

Rpt. 4.

REPORT ON MACHINERY

TUE. 13 MAY. 1924

No. 43442

WED. 12 MAR. 1924

Date of writing Report 10-3-1924 When handed in at Local Office 10-3-1924 Port of Glasgow
No. in Survey held at Glasgow Date, First Survey 17.10.23 Last Survey 7-3-1924
Reg. Book. on the S.S. TIMBERHAM (Number of Visits 23)
Master Built at By whom built Furness S.B. & Co. Ltd. Tons { Gross Not
Engines made at Glasgow By whom made Ross & Duncan No. 1132 when made 1924
Boilers made at By whom made Ross & Duncan No. 1697-8 when made 1924
Registered Horse Power Owners Port belonging to
Nom. Horse Power as per Section 28 156. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 17"-27½"-45" Length of Stroke 33" Revs. per minute Dia. of Screw shaft 9.86" Material of screw shaft 8.
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 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 Yes If two
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 40½"
Dia. of Tunnel shaft as per rule 8.62" Dia. of Crank shaft journals as per rule 9.17" Dia. of Crank pin 9½" Size of Crank webs 17½"x6" Dia. of thrust shaft under
collars 9½" Dia. of screw 12-3" Pitch of Screw 12-6" No. of Blades 4 State whether moveable No Total surface 50 sq. ft.
No. of Feed pumps 2 Diameter of ditto 2¾" Stroke 16½" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 3" Stroke 16½" Can one be overhauled while the other is at work Yes
No. of Donkey Engines 2 Sizes of Pumps 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room In Holds, &c.

No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size
Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible
Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
What pipes are carried through the bunkers How are they protected
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges
Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel D. Colvill & Sons
Total Heating Surface of Boilers 2806 sq. ft. As Forced Draft fitted No. and Description of Boilers 2- single ended
Working Pressure 180 Tested by hydraulic pressure to 320 Date of test 7-3-24 No. of Certificate 16452
Can each boiler be worked separately Yes Area of fire grate in each boiler 39.5 sq. ft. No. and Description of Safety Valves to
each boiler 2-Spring loaded Area of each valve 4.9 sq. ft. Pressure to which they are adjusted Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers 12'-0" Length 10'-6" Material of shell plates 8.
Thickness 1" Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams J.R.
long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1" Pitch of rivets 7" Lap of plates or width of butt straps 14 7/8"
Per centages of strength of longitudinal joint rivets 86.4 Working pressure of shell by rules 182 Size of manhole in shell 16"x12"
Size of compensating ring 30½"x26½" No. and Description of Furnaces in each boiler 2- 2-throw Material 8 Outside diameter 3'-7½"
Length of plain part top bottom Thickness of plates crown bottom 9/16" Description of longitudinal joint weld No. of strengthening rings
Working pressure of furnace by the rules 189 Combustion chamber plates: Material 8 Thickness: Sides 1/16" Back 5/8" Top 1/16" Bottom 1/16"
Pitch of stays to ditto: Sides 9½"x9" Back 8½"x8½" Top 9½"x9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 187
Material of stays 8 Area at smallest part 2.07 Area supported by each stay 85.5 Working pressure by rules 195 End plates in steam space:
Material 8 Thickness 1" Pitch of stays 16"x17" How are stays secured J.N.L.W. Working pressure by rules 197 Material of stays 8.
Area at smallest part 4.57 Area supported by each stay 7.72 Working pressure by rules 182 Material of Front plates at bottom 8.
Thickness 7/8" Material of Lower back plate 8 Thickness 27/32" Greatest pitch of stays 14"x8½" Working pressure of plate by rules 216
Diameter of tubes 3½" Pitch of tubes 4½"x4½" Material of tube plates 8 Thickness: Front 7/8" Back 3/4" Mean pitch of stays 10"
Pitch across wide water spaces 14" Working pressures by rules 183 Girders to Chamber tops: Material 8 Depth and
thickness of girder at centre 7½"x1¾" Length as per rule 30 5/8" Distance apart 9" Number and pitch of stays in each 2-9½"
Working pressure by rules 214 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

W1145-0044

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Ross Duncan

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - 1923 Oct 17 Nov 5 9 16 24 27 Dec 4 10 13 17 20 27 1924 Jan 8 12 19 Feb 6 15 21 25 28 Mar 4 7
During erection on board vessel - - -
Total No. of visits 23.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 27.12.23 25.2.24 Slides 25.2.24 Covers 26.2.24 Pistons 25.2.24 Rods 25.2.24

Connecting rods 25.2.24 Crank shaft 10.12.23 Thrust shaft 25.2.24 Tunnel shafts 25.2.24 Screw shaft 4.8.24 Propeller 4.8.24

Stern tube 4.3.24. Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Completion of fitting sea connections Stern tube Screw shaft and propeller

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft S Identification Mark on Do. J.S.C. Material of Thrust shaft S Identification Mark on Do. J.S.C.

Material of Tunnel shafts S Identification Marks on Do. J.S.C. Material of Screw shafts S Identification Marks on Do. J.S.C.

Material of Steam Pipes Test pressure

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 No If so, state name of vessel (See report N° 42744).

General Remarks (State quality of workmanship, opinions as to class, &c. These Engines and Boilers have been built under special survey in accordance with the Rules, and approved plans, the materials and workmanship are good.

The machinery is eligible in my opinion to be classed + L.M.C. with date when satisfactorily fitted on board, and tried under steam.

The Engines, and boilers are being shipped to Middlesbrough where they will be fitted on board.

The amount of Entry Fee ... £ 3 : 0 : 0 When applied for, 11 MAR 1924
Special 4/5 ... £ 31 : 4 : 0
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ : : :
When received, 18/3/1924 Per Lon. Advice HKH

Committee's Minute

Assigned Deferred

Jas. Cairns

Engineer Surveyor to Lloyd's Register of Shipping.

FRI MAY 16 1924

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