

REPORT ON MACHINERY.

No. 1934

MON. 30 JAN. 1922

Received at London Office

Date of writing Report 18th Jan 1922 When handed in at Local Office 28th Jan 1922 Port of Bartow-in-Furness

No. in Survey held at Bartow-in-Furness Date, First Survey 20th Aug. 1920 Last Survey 23rd Jan 1922
Reg. Book. 39297 on the T.S.S. "Sliese Donard" (Number of Visits 100)

Master Built at Bartow-in-Furness By whom built Vickers Ltd Tons { Gross 1115 94
Net 432 83

Engines made at Bartow-in-Furness By whom made Vickers Ltd (Eng. No 591) when made 1922

Boilers made at Bartow-in-Furness By whom made Vickers Ltd when made 1922

Registered Horse Power 3000 Owners London & North Western Ry Co. Ltd Port belonging to Dublin

Nom. Horse Power as per Section 28 420 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Two Sets Four Cyl. Triple Exp. No. of Cylinders 8 No. of Cranks 8

Dia. of Cylinders 19" - 29 1/2" - 2 LP 33" Length of Stroke 30" Revs. per minute 145 Dia. of Screw shaft as per rule 10" solid Material of Steel
as fitted 10 1/4" solid screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No 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 Ends of liners stepped, & grooves filled with white metal
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 Yes If two
liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 4'-6 1/2"

Dia. of Tunnel shaft as per rule 8.9" solid Dia. of Crank shaft journals as per rule 9.35 solid Dia. of Crank pin 10 1/4" Size of Crank webs 19 1/2" x 6 3/8" Dia. of thrust shaft under
collars 9 3/4" x 3" hole Dia. of screw 10'-0" Pitch of Screw 13'-6" No. of Blades 3 State whether mocenble Yes Total surface 33.5 sq ft

No. of Feed pumps 2 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 9" Stroke 10" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes of Pumps Bilge + Ballast (20ft) Sanitary 8" x 9" x 10, 10 x 6 1/2 x 10 No. and size of Suctions connected to both Bilge and Ballast
Donkey pumps

In Engine Room 2-2 1/2" bore + 1-3 1/2" bore, In Stokehold 2-2 1/2" In Holds, &c. 1-2 1/2" in Main Hold for 1-2 1/2" in
Chain Locker, 2-2 1/2" in tunnels

No. of Bilge Injections 5 sizes 6" Connected to condenser, or to circulating pump Pumps Is a separate Donkey Suction fitted in Engine room & size 1-3 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 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 For winch steam & exhaust How are they protected Based in with steel plate

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 & on Stone-Lloyd system

MILERS, &c.—(Letter for record (T)) Manufacturers of Steel D. Colville & Sons, J. Spencers & Sons, H. Bessemer & Co.

Total Heating Surface of Boilers 6962 sq ft Is Forced Draft fitted Yes No. and Description of Boilers Two Double-Ended Multi-

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 13/9/21, 28/9/21 No. of Certificate 331, 332,

Can each boiler be worked separately Yes Area of fire grate in each boiler 80 sq ft No. and Description of Safety Valves to
each boiler Two, Spring-loaded Area of each valve 14.19 sq in Pressure to which they are adjusted 182 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 1'-7" Mean dia. of boilers 12'-6" Length 20'-6" Material of shell plates Steel

Thickness 1 1/8" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Centre-Steele
Ends-Double

Long. seams T.R. Double Butt Straps Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8" Lap of plates or width of butt straps 17 1/2"

Percentages of strength of longitudinal joint rivets 91.32% Working pressure of shell by rules 200 lbs Size of manhole in shell 16" x 12"

Size of compensating ring 38" x 30" x 1 1/8" No. and Description of Furnaces in each boiler 4-Morrison Material Steel Outside diameter 3'-11 1/4"

Length of plain part top 10 1/2" Thickness of plates crown 9/16" Description of longitudinal joint Weld No. of strengthening rings Yes

Working pressure of furnace by the rules 186 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 7/8"

Pitch of stays to ditto: Sides 9 1/2" x 7 1/2" Back 9 1/2" x 7 1/2" Top 9 1/2" x 7" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 184 lbs

Material of stays Iron Area at smallest part 2.03 sq in Area supported by each stay 41.2 sq in Working pressure by rules 213 lbs End plates in steam space:

Material Steel Thickness 1 1/8" Pitch of stays Mean 18" x 17 1/4" How are stays secured Double nuts Working pressure by rules 182 lbs Material of stays Steel

Area at smallest part 2-593 sq in Area supported by each stay 310 sq in Working pressure by rules 184 lbs Material of Front plates at bottom Steel

Thickness 7/8" Material of Lower back plate Yes Thickness Yes Greatest pitch of stays Yes Working pressure of plate by rules Yes

Diameter of tubes 2 1/2" Pitch of tubes 3 5/8" Material of tube plates Steel Thickness: Front 7/8" Back 24/32" Mean pitch of stays 9.06"

Clearance across wide water spaces 13" Working pressures by rules 186 lbs Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 7 1/2" x 1 1/2" Length as per rule 26.53" Distance apart 9 1/2" Number and pitch of stays in each 3-7"

Working pressure by rules 184 lbs Steam dome: description of joint to shell None % of strength of joint Yes

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

Number of rivets Yes Working pressure of shell by rules Yes Crown plates Yes Thickness Yes How stayed Yes

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

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

Material of Safety Valve Yes Pressure to which each is adjusted Yes Is Easing Gear fitted Yes



