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

\( 9/16'' \)
\( .680'' \)
\( .681'' \)
\( .842'' \)

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

NEW!

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

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#NSF winch pool