

## REPORT ON MACHINERY.

No. 26389

Date of writing Report 18<sup>th</sup> June 1913 When handed in at Local Office 21. 6. 1913 Port of Hull THU. JUN. 26. 1913  
 No. in Survey held at Hull Date, First Survey Oct. 29<sup>th</sup> Last Survey Jun. 17<sup>th</sup> 1913  
 Reg. Book 7054 on the Steel sc K. "Sargow" (Number of Visits 41)  
 Master Beverley Built at Beverley By whom built Book. M. M. & Co. Ltd When built 1913  
 Engines made at Hull By whom made Amas & Smith Ltd when made 1913  
 Boilers made at Hull By whom made Amas & Smith Ltd when made 1913  
 Registered Horse Power 89 Owners Standard Steam Fishing Co. Ltd belonging to Grimsby  
 Nom. Horse Power as per Section 28 89 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Inverted Triple Expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 13 1/2" - 22 1/2" - 37" Length of Stroke 24 1/2" Revs. per minute 110 Dia. of Screw shaft 8" Material of Steel  
 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 6.75" Dia. of Crank shaft journals 7.08" Dia. of Crank pin 7 1/2" Size of Crank web 14 1/2" Dia. of thrust shaft under  
 collars 7 1/2" Dia. of screw 9" Pitch of Screw 11-0 No. of Blades 4 State whether moveable No Total surface 29.5 sq  
 No. of Feed pumps 1 Diameter of ditto 2 7/8" Stroke 12" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 1 Diameter of ditto 3" Stroke 12" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 2 Sizes of Pumps 6" x 3/4" x 6" & 4" x 3/4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 2-2" Suctions, 1.2" side in stokehold In Holds, &c. 1-2" suction to forecath. 1.2" to  
main fish room. 1.2" to main slush well. 1.2" to spare slush well.  
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 2 1/2" injector.  
 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 4-2" hold slush well pipes 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 16.5.13 of Stern Tube 16.5.13 Screw shaft and Propeller 16.5.13  
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door yes worked from yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel The Parkgate iron & steel Co. Ltd  
 Total Heating Surface of Boilers 1595 sq Is Forced Draft fitted No No. and Description of Boilers 1. Steel Multitubular  
 Working Pressure 185 lbs. Tested by hydraulic pressure to 370 lbs. Date of test 22.5.13 No. of Certificate 19855  
 Can each boiler be worked separately yes Area of fire grate in each boiler 47.5 sq No. and Description of Safety Valves to  
 each boiler 2. Spring-loaded Area of each valve 5-9" Pressure to which they are adjusted 188 lbs. Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 13'-6" Length 10'-6" Material of shell plates Steel  
 Thickness 1 3/32" Range of tensile strength 29.33 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DR. lap.  
 long. seams DR. 5/16" Diameter of rivet holes in long. seams 1 5/32" Pitch of rivets 7 3/4" Lap of plates or width of butt straps 11 1/8"  
 Per centages of strength of longitudinal joint 85.9 Working pressure of shell by rules 185 Size of manhole in shell 16"x12"  
 Size of compensating ring 40x30x1 3/32" No. and Description of Furnaces in each boiler 3 Plain Material Steel Outside diameter 3-3 1/2"  
 Length of plain part 79.5" Thickness of plates 16" Description of longitudinal joint Welded No. of strengthening rings 13  
 Working pressure of furnace by the rules 190 Combustion chamber plates: Material Steel Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 1 1/16"  
 Pitch of stays to ditto: Sides 9 1/2"x7 1/2" Back 9 1/4"x9" Top 8 1/2"x10" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 197  
 Material of stay Steel Diameter at smallest part 6.1" Area supported by each stay 83" Working pressure by rules 222 End plates in steam space:  
 Material Steel Thickness 1 3/32" Pitch of stays 17x15 How are stays secured nut & washer Working pressure by rules 248 Material of stays Steel  
 Diameter at smallest part 6.10" Area supported by each stay 255" Working pressure by rules 248 Material of Front plates at bottom Steel  
 Thickness 1" Material of Lower back plate Steel Thickness 16" Greatest pitch of stays 9 1/8"x14 1/4" Working pressure of plate by rules 211  
 Diameter of tubes 3 1/4" Pitch of tubes 48x4 1/2" Material of tube plates Steel Thickness: Front 1" Back 3/32" Mean pitch of stays 9 1/4"x9"  
 Pitch across wide water spaces 14 1/4" Working pressures by rules 189 Girders to Chamber tops: Material Steel Depth and  
 thickness of girder at centre 9 1/2"x1 3/4" Length as per rule 2-10" Distance apart 10" Number and pitch of stays in each 3w 8 1/2"  
 Working pressure by rules 194 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked  
 separately yes Diameter 10" Length 10" Thickness of shell plates 16" Material Steel Description of longitudinal joint Welded Diam. of rivet  
 holes 1 1/16" Pitch of rivets 7 3/4" Working pressure of shell by rules 189 Diameter of flue 10" Material of flue plates Steel Thickness 16"  
 If stiffened with rings yes Distance between rings 10" Working pressure by rules 189 End plates: Thickness 1 1/16" How stayed yes  
 Working pressure of end plates 194 Area of safety valves to superheater 10" Are they fitted with easing gear yes



# VERTICAL DONKEY BOILER—Manufacturers of Steel

No.	Description	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	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:— *Two neck & nuts for connecting rod top ends. Two bolts & nuts for connecting rod bottom ends. Two main bearing bolts. One set of shaft coupling bolts. One set each feed and bilge valves. Iron of different sizes. quantity of assorted bolts & nuts etc.*

The foregoing is a correct description,

Manufacturer.

*W. S. M. Ltd.*

Managing Director.

Dates of Survey while building { During progress of work in shops - - 1912. Oct. 29. Dec. 2. 5. 10. 13. 16. 19. 23. 1913. 1. 4. 6. 15. 27 Feb. 8. 12. 18. 20. 28. Mar. 5. 7. 8. 13. 14  
During erection on board vessel - - - Mar. 19. 27. Apr. 1. 7. 8. 12. 15. 22. 24. 29. May 4. 9. 16. 21. 22. Jun. 4. 9. 10. 11. 17.  
Total No. of visits 41.

Is the approved plan of main boiler forwarded herewith *Rpt 26349*

Dates of Examination of principal parts—Cylinders 10.6.13. Slides 10.6.13. Covers 10.6.13. Pistons 10.6.13. Rods 10.6.13. Connecting rods 11.6.13. Crank shaft 4.5.13. Thrust shaft 4.5.13. Tunnel shafts ✓ Screw shaft 1.4.13. Propeller 1.4.13. Stern tube 1.4.13. Steam pipes tested 10.6.13. Engine and boiler seatings 10.6.13. Engines holding down bolts 10.6.13. Completion of pumping arrangements 10.6.13. Boilers fixed 10.6.13. Engines tried under steam 11.6.13. Main boiler safety valves adjusted 11.6.13. Thickness of adjusting washers *SV 13/32" PL 3/8"* Material of Crank shaft *Steel* Identification Mark on Do. 1063. Material of Thrust shaft *Steel* Identification Mark on Do. 1063. Material of Tunnel shafts ✓ Identification Marks on Do. *Iron*. Material of Screw shafts *Iron*. Identification Marks on Do. 1063. Material of Steam Pipes *Solid drawn copper*. Test pressure *380 lbs.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The Engines & Boiler of this vessel have been constructed under special survey in accordance with the rules. The materials & workmanship are sound & good. The boiler tested by hydraulic pressure, and with the engines secured on board & tested under steam. They are now in good order & safe working condition, and respectfully submitted as being eligible in my opinion to be classed with the notation of MC 6.13. in the Register book*

It is submitted that  
this vessel is eligible for  
THE RECORD. + L MC 6.13.

The amount of Entry Fee £ 1 : 0 : 0 When applied for.  
Special .. £ 13 : 7 : 0 24.6.13.  
Donkey Boiler Fee £ : : :  
Travelling Expenses (if any) £ : 1 : 0 30.5.13.

Committee's Minute

Assigned

FRI JUN 27 1913

*Lmc 6.13*

MACHINERY CERTIFICATE  
WRITTEN

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



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Foundation