

# *Introduction to Ship Classification*

“A Series of Maritime Knowledge Sessions”

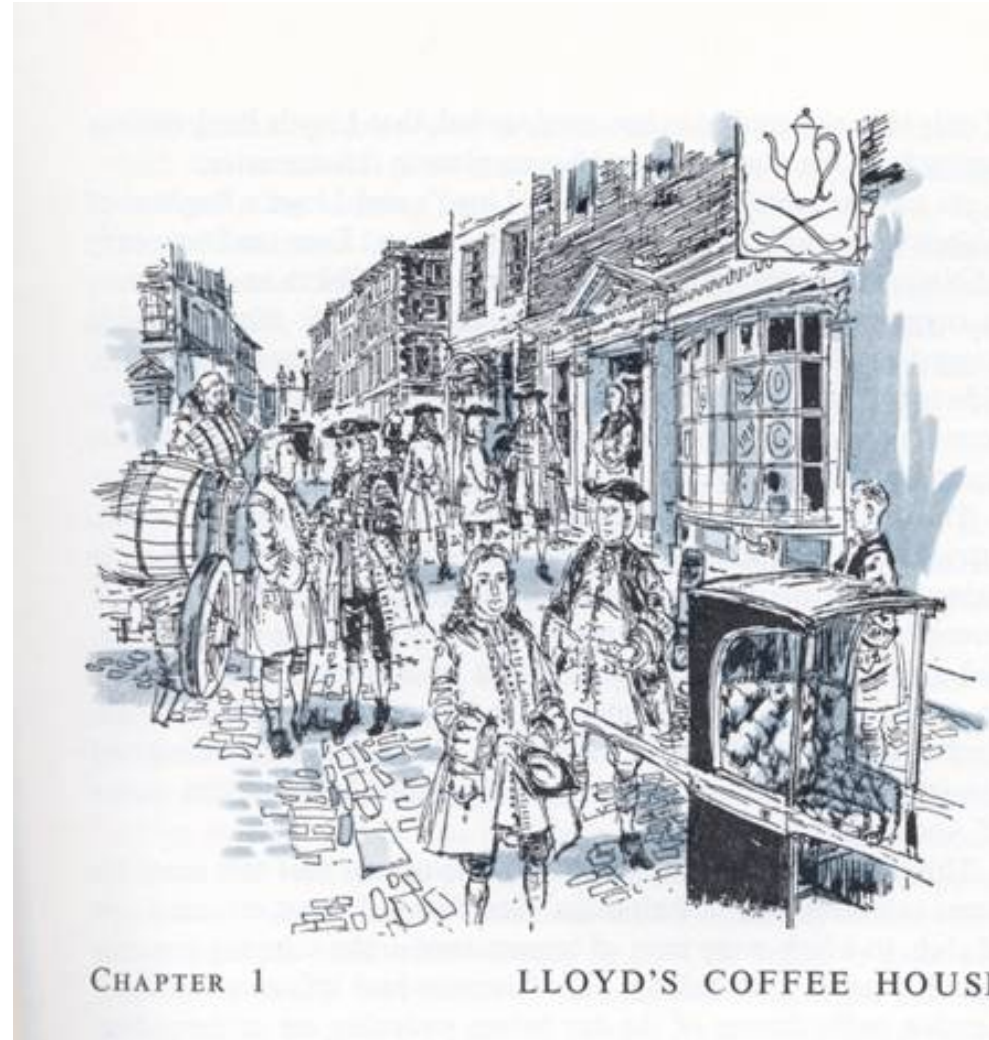
16<sup>th</sup> May 2007



Germanischer Lloyd

# *Origins of Ship Classification*

- In 17th and 18th Century London, the coffee-houses were popular centres for businessmen to meet.
- Marine insurers rendezvoused at Lloyd's Coffee House in Lombard Street.



# *Origins of Classification*

- A prime attraction was the newspapers kept there.
- Edward Lloyd distributed information in „Lloyd´s News“ which first appeared in 1696.
- Lloyd printed bulletins or Ship´s Lists giving brief descriptions of ships likely to be offered for insurance.
- The newspaper was revived in 1734 as „Lloyd´s List and Shipping Gazette“.
- Marine insurers were looking for some form of guarantee on the fitness of a ship.

# *Origins of Classification*

- The underwriters, gathered as a group at Lloyd's, then set up a system of inspection of hulls and equipment.
- An attempt was made to `classify` the condition on an annual basis.
- The condition of the hull was classified A, E, I, O or U; equipment was classified G, M or B; later 1, 2 or 3.
- In 1834 a self-standing `classification society` was set up.
- Rules for construction and survey were developed; those for iron ships appearing in 1855.

# *Principles of Classification*

- Impartiality
- Independence
- Activities performed in the public interest
- Commitment to shipping safety



# *Tasks of a Classification Society*

- Development of specific classification rules and requirements
- Maintenance and publication of a register book
- Sole responsibility within the scope of classification
- No third party influence
- Impartial expertise

# *Tasks of a Classification Society*

- Obligation to observe flag state directives
- Special contractual relationships
  - with shipyards during newbuilding period
  - with owners for ships in service
- Secured storage and administration of submitted documentation
- Observance of copyright

# *Who is interested in ship classification?*

- *Marine insurance companies*
- Cargo underwriters
- National ship safety authorities granting sailing permits
- Charterers
- Shipyards
- Ship owners
- Banks granting loans on ships
- Sub-contractors
- Other parties interested in shipping



# *Cycle of Classification*

## *Design and Pre-Construction*

Examination of  
documents

## *Construction*

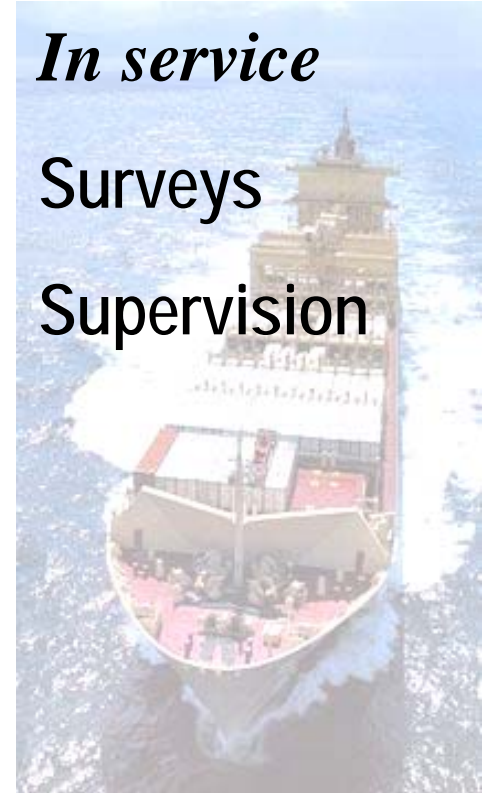
Testing of  
materials and  
equipment

Construction  
supervision  
acc. to GL rules

Classification

## *In service*

Surveys  
Supervision




# *Identification of Ships*

- **Name**
  - changeable as desired by owner
- **GL Register No. (6 digits)**
  - will not be changed during classification with GL
- **Call Sign (4 or 5 digits or combined with letters)**
  - assigned by flag state authorities, will be changed in case of change of flag
- **IMO No. (Seven ciphers, identical with LRS No.)**
  - will not change even in case of change of class or of flag

# *Class Designation for the Ship's Hull*

*(Example)*

 100 A5 IW NAV - 0

-  Built under supervision according to GL Rules
- 100 Hull complies 100% with GL Rules
- A5 Interval at which class is to be renewed in years
- IW The hull is equipped for in-water surveys
- NAV-0 The bridge is designed for one man operation

# *Class Designation for the Ship's Machinery*

*(Example)*



MC AUT



Built under supervision according to GL Rules

MC Machinery, installations in compliance with GL Rules components and materials certified

AUT Machinery spaces certified for unattended operation for at least 24 hours



093466 -1  
GL-Register-No.  
GL-Register-Nr.

Hull  
SNTF

This is to certify that the motor vessel  
Hiermit wird bescheinigt, daß das Motorschiff

## CAPE CANAVERAL

IMO-No. 9160906

MO-Nr.

Port of Registry MONROVIA

Flag REP. OF LIBERIA

Call Sign .....ELW19

Register

Flagge

Se-Signal

Owner .....CAPE CANAVERAL NAVIGATION INC.

Reeder

Shipyard .....MAWEI SHIPYARD

Schiffswerft

Place of Build FUZHOU

Launching 4.1998

Completion .. 1.1999

Werk

Stapelzeit

Fertigstellung

has been surveyed at FUZHOU

in 1.1999

by our Surveyor

besichtigt worden ist in

in

durch unseren Besichtigter

in accordance with this Society's Rules.  
nach den Vorschriften dieser Gesellschaft.

Tonnage particulars acc. to Convention 69 acc. to International Tonnage Certificate (1969)  
Vermessungsdetails des Schiffes nach Konvention 69 laut Internationaler Schiffsmaßbuch (1969)

Gross Tonnage Bruttonennzahl	9030	Length Länge	126,00 m	Summer Freeboard Sommerfreibord	2,581 m
Tonnage net Nettonennzahl	4222	Breadth Breite	22,50 m	with a mit einem	
		Moulded Depth Seitenhöhe	11,20 m	Moulded Draught Tiefgang ohne Kiel	8,635 m

On the basis of the Report submitted the vessel has been assigned the Class  
Aufgrund des über den Befund erstellten Berichtes ist dem Schiff die Klasse

with the Character of Class  
mit dem Klassenzeichen

100A5 E  
Container Ship  
IW  
NAV - OC  
Solas I-2, Reg. 54

and the Period of Class running from January 1999  
und den Klassenlauf von ... gerechnet erteilt worden.

This certificate is valid until 31st January 2004  
Dieses Zertifikat ist gültig bis

provided that prescribed surveys are  
effected by their due dates.  
vorausgesetzt die vorgeschriebenen Besichtigungen sind  
bis zu ihrem Fälligkeitstermin durchgeführt worden.

Hamburg, 7th January 2000

Germanischer Lloyd

Müller

Arndt

This Certificate of Class is valid only in connection with AMEXES and all endorsements made by Surveyors to Germanischer Lloyd on appended sheets in respect of this vessel's hull.  
Dieses Klassenzertifikat ist nur gültig in Verbindung mit den Anhängen und allen für diesen Schiffskörper von Besichtigern des Germanischen Lloyd auf Beiblättern gemachten Eintragungen.

Latest edition of the General Terms and Conditions for Classification are applicable (see Chap. I-Ship Technology, Part 0-Classification and Survey).  
Es gelten die allgemeinen Geschäftsbedingungen für die Klassifikation in ihrer jeweils gültigen Fassung (siehe Kapitel I-Schiffstechnik, Teil 0 - Klassifikation und Besichtigungen). Germanischer Lloyd Aktiengesellschaft, Registered Office Hamburg, HR B 21393

# *Certification of Shipbuilding Components*

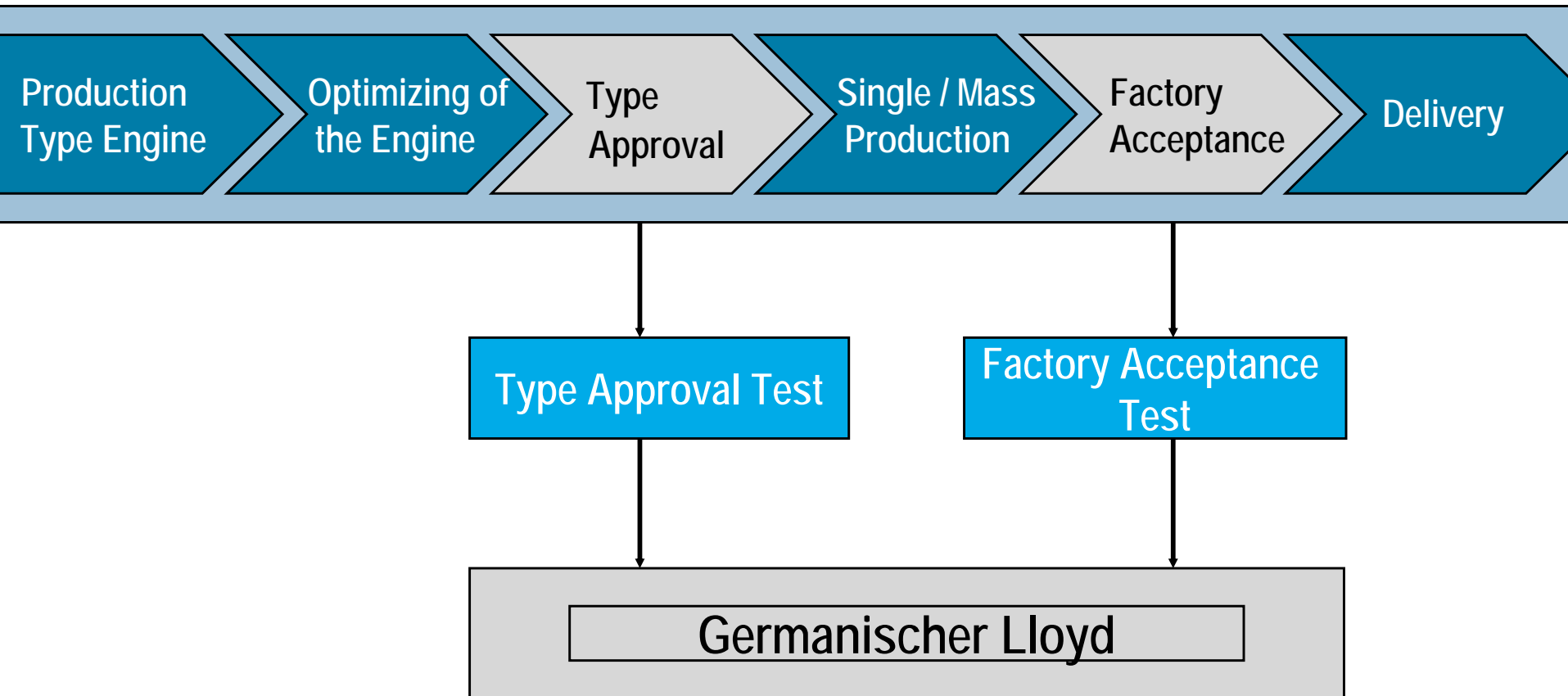
- Specific rules and regulations not only for the hull, but also for almost all components that are part of a vessel.
- Component test certificates and stamping of components and materials
  - Engines, pumps, etc.
  - Materials (Steel plates, beams, etc.)

# *Engines - Recognition Procedures and Types of Approval*

- Recognition procedures for classification
  - Design approval
  - Type approval test
  - Factory acceptance test
  - Works trials
- Approvals as per pollution prevention decrees (IMO)
  - MARPOL, Annex 6, Ship air-pollution prevention on board of seagoing vessels
  - „Rheinschiffahrts-Untersuchungsordnung“ for inland vessels

# *Description of the Certification Processes (1/)*

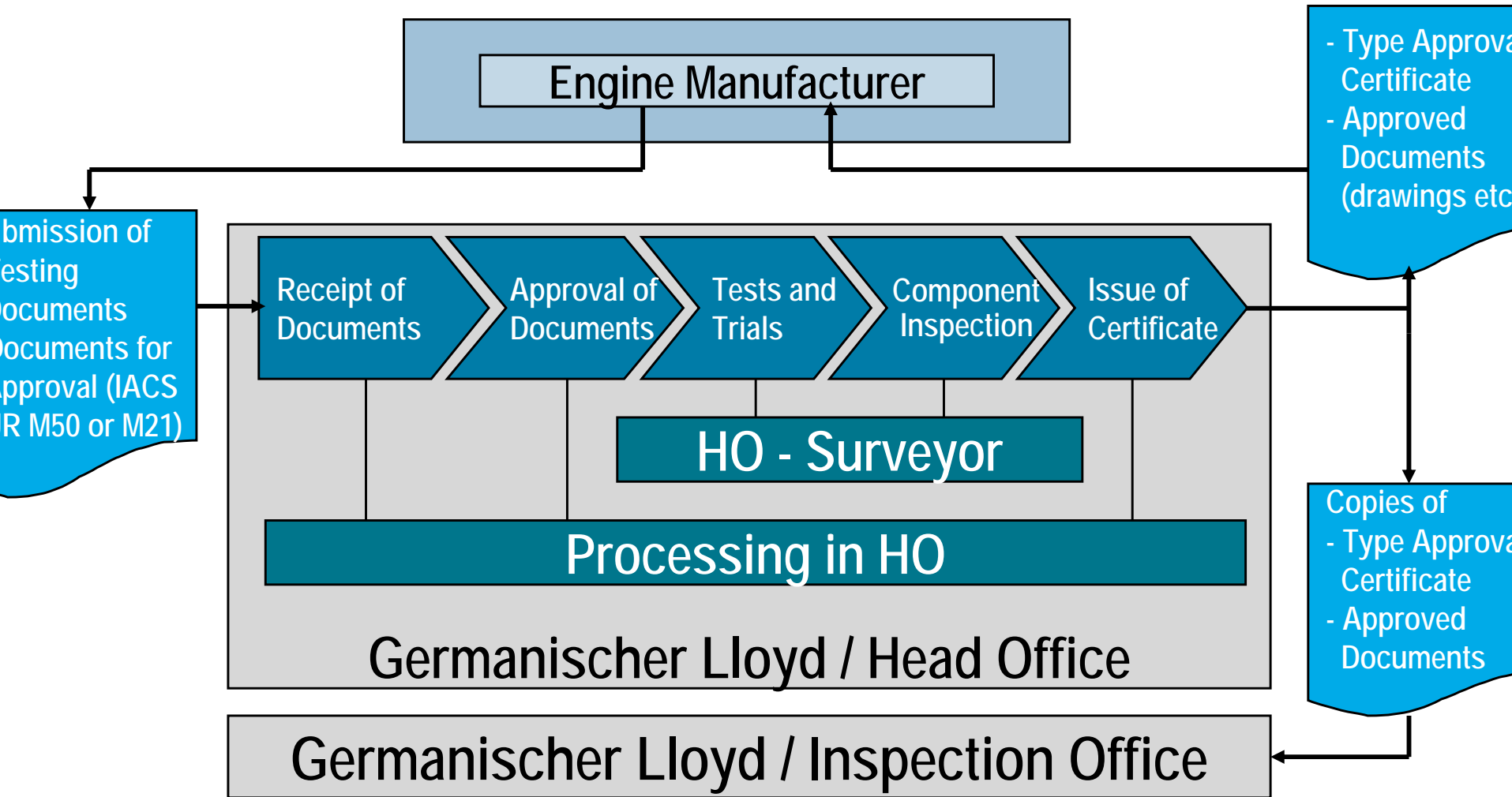
## *Manufacturing Process at Manufacturer's Work*





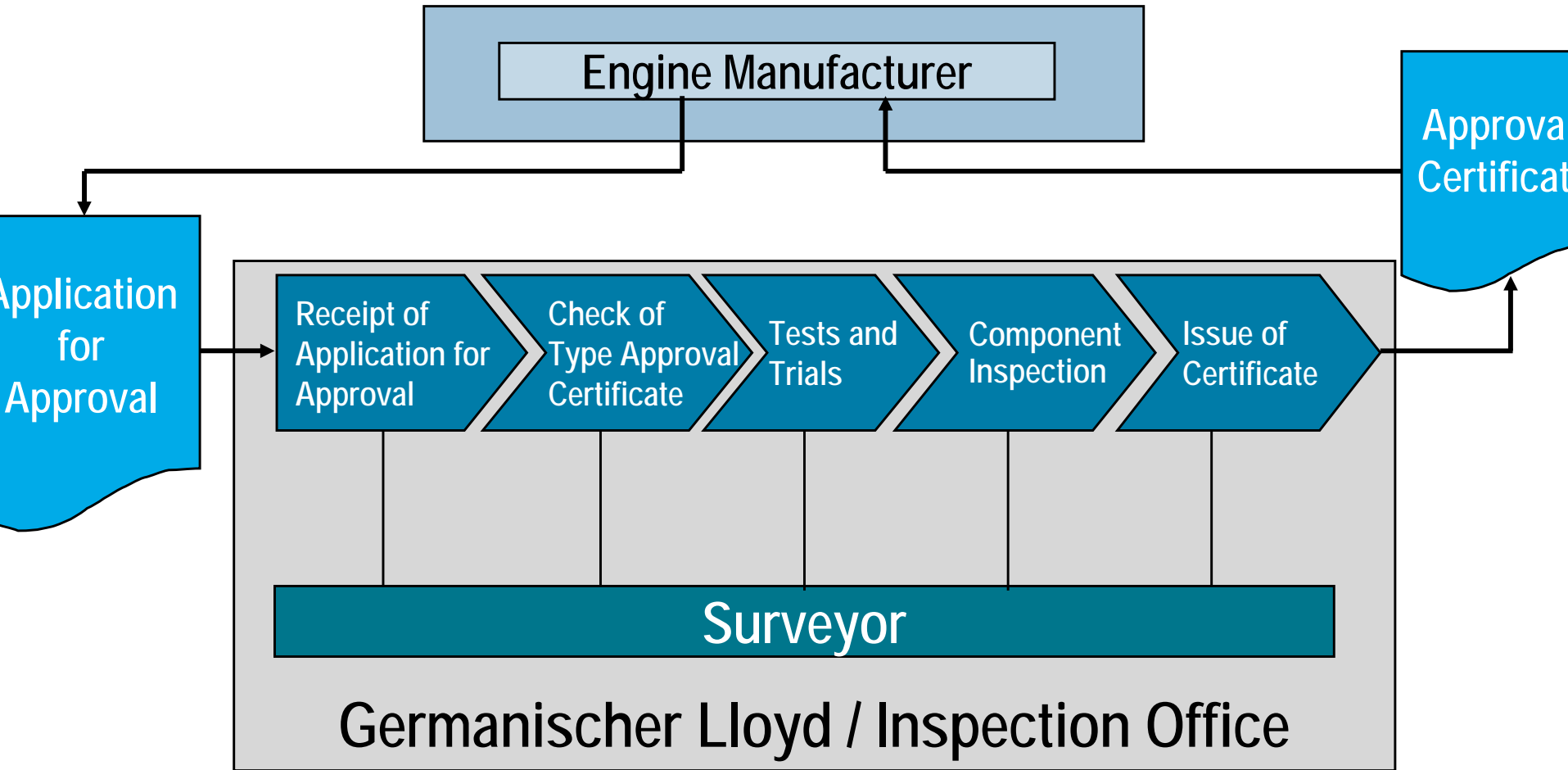
# *Description of the Certification Processes (2)*

## *Type Approval Test*



# *Description of the Certification Processes (3/)*

## *Factory Acceptance Test*



# *Information Transfer for all Certification Procedures*

- **From manufacturer to GL**
  - Application for approval
  - Documents for approval (as per IACS UR M21, M44, M50, M53)
  - Testing documents (for GL's use)
- **From GL to manufacturer**
  - Documents for approval with approval remarks
  - Certificate
- **Within GL (from head office to responsible inspection office)**
  - Copies of documents for approval with approval remarks
  - Certificate

*Thank you for your attention!*

