

# REPORT ON MACHINERY.

No. \_\_\_\_\_  
 No. in Survey held at London Date, first Survey \_\_\_\_\_ Last Survey June 18<sup>th</sup> 1885  
 Reg. Book. \_\_\_\_\_ (Number of Visits \_\_\_\_\_)  
 on the S. S. 'Suso' Tons \_\_\_\_\_  
 Master \_\_\_\_\_ Built at Deptford By whom built London Dry docks Co. When built 1885.  
 Engines made at \_\_\_\_\_ By whom made \_\_\_\_\_ when made \_\_\_\_\_  
 Boilers made at East Greenwich By whom made Appleby Bros. when made 1885.  
 Registered Horse Power 55 Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

## ENGINES, &c.—

Description of Engines Swtd. compd. Surf. cond  
 Diameter of Cylinders 18 + 35 Length of Stroke 24 No. of Rev. per minute \_\_\_\_\_ Point of Cut off, High Pressure \_\_\_\_\_ Low Pressure \_\_\_\_\_  
 Diameter of Screw shaft 6 Diam. of Tunnel shaft 6 Diam. of Crank shaft journals 6 Diam. of Crank pin 6 size of Crank webs 7 x 4 1/2  
 Diameter of screw 9 ft. Pitch of screw 12 1/2 No. of blades 4 state whether moveable no total surface \_\_\_\_\_  
 No. of Feed pumps one diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work ☒  
 No. of Bilge pumps one diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work ☒  
 Where do they pump from Fore & Aft Hold & Eng. Rm.  
 No. of Donkey Engines One Size of Pumps 2 1/2 dia. 9 in stroke Where do they pump from Fore & Aft Hold & Eng. Rm.

Are all the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible yes  
 No. of bilge injections one and sizes 4 1/2 Are they connected to condenser, or to circulating pump circ. pump  
 How are the pumps worked By levers from cross head  
 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 none How are they protected ✓  
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times yes  
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges yes  
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock April 21<sup>st</sup> 1885  
 Is the screw shaft tunnel watertight yes and fitted with a sluice door yes worked from Platform on top of cyl. cons.

## BOILERS, &c.—

Number of Boilers One Description Multitubular Whether Steel or Iron Iron  
 Working Pressure 80 lbs Tested by hydraulic pressure to 160 Date of test April 7<sup>th</sup> 18  
 Description of superheating apparatus or steam chest Horizontal. Steam dome  
 Can each boiler be worked separately ☒ Can the superheater be shut off and the boiler worked separately ☒  
 No. of square feet of fire grate surface in each boiler 36 Description of safety valves Direct spring No. to each boiler Two  
 Area of each valve 28.2 Are they fitted with easing gear yes No. of safety valves to superheater ✓ area of each valve ✓  
 Are they fitted with easing gear ☒ Smallest distance between boilers and bunkers or woodwork 10" Diameter of boilers 10 1/2"  
 Length of boilers 9 1/8 description of riveting of shell long. seams double lap circum. seams single lap Thickness of shell plates 13/16  
 Diameter of rivet holes 1 5/16 whether punched or drilled punched pitch of rivets 4 1/4 Lap of plating 6 1/4  
 Per centage of strength of longitudinal joint 70% working pressure of shell by rules 80 lbs size of manholes in shell 18 x 14  
 Size of compensating rings 6 x 6 Angle irons No. of Furnaces in each boiler Two  
 Outside diameter 3 1/2 length, top 6 1/4 bottom 6 1/4 thickness of plates 15/32 description of joint single lap if rings are fitted no  
 Greatest length between rings ✓ working pressure of furnace by the rules 84 lbs combustion chamber plating, thickness, sides 7/16 back 7/16 top 7/16  
 Pitch of stays to ditto, sides 7" back 7 1/2 top 9 3/4 If stays are fitted with nuts or riveted heads rivd. hds. working pressure of plating by rules 74 lbs Diameter of stays at smallest part 1 1/4 working pressure of ditto by rules 94 lbs end plates in steam space, thickness 5/8  
 Pitch of stays to ditto 1 1/4 how stays are secured double nuts working pressure by rules 80 lbs diameter of stays at smallest part 1 3/4 working pressure by rules 82 lbs Front plates at bottom, thickness 5/8 Back plates, thickness 1/2  
 Greatest pitch of stays 7 1/2 working pressure by rules 128 lbs Diameter of tubes 3 1/4 pitch of tubes 4 1/2 thickness of tube plates, front 3/4 back 3/4 how stayed stay tubes pitch of stays 13 1/2 width of water spaces 4 3/4  
 Diameter of Superheater or Steam chest 2 ft length 5 1/2 thickness of plates 3/8 description of longitudinal joint welded diam. of rivet holes ✓  
 Pitch of rivets ✓ working pressure of shell by rules ✓ diameter of flue ✓ thickness of plates ✓ If stiffened with rings ✓  
 Distance between rings ✓ working pressure by rules ✓ end plates of superheater, or steam chest; thickness 1/2 how stayed 1 1/2 round stay  
 Superheater or steam chest; how connected to boiler rust pieces



45075 Lon

DONKEY BOILER— 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 \_\_\_\_\_ if fitted with easing gear \_\_\_\_\_ if steam from main boilers can  
enter the donkey boiler \_\_\_\_\_ diameter of donkey boiler \_\_\_\_\_ length \_\_\_\_\_ description of riveting \_\_\_\_\_  
Thickness of shell plates \_\_\_\_\_ diameter of rivet holes \_\_\_\_\_ whether punched or drilled \_\_\_\_\_ pitch of rivets \_\_\_\_\_ lap of plating \_\_\_\_\_  
per centage of strength of joint \_\_\_\_\_ thickness of crown plates \_\_\_\_\_ stayed by \_\_\_\_\_  
Diameter of furnace, top \_\_\_\_\_ bottom \_\_\_\_\_ length of furnace \_\_\_\_\_ thickness of 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 plates \_\_\_\_\_ thickness of water tubes \_\_\_\_\_

SPARE GEAR. State the articles supplied:— *Grant shaft. Tail shaft. 2 connecting rod tips and  
bolts & nuts. 2 Bolt. end do. 2 Main bearing bolts. 1 set complg. bolts. 1 set  
feed & bilge pump valves & seats. 2 sets piston springs. Assorted bolts &  
nuts. Some of various sizes.*

The foregoing is a correct description,

*London Dry Dock Co. Limited* Manufacturer.  
*Wm. H. Mollister, Director*

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

*good. The machinery has been built under Special Survey.  
Engines worked satisfactorily under steam.*

*The machinery of this vessel is now in good & safe working  
condition & eligible in my opinion to be marked with  
F.L.M.C. 85.*

The amount of Entry Fee .. £ 1 : : : received by me,

21/6/85 Special .. .. £ 8 : 5 : :

Donkey Boiler Fee .. .. £ : : : :

Certificate (if required) .. £ gratis : : : 24/5 1885

To be sent as per margin.

(Travelling Expenses, if any, £ 1/14. *Wm. H. Mollister*)

Committee's Minute

FRIDAY 19 JUNE 1885

*Geo. E. Mollister*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.