

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

21 DEC 1925

Date of writing Report *Dec 15th 1925* When handed in at Local Office *Dec 15th 1925* Port of *NEWCASTLE ON TYNE*
 No. in Survey held at *Walker* Date, First Survey *March 2nd 1925* Last Survey *Dec 11th 1925*
 Reg. Book. *45912* on the *Twin Screw Steamer "Erithana"* (Number of Visits *67*) Tons { Gross *4460*
 Net *4850*
 Built at *Walker* By whom built *Swan Hunter & Wigham Richardson Ltd* No. *1200* When built *1925*
 Engines made at *Walker* By whom made *S. H. & W. R. Ltd.* Engine No. *1200* when made *1925*
 Boilers made at *Walker* By whom made *S. H. & W. R. Ltd.* Boiler No. *1200* when made *1925*
 Registered Horse Power Owners *British India S. N. Co. Ltd* Port belonging to *London*
 Nom. Horse Power as per Rule *801* Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes*
 Trade for which Vessel is intended *Eastern Trade*

ENGINES, &c.—Description of Engines *Twin Triple Exp. Inverted, Condensing* Revs. per minute *85*
 Dia. of Cylinders *20 3/4, 35 1/2, 60* Length of Stroke *45"* No. of Cylinders *3* No. of Cranks *3*
 Crank shaft, dia. of journals *as per Rule 12.186"* Crank pin dia. *12 5/8"* Crank webs *18"* Thickness parallel to axis *7 7/8"*
 as fitted *12 5/8"* Mid. length thickness *7 7/8"* Thickness around eye-hole *5 9/16"*
 Intermediate Shafts, diameter *as per Rule 11.606"* Thrust shaft, diameter at collars *as per Rule 12.186"*
 as fitted *11 5/8"* as fitted *12.25"*
 Tube Shafts, diameter *as per Rule 12.918"* Is the { screw } shaft fitted with a continuous liner { *yes* }
 as fitted *13 3/8"* as fitted *0.504"*
 Bronze Liners, thickness in way of bushes *as per Rule 0.672"* Thickness between bushes *as fitted 3/4"* 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 *C.L.*
 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 shaft *yes* Length of Bearing in Stern Bush next to and supporting propeller *4'-8"*
 Propeller, dia. *15'-9"* Pitch *16'-0"* No. of Blades *4* Material *Ph. Bz* whether Moveable *yes* Total Developed Surface *74 sq. feet*
 Feed Pumps worked from the Main Engines, No. *1* Diameter *5"* Stroke *22 1/2"* Can one be overhauled while the other is at work *yes*
 Bilge Pumps worked from the Main Engines, No. *1* Diameter *5"* Stroke *22 1/2"* Can one be overhauled while the other is at work *yes*
 Feed Pumps { No. and size *2. 12"x9"x24"* *1. 9"x6 1/2"x10"* Pumps connected to the { No. and size *1. General service 9"x6 1/2"x10"* *1. Ballast 10"x15"x12"* }
 How driven *steam* *1. 8 1/2"x6"x18"* Main Bilge Line How driven *steam*
 Ballast Pumps, No. and size *1. duplex 10"x13"x12"* Lubricating Oil Pumps, including Spare Pump, No. and size *1*
 Are two independent means arranged for circulating water through the Oil Cooler *yes* Suctions, connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room *2. 3" dia (E.R.)* *2. 3 1/4" dia (B.R.)*
 In Holds, &c. *Nº 1. 2. 3" dia* *Nº 2. 2. 3 1/2" dia* *Nº 3. 2. 3" dia* *Nº 4. 2. 3" dia*
 Tunnel Well one *2 1/2" dia*

Main Water Circulating Pump Direct Bilge Suctions, No. and size *2. 9" dia* Independent Power Pump Direct Suctions to the Engine Room Bilges, *a Boiler*
 No. and size *2. 5" dia & 2. 4" 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 *yes* Are they fitted with Valves or Cocks *both*
 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 *both*
 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 are carried through the bunkers *Ford Bilge Suctions* How are they protected *wood casing*
 What pipes pass through the deep tanks *none* 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 *yes* worked from *Deck*

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers *12125 sq. ft*
 Is Forced Draft fitted *yes* No. and Description of Boilers *5. S. E. Multitubular* Working Pressure *215 lbs/sq. in*
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? *yes*
 IS A DONKEY BOILER FITTED? *no* If so, is a report now forwarded? *no*
 PLANS. Are approved plans forwarded herewith for Shafting *no* Main Boilers *yes* Auxiliary Boilers *yes* Donkey Boilers *yes*
 (If not state date of approval)
 Superheaters *no* General Pumping Arrangements *yes* Oil fuel Burning Piping Arrangements *yes*

SPARE GEAR, State the articles supplied:— *2 main bearing bolts & nuts, 2 Top end bolts & nuts, 2 Bottom end*
bolts & nuts, 1 set, coupling bolts & nuts, a set of bottom end braces, 2 pair of top end braces, a set of propeller blades, bolts &
nuts, one spare propeller shaft (C.R.), 2 bronze propeller blades, 10 pump ring studs, 10 studs for stuffing box, a set of rings for each
piston, set of packing rings for 11 piston and valve, 6 studs each connecting door, cylinder cover & pump cover, 2 eccentric strap studs, bolts & nuts,
one air pump rod, head piece, complete with valves, one circulating pump impeller & shaft, one set of valves & seats for each bilge pump, &
ballast pump, 2 valves & seats each for general donkey pump, sanitary pump, steam pump, fresh water & hot water pump, a set of suction
and delivery valves with seats and glands complete for harbour feed pump, a set of springs for each size of piston, 20 condenser tubes
and 50 ferrules, one spring for each size of escape valve, 2 safety valve springs, one boiler check valve, a set of spare
fire bars for one boiler, spare boiler tubes, and gauge glasses, assorted iron, bolts and nuts, and general engine
room stores & tools.

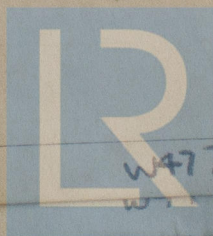
The foregoing is a correct description,

FOR

SWAN, HUNTER & WIGHAM RICHARDSON, LTD.

G. J. Tweedy
DIRECTOR.

Manufacturer.



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Lloyd's Register
Foundation

1925 Mar 2-12-20-24-27-31 April 16-21 May 1-4-5-8-12-13-14-18-19-20-25-26-27-29 June 5-8-9-10-19-30 July 2-3
 During progress of work in shops - -
 1925 July 20-24-27-29 Aug 5-6-11-14-17-21-24-27 Sept 1-9-11-14-23-24-25 Oct 2-3-4
 Dates of Survey while building
 During erection on board vessel - - -
 1925 Oct 6-8-9-13-21-25 Nov 2-12-14-20 Dec 4-10-11
 Total No. of visits 67

Dates of Examination of principal parts—Cylinders 20.5.25 Slides 20.4.25 Covers 25.5.25
 Pistons 25.5.25 Piston Rods 30.6.25 Connecting rods 30.6.25
 Crank shaft 4.5.25 Thrust shaft 29.5.25 Intermediate shafts 24.7.25
 Tube shaft none Screw shaft 4.5.25 Propeller 23.9.25
 Stern tube 20.4.25-19.5.25 Engine and boiler seatings 23.9.25 Engines holding down bolts 13.10.25
 Completion of pumping arrangements 17.11.25 Boilers fixed 17.11.25 Engines tried under steam 17.11.25
 Main boiler safety valves adjusted 17.11.25 Thickness of adjusting washers $F=\frac{3}{8}$ $A=\frac{3}{8}$ $F=\frac{3}{8}$ $A=\frac{3}{8}$ $F=\frac{3}{8}$ $A=\frac{3}{8}$ $F=\frac{3}{8}$ $A=\frac{3}{8}$ 1999-2000
 Crank shaft material *Forged Steel* Identification Mark LGS 4.5.25-CH Thrust shaft material *Steel* Identification Mark LGS 29.5.25
 Intermediate shafts, material *Steel* Identification Marks LGS 24.7.25 Tube shaft, material *none* Identification Mark -
 Screw shaft, material *Steel* Identification Mark LGS 24.7.25 Steam Pipes, material *steel* Test pressure 650-700 Date of Test 28.10.25
 Is an installation fitted for burning oil fuel *no* Is the flash point of the oil to be used over 150°F.
 Have the requirements of the Rules for carrying and burning oil fuel been complied with
 Is this machinery duplicate of a previous case *yes* If so, state name of vessel *A.R. Panthia*

General Remarks (State quality of workmanship, opinions as to class, &c. *This vessel's machinery has been examined during construction, and the materials and workmanship are good and in accordance with the approved plans, and the requirements of the rules. On completion, it was submitted to a mooring & sea trial with satisfactory results at which time the safety valves were adjusted to the working pressure. It is therefore eligible in our opinion to be classed under the notation of +LMC 12.25 in the R. Book.*

It is submitted that
 this vessel is eligible for
 THE RECORD. + LMC 12.25. FD. CL.

MS
22/12/25

The amount of Entry Fee ... £ 6 : 0 :
 Special ... £ 1/5 : 1 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 19 DEC 1925
 When received, 22 DEC 1925

L. G. Shallcross, Francis Ritson
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 22 DEC 1925

Assigned

+ LMC 12.25
 F.D. C.L.



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