

REPORT ON MACHINERY.

Received at London Office

24 DEC 1924

Date of writing Report

19

When handed in at Local Office

15. 12. 24 Port of

Glasgow

No. in Survey held at Reg. Book.

Glasgow

Date, First Survey 11. 6

24 Last Survey 13-12-1924

on the

S.S. "HISTORIAN"

(Number of Visits 51)

Gross 5074 Tons Net 3450

Master

Built at Glasgow

By whom built Chas. Connell & Co. Ltd. (No 400) When built 1924

Engines made at

Glasgow

By whom made David Rowan & Co. Ltd. (No 799) when made 1924

Boilers made at

Glasgow

By whom made David Rowan & Co. Ltd. (No 799) when made 1924

Registered Horse Power

Owners J. G. Harrison Ltd.

Port belonging to Liverpool

Nom. Horse Power as per Section 28 464

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 26" - 43" - 73"

Length of Stroke 48"

Revs. per minute 77

Dia. of Screw shaft

as per rule 14.81 as fitted 15 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 charged

If two liners are fitted, is the shaft lapped or protected between the liners -

Length of stern bush 5'-10"

Dia. of Tunnel shaft

as per rule 13.5" as fitted 13.5"

Dia. of Crank shaft journals

as per rule 14.206" as fitted 14.4"

Dia. of Crank pin 14 1/2"

Size of Crank webs 9x22 3/4"

Dia. of thrust shaft under collars 14 3/8"

Dia. of screw 17'-6"

Pitch of Screw 16'-6"

No. of Blades 4

State whether moveable yes

Total surface 98 sq ft

No. of Feed pumps 2

Diameter of ditto 4"

Stroke 24"

Can one be overhauled while the other is at work yes

No. of Bilge pumps 2

Diameter of ditto 4 1/2"

Stroke 24"

Can one be overhauled while the other is at work yes

No. of Donkey Engines 3

Sizes of Pumps BALLAST DONKEYS GENERAL

One 7" Dia. Cent. + One 10" x 9" x 12"

9" x 6" x 9"

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

In Engine Room 4 c 3 1/2"

In Holds, &c. Nos 1, 2 + 3 Holds 2 c 3 1/2" each

Deep Tank 2 c 3 1/2"

No. 5 Hold 2 c 3 1/2"

No. 6 Hold 1 c 3 1/2"

Tunnel Well 1 c 3"

No. of Bilge Injections One size 8"

Connected to condenser, or to circulating pump pump

Is a separate Donkey Suction fitted in Engine room & size 1 c 4 1/2"

Are all the bilge suction pipes fitted with roses yes

Are the mud boxes in Engine room always accessible yes

Are the sluices on Engine room bulkheads always accessible none

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 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 Upper Deck

BOILERS, &c.—(Letter for record to...)

Manufacturers of Steel Wm Beardmore & Co. Ltd., The Steel Co. of Scotland Ltd., The Lanarkshire Steel Co. Ltd.

Total Heating Surface of Boilers 7706 sq ft

Is Forced Draft fitted no

No. and Description of Boilers Two double-ended

Working Pressure 200 lbs/sq in

Tested by hydraulic pressure to 350 lbs/sq in

Date of test 24.10.24

No. of Certificate 16640

Can each boiler be worked separately yes

Area of fire grate in each boiler 105 sq ft

No. and Description of Safety Valves to each boiler 2 Spring loaded

Area of each valve 12.56 sq in

Pressure to which they are adjusted 205 lbs/sq in

Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 2'-0"

Mean dia. of boilers 15'-2 3/8"

Length 16'-6"

Material of shell plates Steel

Thickness 1 3/8" Range of tensile strength 28/32 tons/sq in

Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams ENDS - D.R. LAP MID. - T.R. LAP

long. seams T.R. D.B.S.

Diameter of rivet holes in long. seams 1 7/8"

Pitch of rivets 9 1/8" x 9 3/8"

Per centages of strength of longitudinal joint rivets 93.6 x 92.6

Working pressure of shell by rules 200 lbs/sq in

Size of manhole in shell 19 1/2" x 15 1/2"

Size of compensating ring 36 1/2" x 32 1/2" x 1 3/8"

No. and Description of Furnaces in each boiler 6 Morrison

Material Steel

Outside diameter 3'-7 3/8"

Length of plain part top 19" bottom 32"

Thickness of plates crown 19" bottom 32"

Description of longitudinal joint weld

Working pressure of furnace by the rules 200 lbs/sq in

Combustion chamber plates: Material Steel

Thickness: Sides 23/32"

Back - Top 23/32"

Bottom 23/32"

Pitch of stays to ditto: Sides 10 1/8" x 8 7/8"

Back - Top 10 1/8" x 8 7/8"

If stays are fitted with nuts or riveted heads Nuts

Working pressure by rules 200 lbs/sq in

Material of stays Iron

Area supported by each stay 89.8 sq in

Working pressure by rules 202 lbs/sq in

End plates in steam space: Material Steel

Thickness 1 3/8"

Pitch of stays 22 x 20

How are stays secured D. Nuts

Working pressure by rules 200 lbs/sq in

Material of stays Steel

Area supported by each stay 460 sq in

Working pressure by rules 201 lbs/sq in

Material of Front plates at bottom Steel

Thickness 1"

Material of Lower back plate -

Thickness -

Greatest pitch of stays -

Working pressure of plate by rules -

Diameter of tubes 3 1/2"

Pitch of tubes 4 13/16" x 4 5/8"

Material of tube plates Steel

Thickness: Front 1"

Back 7/8"

Mean pitch of stays 11 3/4"

Pitch across wide water spaces 14 7/8"

Working pressures by rules F. 230 lbs/sq in B. 200 lbs/sq in

Orders to Chamber tops: Material Steel

Depth and thickness of girder at centre 10 3/4" x 2 c 7/8"

Length as per rule 3'-6 1/4"

Distance apart 8 7/8"

Number and pitch of stays in each 3 c 10 1/8"

Working pressure by rules 200 lbs/sq in

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 Smoke-tube

Date of Approval of Plan See Manchester Report

Tested by Hydraulic Pressure to 600 + 1250 lbs/sq in

Date of Test 3.10.24

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

Diameter of Safety Valve 1 1/2"

Pressure to which each is adjusted 207

Is Easing Gear fitted yes

IS A DONKEY BOILER FITTED? *Yes.*

If so, is a report now forwarded? *Yes.*

SPARE GEAR. State the articles supplied:— *All as per rule requirements and, in addition, one propeller shaft and a quantity of small gear.*

The foregoing is a correct description,

For David Rowan & Co Ltd
Arch. W. Grierson Manufacturer.

Dates of Survey while building { During progress of work in shops -- *1924 Jun 11 July 10 15 30 Aug 7 4 11 15 22 27 Sep 12 19 23 26 Oct. 1 2 3 7 9 10 13 14 15 20 21 22 24 27 28*
During erection on board vessel -- *29 30 31 Nov 3 5 9 10 11 12 14 15 19 20 21 24 27 Dec 1 2 4 8 10 13*
Total No. of visits *51*

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

Dates of Examination of principal parts—Cylinders *2-10-24* Slides *13-10-24* Covers *2-10-24* Pistons *13-10-24* Rods *13-10-24*
Connecting rods *13-10-24* Crank shaft *3-10-24* Thrust shaft *13-10-24* Tunnel shafts *10-10-24* Screw shaft *10-10-24* Propeller *10-10-24*
Stern tube *7-10-24* Steam pipes tested *Nov 14 19 20 21 1924* Engine and boiler seatings *13-10-24* Engines holding down bolts *2-12-24*
Completion of pumping arrangements *4-12-24* Boilers fixed *5-11-24* Engines tried under steam *13-12-24*
Completion of fitting sea connections *14-10-24* Stern tube *13-10-24* Screw shaft and propeller *14-10-24*

Main boiler safety valves adjusted *10-12-24* Thickness of adjusting washers *Port 4th - P 2 3/4" S 1/2" Star 4th P 3" S 2 3/4"*
Material of Crank shaft *Steel* Identification Mark on Do. *LLOYD'S No 6919 H.C.F. 3-10-24* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYD'S No 6919 H.C.F. 13-10-24*
Material of Tunnel shafts *Steel* Identification Marks on Do. *LLOYD'S No 6919 H.C.F. 10-10-24* Material of Screw shafts *Steel* Identification Marks on Do. *LLOYD'S No 6919 H.C.F. 10-10-24*
Material of Steam Pipes *Lapwelded wrought iron* Test pressure *600 lbs*

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 materials and workmanship are good.
The machinery has been constructed under special survey in accordance with the Rules. It has been satisfactorily fitted in the vessel tried, and found good.
It is eligible in our opinion for Classification and the Record + LMC 12, 24

It is submitted that this vessel is eligible for THE RECORD. + LMC 12. 24. CL.

AWD
3/12/24
ARK

The amount of Entry Fee ... £ *5 : 0 : 0* When applied for.
Special ... £ *94 : 12 : 0* *20/12/24*
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ : : : *2/12/24*
N.B. Forster Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned *+ LMC 12, 24*



GLASGOW

2.1e
15/12/24

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