

# UNOLS Deck Sockets

Compliance with RVSS, 11<sup>th</sup> ed.



Presented by:

Marcel Beaudin

Einhorn Engineering, PLLC

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## Beaudin Personal Experience

- Project Engineer with EE since 2020.
- Seward Marine Center Port Engineer
- R/V Sikuliaq 1<sup>st</sup> Engineer
- Mariner since 1996





## Deck Sockets Background

- UNOLS vessels include 1"-8 UNC threaded bosses in a 24" x 24" grid for securing gear to the ship deck.
- Used to transfer loads from deck mounted equipment to the ship structure.





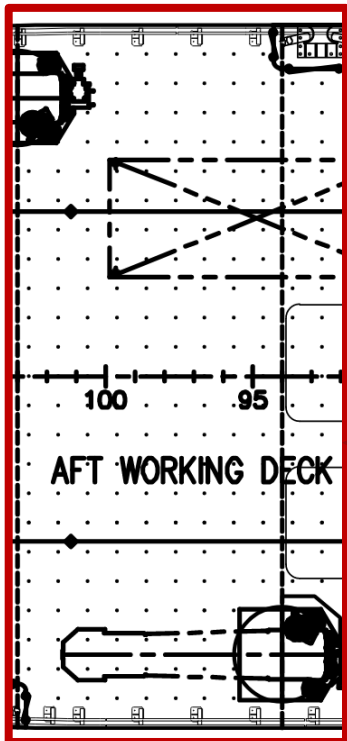
## Testing

RVSS, 11<sup>th</sup> edition:

Mandatory compliance for ARF unless “not practical or economical”

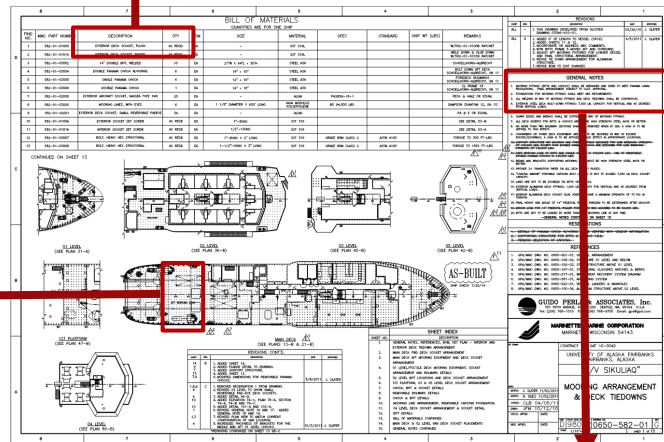
- B.4.4.1: Requires routine testing of deck sockets used as part of OHS
- Fixed and portable OHS systems must be tested every 5 years
- B.4.1: Requires testing to 125% of Safe Working Tension using a calibrated instrument

- Test load determined from delivery documentation
- Quantity 1000+



DESCRIPTION	QTY
EXTERIOR DECK SOCKET, FLUSH	AS REQD.

**QTY = 1019** (Main Deck)  
+ 01 Level + 02 Level

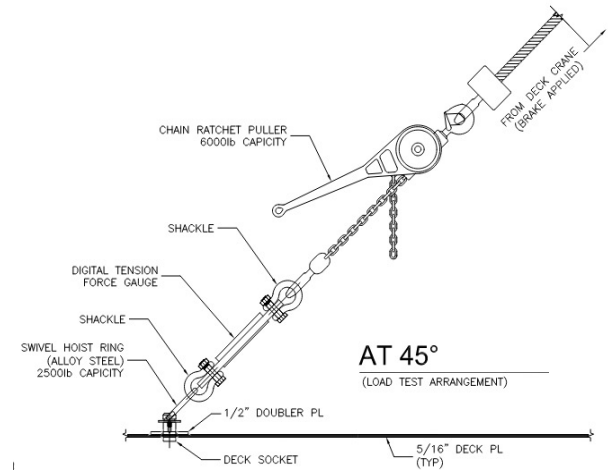


**GENERAL NOTES**

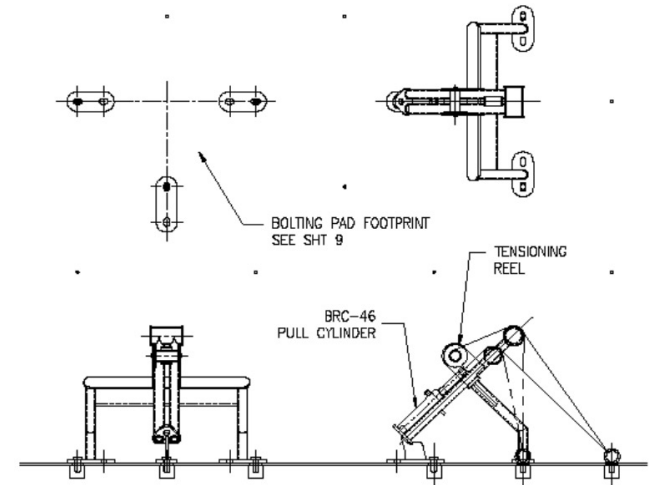
4. EXTERIOR STEEL DECK BOLT-DOWN FITTINGS: 7,000 LB. CAPACITY FOR VERTICAL AND 45 DEGREES FROM VERTICAL LOADS.

## Previous testing methods:

- Cumbersome and labor intensive
- Require use of ship's equipment
- Require multiple personnel to perform each test
- Time consuming
- Possibility of damage by over-tensioning

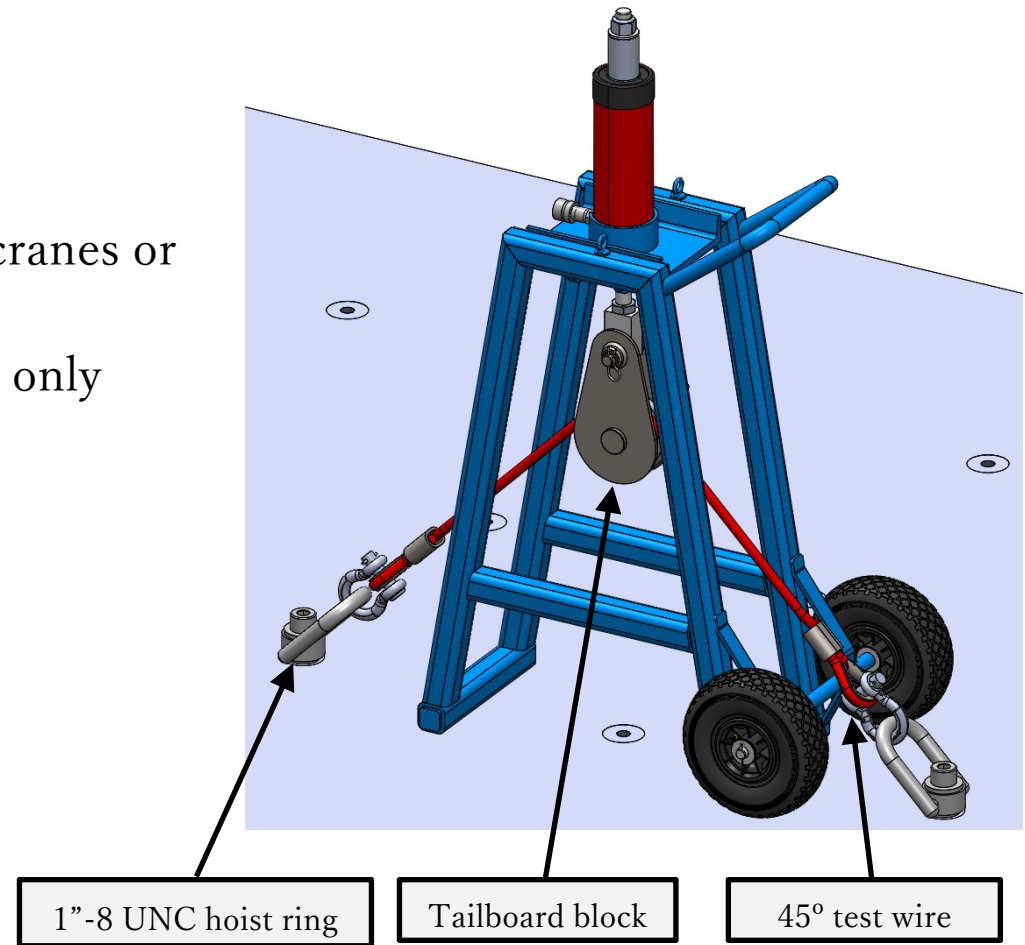


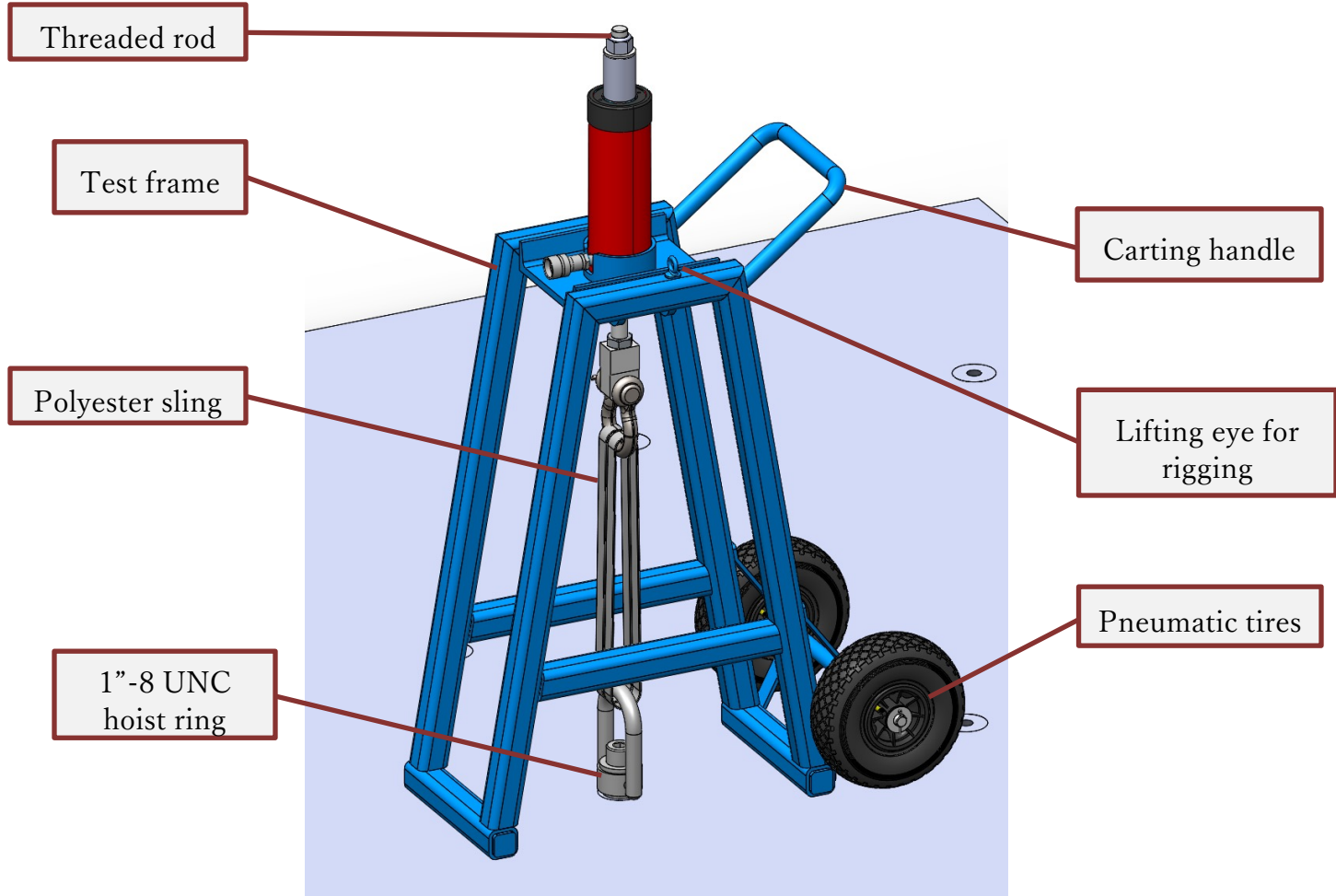
“Can we just test a representative sample?”



- Advantages

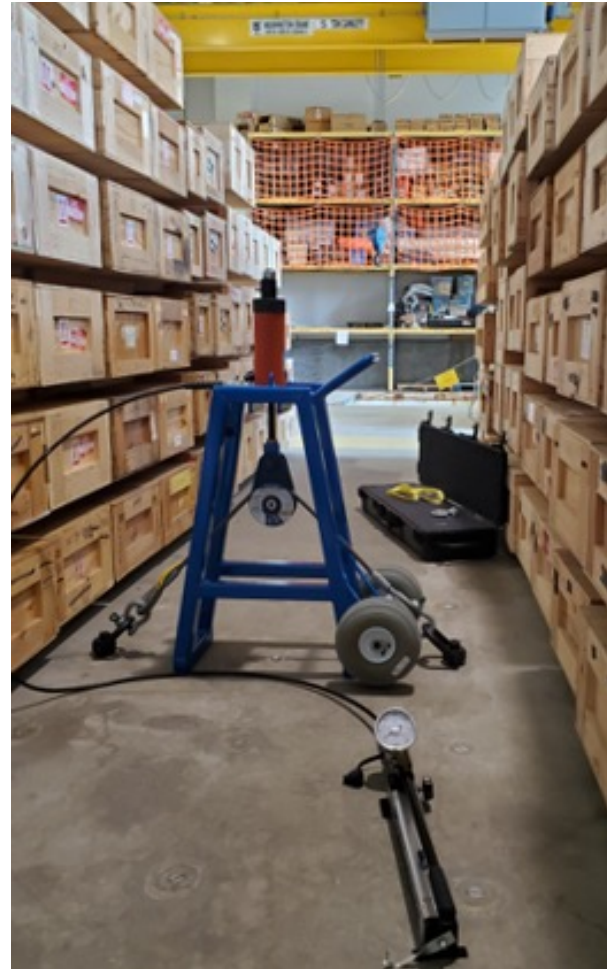
- Easy to use
- Kit is self-contained
  - (Don't need to use ship's cranes or equipment)
- Saves time – needs one person only
- Pulls to pre-calibrated tension
- Portable and easily stowed

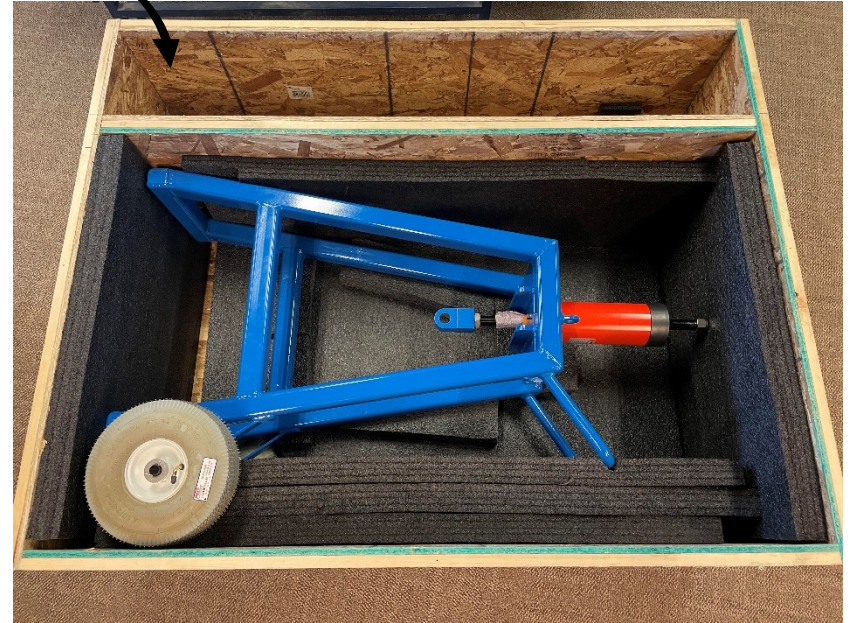




Weight of test assembly: 190 lbs







Thank you!

Marcel Beaudin

Project Engineer

Einhorn Engineering, PLLC

[marcel@einhornengineering.com](mailto:marcel@einhornengineering.com)



- Einhorn Engineering, PLLC offers on-site testing services with the following advantages:
  - Lower upfront cost (no purchase of equipment necessary)
  - Consistent testing methodology used
  - Test Reports provided that satisfy requirements