

REPORT ON MACHINERY.

No. 17726

Date of writing Report 28th Oct 1920 When handed in at Local Office 29th Oct 1920 Port of Grimsby
No. in Survey held at Grimsby Date, First Survey 6th Aug 1919 Last Survey 28th Oct 1920
Reg. Book. on the Screw Steamer 'STAUR' (Number of Visits 106)
Master R. Sands Built at Grimsby By whom built Grimsby Dockyard & Co. Ltd Tons { Gross 508.5
Engines made at Grimsby By whom made Rankin and Blackmore Ltd. when made 1920 Net 316.1
Boilers made at Grimsby By whom made Rankin and Blackmore Ltd. when made 1920
Registered Horse Power - Owners Fearnley and Eger. Port belonging to Christiania
Nom. Horse Power as per Section 28 565 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 75. Dia. of Screw shaft as per rule 15 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 No 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 63"
Dia. of Tunnel shaft as per rule 13 3/4" Dia. of Crank shaft journals as per rule 14 3/4" Dia. of Crank pin 14 1/2" Size of Crank webs 27 3/4" x 9 1/2" Dia. of thrust shaft under
collars 14 1/2" Dia. of screw 18-3" Pitch of Screw 18-0" No. of Blades 4 State whether moveable No Total surface 110 ft.
No. of Feed pumps 1 Diameter of ditto 8" 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 28" Can one be overhauled while the other is at work Yes
No. of Donkey Engines 3 Sizes of Pumps 4 1/2" x 6", 6" x 8", 12" x 12" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 5-3 1/2" Bore, Tunnel 1-3 1/2" Bore. In Holds, &c. Forward Holds and Cases
Bunker 6-3 1/2" Bore. Aft Holds 4-3 1/2" Bore.
No. of Bilge Injections 1 sizes 7" 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 —
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 Outboard
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, Eng. Room.

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Steel Co. of Scotland Ltd. D. C. Miller & Son, Ltd.
Total Heating Surface of Boilers 8517 ft. Is Forced Draft fitted Yes No. and Description of Boilers 3. Cyl. Single End.
Working Pressure 180 lb. Tested by hydraulic pressure to 360 lb. Date of test 25.8.20. No. of Certificate 1484
Can each boiler be worked separately Yes Area of fire grate in each boiler 62.0 ft. No. and Description of Safety Valves to
each boiler 2. Spring. Area of each valve 11.04 ft. Pressure to which they are adjusted 185 lb. Are they fitted with easing gear Yes
Smallest distance between boilers on uptakes and bunkers on second deck 2'-0" Mean dia. of boilers 15'-6" Length 12'-6" Material of shell plates S.
Thickness 1 1/4" Range of tensile strength 28/32 Tons. Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.B.R.
long. seams D.B.S./T.R. Diameter of rivet holes in long. seams 15/16" Pitch of rivets 9/8" Lap of plates on width of butt straps 18 1/2"
Per centages of strength of longitudinal joint rivets 88.5 plate 85.6 Working pressure of shell by rules 182 lb. Size of manhole in shell 16" x 12"
Size of compensating ring 30 1/4" x 26 1/4" x 1 1/4" No. and Description of Furnaces in each boiler 3. Dighton Material S. Outside diameter 48 1/4"
Length of plain part top 39 1/16" Thickness of plates crown 39 1/16" Description of longitudinal joint Welded No. of strengthening rings —
bottom 4 1/4" Working pressure of furnace by the rules 182 lb. Combustion chamber plates: Material S. Thickness: Sides 4 1/4" Back 39 1/64" Top 1/64" Bottom 3/4"
Pitch of stays to ditto: Sides 9/8" x 8/8" Back 8 1/2" x 8/8" Top 9/8" x 8/8" Stays are fitted with nuts or riveted heads No Working pressure by rules 185 lb.
Material of stays S. Area at smallest part 1.77 ft. Area supported by each stay 76.42 Working pressure by rules 186 lb. End plates in steam space:
Material S. Thickness 19/32" Pitch of stays 21" x 19" How are stays secured D.N. Working pressure by rules 184 lb. Material of stays S.
Area at smallest part 7.24 ft. Area supported by each stay 399 ft. Working pressure by rules 188 lb. Material of Front plates at bottom S.
Thickness 13/16" Material of Lower back plate S. Thickness 13/16" Greatest pitch of stays 12 1/2" x 8 1/4" Working pressure of plate by rules 202 lb.
Diameter of tubes 2 3/4" Pitch of tubes 4" x 3 7/8" Material of tube plates S. Thickness: Front 13/16" Back 3/4" Mean pitch of stays 9 1/16"
Pitch across wide water spaces 13 1/2" Working pressures by rules 222 lb. Girders to Chamber tops: Material S. Depth and
thickness of girder at centre 11 1/2" x 1 1/2" Length as per rule 40 4/64" Distance apart 9/8" Number and pitch of stays in each 40 8 1/8"
Working pressure by rules 188 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 —

W1094-0135

Rpt. 13.

RANKIN & BLACKMORE, LTD.

Manufacturer.

Is the approved plan of main boiler forwarded herewith

donkey

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

FD. & fitted for oil fuel, flash point above 150°F .

It is submitted that
this vessel is eligible for
THE RECORD. + LMC. 10.20 FD
Fitted for bil Fuel 10.20 FP above 150°F

Rel.
4/11/20

When applied for,

25/10/192

When received,

Committee's Minute

Assigned + LMC 10.20.

20. 10, 20
Fitted for oil fuel, F.P. above 150° F.

20
CERTIFICATE WRITTEN 3.11.00