

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 9 - NOV 1931

Date of writing Report 19 When handed in at Local Office 9 - NOV 1931, 10 Port of London

No. in Survey held at Reg. Book. *Newbury* Date, First Survey 4<sup>th</sup> September, Last Survey 19<sup>th</sup> November 1931

on the *Chester* Built at *Chester* By whom built *Messrs. J. Dickson & Co. Ltd.* Yard No. 518 Tons } Gross

Engines made at *Newbury* By whom made *Messrs. J. Dickson & Co. Ltd.* Engine No. 2678 When built 1931 Tons } Net

Boilers made at *Lowes & Co.* By whom made *Messrs. J. White & Co.* Boiler No. 555.S. When made 1931

Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

Nom. Horse Power as per Rule 57 Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *No*

Trade for which Vessel is intended *Harbour Launch.*

ENGINES, &c. — Description of Engines *Steam Reciprocating, Triple Expansion.* Revs. per minute 180

Dia. of Cylinders *10 1/2 x 17 1/2 x 27 1/2* Length of Stroke 18" No. of Cylinders *Three* No. of Cranks *Three*

Crank shaft, dia. of journals as per Rule *5.29"* as fitted *5 3/8"* Crank pin dia. *5 3/8"* Crank webs Mid. length breadth 10" Thickness parallel to axis *3 5/8"*

Intermediate Shafts, diameter as per Rule *5.039"* as fitted *5 1/8"* Thrust shaft, diameter at collars as per Rule *5.526"* as fitted *5 3/8"*

Tube Shafts, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Screw Shaft, diameter as per Rule *4.625"* as fitted *4 1/8"* Is the screw shaft fitted with a continuous liner? *Yes*

Bronze Liners, thickness in way of bushes as per Rule *15/32"* as fitted *15/32"* Thickness between bushes as per Rule *3/16"* as fitted *7/16"* Is the after end of the liner made watertight in the propeller boss? *Yes*

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *made in one length.*

If the 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? *Yes*

If two liners are fitted, is the shaft lapped or protected between the liners? *Yes* Is an approved Oil Gland or other appliance fitted at the after end of the tube? *Yes*

Propeller, dia. *6-1"* Pitch *6-0"* No. of Blades *3* Material *Gray. Iron* Length of Bearing in Stern Bush next to and supporting propeller *22 3/8"* Whether Moveable? *Yes* Total Developed Surface *11* sq. feet

Pumps worked from the Main Engines, No. *None* Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work? *Yes*

Pumps worked from the Main Engines, No. *One* Diameter *2"* Stroke *9"* Can one be overhauled while the other is at work? *Yes*

Additional Pumps, No. and size *Two 4 1/2 x 3 x 10* Pumps connected to the Main Bilge Line (No. and size *One 4x4x5 Duplex*) How driven *Steam*

Oil Pumps, No. and size *One 4x4x5* Lubricating Oil Pumps, including Spare Pump, No. and size \_\_\_\_\_

Are independent means arranged for circulating water through the Oil Cooler? *Yes* Suctions, connected to both Main Bilge Pumps and Auxiliary Pumps; — In Engine and Boiler Room *Three @ 2"*

In Hold, &c. *Two @ 2"*

Water Circulating Pump Direct Bilge Suctions, No. and size *One @ 4"* Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *One @ 2 1/2"*

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes? *Yes*

Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges? *Yes*

Sea Connections fitted direct on the skin of the ship? *Yes* Are they fitted with Valves or Cocks? *Yes*

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates? *Yes* Are the Overboard Discharges above or below the deep water line? *Yes*

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel? *Yes* Are the Blow Off Cocks fitted with a spigot and brass covering plate? *Yes*

Do pipes pass through the bunkers? *Yes* How are they protected? *Yes*

Do pipes pass through the deep tanks? *Yes* Have they been tested as per Rule? *Yes*

Are Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times? *Yes*

Is the 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? *Yes*

Is the Shaft Tunnel watertight? *Yes* Is it fitted with a watertight door? *Yes* worked from \_\_\_\_\_

BOILERS, &c. — (Letter for record \_\_\_\_\_) Total Heating Surface of Boilers *900 #*

Is a reduced Draft fitted? *Yes* No. and Description of Boilers *One, Water Tube* Working Pressure *200 lbs/sq*

REPORT ON MAIN BOILERS NOW FORWARDED? *Yes*

DONKEY BOILER FITTED? *No* If so, is a report now forwarded? \_\_\_\_\_

Is a donkey boiler intended to be used for domestic purposes only? *No*

Are approved plans forwarded herewith for Shafting? \_\_\_\_\_ Main Boilers \_\_\_\_\_ Auxiliary Boilers \_\_\_\_\_ Donkey Boilers \_\_\_\_\_

Are approved plans forwarded herewith for General Pumping Arrangements? \_\_\_\_\_ Oil fuel Burning Piping Arrangements \_\_\_\_\_

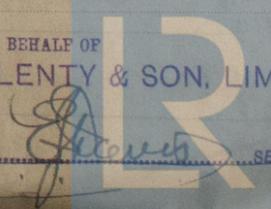
Is spare gear required by the Rules been supplied? *Yes* SPARE GEAR.

Is principal additional spare gear supplied? *Yes*

The foregoing is a correct description,

FOR AND ON BEHALF OF PLENTY & SON, LIMITED.

Manufacturer.



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*Sep. 4. 10. 16 Oct 19.*

Dates of Survey while building

- During progress of work in shops - - -
- During erection on board vessel - - -

Total No. of visits

Dates of Examination of principal parts

- Cylinders *Sep. 4. 16 Oct 19*
- Slides *Sep 16 Oct 19*
- Covers *Sep. 16 Oct 19.*
- Pistons *Sep. 4. 10 Oct 19.*
- Piston Rods *Oct 19*
- Connecting rods *Oct 19.*
- Crank shaft *Sep 16 Oct 19.*
- Thrust shaft *Sep. 16 Oct 19.*
- Intermediate shafts *Sep 16.*
- Tube shaft *✓*
- Screw shaft *Sep 16.*
- Propeller *Sep 16.*
- Stern tube *Sep. 16.*
- Engine and boiler seatings
- Engines holding down bolts

Completion of fitting sea connections

Completion of pumping arrangements

Main boiler safety valves adjusted

Boilers fixed

Engines tried under steam

Thickness of adjusting washers

Crank shaft material *Ingot Steel* Identification Mark *CRH 30-7-31* Thrust shaft material *Ingot Steel* Identification Mark *LLOYDS 8942-6*

Intermediate shafts, material *Ingot Steel* Identification Marks *LLOYDS 8942-6* Tube shaft, material *✓* Identification Mark *LLOYDS 8942-6*

Screw shaft, material *Ingot Steel* Identification Mark *LLOYDS 8942-6* Steam Pipes, material *✓* Test pressure Date of Test

Is an installation fitted for burning oil fuel

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

Have the requirements of the Rules for the use of oil as fuel 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 *No* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.)

*This Machinery which has been constructed under Special Survey to approved plans & rule requirements has been despatched to Chester for installation on board.*

*The Workmanship & material, so far as can be seen, is good and the Machinery, in my opinion, will be eligible for classification with the class of +LMC (with date) when it is fitted on board together with spare parts and tried under working conditions*

Certificate to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.

*LIV 1/2 (for installation) = £3:5:0*

The amount of Entry Fee ... £ *10-5-0*

Special *2:0:0*

Donkey Boiler Fee *6:0:0*

Travelling Expenses (if any) £ *2-13-0*

When applied for, **9 - NOV 1931**

When received, *21 Nov 1931*

*Arthur Palmer*

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned