

REPORT ON MACHINERY.

Port of Rotterdam

Received at London Office

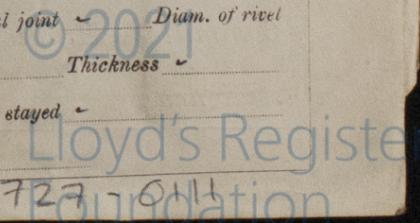
TUES. 18 JUN 1907

No. in Survey held at Rotterdam Date, first Survey 22 Dec. 06 Last Survey 11 June 1907
 Reg. Book. on the Steel Screw Tug, Thames (Number of Visits 29)
 Master C. Post Built at Rotterdam By whom built Rykees & Co. Tons { Gross 383.23
 Engines made at Hull By whom made Earle's Coy Lim. when made 1890 Net 2.65
 Boilers made at Rotterdam By whom made Wilton's Eng. & Slipway Coy when made 1907
 Registered Horse Power 180 Owners Internationale Sleepdient Maatschappij Port belonging to Rotterdam
 Nom. Horse Power as per Section 28 141 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Inverted Triple No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 18 1/8, 30, 54 Length of Stroke 33 Revs. per minute 85 Dia. of Screw shaft 10 1/32 Material of Iron
 as fitted 11 1/4 (screw shaft)
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube no 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 If two
 liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 42
 Dia. of Tunnel shaft 9 3/16 Dia. of Crank shaft journals 9 21/32 Dia. of Crank pin 10 Size of Crank webs 11 1/8 x 6 1/2 Dia. of thrust shaft under
 collars 10 1/4 Dia. of screw 11-6 Pitch of Screw 14-10 No. of Blades 4 State whether moveable no Total surface 49.5 sq ft
 No. of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 21 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 3 1/4 Stroke 21 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 1 F, 1 Bell Sizes of Pumps F 7 1/2 x 4 1/2 x 6, B 7 1/2 x 6 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room two 2" Boiler space, two 2" Engine room In Holds, &c. hand pumps in fore compartment
as approved.
 No. of Bilge Injections 1 sizes 5 1/2 Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size 4 1/2 - 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 no
 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 no
 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 20 April of Stern Tube 20 April Screw shaft and Propeller 20 April
 Is the Screw Shaft Tunnel watertight no Is it fitted with a watertight door no worked from no

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Schulz, Knudt, Lanarkshire Steel Coy.
 Total Heating Surface of Boilers 2704 Is Forced Draft fitted no No. and Description of Boilers 2 single ended Marine
 Working Pressure 185 lbs Tested by hydraulic pressure to 370 lbs Date of test 27 June No. of Certificate 244
 Can each boiler be worked separately yes Area of fire grate in each boiler 42.5 sq. ft. No. and Description of Safety Valves to
 each boiler 2, Spring loaded Area of each valve 10.32 sq. 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 9" Mean dia. of boilers 12" Length 10-7" Material of shell plates steel
 Thickness 1 3/32 Range of tensile strength 28-32 T Are the shell plates welded or flanged no Descrip. of riveting: cir. seams lap. 2x.
 long. seams butt 5x Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 7 13/16" Lap of plates or width of butt straps 17 3/4"
 Per centages of strength of longitudinal joint rivets 106. Working pressure of shell by rules 189 lbs Size of manhole in shell 12" x 16"
 plate 83.99
 Size of compensating ring McNeil's No. and Description of Furnaces in each boiler 2 Morrison's Material steel Outside diameter 3'-9 1/4"
 Length of plain part top Thickness of plates 1 1/16" Description of longitudinal joint welded No. of strengthening rings no
 Working pressure of furnace by the rules 231 Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 3/4"
 Pitch of stays to ditto: Sides 6 3/4 x 7 1/2 Back 7.75 Top 6 3/4 x 8 1/2 If stays are fitted with nuts or riveted heads nuttid. Working pressure by rules 224
 Material of stays steel Diameter at smallest part 1.6 Area supported by each stay 60.06 Working pressure by rules 201 End plates in steam space:
 Material steel Thickness 1 1/16" Pitch of stays 15 1/2 x 16 How are stays secured all h.s.r.w. Working pressure by rules 232 Material of stays steel
 Diameter at smallest part 4.9 Area supported by each stay 248.12 Working pressure by rules 197 Material of Front plates at bottom steel
 Thickness 1" Material of Lower back plate steel Thickness 1" Greatest pitch of stays 14" x 7 3/4" Working pressure of plate by rules T
 Diameter of tubes 3 1/4" Pitch of tubes 4 3/8" Material of tube plates steel Thickness: Front 1" Back 7/8" Mean pitch of stays 8 3/4"
 Pitch across wide water spaces 15" Working pressures by rules T stiffen Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 8" x 2" Length as per rule 22" Distance apart 8 1/2" Number and pitch of stays in each 2 - 6 3/4"
 Working pressure by rules 222 Superheater or Steam chest; how connected to boiler no Can the superheater be shut off and the boiler worked
 separately no Diameter no Length no Thickness of shell plates no Material no Description of longitudinal joint no Diam. of rivet
 holes no Pitch of rivets no Working pressure of shell by rules no Diameter of flue no Material of flue plates no Thickness no
 If stiffened with rings no Distance between rings no Working pressure by rules no End plates: Thickness no How stayed no
 Working pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear no

If not, state whether, and when, one will be sent? no
If a Report also sent on the Hull of the Ship? yes



VERTICAL DONKEY BOILER— Manufacturers of Steel

Name	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	Stayed by	
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey

SPARE GEAR. State the articles supplied:— 2 bolts & nuts, for crank pin brasses, 2 do. for crosshead brass; 4 main bearing bolts, 1 1/2 set of coupling bolts, 1 set of feed & bilge pump, valves, springs for each piston, a quantity of square bolts, studs & nuts, Iron of various sizes; L.P. crankshaft, propeller shaft, set of crank pin brasses & crosshead eccentric strap & rod complete; 1 piston rod & gland; 1 slide spindle & gland; 1 feed pump plunger; 2 safety valves, 1 valve spring, one spring for each escape valve; 4 feed check valves; 6 condenser tubes with ferrules; 24 boiler tubes; spare valves & seats for donkeys and angle teels & fittings.

The foregoing is a correct description, *W. J. Wilton* Manufacturer.

Dates of Survey while building
 During progress of work in shops— Dec 22, 24, 28/06; Feb. 2, 5, 11, 13, 18, March 15, Apr. 2, 8, 14, 19, 20, 25, May 15, 24, 29, 31/07
 During erection on board vessel— May 1, 14, 30, June 1, 3, 4, 7, 10, 11/07
 Total No. of visits 29.

Is the approved plan of main boiler forwarded herewith Yes
 per. C. P. part. } " " " donkey shafts, Circ pump etc

Dates of Examination of principal parts—Cylinders 22/12/06; 1/5 Slides 22 Dec, 5 Feb Covers 22 Dec, 5 Feb Pistons 27 Dec, 17/4 Rods 13 Feb.
 Connecting rods 13/2-17/4. Crank shaft 27 Dec. Thrust shaft *Genes* Tunnel shafts *Mich.* Screw shaft 17-20/4 Propeller 17.19/4.
 Stern tube 17-20/4 Steam pipes tested 27-31/5 Engine and boiler seatings 14/5 Engines holding down bolts 14/5-3/6.
 Completion of pumping arrangements 10/6. Boilers fixed 1, 3, 4/6 Engines tried under steam 4, 7/6.
 Main boiler safety valves adjusted 4 June Thickness of adjusting washers *W-I, II, III, IV 11 1/2 mm.*
 Material of Crank shaft *Iron* Identification Mark on Do. Material of Thrust shaft *steel* Identification Mark on Do. *P.A 1855*
 Material of Tunnel shafts *steel* Identification Marks on Do. *PA 1856* Material of Screw shafts *Iron* Identification Marks on Do. *W.V.O. 168*
 Material of Steam Pipes *Drawn Copper, deep riveted flanges* Test pressure 370 lb.

General Remarks (State quality of workmanship, opinions as to class, &c. The boilers have been built in accordance with the approved plans & Secretary's letter, materials tested as required, hydraulic test proved satisfactory. The engines have been taken to pieces, all lagging & paint removed, every part carefully examined, cylinders & condenser tested and the following parts renewed, thrust, tunnel and stern shaft, stern tube complete; L.P. & I.P. cylinder liners & pistons, all piston rods, all gland bushes, L.P. connecting rod; I.P. slide valve spindle, 4 crankpin bolts, thrust block complete, condenser tubes. In addition to the all round starting motion an additional direct acting reversing engine fitted; all bearings reinstalled, 4 crankpin brasses renewed, and every rod or spindle fitted & bushed. A new half shell made to centrifugal pump, crankshaft & piston renewed, and all now as good as new. Donkey's new.

Machinery and boilers being now in good and efficient condition, and having worked satisfactorily during a full speed trial at sea in the presence of Mr. Heermannburg on the 11th inst I am of opinion that this vessel is eligible to be recorded in the Society's Reg. Book with I.M.C. 6.07. N.B. 07.

It is submitted that this vessel is eligible for THE RECORD. I.M.C. 6.07 N.B. 6.0
 E made 90 refitted 07

The Amount of Entry Fee..	£ 24.	When applied for,	
Special	£ 253. 80	15/6 .. 19/6	
Donkey Boiler Fee	£	When received,	
Travelling Expenses (if any)	£ 22. 35	15/6 .. 19/6	

W. F. D. Van Ollefen 21.6.07
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute
 Assigned
 TUES. 25 JUN 1907
 L.M.C. 6.07
 + N.B. 6.07 E. made 90 refitted 07

Certificate (if required) to be sent to the Surveyor Rotterdam.

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

