



NSF Wire Pool

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UNOLS
UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM



**WOODS HOLE
OCEANOGRAPHIC
INSTITUTION**

What is the Wire Pool

- The Wire Pool supports the tension members needs of the U.S. Academic Research Fleet
 - Maintaining an inventory
 - Coordinating requests
 - Conducting break tests
 - Maintaining a wire database

Maintain An Inventory of Wire Rope, Cable, and Synthetic

One Wire Pool, two storage facilities

- East Coast - Woods Hole Oceanographic Institution (WHOI)
- West Coast - Scripps Institution of Oceanography (SIO)

Inventory of commonly used tension members

- 3x19 Wire Ropes: $\frac{1}{4}$ " , $\frac{1}{2}$ " , $\frac{9}{16}$ "
- Cables: .322" EM, .680" Coax, .681" power optic

Other tension members

- Synthetics: $\frac{9}{16}$ " Plasma HiCo

Requesting New Wire

- Wire Pool fields all requests for new and used tension members
- Determine availability of requested item (inventory)
- Wire Pool prepares package for NSF consideration
- If approved, arrange for shipping to nearest domestic port

Long Lead Times

.681": 8 Month lead time

3x19: 4 Month lead time

Break Testing

- Barbara Callahan, Wire Testing Coordinator
- Submit break test request via the Wire Pool database
 - Testing mandated by Appendix A of RVSS and funded by NSF (no cost to vessel)
- Evaluate
- Recommendations



Wire Pool Database

Andrea Harvey, Wire Pool Database Administrator

Manage wire and cable assigned to your Institution's vessel(s)

- Update wire status (e.g. 'In use' or 'Stored')

- Manage Safe Working Load (SWL) information for cable and wire in use or onboard a vessel

- Report events (lubrication, cutback/re-termination, splits, end-for-end, document uploads)

- Submit break test requests and view results/recommendations

Other Features

- Request wire or cable from the Wire Pool

- Add a tension member to a vessel (report a reel)

- Break test request

- Disposal request

- Add new users (full access or read-only)

- User-centric

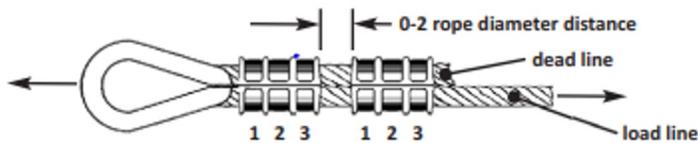
How are your terminations holding up?

3x19 Wire rope

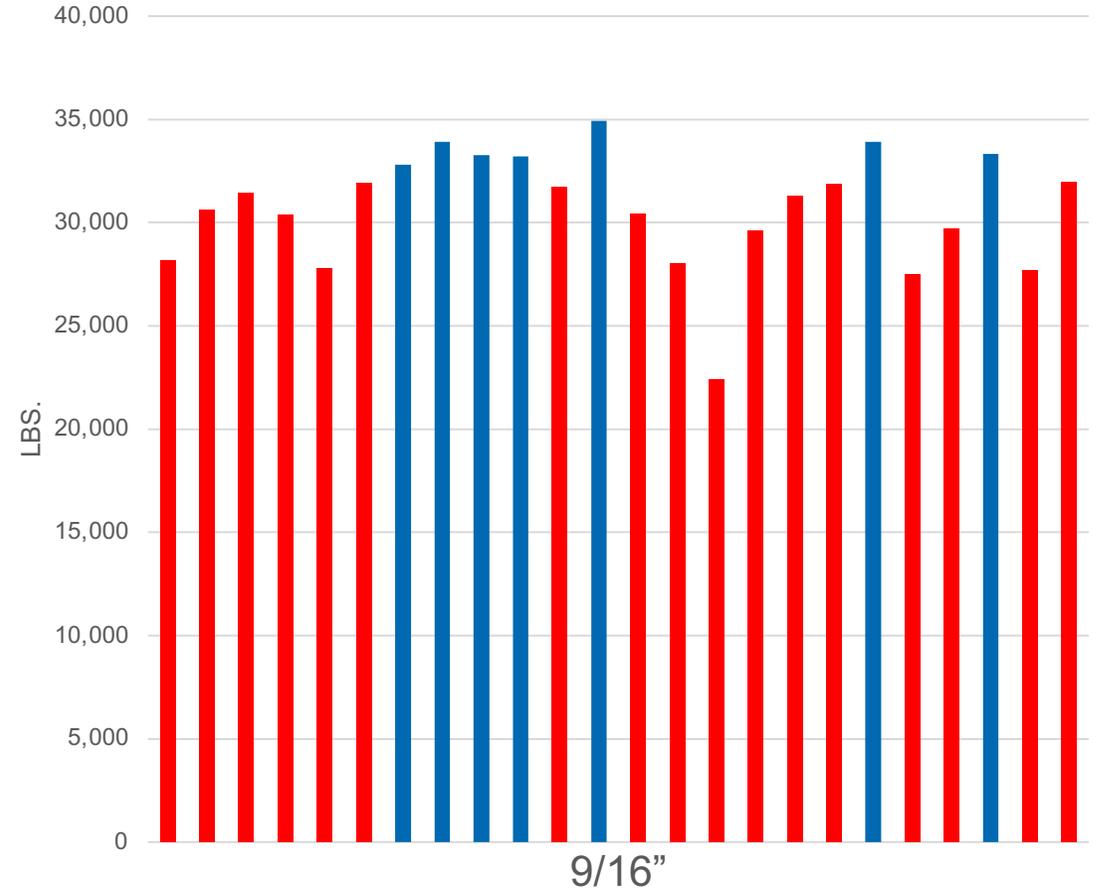
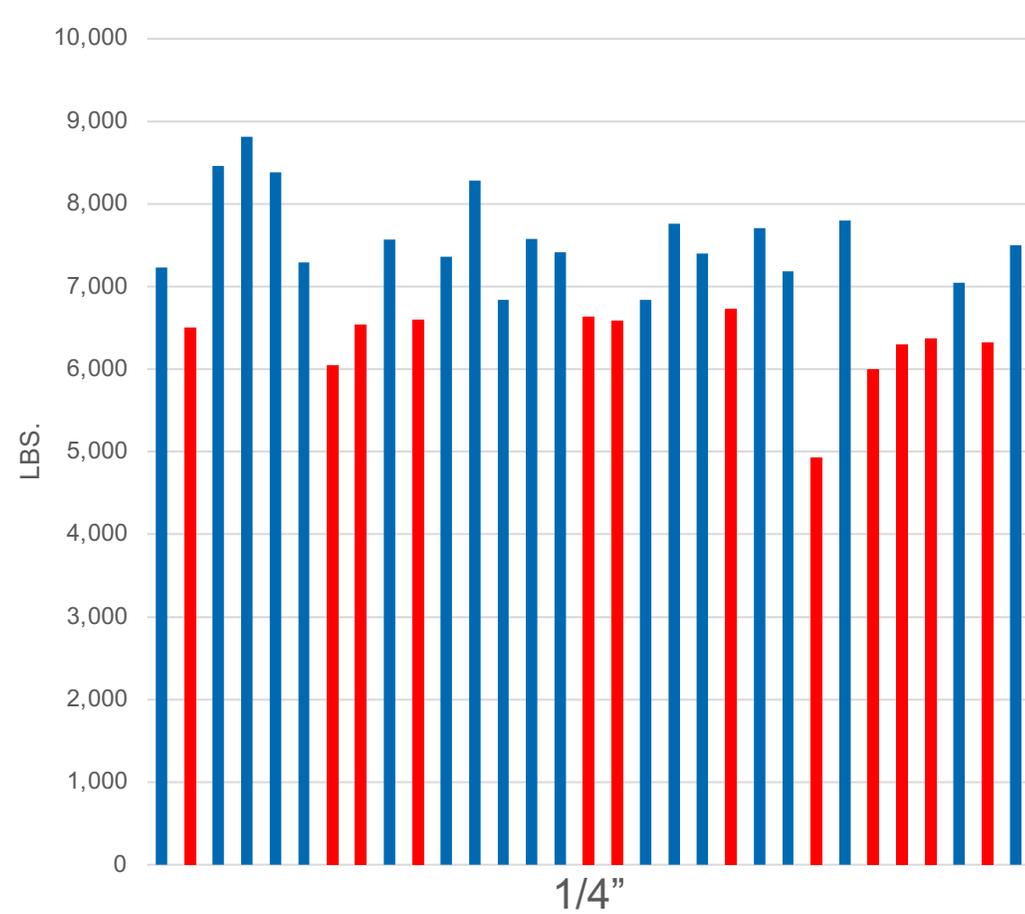
Most comely used termination is NICO press

What we see wrong?

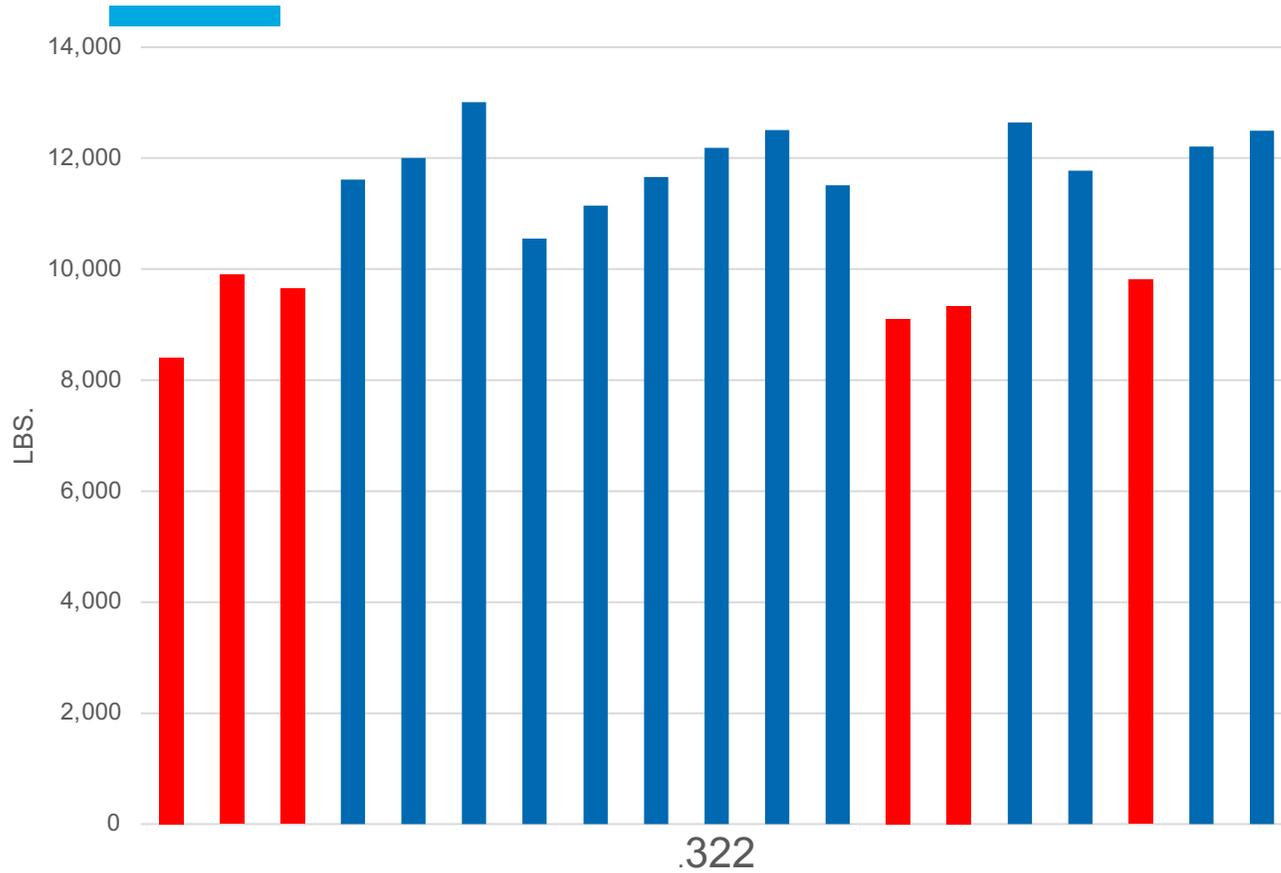
- Improper dies and spacing
- Pressing in incorrect order
- Wrong thimble



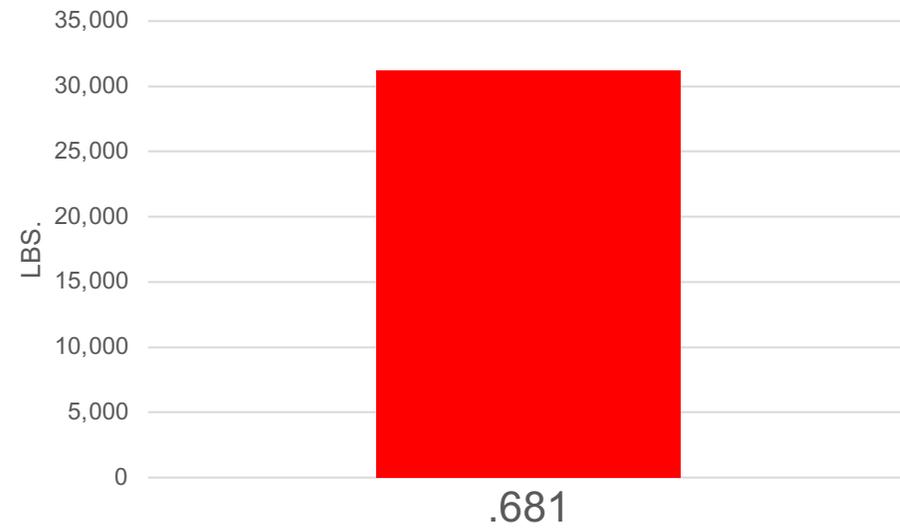
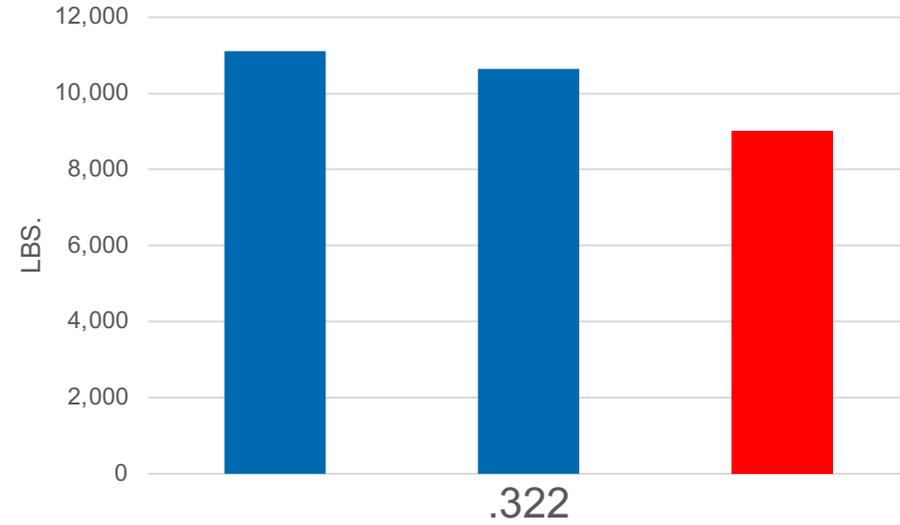
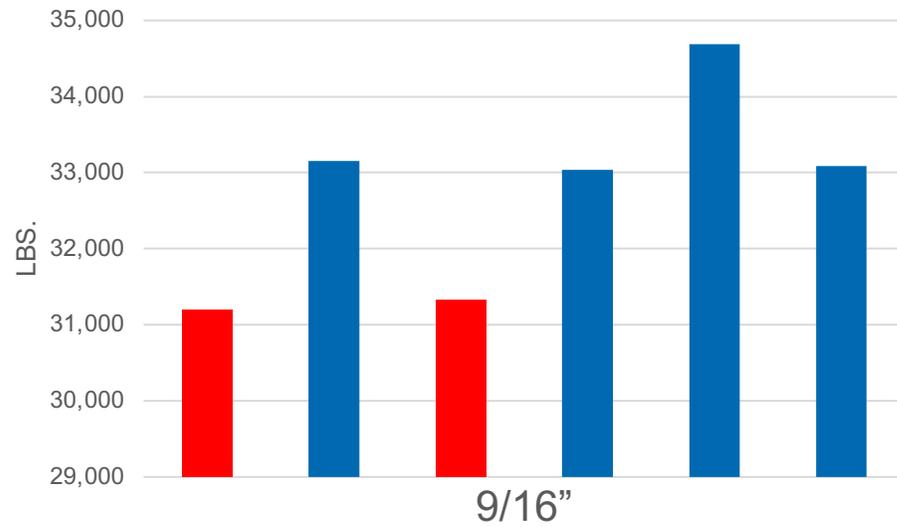
3x19 Nico Pressed wire



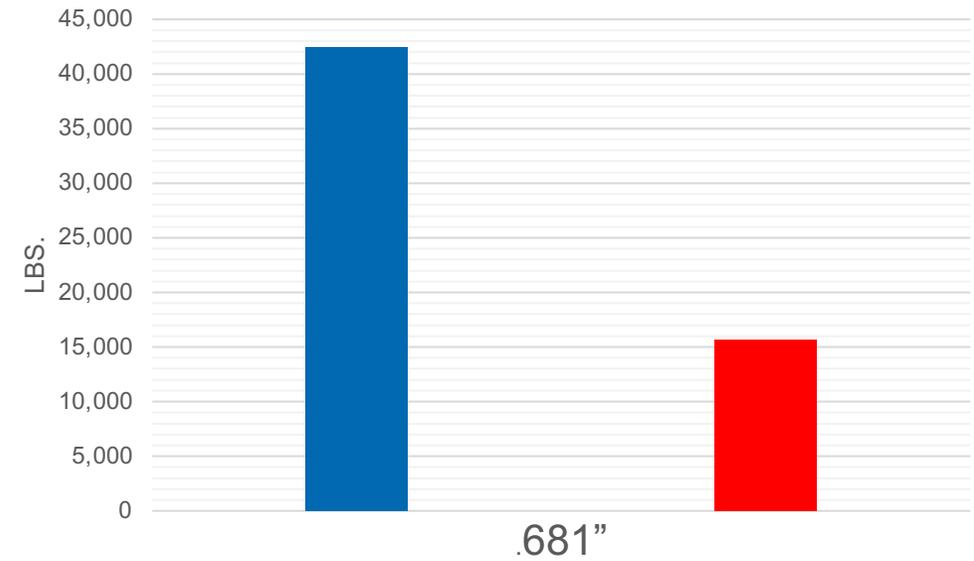
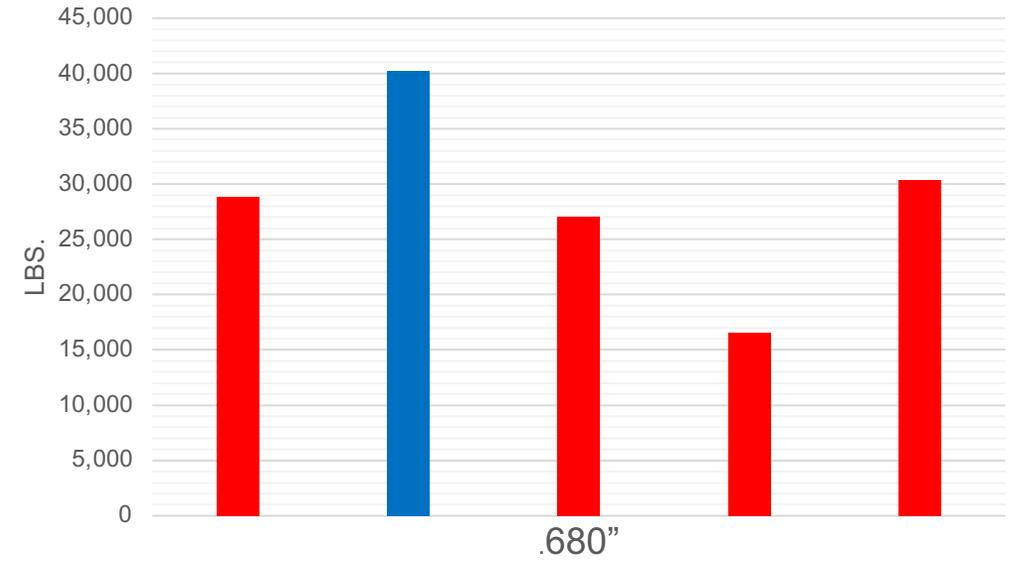
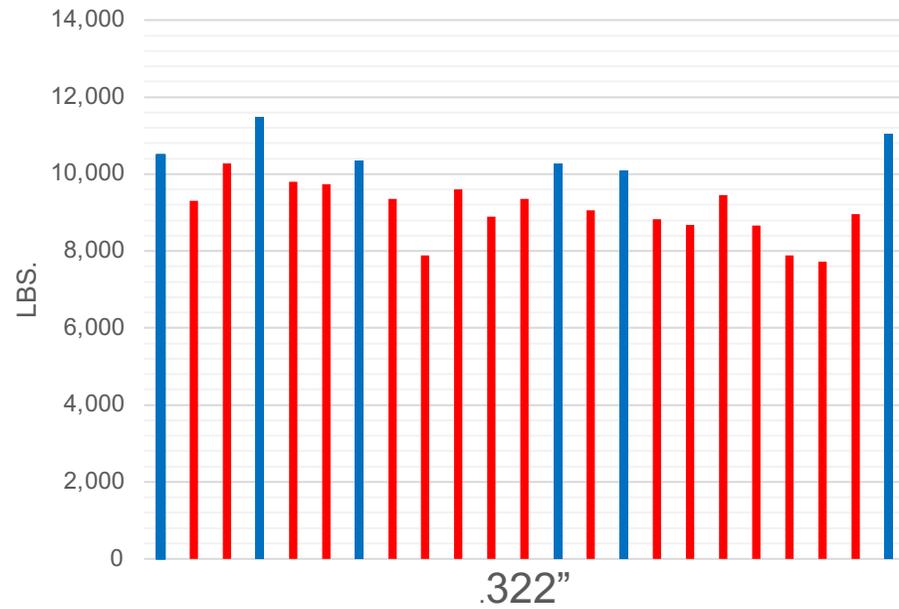
.322 Poured Socket



Mechanical



Helical Termination



Spooler

- Hawboldt Industries spooler capable of spooling 10,000 M reels of .681
 - Allows the Wire Pool to inspect and lubricate factory reels
 - Cut from factory reels to distribute to vessels, saving on shipping costs



An aerial photograph of the ocean with white-capped waves breaking. The water is a deep blue, and the foam of the waves is bright white. The perspective is from directly above, looking down at the sea.

Questions?