

REPORT ON MACHINERY.

No. 60047
WED 5 APL 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. (Number of Visits 57)

on the S.S. "Erdely"
Master A. Kehrer Built at Newcastle By whom built Palmes Co
Tons { Gross 4247
Net 2699
When built 1911

Engines made at Newcastle By whom made Palmes S.B. & Co when made 1911
Boilers made at do By whom made do when made 1911

Registered Horse Power Owners Hungarian Lvant S.S. Co Port belonging to Linnæ

Nom. Horse Power as per Section 28 342 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 13³ No. of Cranks 3

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" 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 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

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

2-2 1/2", No 3-2-3 1/2", No 4-2-3 1/2" Tunnel Well 1-3 1/2"

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 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 No. and Description of Safety Valves to

each boiler 2—Spring Area of each valve 5.94 sq Pressure to which they are adjusted 185 lbs Are they fitted with casing 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 S. B. S. Y. Riv. Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8" Lap of plates or width of butt straps 18 1/4"

Percentages 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—Sightone Material Steel Outside diameter 45 1/2"

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

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 1/16"

Pitch of stays to ditto: Sides 10 x 8" Back 9 1/4 x 8 3/4" Top 9 5/8 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 2.03" Area supported by each stay 82 sq Working pressure by rules 224 lbs End plates in steam space:

Material Steel Thickness 1 5/32" Pitch of stays 20" x 16 1/2" How are stays secured S. N. & W. Working pressure by rules 191 lbs Material of stays Steel

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

Thickness 1" Material of Lower back plate Steel Thickness 1 5/16" 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 1 3/16" 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"

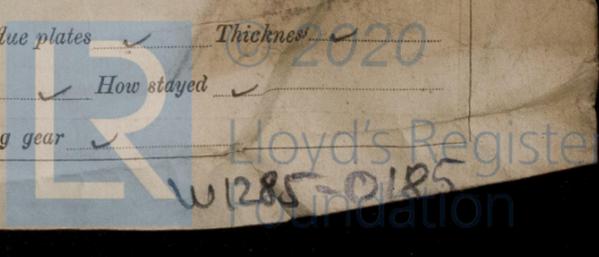
Working pressure by rules 200 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked

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 casing gear Yes



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 _____ Description of Safety _____

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 _____ Rivets _____ Plates _____

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-bearing 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, 26, 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 Yes

" " " donkey " " " Yes

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 5/32

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. TP 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 7/24/11

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

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|--------------------------------------|------------------------------|
| The amount of Entry Fee .. £ 3 0 0 | When applied for, APP 4 1911 |
| Special .. £ 37 2 0 | |
| Donkey Boiler Fee .. £ - - - | When received, 7-4-1911 |
| Travelling Expenses (if any) £ - - - | 8-4-1911 |

Committee's Minute
Assigned

FRI 7 APR 1911
+ LMC 3 11

MACHINERY CERTIFICATE
WRITTEN 5/4/11



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

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