

REPORT ON MACHINERY.

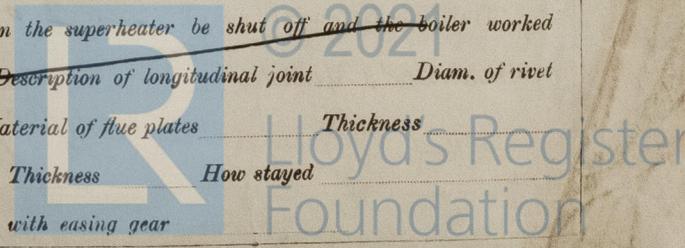
Received at London Office **THUR. 19 AUG 1909**

Date of writing Report Aug 14 1909 When handed in at Local Office Aug 18 1909 Port of Hull
 No. in Survey held at Hull Date, First Survey Mar 16th Last Survey Aug 13th 1909
 Reg. Book. 862 on the Trawler YORICK (Number of Visits 39)
 Master Beverly Built at Beverly By whom built Booth, Mutton & Gemmill Tons Gross 213 Net 78
 Engines made at Hull By whom made Amos & Smith Ltd when made 5
 Boilers made at H By whom made H when made H
 Registered Horse Power 45 Owners Hellgren & Son Port belonging to Hull
 Nom. Horse Power as per Section 28 45 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Horizontal triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 10-16 1/2-27 Length of Stroke 22 Revs. per minute 104 Dia. of Screw shaft 7 1/8 Material of screw shaft 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 32
 Dia. of Tunnel shaft 5 1/2 Dia. of Crank shaft journals 5 9/8 Dia. of Crank pin 6 1/2 Size of Crank webs 12 1/2 x 4 1/2 Dia. of thrust shaft under collars 6 1/2 Dia. of screw 10-0 Pitch of Screw 8-6 Mean No. of Blades 4 State whether moveable No Total surface 38 1/2
 No. of Feed pumps 1 Diameter of ditto 2 1/2 Stroke 11 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 1 Diameter of ditto 2 1/2 Stroke 11 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 5x5x5 6x3x6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2-2 (Fore & aft) In Holds, &c. 2-2 Main head - tallant head
2 Bilge suction suction to all bilges with discharge on deck
 No. of Bilge Injections 1 sizes 2 1/2 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2 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 Yes
 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 Hot suction How are they protected Wood casing
 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 4.6.09 of Stern Tube 4.6.09 Screw shaft and Propeller 4.6.09
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Gewisselapp Grills Funderst Westfalen
 Total Heating Surface of Boilers 750 1/2 Is Forced Draft fitted No No. and Description of Boilers 1-S.E. Multitubular
 Working Pressure 200 Tested by hydraulic pressure to 400 Date of test 16.7.09 No. of Certificate 1713
 Can each boiler be worked separately Yes Area of fire grate in each boiler 25-5 No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 3-14 Pressure to which they are adjusted 205 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 4 Mean dia. of boilers 10-7 Length 9-3 3/8 Material of shell plates Steel
 Thickness 3/32 Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams SA lap
 long. seams SA lap Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7-61 Lap of plates or width of butt straps 16 1/2
 Per centages of strength of longitudinal joint rivets 100 Working pressure of shell by rules 201 Size of manhole in shell 16x12
 Size of compensating ring 40x70x 3/32 No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 2 1/2 1/32
 Length of plain part top 6-7 bottom 12-6 Thickness of plates crown 4-49 bottom 4-62 Description of longitudinal joint welded No. of strengthening rings 1
 Working pressure of furnace by the rules 228 Combustion chamber plates: Material Steel Thickness: Sides 3/32 Back 1/8 Top 1/8 Bottom 3/32
 Pitch of stays to ditto: Sides 8 1/2 x 8 1/2 Back 8 1/2 x 8 Top 8 1/2 x 7 3/8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 239
 Material of stays Steel Diameter at smallest part 1 1/2 Area supported by each stay 74-3 Working pressure by rules 249 End plates in steam space: Material Steel Thickness 15/16 Pitch of stays 1 1/2 x 1 1/2 How are stays secured SA wash Working pressure by rules 246 Material of stays Steel
 Diameter at smallest part 4 Area supported by each stay 169 Working pressure by rules 250 Material of Front plates at bottom Steel
 Thickness 15/16 Material of Lower back plate Steel Thickness 15/16 Greatest pitch of stays 14 x 8 Working pressure of plate by rules 234
 Diameter of tubes 3 1/2 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates Steel Thickness: Front 15/16 Back 7/8 Mean pitch of stays 9 1/2 x 8 1/2
 Pitch across wide water spaces 13 3/4 Working pressures by rules 203 Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 8 1/2 x 1 1/2 Length as per rule 30 7/8 Distance apart 7 3/8 Number and pitch of stays in each 2 2 8 1/2
 Working pressure by rules 232 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked separately
 Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 If 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

If not, state whether, and when, one will be sent? In a Report also sent on the Hull of the Ship?



VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____ When made _____ Where fixed _____
 Made at _____ By whom made _____
 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 _____ Rivets _____ Plates _____
 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 _____ Stayed by _____
 Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— *Two top & two bottom end connecting rods with nuts, two main bearing bolts, one set of coupling bolt nuts, one set of feed & helix pump valves, one set of air & circulating pump valves, one main donkey feed check valve, assorted bolt nuts etc.*

The foregoing is a correct description,
FOR AMOS & SMITH LTD. Manufacturer.

Dates of Survey while building
 During progress of work in shops: 1909. - Mar 16, 23, 24, 26, 31. Apr 1, 2, 5, 14, 16, 20, 24, 27. May 1, 4, 8, 13, 15, 21, 26, 29.
 During erection on board vessel: Jan 2, 4, 8, 10, 16, 19, 22, 25, 30. Jul 3, 6, 10, 16, 22, 24, 30. Aug 5, 13.
 Total No. of visits: 39

Is the approved plan of main boiler forwarded *hence with RM 21407*
 " " " donkey " " "
 Dates of Examination of principal parts—Cylinders 25.6.09 Slides 24.7.09 Covers 26.6.09 Pistons 22.7.09 Rods 22.7.09
 Connecting rods 25.6.09 Crank shaft 6.7.09 Thrust shaft 6.7.09 Tunnel shafts _____ Screw shaft 29.5.09 Propeller 29.5.09
 Stern tube 29.5.09 Steam pipes tested 30.7.09 Engine and boiler seatings 4.6.09 Engines holding down bolts 30.7.09
 Completion of pumping arrangements 13.8.09 Boilers fixed 20.7.09 Engines tried under steam 5.8.09
 Main boiler safety valves adjusted 5.8.09 Thickness of adjusting washers $P \frac{4}{32} S \frac{5}{16}$
 Material of Crank shaft *Steel* Identification Mark on Do. *555 SWG* Material of Thrust shaft *Steel* Identification Mark on Do. *6.7.09 555*
 Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts *Iron* Identification Marks on Do. *29.5.09 7M6*
 Material of Steam Pipes *Solid Manganese Copper* Test pressure *400 lbs.*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery & boiler of this vessel have been constructed under special survey, all of good material workmanship & have been tested & secured on board in accordance with the Rules. They are now in good working condition, & eligible in my opinion to have record of L.M.C. 8.09 in the Register Book.*

It is submitted that this vessel is eligible for **THE RECORD.** + LMC 8,09

JWR #LD. 19.8.09
 19.8.09

The amount of Entry Fee .. £ 1 : 0 : 0
 Special .. £ 8 : 0 : 0
 Donkey Boiler Fee .. £ : :
 Travelling Expenses (if any) £ - : 2 : 0

When applied for, 18.8.09
 When received, 31.8.09

John W. Swynne
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute Assigned
 + LMC 8.09

MACHINERY CERTIFICATE WRITTEN.



These p
 Signal Let
 Official
 12
 No., Date, an
 Whether Bri
 Foreign B
 British
 Number of
 Number of
 Rigg
 Stern
 Build
 Galleries
 Head
 Framework
 vessel
 Number of
 Number of
 and their
 Total to quarter t
 to bottom of
 No. of
 sets of
 Engines.
 Des
 Rec
 ver
 act
 No. of
 Shafts.
 Des
 Num
 Iron o
 Load
 Under Tonna
 Space or spa
 Turret or Ta
 Forecastle
 Bridge space
 Popp or Brea
 Houses
 Deck Houses
 Chart House
 Spaces for m
 Section 78
 1894.
 Excess of Ha
 Gro
 Deductions, a
 Reg
 NOTE.—The o
 Name
 No. of Owne
 Name, Resid
 Kelly
 Dated
 30) (65181) W

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