

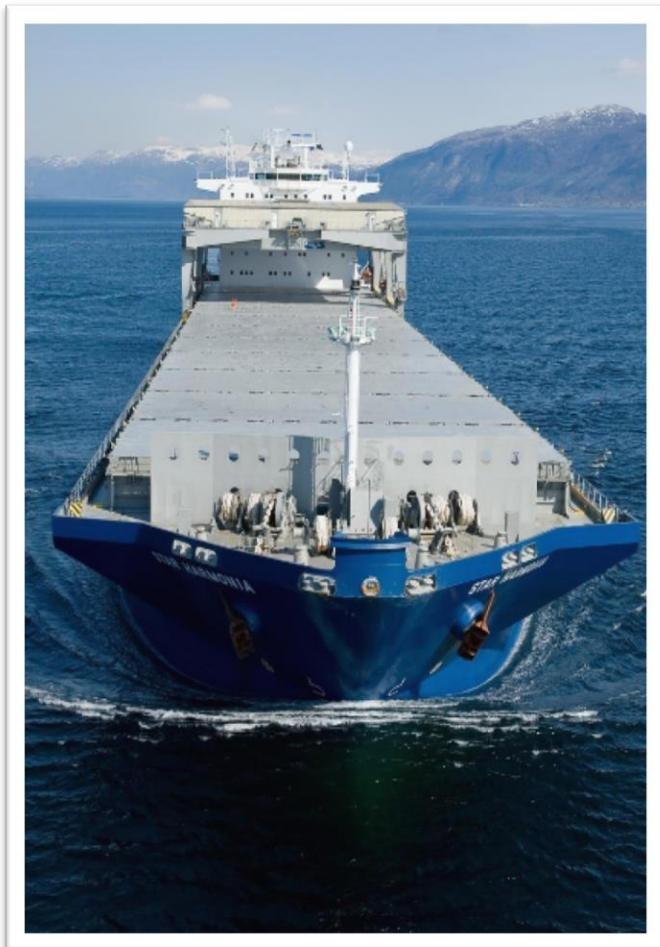
RESIRKULERING AV SKIP: HVEM HAR ANSVARET FOR AT DET GJØRES ETISK FORSVARLIG OG MILJØVENNLIG?

Marit Trodal, CR Manager Grieg Star
Lars Klaveness, Sales Manager Grieg Green



Shippingforum, 20th March 2013

GRIEG STAR



- Part of the Grieg Group
 - 2012: 1754 employees
 - Gross revenue 2011: 5 408 MNOK
 - Result before tax 2011 : 147 MNOK
 - 25% of dividend to Grieg Foundation
- Fully integrated shipping company with 889 employees
- Offices worldwide
- Owns and operates 30 open-hatch vessels + order book of 7 vessels
- Operate a fleet of 20-30 modern conventional bulk carriers
- Grieg Green AS

COMMITTED TO SUSTAINABILITY



- Creating lasting value through our common efforts
- No harmful emissions to air, sea and land
- A commitment to improve
- Supply chain sustainability



WHO IS RESPONSIBLE?



Whatever the Lyubov Orlova does to Ireland, it is unlikely that Canada will be held liable said Mr. Cahill, who, for two years enjoyed a clear view of the Lyubov Orlova from his St. John's law office.

“You would be hard pressed to say the Canadian government is responsible for a non-Canadian registered ship.”

From the National post, Canada





Buying certain brands of shoes
contributes to child labour.

JUST DON'T DO IT

To learn more about child labour visit www.UNICEF.org

unicef 

BRIEF HISTORICAL OVERVIEW

NIKE:

1970s: We do not have any control over the factories

1980-1990s: Denying increased criticism, but takes small steps to monitor factories

2001: Director Todd McKean: “We had people there every day looking at quality. Clearly, we had leverage and responsibility with certain parts of the business, so why not others?”

2002 – Today: Audits and follow-up, but still criticised for not paying living wages. Also get some credit for willingness to improve.

SHIP RECYCLING:

1970s: Tightening of environmental laws in industrialised countries, cost of disposing hazardous waste increases dramatically.

1980s: We do not have control over the ship when it is sold and dismantled in developing countries

1992: Basel convention entered into force

- Export and disposal of hazardous wastes

2012: 365 European flagged ships beached in in Pakistan, India and Bangladesh in 2012. An increase from 210 ships in 2011.

????: Hong Kong Convention

- Beaching still allowed

INCREASED EXPECTATIONS FROM STAKEHOLDERS

- Stakeholders influence companies to act in a sustainable way.
 - Customers? Business partners? Non-governmental organisations?
 - Authorities? Banks? EU? ...

Splitting up of value chain and use of suppliers in production of goods and services – responsible for what?

- Supply chain sustainability:
 - Companies require suppliers to observe regulations, values, norms, conduct audits



IKEA

From Supply Management – 25. February 2012:

“IKEA is preparing to cut suppliers unwilling or unable to satisfy the requirements of its code of conduct, as it aims to achieve 100 per cent compliance this year.

The retail chain has a goal of making all of its suppliers compliant with its ‘Iway’ supplier code, which enforces standards on the environment, safety and social and working conditions. In its latest sustainability report, the company said it expected some existing vendors would not be fully compliant by the deadline of the end of September, and was preparing to “phase out” those who did not meet the standards.

The company has 1,026 home furnishing suppliers in 53 countries. In total, 60 per cent of these are Iway approved. Some 90 and 94 per cent of vendors in Europe and the Americas are, but only 11 per cent in China.”



Flere norske skipsvrak forsøpler asiatiske strender

Dette oljetankskipet er ett av tilsammen 37 skipsvrak med tilknytning til Norge som i fjor ble vraket på strender i Pakistan, India og Bangladesh.

Øystein Aldridge , Ida De Rosa

Publisert: 05.feb. 2013 07:11 Oppdatert: 05.feb. 2013 15:10

Anbefal

33 personer anbefaler dette. Registrer deg for å se hva dine venner anbefaler.

Disse skipene ble vraket:

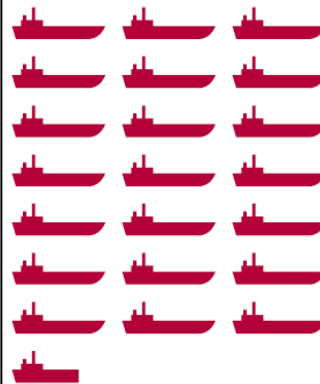
Minst 37 skip som har vært på norske hender ble vraket i Sørøst-Asia i løpet av 2012.

Skipene ble solgt av norske eller Norges-tilknyttede selskaper som

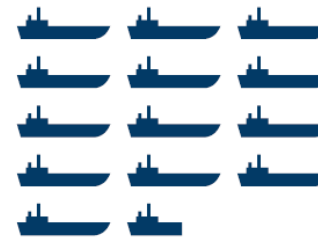
HOW IS THE SHIP RECYCLING INDUSTRY WORKING?

TOP 5 RECYCLING OWNER NATIONALITIES 2009-2012
By gross tonnage sold for demolition

1 Greece 21,716,561



2 China 13,586,917



3 Japan 7,662,369



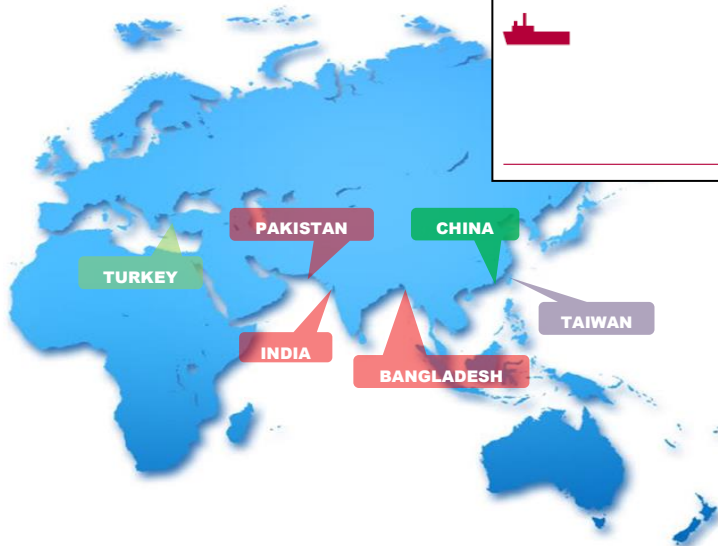
4 Singapore 4,912,753



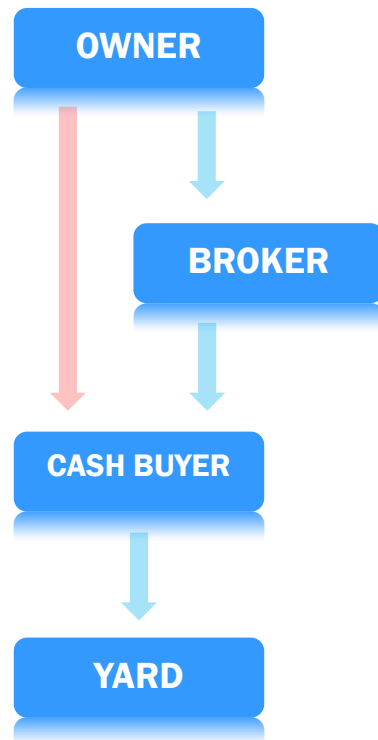
5 Norway 4,602,369



Source: Clarkson Research Services

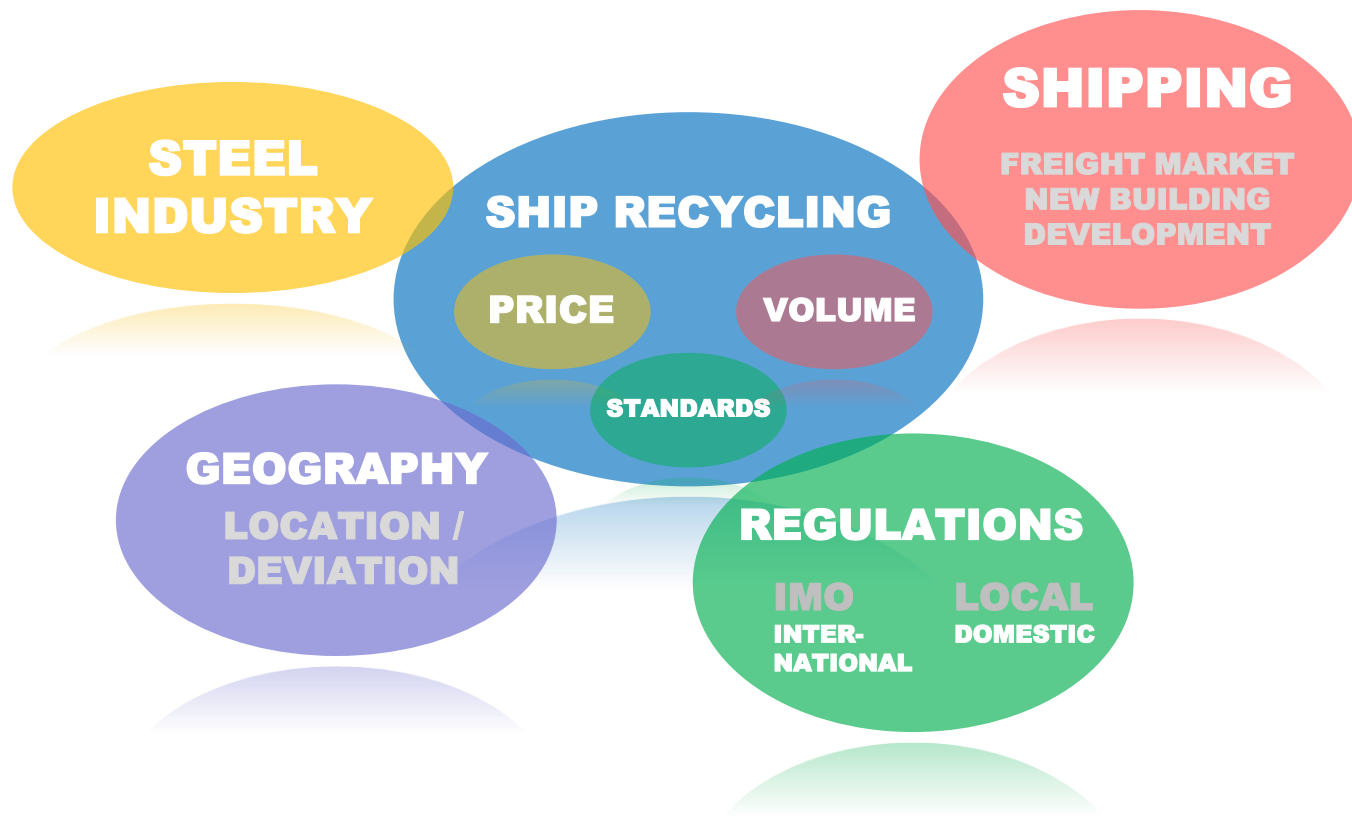


HOW IS THE SHIP RECYCLING INDUSTRY WORKING?

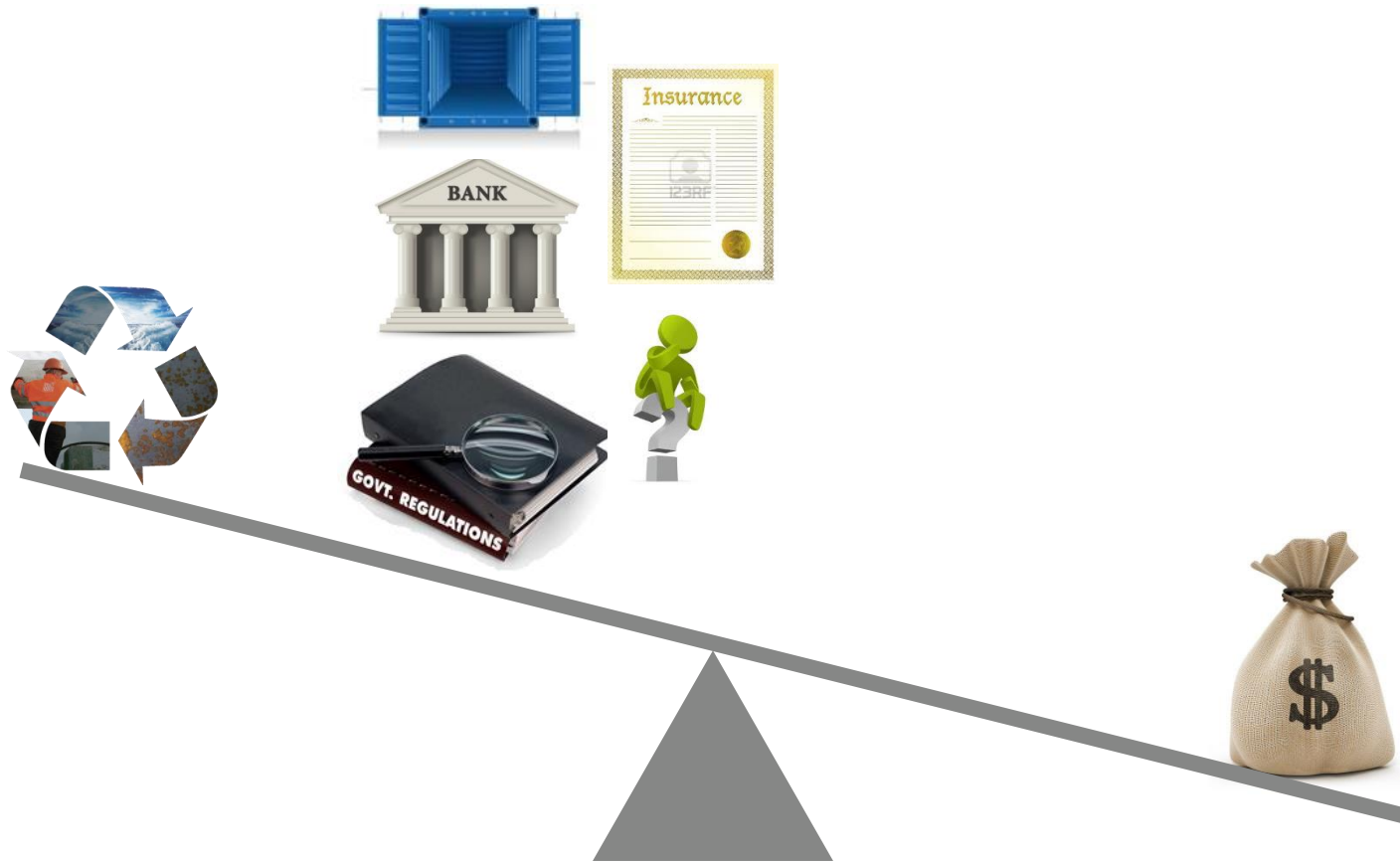


- “Cash buyers”; an intermediary buying vessels for cash with prompt payment and resell the vessels to ship recycling yards.
- Speculation and competition amongst cash buyers often push prices above the prices the recycling yards pay.
- This speculation creates problems when steel prices decrease, many cash buyers tend to renegotiate contracts.
- The industry is based on a very poor reputation the last decades, but even the industry is getting more professionalized, most of the big actors show limited interest to invest in the yards or their workers.
- There are good alternatives selling to recycling yards in China and Turkey.

SHIP RECYCLING INDUSTRY – MAIN DRIVERS

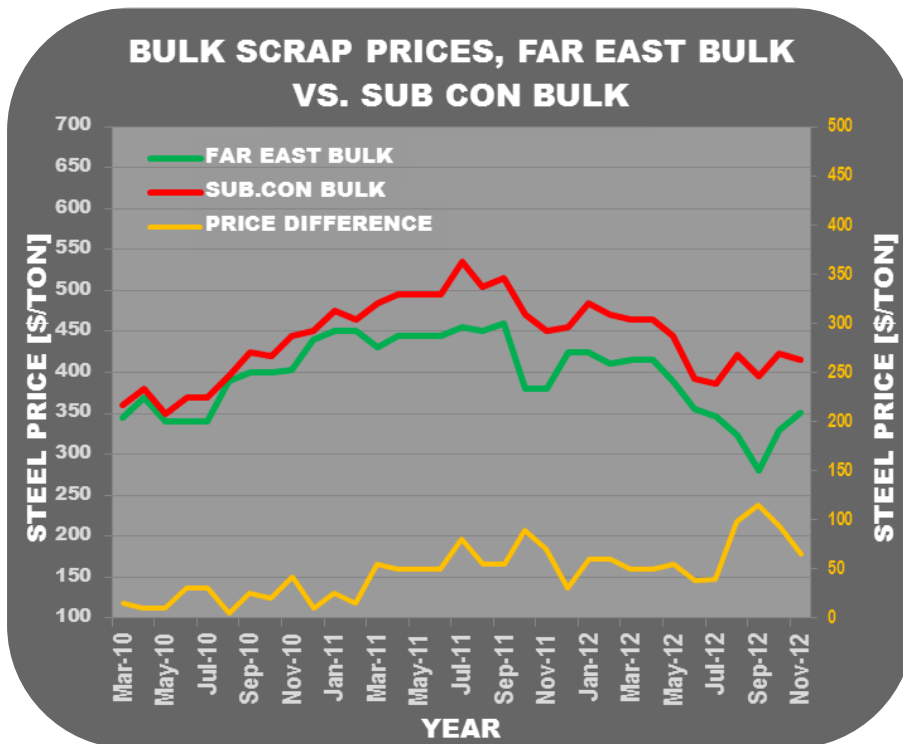


WHY SHIPOWNERS CHOOSE TO BEACH VESSELS AND HOW THEY AVOID RESPONSIBILITY



...but what about CR?

MARGINAL PRICE DIFFERENCE – \$ ONLY COUNTS

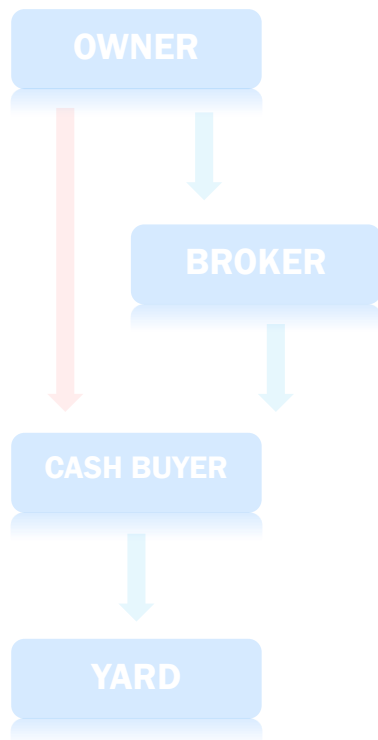


EX. RECYCLING OF A PANAMAX BULKER

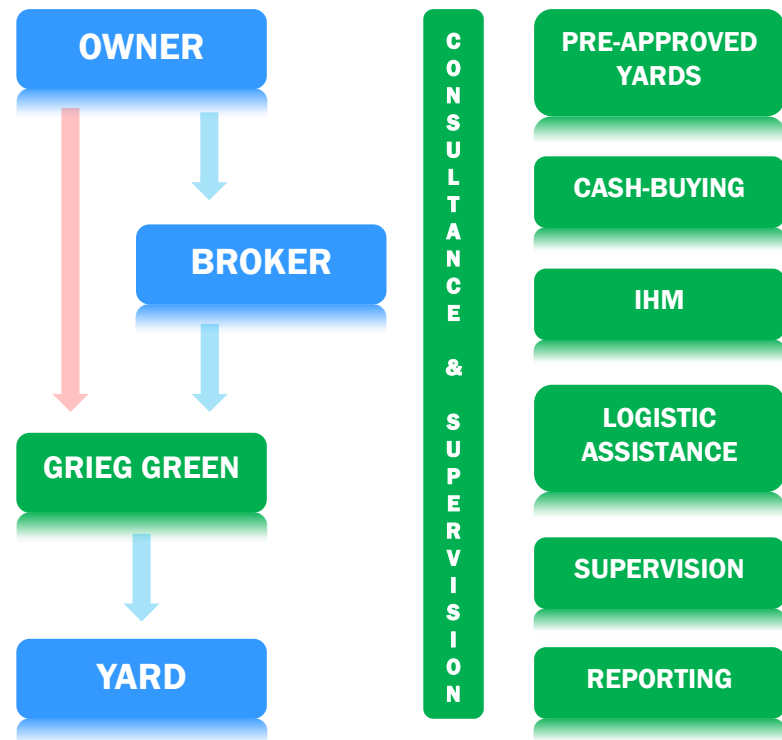
	India	China
Light Weight (LDT):	10.000	10.000
Price (USD/ LDT):	400,-	360,-
Total Price:	USD 4.000.000,-	USD 3.600.000,-
Price Difference:	USD 400.000,-	
Deviation cost: (China → India)	USD 350.000,-	
Exclusion List:	USD 0 - 500.000,-	
Net Difference: (no exclusions)	USD 50.000,-	

TRADITIONAL CASH BUYERS VS GRIEG GREEN

TRADITIONAL PROCESS

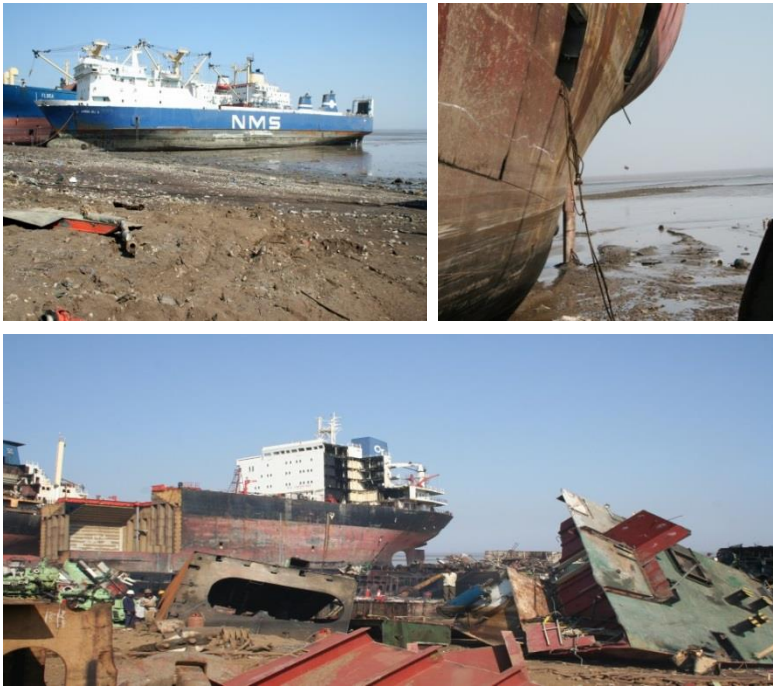


GRIEG GREEN PROCESS



TRADITIONAL CASH BUYERS VS GRIEG GREEN

TRADITIONAL PROCESS



GRIEG GREEN PROCESS



GRIEG GREEN – RECYCLING PROCESS

PRE-APPROVED YARDS (SRFP)

SALES & CONTRACT

DELIVERY & ACCEPTANCE

IHM




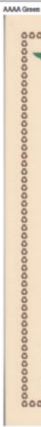





SHIP RECYCLING PLAN (SRP)

PRE-CLEANING

DISMANTLING

FINAL REPORT



<div>  <p>3 Worker Safety</p> <p>3.1 Safety and Hygiene</p> <p>The new entity proper waste protection.</p> <p>3.2 Safety & Health</p> <p>3.2.1 The name</p> <p>3.2.2 Safety sign</p> <p>3.2.3 Safety flag</p> <p>3.2.4 The safety</p> <p>3.2.5 Safety rule</p> <p>3.2.6 The safety</p> <p>3.2.7 Safety rule</p> <p>3.2.8 Cool and</p> <p>3.3 Environment</p> <p>3.3.1 Control Plan</p> <p>3.3.2 Environment</p> <p>3.3.3 Procedure</p> <p>3.4 Key safety</p> <ul style="list-style-type: none"> S T E C M R C E <p>3.5 Job Hazard</p> <p>Ship Recycling Plan</p> </div>	<div>  <p>1.3 Workforce</p> <p>1.3.1 Organization</p> <p>1.3.2 Personnel</p> <p>Certificate and License</p> <p>Certificate/License</p> <p>Manager of handling</p> <p>Unsupervised handling</p> <p>Ship Recycling Plan</p> </div>	<div>  <p>AAAA Grade</p>  <p>Ship Recycling Plan</p> </div>	<div>  <p>ISO 14001:2004</p>  <p>Ship Recycling Plan</p> </div>	<div>  <p>Fuel oil</p> <p>City water/slop/age</p> <p>Other oils</p> <p>Other Hazardous Materials</p> <p>Equipment and Facilities</p> <p>Area of the Facility</p> <p>Length of Quay (m)</p> <p>Construction of the</p> <p>Dock or Slipway</p> <p>Heavy Lifting Machine</p> <p>Boat</p> <p>Shear</p> <p>O₂ supply</p> <p>Gas supply</p> <p>Compressed air</p> <p>Fire extinguisher</p> <p>Waste oil treatment</p> <p>Waste storage</p> <p>Inverter</p> <p>Electric power supply</p> <p>Ship Recycling Plan</p> </div>	<div>  <p>1. Introduction</p> <p>1.1 Company info</p> <p>Name and position</p> <p>Name of the Facility</p> <p>Registered Address</p> <p>Address of the Facility</p> <p>Representative and</p> <p>Number of Employee</p> <p>Telephone</p> <p>E-mail</p> <p>Working language</p> <p>Location Map</p> <p>Maximum Capacity</p> <p>Type of ship to be</p> <p>Waste Management</p> <p>Asbestos</p> <p>PCBs</p> <p>Ozone-Depleting</p> <p>Anti-floating compound</p> <p>Heavy metals</p> <p>Radioactive substance</p> <p>Ship Recycling Plan</p> </div>	<div>  <p>江门市新会钢铁有限公司 Jiangmen Zhongxin Shipbreaking & Steel Co., Ltd.</p> <h2 style="text-align: center;">SHIP RECYCLING FACILITY PLAN</h2> <h3 style="text-align: center;">FOR</h3> <h3 style="text-align: center;">Jiangmen Zhongxin Shipbreaking & Steel Co., Ltd</h3> <p style="text-align: right;">Page 1</p> </div>
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GRIEG GREEN – RECYCLING PROCESS

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PRE-APPROVED
YARDS (SRFP)

SALES & CONTRACT

DELIVERY &
ACCEPTANCE

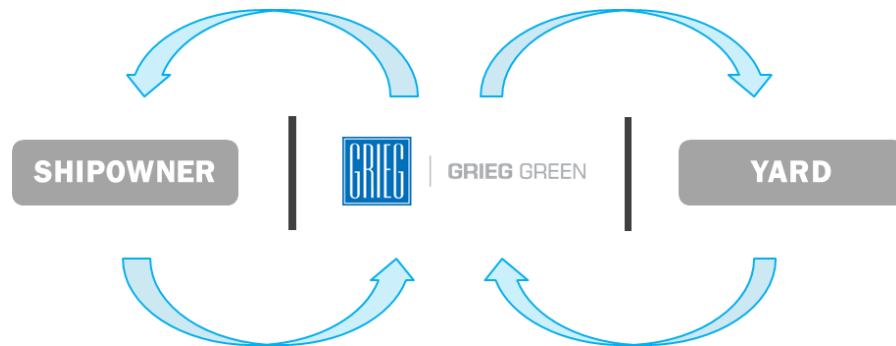
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SHIP RECYCLING
PLAN (SRP)

PRE-CLEANING

DISMANTLING

FINAL REPORT



MEMORANDUM OF AGREEMENT MV VESSEL

Date: yyyy-mm-dd

IT IS THIS DAY MUTUALLY AGREED between the Sellers referred to in item 1 ("the Sellers") and the Buyers referred to in item 3 ("the Buyers") that the Sellers shall sell and the Buyers shall buy the Vessel named in item 5 with particulars as referred to in item 9, "the Vessel" (the Sellers do not guarantee, but confirm in good faith the accuracy of the said particulars) for the purpose of demolition at the ship recycling yard as referred to in item 5.7 ("the Ship Recycling Yard").

1 Sellers' Name :
2 Sellers' Address :
3 Buyers' Name :
4 Buyers' Address :

5 Ship Recycling Yard:
6 Ship Recycling Yard's Address:
7 Location of Ship Recycling Yard:
8 Vessel's name: MV VESSEL
9 Vessel's specification:

Vessel name : "Vessel"
Vessel owner : Owner
Flag :
IMO :
Call sign :
Class notation : General Cargo Carrier
Building yard :
Delivery year from yard : yyyy
General description : N/A

Main particulars:
Length over all : m
Length between perp. : m
Breadth : m
Depth upper deck : m
Design draught : m

VESSEL SPECIFICATION
PLACE AND TERMS OF
DELIVERY
TERMS OF PAYMENT
GUARANTEE OF GREEN
RECYCLING
EXCLUSION LIST
CLOSING DOCUMENTS

BOTH CONTRACT ARE
DEVELOPED TO FIT
EACH OTHER AND
MINIMIZE RISK



GRIEG GREEN

Shippingforum, Oslo, 20th March 2013

GRIEG GREEN – RECYCLING PROCESS

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PRE-APPROVED
YARDS (SRFP)

SALES & CONTRACT

DELIVERY &
ACCEPTANCE

IHM

SHIP RECYCLING
PLAN (SRP)

PRE-CLEANING

DISMANTLING

FINAL REPORT



GRIEG GREEN

Shippingforum, Oslo, 20th March 2013

GRIEG GREEN – RECYCLING PROCESS

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YARDS (SRFP)

SALES & CONTRACT

DELIVERY &
ACCEPTANCE

IHM


SHIP RECYCLING
PLAN (SRP)

PRE-CLEANING

DISMANTLING

FINAL REPORT

Visual/Sampling Check Plan													
No.	Tbl A/B	Hazardous Materials *1	Location: Zone, Compartment, System	Equipment	Object to Check (Component, Material)	Manufacturer / Brand Name	Document Analysis Result *2	Check Procedure *3	Sample No.	Pic No.	Check Result *4	Approx. Quantity	Remarks
Inventory Part I-1 Paints and Coating systems containing materials listed in Table A and Table B of appendix 1 of guidelines													
1	A	Organotin compounds	Underwater part (flats and underwater sides)	Anti-fouling system	Paints	International	N	V					Antifouling System Certificate/DNV
2	B	Lead	A deck	Deck	Paints	International	Unknown	S					
3	B/A	naphthalenes, PCBs	A deck	Deck	Paints	International	Unknown	S					
4	B	Lead	A deck	Exposed wall	Paints	International	Unknown	S					
5	B/A	naphthalenes, PCBs	A deck	Exposed wall	Paints	International	Unknown	S					
6	B	Lead	Car hold space	Deck	Paints	International	Unknown	S					
7	B/A	naphthalenes, PCBs	Car hold space	Deck									
8	B	Lead	Car hold space	Side wall									
9	B/A	naphthalenes, PCBs	Car hold space	Side wall									
10	B	Lead	Engine room	Side wall									
11	B/A	naphthalenes, PCBs	Engine room	Side wall									
12	B	Lead	Quarter & side ramp	Ramp									
13	B/A	naphthalenes, PCBs	Quarter & side ramp	Ramp									



GRIEG GREEN – RECYCLING PROCESS

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PRE-APPROVED
YARDS (SRFP)

SALES & CONTRACT

DELIVERY &
ACCEPTANCE

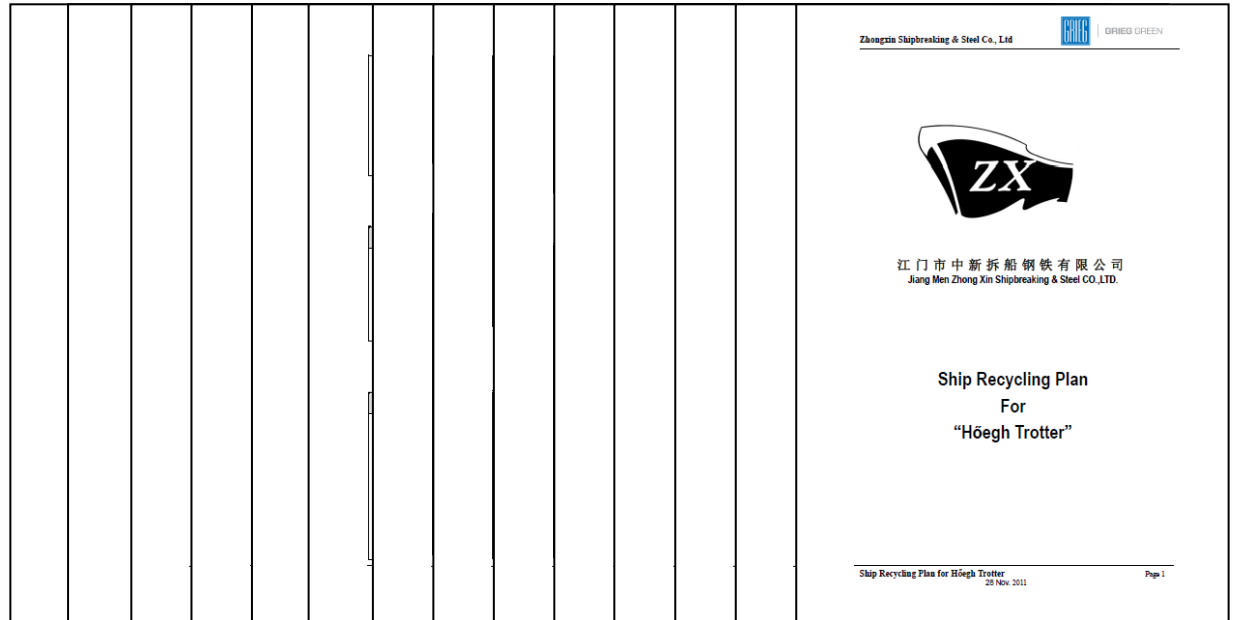
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SHIP RECYCLING
PLAN (SRP)

PRE-CLEANING

DISMANTLING

FINAL REPORT



GRIEG GREEN – RECYCLING PROCESS

CONSULTANCE & SUPERVISION

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YARDS (SRFP)

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DELIVERY &
ACCEPTANCE

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SHIP RECYCLING
PLAN (SRP)

PRE-CLEANING

DISMANTLING

FINAL REPORT



- | | |
|----------------------------|------------------------------|
| 1. Administration building | 9. Incineration Workshop, II |
| 2. Canteen | 10. Phase II, Land |
| 3. Storage House | 11. Phase II, Land |
| 4. Stabilization Workshop | 12. Phase II, Land |
| 5. Main Power Room | 13. Phase II, Land |
| 6. PCT/WWT Workshop | 14. Leachate Pool |
| 7. Maintenance Workshop | 15. Surface Water Pool |
| 8. Incineration Workshop | 16. Landfill Site Phase I |



GRIEG GREEN – RECYCLING PROCESS

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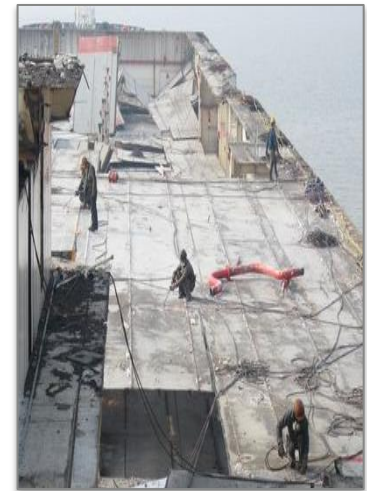
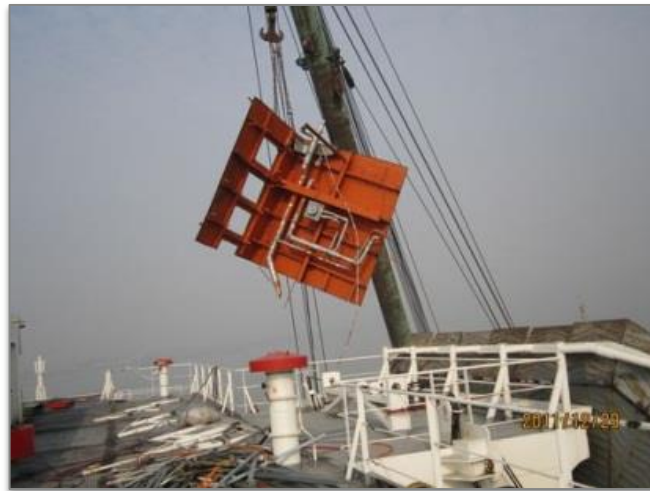
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SHIP RECYCLING
PLAN (SRP)

PRE-CLEANING

DISMANTLING

FINAL REPORT



GRIEG GREEN

Shippingforum, Oslo, 20th March 2013

GRIEG GREEN – RECYCLING PROCESS

CONSULTANCE & SUPERVISION

PRE-APPROVED
YARDS (SRFP)

SALES & CONTRACT

DELIVERY &
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SHIP RECYCLING
PLAN (SRP)

PRE-CLEANING

DISMANTLING

FINAL REPORT

江门市中新钢铁有限公司
Jiangmen Zhongxin Shipbreaking & Steel CO., Ltd.

GRIEG GREEN

1. Statement of Completion of Ship Recycling

STATEMENT OF COMPLETION OF SHIP RECYCLING

This document is a statement of completion of Ship Recycling for
Hough Trotter
Received for recycling at 16th Mar 2012

Particulars of the Ship as received for recycling:

Name	Hough Trotter
Type	Vehicle Carrier
Port of Registry	Oslo
Gross tonnage	35,822
IMO number	8110910
IMO registered owner identification number (IMO)	NIL
IMO company identification Number	NIL
Date of Construction	June, 1983

THIS CONFIRMS THAT:
The ship has been recycled in accordance with the Ship Recycling Plan as part of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (hereinafter referred to as "the Convention") at
Jiangmen Zhongxin Shipbreaking & Steel CO., LTD.
Chong'an/Guling Town, Xinhai District, Jiangmen City, Guangdong Province, China.

The recycling of the ship as required by the Convention was completed on
16th Mar 2012

Issued at:
Chong'an/Guling Town, Xinhai District, Jiangmen City, Guangdong Province, China.

Signature of the owner of the Ship Recycling Facility or a representative acting on behalf of the owner:

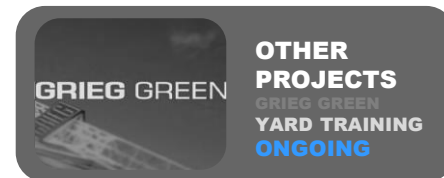
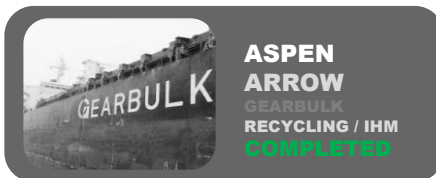
General Manager: 
General Manager: Liang Zhongqian



Document of Green Ship Recycling

- 3 -

PROJECTS – COMPLETED AND ONGOING



THANK YOU FOR YOUR ATTENTION

