

REPORT ON MACHINERY.

No. 76682

- 2 JUL 1917

- 2 JUL 1917

Received at London Office

JUL 1917

Date of writing Report

10

When handed in at Local Office

10

Port of

No. in Survey held at
Reg. Book.

Northwich

Date, First Survey 8th Jan'y/15 Last Survey 29th June 1917

(Number of Visits 15)

on the

Steel S/S. "Cynfal"

Tons Gross 58.11

Net 26.15

Master

Harvey

Built at Northwich

By whom built

W. J. Jarwood & Sons

When built

4-16

Engines made at

Northwich

By whom made

do

when made

4-16

Boilers made at

do

By whom made

do

when made

4-16

Registered Horse Power

12.8.

Owners

The Mayor Alderman & Citizens of

Port belonging to

Beaumaris

Nom. Horse Power as per Section 28

22.24

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

No.

ENGINES, &c.—Description of Engines Compound Surface Condensing No. of Cylinders two No. of Cranks two
Dia. of Cylinders 9 1/2" x 20" Length of Stroke 15" Revs. per minute 200. Dia. of Screw shaft as per rule 4 1/2" Material of screw shaft as fitted 4 1/2" Dim.
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 fit all the way If two
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 2" 2 7/8"
Dia. of Tunnel shaft as per rule 4-153" Dia. of Crank shaft journals as per rule 4-36" Dia. of Crank pin 4 1/2" Size of Crank webs 3 x 7" Dia. of thrust shaft under
collars 4 1/2" Dia. of screw 5-6" Pitch of Screw 6" 0" No. of Blades 3 State whether moveable No. of total surface 9.3 sq ft.
No. of Feed pumps one Diameter of ditto 2" Stroke 7" Can one be overhauled while the other is at work
No. of Bilge pumps one Diameter of ditto 2" Stroke 7" Can one be overhauled while the other is at work
No. of Donkey Engines one Sizes of Pumps 4 x 2 1/2 x 4" Duplex No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room Three 2" Suctions In Holds, &c. one 2" Suction in each hold.
one 2" Suction to after tank and one 2" Suction to fore peak.
No. of Bilge Injections one sizes 2" Connected to condenser, or to circulating pump one Is a separate Donkey Suction fitted in Engine room & size yes 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 none
Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Both.
Are they fired 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 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 none Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Gates Stewart & Wiggins, Bangor, Co. Down
Total Heating Surface of Boilers 512 1/2 Is Forced Draft fitted no. No. and Description of Boilers one G/L Multitubular
Working Pressure 140 lbs Tested by hydraulic pressure to 280 lbs Date of test 7/10/15 No. of Certificate 2005.
Can each boiler be worked separately Area of fire grate in each boiler 24.5 No. and Description of Safety Valves to
each boiler one Spring loaded Area of each valve 5.939 Pressure to which they are adjusted 140 lbs Are they fitted with easing gear yes
Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean dia. of boilers 8" 6" Length 8" 0" Material of shell plates steel
Thickness 5/8" Range of tensile strength 29/33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 2p. D.R.
long. seam 2p. D.R. Diameter of rivet holes in long. seams 15/16 Pitch of rivets 2 1/4" 94 1/2" Top of plates or width of butt straps 9 3/4"
Per centages of strength of longitudinal joint rivets 109% plate 79.2% Working pressure of shell by rules 143 lbs Size of manhole in shell 16" x 12"
Size of compensating ring 4 1/2" x 1" No. and Description of Furnaces in each boiler one Plain Material steel Outside diameter 2' 8"
Length of plain part top 5' 0" bottom 7' 1" Thickness of plates crown 5/8" bottom 3/4" Description of longitudinal joint welded. No. of strengthening rings
Working pressure of furnace by the rules 155 lbs Combustion chamber plates: Material steel Thickness: Sides 7/8" Back 7/8" Top 5/8" Bottom 5/8"
Pitch of stays to ditto: Sides 5 1/2" x 9" Back 8" x 8 1/2" Top 8" x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 164 lbs
Material of stays steel Area at smallest part 1 1/2" 9 lbs Area supported by each stay 80" Working pressure by rules 145 lbs End plates in steam space:
Material steel Thickness 13/16" Pitch of stays 14" x 15" How are stays secured nuts Working pressure by rules 150 lbs Material of stays steel
Area at smallest part 3.43 Area supported by each stay 210" Working pressure by rules 158 lbs Material of Front plates at bottom steel
Thickness 13/16" Material of Lower back plate steel Thickness 13/16" Greatest pitch of stays as per plan Working pressure of plate by rules 190 lbs
Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates steel Thickness: Front 13/16" Back 11/16" Mean pitch of stays 11 1/2"
Pitch across wide water spaces 13" Working pressures by rules 140 lbs Girders to Chamber tops: Material steel Depth and
thickness of girder at centre 6 1/2" x 1 1/4" Length as per rule 2" 2" Distance apart 8" Number and pitch of stays in each two 9"
Working pressure by rules 166 lbs 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

3. 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

IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:-

Two check valves. Two Feed Pump valves.
one set of Air Pump valves.
one set of Circulating Pump valves.
one set of Donkey Pump valves.
assorted bolts & nuts.

The foregoing is a correct description,

For W. J. YARWOOD & SONS LTD

Albert Yarwood

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
During erection on board vessel -- 1916 Jan 19, Aug 11, Nov 8, 1917 June 1-8-29.
Total No. of visits 15.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts
Cylinders 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Slides 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Covers 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Pistons 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Rods 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Connecting rods 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Crank shaft 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Thrust shaft 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Tunnel shafts 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Screw shaft 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Propellers 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Stern tube 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Steam pipes tested 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Engine and boiler seatings 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Engines holding down bolts 1915 Jan 8-26, Feb 17, March 10, April 30, May 28, July 5, Aug 20, Oct 7
Completion of pumping arrangements 1917 June 8
Boilers fixed 1916 June 8
Engines tried under steam 8 June 1917.
Completion of fitting sea connections 1917 1st June
Stern tube 1917 1st June
Screw shaft and propeller 1st June 1917.
Main boiler safety valves adjusted 8th Nov 1916.
Thickness of adjusting washers Pat 32 Starb 2 3/8
Material of Crank shaft Steel Identification Mark on Do. 3992.
Material of Thrust shaft Steel Identification Mark on Do. 3992.
Material of Tunnel shafts Steel Identification Marks on Do. 4043.
Material of Screw shafts Iron Identification Marks on Do. 4043.
Material of Steam Pipes Solid drawn Copper See Hull Report Test pressure 350 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

No.

If so, state name of vessel

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

This Bessell Machinery has now been built under Special Survey and in accordance with the approved plans. The materials and workmanship are good, and when tried under full working conditions was found to be satisfactory in every respect, and is now in my opinion eligible for the notification *LMC 6-16.

It is submitted that
this vessel is eligible for
THE RECORD + LMC 6.17.

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 8 : 0 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 7 : 16 : 9

When applied for,

- 3 JUL 1917

When received,

27/8/17

Committee's Minute

LIVERPOOL

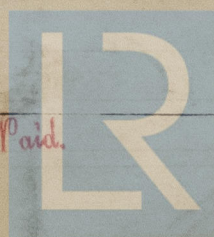
- 3 JUL 1917

Assigned

L N 6 6 : 16

MACHINERY CERTIFICATE
WRITTEN 4-7-17

When Fee is Paid



© 2021

Lloyd's Register
Foundation