

## Programme

### 28th September 2009

09:45      **Welcome by Hermann J. Klein**  
President of STG and  
**Iwer Asmussen**  
Executive Secretary of STG

### **Ship Operation and Ship Design**

chaired by Fred Deichmann, Columbus Shipmanagement GmbH Hamburg/Germany

10:00      **Fuel Efficiency Versus Safety in Ship Design**  
– Main dimension restrictions vs. fuel efficiency  
– Optimization of designs for specific operational profiles  
– How much fuel is safety allowed to cost?

Heike Billerbeck, Flensburger Schiffbau-Gesellschaft, Flensburg/Germany

10:30      **Energy Efficiency Design Index- EEDI**  
– Principles  
– Base line definitions  
– Application consequences

Stefan Krüger, Technische Universität Hamburg-Harburg, Hamburg/Germany

11:00      Coffee break

11:30      **Cost Savings by Hydrodynamic Measures**  
– Reduction of speed  
– Trim optimization  
– Power saving devices incl. new developed pre-swirl duct

Jan Svardal, Grieg Shipping Group, Bergen/Norway; Dipl.-Ing. Friedrich Mewis, MSH, Dresden/Germany

- 12:00 **Report from the Frontline of Energy Efficiency; Brief Summary of the A.P. Møller-Mærsk Energy Efficiency Initiatives with-in:**
- Ship design
  - Retrofit
  - Performance management
  - Operational optimization
- Ole Graa Jakobsen, Mærsk Maritime Technologies, Copenhagen/Denmark
- 12:30 **Practical Approach to Achieve Cost Efficient Ship Operation**
- Commercial aspects of voyage planning, execution, performance and scheduling
  - Hydrodynamics
  - Bunker management
  - System tuning and efficient system operation- main engines, aux. engines, consumers
  - Management and organizational embedding of the above
- Rolf Ole Jensen, DNV Maritime Solutions, Høvik/Norway
- 13:00 Lunch
- 14:30 **A Holistic Approach to Reduce Ship Operation Costs**
- Saving potential in resistance and propulsion
  - Saving potential in main engine and auxiliaries
  - Saving potential in onboard consumers
  - Saving potential in operations
- Volker Höppner, FutureShip GmbH, Hamburg/Germany
- 15:00 **A CO<sub>2</sub> Maintenance Index for Ships (hull and propeller performance)**
- Optimal intervals for hull / propeller husbandry
  - Establish when to spot blast versus full-blasting of hulls
  - Setting fleet targets for hull and propeller performance (CO<sub>2</sub> reduction metrics)
- Daniel Kane, Propulsion Dynamics Inc., Long Beach/USA
- 15:30 Coffee break
- 16:00 **Ship Service Performance**
- Ship performance monitoring; how to measure the correct parameters and challenges faced in accuracy
  - Ship in service performance analysis; reducing the scatter in the performance monitoring results
  - Fouling and its effect on ship performance
  - How to save fuel using performance monitoring and analysis results
- Thijs Hasselaar, MARIN, Wageningen/The Netherlands

16:30

**Shipboard Weather Routing– Operational Benefits**

- Prevention of Damages
- Hull response monitoring
- Efficient ship scheduling
- Experience and further developments

Helge Rathje, Germanischer Lloyd AG, Hamburg/Germany

17:00

**Increased Efficiency by Crew Training Simulation**

- Training on new engine types
- Pre-boarding training for manoeuvring very large container vessels
- Training for efficient tanker operation incl. STS activities

Heinz Kuhlmann, MTC, Marine Training Center, Hamburg/Germany

19:00

Conference dinner with keynote speaker

Fritz Vahrenholt, RWE Innogy GmbH, Essen/Germany

## 29th September 2009

### **Future Fuels and Efficient Power**

chaired by Hans Jakob Gätjens, Bureau Veritas S.A., Hamburg/Germany

- 09:00           **Gaseous Fuels – Operational Aspects**
- Dual fuel or pure gas engines?
  - Efficiency and exhaust gas emissions of gas driven engines
  - Power supply: cold ironing or gas driven engines?

Oskar Levander, Wärtsilä Ship Design, Helsinki/Finland

- 09:30           **Gaseous Fuels – Safety Aspects**
- Safe operation of gas engines on board of ships
  - Risk analysis for gas terminals and bunkering
  - New rules and regulations

Bruno Dabouis, Bureau Veritas, Paris/France

- 10:00           **Use of Wind Energy**
- Potential of the sky sail system
  - First operational results
  - Future developments

Stephan Brabeck, SkySails GmbH & Co. KG, Hamburg/Germany

10:30           Coffee break

- 11:00           **4 Stroke Engines – Efficiency and Exhaust Emissions**
- New developments to cover new regulations
  - NOX reduction by internal measures
  - External exhaust gas treatment

Klaus Wirth, Caterpillar Motoren GmbH & Co. KG, Kiel/Germany

- 11:30           **2 Stroke Engines – Efficiency and Exhaust Emissions**
- New developments to cover new exhaust gas regulations
  - Gaseous fuels in 2 stroke engines?
  - Low sulphur fuels – a problem in operation?

Niels B. Clausen, MAN Diesel A/S, Copenhagen/Denmark

12:00 **Energy Efficient Engine Room Ventilation**

- Saving potentials
- Fan selection strategies
- Retrofit
- Recommended measures

Karsten C. Witt, Witt & Sohn AG, Pinneberg/Germany

12:30 **Heavy Fuel Oil for Marine Engines– Fuel Additive Option for Quality Improvement**

- Quality issues in HFO
- Role of fuel additive
- Case studies of additive use on land based marine engines in India

Suresh Shemoi, Neo Pecton, Mumbai/India

13:00 Farewell buffet