

454188

REPORT ON OIL ENGINE MACHINERY.

No. 46

Received at London Office 14 AUG 1930

Writing Report 16th July 1930 When handed in at Local Office

Port of **DUSSELDORF**

Survey held at **Cologne - Feutz**

Date, First Survey **29. IV. 1930**

Last Survey **30. VII. 1930**

Number of Visits **five**

on the **Single** Screw vessel

Tons ^{Gross} _{Net}

at **Hamborn Hong Kong**

By whom built **Hongkong & Whampoa Dock Co. Ltd.** Yard No. **681** When built

made at **Cologne - Feutz**

By whom made **Motorenfabrik Feutz & Co.** Engine No. **339185/90** When made **1930**

Boilers made at

By whom made Boiler No. When made

Horse Power **330**

Owners Port belonging to

Horse Power as per Rule

Is Refrigerating Machinery fitted for cargo purposes **70 NHT** Is Electric Light fitted

for which vessel is intended **11" - 19 1/16"**

ENGINES, &c. Type of Engines **Heavy Oil Engine** **2 or 4 stroke cycle** **Single or double acting**
Mean pressure in cylinders **40 kg p. sqcm.** Diameter of cylinders **280 mm** Length of stroke **500 mm** No. of cylinders **six** No. of cranks **six**
of bearings, adjacent to the Crank, measured from inner edge to inner edge **334 mm** Is there a bearing between each crank **Yes**
Revolutions per minute **304** Flywheel dia. **1920 mm** Weight **2200 kg** Means of ignition **Fuel spray** Kind of fuel used

Crank Shaft, dia. of journals **as per Rule** Crank pin dia. **170 mm** Crank Webs **Mid. length breadth 260 mm** Thickness parallel to axis **as fitted** **Mid. length thickness 88 mm** Thickness around eye-hole **as fitted**

Propeller Shaft, diameter **as per Rule** **Intermediate Shafts**, diameter **as per Rule** **Thrust Shaft**, diameter at collars **as per Rule**
as fitted **as fitted** **as fitted** **165 mm**

Shaft, diameter **as per Rule** **Screw Shaft**, diameter **as per Rule** Is the ^{tube} _{screw} shaft fitted with a continuous liner **as fitted**

Liner, thickness in way of bushes **as per Rule** Thickness between bushes **as per rule** Is the after end of the liner made watertight in the **as fitted**

After boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
Liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

Oil liners are fitted, is the shaft lapped or protected between the liners Is an approved **Oil Gland** or other appliance fitted at the after end of the tube
If so, state type Length of Bearing in **Stern Bush** next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
Method of reversing Engines **by cam shafts** Is a governor or other arrangement fitted to prevent racing of the engine when declutched **Yes** Means of lubrication

Pressure Thickness of cylinder liners **23 mm** Are the cylinders fitted with safety valves **Yes** Are the exhaust pipes and silencers water cooled or lagged with
conducting material **water cooled** if the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Exhausting Water Pumps, No. **One** Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Pumps worked from the **Main Engines**, No. **One** Diameter **130 mm** Stroke **68 mm** Can one be overhauled while the other is at work **Yes**

Pumps connected to the **Main Bilge Line** { No. and Size How driven } **Lubricating Oil Pumps**, including Spare Pump, No. and size **One tooth wheel pump and one spare**

Oil independent means arranged for circulating water through the **Oil Cooler** **Suctions**, connected to both Main Bilge Pumps and Auxiliary Bilge
No. and size:—In Machinery Spaces In Pump Room

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
Are the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces

Are the Bilge Suction pipes easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

Are the Overboard Discharges sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line
Are the Blow Off Cocks fitted with a spigot and brass covering plate

How are they protected
Are the Blow Off Cocks fitted with a spigot and brass covering plate
How are they protected

Have they been tested as per Rule
Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
Arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one

compartment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from
On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. **One** No. of stages **Two** Diameters **130 x 150 mm** Stroke **100 mm** Driven by **Main Engine**
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

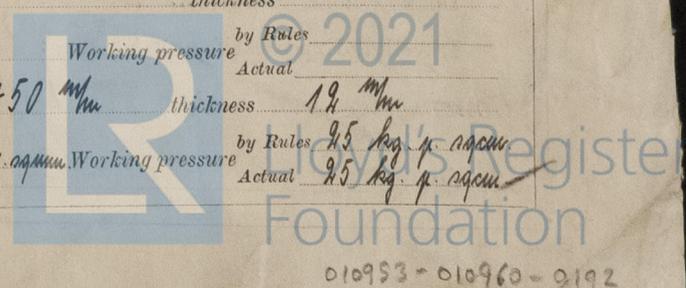
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
Engining Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter **as per Rule** **as fitted**
RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule **Yes**

Are the internal surfaces of the receivers be examined and cleaned **Yes** Is a drain fitted at the lowest part of each receiver **Yes**
Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

Are they less, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual
Engining Air Receivers, No. **Three** Total cubic capacity **500 litres each** Internal diameter **450 mm** thickness **12 mm**

Are they less, lap welded or riveted longitudinal joint **lap welded** Material **Mild Steel** Range of tensile strength **40,2 kg p. sqcm.** Working pressure by Rules Actual **25 kg p. sqcm.**



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only?

PLANS. Are approved plans forwarded herewith for Shafting 18. IV. 27. 1930 Receivers 13. IV. 27. 1930 Separate Tanks 5. IV. 28.

Donkey Boilers. General Pumping Arrangements. Oil Fuel Burning Arrangements.

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied as ordered by the owner.

The foregoing is a correct description,

Motorenfabrik Deutz

M. Stein W. H. H. H. H. H. Manufacturer.

Dates of Survey while building: During progress of work in shops -- 22. IV. 30, 17. 30, 4. V. 30, 25. V. 30, and 30. VI. 30.
 During erection on board vessel -- Five
 Total No. of visits Five

Dates of Examination of principal parts—Cylinders 22. IV. 30. Covers 4. V. 30. Pistons 4. V. 30. Rods 1. V. 30. Connecting rods 1. V. 30.
 Crank shaft 4. V. 30. Flywheel shaft 4. V. 30. Thrust shaft 26. V. 30. Intermediate shafts 4. V. 30. Tube shaft 4. V. 30.
 Screw shaft 4. V. 30. Propeller 4. V. 30. Stern tube 4. V. 30. Engine seatings 4. V. 30. Engines holding down bolts 4. V. 30.

Completion of fitting sea connections 4. V. 30. Completion of pumping arrangements 4. V. 30. Engines tried under working conditions 4. V. 30.
 Crank shaft, Material S to Steel Identification Mark 8933 to 8945. 30. Flywheel shaft, Material S to Steel Identification Mark 3456 to 3468. 30.
 Thrust shaft, Material S to Steel Identification Mark 3456 to 3468. 30. Intermediate shafts, Material S to Steel Identification Marks 3456 to 3468. 30.
 Tube shaft, Material S to Steel Identification Mark 3456 to 3468. 30. Screw shaft, Material S to Steel Identification Mark 3456 to 3468. 30.

Is the flash point of the oil to be used over 150° F.

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery duplicate of a previous case Yes If so, state name of vessel see Report 4 to 37 of 19. I. 30.

General Remarks (State quality of workmanship, opinions as to class, &c.) The engines after completion has been tested under full working condition for five hours on the trial bench in the makers shop with satisfactory results. All working parts have been examined throughout after opening up and were found in safe working condition. This machinery has been built under special survey, and is eligible in my opinion for notation of NE 7.3

Certificate (if required) to be sent to Committee's Minute.

The amount of Entry Fee .. £ 2 : 0 :
 Special £ 23 : 15 :
 Donkey Boiler Fee £ : :
 Travelling Expenses (if any) £ 5 : 18 :
 When applied for, 18. IV. 19. 30.
 When received, 10. Aug. 19. 30.

Paul Haupt
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 19 DEC 1930**

Assigned

See H. H. J. E. Rpt 66 52



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