Offshore Deployment
Flexible Pipe & Cable Handling

Jim Smith

ECONOMIC ALTERNATIVES FOR DEPLOYING SUBSEA CABLES
Overview

• Main drivers
• The issues
• The alternative
• The future
Flowline Specialists designs, engineers and manufactures equipment handling solutions for the oil & gas, renewable energy and manufacturing industry sectors.

- Flexible pipe and umbilical handling
- Decommissioning
- Subsea deployment
- Renewables
Specialist equipment solutions include:

- 300Te hub drive
- Reel drive systems / spoolers
- Powered reels
- Turntables and pallets
- Tensioners
- Under rollers
- Unique reel carrier
Flowline Specialists

- Headquartered in Oldmeldrum, Aberdeenshire, we have overseas bases in Norway, Holland, Singapore and Dubai.
- Our equipment enables the safe and efficient handling of reels, flexible pipes and cables.
- All equipment is road mobile and ferry compatible.
- Team of technicians to operate the equipment globally.
Main drivers

- Safety has long been a major concern in the subsea industry, as it is in other industries.
- Cost-efficiency has gained increased importance in recent years and will become more significant going forward.
The issues

Cable laying vessel – high cost and low availability

More subsea cables to be installed or replaced
The alternative

• The same process for deploying cables offshore can be delivered from other boats and barges.
• This isn’t a new approach. It’s one we’ve been successfully using for a number of years.
Equipment

- Turntables & subsea deployment pallets
- Powered reels
- Shaft drive spoolers
- Reel drive system & tensioner
Subsea Turntables and Pallets

- Sizes from 2.8m OD to 9.8m OD
- From 5Te to 17.5Te of product
- Vertical or horizontal deployment of product
2.8 dia Pallet with umbilicals
Subsea Turntables and Pallets

Pallet on hydraulic controlled turntable
Deployment of Subsea Turntables and Pallets
Subsea Turntables and Pallets
Subsea Turntables and Pallets
Subsea Turntables and Pallets
Subsea Turntables and Pallets
Powered Reels

N.I.M 4.8m diameter winch
Powered Reels
Powered Reels

Karmoy 4.4m diameter winch

- Ship to rig/sea bed
- 3Te to 15Te line pull
Reel Drive Systems up to 125Te

- Modular hydraulic unit
- Fully adjustable support pedestals
- Versatile frame extensions available
- Operable by diesel or electrical HPU
- Up to 5.0m diameter reels
- Up to 5.0m reel width
- 8Te line pull
Reel Drive Systems
Reel Drive Systems
Reel Drive Systems
300Te Hub Drive

- Capable of driving a range of reels up to 9.8m diameter
- Powered by twin 90kW containerised electric hydraulic power packs
- 40m rail system available for multi-reel deployment
Tensioners: 5Te to 15Te

Fully controlled product deployment/retrieval

- 0 – 15Te line pull
- 50mm – 430mm outside diameter product capacity
- 970m per hour maximum lay speed
Tensioner 15Te
Tensioner 15Te
Tensioner 5Te

5Te Horizontal twin track hydraulic tensioner deploying cables – North Sea
Additional Equipment Available

- Reels – up to 9.8m dia & 290Te
- Level winds
- Rollerboxes
- Spreader beams – up to 400Te
- Overboard chutes
- Hydraulic power packs
Anywhere in the world

SHETLAND
Reel carrier decommissioning of risers

GERMANY
Load out carousel

EQUATORIAL GUINEA
Decommissioning of gas risers

SOUTH AFRICA
Deploying riser

NORTH SEA
Turntable & tensioner deployment of product

SAKHALIN
Deployment of umbilicals

INDIA
Powered reel for well servicing

BATAM
Flexible & umbilical load out

DUBAI
Flexible & umbilical load out
Why choose us?

Engineering innovative, cost-efficient equipment solutions to safely handle flexible pipes, umbilicals, cables and reels – worldwide

- Safe
- Innovative
- Cost-efficient
Investment in 2015

2015 will see further investment in additional assets:

- Linear cable engine / Powered quadrant
- 50Te Tensioner
- 500Te Hub drive