

REPORT ON MACHINERY.

No. 8259.

Received at London Office FRI SEP 17 1920

Date of writing Report Sept. 15 19 20 When handed in at Local Office Sept. 16 19 20 Port of DUNDEE

To. in Survey held at Dundee Date, First Survey 6th August Last Survey 11th Sept. 19 20

Reg. Book. on the "St. Sehill" (EX. "KILMACRENNAN") (Number of Visits 11)

Tons Gross 629
Net 272

Master Built at By whom built When built

Engines made at Lundeland By whom made N. E. Marine Eng. Co. Ltd. when made 1918

Boilers made at do By whom made do when made 1918

Registered Horse Power Owners Port belonging to

Com. Horse Power as per Section 28 116 Is Refrigerating Machinery fitted for cargo purposes do Is Electric Light fitted do.

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 16" 26" 44" Length of Stroke 26" Revs. per minute 8.5 Dia. of Screw shaft 8.5 Material of as per rule as fitted Not seen screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube hot sun yes Is the after end of the liner made water tight for figures in red see page 73690

Is 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

Is the space 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 hot sun

Dia. of Tunnel shaft as per rule 7.95 Dia. of Crank shaft journals as per rule 8.35 Dia. of Crank pin 8.34 Size of Crank webs 16 x 5.4 Dia. of thrust shaft under pillars 8.2 Dia. of screw 9.6 Pitch of Screw 8.6 No. of Blades 4 State whether moveable no Total surface 36.4

No. of Feed pumps 2 Diameter of ditto 7" Stroke 18" Can one be overhauled while the other is at work yes

No. of Bilge pumps 1 Diameter of ditto 6" Stroke 6" Can one be overhauled while the other is at work

No. of Donkey Engines 1 Sizes of Pumps 6" x 6" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2 @ 2.5" in ER, 1 @ 2.5" in stokehold also one in hold room In Holds, &c. 1 @ 2.5" in fore hold & in STB 1 & 2 holds, 2 @ 2.5" in No 3 hold, one @ 2.5" in tunnel well.

No. of Bilge Injections one sizes 6" Connected to condenser or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes, 2.5"

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 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 Forward Bilge Suctions. How are they protected Strong wood casing.

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 Bottom platform in ER.

BOILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers 1850 Is Forced Draft fitted do No. and Description of Boilers 1 Single ended marine

Working Pressure 200 Tested by hydraulic pressure to 400 Date of test 14/10/18. No. of Certificate B.C. Certificate No. 1938

Can each boiler be worked separately Area of fire grate in each boiler 51.5 No. and Description of Safety Valves to each boiler Two, spring loaded Area of each valve 5.94 Pressure to which they are adjusted 205 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 10" Mean dia. of boilers 156" Length 11'-6" Material of shell plates Steel

Thickness 1/4" Range of tensile strength 32 drawing Are the shell plates welded or flanged Descrip. of riveting: cir. seams BR.

Ang. seams T.R. 5/8" Diameter of rivet holes in long. seams 1/4" Pitch of rivets 9 7/8" Lap of plates or width of butt straps 19 1/2"

Per centages of strength of longitudinal joint Working pressure of shell by rules 198.4 Size of manhole in shell 16" x 12"

Size of compensating ring 1/4" x 9" No. and Description of Furnaces in each boiler 3 brightons Material Steel Outside diameter 41 1/4"

Length of plain part top 3 1/2" Thickness of plates bottom 3 7/8" Description of longitudinal joint Welded No. of strengthening rings

Working pressure of furnace by the rules 211 Combustion chamber plates: Material Steel Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 1"

Pitch of stays to ditto: Sides 8 3/4" x 9" Back 8 3/8" x 8 1/4" Top 8 1/2" x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 209

Material of stays Steel Area at smallest part 2.07 Area supported by each stay 78.75 Working pressure by rules 237 End plates in steam space:

Material Steel Thickness 1 1/16" Pitch of stays 14 1/2" How are stays secured on x w. Working pressure by rules 217 Material of stays Steel

Area at smallest part 5.94 Area supported by each stay 306 Working pressure by rules 201 Material of Front plates at bottom Steel

Thickness 1" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 14" x 9" Working pressure of plate by rules 226

Diameter of tubes 2 1/2" Pitch of tubes 3 1/2" x 3 3/4" Material of tube plates Steel Thickness: Front 1" Back 3/4" Mean pitch of stays 9 1/4"

Pitch across wide water spaces 13 1/4" Working pressures by rules 234 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 x 1 3/4" Length as per rule 3 1/4" Distance apart 8 1/2" Number and pitch of stays in each Two, 9"

Working pressure by rules 203 Steam dome: description of joint to shell % 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 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

W1549-0079

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: Two top end bolts & nuts, Two bottom end bolts & nuts. Two main bearing bolts & nuts. Set of coupling bolts & nuts. Set of valves for air, fuel & bilge pumps. Main & donkey check valves. Assorted bolts & nuts, & iron of various sizes, spare bushes for top & bottom ends & main bearings.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - - }
Total No. of visits

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 10.8.20 Slides 10.8.20 Covers 10.8.20 Pistons 10.8.20 Rods 10.8.20

Connecting rods 10.8.20 Crank shaft 10.8.20 Thrust shaft 10.8.20 Tunnel shafts 10.8.20 Screw shaft 10.8.20 Propeller 10.9.20

Stern tube 24.8.20 Steam pipes tested 18.8.20 Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements 9.9.20 Boilers fixed Engines tried under steam 10.9.20

Completion of fitting sea connections 24.8.20 Stern tube 24.8.20 Screw shaft and propeller 24.8.20 & 10.9.20

Main boiler safety valves adjusted 9.9.20 Thickness of adjusting washers P. 5/16 S. 1/2

Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes S. D. Copper (1 length) 4 1/2" bore x 4 W.G. Test pressure 400 lbs sq. in.

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 Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case Yes If so, state name of vessel S. Alwin to Kellybegs

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

The engines & boiler of this vessel were opened out for the scrubbing to be obtained for above report. All parts examined were found in good order, and the workmanship throughout appears to be good.

The amount of Entry Fee Special Inclusive When applied for, 19.
Special In charge on Hull Report. : : :
Donkey Boiler Fee £ : : : When received, 19.
Travelling Expenses (if any) £ : : : 19.

Committee Minute

Assigned

TUE. SEP. 28 1920

FRI. NOV. 5 1920

TUE. NOV. 29 1921

John MacKendry & J. H. L. L. L.
Engineer Surveyor to Lloyd's Register of Shipping.



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