

Overcoming Difficulties when using Low Sulphur MGO

Peter Harris, Veracruz, 16 April 2010



■ ■ Agenda

1 Introduction / Company Profile

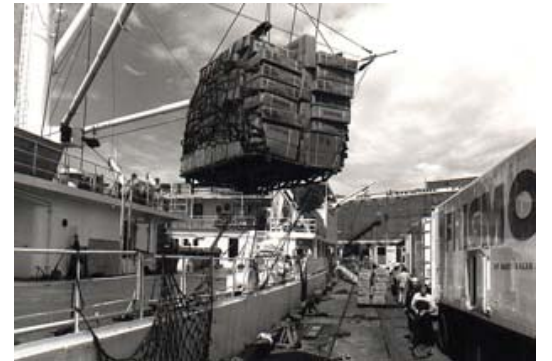
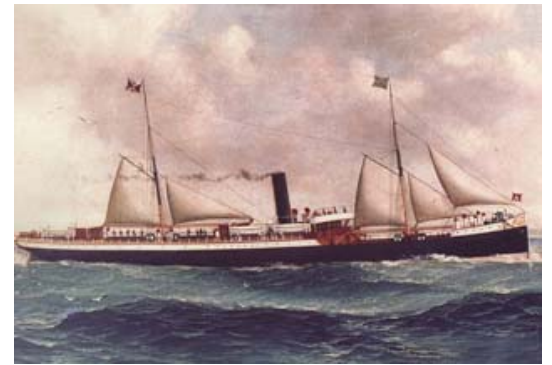
2 Cap San Lorenzo

3 Difficulties using
Low Sulphur MGO



A long, proud history

- Established in 1871 by a consortium of eleven Hamburg merchants, we have developed from a conventional shipping company into an internationally operating transport-logistics organisation. Today, the Hamburg Süd Group ranks among the 20 major providers of worldwide ocean transportation and is well-known for individual, one-source logistics solutions tailored to customer needs.



Part of a major international group

- Hamburg Süd is part of the family owned Oetker Group. The Dr. Oetker brand is famous worldwide for high quality food, especially baking ingredients, dessert products and deep frozen pizza. The family also owns the largest group of breweries in Germany and is very active in the sparkling wine and wine business. In addition, there are luxury hotels, a chemical company and financial interests.
- Net sales: €7,749 million
- Employees: over 22,000



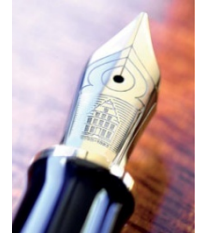
Foods



Beers and beverages



Sparkling wines, wines & spirits



Financial services



Luxury hotels



Shipping



Overseas... and overland

One of the world's most experienced carriers, Hamburg Süd specialises in:

- Worldwide ocean transportation
- Sophisticated logistics and supply chain management
- Comprehensive end-to-end cargo care

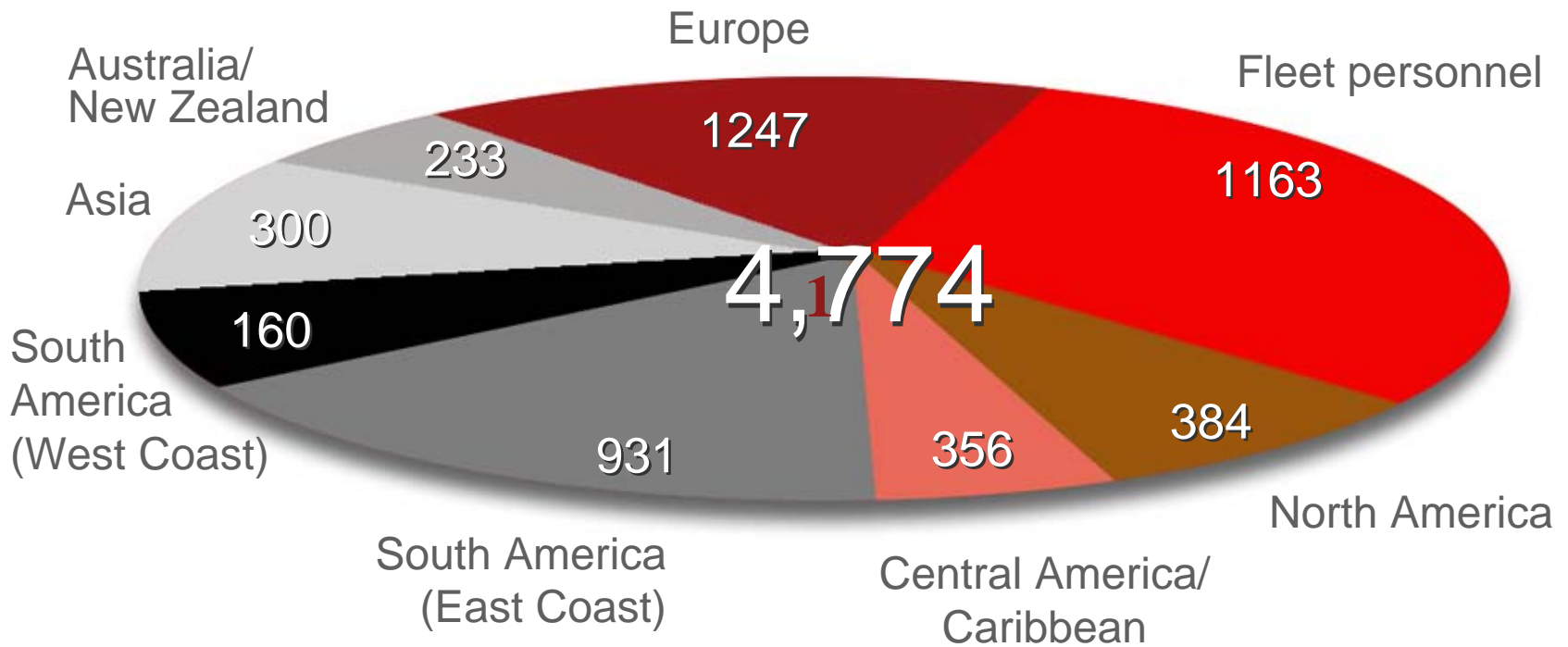


Our experts for hire

- **For 3rd-party vessel owners & cargo shippers**
 - **Columbus Ship Management GmbH (CSG)**
Ship management including technical management; crewing; materials handling; refitting & newbuildings
 - **Columbus Logistics Services GmbH (CLS)**
Value-added services including packing; labelling; customs clearance; storage; inland distribution; insurance; shipping documentation



■ ■ ■ ■ A cast of thousands



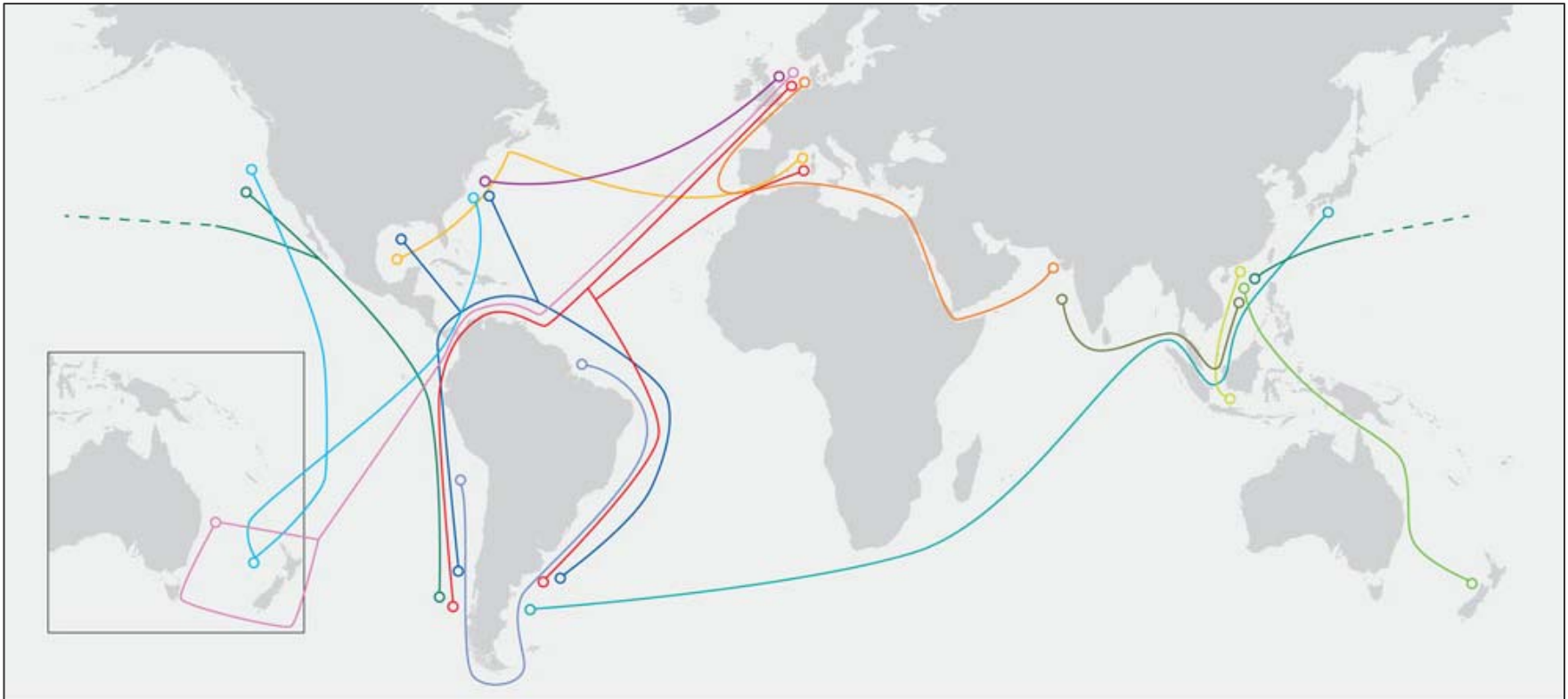
Statistical snapshot

Container ships	114
Tramp ships	60
Containers	349,087
Employees	4,774
TEU liftings	2,669,000
Capital investment	€530 million
Revenue	€4,452 million*

*Liner shipping: €3,738 million / Tramp shipping: €543 million / Others: €171 million



Mainliner Services of Hamburg Süd



- Europe / Mediterranean – South America / Central America
- Europe – Mediterranean / Inner Med / Pakistan / India
- Mediterranean – Canada / Central America
- Europe – North America / New Zealand / Australia
- Europe – North America
- North America / Central America / Caribbean – South America
- Intra South America

- North America – New Zealand / Australia / Pacific Islands
- Asia – Central America / North America / South America
- Asia – South Africa / South America
- Asia – India / Pakistan
- Asia – Australia / New Zealand
- Intra Asia



Wherever you need us



Over 300 offices worldwide



Corporate philosophy

Our tradition – our values

The Hamburg Süd Group is a globally active logistics company which fulfils its responsibility for the environment beyond the norm.

- For Hamburg Süd, environmental protection is an indispensable part of entrepreneurial activity.
- Responsible and sustainable behaviour is a fundamental element of our strategy and firmly embedded in our corporate philosophy.
- The Hamburg Süd Group offers its services worldwide, placing particular emphasis on a market-oriented approach.



■ ■ Corporate philosophy

Responsibility for our environment

- With its policy of constant further development, Hamburg Süd aims to extend the lead which the ship has over air, rail and road transport by virtue of its comparatively low CO₂ emissions.
- In the continuous improvement of our self-defined quality and environmental principles, our concern is to define criteria, identify influencing factors and formulate targets. We undertake this process anew every year.
- Internal instruments for monitoring success are ideally augmented by external audits.



■ Corporate philosophy

Process of continuous improvement

- Our quality management has been ISO 9001 certified worldwide since 1996. At the same time, we implemented the ISM Code on a voluntary basis.
- In 2000 the existing quality and safety management system was broadened to encompass the ISO 14001 environmental management system.
- The transition to the new ISO 9001:2000 quality standard took place in 2002.



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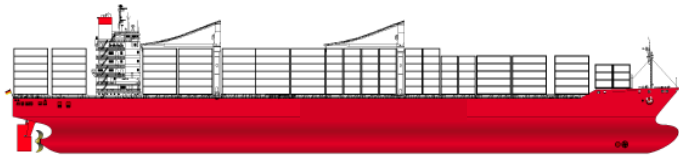
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Cap San Lorenzo



Cap San Lorenzo

Length: 254 m

Capacity: 3.700 TEU



Beam: 32 m



WARTSILA - SULZER 7RTA84C

[Hanjung Samsung Daewoo]

38570 BHP

102 RPM

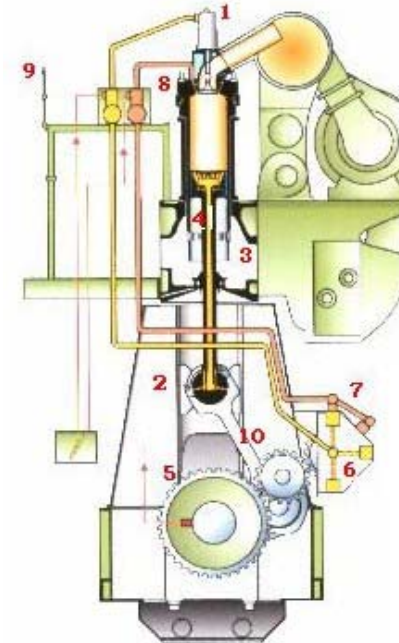
7 Cyl.

Cylinder Diameter: 84 cm

22.5 KNOTS FULLY LOADED

Fuel Consumption

Laden about 110 MTO HFO



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■ ■ ■ Considerations when using Low Sulphur MGO:

- Availability
- Calorific Value
- Lubrication Properties
- Viscosity
- Compatibility
- Addition of Bio Fuels



Thank you.

