Can we safely reduce the time & effort spent on Subsea Pipeline Trenching?

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Introduction

Why trench a pipeline ?

1. **Stability – typically only required in Southern Sector**
2. **Insulation**
3. **Fishing interaction**

How do we decide if we need to trench for fishing protection ?

1. **Industry codes (DnVGL-RP-F111)**
2. **Project specific engineering studies**
3. **The '16-inch rule'**
    1. Where from ?
    2. Challenged in 1990's.
4. **PARLOC 2001. 65 Steel pipe LOC incidents.**
    1. 6 trawl impact. 5 small diameter (2 or 3 inch). 1x10-inch.
    2. 26 corrosion

Guidelines for trenching design of submarine pipelines

Work performed by Trevor Jee, published 1996

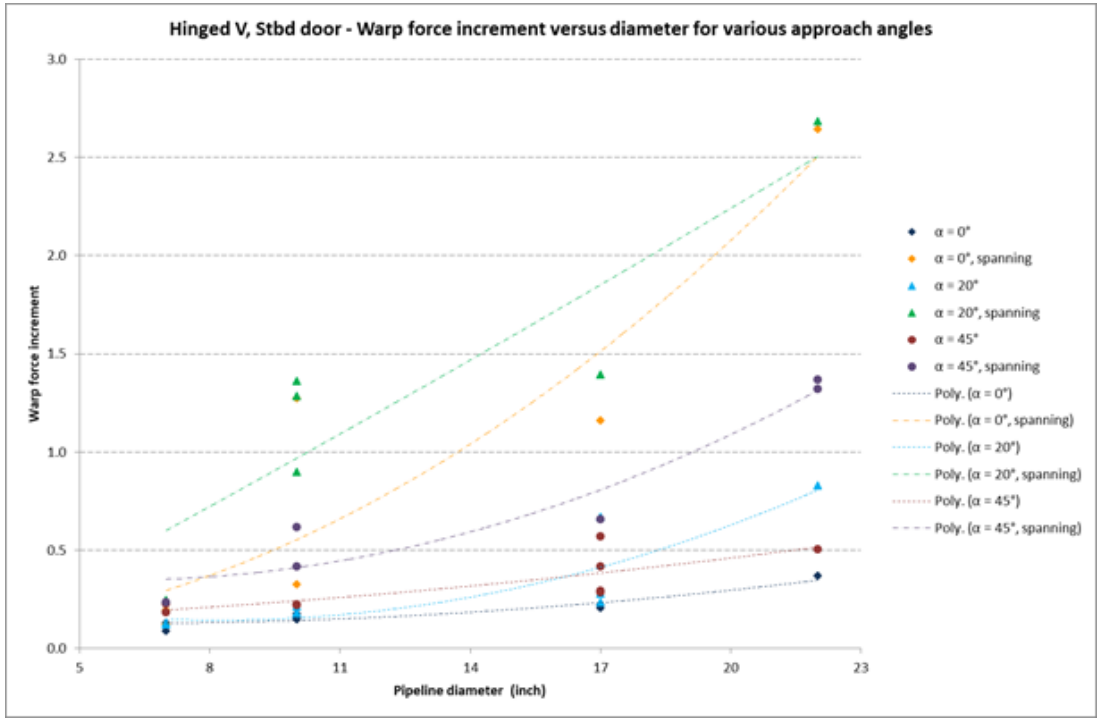
Model scale pipeline overtrawling trials in SeaFish Industry Authority flume tank in Hull

Results show that small diameter pipelines see little load from trawl gear

But..

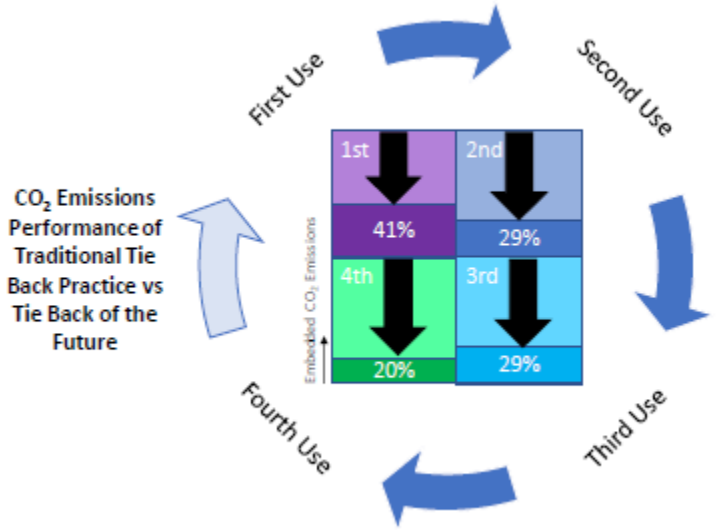
We still apply the '16-inch rule' !

Which imports geotech risks



Why challenge now ?

1. **General focus on reducing unnecessary cost**
2. **OGTC Tie-Back of the Future (TBotF) – focus on The Circular Economy**
    1. Halve the cost
    2. Halve the CO2 emissions



Project Description

1. **OGTC Project supported by BP, Chrysaor, Shell & TEPUK**
2. **Work will be performed by RGU & Crondall Energy working closely with SFF**
3. **Aims:**
    1. Improved understanding of fishing activities & loads
    2. Revisit historical data of untrenched pipelines. Impacts & loss of containment. Lessons learned.
    3. Revisit previous fishing interaction research
    4. Consider other inspection techniques
    5. What additional data can usefully be shared between Oil & Gas & fishing industry ?
    6. Identify win-win opportunities with fishing industry
    7. Consider feasibility of pipeline recovery
    8. Revisit CAPEX & OPEX – what's the commercial prize ?
    9. Conclusions

Contact locations

Crondall energy
Floating Production & Subsea Specialists

Thank you

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