

# REPORT ON MACHINERY.

No. 57374

Port of Newcastle-on-Tyne

Received at London Office 25 SEP 1909

No. in Survey held at

Date, first Survey 18 May

Last Survey 16 Sept 1909

Reg. Book.

on the s/s Trawler Dale Castle

(Number of Visits 16)

Tons <sup>Gross</sup> 246  
<sub>Net</sub> 95

Master

Built at North Shields By whom built Smiths & Co Ltd 410

When built 1909

Engines made at

North Shields

By whom made Shield Engineering & Dry Dock Co Ltd

when made 1909

Boilers made at

Lealwood

By whom made Lealwood Shipyard & Co Ltd

when made 1909

Registered Horse Power

Owners Castle Steam Trawlers Ltd

Port belonging to Liverpool

Nom. Horse Power as per Section 28 80

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted No

## ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders 7.48

No. of Cranks

Dia. of Cylinders 12 1/2 - 21. 35

Length of Stroke 26

Revs. per minute 110

Dia. of Screw shaft <sup>as per rule</sup> 7 1/8

Material of Co. I

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 3'-0"

Dia. of Tunnel shaft <sup>as per rule</sup> 6.51

Dia. of Crank shaft journals <sup>as per rule</sup> 8.82

Dia. of Crank pin 7/8

Size of Crank webs 10 1/2 x 4 1/2 Dia. of thrust shaft under

collars 7/8

Dia. of screw 9'-6"

Pitch of Screw 9'-9" meaw

No. of Blades 4

State whether moveable No

Total surface 30.72 sq feet

No. of Feed pumps 2

Diameter of ditto 2 1/2

Stroke 12"

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2

Diameter of ditto 2 1/2

Stroke 12"

Can one be overhauled while the other is at work Yes

No. of Donkey Engines two

Sizes of Pumps Feed Sp. Vertical Pearls D. 9

Ballast Tank Supply 6 x 4 x 6

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

In Engine Room 2 of 2" dia. 2 1/2" ejector 6 also parts.

Ballast Tank Supply 6 x 4 x 6

In Holds, &c. one from engine one from ejector 2" dia. each.

No. of Bilge Injections 1 sizes 3/2

Connected to condenser or to circulating pump CP

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 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 stakehold 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 hold suction tunnel steam exhaust

How are they protected hold suction - 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 4.8.09

of Stern Tube 4.8.09

Screw shaft and Propeller 4.8.09

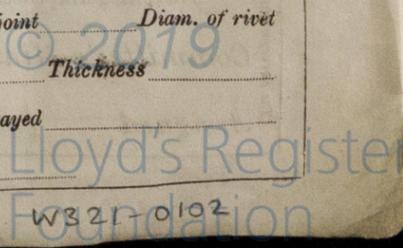
Is the Screw Shaft Tunnel watertight Yes

Is it fitted with a watertight door Yes

worked from Yes

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

Im. 46. T.



**VERTICAL DONKEY BOILER—** Manufacturers of Steel

No. \_\_\_\_\_ Description None fitted  
 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:— Two top end bolts and nuts, two bottom end bolts and nuts, two main bearings bolts and nuts, spare coupling bolts and nuts, spare feed & Bilge pump valves, assorted iron bolts and nuts, spare propeller, and various stores

The foregoing is a correct description,

Manufacturer. J. A. Steels 27/9/09

Dates of Survey while building  
 During progress of work in shops— 1909  
 May 18, 15, 8, 13, 16, 25, 28, 29  
 During erection on board vessel—  
 Aug 4, 7, 10, 16, 20, Sep 14, 16  
 Total No. of visits 16

Is the approved plan of main boiler forwarded herewith Yes  
 " " " donkey " " Please return for with draft

Dates of Examination of principal parts—Cylinders 28.7.09 Slides 4.8.09 Covers 4.8.09 Pistons 4.8.09 Rods 4.8.09  
 Connecting rods 1.4.09 Crank shaft 1.7.09 Thrust shaft 1.7.09 Tunnel shafts \_\_\_\_\_ Screw shaft 1.4.09 Propeller 28.7.09  
 Stern tube 2.7.09 Steam pipes tested 16.8.09 Engine and boiler seatings 29.7.09 Engines holding down bolts 20.8.09  
 Completion of pumping arrangements 20.8.09 Boilers fixed 20.8.09 Engines tried under steam 20.8.09  
 Main boiler safety valves adjusted 20.8.09 Thickness of adjusting washers 3/8" 3/8"  
 Material of Crank shaft 2 1/2" Steel Identification Mark on Do. 2314ATE Material of Thrust shaft 6738 N Identification Mark on Do. 6738 N, WC  
 Material of Tunnel shafts \_\_\_\_\_ Identification Marks on Do. \_\_\_\_\_ Material of Screw shafts 67 Identification Marks on Do. 2314ATE  
 Material of Steam Pipes Seamless Copper Test pressure 360 lb at Bolton Graham Works - N.S.

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

The machinery built under special survey the material and workmanship found good and efficient  
The machinery fitted up on board tested under steam and found satisfactory  
Survey opinion the vessel is now eligible for the notification of I.C.M.C. 9.09 to be made in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C 9.09.

J.W.D.  
27/9/09. P.R.P.

The amount of Entry Fee. . . £ 1 : 0 :  
 Special .. £ 12 : 0 :  
 Donkey Boiler Fee .. £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 24 SEP 1909  
 When received, 2.10.1909

Leonard's Hallcross  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

TUES. 28 SEP 1909

Assigned + Lmb 9 09



Harcourt-on-Tyne

Certificate (if required) to be sent to...

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

Rpt. No. Req. Mast. Engin. Boile. Regist. MU. (Lette. Boile. No. safete. Are t. Small. Mate. Desc. Lap. rules. boile. Desc. plat. Top. sm. Pite. Are. Low. Pite. wat. gire. Wo. sep. hol. If. W. of. bu. G. Cam. 11.7. Copyable Ink.