

15 FEB 1909

15 FEB 1909

Received at London Office

Date of writing Report

19

When handed in at Local Office

19

Port of

No. in Survey held at BirkenheadDate, First Survey 22 April Last Survey 9 Feb 1909.

Reg. Book.

35844 on the Twin Screw Hopper Dredger "Leviathan"(Number of Visits 25)

Tons

Gross

Net

Master

Built at Birkenhead By whom built Cammell Laird & Co. Ltd. When built 1909

Engines made at

Glasgow

By whom made

David Rowan & Co

when made

1908

Boilers made at

ditto

By whom made

ditto

when made

1908

Registered Horse Power

Owners Mersey Docks & Harbour Board

Port belonging to

Liverpool

Nom. Horse Power as per Section 28

631

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

YesENGINES, &c.—Description of Engines See Glasgow Report No 27149 No. of Cylinders ✓ No. of Cranks ✓Dia. of Cylinders ✓Length of Stroke ✓Revs. per minute ✓

Dia. of Screw shaft

as per rule

Material of

Is the screw shaft fitted with a continuous liner the whole length of the stern tube ✓

Is the after end of the liner made water tight

in the propeller boss yesIf the liner is in more than one length are the joints burned ✓

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 ✓Length of stern bush ✓

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

Dia. of Crank pin ✓Size of Crank webs ✓

Dia. of thrust shaft under

collars ✓Dia. of screw ✓Pitch of Screw ✓No. of Blades ✓State whether moveable ✓Total surface ✓No. of Feed pumps ✓Diameter of ditto ✓Stroke ✓Can one be overhauled while the other is at work ✓No. of Bilge pumps ✓Diameter of ditto ✓Stroke ✓Can one be overhauled while the other is at work ✓No. of Donkey Engines 2 fittedSizes of Pumps ✓

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room one of 3 1/2" Boiler room 1 of 3 1/2" Pump room 1 of 3 1/2" In Holds, &c. In buoyancy spaces two of 3 1/2"in each space. In shaft space one of 3 1/2"After peak 1 1/2". In No 5 buoyancy space 4 of 3 1/2"No. of Bilge Injections 2 sizes 8" Connected to condenser, or to circulating pump C.p. Is a separate Donkey Suction fitted in Engine room & size yes 3 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 ✓Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks bothAre 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 aboveAre 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 yesWhat pipes are carried through the bunkers none How are they protected ✓Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yesDates of examination of completion of fitting of Sea Connections 23-9-08 of Stern Tube 14-10-08 Screw shaft and Propeller 14-10-08Is the Screw Shaft Space watertight yes Is it fitted with a watertight door yes worked from upper decksBOILERS, &c.—(Letter for record ✓) Manufacturers of SteelTotal Heating Surface of Boilers ✓Is Forced Draft fitted NoNo. and Description of Boilers 4 single ended.Working Pressure 180 lbTested by hydraulic pressure to ✓Date of test ✓No. of Certificate ✓Can each boiler be worked separately yesArea of fire grate in each boiler ✓

No. and Description of Safety Valves to

each boiler 2 direct springArea of each valve ✓Pressure to which they are adjusted 185 lbAre they fitted with easing gear yesSmallest distance between boilers or uptakes and bunkers or woodwork about 7 ft. Mean dia. of boilers ✓ Length ✓ Material of shell plates ✓Thickness ✓Range of tensile strength ✓Are the shell plates welded or flanged ✓Descrip. of riveting: cir. seams ✓long. seams ✓Diameter of rivet holes in long. seams ✓Pitch of rivets ✓Lap of plates or width of butt straps ✓

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules ✓Size of manhole in shell ✓Size of compensating ring ✓No. and Description of Furnaces in each boiler ✓Material ✓Outside diameter ✓

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint ✓No. of strengthening rings ✓Working pressure of furnace by the rules ✓Combustion chamber plates: Material ✓Thickness: Sides ✓Back ✓Top ✓Bottom ✓Pitch of stays to ditto: Sides ✓Back ✓Top ✓If stays are fitted with nuts or riveted heads ✓Working pressure by rules ✓Material of stays ✓Diameter at smallest part ✓Area supported by each stay ✓Working pressure by rules ✓End plates in steam space: ✓Material ✓Thickness ✓Pitch of stays ✓How are stays secured ✓Working pressure by rules ✓Material of stays ✓Diameter at smallest part ✓Area supported by each stay ✓Working pressure by rules ✓Material of Front plates at bottom ✓Thickness ✓Material of Lower back plate ✓Thickness ✓Greatest pitch of stays ✓Working pressure of plate by rules ✓Diameter of tubes ✓Pitch of tubes ✓Material of tube plates ✓Thickness: Front ✓Back ✓Mean pitch of stays ✓Pitch across wide water spaces ✓Working pressures by rules ✓Girders to Chamber tops: Material ✓Depth and ✓thickness of girder at centre ✓Length as per rule ✓Distance apart ✓Number and pitch of stays in each ✓Working pressure by rules ✓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 ✓

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No. _____ Description Rome
 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 _____
 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:—

See Glasgow report.

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - - 1908. Apr 22. May 5. 11. 13. Aug 19. 27. Sept 1. 18. 22. 23. Oct 1. 14. 21. 23. Nov 6.
 { During erection on board vessel - - - 17. 20. Dec 2. 10. 18. 23. 1909. Jan 4. 13. Feb 5. 9.
 building { Total No. of visits 25. Is the approved plan of main boiler forwarded herewith ☒

Is the approved plan of main boiler forwarded herewith ☒
 " " " donkey " " " ☒
 Dates of Examination of principal parts—Cylinders ☒ Slides ☒ Covers ☒ Pistons ☒ Rods ☒
 Connecting rods ☒ Crank shaft ☒ Thrust shaft ☒ Tunnel shafts ☒ Screw shaft ☒ Propeller ☒
 Stern tube ☒ Steam pipes tested ☒ Engine and boiler seatings 27-8-08 Engines holding down bolts 2-12-08
 Completion of pumping arrangements 4-1-09 Boilers fixed 2-12-08 Engines tried under steam 23-12-08
 Main boiler safety valves adjusted 23-12-08 Thickness of adjusting washers St. Jd. 5 1/2" P 5/8" St. A.S. 3/8" P 1/2" full. P 1/2" P 1/2" P 1/2" P 1/2" P 1/2"
 Material of Crank shaft ☒ Identification Mark on Do. ☒ Material of Thrust shaft ☒ Identification Mark on Do. ☒
 Material of Tunnel shafts ☒ Identification Marks on Do. ☒ Material of Screw shafts ☒ Identification Marks on Do. ☒
 Material of Steam Pipes ☒ Test pressure ☒

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

This vessel's machinery has been fitted and secured on board and tried under full steam and found to work satisfactorily. It is now in good and safe working condition and eligible in our opinion to have the notation L.M.C. 2.09.

It is submitted that this vessel is eligible for L.M.C. 2.09.

Elec. light.

JWD
7/5/09

APRIL
7.5.09

The amount of Entry Fee... £ : :
 Special ... £ 17.3-8
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, See Sec. 14 p. 19
 When received, 60/11/08

R.D. Shilstone & Richard Hirst
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Assigned

L.M.C. 2.09



© 2020

Lloyd's Register Foundation