BARGE SHIPMENT AND CLAIM PRESENTATION

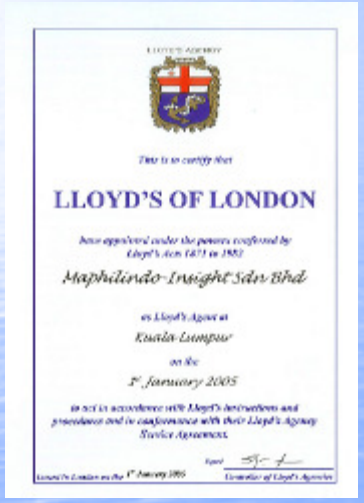
DATE : 13 JULY 2017

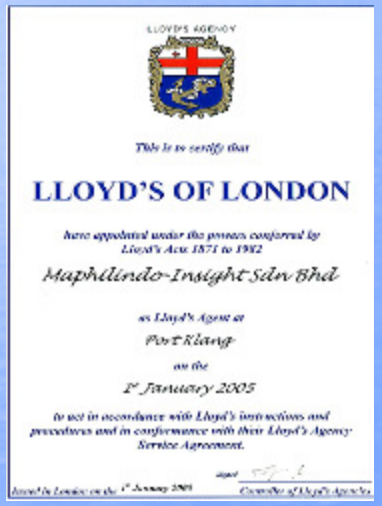
VENUE : CONNEXION @ NEXUS

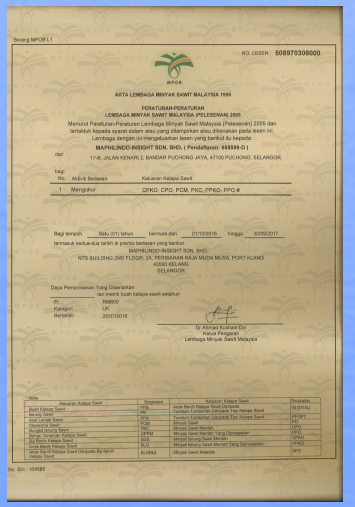
PRESENTED BY CAPTAIN KHOO
MAPHILINDO-INSIGHT SDN. BHD

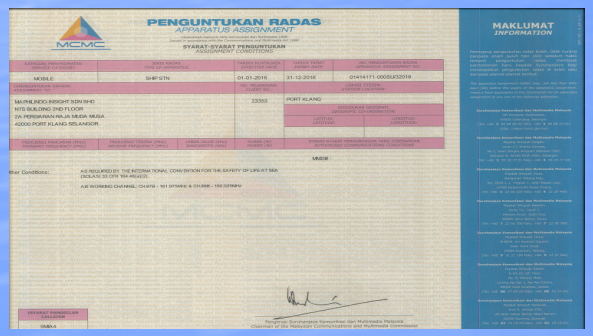
COMPANY PROFILE

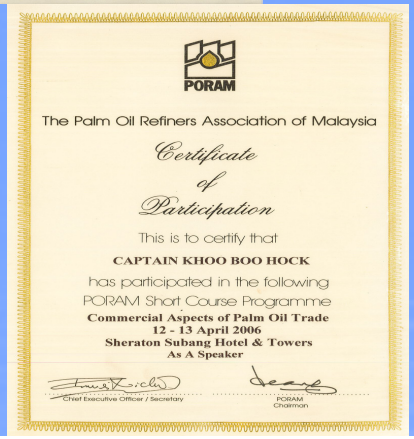
- Incorporated in Kuala Lumpur & Port Klang, Malaysia in November 2004.
- Appointed as Lloyd's Agent in Kuala Lumpur & Port Klang, Malaysia effective January 2005.
- Appointed as Lloyd's Agent in East Malaysia effective July 2014.











COMPANY PROFILE

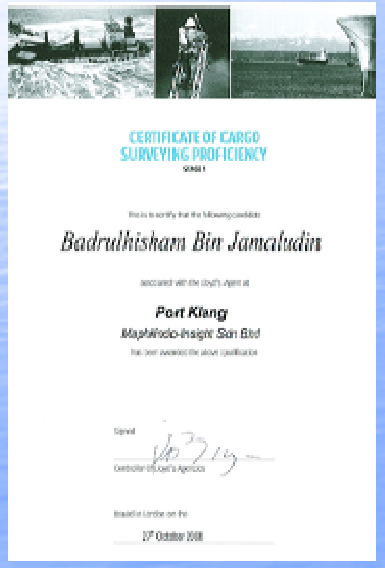
- Specialised in marine related survey.

- Staff strength of over 30 personnel
  - Master Mariners/ Officers
  - Marine Engineers
  - Engineers
  - Experienced Marine Surveyors
  - Administration staff
  - Operation / Coordination staff

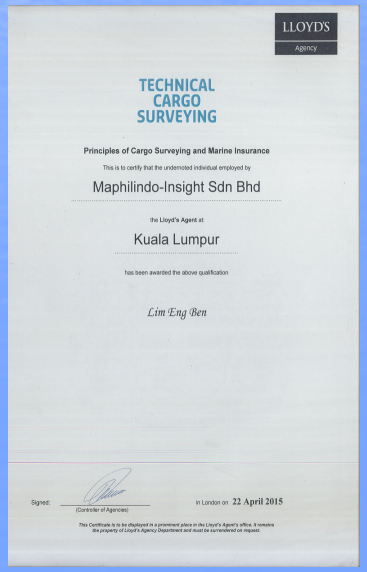
COMPANY PROFILE

A team of well trained and experienced marine surveyors with on job and practical training. Attend course and sit for marine cargo survey examination conducted by Lloyd's Agency Department of London. Surveyors are awarded if achieved standard with:-

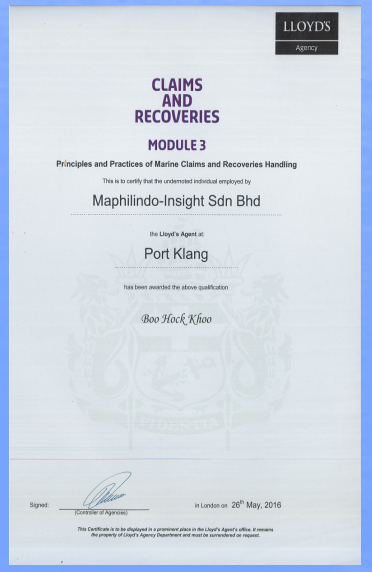
- Certificate of Cargo Surveying Proficiency".
- Technical Cargo Surveying.
- Principle and Practices of Marine Claims And Recoveries Handling



Certificate of Cargo Surveying Proficiency



Certificate of Technical Cargo Surveying



Certificate of Marine Claims And Recoveries Module 3

OFFICE / NETWORK OFFICE

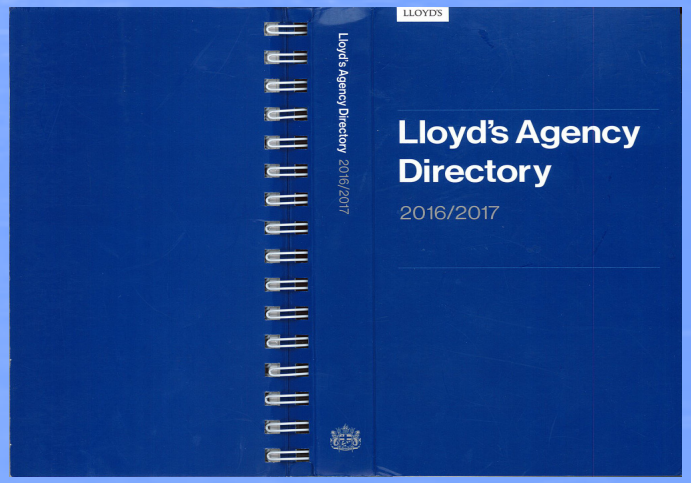
- Main operating office/Centre

Maphilindo-Insight Sdn. Bhd
NTS Building, 2nd Floor,
2A Persiaran Raja Muda Musa,
42000 Port Klang,
Selangor Darul Ehsan,
Malaysia
Tel : 603-3165 1668
Fax : 603-3165 2668
Email : info@maphi-insight.com
GPS Coordinate : N4°12'37.74" E101°58'32.76"

OFFICE / NETWORK OFFICE

- Network office in Malaysia
  - Penang
  - Pasir Gudang
  - Kota Kinabalu
  - Kuching
  - Other associates and agency offices at most of Malaysian Ports

- Worldwide network office
  - Lloyd's Agent network has over 350 offices worldwide



MAPHILINDO-INSIGHT SDN BHD

Maphilindo-Insight Sdn. Bhd. is the Lloyd's Agent in East & West Malaysia and is specialized in marine related services and consultancy.

Services provided:-

1. Marine Surveys and Investigation
2. H & M and P & I Club surveys
3. Marine and Industrial Services
4. Cargo Superintendent and Inspections
5. Risk Assessment
6. Valuation and Condition Surveys of Vessels
7. Pre-Purchase Condition Surveys
8. Claim Settling Agent
9. Towage Approval Surveys/Mooring Approval/lay up re-commissioning survey
10. Pre-Transit Surveys
11. Draft survey and Hatch survey
12. On hire and off hire survey
13. Other Marine Related Surveys

OVERVIEW OF BARGES

OVERVIEW OF BARGES

Definition of barge : Also term as lighter . Local term “Tongkang”

From dictionary

“A capacious, flat bottomed vessel, usually intended to be pushed or towed for transporting freight or passengers “

Various types and different kinds of barges

Mainly non self propel/ without engine and need to be towed.

However in European riverine and America in the Great Lakes the barges are mainly self propel and with accommodation for the crew members.

OVERVIEW OF BARGES

Types of barges - Pontoon
Flat top barge
Lash barge
Log barge
Cable lay barge
Oil tanker barge
Accommodation barge
Project cargo barge
Push barge
Crane barge
Derrick pipe lay barge
Split hopper barge
Piling Driver barge

Specialised barges are equipped with the special equipment and tools for specific usage.

PICTURES OF VARIOUS BARGES

PICTURES OF VARIOUS BARGES

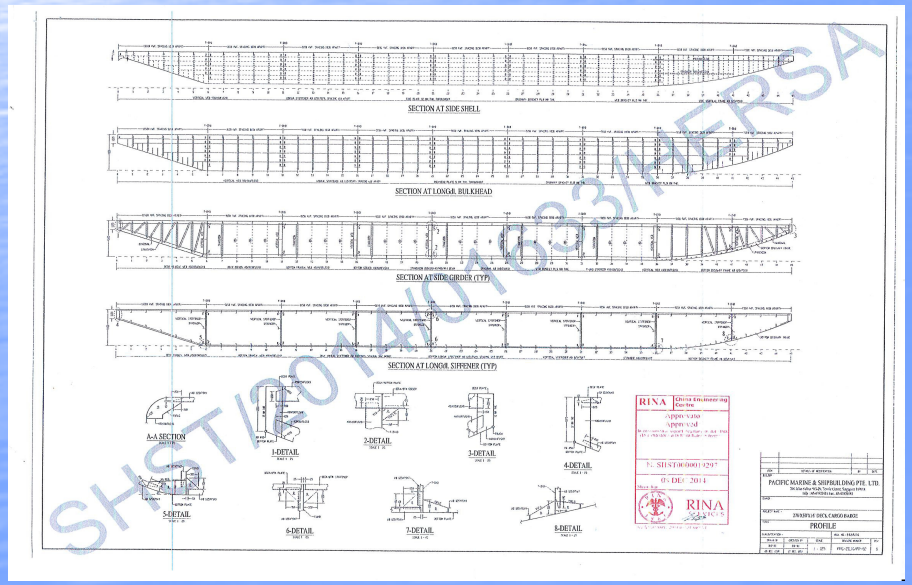
OVERVIEW OF BARGES

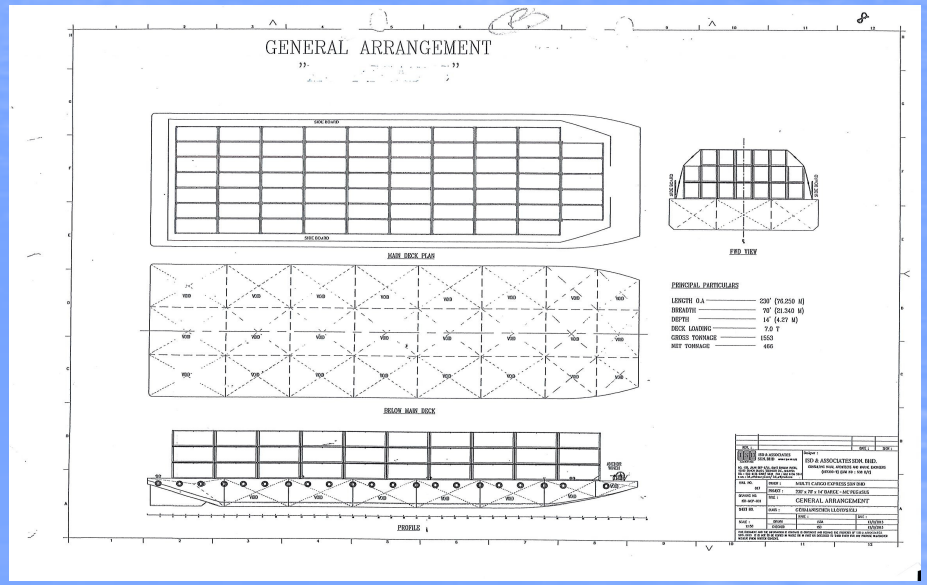
Usage size

Mainly used to transport cargoes and are varying in sizes like length.
There are: 50', 100', 120', 150', 180', 200', 220', 230', 250', 270', 300'

Barges in this region are mainly flat top/dumb barge.

Sideboards are fitted at the edges around the deck perimeters. These sideboards are varying in height from 8 to 14 feet high.





SHST/2014/01633/MERSA

OVERVIEW OF BARGES

Typical cargoes carried by barges in this region are :

Coal, gypsum, sand, pet coke, copper concentrate etc
Palm oil, bunker oil, lub oil
Project cargoes
Heavy lift cargoes
Containers
Logs
Trucks, vehicles
Gravel, granites
Pipes, concrete piles, steel piles
Sand, construction materials

PHOTOGRAPHS OF VARIOUS CARGOES TRANSPORTED

OVERVIEW OF BARGES

Features

Generally this flat top barge is with swim end. Front with a rampway held by supports of H-beams.

The deck strength like the deck permissible load on tank top limit cargo loaded and the support structures in the void tanks spaces may be strengthened for heavy load cargoes or dunnaging.

OVERVIEW OF BARGES

Normal deck permissible load on barge tank top:-

5 tons per sq m
7.5 tons per sq m
10 tons per sq m
15 tons per sq m
20 tons per sq m

In order not to over load the deck – dunnages like wooden, steel plates, stickers/wooden planks are used.

The process of spreading the load stress is vital for heavy cargoes.

OVERVIEW OF BARGES

For proper loading a cargo superintendent may be engaged to assist and supervise loading.

For charter or sale purpose - specifications of the barge are vital. This is important for the consideration of a charterer or purchaser.

In this region most of the barges are non self propelled and will need to be towed.

A special vessel known as a tug is used for towing the barge.

OVERVIEW OF TUGS

OVERVIEW OF TUGS

Tugs

There are various types and categories of tugs.

Normally twin engines

Varying sizes, power, capacity, characteristics, specialise equipment and purpose.

OVERVIEW OF TUGS

Common types of tugs are :

- Small Wooden tug,
- Steel Towing tug,
- Habour tug,
- AHTS with DP 1 , DP2,
- Salvage tug e.g. like Smit, Semco , Boskalis,
- Push tug
- Ocean going tug

OVERVIEW OF TUGS

Features.

For towing tug – main requirement and characteristic is the bollard pull. Mainly delivered by the main engines power of the tug. Normally -Twin engines

Various types have different capability like power output, characteristics, equipment and tools etcs.

Harbour tug with special propulsion system, power, special characteristic like maneuverability (turning, push and pull) e.g. schottel , azimuth propulsion

Oil and gas industries – AHTS

AHTS Abbreviation -Anchor Handling tug supply mainly for oil and gas sector

AHTS vessels are - expensive, multi task, with special equipment

Status: Non DP, DP 1, DP 2, High power. DP- Dynamic positioning

TOWING OPERATIONS

TOWING OPERATIONS

This involved a tug and tow. The object towed by a tug is known as a tow.

Various related towing aspects :-

- Salvage operation – Tug towing object or vessel salved or distressed vessel.
- Within port limits transit narrow/ congested channel port implement mandatory pilotage area. Tug involvement according to pilot order and may requires tug towing and escort till berth. Tug will be required to assist berthing according to pilot order and instruction.
- Tug towing- platform module or vessel for scrap.
- Barge shipment – Tug will have to be in full control of the barge towed which is utilized for transportation of cargoes.

TUG/ BARGE SHIPMENT TOWING OPERATIONS

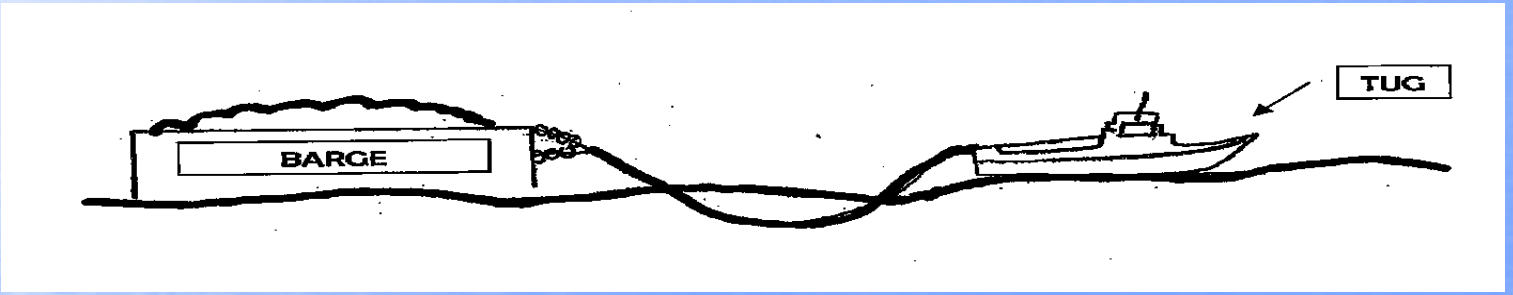
GENERAL GUIDELINES

- Selection of tug and barge.
- Compatible
- Sufficient power - bollard pull of the tug for towing.
- Tug and barge to meet SOLAS requirements
- Properly manned incompliance to safe manning of tug
- Sufficient bunker with some extra allowance for adverse weather
- Seaworthy condition
- Towing arrangement appropriate
- Approved towing gears with spares
- Safe Passage Planning
- Monitoring of weather condition enroute
- Barge to be properly loaded with positive stability. Not over loaded, With trim by stern, upright condition

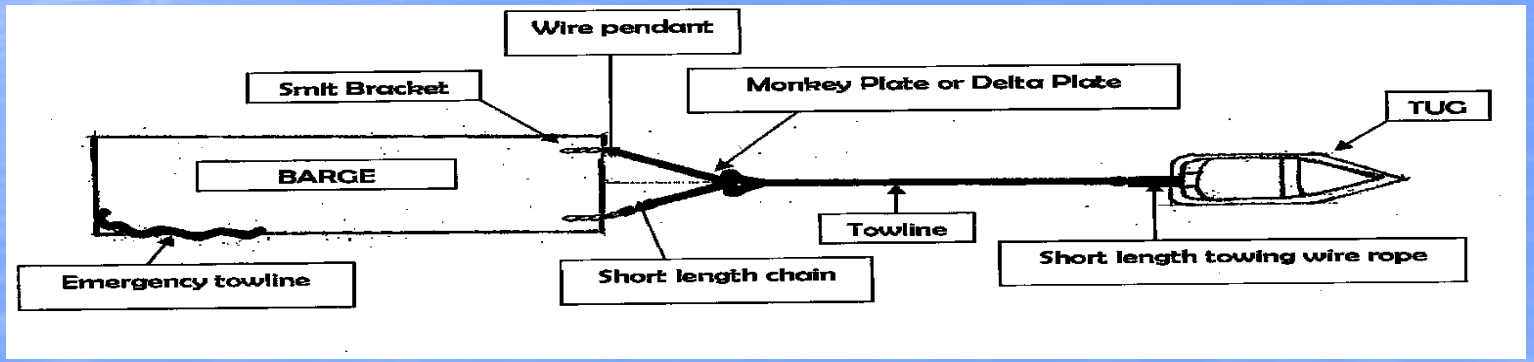
TOWING ARRANGEMENT PLAN

Tug and Barge – Sketch with Description

TUG TOWING BARGE – SIDE VIEW



TUG TOWING BARGE – PLAN VIEW



INTERNATIONAL MARITIME ORGANISATION (IMO)

GOVERN ALL INTERNATIONAL SHIPPING /MARITIME MATTERS.

IMO was formed in 1959. Type : Specialised Agency

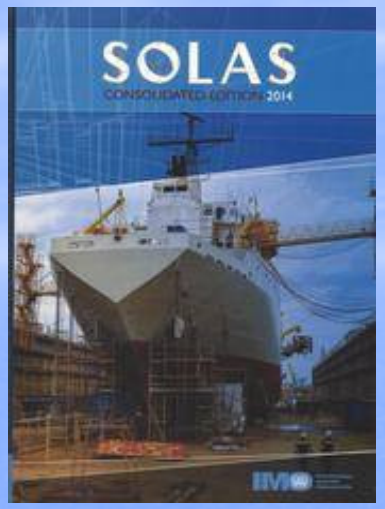
Known as the Inter-Governmental Maritime Consultative Organization (IMCO) until 1982

Headquarter : London

Members 172 member states and 3 Associate members.

PRIMARY PURPOSE IS TO DEVELOP AND MAINTAIN A COMPREHENSIVE REGULATORY FRAME WORK FOR SHIPPING AND ITS REMIT TODAY INCLUDES SAFETY,ENVIRONMENTAL CONCERNS, LEGAL MATTER ,TECHNICAL CO-OPERATION , MARITIME SECURITY AND EFFICIENCY OF SHIPPING.

SHIPPING : RULES AND REGULATIONS



SOLAS Convention

Abbreviation . SOLAS - Safety Of Life At Sea

The International Convention for Safety Of Life At Sea is an INTERNATIONAL MARITIME TREATY WHICH REQUIRES SIGNATORY FLAG STATE TO ENSURE THAT SHIP FLAGGED BY THEM COMPLY WITH MINIMUM SAFETY STANDARDS IN CONSTRUCTION, EQUIPMENT AND OPERATION.

Current SOLAS convention is 1974 which came in force on 25 May 1980.

Early is 1960 SOLAS convention was adopted on 17 June 1960 and entered in force on 26 May 1965.

SHIPPING: RULES AND REGULATIONS

SOLAS Convention

Flag state or country where the vessel is registered will enforce the rules and regulations for compliance.

e.g. Trading certificates are issued by Flag state or Classification society who is assigned to issue on behalf

From here you see the Classification Societies involvement in issuance of the class trading certificates.

The certificates like loadline, safety equipment etcs. are assigned to the classification societies to carry out the survey and issue the relevant certificates on behalf of flagstate.

SHIPMENT BY BARGE

SHIPMENT BY BARGE

This will involve a barge and to be towed by a tug.

Barges use are mainly boxed shape with swim end at both ends.

Below the deck/ tank top are the void tanks.

Cargo for loading are loaded on the main deck or tank top deck.

SHIPMENT BY BARGE

Generally this type of cargo barge is fitted with sideboards at the perimeter/ edges with height ranging from 8 feet to 14 feet high.

Front end -normally is with a steel rampway, this rampway is usually held with chain blocks rigged to H beam support -stands at both sides.

The rampway is for trucks/ cranes, cometto ,multi axles loader to drive in and out.

SHIPMENT BY BARGE

Essential criteria are:-

- The barge will require a tug to tow her
- Tug to be compatible to tow barge
- Mainly is the bollard pull of the tug
- This is the measure of the pulling force of the tug
- By rule of thumb is about 100hp/ ps to a ton of bollard pull
- There are some complicate and scientific formula used by Naval Architect
- Rule of thumb and our special formula combined with the experience, we had on towing survey shipments
- Minimum tow speed contemplated is to be 5 knots, allowing for tidal current/ drift, leeway, underwater hull drag in respect of draft etc.
- Weather forecast and weather enroute till to destination i.e. sea, waves, wind, visibility.
- Traffic condition. Likely to encounter

SHIPMENT BY BARGE

General Fittings On Barge

On the barge at the sides, fore and aft are bollards or mooring bitts for mooring lines to secure the barge while alongside the quay.

Smit Brackets connections are fitted at the front and back for the towing lines to be secured when towing and the emergency tow line rigged at aft normally with a marker buoy.

Sidelights and stern light stands at forward and aft respectively.

Deck fittings for securing.

For pipes or logs cargo the barges at the sides are fitted with side stanchions to keep the cargo within.

Cargo on barge to be properly loaded and secured.

When the tug and barge is underway they will need to comply to the International Regulations for Preventing Collision at Sea. During daylight, night fall/ darkness, restricted visibility.

SHIPMENT BY BARGE

Tug and barge requirements :-

1. Preferably of IACS class vessels
2. Possess all the required statutory/ trading certificates
3. Equip with full navigational and communicational equipment as per SOLAS regulations.
4. All equipment onboard are in good working condition
5. Structural features and hull structures are in satisfactory condition
6. Engine room – main engines, auxiliary engines and machineries in the space are in working order and sound condition
7. Equipped with the appropriate navigation and signal lights, shapes, international code Flags, navigational publications
8. Proper manning crew onboard to man tug.
9. Tug equipped with the appropriate towing gears in satisfactory condition with approved test certificates for each respective items in use. Towing arrangement to be provided by tug's master
10. In general term vessels to take sea voyage are to be in a seaworthy condition at commencement of the voyage.
11. Barge is safely loaded/ stowed, secured/ fastened and with sufficient stability to undertake voyage. No over loading
12. Safe passage planning from port to port

PROS AND CONS ON BARGE SHIPMENT

OUR OPINION

Comparison : Advantages and Disadvantages

➢ **Advantages:-**

- **Low capital investment**
- **Lower cost to operate e.g bunker**
- **Shallow draft ,hence , good for upstream river ports**
- **Easier and flexible operations**
- **Cheaper manning cost**
- **Do not require to comply to ISM**
  if less that 500GRT for tug
- **Crew members less qualify, easier to comply to manning**
- **Less crew members to man vessel i.e. tug**
- **Easier cargo operation**

Disadvantages:-

- Slow speed. Slow transport – mode, low volume
- Higher risk of exposure and operation
- Lower freeboard
- Cargo on deck unprotected
- Prone to hijack/ pirate attacked
- Exposed to weather
- Not suitable for dry/ perishable cargo in bulk
- Not world wide operation ; only regional
- Susceptible to weather condition
- Less security
- No sensitive cargo for carriage
- Total loss coverage . Otherwise some extra premium

BARGE SHIPMENT WARRANTIES

BARGE SHIPMENT WARRANTIES

List some of the common warranties

Varying from different underwriters

1. Warranted single tow only
2. Warranted pre-shipment survey on tug and barge compatibility, towage arrangement, stowage, lashing, sea fastening by underwriters approved surveyor under the insured's expenses.

   All the surveyor's recommendations are to be complied with
3. Warranted underwriters approved surveyor should conduct the survey according to the scope of survey as attached.
4. Warranted barge and tug not exceeding 25 years old –vessel certification will provide later.

BARGE SHIPMENT WARRANTIES

NOTE : SURVEYOR WILL NORMALLY APPLY RISK PREVENTION AND MANAGEMENT DURING CONDUCTING OF SURVEY UNDER SCOPE FOR THIS TYPE OF SURVEY

E.G- TUG WITH TWIN ENGINES ONLY FOR LONG SEA VOYAGE

- Alter course and reduce speed in adversed weather condition
- Adequate bunker and provision rations with allowance of 3 to 4 days extra in case of adverse weather condition encountered enroute
- Also provide in our recommendations to tug's master for compliance of recommendations given and is to be acknowledged on the copy
- Towage approval – with towing certificate issued for port clearance and policy coverage.
- Lashing certificate issued if required and is carried out

BARGE SHIPMENTS AND CLAIMS

BARGE SHIPMENTS AND CLAIMS

Cargo claims – are mainly related to cargoes that are carried on barges. Mainly are due to : -

1. Contamination – a) Wetted cargo – sea water/ rain/ fresh water
   b) Previous cargo

2. Shortage/ loss – in weight

3. Damage of cargoes/ loss – physical damage/ loss

BARGE SHIPMENTS AND CLAIMS

Likely causes are : -

a) Hijacked/ pirated
b) Theft/ stolen
c) Collision/ loss
d) Sinking/ loss

e) Operational factors like under power, machinery breakdown etcs.
f) Damage to cargo due to rough handling/ improper securing- cargo shifted and damaged. Worst case may fell overboard.
g) Improper securing/ lashing breakdown
h) Capsizing/turn turtle

BARGE SHIPMENTS AND CLAIMS

Contd.

i) Encountered adverse weather condition.

Cause

- structural damage like side board give way, deck cracked etcs.
- Cargo shift – heavy listing can cause capsizing
- Negative stability – deck edge immersion, improper stowage
- Sinking of barge
- Grounding / stranding

j) Poor condition of barge – lacking in maintenance. Rogue /rust bucket barges e.g hull cracked/ holed, deck poor condition and leak, poor deck strength etcs

k) Towing gears – poor condition and malfunction/ breakdown

l) Navigational error/ human error – negligence of master, crew etcs

- causing collision – damage to vessel hull and cargoes
- worst case is sinking

DOCUMENTATIONS

DOCUMENTATIONS

For tug

- Certificate of Registry
- International Tonnage Certificate
- International Loadline Certificate
- Cargo Ship Safety Equipment Certificate
- Certificate of Classification
- Cargo ship Safety Construction Certificate
- Safety Radiotelephony Certificate
- Safe Manning Certificate
- Domestic Shipping License

DOCUMENTATIONS

NOTE : FOR TUG OVER > 500GRT

Much more certificates required

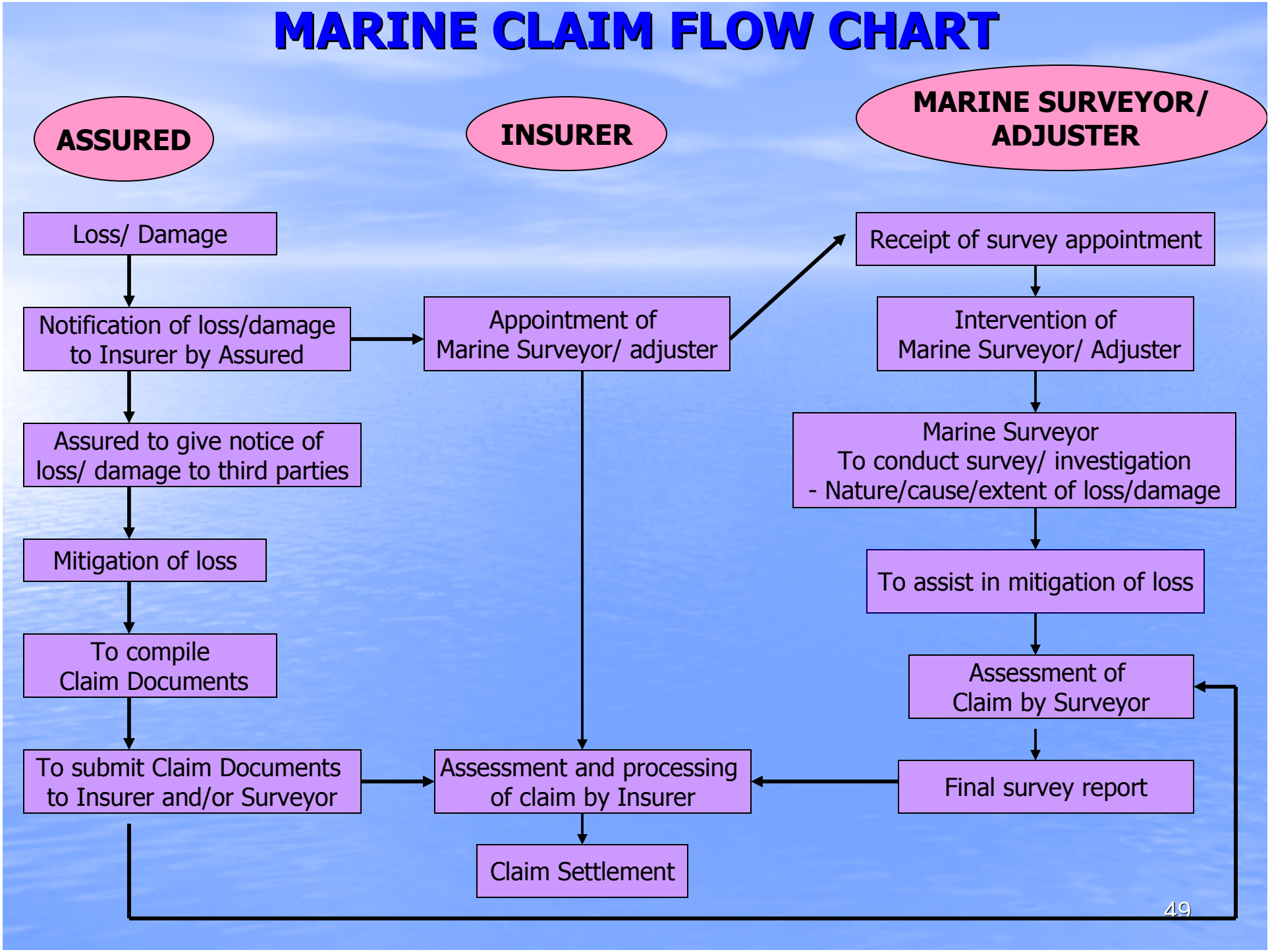
- Int. Oil Pollution Prevention Certificate
- Int. Air Pollution Liability Certificate
- Int. Ship Security Certificate
- Int. Sewage Certificate
- Int. Anti-Fouling System Certificate
- Maritime Labour Certificate (MLC)
- Int. Air Pollution Prevention Certificate
- Int. Energy Efficiency Certificate
- Safety Management Certificate
- Document of Compliance

DOCUMENTATIONS

For Barge

- Certificate of Registry
- International Tonnage Certificate
- International Loadline Certificate
- Cargo Ship Safety Construction Certificate.
- Certificate of Class
- Domestic Shipping License

MARINE CLAIM FLOW CHART



DOCUMENTATIONS FROM MARINE SURVEYOR/ADJUSTER

Documents issued by approved marine surveyor

1. Surveyor report with attactments
2. Towage certificate
3. Lashing certificate

HIGHLIGHTS OF SOME CASES FROM OUR EXPERIENCES

The above presentation is strictly the view and opinion expressed by the writer/ presenter.