

REPORT ON MACHINERY.

No. 8253

SAT. NOV. 29. 1919

Date of writing Report 12th Nov 1919 When handed in at Local Office 10 Port of Belfast
No. in Survey held at Belfast Date, First Survey 17th Oct 1918 Last Survey 9th Nov 1919
Reg. Book. on the S.S. Kenbane Head (Number of Vols 63) Gross 5225
Master G. Pappal Built at Belfast By whom built Workman Clark & Co Ltd Net 3258
Engines made at Belfast By whom made when made 1919
Boilers made at By whom made when made
Registered Horse Power Owners Messrs S.S. Coy Ltd Port belonging to Belfast
Nom. Horse Power as per Section 28 518 517 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Single Screw Triple Expansion Cylinders 3 No. of Cranks 3
Dia. of Cylinders 27-44-73 Length of Stroke 48 Revs. per minute 78 Dia. of Screw shaft 14.7 as per rule 14.6 Material of screw shaft I. 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 If two
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 60 1/2
Dia. of Tunnel shaft as per rule 13.51 13.5 Dia. of Crank shaft journals as per rule 13.99 14.5 Dia. of Crank pin 14 1/2 Size of Crank webs 28 x 9 Dia. of thrust shaft under
collars 14 3/4 Dia. of screw 17.6 Pitch of Screw 17-6 No. of Blades 4 State whether moveable Yes Total surface 100 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 Stroke 24 Can one be overhauled while the other is at work Yes
No. of Donkey Engines See Sub pumps Sheet No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 4-3 1/2 In Holds, &c. 10-3 1/2 3-3 4-2 1/2

No. of Bilge Injections 1 sizes 12 Connected to condenser, or to circulating pump Pump as 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-Except main tank suction 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 Below
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 Fore hold suction How are they protected 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 Top platform C. Room

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Port Talbot Steel Coy Ltd

Total Heating Surface of Boilers 7668 sq ft Forced Draft fitted Yes No. and Description of Boilers 3 Single End bylin 2
Working Pressure 180 lbs Tested by hydraulic pressure to 300 lbs Date of test 29-9-19 No. of Certificate 555
Can each boiler be worked separately Yes Area of fire grate in each boiler 63 1/2 sq ft No. and Description of Safety Valves to
each boiler 2 Direct Spring Area of each valve 9.62 sq ft Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 2 ft 6 in dia. of boilers 15'-6" Length 11'-6" Material of shell plates Steel
Thickness 1 1/4 Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Lap & Rivet
long. seams Butte Lap Diameter of rivet holes in long. seams 1 5/16 Pitch of rivets 9 1/8 Lap of plates or width of butt straps 19 1/2
Per centages of strength of longitudinal joint rivets 88.3 plate 85.6 Working pressure of shell by rules 182 lbs Size of manhole in shell 16" x 12"
Size of compensating ring Plate flange No. and Description of Furnaces in each boiler 3 Brighton Material Steel Outside diameter 50 3/16
Length of plain part top 5- Thickness of plates crown 7 1/8 bottom 5 3/8 Description of longitudinal joint Weld No. of strengthening rings
Working pressure of furnace by the rules 188 lbs Combustion chamber plates: Material Steel Thickness: Sides 23/32 Back 1/16 Top 23/32 Bottom 23/32
Pitch of stays to ditto: Sides 10 5/8 x 9 1/4 Back 9 1/2 x 8 3/4 Top 10 5/8 x 9 1/4 stays are fitted with nuts or riveted heads Vets insides Working pressure by rules 180 lbs
Material of stay Steel Area at smallest part 2 1/2 x 3 1/4 supported by each stay 98 1/2 Working pressure by rules 186 lbs End plates in steam space:
Material Steel Thickness 1 1/2 Pitch of stays 21 1/2 x 21 1/2 are stays secured Skirt & main Working pressure by rules 180 lbs Material of stays Steel
Area at smallest part 8'29" Area supported by each stay 459 1/2 Working pressure by rules 187 lbs Material of Front plates at bottom Steel
Thickness 3/4 Material of Lower back plate Steel Thickness 27/32 Greatest pitch of stays 13 1/2 Working pressure of plate by rules 189 lbs
Diameter of tubes 2 1/4 Pitch of tubes 4 x 3 1/2 Material of tube plate Steel Thickness: Front 3/16 Back 3/4 Mean pitch of stays 12 x 7 3/4
Pitch across wide water spaces 13 1/2 Working pressures by rules 181 lbs Girders to Chamber tops: Material Steel Depth and
thickness of girder at centre 10 x (8 x 2) Length as per rule 35 1/2 Distance apart 10 5/8 Number and pitch of stays in each 3-9 1/4
Working pressure by rules 182 lbs 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

W 9934-0231 1/2

IS A DONKEY BOILER FITTED? *No* If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied:— *See separate sheet*

The foregoing is a correct description,

FOR WORKMAN, CLARK & CO., LIMITED.

Birmingham

Manufacturer.

Dates of Survey while building { During progress of work in shops -- *17th Oct^r 1918 to 19th Nov^r 1919*
During erection on board vessel --
Total No. of visits *63*

Is the approved plan of main boiler forwarded *herewith - B Plan*
" " " donkey " " " *plan*

Dates of Examination of principal parts—Cylinders *17-18* Slides *18* Covers *18* Pistons *18* Rods
Connecting rods *15-9-19* Crank shaft *2-6* Thrust shaft *19* Tunnel shafts *18* Screw shaft *23-9-19* Propeller *19-9-19*
Stern tube *19-9-19* Steam pipes tested *29-8-19* Engine and boiler seatings *3-11-19* Engines holding down bolts *3-11-19*
Completion of pumping arrangements *17-11-19* Boilers fixed *12-11-19* Engines tried under steam *15-11-19*
Completion of fitting sea connections *16-9-19* Stern tube *25-9-19* Screw shaft and propeller *26-9-19*
Main boiler safety valves adjusted *15-11-19* Thickness of adjusting washers *7-12-32*
Material of Crank shaft *Steel* Identification Mark on Do. *16-9-19* Material of Thrust shaft *Steel* Identification Mark on Do. *23-9-19*
Material of Tunnel shafts *Steel* Identification Marks on Do. *16-9-19* Material of Screw shafts *Steel* Identification Marks on Do. *23-9-19*
Material of Steam Pipes *W. Iron* Test pressure *640 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 *Yes* If so, state name of vessel *B. "Ballygally Head"*

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

The machinery of this vessel has been constructed under Special Survey and in accordance with the Rules. The workmanship and the materials are of good description, and on trial in Belfast Lough the machinery worked satisfactorily. In our opinion it is eligible for record + L.M.C. 11-19, with notation "Forced Draft" and "Electric Light".

It is the Owners intention to have the boilers fitted with oil fuel burning installation, at some future time, in accordance with the plans submitted, and approved by the Committee, as per Secretaries Letter E, 12th Nov^r 1919.

It is submitted that this vessel is eligible for THE RECORD + LMC 11-19. F.D.

The amount of Entry Fee ... £ *5 : 0 :* When applied for, *25th 11th 1919*
Special per-survey fee ... £ *45 : 18 :*
Donkey Boiler Fee ... £ : : When received, *9-12-19*
Travelling Expenses (if any) £ : :

R. J. Beveridge
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *TUE DEC 2 - 1919*
Assigned *+ Lmb 11.19*
F.D.

Belfast

S.S. "Kubane Head"

Auxiliary Pumps

2 Main Feed Pumps 8" x 10 $\frac{1}{2}$ " x 21" ✓
 1 General Service " 7" x 5" x 8" ✓
 1 Ballast " 9" x 11" x 10" ✓

Principal Items of Spare Gear

4 Connecting Rod top & bottom end bolts nuts ✓

2 Main bearing bolts nuts ✓

2 Bottom end liners

Let Coupling bolts ✓

- Feed & Bilge Pump valves ✓

6 Bilge feed Check valves

2 Propeller blades (C. Iron)

Spare metallic packing for piston glands

12 Condenser tubes & 50 ferrules

6 Air pump valves

Feed pump escape valve spring

Filter bucket & canvas filter

Spare bars, baffle plates etc.

Spare gear for Aux^y pumps

Pins, nuts, bolts, washers etc. ✓

P. J. Bennett

W 993A-02312/2