

REPORT ON MACHINERY.

No. 73916

8-DEC 1920

Received at London Office

of writing Report

10

When handed in at Local Office

10

Port of

NEWCASTLE-ON-TYNE DEC. 9 1920

in Survey held at *North Shields*

Date, First Survey *23rd Oct 19* Last Survey *30th Nov 1920*

g. Book.

on the *Sc Bramstone*

(Number of Visits *32*)

ster

Built at *Lowestoft*

By whom built *Bolby Co. Ltd.*

Tons } Gross
Net

When built *1920*

gines made at *North Shields*

By whom made *Shields Engineering Co. Ltd. (Eng 357)* when made *1920*

ilers made at *W. Starkepool*

By whom made *Central Marine Engine Works Ltd.* when made *1919*

istered Horse Power

Owners *Morgan Smith & Co.*

Port belonging to *Cardiff*

n. Horse Power as per Section 28 *78*

Is Refrigerating Machinery fitted for cargo purposes *No*

Is Electric Light fitted *No*

GINES, &c.—Description of Engines

Compound

No. of Cylinders *2* No. of Cranks *2*

. of Cylinders *17" 36"* Length of Stroke *27"* Revs. per minute

Dia. of Screw shaft as per rule *7.87"* Material of screw shaft *M. S. Iron*

the screw shaft fitted with a continuous liner the whole length of the stern tube *Yes*

Is the after end of the liner made water tight

the propeller boss *Yes* If the liner is in more than one length are the joints burned *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 *Yes*

If two

rs are fitted, is the shaft lapped or protected between the liners

Length of stern bush *3' 0"*

. of Tunnel shaft as per rule *7.26"*

Dia. of Crank shaft journals as per rule *7.629"*

Dia. of Crank pin *7.74"*

Size of Crank webs *13 1/2" x 4 1/2"* Dia. of thrust shaft under

ars *7.74"* Dia. of screw *9' 2"* Pitch of Screw *10' 9"*

No. of Blades *4*

State whether moreable *No* Total surface *30 ft*

of Feed pumps *2* Diameter of ditto *2 1/2"* Stroke *16"*

Can one be overhauled while the other is at work *Yes*

of Bilge pumps *2* Diameter of ditto *2 1/2"* Stroke *16"*

Can one be overhauled while the other is at work *Yes*

of Donkey Engines *1* Sizes of Pumps *6" x 4" x 6"*

No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room *3-2'*

In Holds, &c. *Prs 2"*

of Bilge Injections *1* sizes *3 1/2"* Connected to condenser, or to circulating pump *Yes* Is a separate Donkey Suction fitted in Engine room & size *Yes 2"*

all the bilge suction pipes fitted with roses *Yes* Are the roses in Engine room always accessible *Yes* Are the sluices on Engine room bulkheads always accessible *Yes*

all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *Both*

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*

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*

all pipes are carried through the bunkers *Hold Bilge Suction* How are they protected *Lead lined*

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

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *Yes*

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

ERS, &c.—(Letter for record) Manufacturers of Steel *Lee Rpt. No. 15848 M. S. Pl.*

Heating Surface of Boilers *1490 ft* Is Forced Draft fitted *No* No. and Description of Boilers *One S. C. Multitubular*

Working Pressure *130 lbs* Tested by hydraulic pressure to *260 lbs* Date of test

No. of Certificate

each boiler be worked separately *Yes* Area of fire grate in each boiler *44.3 ft* No. and Description of Safety Valves to

boiler *2 Spring loaded* Area of each valve *5.94 ft* Pressure to which they are adjusted *135 lbs* Are they fitted with easing gear *Yes*

Least distance between boiler uptakes and bunkers *18 1/2"* Mean dia. of boilers *13' 3"* Length *10' 0"* Material of shell plates *Steel*

Thickness *3/32"* Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

seams Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Percentages of strength of longitudinal joint

Working pressure of shell by rules

Size of manhole in shell

of compensating ring

No. and Description of Furnaces in each boiler

Material Outside diameter

th of plain part top Thickness of plates crown Description of longitudinal joint

bottom

bottom

No. of strengthening rings

ing pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

rial of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

rial Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

ness Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

eter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

ness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

ing pressure by rules

Steam dome: description of joint to shell

% of strength of joint

eter Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

ERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

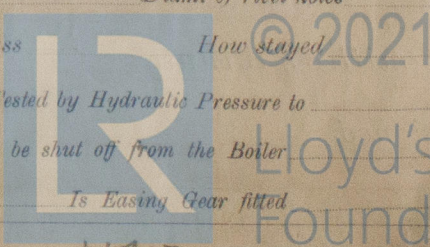
f Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

ter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted



W707 - 0240

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two main Bearing Bolts - Two Top End Bolts - Two Bottom End Bolts - One Res
Coupling Bolt - main & Donkey check valves - one feed & one Bilge suction valves One feed & one Bilge discharge valves
an assortment of Bolt nuts & rivets

The foregoing is a correct description,

FOR THE SHIELDS ENGINEERING & DRY DOCK CO., LIMITED.

Joseph Turnbull.

ENGINE WORKS
MANAGER

Dates of Survey while building	{	During progress of work in shops - -	1919	1920
			Oct 23. 30 Nov. 21. Dec 22	Jan 5. 9. 24. Feb. 12 Mar. 10. Apr. 16. 22. 30 May 3. 10. 14. 18 June 1.
			Jul 8. 9. 16. 29 Aug 11. 17. Nov. 2. 17. 18. 19. 24. 25. 29. 30.	
Total No. of visits			32	

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 30. 4. 20 Slides 16. 7. 20 Covers 16. 7. 20 Pistons 16. 7. 20 Rods 21. 11. 19

Connecting rods 27. 4. 20 Crank shaft 27. 12. 19 Thrust shaft 14. 5. 20 Tunnel shafts ✓ Screw shaft 14. 5. 20 Propeller 11. 8. 20

Stern tube 16. 7. 20 Steam pipes tested 25. 11. 20 Engine and boiler seatings Engines holding down bolts 24. 11. 20

Completion of pumping arrangements 29. 11. 20 Boilers fixed 24. 11. 20 Engines tried under steam 30. 11. 20

Completion of fitting sea connections Stern tube Screw shaft and propeller

Main boiler safety valves adjusted 30. 11. 20 Thickness of adjusting washers Pat Standard 7/16"

Material of Crank shaft Iron Identification Mark on Do. 4775N Material of Thrust shaft Iron Identification Mark on Do. 5839N

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. W.R.A.

Material of Steam Pipes Copper 5" 7/8 x No 7. sing. Test pressure 260 lbs/sq. in.

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 Section 49 of the Rules been complied with ✓

Is this machinery duplicate of a previous case No If so, state name of vessel "Miriam Thomas" Rpt No 73716

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

The machinery of this vessel has been constructed under Special Survey. The workmanship and material are sound and good. The main Engines have been tried out under steam. The Boiler safety valves were adjusted to the working pressure under steam. In an opinion the vessel is eligible for Classification + L.M.C. 11. 20 in the Register, B.

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 11. 20

Reck
10/12/20.

APR

The amount of Entry Fee ...	£ 1 : - :	When applied for,
Special ...	£ 7 : 16 :	19
Donkey Boiler Fee ...	£ : : :	When received,
Travelling Expenses (if any) £	: : :	22/12/1920

Committee's Minute

Assigned

TUE. DEC. 14 1920

+ L.M.C. 11. 20

C. N. Stuart

W. Lee Amear.

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation