

IVED

Rpt. 4.

No. 464

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

Received at London Office

Date of writing Report 29.4.49.19 When handed in at Local Office 19 Port of NOTTINGHAM

No. in Survey held at Nottingham Date, First Survey 20.10.48. Last Survey 26.4.49.

Reg. Book on the Messrs. Harland & Wolff Ltd. 1397G. Top/s

Built at By whom built under O/No. 1397G/E.W.2. Job No. Yard No. When built

Engines made at Nottingham By whom made E. Reader & Sons Ltd. Engine No. 24959 When made 1949.

Boilers made at By whom made Boiler No. When made

Registered Horse Power 47 Owners Port belonging to

Norm. Horse Power as per Rule 2.1 M.N. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which vessel is intended

ENGINES, &c.—Description of Engines Type S.F. 9 1/2 Vertical enclosed forced lubricated Revs. per minute 500

Dia. of Cylinders 9 1/2" Length of Stroke 5 1/2" No. of Cylinders One No. of Cranks One

Crank shaft, dia. of journals as per Rule App. as fitted 3.1/8" Crank pin dia. 3 3/4" Mid. length breadth 5 5/8" Thickness parallel to axis shrunk Crank webs Mid. length thickness 1 5/8" Thickness around eye-hole

Intermediate Shafts, diameter as per Rule as fitted Thrust shaft, diameter at collars as per Rule as fitted

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the { tube / screw } shaft fitted with a continuous liner {

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted Is the after end of the liner made watertight in the propeller boss

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

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

If two 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

Feed Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Feed Pumps } No. and size } Pumps connected to the } No. and size }
 Pumps } How driven } Main Bilge Line } How driven }

Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected both to Main Bilge Pumps and Auxiliary

Bilge Pumps:—In Engine, and Boiler Room In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges, and size

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

Are the 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

Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

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

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

What Pipes pass through the bunkers How are they protected

What pipes pass through the deep tanks Have they been tested as per Rule

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

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 Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

IN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers

Which Boilers are fitted with Forced Draft Which Boilers are fitted with Superheaters

and Description of Boilers Working Pressure

A REPORT ON MAIN BOILERS NOW FORWARDED?

A DONKEY BOILER FITTED? If so, is a report now forwarded?

Is the donkey boiler be used for other than domestic purposes

ANS. Are approved plans forwarded herewith for Shafting Main Boilers Auxiliary Boilers Donkey Boilers

(If not state date of approval)

Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR.

Is the spare gear required by the Rules been supplied The Rules do not apply to this size of engine.

Is the principal additional spare gear supplied No spares are supplied with this engine.

The foregoing is a correct description.

E. Reader & Sons Limited
E. READER & SONS, LIMITED Manufacturer.



002938-002946-0148

Handwritten notes: 26/7/49

Dates of Survey while building

During progress of work in shops - - { 20.10.48, 26.3.49, 26.4.49.

During erection on board vessel - - - {

Total No. of visits 3

Dates of Examination of principal parts - Cylinders 26.3.49. Slides - Covers 26.3.49.
Pistons 26.3.49. Piston Rods 26.3.49. Connecting rods 26.3.49.
Crank shaft 26.3.49. Thrust shaft Intermediate shafts
Tube shaft Screw shaft Propeller
Stern tube Engine and boiler seatings Engines holding down bolts

Completion of fitting sea connections
Completion of pumping arrangements Boilers fixed Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers 20.10.48.
Crank shaft material O.H.S. Identification Mark No. 884.T.D.S. Thrust shaft material Identification Mark
Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark

Screw shaft, material Identification Mark 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 If so, state name of vessel.

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

This engine has been built under Special Survey in accordance with the Regulations of the Society. The workmanship and materials are good.
On completion the engine was run in the shops under light load conditions and found satisfactory.
The engine has been despatched to Glasgow.

This engine has been especially installed in Ark. No 13948 coupled to auxiliary compressor unit manufactured by Harland & Wolff Ltd Glasgow. Tried under working conditions Satisfactorily.
H. Chis. Juniper. Glasgow. 18/12/49

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

Table with 4 columns: Fee Type, Amount (£), When applied for, When received. Includes Entry Fee (£4), Special Fee, Donkey Boiler Fee, and Travelling Expenses (£19).

H. Thorburn Engineer Surveyor to Lloyd's Register of Shipping

Date GLASGOW - 7 DEC 1949

Committee's Minute SEE ACCOMPANYING MACHINERY REPORT.

