

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

20 OCT 1924

Date of writing Report Oct 17<sup>th</sup> 1924 When handed in at Local Office Oct 17<sup>th</sup> 1924 Port of NEWCASTLE-ON-TYNE

No. in Survey held at North Shields Date, First Survey July 18<sup>th</sup> Last Survey Oct 8<sup>th</sup> 1924  
 Reg. Book. 82786 on the Steel Se Middlesbro Tons Gross 870  
Net 330

Built at Newcastle By whom built Hawthorn, Leslie & Co Ltd Yard No. 535 When built 1924

Engines made at North Shields By whom made Shields Eng Co Ltd Engine No. 377 when made 1924

Boilers made at St Peters Newcastle By whom made Hawthorn, Leslie & Co Ltd Boiler No. 8814 when made 1924

Registered Horse Power \_\_\_\_\_ Owners Jayne - Teas Steam Shipg Co Ltd Port belonging to Newcastle

Nom. Horse Power as per Rule 185.7 Is Refrigerating Machinery fitted for cargo purposes  Is Electric Light fitted Yes

**ENGINES, &c.**—Description of Engines Single Screw Triple Expansion

Dia. of Cylinders 19-31-50 Length of Stroke 33 Revs. per minute 90 No. of Cylinders 3 No. of Cranks 3

Dia. of Crank shaft journals as per rule 2.64 Dia. of Crank pin 2.75 Crank webs Mid. length breadth 1.7 Thickness parallel to axis 6  
as fitted 2.75 Mid. length thickness 6 shrink Thickness around eye-hole 4.625

Diameter of Thrust shaft under collars as per rule 2.64 Diameter of Tunnel shaft as per rule 2.19 Diameter of Screw shaft as per rule 10.22 Is the Screw shaft  
as fitted 2.75 as fitted 2.25 as fitted 10.75

fitted with a continuous liner the whole length of the stern tube Yes 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 joints burned \_\_\_\_\_ 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 appliance fitted at the after end of the shaft to permit  
 of it being efficiently lubricated \_\_\_\_\_ Length of Stern Bush 3-7 Diameter of Propeller 12-6

Pitch of Propeller 15-6 No. of Blades 4 State whether Moveable No Total Surface 56 square feet.

No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 3.25 Stroke 18 Can one be overhauled while the other is at work Yes

No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 3.25 Stroke 18 Can one be overhauled while the other is at work Yes

Total number and size of power driven Feed and Bilge Auxiliary Pumps Dawson & Downey 7x4 1/2 x 8 + 8x9x8

No. and size of Pumps connected to the Main Bilge Line One Ballast 8x9x8

No. and size of Ballast Pumps One 8x9x8 No. and size of Lubricating Oil Pumps, including Spare Pump \_\_\_\_\_

Are two independent means arranged for circulating water through the Oil Cooler \_\_\_\_\_ No. and size of suction connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room Three 2 1/4 dia - One 3 dia and in Holds, &c. Two 2 1/4 dia for hold

One 2 1/4 dia tunnel well

No. and size of Main Water Circulating Pump Bilge Suctions 5 dia No. and size of Donkey Pump Direct Suctions \_\_\_\_\_

to the Engine Room Bilges One 3 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 connections with the sea direct on the skin of the ship Yes Are they 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 Discharge Pipes above or below the deep water line above

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 Bilge pipes to fore hold How are they protected Wood ceiling

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 Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from \_\_\_\_\_

**MAIN BOILERS, &c.**—(Letter for record 3) Total Heating Surface of Boilers 3322 sq 3262 sq

Forced Draft fitted No No. and Description of Boilers Two - Single Ended Working Pressure 180 lbs sq

**IS A REPORT ON MAIN BOILERS NOW FORWARDED?** Yes

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

**PLANS.** Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers \_\_\_\_\_ Donkey Boilers \_\_\_\_\_

(If not state date of approval)

General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements \_\_\_\_\_

**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 - 1 set feed & bilge pump valves - 6 junk ring bolts  
Spare screw shaft - Spare propeller

The foregoing is a correct description  
 FOR THE SHIELDS ENGINEERING & DRY DOCK CO., LIMITED  
 J. G. Turnbull  
 MANUFACTURER.  
 ENGINE WORKS  
 MANAGER



Dates of Survey while building

During progress of work in shops -- July 18-22-24-30 - Aug 10-18-22-26-28  
 S.F. 2-2-10-18

During erection on board vessel --- S.F. 11-15-19-23-24 - Oct 8

Total No. of visits 19

Dates of Examination of principal parts—Cylinders 24-7-24 - 2-9-24 Slides 2-9-24  
 Covers 30-7-24 Pistons 10-8-24 Rods 30-7-24  
 Connecting rods 30-7-24 Crank shaft 30-8-24 Thrust shaft 18-8-24  
 Tunnel shafts 2-9-24 Screw shaft 30-8-24 Propeller 10-8-24  
 Stern tube 10-8-24 Engine and boiler seatings 15-8-24 Engines holding down bolts 15-8-24  
 Completion of pumping arrangements 24-8-24 Boilers fixed 26-8-24 Engines tried under steam 24-8-24  
 Completion of fitting sea connections 28-8-24 Stern tube 28-8-24 Screw shaft and propeller 28-8-24  
 Main boiler safety valves adjusted 24-8-24 Thickness of adjusting washers 1/2"

Material of Crank shaft Steel Identification Mark on Do. 1600 A  
 Material of Thrust shaft " " Identification Mark on Do. 1596 B  
 Material of Tunnel shafts " " Identification Marks on Do. 1590 — 1591  
 Material of Screw shafts " " Identification Marks on Do. 1595 W — 1608 A  
 Material of Steam Pipes S. G. Copper Test pressure 260 lbs Date of Test 18-8-24

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 carrying and burning oil fuel 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.)

The machinery of this vessel has been constructed under special survey. The materials & workmanship are sound & good. The boiler safety valves were adjusted under steam.

In my opinion this vessel is now eligible for classification in the Society's Register Book with notation + L.M.C. 10.24. C.L.

It is submitted that this vessel is eligible for THE RECORD. + LMC 10.24. CL.

C.W.D. 21/10/24

The amount of Entry Fee ... £ 3 : 0 :  
 Special ... £ 27 : 15 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :

When applied for, 18 OCT 1924

When received, 21 OCT 1924

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

Committee's Minute FRI. 24 OCT 1924  
 Assigned + L.M.C. 10.24 C.L.

CERTIFICATE WRITTEN.



NEWCASTLE-ON-TYNE

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