

REPORT ON MACHINERY.

Port of Grimsby

Received at London Office MUN. 10 APL 1905

Survey held at Grimsby

Date, first Survey 20th Oct 1904 Last Survey 27th Mar 1905

By the Steel Steam Trawler "LUNNIA"

(Number of Visits 25)

By J. Mudd Built at Goole

By whom built Goole Shipbuilding Works Tons Gross 230
Net 86

Made at Grimsby

By whom made Central Co-operative E. & R. Co. Ltd When made 1905

Made at Hull & Co.

By whom made Central Marine Eng. Works When made 1905

Registered Horse Power 68 Owners North Eastern S. S. Co. Ltd

Port belonging to Grimsby

Horse Power as per Section 28 68 Is Refrigerating Machinery fitted no Is Electric Light fitted no

Engines No. 25

ENGINES, &c.—Description of Engines Triple Exp. Surf. Cond. No. of Cylinders 3 No. of Cranks 3

of Cylinders 12-2 1/2-34 Length of Stroke 24 Revs. per minute 110 Dia. of Screw shaft as per rule 7.24 Lgth. of stern bush 2.8

of Tunnel shaft as per rule 6.4 Dia. of Crank shaft journals as per rule 6.8 Dia. of Crank pin 6 3/4 Size of Crank webs 4 x 9 1/4 Dia. of thrust shaft under

of 6 7/8 Dia. of screw 8-6 Pitch of screw 10-6 No. of blades 4 State whether moceable no Total surface 27 sq ft

of Feed pumps X 1 Diameter of ditto 2 1/4 Stroke 12 Can one be overhauled while the other is at work no

of Bilge pumps X 1 Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work no See letter dated 13.4.05

of Donkey Engines 1 Sizes of Pumps 2 1/2, 3, 6 stroke No. and size of Suctions connected to both Bilge and Donkey pumps 2"

Engine Room Bilge, sea, Hotwell, 2 bore In Holds, &c. Forepeak, Fish hold, 2 bore

of bilge injections 1 sizes 2 1/2 Connected to condenser, or to circulating pump no Is a separate donkey suction fitted in Engine room & size 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 Forepeak & Fish hold suction How are they protected Shag 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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock new Is the screw shaft tunnel watertight no

Is it fitted with a watertight door yes worked from no

OILERS, &c.— (Letter for record no) Total Heating Surface of Boilers 12510 Is forced draft fitted no

No. and Description of Boilers 1 Working Pressure 125 lb Tested by hydraulic pressure to 125 lb

Date of test Can each boiler be worked separately Area of fire grate in each boiler no No. and Description of safety valves to each boiler no

Area of each valve no Pressure to which they are adjusted no Are they fitted with easing gear no

Smallest distance between boilers or uptakes and bunkers or woodwork no Material of boilers no Length no Material of shell plates no

Thickness no Range of tensile strength no Are they welded or riveted no Descrip. of riveting: cir. seams no long. seams no

Diameter of rivet holes in long. seams no Pitch of rivets no Lap of plates or width of butt straps no

Per centages of strength of longitudinal joint no Working pressure of shell by rules no Size of manhole in shell no

Size of compensating ring no No. and Description of Furnaces in each boiler no Material no Outside diameter no

Length of plain part no Thickness of plates no Description of longitudinal joint no No. of strengthening rings no

Working pressure of furnace by the rules no Combustion chamber plates: Material no Thickness: Sides no Back no Top no Bottom no

Pitch of stays to ditto: Sides no Back no Top no If stays are fitted with nuts or riveted heads no Working pressure by rules no

Material of stays no Diameter at smallest part no Area supported by each stay no Working pressure by rules no End plates in steam space: no

Material no Thickness no Pitch of stays no How are stays secured no Working pressure by rules no Material of stays no

Diameter of smallest part no Area supported by each stay no Working pressure by rules no Material of Front plates at bottom no

Thickness no Material of Lower back plate no Thickness no Greatest pitch of stays no Working pressure of plate by rules no

Diameter of tubes no Pitch of tubes no Material of tube plates no Thickness: Front no Back no Mean pitch of stays no

Pitch across wide water spaces no Working pressures by rules no Girders to Chamber tops: Material no Depth and thickness of girder at centre no

Length as per rule no Distance apart no Number and pitch of Stays in each no

Working pressure by rules no 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

For Boiler Particulars Report see letter dated 13.4.05

DONKEY BOILER— No. 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 casing 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:— *2 each of crank pin & cross head & bearing bolts. One set coupling bolts, one set bed & bilge pump valves, feed check valves (main & donkey) air and circulation pump valves, 2 safety valve springs, bolt nuts, stud iron*

The foregoing is a correct description,

Manufacturer.

For the GREAT CENTRAL CO-OPERATIVE ENGINEERING & SHIP REPAIRING COMPANY, LTD.

Fred Lister

Dates of Survey while building: During progress of work in shops— 1904 October 20²², Nov 1, 22, 26, Dec 2, 6, 15, 17, 21, 30 1905 Jan 7, 13, 20, 27, Feb 4, 14, 28, Mar 13

During erection on board vessel— 1905 Mar 14, 16, 20, 24 & 27

Total No. of visits *Twenty Five* Is the approved plan of main boiler forwarded herewith *Yes*

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

Material of screw shaft *Scraper 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 If two liners are fitted, is the shaft lapped or protected between the liners

This machinery has been constructed under special survey the materials & workmanship are good; it has been satisfactorily secured on board the vessel and tried under steam, and is eligible in my opinion to have record of + L.M.C. 3.05 in the Society's Reputable Book.

It is submitted that this vessel is eligible for THE RECORD I.L.M.C. 3.05

Ed. Lms
10.4.05 15.4.05

this office (Gms)

The amount of Entry Fee _____ When applied for, _____

Special *10-4-03* April 05

Donkey Boiler Fee £ *11-4-0* When received, _____

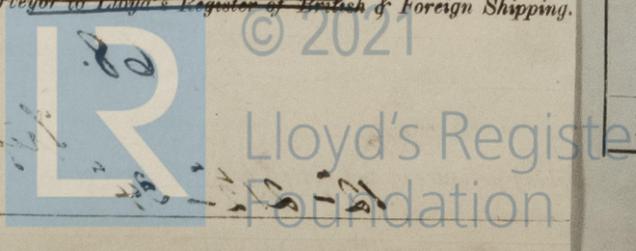
Travelling Expenses (if any) £ *3-6-0*

Boiler Fee charged at *13-0-0*

Committee's Minute £ *7-18-0*

TUES. 11 APR 1905

R. P. [Signature]
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



Certificate (if required) to be sent to _____

Assigned

MACHINE CERTIFICATE