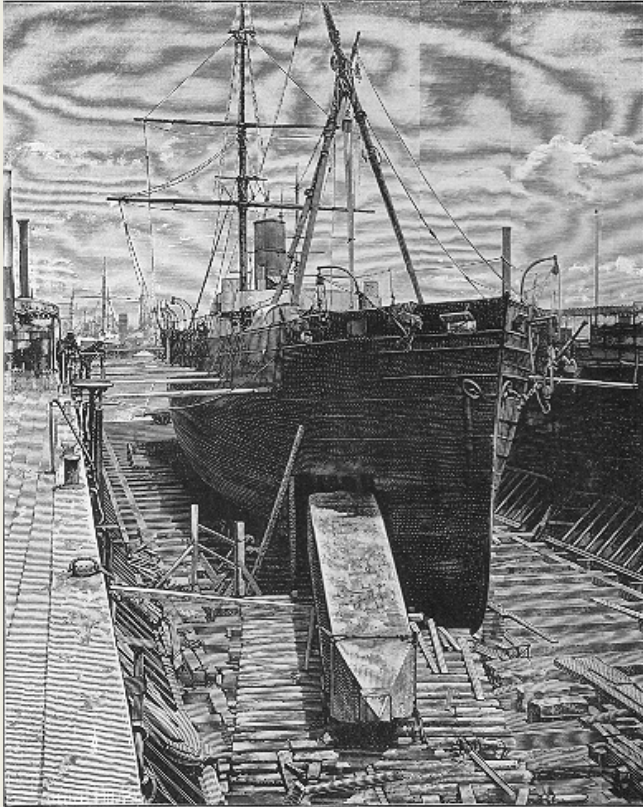


heavy lift in de lift ?

KIVI NIRIA 13-10-2011

1880 s.s. Dessoug

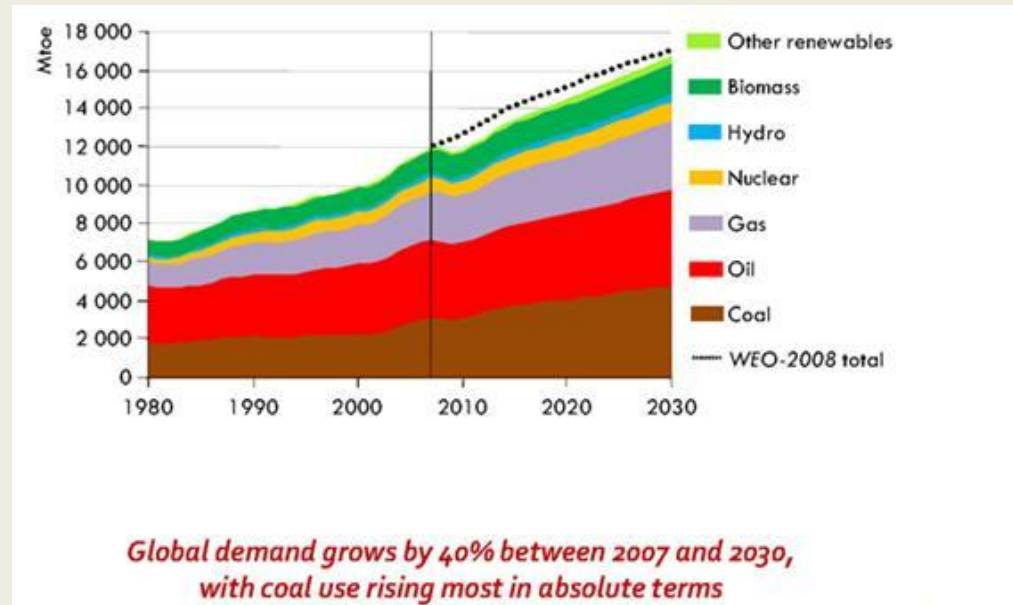


2010 Happy Buccaneer



drivers heavy lift shipping

- energy consumption
 - downstream: refineries
 - upstream: offshore
 - LNG
 - renewables
- globalisation
- infrastructure



refinery / petro chemical equipment



power generation & distribution equipment





yachts

BIG LIFT

HAPPY BUCCANEER

cranes



offshore equipment



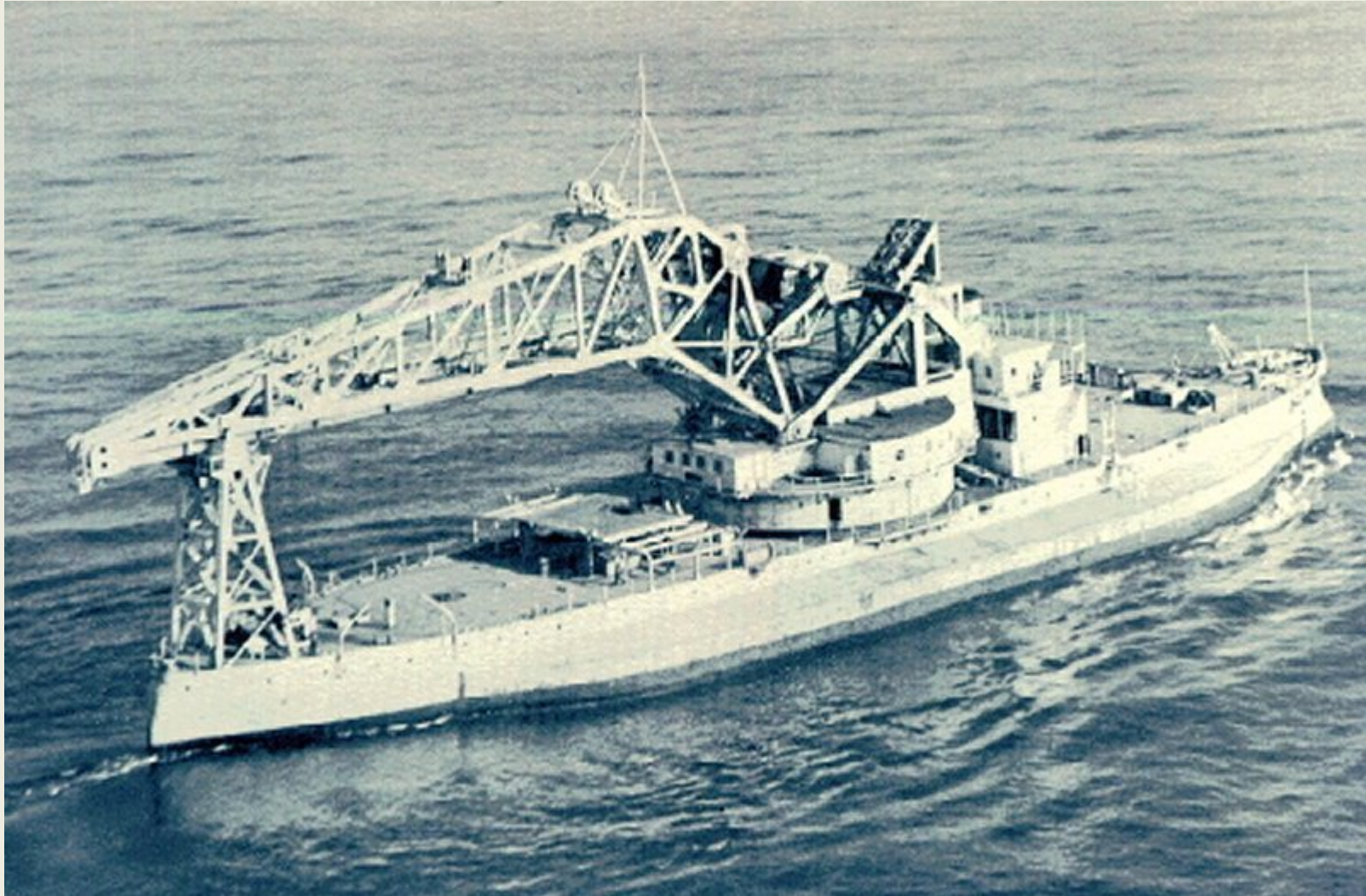
dredgers



development of heavy lift shipping

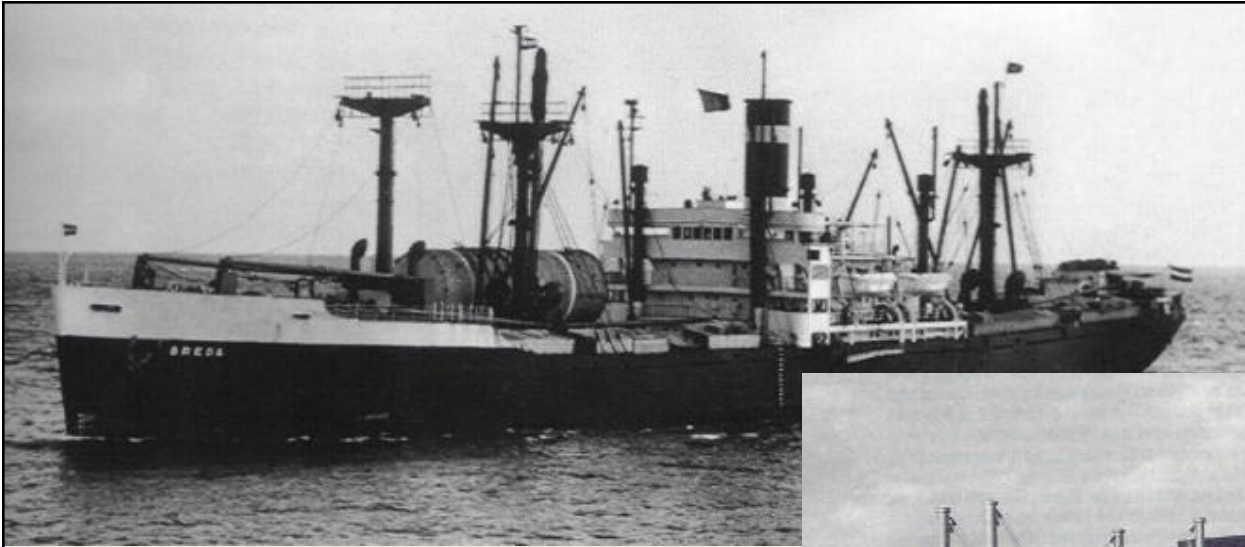
- 1950's rebuilding Europe
- 1960's – 70's pioneers in h.l. shipping
- 1970's – 80's oil crisis
technological developments
economies of scale
- 1980's market decline
- 1990's rebirth of conventional liner services
- 1990 -2000's end of “easy oil” Kyoto
- 2000's “China factor”
KG growth in mpp-h.l. shipping
- 2008 Lehman

U.S. navy



1950's: rebuilding Europe
liner vessels with h.l. gear





KNSM "Breda" 1945



Harrison Line "Adventurer" 1960
180 t.



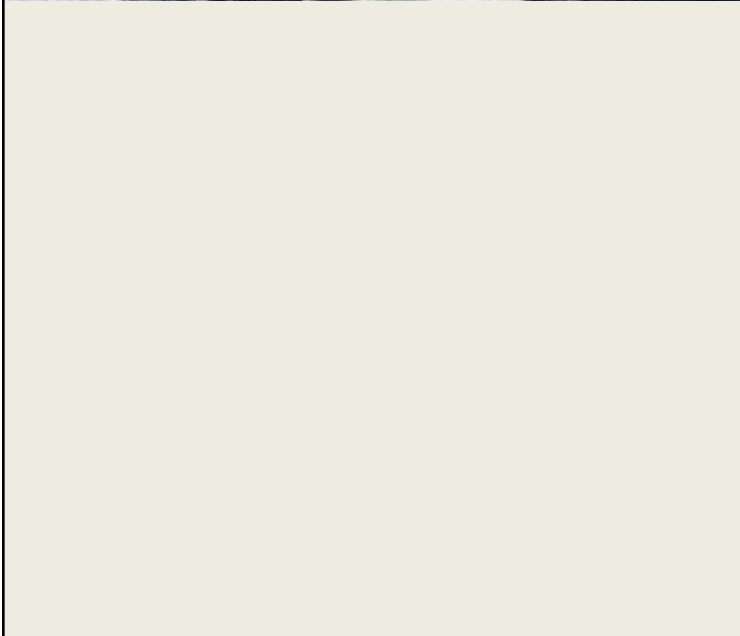
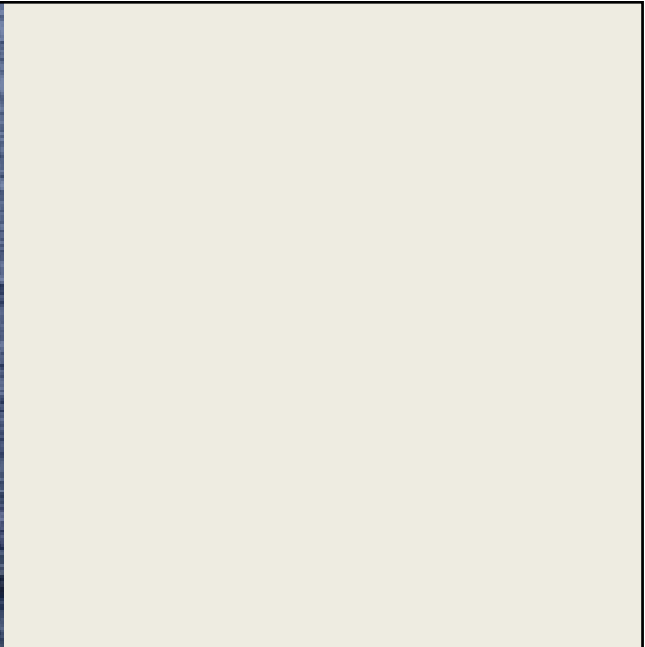
Hansa "Uhenfels" 1967
2 x 275 t.

1960's -70's

conversions of coasters

- heavy derrick(s)
- sponsons









1970's newbuilding h.l. vessels



© Michael Neidig

lo-lo + ro-ro





www.ddg-hansa.de

© Gerhard Mecking

ro-ro





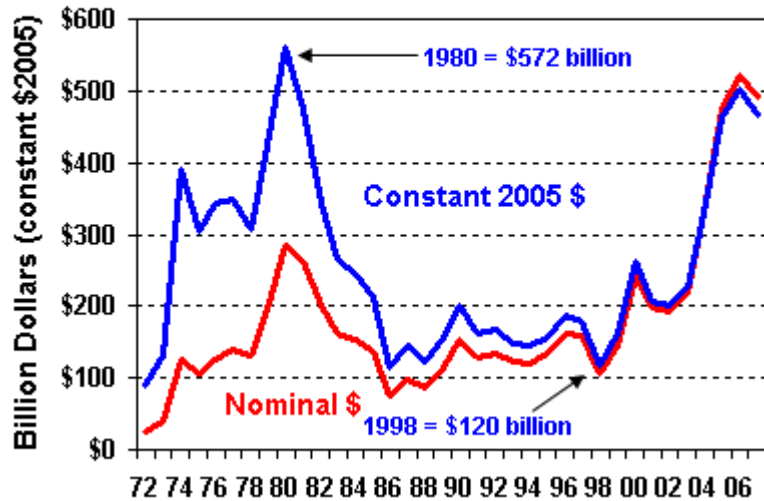
flo-flo + ro-ro
+ gantries



1970's - 80's

oil crises; development OPEC countries

OPEC Net Oil Export Revenues, 1972-2007



development of larger heavy lift carriers



- economies of scale
- modularisation







new class of specialised h.l. vessels

- large lifting / ro-ro capacity

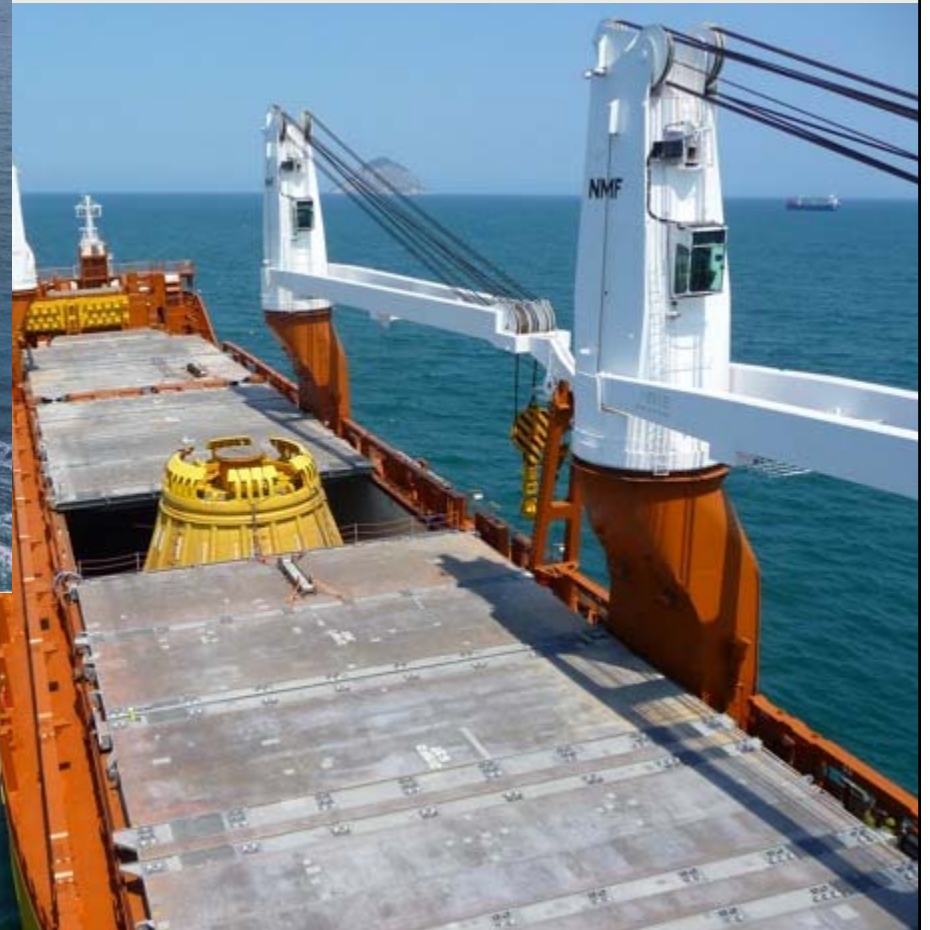
note: stability when lifting



- large box shaped hold(s)
- adjustable tween deck heights
- high allowable deck loads



- superstructure forward
- open sailing



development h.l. gear



development h.l. gear





Kawasaki h.l. crane



Huisman HMLC



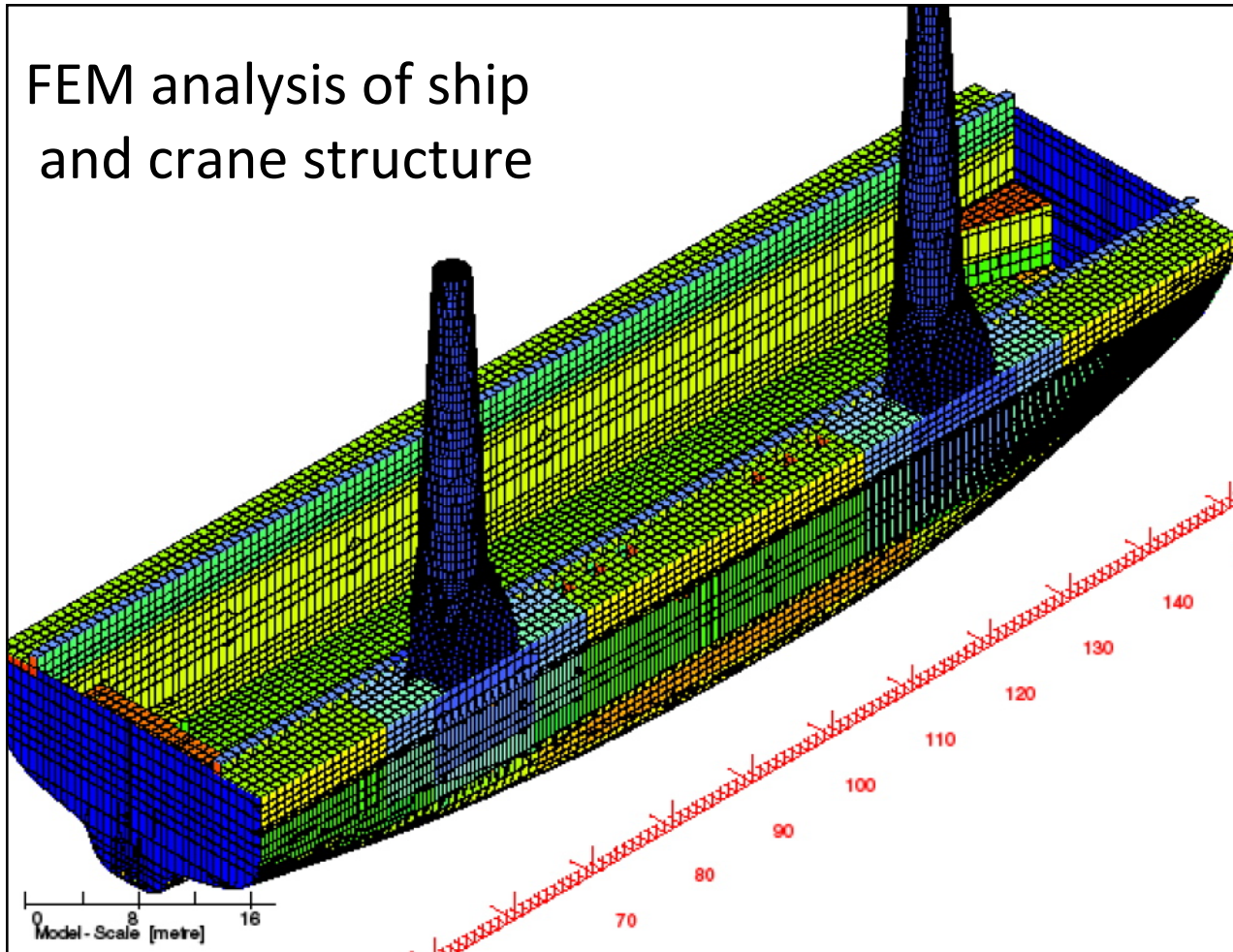
1984 : 80 t.

pedestal cranes

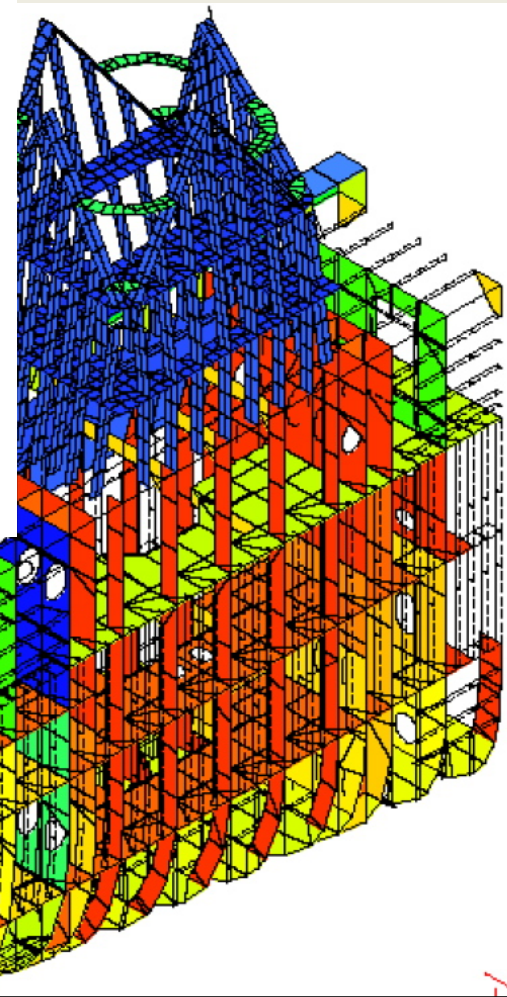


2011: up to 1000 t

FEM analysis of ship and crane structure

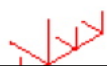


0 8 16
Model- Scale [metre]



z
y x

0 2.4 4.7
Model- Scale [metre]



inland transportation



lifting onto foundation



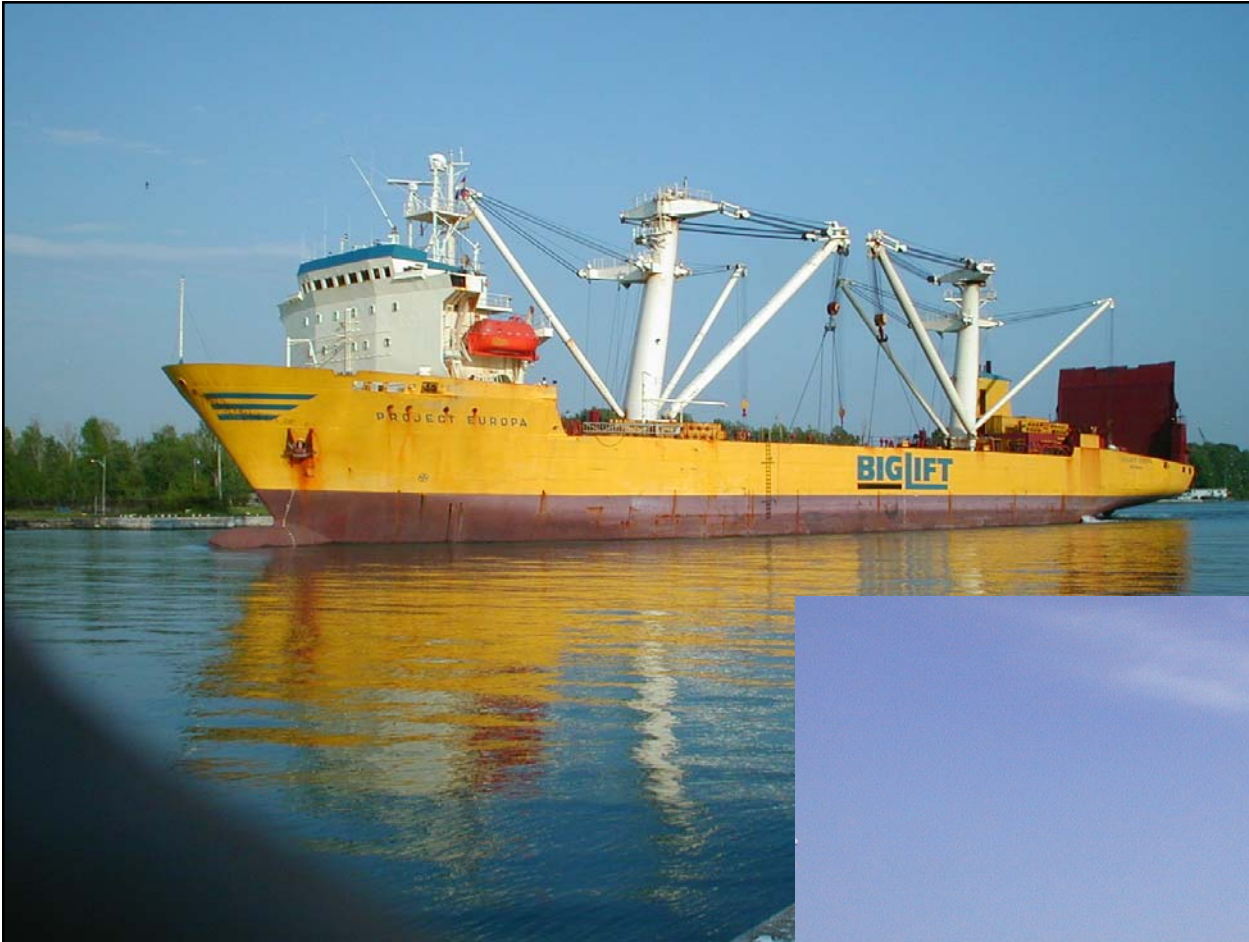
1980's market decline



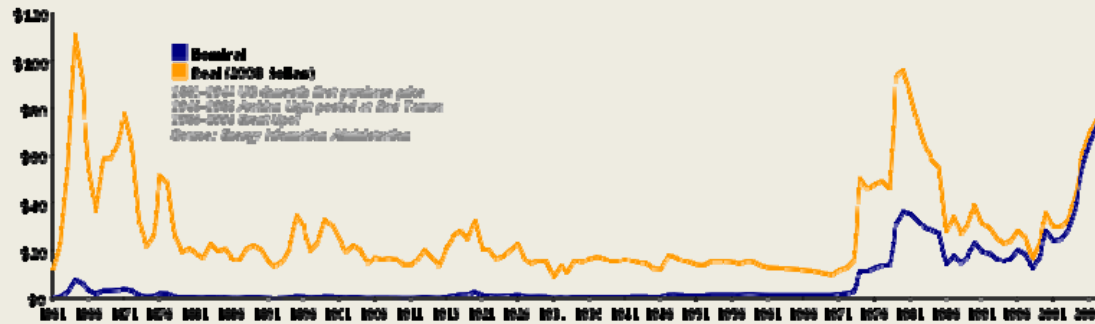
bankruptcies
consolidation



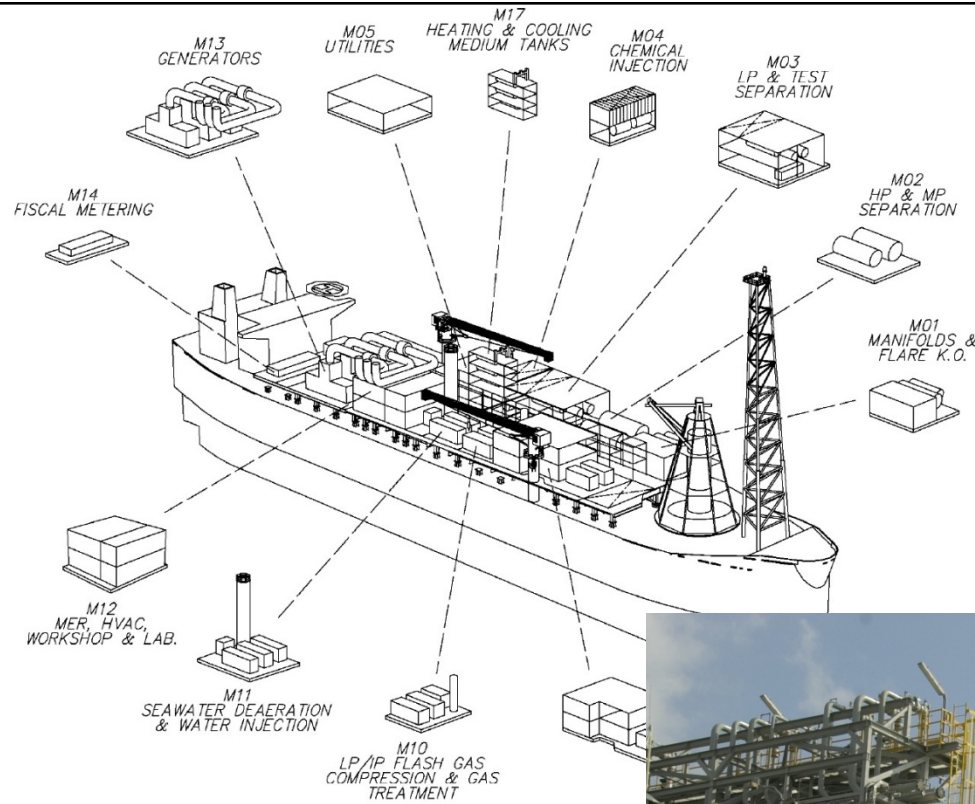




1990 - 2000's end of "easy oil"



offshore projects



FPSO's

modular LNG plants



wind mill equipment



1990's

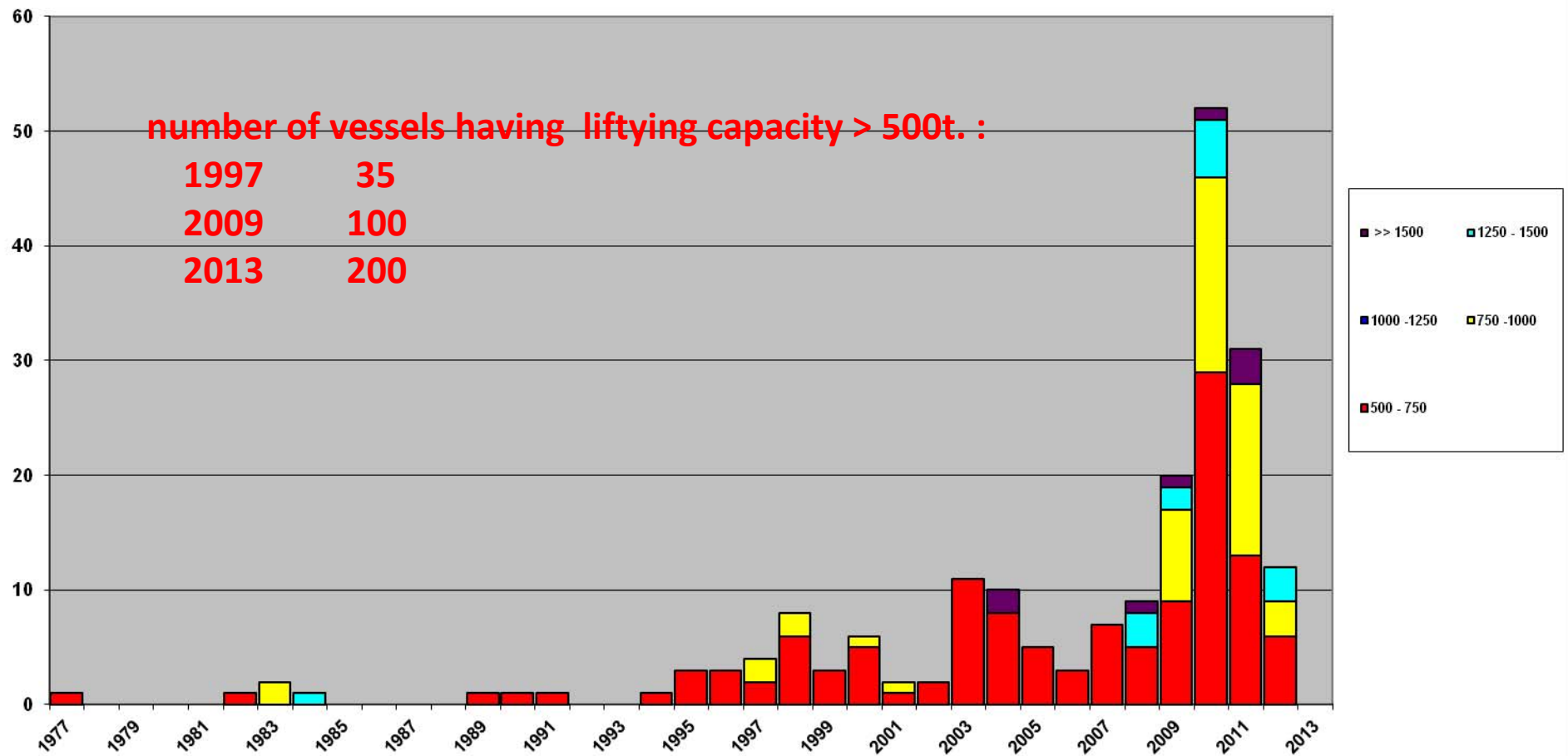
revival of conventional liner services



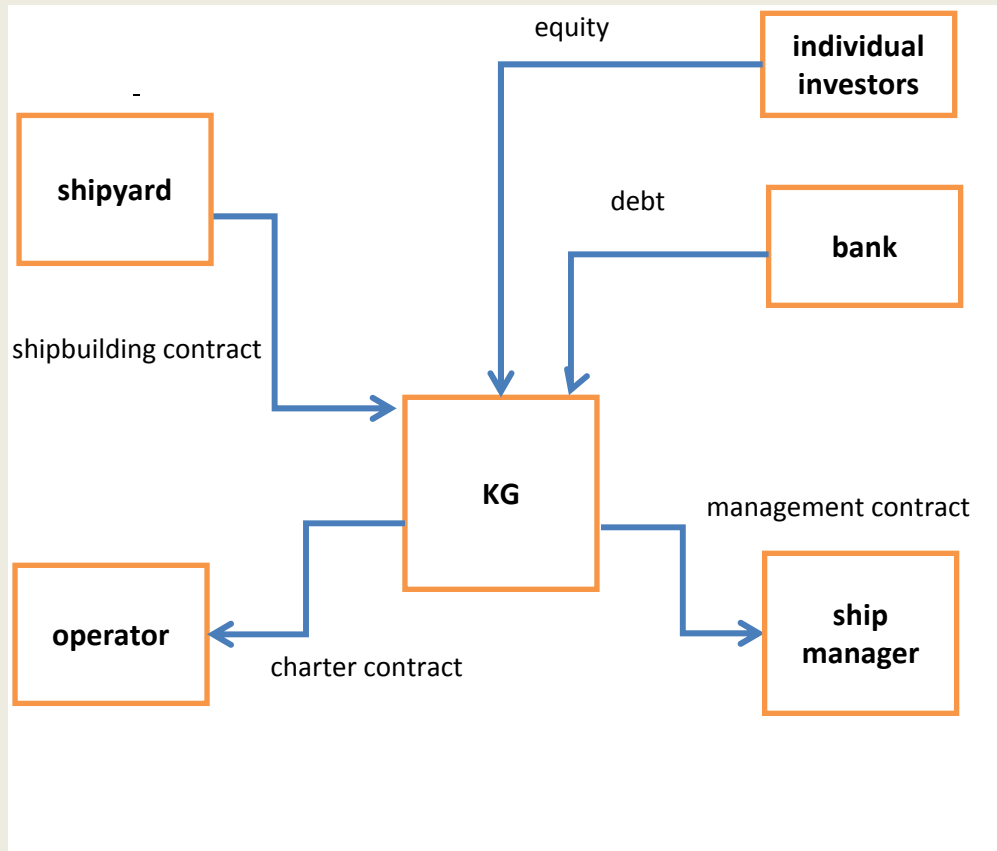
2000's "China factor" KG-money

heavy lift fleet age profile

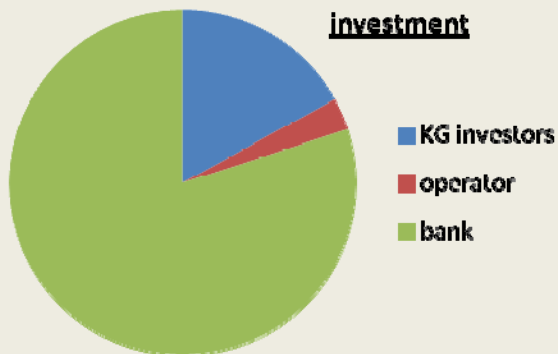
BIG LIFT



KG structure



BBC
 Beluga
 Combilift
 Scan Scot
 Scan Trans



ship's price



2000's

development:
container vessel
mpp vessels
h.l. vessels

2 x 35 t



2 x 150 t

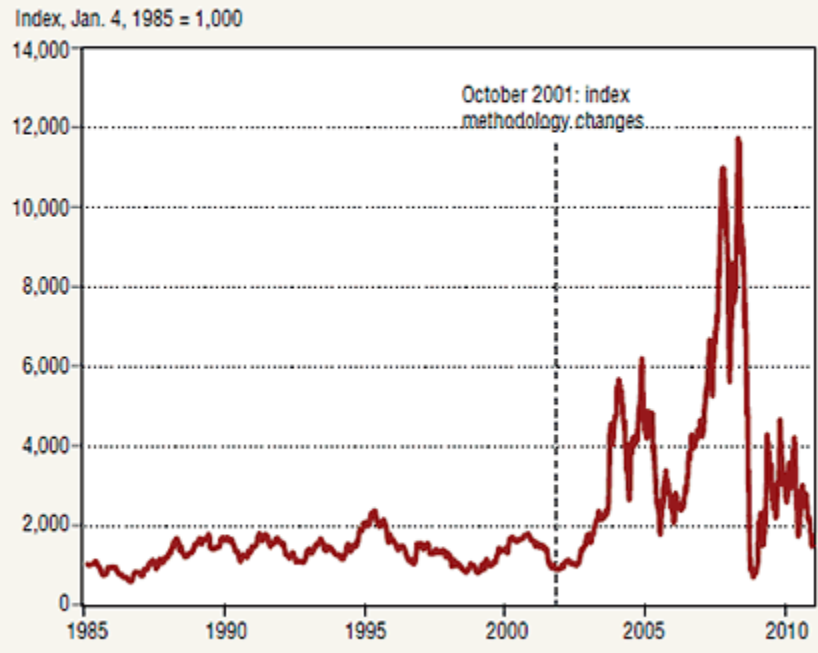


2 x 400 t.

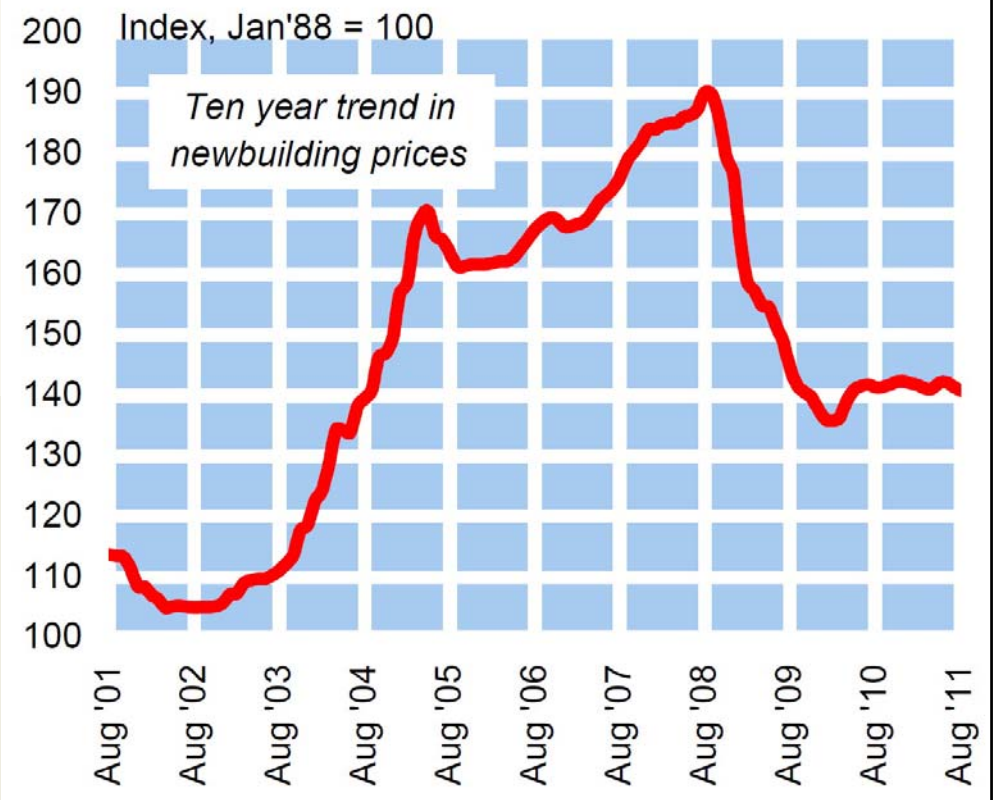


2008 Lehman

Chart 1
The Baltic Dry Index



SOURCES: Baltic Exchange; Bloomberg.



Beluga Shipping files for insolvency

Main operating company follows subsidiary in citing 'irregularities' in published figures

HERBERT FROMME — COLOGNE

BREMEN-based heavylift operator Beluga Shipping filed for insolvency yesterday, a day after its subsidiary Beluga Chartering.

Beluga Shipping is the group's main operating company, while

irregularities for turnover reason for Beluga Chartering's long-standing subsidiary Stolberg is misrepresenting situation. criminal case Stolberg is questioning prosecution. The advertisement company Bremen o

NEWS

Scanscot sunk as bank plays tough

The boss of a German heavylift

B
to
B
Tron
BW
Boh
dus
mea
1-14