Swire Blue Ocean

Multi layer drums - issues in the offshore wind industry

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The set-up

We have a large crane
We have a long boom
We can lift very heavy objects
We need a huge length of wire rope and to facilitate that, we use multi layer drums fitted with Lebus shells.

As such this is not a problem, the crane is designed for this.

So why are we here with a presentation indicating that we have issues.
Basic knowledge – maybe wrong forum perhaps?

Multi layer drums need proper tension at all times to avoid ploughing issues etc.
You probably all know this picture:
Basic knowledge – do I dare...

And you probably also know these...

The Good and the The... behaviour.

And the Ugly....
The Solution

Solution is simple – even imaginary:
Design cranes with multi-layer drums to include:

- Is extremely light weight – next to nothing
- Does not take up any space
- Does not affect the speed
- Does not affect the SWL

Problem Solved
In Real life

When installing Wind Turbine Generators – WTG’s the problem is the worst. We do reverse lifting.
Time is money – so re-tension is non productive (client view)
Lift plans are often not considering the multi layer issues – perhaps they do not know the basic knowledge?
The simplest mitigation