

DANAOS SHIPPING CO. LTD



danaos
shipping co. ltd
ship managers

Introduction

- The shares of Danaos Corporation (NYSE: DAC) commenced trading on the New York Stock Exchange in 2006. Danaos is currently one of the largest containership companies in the world in terms of fleet size.



- Danaos Shipping Co. Ltd's main office is located in Piraeus, Greece.
- Danaos Shipping Co. Ltd is the exclusive Manager of Danaos Corporation.

Group Corporate Structure

- Danaos Corporation is listed in the NYSE and is the vessels' owning company.
- Our manager, Danaos Shipping Co. Ltd exclusively renders services to us, whilst we also receive specialized Management Information Systems services from our affiliate, Danaos Management Consultants.



High Quality Clients for Fleet Under Management



■ A substantial part of our chartering operation is carried out through our Hamburg office, while our offices based in Ukraine, Russia and Tanzania assist our Crewing department with the task of globally coordinating the manning of our vessels.

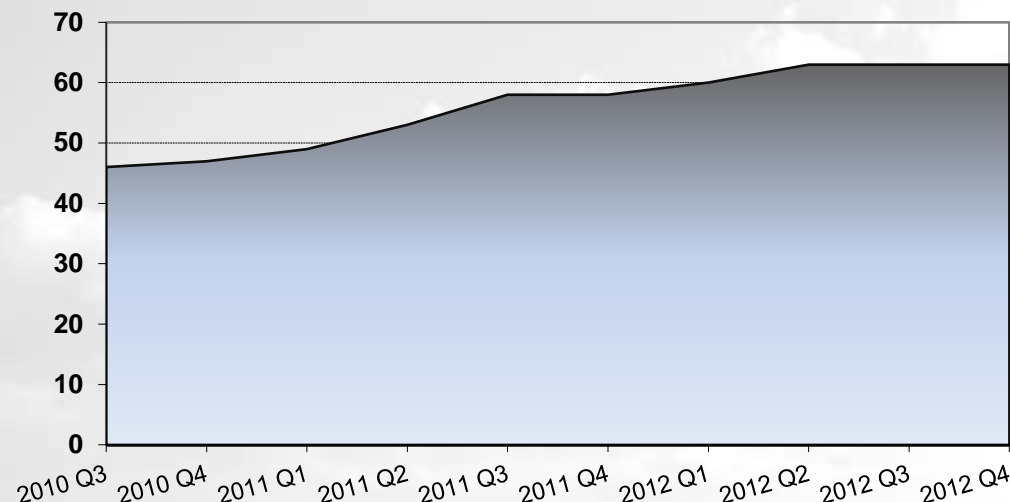
■ Danaos' vessels are chartered by the largest liner Companies in the world.

■ Our containerships are deployed under multi-year, fixed-rate time charters that range up to 18 years, which provide us with stable cash flows and high utilization rates.



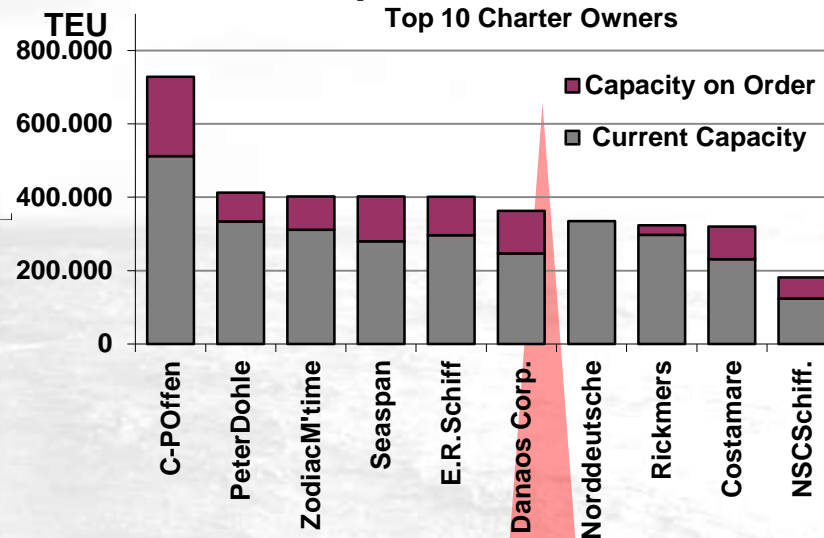
Average Number and Age of Vessels Under Management

Number of vessels

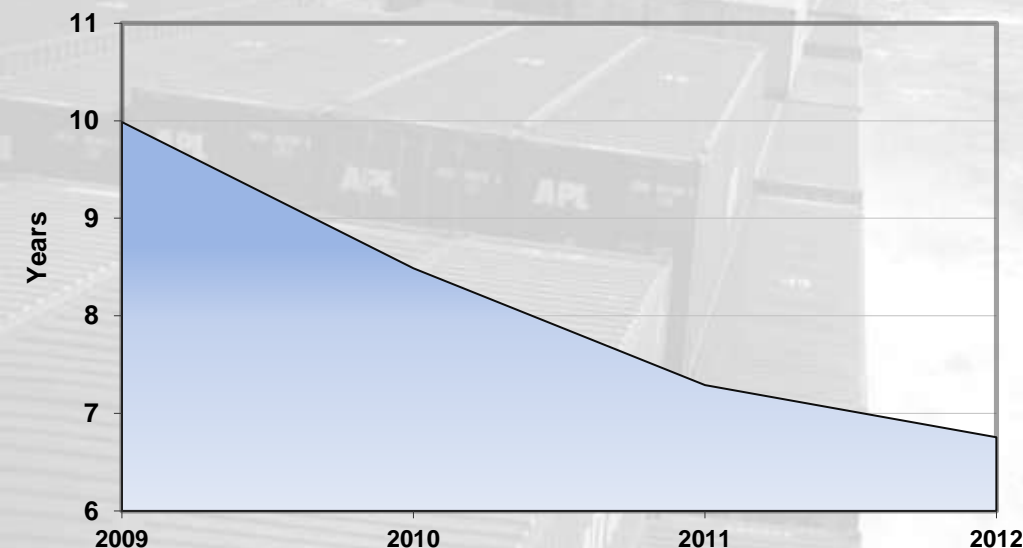


- 8 new vessels are contracted to join the fleet within the next 9 months reaching a total number of 65 containerships by June 2012 and setting Danaos amongst the top 10 containership charter owners.

Top 10 Charter Owners



Average Age of Fleet Weighted by TEU



- The considerable decrease of our Fleet's age reflects our aim to promote safety & environmental protection, always following new and existing rules & regulations.



CORPORATE SOCIAL RESPONSIBILITY



The development of our HR+T Department

- The importance of a well established Team Spirit, a strong sense of Corporate Social Responsibility and the need to develop a **Danaos** Corporate culture, through a systematic path of Corporate Training, created the need for the formation of our HR&T department.



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THE FUTURE

Aims

- Our main objective is to cultivate a strong culture that embraces our employees and the Community.
- ACTIVITIES towards Goal:
 - ✓ Enhancing **Environmental Awareness**
 - ✓ Helping **People**
 - ✓ Building **Teams**
 - ✓ **Bonding**, Interoffice and Office-Vessel
 - ✓ Cultivating relations with the **Academic Community**



Considering Environmental Awareness

■ Coastal Cleanup Days

In co-operation with HELMEPA our personnel, along with their families and friends, cleaned up coasts in Attica.

■ Environmental Awareness for Children

Educational Visits to:

- HELMEPA exhibitions, where specialists presented the sea environment and life under the sea.
- Rescue and Turtle Protection Centre.





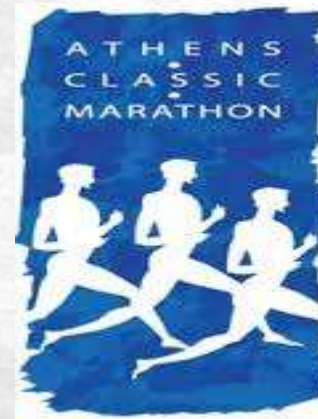
Caring for those in need

■ Fundraising

Participating in a fundraiser and offering food, toys, clothes and books to four Greek public foundations for abandoned children.

■ Running a marathon for disabled Children

To support the children of the Hellenic Society for Disabled Children, we will participate in the 29th Athens Classic Marathon.



Building Teams-Bonding Activities

■ Team spirit: Sailing, Football, Basketball, Paintball

Promoting team spirit and projecting **Danaos'** Company spirit in athletic events:

- 2010 Poseidonia Cup (sailing team) and in the 2010 Greek Shipping Mini Soccer League
- One of the Sponsors of the 29th Athens Classic Marathon.

■ Company's Publications

- ***"The Danship News"***: hard copies delivered twice a year to all our shore employees and crew on-board.
- ***"e-News of the Day"***: provided electronically 3 times per week in 4 languages to all our vessels.

■ Wellbeing of Danaos employees

- In-house surveys for "Life in the Office" satisfaction.
- Systematic "face-to-face" interviews.



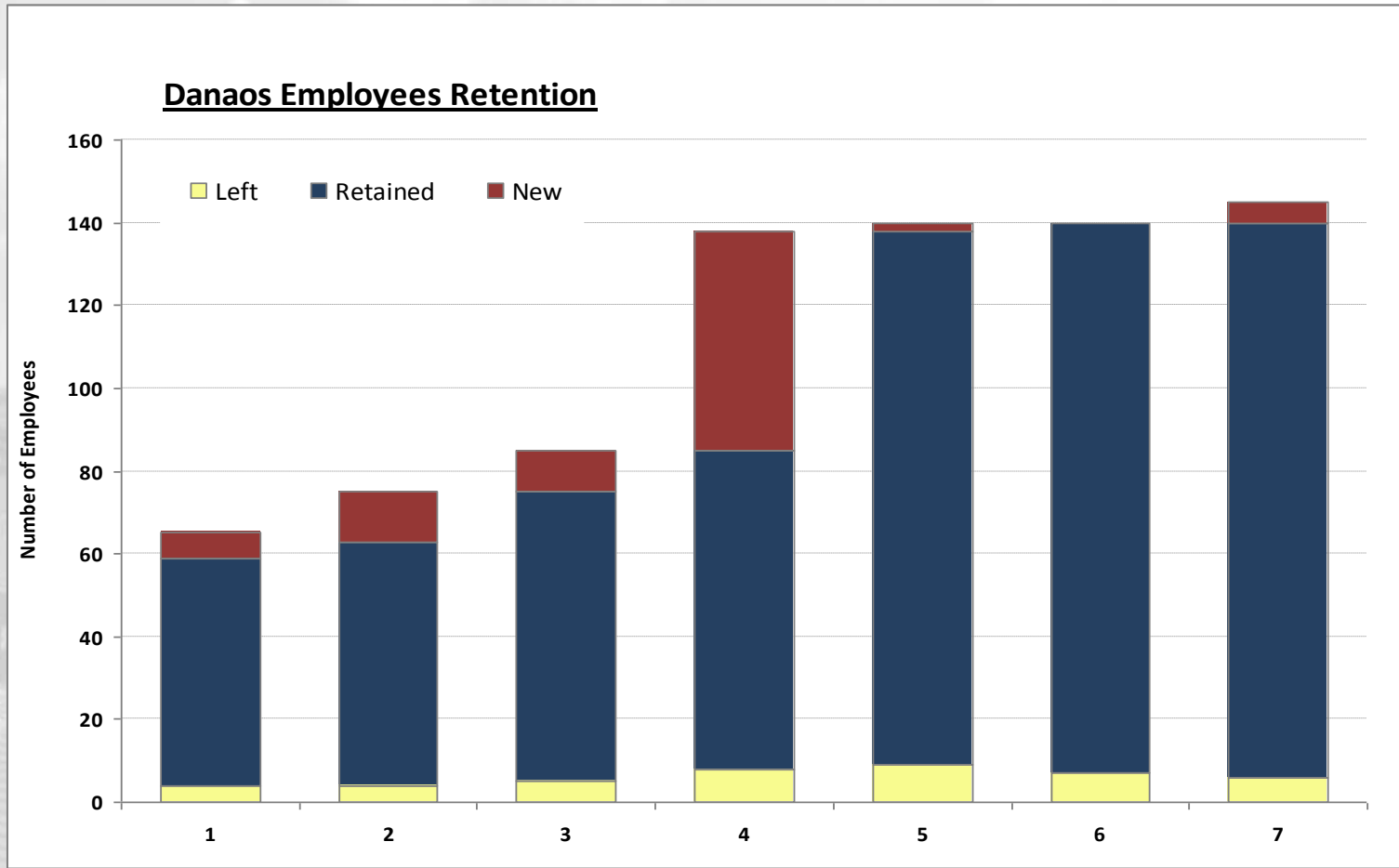
Shares Program for All Employees

**In 2010 Danaos began an incentive share program for all its shore employees:
Each year all employees receive Shares of DanaosCorporation
as a form of bonus from the company for their commitment.**

**The Shares program is striving to make each
employee feel like a member of the Danaos family,**



Retention of Employees



Investing in the future – Students are our future asset

■ Career Fair 2011

Danaos attended the Career Fair 2011 hosted by the Career Office of the University of Piraeus and interviewed 65 students/candidates. We were the only shipping company participating in this event.

■ Students visit Danaos Premises

In cooperation with public and private universities (The University of Piraeus - Department of Maritime Studies and The American College of Greece) students attend our company's presentation and hold direct discussions with our Captains.

■ Danaos visits Universities

With an aim to exchange views on critical matters about the shipping sector, **Danaos** visits various universities that teach Shipping and presents specific topics (e.g. piracy, shipping market trends).



Awarding Excellence

■ Developments in the Odessa Maritime Industry

In view of the considerable contribution to the development of Odessa's Maritime Industry, **Danaos** was awarded in 2011 by the President of Ukraine.

■ AMVER awards (Automated Mutual Assistance Vessel Rescue)

For many years the **Danaos** vessels have received multiple AMVER awards, assessed by the USCG.

The **Danaos** Fleet is ranked amongst the top 5 Greek owned fleets for its participation in the Amver system.





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VISIT OUR WEBSITE AT www.danaosshipping.gr/responsibility

In-House Training

Developed to Contribute in:

- **BONDING**, Office-Officers
- **REFRESH** and/or **UPDATE** Professional Knowledge

PROVIDED

Twice a year
In ALL our Offices

In-House Training

- **MULTICULTURAL CREW COMMUNICATION**
- **METEO AND HEAVY WEATHER MANEUVERING**
- **CHARTER PARTY PECULIARITIES**
- **DAMAGE STABILITY**
- **JOB SATISFACTION through EFFECTIVENESS**
- **“KNOW-YOUR-VESSEL” CBTs**
- **FIELD TRAINING (15 DAYS) OF RATINGS**





R & D

- Danaos' R&D Department is a critical contributor to our CSR Concept:



Our Strategy

Danaos shares the commitment of maintaining a clean, healthy and sustainable environment for the community.

Danaos Green Projects	
A.	CO2 Index
B.	Energy Efficiency Design Index (EEDI)
C.	Trim Optimization
D.	Inventory of Hazardous Materials (IHM)
E.	Ballast Water Treatment (BWT)
F.	Alternative Maritime Power (AMP)
G.	Future Ship Design
H.	Ship Optimization
I.	MGO modifications
J.	ME engines versus MC & MC-C
K.	Super slow steaming (SSS)
L.	Energy saving initiative



Danaos has been engaged in various projects aiming to improve the Company's environmental awareness and activity, enhancing the quality of provided services to its customers.

A. CO2 Index

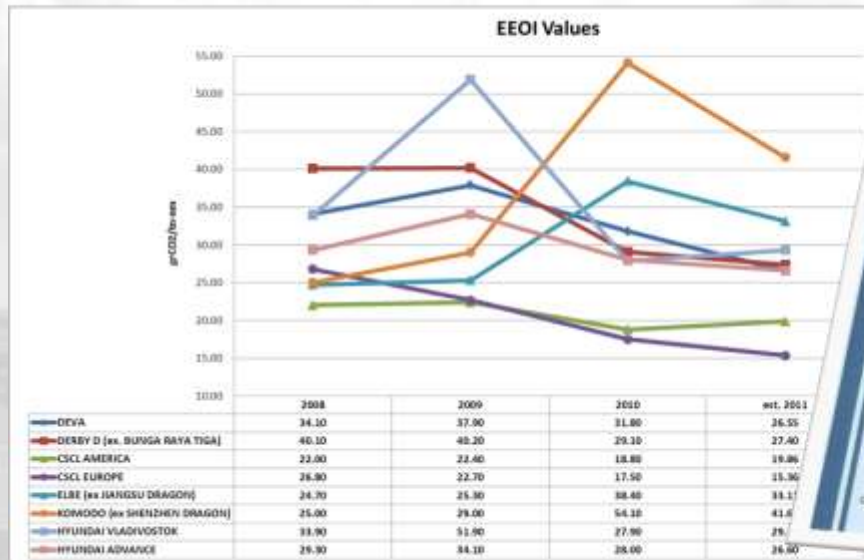
Danaos has been officially enrolled with 8 vessels since 2008, in a Germanischer Lloyds “**CO2 Index**” *pilot* project, on a voluntary basis, monitoring their performance and CO2 emissions:

We are in the process of calculating the CO2 Index for all our active Fleet (57 vessels) and the results will be available soon.



A. CO2 Index

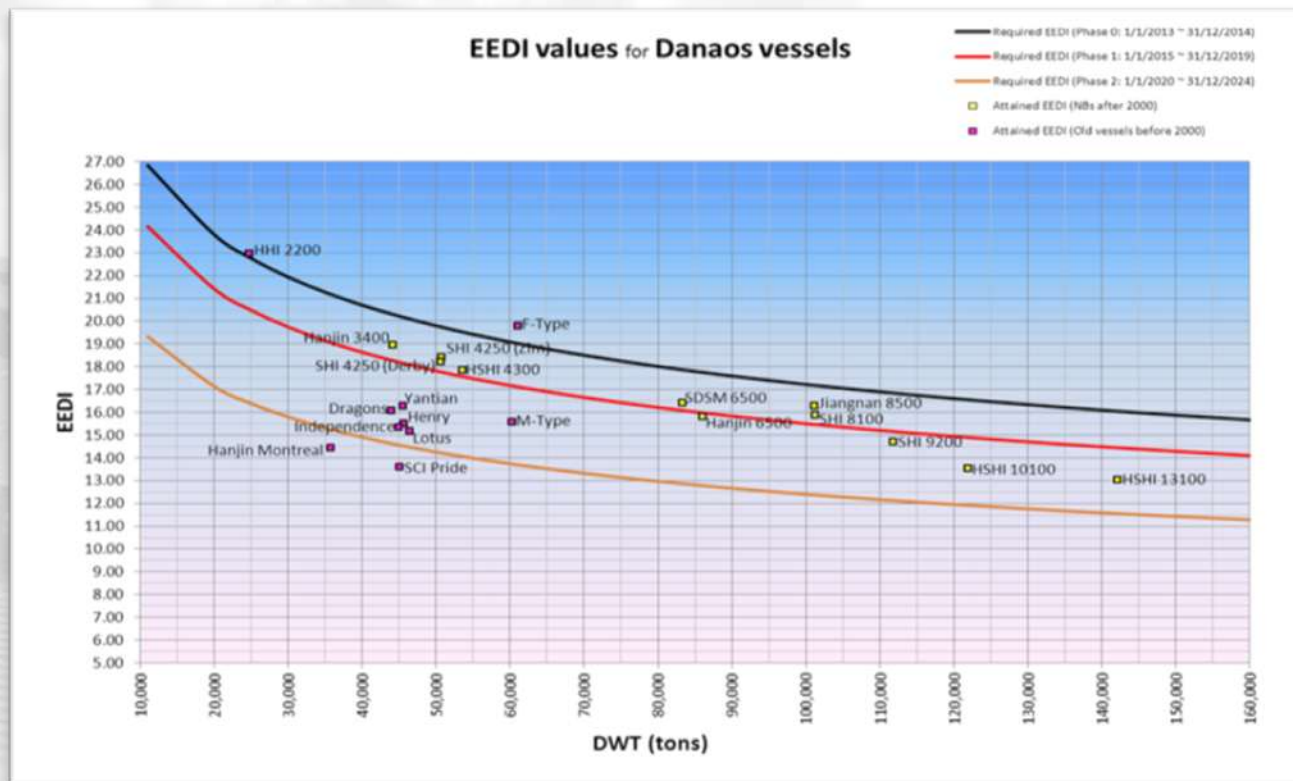
Trends are recorded and a relevant Class Certificate for each vessel has been issued.



EEOI is a measure to monitor CO₂ emissions/tnm trend line which is highly dependent on the actual cargo transferred. We also prepare proposals for means to improve vessels fuel performance and optimize their environmental footprint.

B. Energy Efficiency Design Index

Although it is not mandatory for the existing vessels at sea, EEDI has been calculated, based on IMO MEPC.203(62) & MEPC.1 Circ.681-682 for all company vessels in order to get the energy efficiency map of our fleet.



The results are more than encouraging!!!

C. Trim Optimization



Danaos seeks ways to improve its environmental profile. **Trim optimization tests** have been carried out in various ship model basins for all **Danaos** new building vessels to identify the best Trim for fuel efficiency and emissions' reduction. (Weather-Strength parameters considered)

D. Inventory of Hazardous Materials

Danaos has proceeded to the approval and verification of the Inventory of Hazardous Materials for all our new building vessels.

Although the convention has not yet been entered into force, advanced certifications have been issued for **Danaos'** NBs in an effort to:

- Promote better hazard management, enhancing onboard safety
- Assist safer and environmentally sound decommissioning of the ships at the end of their life
- Enhance its environmental awareness



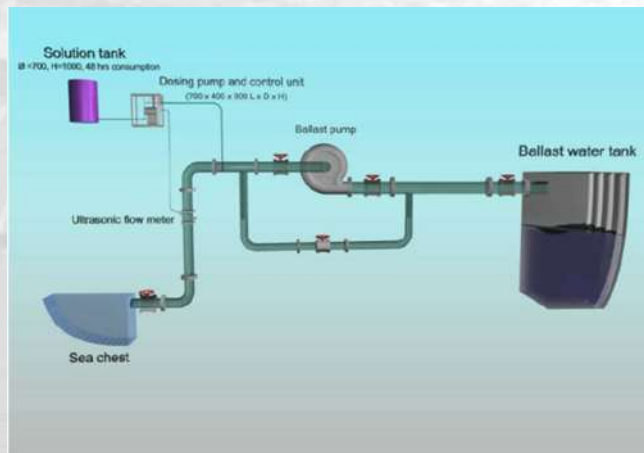
E. Ballast Water Treatment

All Danaos vessels, will have to comply with D-2 performance standards as from January 2016, as soon as the IMO Ballast Water Management Convention enters into force.

Danaos has been investigating various systems since 2009. Recently we expressed interest in financing Strathclyde University's invention named '**ClearBal**' system. This system is a prominent easy operation, has a low power consumption, small footprint, weight and low maintenance cost.

The system is currently being tested in order to obtain IMO approval.

It has already been pre-approved by DNV, ABS & LR.



F. Alternative Marine Power

AMP: Power from shore when in port.

Danaos, in contact with our Charterers, has decided to invest in this concept, for all our NB projects.

Our newbuilding vessels are equipped with an AMP System or have the provision of installation in the future.



AMP

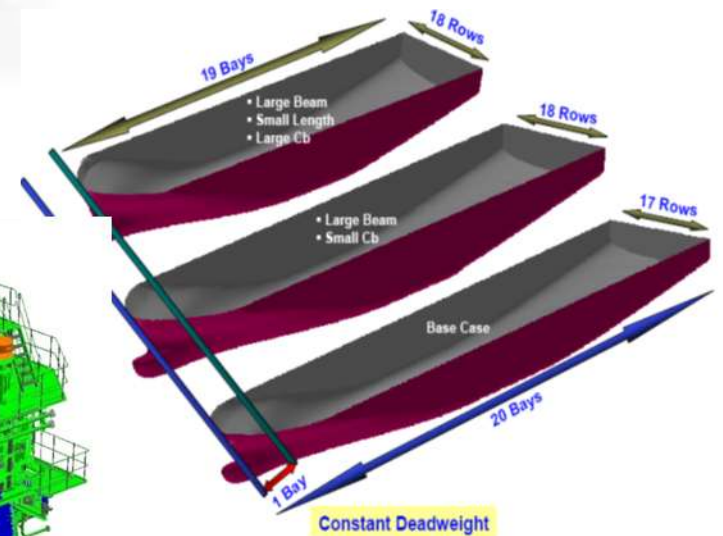
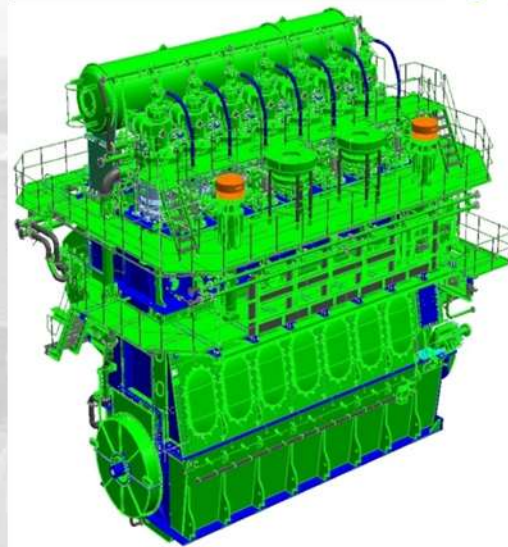
Emissions
reduction at ports

G. Future Ship Design

Danaos has been engaged in research projects with two major shipyards and classification societies studying the “**green**” containership which will prevail the market in the years to come.

The “**green**” vessel’s concept is summarized in:

- Fuel efficiency
- Environmental impact
- Operational flexibility



G. Future Ship Design

In the frame of the “**Greenship**” project the following have been studied:

- ✿ Hull lines optimization for hull resistance reduction
- ✿ Propeller selection
- ✿ Main engine optimization by alternative arrangements/modifications for SFOC improvement
- ✿ Alternative painting schemes application for reduced resistance
- ✿ Energy saving devices effect on fuel savings
- ✿ State of the art “bad” emissions reduction equipment
- ✿ “Man Diesel” dual-fuel main engine concept with either LNG or LPG and Wartsila DF A/Es concept
- ✿ WBT systems, aft seal with bio-oil, garbage compactor, recycling facilities, eco lamps et al.

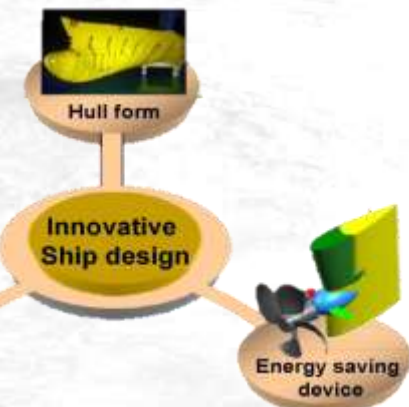


Fuel efficiency
(..and thus as an indirect effect reduce emissions)

	Reduction with ME-GI	Reduction with ME-GI + WHR	Reduction with ME-GI + WHR + EGR
CO ₂ (gram per tonne mile)	23%	32%	31%
NO _x (gram per tonne mile)	13%	Tier II 23%	Tier III 42%
SO _x (gram per tonne mile)	94%	95%	96%
Energy (kWh)	0%	12%	11%
Particulate matter (gram per tonne mile)	37%	45%	81%

Emissions level

Environmental awareness



H. Ship Optimization – Existing ships

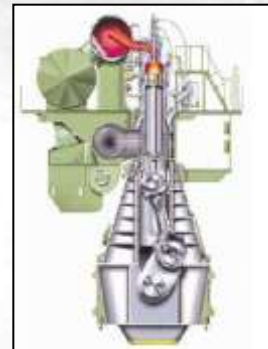
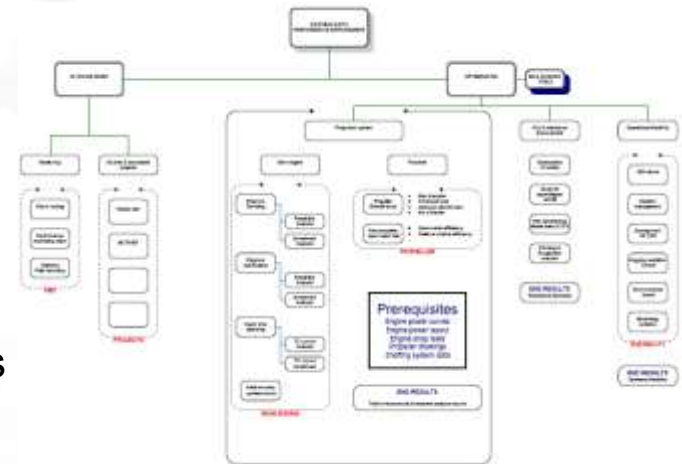
Danaos in an effort to:

- improve the quality of services to its customers
- reduce its fleet environmental footprint

is studying ways to render existing ships' competitiveness to the new designs (fuel optimized for 19-22Knots) by improving their fuel efficiency and environmental performance.

The above can be summarized in 3 pillars:

- ✓ **improve propeller efficiency**
- ✓ **improve engine performance**
- ✓ **improve hull resistance**

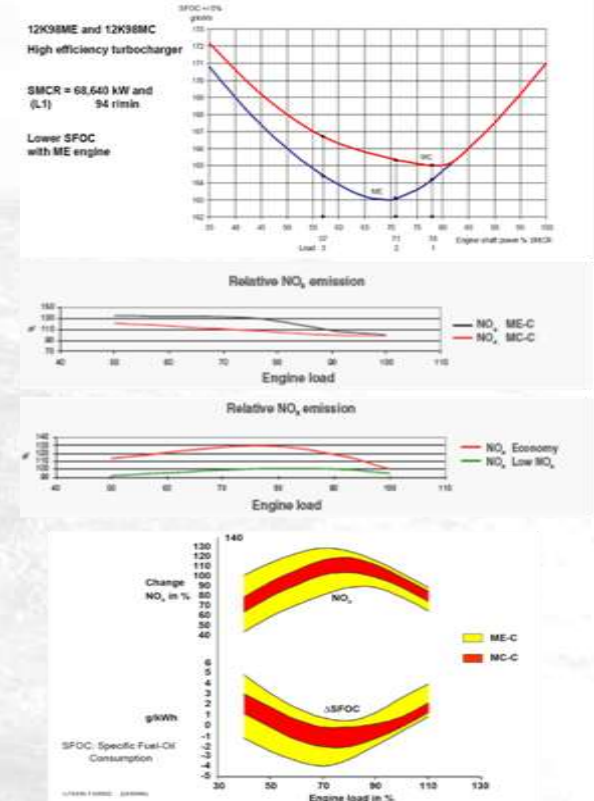


J. Electronic – versus – Conventional Main Engines

Most of **Danaos'** NB vessels built after 2009 are equipped with Man Diesel ME or Wartsila RT-flex electronically controlled engines that compared with conventional MC/-C or RTA ensure:

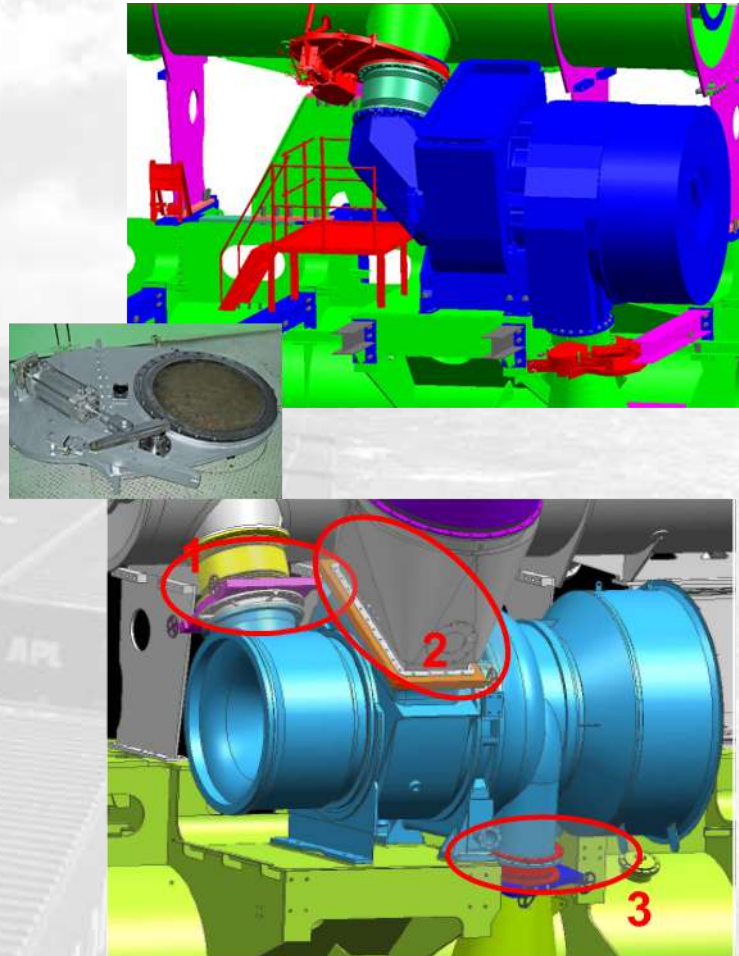
- Lower SFOC and better performance parameters thanks to variable electronically controlled timing of fuel injection and exhaust valves at all loads.
- Improved emission characteristics and smokeless operation.

Fleet 4		
117	Hanjin Germany	Hyundai-Wartsila - 12RT-Flex96C-B TI
118	Hanjin Italy	Hyundai-Wartsila - 12RT-Flex96C-B TI
119	Hanjin Greece	Hyundai-Wartsila - 12RT-Flex96C-B TI
Fleet 5		
83	Hanjin Buenos Aires	Wartsila - RT-FLEX 82C TI
84	Hanjin Santos	Wartsila - RT-FLEX 82C TI
108	Hanjin Versailles	Wartsila - RT-FLEX 82C TI
109	Hanjin Algeciras	Wartsila - RT-FLEX 82C TI
110	Hanjin Costantza	Wartsila - RT-FLEX 82C TI
Fleet 10		
111	Hyundai Together	Hyundai-B&W 12K98ME-C7 TI
112	Hyundai Tenacity	Hyundai-B&W 12K98ME-C7 TI
113	Hyundai Smart	Hyundai-B&W 12K98ME-C7 TI
114	Hyundai Speed	Hyundai-B&W 12K98ME-C7 TI
115	Hyundai Ambition	Hyundai-B&W 12K98ME-C7 TI
Bareboat		
75	YM Mandate	Doosan-Man B&W - 10K98ME-C TI
76	YM Maturity	Doosan-Man B&W - 10K98ME-C TI



K. Super Slow Steaming

All Danaos vessels responding to market needs are now capable to operate at low speeds corresponding to 20-40% engine loads.



L. Energy Saving Initiative

Danaos is working on energy saving directives aimed at achieving:

- Proper power management onboard
- Avoiding energy waste
- Fuel saving & emissions reduction



The efforts are focused on electric power distribution monitoring, bow thruster idle running, ballasting process, lighting, preheating, auxiliary machineries operation, etc.

Meanwhile **Danaos** is eagerly supporting its customers' **bunker saving initiatives!**

Forging a GREEN mentality

- **Danaos** has been accredited with the ISO 14001 standard.
- **Danaos** is implementing a rigorous Environmental Management System (EMS) to totally manage waste streams onboard our Fleet, specially developed with DNV, over and above the ISM code requirements.





THANK YOU

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