

# TECHNICAL DEPARTMENT

Capital Markets Day

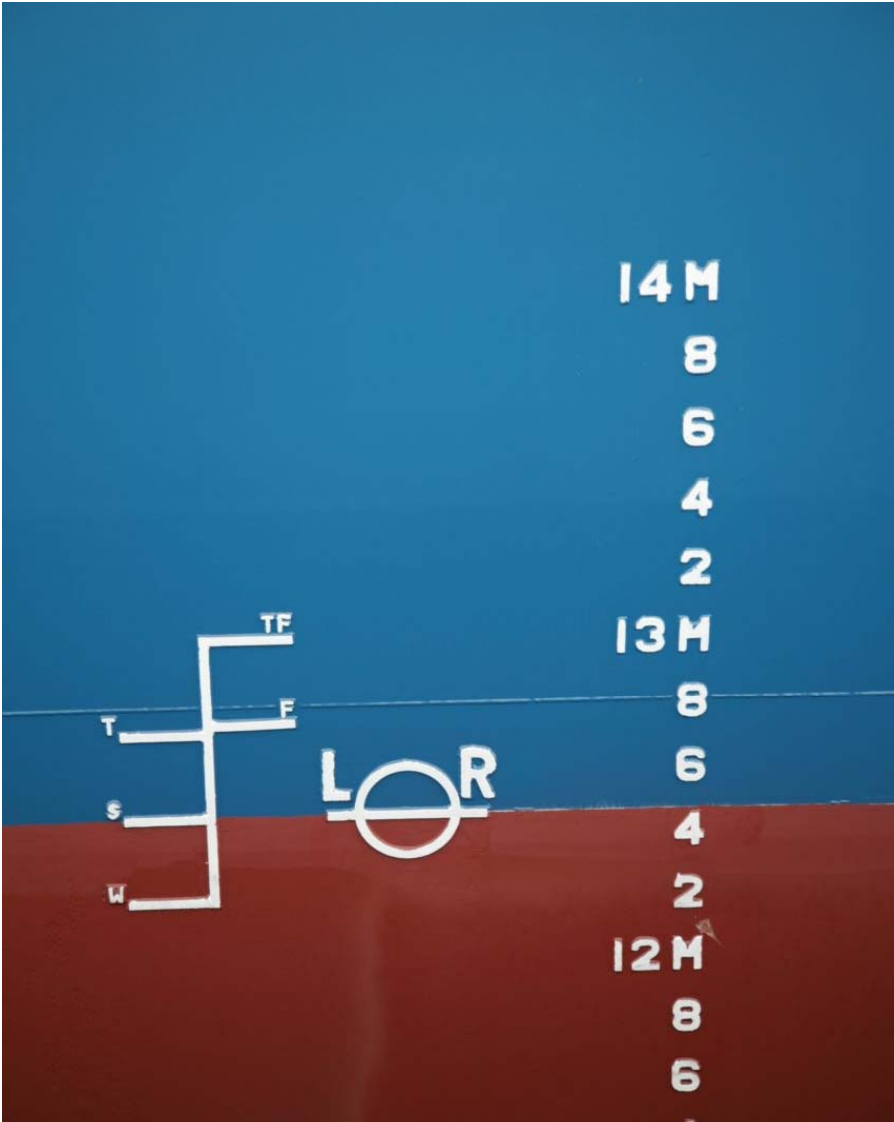
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Copenhagen, Denmark  
1 June 2012



# AGENDA



- ▶ Owned fleet development
- ▶ Key objectives
- ▶ Performance
- ▶ Environmental regulations
- ▶ Fuel saving initiatives
- ▶ Piracy

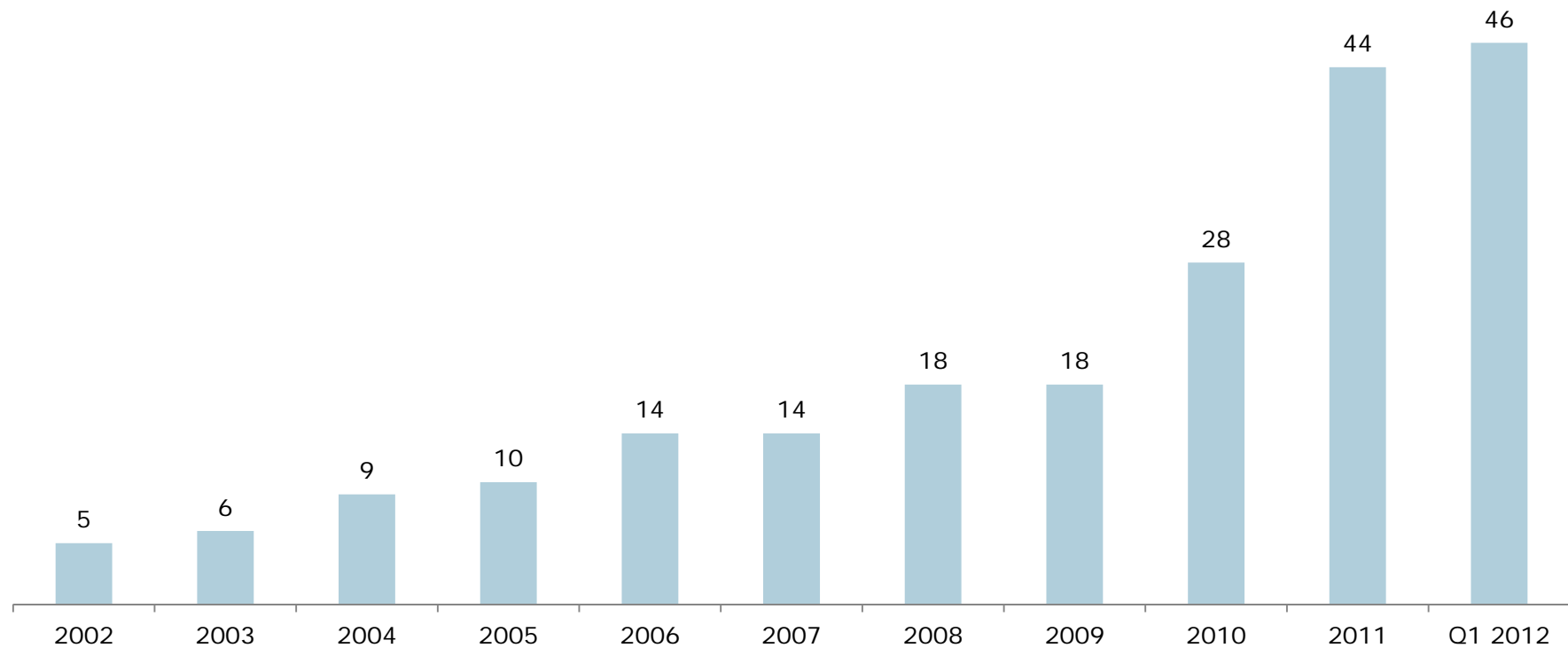


# OWNED FLEET DEVELOPMENT



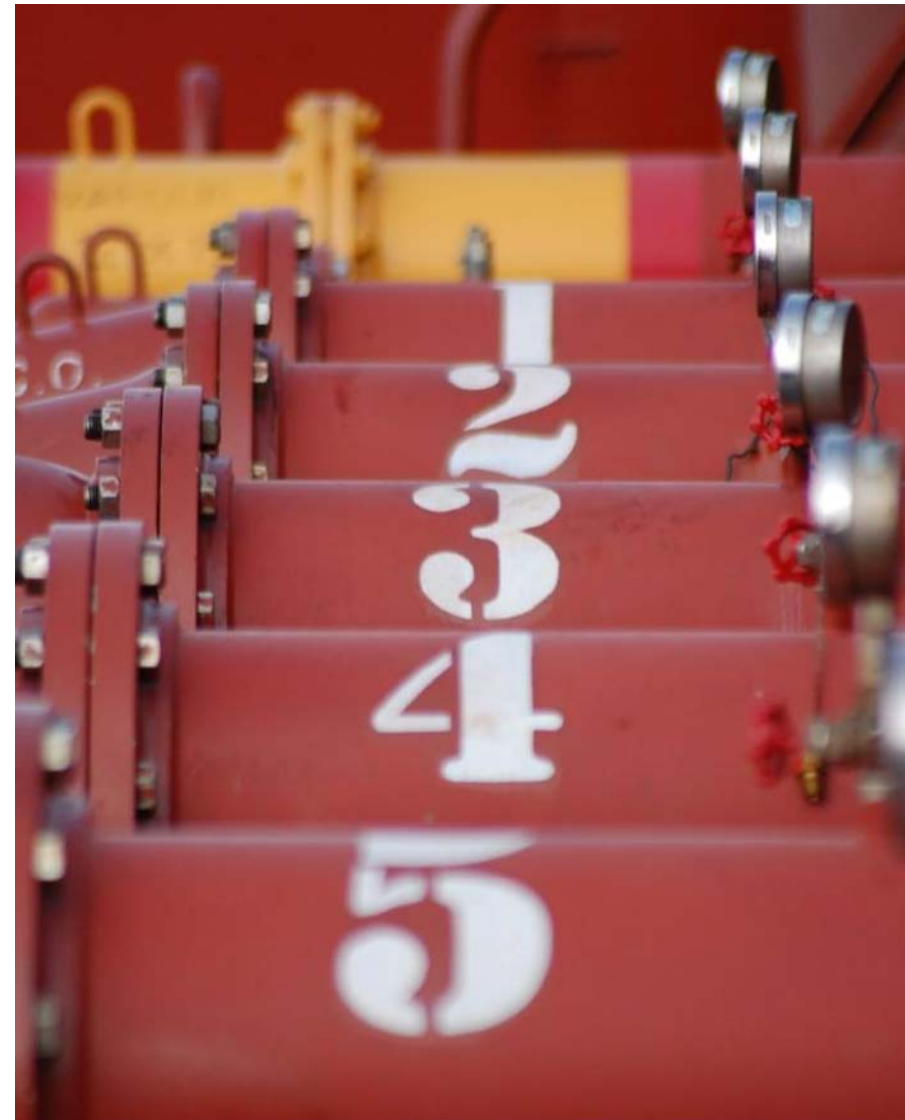
- ▶ Significant growth in owned fleet
- ▶ Increased control of quality and safety

Owned vessels (no. of ships)



# OUR 5 KEY OBJECTIVES

- ▶ Maintain performance quality
  - ▶ Less than 3 remarks and zero rejections per vetting in 2011
- ▶ Maintain cost competitiveness
  - ▶ Boston Consulting Group benchmark and beat peer group
- ▶ Think green
  - ▶ Reach 3.5% CO<sub>2</sub> savings in 2012
- ▶ Manage the manager
  - ▶ Increase oversight effort on managed vessels
  - ▶ Reach same quality level on third party managed vessels as owned
- ▶ Counter piracy

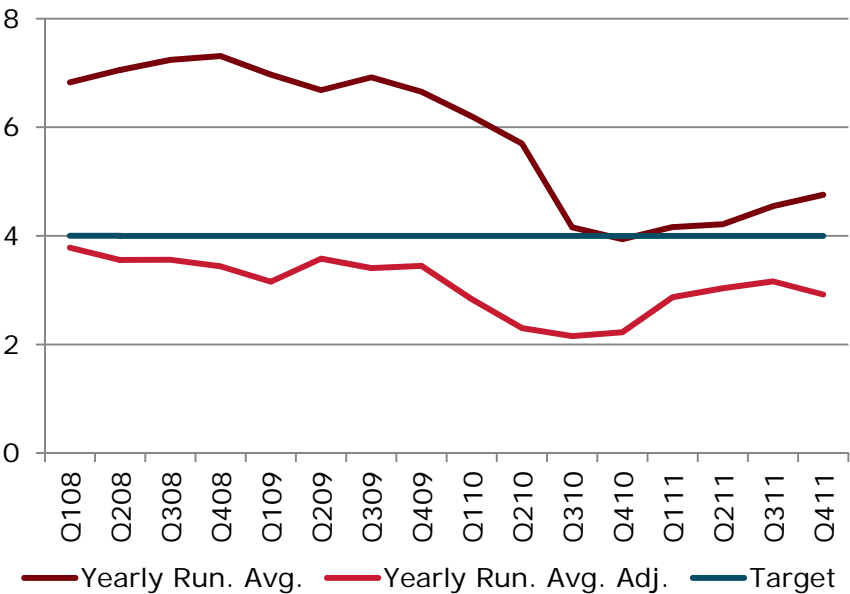


# OUR PERFORMANCE

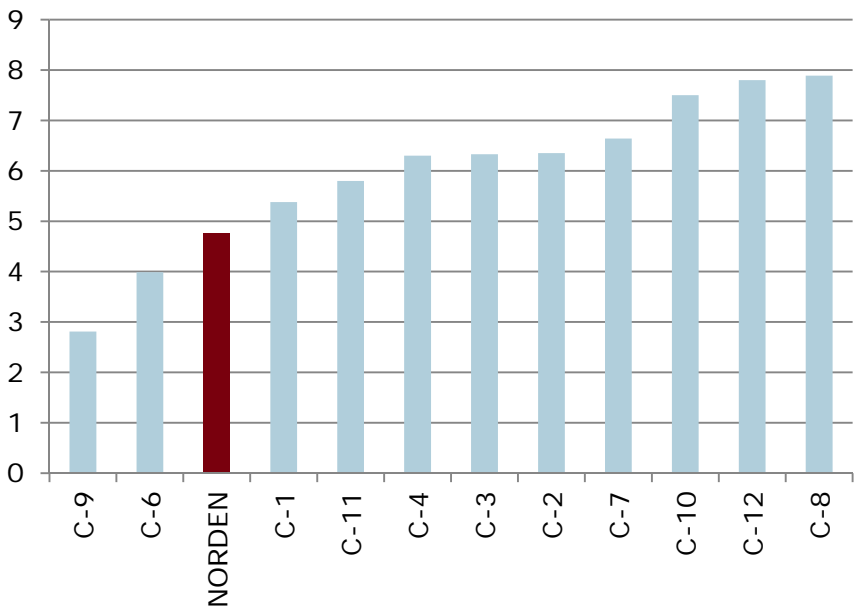


- ▶ The number of vetting observations in 2011 was at an acceptable level
- ▶ All NORDEN vessels are approved by Oil Majors
- ▶ Satisfactory vetting performance compared to peers

Vetting development 2008-2011



Vetting benchmarking 2011



# ENVIRONMENTAL REGULATIONS

- ▶ Danish Shipowners Association:  
25% improvement by 2020
  - ▶ 15% from technical measures
  - ▶ 10% from slow steaming
  - ▶ Benchmark in 2007 emissions
- ▶ International Maritime Organisation
  - ▶ EEDI: performance-based design index
  - ▶ SEEMP: ship operation management tool
  - ▶ Ballast water treatment systems convention (BWTS)

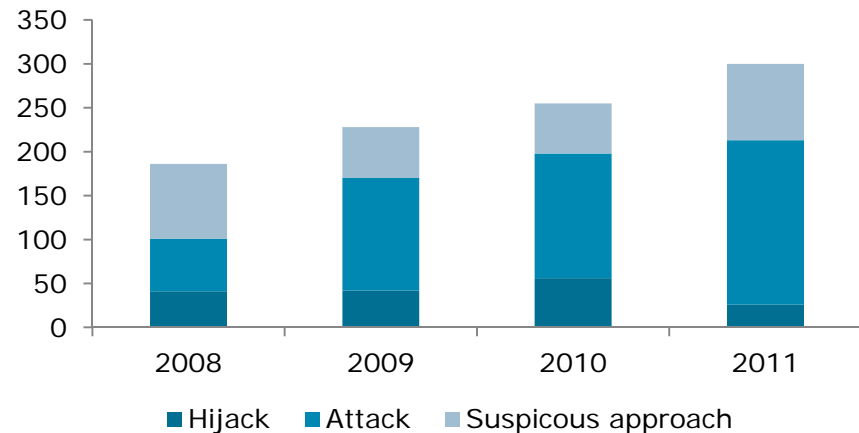


- ▶ Climate action plan
  - ▶ Established in 2007 – updated annually
  - ▶ Currently 10 fuel saving initiatives
  - ▶ Contributed to a reduced CO<sub>2</sub> emission on owned vessels of 6.2% and 5.4% in 2010 and 2011, respectively
- ▶ ECO vessel of the future project
  - ▶ The objective is to design a vessel with reduced fuel consumption of at least 25% compared to a 2007 design
  - ▶ Already having a positive fuel reducing impact on our newbuildings
- ▶ Existing fleet initiatives
  - ▶ Frequency regulated main engine cooling pumps
  - ▶ GSI Handysize tankers – 10% fuel savings
    - ▶ Derating of main engine
    - ▶ NPT propeller
    - ▶ Variable geometry turbo charger

# PIRACY

- ▶ Piracy off the coast of Somalia has been escalating in recent years
- ▶ 187 attacks reported in 2011
- ▶ NORDEN experienced two suspicious approaches in 2011
- ▶ Increased focus on anti-piracy measures
- ▶ NORDEN spent approx. USD 7 million in 2011 on anti-piracy measures
- ▶ New tendency appearing with pirates operating off the coast of West Africa

Somali piracy activity





# PRACTICES TO DETER PIRACY

## ▶ Prior transit

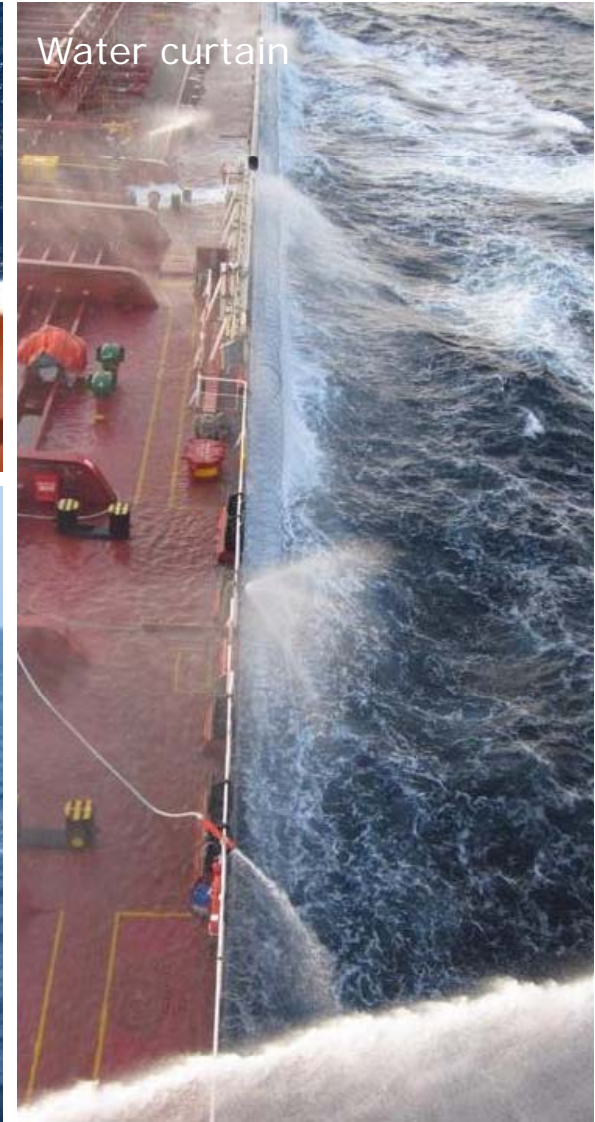
- ▶ Anti-piracy equipment confirmed on board, rigged and ready to be deployed
- ▶ Risk assessment conducted on board
- ▶ Risk assessment of intended route by Dryad
- ▶ Reporting to UKMTO and registered with MSCHOA
- ▶ Implementation of BMP

## ▶ During transit

- ▶ Full sea speed
- ▶ Reporting to UKMTO and MSCHOA
- ▶ Utilise procedures as at security level 3
- ▶ All anti-piracy equipment fully deployed
- ▶ Adherence to Best Management Practices



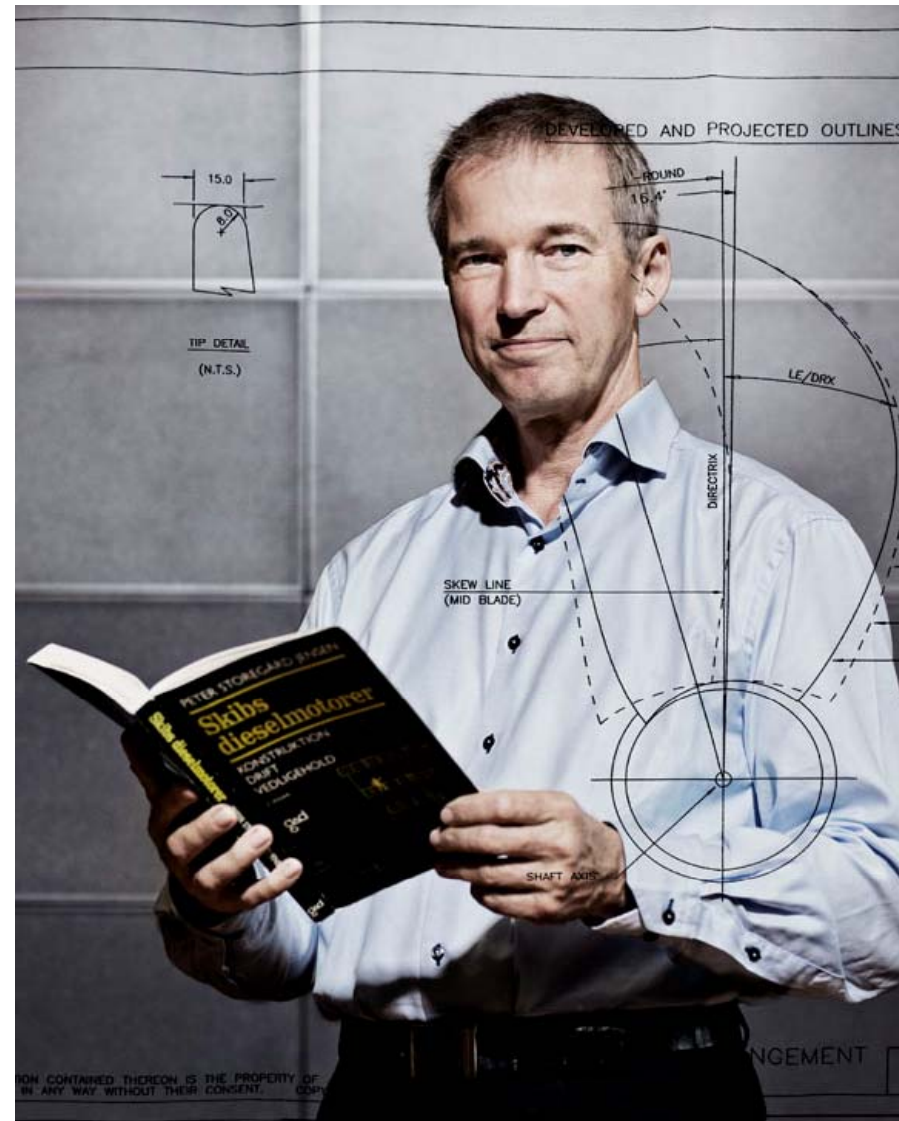
# VARIOUS ANTI-PIRACY PRECAUTIONS



# STRONG TECHNICAL CAPABILITIES



- ▶ Focus on ECO benefits
- ▶ Knowledge sharing
- ▶ Quality and safety
- ▶ Business development
- ▶ Risk management





Thank you for your attention.  
**ANY QUESTIONS?**

**24\*7 seas**