Thrusters

Shallow Draft Thrusters for DP Applications

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SHALLOW DRAFT DP APPLICATIONS

Presentation by:
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Engineering Capabilities

- Customer input and feedback
- ISO 9001 quality assurance that includes engineering cycles
- Classification rules and regulations
- 30-years experience in thruster designs
- Use of latest 3-D design software
- Mastering of calculation programs for gears, shafts, bearings and all other strength and lifetime calculations
DP Thruster Choices

- Pro’s and con’s tunnel thrusters:
  - Low cost;
  - Simple maintenance;
  - Noisy;
  - Susceptible to venting.
DP Thruster Choices

Advantages retractable to tunnel thrusters:

- 360º steering capability;
- At least 25% better thrust/hp ratio;
- (Much) less noisy;
- Get-you-home-device.
Limitations of conventional Thrusters

- Limitations in vessel draft;
- Limitations in available height and space inside vessel.
Shallow Draft

UPPER DECK

HEIGHT ADVANTAGE

DEPTH ADVANTAGE
Shallow Draft Thruster
Shallow Draft Thruster
Shallow Draft Thruster

Return to Session Directory
Shallow Draft

Major advantages:

- 360° steering, no thrust deduction in any angle;
- Compact design;
- Required the height lower than retractable azimuth thruster;
- No vulnerable parts are under the hull;
- Speed intake of water is very slow;
- Maintenance friendly.
Future developments

HD THRUSTER KAPLAN PROPeller
1750 kW

CONVENTIONAL THRUSTER
1500 kW

HD THRUSTER DESIGN PROPeller
1950 kW

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Future developments