

Tension Measurements and Water Weights

Group Purchase

PARTICIPANTS

- 14 INSTITUTIONS
- 18 REQUESTS FOR 25K TENSION METERS
- 2 REQUESTS FRO 50 K TENSION METERS
- 32 WEIGHT BAGS FROM 1 TON TO 20 TONS
- LARGER BAGS CAN BE USED TO MEASURE SMALLER WEIGHTS- A 2 TON BAG CAN BE FILLED TO JUST 1 TON
- BAGS MUST HANG OFF THE DECK FOR FILLING

Tension Calibration

Calibration Loads

- This chart shows all of the load measurement combinations that would be required for the high end calibration point as required in Appendix A.
- For all standard UNOLS tension members, a single 25,000 dynamometer with an accuracy of 0.1% will meet the requirements.

Tension Member	Nominal Breaking Load lbs.	FS	Calibration Load lbs.	Accuracy Required	Accuracy in lbs.
1/4" 3x19	6,750	2.5	2,700	4%	108.0
1/4" 3x19	6,750	2.0	3,375	3%	101.3
1/4" 3x19	6,750	1.5	4,500	3%	135.0
1/2" 3x19	25,700	2.5	10,280	4%	411.2
1/2" 3x19	25,700	2.0	12,850	3%	385.5
1/2" 3x19	25,700	1.5	17,133	3%	514.0
9/16" 3x19	32,500	2.5	13,000	4%	520.0
9/16" 3x19	32,500	2.0	16,250	3%	487.5
9/16" 3x19	32,500	1.5	21,667	3%	650.0
.322 Cable	11,600	2.5	4,640	4%	185.6
.322 Cable	11,600	2.0	5,800	3%	174.0
.680 Cable	40,000	2.5	16,000	4%	640.0
.680 Cable	40,000	2.0	20,000	3%	600.0
.681 Cable	46,000	2.5	18,400	4%	736.0
.681 Cable	46,000	2.0	23,000	3%	690.0

Dynamometer with Remote Display

- Dillon EDx-25K
 - +/- 0.1% accuracy
 - +/- 25 pound accuracy
- Remote Display
 - Wireless
 - Allows personnel to be far from load
- Dynamometer **must** be calibrated annually



Quick Check



- Dillon “Quick Check” 8000
 - Wire sizes: 3/16 inch through 3/4 inch
 - +/- 3% accuracy (+/- 240 lbs. calibrated to specific wire size & type)
 - +/- 5% accuracy (+/- 400 lbs. with same wire diameter as calibrated but different wire type)
 - Concern about small diameter rollers
 - Must be calibrated annually



Water Weights



Canflex Water Weights



BAGS CAN BE COMBINED



SHIP'S OR SHORESIDE CRANES



Load Test on Maersk Advancer



WE REQUESTED STORAGE CONTAINERS

