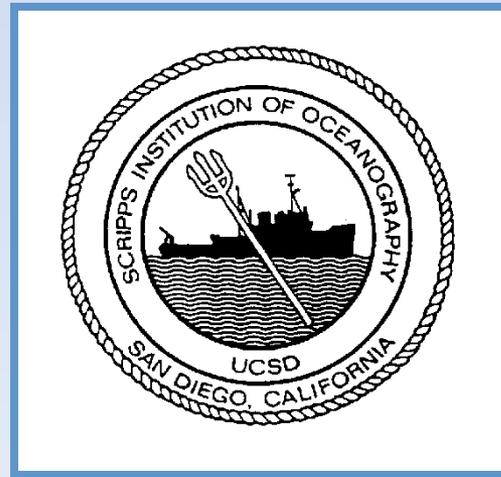


RVOC 2017

NSF West Coast Winch Pool
operated by
Scripps Institution of Oceanography



Winch Pool Mission

- To provide an inventory of oceanographic winches (etc.) for shared use.
- To keep the inventory in good repair, in compliance with applicable standards (CFR, RVSS).
- To modify the composition of the inventory to reflect the needs of end-users.
- To provide technical support: maintenance, repairs, design, engineering, fabrication, Q&A.

How the Winch Pool Works

- Science parties communicate their needs to us.
- We match their needs to available machinery.
- Those conducting NSF-funded research generally incur no costs (freight included) to use machinery.
- Others pay a “day rate” and the cost of freight.



Funding

- Routine Maintenance
 - Covered by the day rate for each winch
- Logistics—shipping, etc.
 - Estimated annually, included in our annual proposal
- Engineering Services—design, analysis, etc.
 - NSF-funded projects included in our annual proposal
 - Others pay an hourly rate
- Major Repairs, Capital Equipment Purchases –big ticket items
 - Requested in separate proposals

Personnel

- Management and Quality Control
 - Pool Manager: Capt. Eric Buck (part time, 20 %)
 - Winch/Wire Engineer: A. Davis, PE (full time)
- Mechanical
 - WP Technician: Lorenzo McCoy (as required)
 - Attends vessels for mob/de-mob of Dynacon deep sea traction winch
 - Occasional travel supporting other winches
 - Spooling services

SIO Inventory

- 1 TSE mooring spooler
- 2 Light-duty winches (SeaMac, Poseidon)
- 3 Line Tensioners

SIO Inventory



TSE SD-70 Spooler

A mooring spooler.

Up to 7,500 lbs pull.

Holds 2,500 m of 1" cable.

SIO Inventory



SeaMac, Poseidon

Light-duty oceanographic winches.

Up to 2,600 lbs pull.

Holds 3,000 m of .322" cable.

SIO Inventory

Line Spoolers & Tensioners



Blue

$\frac{1}{4}$ "
.322"



Pengo

$\frac{9}{16}$ "
.680"
.681"
.842"



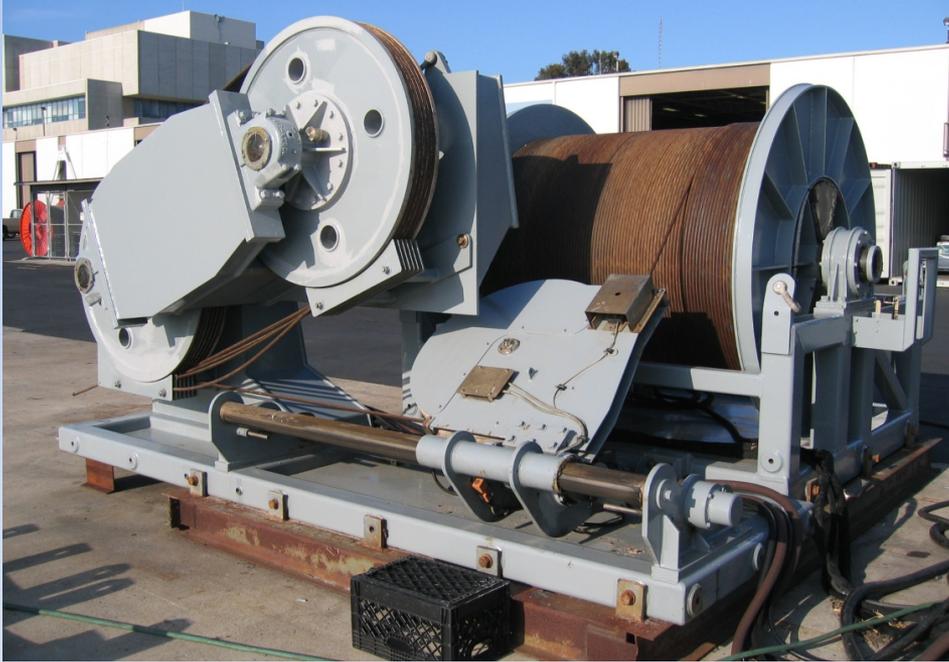
Gearhart

$\frac{1}{4}$ "
.322"

Winch Pool Inventory

- 1 Dynacon traction winch (DTW)
- 1 Dynacon spooling winch (DSW)
- 3 TSE mooring spoolers
- 1 Lebus mooring capstan
- 1 Hawbolt light-duty winch
- 1 Tensioning Spooler
- 3 sets fiber optic slip rings

Winch Pool Inventory



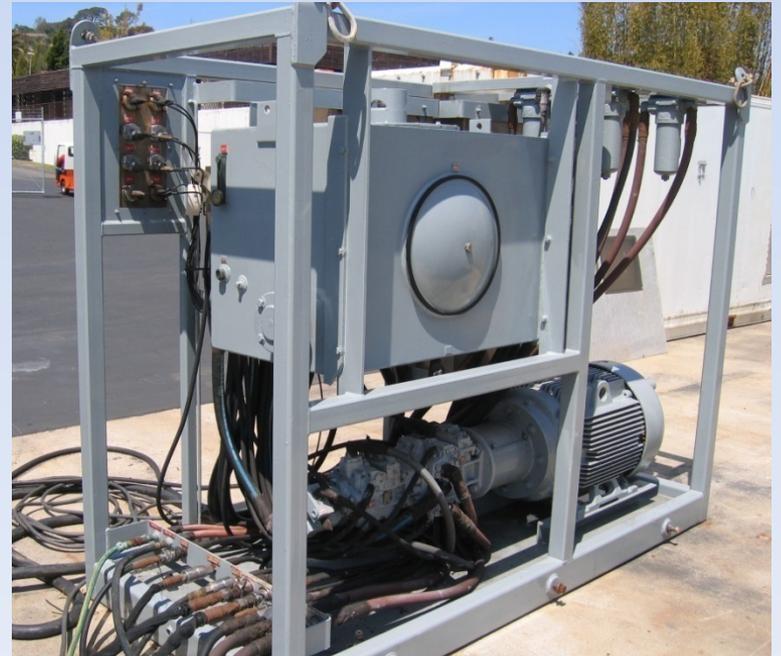
Dynacon Traction Winch

An oceanographic winch.

Up to 25,000 lbs pull.

Holds 10,000 m of .681 cable.

(Remote operating station not shown.)



Winch Pool Inventory



Dynacon Spooling Winch

A mooring spooler.

Up to 7,500 lbs pull.

Holds 5,300 m of 1" cable.

(Remote operating station, HPU not shown)

Winch Pool Inventory



Dynacon Spooling Winch

Winch Pool Inventory



TSE SD-70 / SDP-70 Spoolers (3)

Mooring spoolers.

Up to 7,500 lbs pull.

Holds 2,500 m of 1" cable.

Winch Pool Inventory

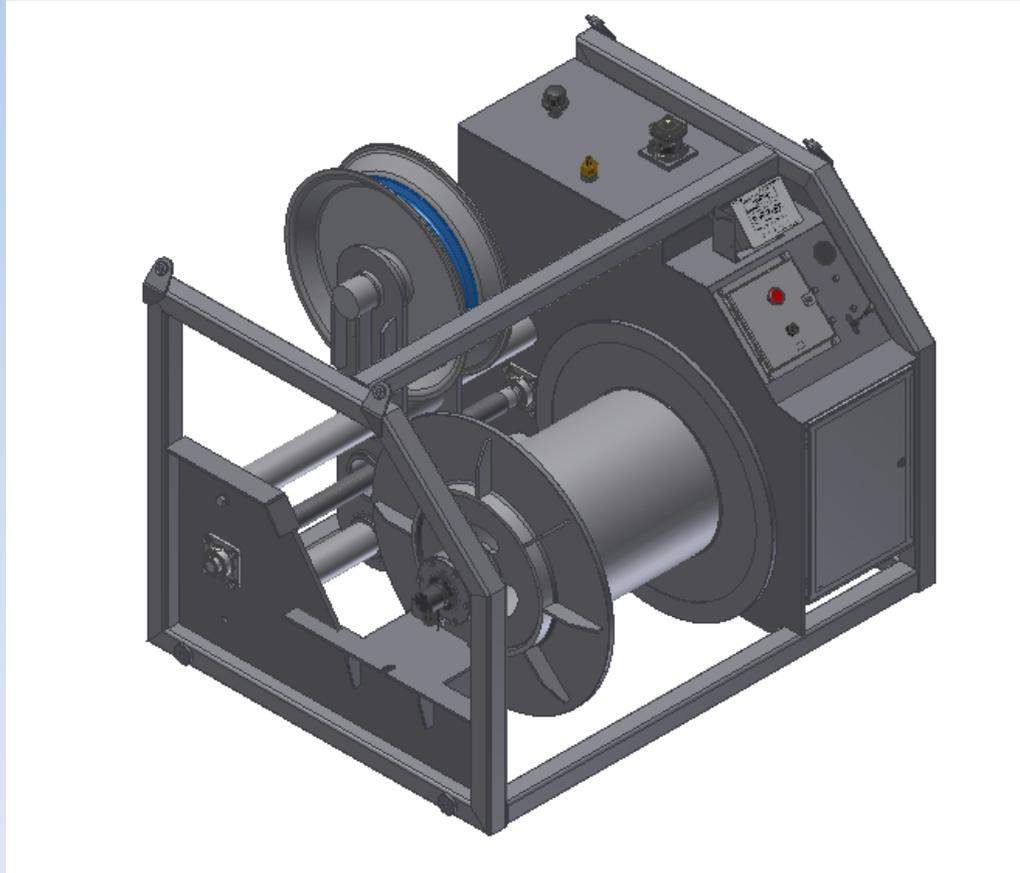


Lebus Mooring Capstan

Also for spooling moorings.

Up to 7,000 lbs pull. Unlimited cable-holding capacity.
(Remote operating station, wireless remote not shown)

Winch Pool Inventory



Hawboldt SPR-2036/S

Up to 3,500 lbs pull.
Holds 3,000 m of .322 cable.

Winch Pool Inventory



Markey Tensioning Spooler

Ø.250 " to Ø.681"
cable /wire rope/line

Projects 2016-2017

- WHOI Appendix B
 - Analyzed ATLANTIS' STBD squirt boom
- SIO Appendix B
 - 13 component MCDs
 - 2 OHS MCDs
 - 6 MCD component booklets
 - 1 OHS operator's manual
 - 2 test procedures
 - 1 test fixture
 - 1 operator training program
 - 2 vessel inspections

Challenges 2016-2017

- Commissioning the Markey tensioning spooler
 - Operator familiarization
 - Use in every mode of operation
 - Use with many wire rope and cable designs

Contact Us

Capt. Eric Buck, Manager

(858) 534-5568

ebuck@ucsd.edu

Aaron E. Davis, PE, Engineer

(619) 251-6368

aed001@ucsd.edu

#NSF winch pool