



2nd General Average Seminar London

Managing Distressed Cargoes

8-9 November 2016

Gianluca Rolff

Master Mariner – Director



- Over 18 years experience as Marine & Cargo Surveyor acting on behalf of Average Adjusters, P&I Clubs and Cargo Interests
- Notable cases:
 - MSC NAPOLI – Grounding – UK – 2007
 - MSC FLAMINIA – Explosion/Fire – Germany – 2012
 - HANJIN ITALY – Collision – Singapore – 2014 – *(GA surveyor)*
 - WAN HE – Grounding – Colombia – 2014
 - SAN FELIPE – Fire – Malaysia – 2014
 - HOEGH OSAKA – Grounding – UK – 2015
 - MAERSK KARACHI – Terminal Gantry Crane Collapse/Fire – Germany – 2015 – *(GA surveyor)*
 - CSCL INDIAN OCEAN – Grounding – Germany – 2016
 - MODERN EXPRESS – Heavy List – Bay of Biscay/Spain – 2016
 - SAFMARINE MERU – Collision/Fire – China – 2016 – *(GA surveyor)*
- Member of the British Association of Cargo Surveyors
- Native Italian, also fluent in Spanish
- Joined TMC Marine in 2012 – Appointed to the Board of Directors in 2016

TMC (Marine Consultants) Ltd



- Since 1979 – Head office in the City of London, in the heart of the marine industry; lawyers, P&I clubs, underwriters, charterers and ship owners
- Over 40 technical staff worldwide.
- All disciplines are covered, Naval Architects, Master Mariners, Marine Engineers, Computer Modelling & Simulation.
- Offices around UK and Overseas.
- Certified ISO 9001-2015 and UKAS



In May 2016 TMC Marine became a Bureau Veritas company

TMC Worldwide Offices



TMC LONDON (UK) - TMC MEDWAY (UK) – TMC NEWCASTLE (UK) – TMC SOUTHAMPTON (UK)
TMC SINGAPORE – TMC SHANGHAI – TMC AUSTRALIA – TMC USA



Overview

1. General Average declaration on Distressed Cargoes
2. What is distressed cargo?
3. Dealing with distressed cargo
4. Planning
5. Shipboard operations
6. Shore operations
7. Problems and challenges
8. Case example: MAERSK KARACHI
9. The role of General Average Surveyor
10. Timeline of a containership casualty

General Average Declaration on Distressed Cargoes



EVENT	EXPENDITURE
Explosion / Fire	<ul style="list-style-type: none">▪ Damage to vessel & cargo due to efforts to extinguish fire on board▪ Jettison of cargo▪ Port of refuge expenses



General Average Declaration on Distressed Cargoes



EVENT	EXPENDITURE
Grounding	<ul style="list-style-type: none">▪ Damage to vessel & machinery due to re-floating efforts▪ Loss / damage to cargo due to jettison or forced discharge▪ Cost of discharging / storing / re-loading of discharged cargo▪ Port of refuge expenses



General Average Declaration on Distressed Cargoes



EVENT	EXPENDITURE
Cargo shifting in heavy weather	<ul style="list-style-type: none">▪ Jettison of cargo▪ Port of refuge expenses



General Average Declaration on Distressed Cargoes



EVENT	EXPENDITURE
Collision	<ul style="list-style-type: none"><li data-bbox="595 436 1122 482">▪ Port of refuge expenses



General Average Declaration on Distressed Cargoes



EVENT	EXPENDITURE
Machinery breakdown	<ul style="list-style-type: none"><li data-bbox="595 436 1122 482">▪ Port of refuge expenses



General Average Declaration on Distressed Cargoes



EVENT	EXPENDITURE
Port Operations Incidents	<ul style="list-style-type: none">▪ Various expenditures and losses (forced discharge, de-watering ops)



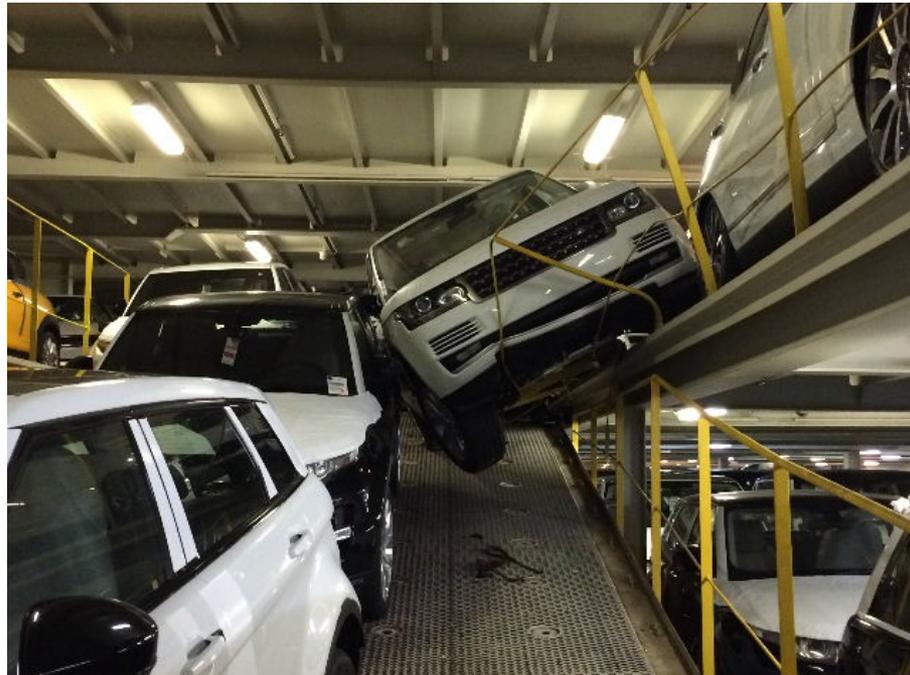


What is distressed cargo?

- Cargo shipped by sea that may not reach its specified consignee in its original state due to the misadventure of the vessel engaged in its carriage.
- Cargo that requires management input to protect its residual value.
- Cargo that may have become dangerous to humans and to the environment due to its altered state.
- Cargo that causes concern to the Authorities.
- Cargo that may attract the interest of local or national press.

What is distressed cargo?

It is an expensive business to deal with!



Dealing with distressed cargo

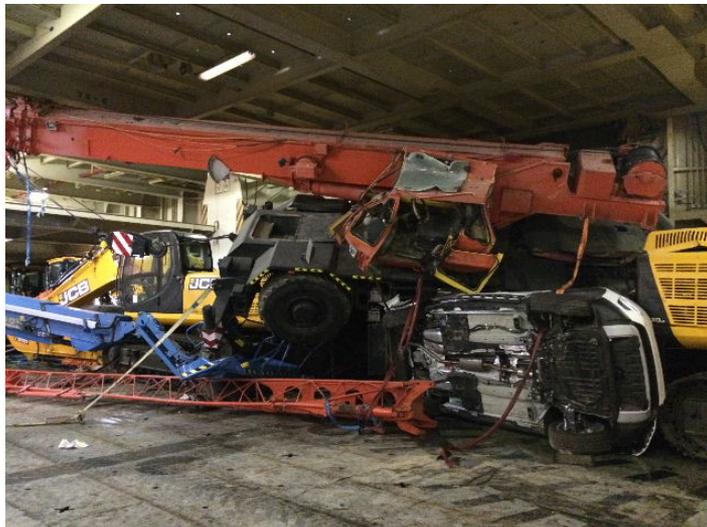


▪ Why

- Protect interests
- Realise value
- Reduce costs

▪ Who

- Owners
- Charterers
- Salvors
- General Average Community



Dealing with distressed cargo

HOEGH OSAKA – A vehicle carrier casualty



The total amount of money involved in the adventure may run into hundreds of millions.

It is essential that operations related to the management of the distressed cargo are carried out smoothly, efficiently, with considerable organisation, planning and data recording skills.



Dealing with distressed cargo

SAN FELIPE - A containership casualty



The industry is concerned with the possible nightmare scenario of a major casualty occurring to an ULCV (>14,501 TEU)

With the construction of massive 19,000 TEU containerships, the issues are different from the past and managing distressed cargo is more time-consuming and costly than ever.



Dealing with distressed cargo

A containership casualty – Planning



- BAPLIE files and Manifest(s) **must** be obtained
- Stowage position of DG containers and organic cargoes **must** be identified
- Discharge plan to be put in place based on ship's damaged condition, i.e. by monitoring bending moments, shear forces and stability (ship's profile plans will be needed)
- In case of flooded holds the level of flooding needs to be established
- De-watering to be carried out first?
- A shore operation that complies with local laws and regulations is to be set up in parallel with the shipboard operation



Dealing with distressed cargo

A containership casualty – Shipboard operations



- Can the containers be handled / lifted?
 - Distorted container guides
 - Physical damage to containers
 - Overweight / flooded containers
 - Submerged containers
- Is the water hazardous?
 - PH of water will need to be established
- Environmental issues
(cargo spillages – dripping containers)
- Health and Safety issues
(self-heating cargoes, CO, H₂S, CH₄, PCB's *polychlorinated biphenyls*)
- Hot work issues
- Continued monitoring of ship's condition

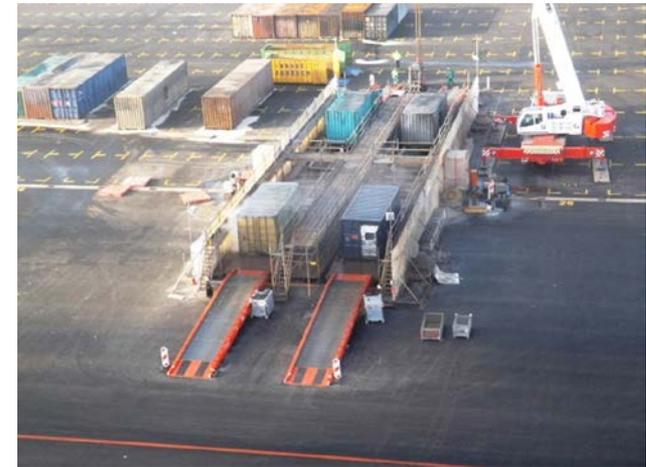


Dealing with distressed cargo

A containership casualty – Shore operations



- Wharf space availability
- Identification of suitable contractors
- Cleaning
- Surveying
- Storing
- Destroying / disposal
- Un-stuffing for re-packing
- Onward shipment
- Salvage sale
- Disposal of contaminated water from holds



Dealing with distressed cargo

A containership casualty – Surveying



- Wharf space availability
- Cargo interests' appointed surveyors co-ordination – invitation – information
- Container shell inspection
- Doors-end cargo inspection
- On-the-spot agreement
- GA Surveying: identification and quantification of sacrifices
- Loss mitigation
- Recording the findings and the agreed actions



Dealing with distressed cargo Problems



Problems? Which problems? There are only **challenges!**



Dealing with distressed cargo

Challenges



- Redacted / Incomplete Manifests
- Un-declared / mis-declared cargo
- Charterers / slot charterers arrangements
- Authorities
- Customs – Cargo import / export status
- Press

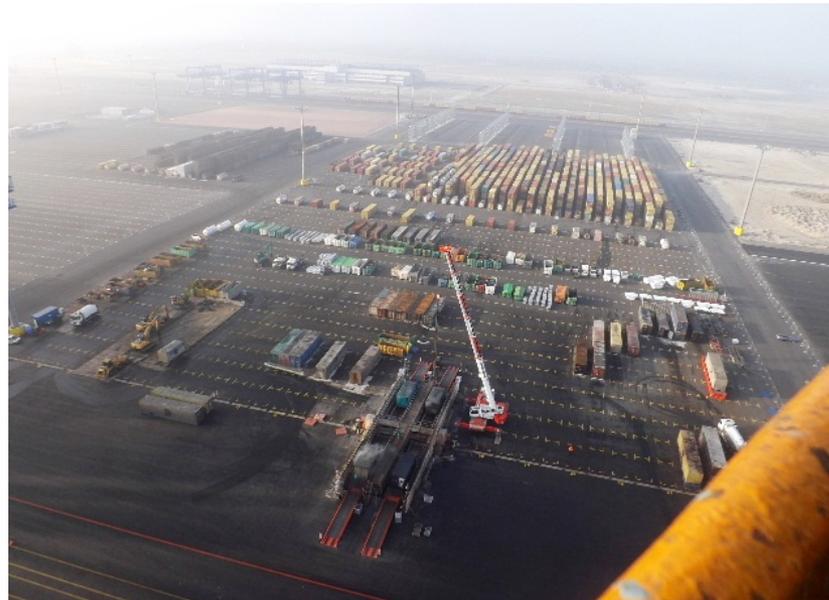


Dealing with distressed cargo

Challenges – Wharf Space Availability



- 19,000 TEU ship: assuming 0.5m all round, 24m² per container or 456,000m² for the cargo (>112 acres without any space to manoeuvre).
- 19,000 surveys/inspections (an estimated 760 man days)
- 10% DG, 1900 DG Containers
- Disposal infrastructure / Transhipment infrastructure



CASE STUDY

MAERSK KARACHI

GANTRY CRANE COLLAPSE & FIRE



2015
Bremerhaven
Germany

MAERSK KARACHI

Gantry crane incident



During the course of customary cargo operations, the boom and the main “A” frame of post-panamax gantry crane n.5 broke and crushed in hold n.4

One fatality

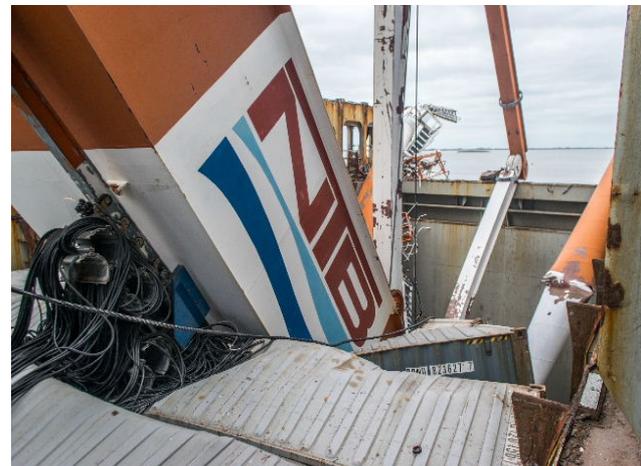
TYPE	Fully Cellular Containership
CAPACITY	6,690 TEU
GT	80,942
LOA	299.90 m
BEAM	42.83 m
DEPTH	24.40 m

MAERSK KARACHI

Crane incident & aftermath



- 14th May 2015 at 00:44 LT – Hold 4
- NTB Terminal – Bremerhaven
- Westbound line voyage n.1506 (2161 containers of which 131 IMDG)
- Hole made in bulkhead between hold n.3 and hold n.4
- Cutting operations of crane parts commenced on 18th May 2016
- Fire-fighting measures in place



MAERSK KARACHI

Fire incident & aftermath



- 22nd May 2015 at 12:04 LT
- Fire in hold n.4 – Officially extinguished 24 hours later
- Flooding of hold n.4 (and of hold n.3!)
- 308 containers submersed
- Approximately 17,000 m³ of fi-fi water
- 211 containers ex holds n.3 and n.4 (above waterline) and on deck, possibly affected by crane damage / heat / smoke / taint / fire extinguishing water sprays
- Ship's condition: bending moments, shear forces and stability



MAERSK KARACHI

Sound cargo operations – NTB Terminal



- Gantry crane boom removed on 27th May 2015
- First sound container off the ship on 20th June 2015
- Operations lasted three days – No incidents
- 211 containers from holds and deck (including reefers – loss of power) segregated for survey
- 10% ca suffered GA sacrifice damage
- On completion of discharge of sound cargo, de-watering operations commenced

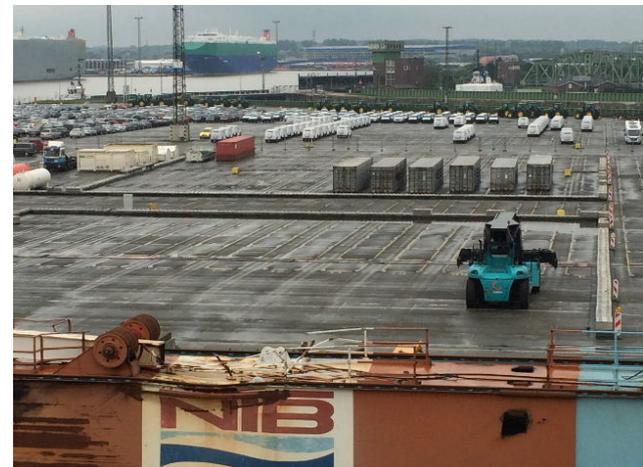


MAERSK KARACHI



Distressed cargo operations – Eurogate Terminal

- Ship transferred to Eurogate Terminal where the shore operation was set up in order to receive 308 distressed containers / cargoes
- Authorities' requirements and identification of suitable contractor (ITT's)
- First distressed cargo off the ship on 4th August 2015 – Ops lasted 42 days
- De-watering operations completed on 11th September 2015
- Survey work: communication and co-ordination – determination of damage causation (fire / heat / smoke / crane damage / fi-fi water sacrifice)



MAERSK KARACHI



Distressed cargo operations – Eurogate Terminal

- Washing operations of all distressed containers and cargoes
- Re-conditioning / re-packing of distressed cargo retaining residual value
- Salvage sales
- Disposal of distressed cargo agreed to be CTL – 5,100 m/t of waste in 230 trucks
- 90 out 308 distressed containers were scrapped
- Wharf space availability issues
- Environmental and recycling issues
- Abandoned cargo
- Recording the survey findings and the ultimate fate of containers and cargoes

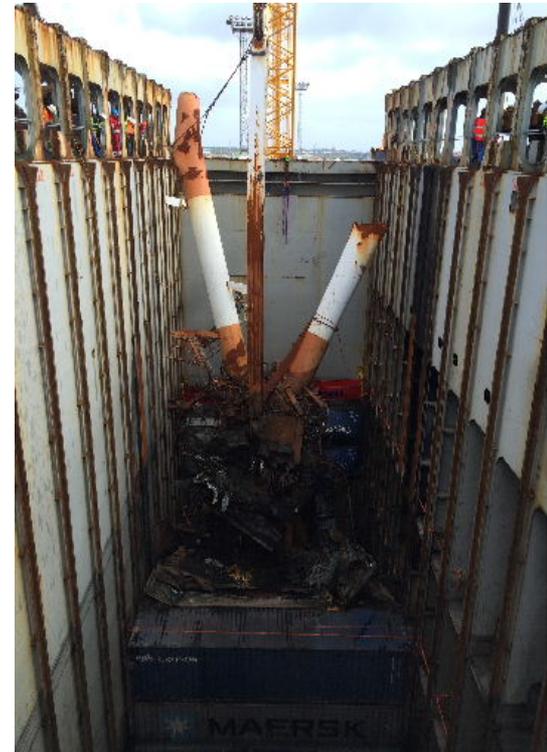


MAERSK KARACHI

Removal of collapsed crane parts

Ship damage assessment and repairs

- Removal of collapsed crane parts lasted about 15 days
- Hold cleaning operations
- GA Surveyor joining inspection with H&M and P&I surveyors to agree extent of ship's damage and to determine the ship's damage causation (crane collapse vs wetting)
- Ship repaired – sailed from Bremerhaven on 1st October 2015



General Average Surveyor on site for 104 days



The General Average Surveyor

- Not required to investigate the circumstances leading to GA
- To advise all parties on the steps necessary to ensure the common safety
- To monitor such steps in order to protect all interests
- To review expenditures and advise whether same are reasonable
- To identify and quantify sacrifices / expenditures (ship and cargo inspections)
- To ensure that sacrifices / expenditures are properly mitigated

The General Average Surveyor is appointed by the ship's Owners

Timeline of a Containership Casualty



View of deck cargo washed ashore
Branscombe Beach, Dorset, UK

MSC NAPOLI
18 January 2007
(4,419 TEU)

Cargo shipboard
operations lasted 5
months

Overall salvage &
wreck removal lasted
924 days

Timeline of a Containership Casualty



View of cargo inside hold n.4

MSC FLAMINIA

14 July 2012

(6,750 TEU)

Cargo shipboard operations lasted 3 months

GA unsecured containers still at port of refuge 12 months after incident

Timeline of a Containership Casualty



View of wet, contaminated, overweight and bulging containers in hold n.4

HANJIN ITALY
28 December 2013
(10,070 TEU)

Cargo shipboard
operations lasted 32
days

Cargo shore
operations lasted 7
months

Timeline of a Containership Casualty



Fire-fighting operations on the SAN FELIPE
anchored at Port Klang

SAN FELIPE
28 October 2014
(8,714 TEU)

Cargo shipboard
operations lasted 11
days

Cargo shore
operations lasted 2.5
months

Timeline of a Containership Casualty



MAERSK KARACHI
14 May 2015
(6,690 TEU)

Cargo shipboard
operations lasted 4
months and 2 days

Cargo shore
operations lasted 8
months and 9 days

Distressed container n.308 (last one) being
discharged



Thank you very much for your attention
Any questions?

