UNOLS East Coast Winch Pool

Joshua Eaton
Manager

Facility, Assets, and Capabilities

Facility

Facility

- Inside & Outside Storage
- Large Workshop
- Machine Tools
- Electronics & Termination Area
- Overhead Lift
- UNOLS Standard Bolt Down Pattern

Assets

Winches

Two MASH4000 Winches

Two MASH2000 Winches

Winches

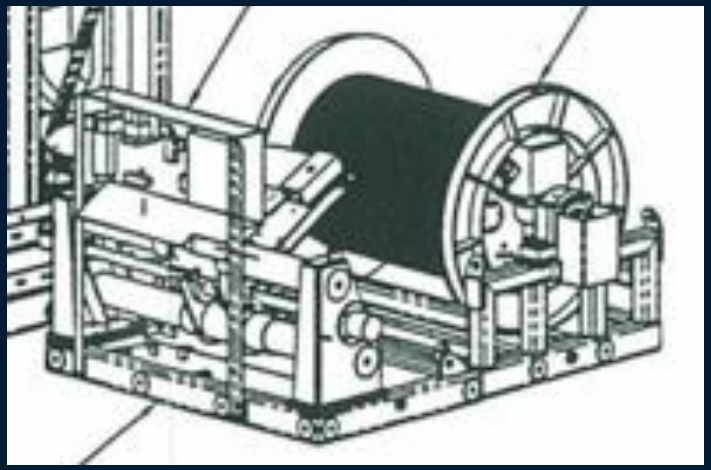
Hawboldt Winch

Cantilevered Dynacon

Winches

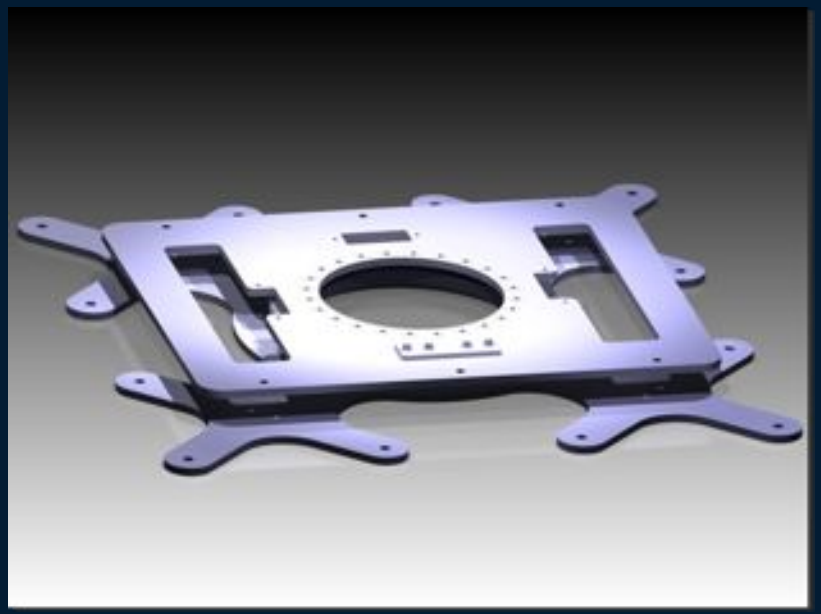
TSE Mooring Spooler

Dynacon .68 Winch

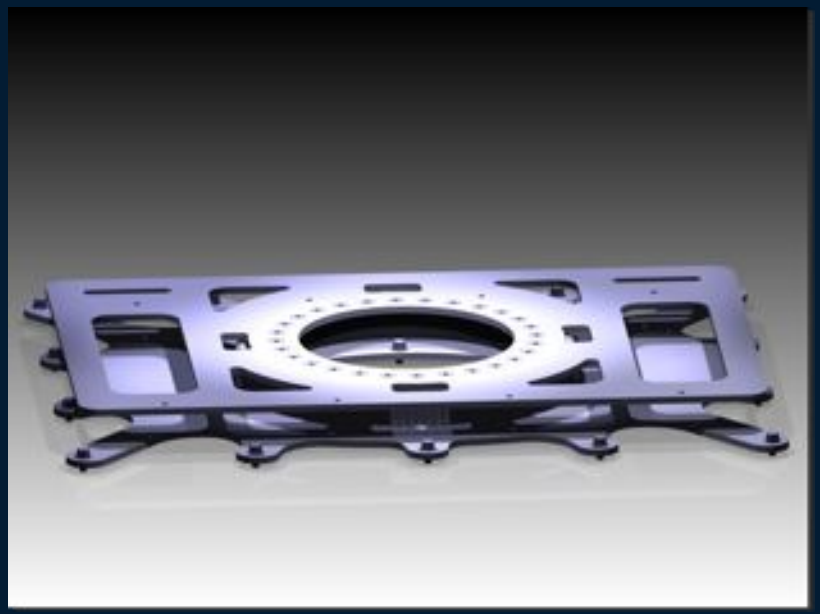


Ancillary Equipment

Small Turntable



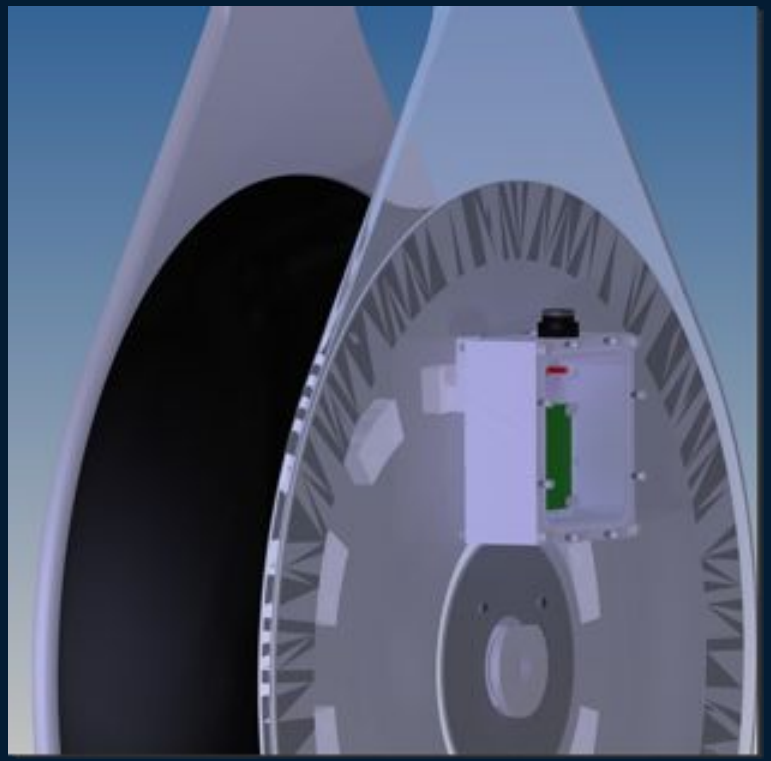
Large Turntable



Ancillary Equipment

Dynamometer

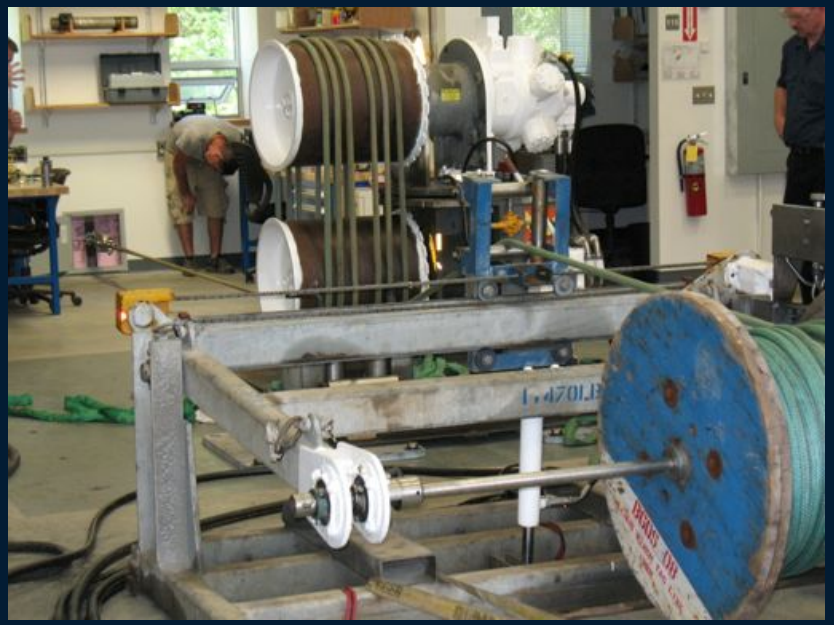
Metering Block



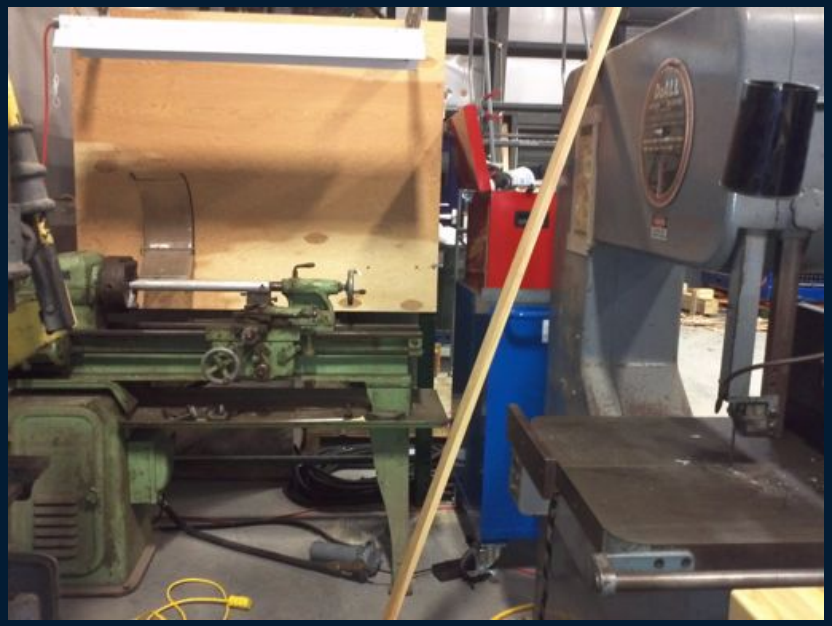
Capabilities

Facility Capabilities

- Winch Testing
  - Speed Testing
  - Pull Testing
- Winch Overhaul
- Wire Spooling



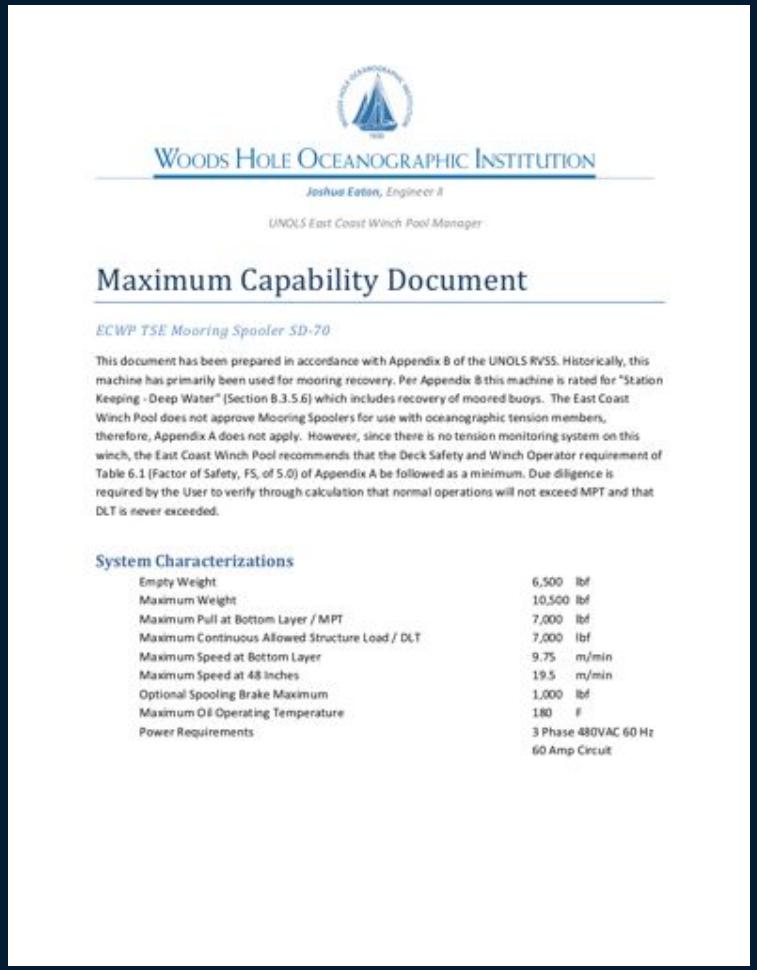
Engineering Services



- Winch Design
  - Mooring Spooler
  - Ultra-Light Duty
- Turntable Design
- Hydrostatic Wire Cutter Design
- Base Plate Design
- Analysis

Appendices A & B

- UNOLS RVSS Appendices A & B
  - Primer
  - MCD Development
  - Consultation



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 60 Amp Circuit	