

Rpt. 4.

REPORT ON MACHINERY.

No. 18025

WED. SEP. 13 1922

Received at London Office

Date of writing Report 6th Sept. 1922 When handed in at Local Office 6/9/1922 Port of Grimsby.No. in Survey held at P.T. Glasgow & Grimsby Date, First Survey 19th July, 1920 Last Survey 4th Sept. 1922

Reg. Book.

78193 on the Screw Steamer 'BEGUM'

(Number of Visits 166)

Master

Built at P.T. Glasgow By whom built Lithgorn & Co.

Tons Gross 5843

Net 3656

When built 1922

Engines made at Grimsby.

By whom made John G. Kincaid & Co. Ltd.

when made 1922

Boilers made at Grimsby.

By whom made John G. Kincaid & Co. Ltd.

when made 1922

Registered Horse Power

Owners Arctic S.N.C. Ltd.

Port belonging to London.

Nom. Horse Power as per Section 28 563

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted Yes.

ENGINES, &c.—Description of Engines Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 27-45-74 Length of Stroke 51 Revs. per minute 68 Dia. of Screw shaft as per rule 15.27 1/2 Material of I.S.

Is 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

in the propeller boss Yes If the liner is in more than one length are the joints burned joints 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 — Length of stern bush 62

Dia. of Tunnel shaft as per rule 13.68 1/2 Dia. of Crank shaft journals as per rule 14.35 1/2 Dia. of Crank pin 14 1/2 Size of Crank web 21 3/4 9 1/2 Dia. of thrust shaft under

collars 14 1/2 Dia. of screw 18-6 Pitch of Screw 18-0 No. of Blades 4 State whether moveable Yes Total surface 110 1/2

No. of Feed pumps 2 Diameter of ditto 4 1/2 Stroke 28 22 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 28 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes of Pumps 12x12, 7x21, 5x6 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4-3 1/2, Tunnel 1-2 1/2 In Holds, &c. Aft Hold 4-3 1/2, Drup Tank

2-3 1/2, Forward Hold 4-3 1/2

No. of Bilge Injections 1 sizes 10 Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2

Are 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

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 On land

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 None How are they protected —

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

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

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top Platform E.R.

BOILERS, &c.—(Letter for record r) Manufacturers of Steel P.T. Firth Steel Co. Ltd. John Spencer & Son.

Total Heating Surface of Boilers 8478 Is Forced Draft fitted Yes No. and Description of Boilers Three Cyl. Multi Single End.

Working Pressure 180 lb Pested by hydraulic pressure to 320 lb Date of test 24.5.22 No. of Certificate 1607

Can each boiler be worked separately Yes Area of fire grate in each boiler 63.25 No. and Description of Safety Valves to

each boiler Two Spring Area of each valve 11.04 Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes

Smallest distance between boiler uptakes and bunkers 30 Mean dia. of boilers 15-9 Length 12-0 Material of shell plates S.

Thickness 1 1/4 Range of tensile strength 28/32 T. Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.D.R.

long. seams DBS/TR. Diameter of rivet holes in long. seams 15/16 Pitch of rivets 9 5/16 Lap of plates or width of butt straps 19 1/2

Per centages of strength of longitudinal joint rivets 86.6 Working pressure of shell by rules 180 lb Size of manhole in shell 16 x 12

Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Brighton Material S. Outside diameter 50 1/4

Length of plain part top Thickness of plates crown 33 3/4 Description of longitudinal joint Weld No. of strengthening rings —

Working pressure of furnace by the rules 180 lb Combustion chamber plates: Material S. Thickness: Sides 10/16 Back 9 3/32 10/16 Top 10/16 Bottom 12/16

Pitch of stays to ditto: Sides 9 x 8 1/4 Back 8 1/2 x 7 1/2 Top 9 x 8 1/4 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 181 lb

Material of stays I. Area at smallest part 1.5 Area supported by each stay 74 Working pressure by rules 190 lb End plates in steam space:

Material S. Thickness 1 9/32 Pitch of stays 21 x 20 1/2 How are stays secured D.N. Working pressure by rules 180 lb Material of stays S.

Area at smallest part 7.5 Area supported by each stay 430 Working pressure by rules 186 lb Material of Front plates at bottom S

Thickness 15/16 Material of Lower back plate S. Thickness 13/16 Greatest pitch, of stays 13 1/8 x 8 7/8 Working pressure of plate by rules 214

Diameter of tubes 2 1/2 Pitch of tubes 3 3/4 Material of tube plates S. Thickness: Front 15/16 Back 11/16 Mean pitch of stays 9 3/8

Pitch across wide water spaces 13 Working pressures by rules 194 lb Girders to Chamber tops: Material S. Depth and

thickness of girder at centre 10 3/4 x 1 1/2 Length as per rule 37.72 Distance apart 9 Number and pitch of stays in each 30 8 1/4

Working pressure by rules 205 lb Steam dome: description of joint to shell None % of strength of joint —

Diameter — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet holes —

Pitch of rivets — Working pressure of shell by rules — Crown plates — Thickness — How stayed —

SUPERHEATER. Type None Date of Approval of Plan — Tested by Hydraulic Pressure to —

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

Diameter of Safety Valve — Pressure to which each is adjusted — Is Easing Gear fitted —

W1624-0010

IS A DONKEY BOILER FITTED? *Yes*If so, is a report now forwarded? *Yes.*

SPARE GEAR. State the articles supplied:— *Two top and both & nuts, two bottom and nuts, two main bearing nuts, tender coupling bolts, spare valves for air, feed and bilge pumps. One crank throw, two bottom and trances, one slide valve spindle, one propeller shaft, two propeller blades.*

The foregoing is a correct description,
FOR JOHN G. KINCAID & COY., LIMITED.

Robert Green

Secretary

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 17. 21. 23. 25. (1921) Jan 11. 13. 15. 21. 25. 26. 28. 31. Feb. 1. 4. 7. 8. 10. 14. 16. 18. 22. 25. Mar. 1. 7. 9. 11. 15. 18. 22. 30. Apr. 5. 7. 8. 12. 15. 18. 20. 21. 26. 29. May 2. 4. 6. 11. 14. 24. 26. Jun 6. 14. July 18. 21. Aug 23. Sept 16. 22. (1922) Jan 17. 20. 24. 30. Feb. 1. 2. 8. 10. 16. 21. 25. 28. Mar. 1. 3. 7. 8. 14. 16. 21. 25. 28. Apr. 2. 6. 11. 13. 19. 21. 25. 27. 28. May 1. 3. 5. 8. 10. 12. 15. 17. 18. 19. 22. 24. 26. 29. 31. Jun 2. 6. 8. 12. 13. 14. 16. 19. 22. 23. 26. 27. July 12. 14. 15. 24. 27. 28. 31. Aug 1. 4. 10. 11. 14. 16. 18. 23. 25. 24. 31. Sept 4. 166

Is the approved plan of main boiler forwarded herewith *Yes*" " " donkey " " " *Yes*

Dates of Examination of principal parts—Cylinders 22. 2. 21 Slides 16. 6. 22 Covers 22. 2. 21 Pistons 5. 4. 21 Rods 1. 3. 21
Connecting rods 2. 2. 21 Crank shaft 13. 12. 20 Thrust shaft 25. 1. 21 Tunnel shafts 16. 8. 22 Screw shaft 6. 6. 22 Propeller 27. 6. 22
Stern tube 16. 6. 22 Steam pipes tested 24. 7. 22 25. 8. 22 Engine and boiler seatings 26. 6. 22 Engines holding down bolts 10. 8. 22
Completion of pumping arrangements 10. 8. 22 Boilers fixed 10. 8. 22 Engines tried under steam 4. 9. 22
Completion of fitting sea connections 12. 7. 22 Stern tube 12. 7. 22. Screw shaft and propeller 22. 7. 22
Main boiler safety valves adjusted 31. 8. 22 Thickness of adjusting washers PORT BLR. 2 1/4 5 7/16 CEN. BLR. 2 1/4 5 11/32. 5780. BLR. 2 5/16 5 7/16
Material of Crank shaft I. S. Identification Mark on Do. 612 J.I. Material of Thrust shaft I. S. Identification Mark on Do. 612 J.I.
Material of Tunnel shafts I. S. Identification Marks on Do. 612 J.I. Material of Screw shafts I. S. Identification Marks on Do. 612 J.I.
Material of Steam Pipes Steel. Test pressure 600 lb. ✓

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 —

General Remarks (State quality of workmanship, opinions as to class, &c.) *The above Engines and Boilers have been constructed under Special Survey and have been fitted on board the Vessel in accordance with the Society's Rules. The Vessel is eligible in our opinion to have record + L.M.C. 9.22 in the Register Book*

It is submitted that
this vessel is eligible for
THE RECORD.

+ L.M.C. 9.22. F.D. C.L.

W. Lane
15/9/22 *W. Lane*

The amount of Entry Fee ... £ 6 : 0
Special ... £ 103 : 3
Donkey Boiler Fee ... £ - :
Travelling Expenses (if any) £ - : ✓

When applied for.

6/9/1922

When received,

9/9/1922 *W. Lane**W. Lane* & *H. B. Forster*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 12 SEP 1922

Assigned + L.M.C. 9.22

CERTIFICATE WRITTEN 13.9.22



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Lloyd's Register
Foundation

Date of writing Report

No. in Survey Reg. Book.

75133 on the

Master

Engines made at

Boilers made at

Registered Horse

MULTITUB

(Letter for record)

Boilers One

No. of Certificate

safety valves to

Are they fitted u

Smallest distanc

Material of shel

Descrip. of rive

Lap of plates

rules 110 M

boiler 2. P

Description of l

plates. Materi

Top 10 1/2 x 9 1/4

smallest part

Pitch of stays

Area supporte

Lower back pl

Pitch of tubes

water spaces

girder at cent

Working pres

Diameter

Pitch of rivets

SUPERHE

Date of Test

Diameter of St

Dates of Survey while building { Du w Du be

GENERAL

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