

Rpt. 4.

No. 102876

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

22 MAY 1945

Date of writing Report 19 26. 5. 1945 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at South Shields Date, First Survey (1944) May 25 Last Survey April 30 1945
 Reg. Book 91964 on the S.S. SHAHRISTAN Tons {Gross 7309.41
 {Net 5138.71
 Built at S. Shields By whom built J. Readhead & Sons Ltd Yard No. 544 When built 1945
 Engines made at South Shields By whom made J. Readhead & Sons Ltd Engine No. 544 When made 1945
 Boilers made at South Shields By whom made J. Readhead & Sons Ltd Boiler No. 544 When made 1945
 Registered Horse Power 510 Owners Strick Line (1923) Ltd Port belonging to London
 Nom. Horse Power as per Rule 510 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended General Cargo

ENGINES, &c.—Description of Engines.

Triple Expansion Revs. per minute 76
 Dia. of Cylinders $24\frac{1}{2} \times 37 \times 70$ Length of Stroke 48 No. of Cylinders 3 No. of Cranks 3
 as per Rule 14 Crank pin dia. $14\frac{1}{4}$ Mid. length breadth $2-4\frac{1}{2}$ Thickness parallel to axis $9-9\frac{1}{2}$
 Crank shaft, dia. of journals as fitted $14\frac{1}{4}$ Crank webs Mid. length thickness $9 \times 9\frac{1}{2}$ shrunk Thickness around eye-hole $7\frac{1}{2}-7\frac{3}{4}$
 Intermediate Shafts, diameter as per Rule 13.33 Thrust shaft, diameter at collars as per Rule 14
 as fitted $13\frac{5}{8}$ as fitted $14\frac{1}{4}$
 Tube Shafts, diameter as per Rule 14.95 Is the {tube} shaft fitted with a continuous liner {
 as fitted 15.4 {screw} Yes
 Screw Shaft, diameter as per Rule 14.95
 as fitted 15.4
 Bronze Liners, thickness in way of bushes as per Rule .765 Is the after end of the liner made watertight in the
 as fitted .812 Thickness between bushes as fitted
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner.
 propeller boss Yes
 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
 at Yes If so, state type Length of Bearing in Stern Bush next to and supporting propeller 5'-1"

Propeller, dia. $18-3$ Pitch 15.46 No. of Blades 4 Material C.I. whether Moveable No Total Developed Surface 98.5 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter $4\frac{1}{2}$ Stroke 26 Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter $4\frac{1}{2}$ Stroke 26 Can one be overhauled while the other is at work Yes

Feed Pumps {No. and size (2) $7 \times 9\frac{1}{2} \times 21$. (1) $7 \times 9\frac{1}{2} \times 21$. Pumps connected to the {No. and size (1) $10\frac{1}{2} \times 13 \times 24$. (1) $7 \times 9\frac{1}{2} \times 21$.
 {How driven Steam Main Bilge Line {How driven Steam

Ballast Pumps, No. and size (1) $10\frac{1}{2} \times 13 \times 24$ Lubricating Oil Pumps, including Spare Pump, No. and size
 Are two independent means arranged for circulating water through the Oil Cooler
 Suctions, connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps:—In Engine and Boiler Room 3-3 dia
 In Pump Room

In Holds, &c. N°1 hold 2-3 dia N°2 hold 2-3 dia N°3 hold 2-3 dia
 Deep tank 2-2½ dia. Cofferdam 1-2½ dia. Tunnel well 1-2½ dia. N°5, 6 holds 2-3 dia

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 9 dia Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size One 5 dia Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes

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 Yes
 Are all Sea Connections fitted direct on the skin of the ship 2 on side W.B.T. Yes Are they fitted with Valves or Cocks Ball

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 Below
 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

What Pipes pass through the bunkers Bilge How are they protected Wood casing
 What pipes pass through the deep tanks Bilge Have they been tested as per Rule Yes

Are all 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 No worked from

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 7248 sq
 Which Boilers are fitted with Forced Draft 3 Main Which Boilers are fitted with Superheaters 3 Main
 No. and Description of Boilers 3 Main S.E.M. Working Pressure 220 lbs/sq

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes

Can the donkey boiler be used for domestic purposes only Yes
 PLANS. Are approved plans forwarded herewith for Shafting 20-10-43 Main Boilers 11-7-44 Auxiliary Boilers Yes Donkey Boilers Yes
 (If not state date of approval)

Superheaters 14-6-44 General Pumping Arrangements 6-1-45 Oil fuel Burning Piping Arrangements 6-1-45

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied

The foregoing is a correct description.
 For JOHN READHEAD & SONS, LTD.
 J.M. Coatsworth. Manufacturer.
 Director.



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Lloyd's Register

Foundation

Dates of Survey while building

During progress of work in shops - - (1944) May 25, June 29, July 31, Aug 8, 29, Sept 6, 13, 19, 25, Oct 4, 5, 9, 13, 20, 25, 27, Nov 1, 2, 6, 7, 9, 10, 11, 14, 16, 17, 20, 21, 23, 27, 28, 29, 30 Dec 1, 4, 6, 8, 13, 14, 15, 18, 20, 22, 27, 28, 29 (1945) Jan 3, 4, 5, 8, 9, 10, 12, 16, 17, 19, 23, 24, 25, 26, 30, 31 Feb 2, 5, 6, 7, 12, 13, 14, 15, 16, 19, 20, 21, 22, 26, 27, 28, Mar 1, 5, 6, 7, 9, 12, 14, 15, 16, 21, 22, 23, 26, 28, 30 April 3, 4, 10, 11, 12, 17, 18, 19, 20, 21, 23, 26, 30

During erection on board vessel - -

Total No. of visits 111

Dates of Examination of principal parts—Cylinders 27-2-45 Slides 28-2-45 Covers 27-2-45

Pistons 26-2-45 Piston Rods 27-2-45 Connecting rods 27-2-45

Crank shaft 16-1-45 Thrust shaft 21-4-45 Intermediate shafts 21-4-45

Tube shaft 16-2-45 Propeller 16-2-45

Stern tube 15-2-45 Engine and boiler seatings 21-3-45 Engines holding down bolts 19-4-45

Completion of fitting sea connections 26-2-45

Completion of pumping arrangements 21-4-45 Boilers fixed 21-3-45 Engines tried under steam 21-28-30 4-45

Main boiler safety valves adjusted 21-4-45 Thickness of adjusting washers P/P-1/32 C/P-3/8 S/P-3/8

Crank shaft material S.M. Steel Identification Mark 8892 L.R.J.H. Thrust shaft material S.M. Steel Identification Mark 9194 L.R.J.H.

Intermediate shafts, material S.M. Steel Identification Marks 9196 9199 Tube shaft, material S.M. Steel Identification Mark 26-8-44

Screw shaft, material S.M. Steel Identification Mark 9201 Steam Pipes, material S.M. Steel Test pressure 660 lb Date of Test 16-19-21/24

Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150° F. Yes

Have the requirements of the Rules for the use of oil as fuel been complied with Yes

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

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

Is this machinery duplicate of a previous case No If so, state name of vessel C. Blue Type.

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

The machinery of this vessel has been constructed under special survey in accordance with rule requirements & approved plans.

Materials and workmanship are good.

The machinery was satisfactorily tested on mooring & river trials in my opinion is eligible for classification with records of + L.M.C. 4, F.D.C.L. 3 S.B. (8 F) Fitted for oil fuel 4, 45 F.P. above 150° F.

The amount of Entry Fee ... £ 6 : 0 : 1 When applied for, 28 MAY 1945

Special ... £ 100 : 10 : 1

Donkey Boiler Fee ... £ ✓ : ✓ : 1 When received, 19

Travelling Expenses (if any) £ ✓ : ✓ : 1

Committee's Minute ... FRI. 22 JUN 1945

Assigned + LMC 4.45 Spt. Fitted for oil fuel 4.45 flash point above 150° F. F.D. C.L.

J. H. Matthews
Engineer Surveyor to Lloyd's Register of Shipping.