

REPORT ON MACHINERY.

THUR. DEC 5 1901

Port of Newcastle

Received at London Office

No. in Survey held at Newcastle
Reg. Book.

Date, first Survey May 2nd 1907 Last Survey Nov 26th 1907

(Number of Visits 21)

on the S.S. KINSMAN

Tons Gross 4533.86
Net 2965.42

Master W. H. Matthew Built at Newcastle By whom built Armstrong Whitworth & Co When built 1901-11

Engines made at Newcastle By whom made The Wallsend Slipway & Ltd when made 1901-11

Boilers made at Newcastle By whom made The Wallsend Slipway & Ltd when made 1901-11

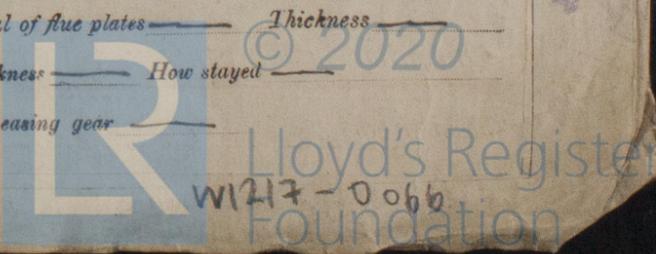
Registered Horse Power ✓ Owners Bear Break Oil & Shipping Co Ltd Port belonging to Liverpool

Nom. Horse Power as per Section 28 345 Is Refrigerating Machinery fitted No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple (Machinery aft) No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 24" 40" 66" Length of Stroke 48" Revs. per minute 70 Dia. of Screw shaft as per rule 14" Lgth. of stern bush 5'0"
 Dia. of Tunnel shaft as per rule ✓ Dia. of Crank shaft journals as per rule 13" Dia. of Crank pin 13" Size of Crank webs 8 1/2" 20" Dia. of thrust shaft under collars 13" Dia. of screw 17' 3" Pitch of screw 14' 9" No. of blades 4 State whether moveable no Total surface 94 sq ft
 No. of Feed pumps 2 Neil's Diameter of ditto 9 1/2" Stroke 10" 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 2 duplex Sizes of Pumps 9 1/2" 10" 6 1/2" 6" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room five 3 1/2"
In Holds, &c. fore hold two 3"

No. of bilge injections 1 sizes 6" Connected to condenser, or to circulating pump pump 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 none
 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 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
 When were stern tube, propeller, screw shaft, and all connections examined immediately before launch Is the screw shaft tunnel watertight none
 Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record ✓) Total Heating Surface of Boilers 5570 sq ft Is forced draft fitted No
 No. and Description of Boilers 3 Multi Single ended Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs
 Date of test 19.7.01 Can each boiler be worked separately yes Area of fire grate in each boiler 57 sq ft No. and Description of safety valves to each boiler 2 direct spring Area of each valve 7.06 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers 26" Mean dia. of boilers 13-9" Length 10-6" Material of shell plates Steel
 Thickness 3/32" Range of tensile strength 29.32 Are they welded or flanged no Descrip. of riveting: cir. seams lap long. seams BS, T.R
 Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 3/4" Top of plates width of butt straps 16 5/8"
 Percentages of strength of longitudinal joint rivets 87.3 Working pressure of shell by rules 180 lbs Size of manhole in shell 16" 12"
 Size of compensating ring Neil's 6 1/2" 1 1/4" No. and Description of Furnaces in each boiler 3 Deighton's Material Steel Outside diameter 42"
 Length of plain part top 1 1/2" bottom 2" Thickness of plates crown 1/2" bottom 2" Description of longitudinal joint welded No. of strengthening rings none
 Working pressure of furnace by the rules 180 Combustion chamber plates: Material Steel Thickness: Sides 3/32" Back 3/32" Top 3/32" Bottom 3/32"
 Pitch of stays to ditto: Sides 9 1/4" x 8 5/8" Back 9" x 9" Top 9 1/4" x 8 5/8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 183 lbs
 Material of stays Iron Diameter at smallest part 5/8" Area supported by each stay 81" Working pressure by rules 188 lbs End plates in steam space: Material Steel Thickness 1 3/32" Pitch of stays 19 1/4" x 18 1/2" How are stays secured IN & W Working pressure by rules 181 lbs Material of stays Steel
 Diameter at smallest part 2 1/2" 3 1/16" Area supported by each stay 365" Working pressure by rules 183 lbs Material of Front plates at bottom Steel
 Thickness 3/32" Material of Lower back plate Steel Thickness 29" Greatest pitch of stays 15" Working pressure of plate by rules 185 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" 4 1/2" Material of tube plates Steel Thickness: Front 3/32" Back 3/4" Mean pitch of stays 9"
 Pitch across wide water spaces 13 3/4" Working pressures by rules 190 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 1/4" 2 plates length as per rule 29" Distance apart 9 1/4" Number and pitch of Stays in each 2-8 5/8"
 Working pressure by rules 184 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately no
 Diameter --- Length --- Thickness of shell plates --- Material --- Description of longitudinal joint --- Diam. of rivet ---
 Pitch of rivets --- Working pressure of shell by rules --- Diameter of flue --- Material of flue plates --- Thickness ---
 Stiffened with rings --- Distance between rings --- Working pressure by rules --- End plates: Thickness --- How stayed ---
 Working pressure of end plates --- Area of safety valves to superheater --- Are they fitted with easing gear ---



DONKEY BOILER— No. none Description

Made at By whom made When made Where fixed
Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves
No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler
Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile strength
Descrip. of riveting long seams Dia. of rivet holes Whether punched or drilled Pitch of rivets
Lap of plating Per centage of strength of joint Rivets Thickness of shell crown plates Radius of do. No. of Stays to do.
Dia. of stays Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of joint
Thickness of furnace crown plates Stayed by Working pressure of shell by rules
Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— Two top and two bottom end bolts, two main bearing bolts, one set coupling bolts, one set feed sledge pump valves, two sets piston springs, two bottom end braces, one propeller or propeller shaft.

The foregoing is a correct description,

THE WALLBEND SLIPWAY & ENGINEERING CO. LTD. Manufacturer.

Dates of Survey while building: During progress of work in shops - - - - - During erection on board vessel - - - - - Total No. of visits 21
Haug 1901/ May 2, July 6, 15, 19, 30, Aug. 14, 17, 19, 24, Oct. 3, 4, 24, 30, Nov. 1, 7, 12, 14, 22, 23, 29
Is the approved plan of main boiler forwarded herewith yes
" " " donkey " " " " ✓

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

Material of screw shaft Bar iron 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 no, fitted close If two liners are fitted, is the shaft lapped or protected between the liners ✓

The machinery of this vessel has been constructed & fitted on board under special survey the workmanship is sound & good.
The machinery has been tried under steam as required by the Rules & found to work well the vessel is now in my opinion eligible for the record of +LMC II-01 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. +LMC II-01. Elec. light

The amount of Entry Fee... £ 3 : : : : When applied for, Dec 3 1901
Special... £ 32 5 : : : : When received, 5/12/01
Donkey Boiler Fee... £ : : : :
Travelling Expenses (if any) £ 4 : : : :

Robert Haug, Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
5.12.01

Committee's Minute FRI. 6 DEC 1901

Assigned +LMC II-01



Surveyor M. J. Lynch

Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

SHIPBUILDER'S CERTIFICATE WRITTEN