

REPORT ON MACHINERY.

Received at London Office **MONDAY 2 AUGUST 1884**

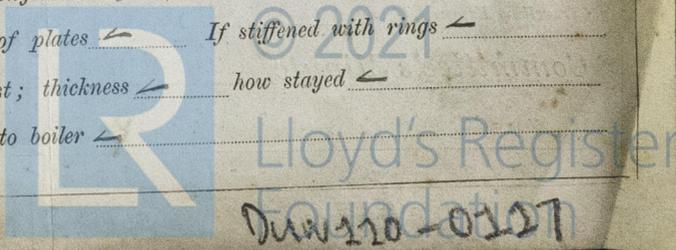
No. 350
 No. in Survey held at Dundee Date, first Survey 3/3/84 Last Survey 15th August 1884
 Reg. Book. (Number of Visits 13.72) Tons 54.84
 on the Wood Steamer "Dewdrop" (Trawler)
 Master J. Smith Built at Ainsturker By whom built W. Jarvis When built June 1883
 Engines made at Dundee By whom made W. B. Thompson when made 1884
 Boilers made at Dundee By whom made W. B. Thompson when made 1884
 Registered Horse Power 35 Owners W. H. Burn, Esq. Port belonging to St. Andrews

ENGINES, &c.—

Description of Engines Direct Acting Compound Int. Exp. Surface Condensing
 Diameter of Cylinders 15" & 27" Length of Stroke 16" No. of Rev. per minute 130 Point of Cut off, High Pressure 1/2 Low Pressure 1/2
 Diameter of Screw shaft 5" Diam. of Tunnel shaft 5" Diam. of Crank shaft journals 5" Diam. of Crank pin 5" size of Crank webs 3 1/2, 3 3/4 x 6"
 Diameter of screw 5" 6" Pitch of screw 7" 0" No. of blades 4 state whether moveable 2^d total surface 16 feet
 No. of Feed pumps one diameter of ditto 3" Stroke 6" Can one be overhauled while the other is at work
 No. of Bilge pumps one diameter of ditto 3" Stroke 6" Can one be overhauled while the other is at work
 Where do they pump from hold, (in engine room)
 No. of Donkey Engines one Size of Pumps 5" x 5" x 2 3/4" Where do they pump from Sea Hotwell bilges. to boiler on deck & thro ship side
 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 none
 No. of bilge injections none and sizes — Are they connected to condenser, or to circulating pump —
 How are the pumps worked air & circulating direct from piston crossheads feed & bilges from end of shaft
 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 on slip
 Is the screw shaft tunnel watertight none and fitted with a sluice door worked from —

BOILERS, &c.—

Number of Boilers one Description Circular Tubular Whether Steel or Iron Steel & Iron tubes
 Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test 18th July 1884
 Description of superheating apparatus or steam chest none
 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 20.5 feet Description of safety valves Direct Spring 7 No. to each boiler two
 Area of each valve 7 1/4" 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 6" x 9" Diameter of boilers 9" 0"
 Length of boilers 7" 3" description of riveting of shell long. seams Lap 9. R. circum. seams Lap 8. R. Thickness of shell plates 7/16"
 Diameter of rivet holes 1" whether punched or drilled drilled pitch of rivets 3 1/2" Lap of plating 4 3/4" x 3"
 Per centage of strength of longitudinal joint 69.2 & 73% working pressure of shell by rules 77 lbs size of manholes in shell 17" x 13"
 Size of compensating rings 4" x 4" x 3/4" No. of Furnaces in each boiler two
 Outside diameter 30" 6" 27" length, top 5" 4" bottom 5" 4" thickness of plates 7/16" description of joint butt 8. R. if rings are fitted none
 Greatest length between rings — working pressure of furnace by the rules 107 lbs combustion chamber plating, thickness, sides 1/2" back 1/2" top 1/2"
 Pitch of stays to ditto, sides 7" x — back 9" x 8 3/4" top 7 1/2" x — If stays are fitted with nuts or riveted heads nuts both ends working pressure of plating by rules 95 lbs Diameter of stays at smallest part 1.05" working pressure of ditto by rules 60 lbs end plates in steam space, thickness 7/16"
 Pitch of stays to ditto 13" x 13 1/4" how stays are secured thro ends nuts working pressure by rules 93 lbs diameter of stays at smallest part 1 3/4" working pressure by rules 57.33 lbs Front plates at bottom, thickness 1/2" Back plates, thickness 1/2"
 Greatest pitch of stays — working pressure by rules — Diameter of tubes 3" pitch of tubes 4 1/2" thickness of tube plates, front 1/2" back 1/2" how stayed lubes pitch of stays 9" x 9" width of water spaces 1 1/4"
 Diameter of Superheater or Steam chest none length — thickness of plates — description of longitudinal joint — 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 — how stayed —
 Superheater or steam chest; how connected to boiler —



DONKEY BOILER— Description *None*

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:— *Two each Top & Bottom end connecting rod bolts. Two main bearing bolts Feed & bilge pump valves Four Coupling bolts lot of bolts assorted 5 each Condenser & boiler tubes, &c &c*

The foregoing is a correct description,

W. H. B. Murren Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been built under special survey. The material & workman are of the best description.*

*The Engines and boiler has been tested under steam and the safety valves set to 80 lbs per square inch working pressure, and in my opinion all are in good and safe working order and eligible to be classed with the distinctive mark **I.M.C. 884.***

This submitted that this vessel should have the notification I.M.C. recorded M 25/8/84

The amount of Entry Fee .. £ 1 : 0 : 0 received by me,
Special .. £ 8 : 0 : 0
Donkey Boiler Fee .. £ : :
Certificate (if required) .. £ : : 19th Aug 1884
To be sent as per margin.

W. H. B. Murren

(Travelling Expenses, if any, £ _____) FRIDAY 29 AUGUST 1884
TUESDAY 26 AUGUST 1884

Committee's Minute

M + M. H. S. 84

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

Sunderland District

