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?