

Cable Winding

NMF Reeling winch

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NMF Reeler winch

- We are required to operate a suitable wire winding system to fit and remove cables aboard our vessels.
- This system has to be capable of creating a constant tension whilst winding these cables.
- Previously we used a contracted winch which proved expensive and time critical.

NMF Reeler winch

Requirements:

- To accommodate a number of different wood/metal drums with various hole centres/diameters widths etc.
- Able to vary cable tensions between 200kg and 4000kg
- To be self contained, freight friendly and reliable.

What we Got

- Result was a diesel powered hydraulic winch with adjustable relief valve to adjust back tension.
- Winch base is same size as 20' ISO container. Unit has to freight on top slot



- The drum is mounted on stub shafts either end with movable centres
- Level wind is adjustable to suit different diameter cables and ropes

Drum drive mechanism

DRIVE PINS AND ARM

- The winch has a main output pin which presently has 2 sleeves, this accommodates the centre hole diameter on the cable drums between 75mm to 175mm. Drive arm is fitted with adjustable drive pins to suit a selection of drum diameters



Drum drive mechanism

- Winch base is same size as 20' ISO container.
- Outboard end of stand is 'floating'. This can traverse to accommodate drum widths.



Extras!

- System can be used to wind cables from ship at a constant tension.
- System has hydraulic operated scrolling to assist when winding cables from ship. Scrolling can be moved manually or automatically (paddle type).
- Winch base plate is fitted with 1m² matrix to accommodate fixing to vessel

Other uses.....

- Winch has been used on a number of ship winch trials cruises.....it is a safe method to trial ship winches after Mechanical / PLC modifications as the cable always stays on board the vessel and you do not have the anchored scenario.
- Winch can be used in yard for any wire winding operations on portable systems.

Problems with Winding

- We have had a number of cables delivered that are
 - i) Below tolerance in diameter
 - ii) Covered in Grease
 - iii) Strands lifting on new cable (torque balance)

Question.....

***WHAT DO OTHER PEOPLE SPECIFY
FOR NEW CABLE ORDERS?***

Cable Cleaning

- We have a system for cleaning cables on recovery which uses an 'air blade' to blow sea water off the cable and applies oil to the cable.
- The system is messy as it disperses water and oil on the deck, and it is time consuming to set up as it is portable and not 'fixed in place'.
- We would like to have a permanent cable cleaning system in place.....

WHAT SYSTEM DO YOU USE?

Cable Storage

- NMF try to 'stockpile' new cables to replace old/damaged cables
- Replacement of new cable can be up to 4 months.
- Do others hold spare cables in stock?
- Is it worth considering assessing if we operate common cables?
- Is it worth having an OFEG cable list?



Cable disposal

- We tend to retire cables when;

.....when destruction test indicates $>10\%$ reduction in minimum break load.

.....when they are damaged

.....when they are too short

DOES OFEG HAVE A USE FOR LONG USED CABLES?