PROPER VESSEL STOWAGE
CAVEAT!

- Ref: Stowage by Captain R.E Thomas
- Emphasis is on VESSEL transportation!
- Supply Chains to be left for the Managers!
- Break-bulk cargo! (I am not a tanker-man!)
Captain R. E. Thomas writes:

“Stowage is that important branch of the art of seamanship which applies to the loading of a vessel and has for its aims the handling, placing and packing of goods, in a ship, in such a manner as will best ensure the following:
1. The preservation of crew and ship from danger or injury arising from the manner in which the cargo is stowed.

2. To protect the cargo from damage, loss or deterioration and so ensure ‘sound delivery’ of same.

3. The economy of cargo space on which depends the vessel’s earning capacity.

4. The highest possible rate of port speed, i.e. the rate at which a vessel is capable of loading or discharging her cargo.”

Eagle Maritime Consultants, Inc.
OUTLINE

- Vessel characteristics and cargo
- Vessel capacities: weight/measure
- Loading
- Stowage
- Securing
- Transit
- Discharge

Eagle Maritime Consultants, Inc.
VESSEL CHARACTERISTICS

- A tanker cannot load shipping containers and vice versa!

- Liner Services customarily employ multi-purpose vessels which can accommodate various types of cargo: dry bulk; break-bulk; containers; etc.

- Efficiency and planning is vastly improved by employing a Port Captain.
Notes on Cargo Work

By Kemp & Young

Eagle Maritime Consultants, Inc.
CAPACITY

1. Weight
   • the voyage is checked for limiting Load Line or draft restrictions and then the corresponding available deadweight is calculated for maximum possible load. (Usually never a limiting factor in break-bulk trades!)

2. Measure
   • expect a 25% to 30% loss of bale capacity due to broken stowage which can be made up with deck stowage!
Notes on Cargo Work
By Kemp & Young

Eagle Maritime Consultants, Inc.
LOADING

• Receiving at Terminal and Remarks!
• Storage and care at Terminal.
• Handling equipment, machinery, dunnage, slings, etc. for storage and loading of ship.
• Pre-loading inspection.
• Ship/shore cranes and contingencies
• Experienced labor and good supervision.

Eagle Maritime Consultants, Inc.
SUGGESTED READING

• COGSA
• HARTER ACT
• HAGUE-VISBY RULES
• HAMBURG RULES
• ROTTERDAM RULES
• YORK ANTWERP RULES
BRIEFLY - CARRIER'S DUTIES:

"properly and carefully load, handle, stow, carry, keep, care for and discharge the goods carried" and to "exercise due diligence to ... make the ship seaworthy" and ... "properly man, equip and supply the ship."

The carrier's duties are not "strict" but require a reasonable standard of professionalism and care and allow a wide range of exemptions from liability on a cargo claim!

Eagle Maritime Consultants, Inc.
and, **SHIPPER'S DUTIES:**

1. to pay freight
2. to pack the goods sufficiently for the journey
3. to describe the goods honestly and accurately
4. not to ship dangerous goods unless agreed by both parties
5. to have the goods ready for shipment as agreed
STOWAGE

1. Stability

- stable *at all times*
- stiff/tender
- heavy cargo down
- light cargo up – comfort/securing/chocking/fuel consumption and repairs
- weight/measurement - ‘full & down’
- way ports for bunkers
- ballast
- ‘guesstimates’!
2. Stresses

- deck strength/load densities
- hog/sag
- bending moments
- Shear forces
3. Commercial/Technical Departments

- Consequences of above – call at many ports to ‘fill’ ship and discharge at many more ports
- Stowage uncertain due to future Bookings
- Cancellations
- Bunker ports
4. HAZMAT
   - Class
   - Packaging
   - Limitations
   - Stowage category

5. Port rotation
   - over-carriage
   - short landing
   - bad reputation
6. Port speed

- first in/last out
- cargo distributed in many hatches
- cargo is easily accessible
- minimum shifting
- minimum re-securing
- reduces ‘make-up’ time fuel
- supervision will insure against selfish tendencies of stevedores
- Easy loading makes difficult discharge
- If all else fails – Note Protest!
7. Care against damages due to improper equipment

8. Care against damages due to inexperienced and/or careless labor.

9. Wetting
   - leakage (cargo/ship)
   - Sweat
   - Proper segregation or measures to mitigate possibility of contamination.
9. **Tainting** –
- odors on sensitive commodities like tea, tobacco, etc.
- paint odors from ship's structural

10. **Crushing**
- stack limitations
- proper packaging
- correct orientation in stowage;
11. Shifting damages due to inadequate securing!

12. Chafe
- vessel motions
- Vibrations
- Un-insulated securing's.

13. Heating
- spontaneous combustion
- proper ventilation
- channels in stowage
- segregation from local heat;
14. Separation
- Contamination
- Lots
- Ports
- over-carriage
- short delivery

15. Stains
- Oil
- Rust
- Pre-shipment? Endorse Mate’s Receipt
- Sea-water ingress?
16. Fire

17. Optimum space utilization –
   • reduction in broken stowage

18. Marks:
   • Receiving
   • correct ship
   • correct port
   • handling
   • Lifting
- Stowage
- Restrictions
- Center of gravity
- Weight
- Dimensions

19. Pilferage
20. Mate’s Receipts
SECURING

1. Break-bulk can be block stowed requiring minimum securing/choking – mainly in voids and at ‘faces’

TRANSIT

1. Ventilation – hold temperatures
2. Smoke-detector
3. Study stow plans
4. Check lashings

Eagle Maritime Consultants, Inc.
5. Vermin

6. Special Duties
   • Chargers
   • Reefers
   • inert systems
DISCHARGE

1. Pre-discharge inspection
2. Proper equipment
3. Handling instructions
4. Special cargo and characteristics
5. Tally
6. O S & D Reports
CONCLUSION

“A PLACE FOR EVERYTHING AND EVERYTHING IN ITS PLACE”

Anonymous