

# REPORT ON MACHINERY.

Port of Grimsby

No. in Survey held at Grimsby  
Reg. Book.

Date, first Survey Feb-14-1905

Received at London Office WED. 7 JUN 1905

Last Survey May 20-1905 1905

(Number of Visits 14)

Gross 193

Tons Net 58

When built 1905

By whom made 1905

By whom made 1905

on the Steel S.S. K. VENTURE

Master T. Goodhew Built at Selly

By whom built Cochran & Son (No 340)

Engines made at Grimsby

By whom made Central Cooperative E. & S. L. Co

Boilers made at West Hartlepool

By whom made Central Marine Eng Works

Registered Horse Power

Owners Deaen Bros & Dought (H. Taylor) Port belonging to Grimsby

Net Horse Power as per Section 28. 67

Is Refrigerating Machinery fitted no

Is Electric Light fitted no

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

a. of Cylinders 11 1/2 - 21 - 33 Length of Stroke 24 Revs. per minute 110 Dia. of Screw shaft as per rule 6.95 as fitted 7.98 Lgth. of stern bush 30

a. of Tunnel shaft as per rule 6.15 Dia. of Crank shaft journals as per rule 6.45 as fitted 6.74 Dia. of Crank pin 6 3/4 Size of Crank webs 4 x 12 1/2 Dia. of thrust shaft under

lars 6 3/4 Dia. of screw 8-6 Pitch of screw 10-3 No. of blades 4 State whether moveable no Total surface 27 1/2

a. of Feed pumps 1 Diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work -

a. of Bilge pumps 1 Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work -

a. of Donkey Engines 1 Sizes of Pumps 3 dia. 6 stroke No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Sea, bilge, hotwell 2 bore In Holds, &c. Dish held, 2 bore

a. 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 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 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

Are all pipes carried through the bunkers Fish hold suction How are they protected Strong 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 now Is the screw shaft tunnel watertight Yes

Is it fitted with a watertight door Yes worked from no

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

a. and Description of Boilers Working Pressure Tested by hydraulic pressure to no

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

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

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

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

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

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

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

Length of plain part bottom Thickness of plate on bottom Description of longitudinal joint No. of strengthening rings no

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

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

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

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

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

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

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

Clearance wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and no

Weights of girder at centre Length as per rule Distance apart Number and pitch of Stays in each no

Working pressure by rules Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked no

Material Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet no

Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness no

Strengthened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed no

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear no

*Boiler particulars refer to here in the Survey Report No. 12588*

*Surveyed No. 12588*



**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 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 \_\_\_\_\_ 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 main bearing, crank pin and main cross head bolts, one set coupling bolts, one set each of feed & bilge pump valves, spare check valves, safety valves spring, condenser tubes bolts nuts and studs iron.*

The foregoing is a correct description.

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

Manufacturer.

*J. Reddister*

Dates of Survey while building: During progress of work in shops - *Feb. 14, 22, Mar 4, 15, 20, 24, 30, April 8, 11, 13, 18.*

During erection on board vessel - *April 25, May 19, 24.*

Total No. of visits *14.*

Is the approved plan of main boiler forwarded herewith *Yes*

Is the approved plan of donkey boiler forwarded herewith *Yes*

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

Material of screw shaft *Scraper* 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.*

*These engines have been constructed under Special Survey, materials & workmanship good. They have been securely fastened on board the vessel and tried under steam, and in my opinion are slight for record of £d.u.c. 5.05 (in red)*

It is submitted that this vessel is eligible for THE RECORD £L.M.C. 5.05.

*J.M. S.M.S. 7.6.05.*

The amount of Entry Fee, £ 1 : 0 : 0 When applied for, *6.2.05*

Special £ 10 : 1 : 0

Boiler Fee £ 11 : 1 : 0 When received, *11.4.05*

Change of plates for survey *3.6.05*

Travelling Expenses (if any) of Boiler *7-15-0*

*£7-15-0 = Paid 16/8/05*

*B. Ritchie*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute  
Assigned

FRI. 9 JUN 1905

*+ L.M.C. 5.05*

MACHINERY CERTIFICATE WRITTEN.



*Grimby*

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