

Rpt. 4.

REPORT ON MACHINERY.

No. 60047
WED 5 APR 1911

Received at London Office

Date of writing Report 4th April 1911 When handed in at Local Office APR 4 1911 Port of NEWCASTLE ON TYNE.No. in Survey held at Newcastle Date, First Survey 5th Aug 1910 Last Survey 30th March 1911
Reg. Book.on the S.S. "Edely"
Master R. Kehrer Built at Newcastle By whom built Palmes & Co
Engines made at Newcastle By whom made Palmes S.B. & Co. when made 1911
Boilers made at do By whom made do when made 1911Registered Horse Power Owners Hungarian Locomotive S.S. Co Port belonging to Limerick
Nom. Horse Power as per Section 28 342 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted NoNo. of Cylinders 13² No. of Cranks 3

Description of Engines Simple expansion Dia. of Cylinders 24" - 39" - 66" Length of Stroke 45" Revs. per minute 68 Dia. of Screw shaft as per rule 13.5" Material of screw shaft as fitted 14.5" Dia. of thrust shaft under collars 13 1/4" Dia. of screw 17' - 6" Pitch of Screw 16' - 6" No. of Blades 4 State whether moveable No Total surface 95 sq ft

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 Yes 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 5' - 0"

Dia. of Tunnel shaft as per rule 12.07" Dia. of Crank shaft journals as per rule 12.67" Dia. of Crank pin 13" Size of Crank webs 19" x 8 1/4" Dia. of thrust shaft under collars 13 1/4" Dia. of screw 17' - 6" Pitch of Screw 16' - 6" No. of Blades 4 State whether moveable No Total surface 95 sq ft

No. of Feed pumps 2 Diameter of ditto 8 x 6" Stroke 21" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 1/4" Stroke 20" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes of Pumps 10 1/2" x 12 1/2" x 21", 10 1/2" x 12 1/2" x 21" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Four 3 1/2" In Holds, &c. No 1 - 2 - 3 1/2", No 2 - 2 - 3 1/2", Deep Tank

No. of Bilge Injections 1 sizes 5" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 6"

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 Yes

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

Dates of examination of completion of fitting of Sea Connections 28/2/11 of Stern Tube 28/2/11 Screw shaft and Propeller 6/3/11

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

OILERS, &c. (Letter for record S) Manufacturers of Steel J. Spence & Sons & Palmes & Co

Total Heating Surface of Boilers 5613 sq ft Is Forced Draft fitted No No. and Description of Boilers Three - single-ended

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 20/2/11 No. of Certificate 8092

Can each boiler be worked separately Yes Area of fire grate in each boiler 58 sq ft No. and Description of Safety Valves to

each boiler 2 - Spring Area of each valve 5.94 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 21" Mean dia. of boilers 4' - 3" Length 10' - 6" Material of shell plates Steel

Thickness 1/8" Range of tensile strength 29 - 32 1/2 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams S. Lap

Long. seams J.B.S. & Co. Diameter of rivet holes in long. seams 13/16" Pitch of rivets 8" Lap of plates or width of butt straps 18 1/4"

Per centages of strength of longitudinal joint rivets 91 plate 85.2 Working pressure of shell by rules 181 lbs Size of manhole in shell end 16" x 12"

Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 - SIGHTON Material Steel Outside diameter 45 1/8"

Length of plain part top 17 1/2" bottom 17 1/2" Thickness of plates crown 17 1/2" bottom 17 1/2" Description of longitudinal joint Welded No. of strengthening rings Yes

Working pressure of furnace by the rules 180 lbs Combustion chamber plates: Material Steel Thickness: Sides 2 1/32" Back 2 1/32" Top 2 1/32" Bottom 13/16"

Pitch of stays to ditto: Sides 10 x 8" Back 9 1/4 x 8 1/4" Top 9 1/2 x 8 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 182 lbs

Material of stays Steel Diameter at smallest part 2.030" Area supported by each stay 82 sq ft Working pressure by rules 224 lbs End plates in steam space:

Material Steel Thickness 15/32" Pitch of stays 20" x 16 1/2" How are stays secured S.H. & W. Working pressure by rules 191 lbs Material of stays Steel

Diameter at smallest part 6.10" Area supported by each stay 330 sq ft Working pressure by rules 92 lbs Material of Front plates at bottom Steel

Thickness 1" Material of Lower back plate Steel Thickness 15/16" Greatest pitch of stays 14 1/2" Working pressure of plate by rules 227 lbs

Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 1" Back 13/16" Mean pitch of stays 11 1/4"

Pitch across wide water spaces 14 1/2" Working pressures by rules 183 lbs Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 8 3/4" x 1 1/2" Length as per rule 32 1/2" Distance apart 8 1/2" Number and pitch of stays in each 2 - 9 5/8"

Working pressure by rules 200 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked

separately Yes Diameter Yes Length Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet

Yes Pitch of rivets Yes Working pressure of shell by rules Yes Diameter of flue Yes Material of flue plates Yes Thickness Yes

stiffened with rings Yes Distance between rings Yes Working pressure by rules Yes End plates: Thickness Yes How stayed Yes

Working pressure of end plates Yes Area of safety valves to superheater Yes Are they fitted with easing gear Yes

Hoyd's Register

W1285-0185

VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description			
Made at	By whom made	When made	Where fixed	
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment
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
Working pressure of shell by rules	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
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by	
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey	

SPARE GEAR. State the articles supplied:— 2 top-end, 2 bottom-end & 2 main-beaming bolts & nuts, 1 set of coupling bolts, 1 set of feed & bilge pump valves, a quantity of assorted bolts, nuts & iron, 1/3" crank shaft, 1 tail shaft, 1 eccentric sheave, 1 bottom end brass safety valve springs

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building	During progress of work in shops—	Aug. 9, 21, 30, Sep. 9, 13, 14, 16, 19, 21, 26, 29, Oct. 3, 4, 10, 12, 21, 24, Nov. 2, 3, 7, 17, 18, 27, 29, Dec. 5, 12, 1911
	During erection on board vessel—	16, 21, Jan. 6, 11, 18, 19, 20, 24, 27, Feb. 3, 9, 10, 17, 20, 28, Mar. 6, 9, 14, 15, 17, 22, 24, 27, 30, 1911
	Total No. of visits	51

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—		Cylinders 12/10/10	Slides 20/1/11	Covers 20/1/11	Pistons 20/1/11	Rods 3/11/10
Connecting rods	3/11/10	Crank shaft	10/10/10	Thrust shaft	7/11/10	Tunnel shafts 21/12/10
Screw shaft	19/1/11	Propeller	19/1/11	Stern tube	7/11/10	Steam pipes tested 15/3/11
Engine and boiler seatings	6/3/11	Engines holding down bolts	15/3/11	Completion of pumping arrangements	24/3/11	Boilers fixed 24/3/11
Engines tried under steam	24/3/11	Main boiler safety valves adjusted	30/3/11	Thickness of adjusting washers	P.B. P 7/8 3/16 C.B. P 5/16 5/16 S.B. P 5/16 5/16	
Material of Crank shaft	Steel	Identification Mark on Do.	TF 10-10	Material of Thrust shaft	Steel	Identification Mark on Do. TF 11/10
Material of Tunnel shafts	Steel	Identification Marks on Do.	TF 12-10	Material of Screw shafts	Iron	Identification Marks on Do. TF 1-11
Material of Steam Pipes	Copper	Test pressure	360 lbs.			

General Remarks (State quality of workmanship, opinions as to class, &c. The engines and boilers of this vessel have been constructed under special survey & the materials & workmanship are found & good. The engines have been tried under steam and the boiler safety valves adjusted at the working pressure. The machinery is now in good & safe working condition & eligible in my opinion to have the notation of +LMC 3-11

It is submitted that this vessel is eligible for THE RECORD + LMC 3.11.

JWD 7/4/11

The amount of Entry Fee	£ 3 0 0	When applied for,	APP 4 1911
Special	£ 37 2 0	When received,	7-4-1911
Donkey Boiler Fee	£ 1 0 0		
Travelling Expenses (if any)	£ 1 0 0		

Thomas Field
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Assigned

7 APR 1911
+ LMC 3 11

MACHINERY CERTIFICATE
WRITTEN 5/4/11



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Foundation

Certificate (if required) to be sent to NEWCASTLE ON TYNE.