Classification Societies

What is the role of Class in the 21st Century?

Rob Brindle 26 September 2018

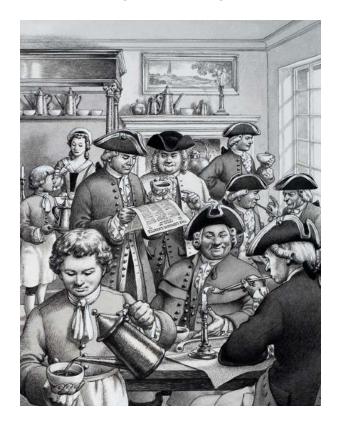


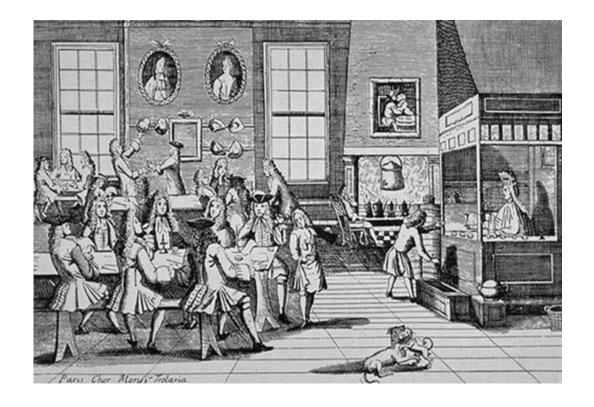


It started with a cup of coffee



Coffee Shop Gossip



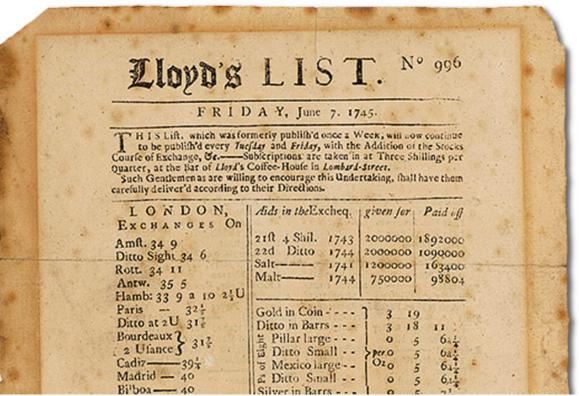


Edward Lloyd sets up shop



Lloyd's List

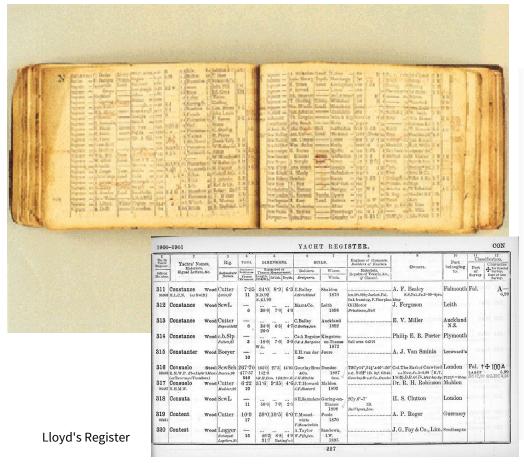




Lloyd's of London



Lloyd's Register



THE

REGISTER

Shipping

FOR THE YEAR 1815.

INSTITUTED ANNO 1760.

LONDON:

PRINTED, FOR THE SOCIETY FOR THE REGISTRY OF SHIPPING,

MARCHANT AND GALABIN,
INGRAM-COURT, FENCHURCH-STREET.

1815.

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Lloyd's Register in the 21st Century















IACS

Classification Societies



OF CLASSIFICATION SOCIETIES











Polski Rejestr Statków

















IACS members

Lloyd's Register: 1760 Bureau Veritas: 1832

RINA: 1861 American Bureau of Shipping: 1862

Det Norske Veritas: 1864 and GL: 1867

NKK: 1899 RS: 1913

PRS: 1936 CRS: 1956

CCS: 1956 KRS: 1960

IRS: 1975

Classification – a general definition

• What is classification?

A system for arranging elements with similar characteristics into groups or categories.

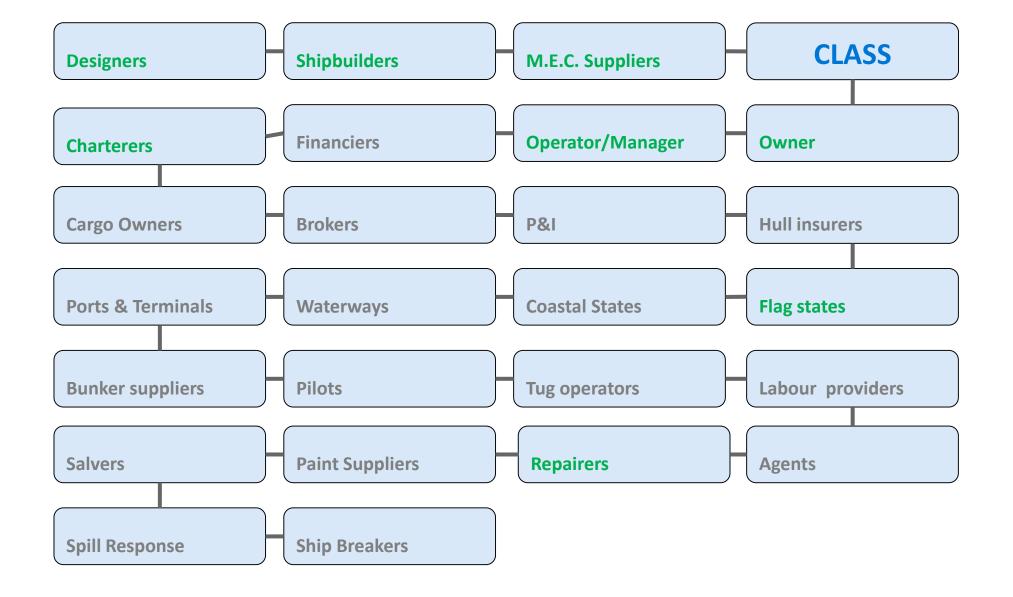
Classification - A Marine definition

Development, publication and global implementation of Rules which define standards of quality, safety and reliability for ships.

Worldwide application of Rules covering:

- Structural strength of the hull
- Watertight integrity of the hull
- Safety and reliability of main propulsion and steering systems
- Safety and reliability of essential auxiliary systems





Purpose and Objectives of Classification Societies

- To provide classification and statutory services
- To provide assistance to the maritime industry and regulatory bodies on maritime safety and pollution prevention issues, based on the accumulation of maritime knowledge and technology.
- Primary Objective: Verification of the **structural strength** and integrity of essential parts of the ship's hull and the **reliability and function of the propulsion and steering systems, power generation** and other essential services.
- HOW? through the development and application of their own Rules and by verifying compliance with International and/or National Statutory regulations on behalf of Flag Administrations.

Class notations - Origins

A, E, I, O, U (hull) & G, M, B (equipment)
 Best notation: AG Worst notation: UB
 1768 A, B, C (hull) & 1, 2, 3 (equipment)
 Best notation: A1 Worst notation: C3
 1853

Maltese cross. To signify "Built under Special Survey"

For Iron Ships, qualified with a period of 6, 9, or 12 years

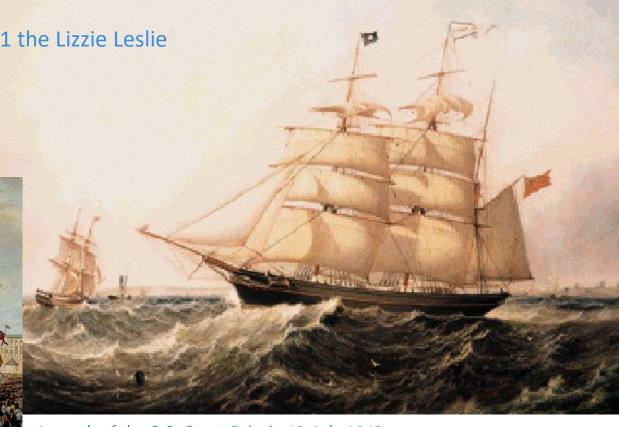
• 1870 100A1

1854 A1

- Iron Ship Rules revised and based on certain dimensions 100A1, 90A1, 85A1 and 80A1, the first two classes to be subject to Special Survey every 4 years and the lower classes every 3 years. Iron ships suitable for sea-going service

Class notations

First iron ship to be awarded circa 1870



Launch of the S.S. Great Britain 19 July 1843 Built of Iron, steam powered with screw propeller

Class notations

Example 1

- №100A1 Double Hull Oil Tanker, ESP, Shipright (SDA, FDA, CM), *IWS
- LI, IGS
- ◆LMC, UMS

Class notations

Example 2

- 100A1 Liquefied Gas Carrier, Ship Type 2PG, Anhydrous Ammonia, Butadiene, Butane, n-iso-Butane, Isoprene, Propane, Butane/Propane mixtures, Propylene, Propylene Oxide, Butylenes (Mixtures), Ethylene Oxide/Propylene Oxide mixtures with ethylene oxide content of not more than 30% by weight, in One Independent Tank- Type C, Maximum Vapour Pressure 7.0 bar, Minimum Temperature Minus 48 °C
- LMC, UMS

Why?

The world needs class

• Minimise risk to life, property and the environment.







Why?

The world needs class

• Provide proof that a vessel is suitable for its intended purpose.

















Why?

The world needs class

• Maintain a ships value during its service life and help the owner.



But...

Classification isn't the answer to everything

- Classification is not the ship industries policeman
- Classification does not guarantee the ship's seaworthiness.
- Classification surveyors are not permanently onboard the ship.
- Classification surveys do not cover the whole ship, e.g.:
 - Stability
 - Life saving appliances
 - Pollution prevention
 - Structural fire protection



Statutory Certification

- Classification Societies also carry out surveys and certification on behalf of over Flag Administrations in relation to International Maritime Organisation (IMO) Conventions and codes
- SOLAS (Safety of Life at Sea)
- Load Line
- MARPOL (Pollution)
- Tonnage Regulations
- STCW (Standards of Training & Certification for Watchkeeping)
- ISM (International Safety Management Code)
- ISPS (International Ship & Port Facility Security Code)
- MLC (Maritime Labour Convention)

(International Labour Organisation (ILO) Convention and Code)

Getting Class

• First Entry / New Build

Transfer of Class

Acceptance into Class

Reclassification

Maintaining Class

Periodical Surveys

 Machinery items: Tail-shaft, Boilers, Sea Connections, Electrical Equipment, Pumps, and the Engine(s)

Hull items: Shell Plating, Rudder, Tanks, Crew / Passenger spaces, holds and the Engine Room

Other: Condition of class items, memoranda, alterations, damages, repairs

Keeping Class

- Carry out periodical surveys on time
- Ensure certification issued by IACS member
- Don't fall foul of port state detentions
- Pay on time
- Don't stray from an agreed service area
- Operate in an appropriate environment
- Load and operate the ship in accordance approved guidance

Port State Control

Detainable deficiency



Keeping Class

Maintaining the ship

Planned maintenance systems covering machinery and the fabric of the ship

Competent, well trained crew to ensure that the planned maintenance is actually carried out

Effective communication with the classification society when deficiencies occur

Classification

Summary

 A system for ensuring that a ship meets recognised technical standards specific to its intended purpose

First register of ships published 1764 but independent company not formed until 1834

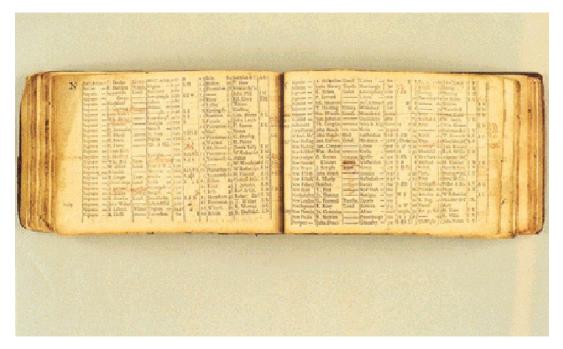
Classification process is governed by the industry it serves.

The future

Vessel developments and impact for classification societies

- Autonomous Vessels
- Materials
- Goal Based Standards
- Autonomous survey methods
- Cyber security

Any questions?







Thank you

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