

REPORT ON MACHINERY

No. 74869

Received at London Office

TUE. 18 OCT. 1921

Date of writing Report 13.10.21 When handed in at Local Office 17 Oct 1921 Port of

NEWCASTLE ON-TYNE

No. in Survey held at Walker on Tyne

Date, First Survey 13th Sept. 1920 Last Survey 11 Oct 1921

Reg. Book.

on the TWIN. SCREW. (CABLE) STEAMER. ALLAMERICA - 1120 1/2

(Number of Visits 56)

Gross Tons

Net Tons

Master Built at Walker on Tyne By whom built Swan Hunter, Thigham, Richardson & Co. Ltd. 1120 when made 1921-10

Engines made at Walker on Tyne By whom made Swan Hunter, Thigham, Richardson & Co. Ltd. 1120 when made 1921-10

Boilers made at Walker on Tyne By whom made Swan Hunter, Thigham, Richardson & Co. Ltd. 1120 when made 1921-10

Registered Horse Power Owners ALLAMERICA CABLES (INC) Port belonging to LONDON

Nom. Horse Power as per Section 28 273 264 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines TWIN SCREW, TRIPLE EXPANSION

Each Engine

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 15 1/2 - 25 - 43 Length of Stroke 30 Revs. per minute 42 Dia. of Screw shaft 9 1/4 as per rule 9 1/4 as fitted 9 1/4 Material of screw shaft steel

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 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

Dia. of Tunnel shaft 7 7/8 as per rule 7 7/8 as fitted 8 Dia. of Crank shaft journals 8 5/8 as per rule 8 5/8 as fitted 8 5/8 Dia. of Crank pin 8 5/8 Size of Crank webs 5 1/2 x 13 1/2 Dia. of thrust shaft under collars 8 7/8 Dia. of screw 11 - 3 Pitch of Screw 13 - 6 No. of Blades 4 State whether moveable Yes Total surface 35 1/2

Separate feed pumps - wear No. of Feed pumps 2 Diameter of ditto Stroke Can one be overhauled while the other is at work Yes Separate bilge pumps No. of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work

No. of Donkey Engines 6 Sizes of Pumps as below. No. and size of Suctions connected to both Bilge and Donkey pumps Please see back report

In Engine Room 2 4 in feed pumps 8 x 6 x 18 (Donkey) In Holds, &c. O.F. Transfer pump

Donkey bilge feed pump - 6 x 6 x 6 General service pump 1 1/2 x 5 x 6. two live in manhole and pumps

Bilge pump - 6 x 6 x 6 Connected to condenser or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size 2 1/2 / 2 3/4

No. of Bilge Injections 2 sizes 5 Connected to condenser or to circulating pump C.P. 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

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 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 Forward Suctions 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 Ship report Is it fitted with a watertight door Yes worked from top Platform Engine Room

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J. Spence & Sons, Ltd.

Total Heating Surface of Boilers 3746 1/2 Is Forced Draft fitted Yes No. and Description of Boilers two SE. CYL. MULTI

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 27. 4. 21 No. of Certificate 9555. L.G.S.

Can each boiler be worked separately Yes Area of fire grate in each boiler oil fuel No. and Description of Safety Valves to each boiler two direct spring Area of each valve 3.29 sq. ft. Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 5'-0" outside dia. Mean dia. of boilers 13'-3" Length 11'-6" Material of shell plates steel

Thickness 1/32 Range of tensile strength 30/34 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DRL

long. seams TRDBS Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7/8 Lap of plates or width of butt straps 16 1/2

Per centages of strength of longitudinal joint rivets 88.5% plate 85.25% Working pressure of shell by rules 198 lbs Size of manhole in shell 16" x 13"

Size of compensating ring 3'-1 5/8 x 2'-9 5/8 No. and Description of Furnaces in each boiler 3. DEIGHTON Material steel Outside diameter 3'-4 7/8

Length of plain part top crown 1/2 bottom Description of longitudinal joint WELD No. of strengthening rings

Working pressure of furnace by the rules 185 lbs Combustion chamber plates: Material steel Thickness: Sides 1/16 Back 5/8 Top 1/16 Bottom 3/4

Pitch of stays to ditto: Sides 9 1/2 x 9 1/2 Back 10 x 7 Top 9 1/2 x 9 1/2 If stays are fitted with nuts or riveted heads NUTS Working pressure by rules 181 lbs

Material of stays steel Area at smallest part 2.03 Area supported by each stay 87.87 Working pressure by rules 208 End plates in steam space:

Material steel Thickness 1/32 Pitch of stays 19 1/2 x 16 1/2 How are stays secured DN-W Working pressure by rules 183 lbs Material of stays steel

Area at smallest part 7.24 Area supported by each stay 209 8 x 16 1/2 Working pressure by rules 221 Material of Front plates at bottom steel

Thickness 29/32 Material of Lower back plate steel Thickness 7/8 Greatest pitch of stays 13 1/2 x 9 Working pressure of plate by rules 200 lbs

Diameter of tubes 2 1/2 Pitch of tubes 3 3/4 x 3 3/4 Material of tube plates steel Thickness: Front 29/32 Back 3/4 Mean pitch of stays 9 1/2 x 7 1/2

Pitch across wide water spaces 13 1/2 Working pressures by rules 184 lbs Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 10 1/2 x 1 1/4 Length as per rule 31 5/8 Distance apart 9 1/2 Number and pitch of stays in each 2 of 9 1/4 pitch

Working pressure by rules 218 lbs 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

UPERHEATER. 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

002435-002441-0025

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

SPARE GEAR. State the articles supplied - *Two top end bolts and nuts, two Bottom end bolts & nuts, two main Bearing Bolts & nuts, set of Coupling Bolts & nuts, set of piston Rings for each edge of Cylinder main Engine, two solid 4 Bladed Cast Iron propellers. Right & left hand respectively - one Spare piston Rod complete with Manns & shoes & bolts - one Spare propeller shaft (C.L.) two Spare Bronze propeller Blades for working propellers - (one Right hand one left hand), two sets of Stud Bolts for one Blade - one. Three Spare Crank shaft, 1 set Spare bottom end Manns, 2 Spare Valves for Cheeks, Spare Valves for Lewis feed pumps, Spare Valves for all other Auxiliary pumps. two Spare Impellers for Circulating pumps. Spare Head Valves for air pumps. Spare Tumbler Blocks & Manns for main Engines Valve gear, assorted iron Bolts & nuts, Various Spare gear for oil fuel plant & forced draught installation - 14 quantity of various parts and assorted Engine Room Stores*

The foregoing is a correct description,

SWAN, HUNTER & WIGMAN, RICHMOND, LTD.

G. F. Tweney

Manufacturer.

Dates of Survey while building { During progress of work in shops - *1920 Sep. 13. 15. 30. Oct. 12.* 1921 Jan. 14. 21. 31. Feb. 3. Mar. 3. 4. 21. 22. 30. 31. Apr. 4. 5. 11. 12. 19. 20. 21. 25. 26. 27. 28. May 4. 5. 9. 10. 13.
During erection on board vessel - *14. 19. 26. Jun. 3. 6. 10. 15. Jul. 5. 7. 22. Aug. 5. 12. 15. 23. 24. 30. Sep. 5. 6. 7. 14. 15. 27. Oct. 5. 6. 11.*
Total No. of visits *56.*

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

Dates of Examination of principal parts - Cylinders *25. 4. 21* Slides *19. 5. 21* Covers *19. 5. 21* Pistons *13. 5. 21* Rods *13. 5. 21*
Connecting rods *13. 5. 21* Crank shaft *19. 5. 21* Thrust shaft *19. 5. 21* Tunnel shafts *26. 5. 21* Screw shaft *21. 4. 21* Propeller *13. 5. 21*
Stern tube *13. 5. 21* Steam pipes tested *Aug 21* Engine and boiler seatings *26. 5. 21* Engines holding down bolts *3. 6. 21*
Completion of pumping arrangements *11. Oct 21.* Boilers fixed *3. 6. 21 / 5. 7. 21* Engines tried under steam *6. 9. 21.*

Completion of fitting sea connections *19. 5. 21. 5. 10. 21* Stern tube *5. 10. 21* Screw shaft and propeller *19. 5. 21 / 5. 10. 21*

Main boiler safety valves adjusted *6 Sept 1921* Thickness of adjusting washers *P.B. P₇ 5 3/8 - S.B. P₇ 5 7/8*

Material of Crank shaft *Built steel* Identification Mark on Do. *5168* Material of Thrust shaft *steel* Identification Mark on Do. *5168*

Material of Tunnel shafts *steel* Identification Marks on Do. *5168* Material of Screw shafts *steel* Identification Marks on Do. *5168*

Material of Steam Pipes *Wrought Iron* Test pressure *540 lb/sq in*

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 Section 49 of the Rules been complied with *Yes*

Is this machinery duplicate of a previous case *✓* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.)
*Bilge Suctions 5 Bilge Injections - P+S - 2 3/4 pump Suctions. P+S. aft Eng Room
2 1/2 Suction. Starboard Forward Engine Room. and aft end of Boiler Room.
3" Ballast pump Suction port. for Engine & Boiler Room.*

*The Machinery Built under Special Survey, the Material and workmanship found good and efficient.
The Machinery fitted up on board. Tested under Steam (Vessel at Moorings) and found Satisfactory. Subsequently the Vessel proceeded to sea on a trial trip. The Boilers and Engines, & auxiliary Machinery working Satisfactorily.
H.C. Cylinders Tested at tanks under 225 hydraulic Pressure - Condenser tested 15 lb hydraulic pressure.
In my opinion the Machinery of this Vessel is now in good condition, and eligible for the notification of L.M.C. 10-21 to be made in the Register Book.*

The amount of Entry Fee ... £ *4 : 0* ✓
Special ... £ *53 : 5* ✓
Donkey Boiler Fee ... £ *64 : 12* ✓
Travelling Expenses (if any) £ : : *21. 10. 1921*

When applied for, *17. 10. 1921*
When received, *21. 10. 1921*

L. G. Shallcross.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. OCT. 28 1921*

Assigned *+ L.M.C. 10.21 F.D. C.L.*

MACHINERY CERT. WRITTEN 26. 10. 21

*Tested for oil fuel 10.21
F.P. above 150°F*



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