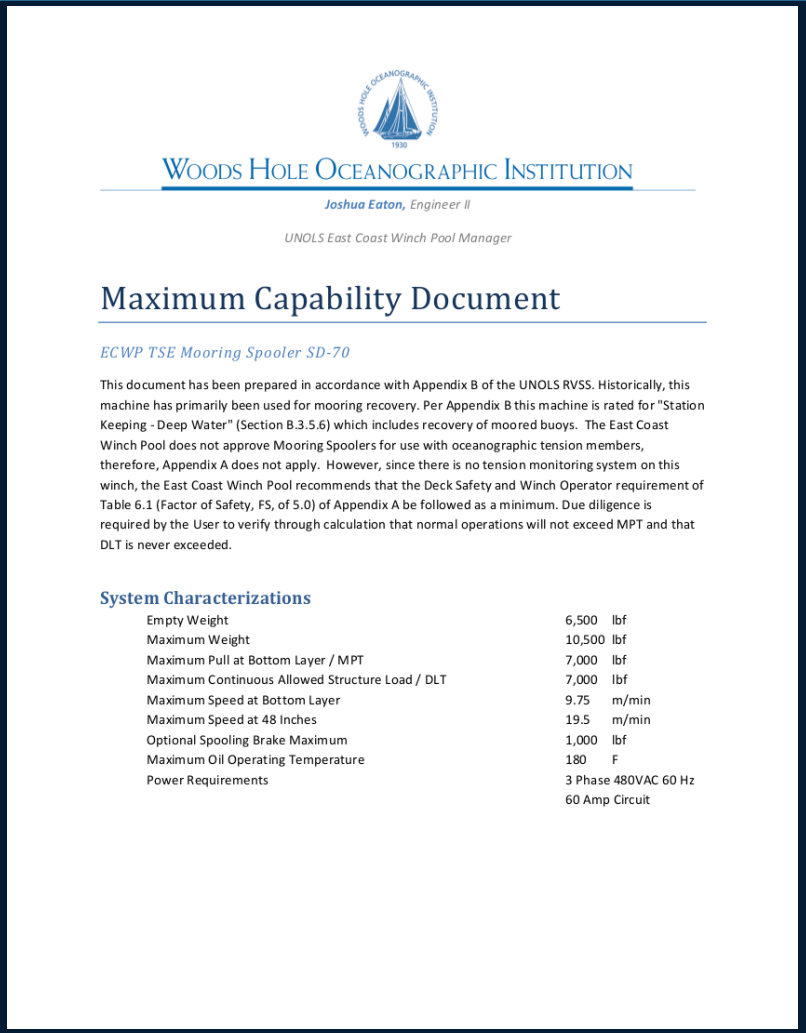
# Appendices A & B



MCD Development

Consultation

Primer



WOODS HOLE OCEANOGRAPHIC INSTITUTION

**Joshua Eaton,** *Engineer II*

*UNOLS East Coast Winch Pool Manager*

## Maximum Capability Document

*ECWP TSE Mooring Spooler SD-70*

This document has been prepared in accordance with Appendix B of the UNOLS RVSS. Historically, this machine has primarily been used for mooring recovery. Per Appendix B this machine is rated for "Station Keeping - Deep Water" (Section B.3.5.6) which includes recovery of moored buoys. The East Coast Winch Pool does not approve Mooring Spoolers for use with oceanographic tension members, therefore, Appendix A does not apply. However, since there is no tension monitoring system on this winch, the East Coast Winch Pool recommends that the Deck Safety and Winch Operator requirement of Table 6.1 (Factor of Safety, FS, of 5.0) of Appendix A be followed as a minimum. Due diligence is required by the User to verify through calculation that normal operations will not exceed MPT and that DLT is never exceeded.

### System Characterizations

| | | |
|---|---|---|
| Empty Weight | 6,500 | lbf |
| Maximum Weight | 10,500 | lbf |
| Maximum Pull at Bottom Layer / MPT | 7,000 | lbf |
| Maximum Continuous Allowed Structure Load / DLT | 7,000 | lbf |
| Maximum Speed at Bottom Layer | 9.75 | m/min |
| Maximum Speed at 48 Inches | 19.5 | m/min |
| Optional Spooling Brake Maximum | 1,000 | lbf |
| Maximum Oil Operating Temperature | 180 | F |
| Power Requirements | 3 Phase 480VAC 60 Hz<br>60 Amp Circuit | |

# Tension Members

# Pool Tension Members



Portable Winch Wire Pool

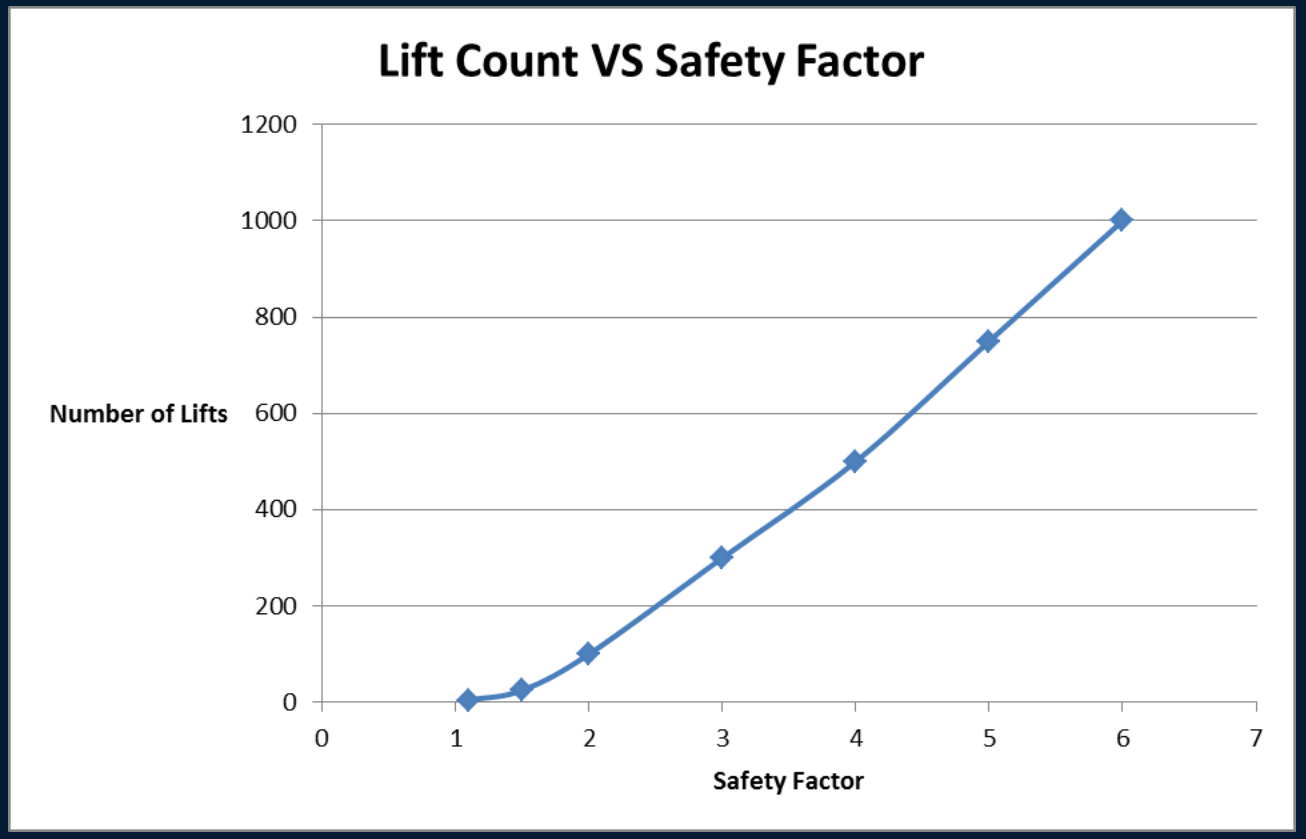
Conforms to Appendix A

Spooling

# Synthetic Tension Members



- Spooling
- Safety Factor
- Retirement Criteria



# Discussion