CONVERSION OR NEW BUILD FOR THE OFFSHORE WIND MARKET?

CASE STUDY

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Agenda

- Introduction of Wärtsilä and Wärtsilä Ship Design
- Conversion opportunities for offshore wind market for existing OSV
- Major or minor conversion?
- Comparison between conversion and new build for a typical SOV tender
Wärtsilä Marine Solutions – Comprehensive portfolio
Ship design optimization process

- General arrangement
- Hull design
- Intact stability
- Speed and power
- DP capability
- Lightship weight
- Maneuverability
- 3D presentation
- Building specification
- Sea-keeping
- Damage stability
- Bollard pull
Conversion opportunities for offshore wind market for existing OSVs
Conversion from Seismic Survey Vessel Viking II - Eidesvik
Wind Innovation – C-Bed

- Conversion into Windturbine accommodation and transfer vessel
- New equipment
  - Gangway
  - Boat landings
  - Crane
  - Container hangar
  - DP thrusters
  - Machinery
- Updated
  - SPS
  - Accommodation layout
  - Increased accommodation
  - LSA
Conversion from platform supply vessel - Vestland Cygnus
Vestland Cygnus

- Conversion into
  - Windfarm support vessel
- New equipment
  - Heave compensated gangway
  - Boat landings
  - Crane
  - Accommodation modul
  - LSA
- Updated
  - Accommodation layout
  - Increased accommodation
  - SPS
  - Sponsons
Degree of conversions
**Degree of conversion**

- **Major or minor conversion?**
  - Major – Major update on the vessel. Ie. New rules at the time of conversion apply
  - Minor conversion – Minor change to the vessel function, weight etc – Rules at the time of building the vessel still apply

- **Key decision questions for the degree of conversion**
  - Will the vessel change operational mode?
  - Will the vessel change the number of persons on board?
  - Will the lightship weight and COG change significantly?
  - Will the vessel change flag?

- **Class / Flag to agree minor vs major conversion**
Conversion vs newbuilding for a typical SOV tender
Typical SOV design

- AHC gangway
- Crane
- 40 single cabins for technicians in nice cabins
- Boat landing(s)
- Container handling
- Deck area
- ERN
- 65-80 m LOA
- 16-18 m B
Conversion vs newbuilding for a typical SOV tender

- **Conversion**
  - Modified to the charter / owner need
  - Shorter delivery time
  - Lower re-investment cost and re-value current asset
  - New or old rules
  - Vessel overall age remain

- **Newbuilding**
  - Tailored according to the charter / need
  - NB delivery time
  - NB price of vessel
  - Always new rules
  - New technology better utilized
Summary and conclusive remarks

- Firm conversion opportunities for current OSVs
  - Wind Innovation
  - Vestland Cygnus
- <5 years contracts - conversions
- > 5 years contracts - newbuilding a good option
Thank you!