

REPORT ON MACHINERY.

121

Received at London Office THURS 24 JULY 1890

1326 Inbro No. 121
Survey held at Hull

Date, first Survey Mar 13th Last Survey Jun 24th 1890

(Number of Visits) 37-63
Tons 139.32

on the Iron Steam Trawler "Dartmouth"
Built at Middlesbrough By whom built W. Harkiss & Son. When built 1890

made at Glasgow By whom made W. King & Co when made 1874

made at Glasgow By whom made W. King & Co when made 1885

Indicated Horse Power 40 Owners Great Western S. I. Co. Port belonging to Bristol

ENGINES, &c.—

Kind of Engines Compound inverted direct acting

Number of Cylinders 14 x 30 Length of Stroke 22 No. of Rev. per minute Point of Cut off, High Pressure 15 Low Pressure 15

Diameter of Screw shaft 6 1/2 Diam. of Tunnel shaft 6 1/4 Diam. of Crank shaft journals 6 Diam. of Crank pin 6 size of Crank webs 4 x 4

Diameter of screw 4:6 Pitch of screw 9:0 to 4:0 No. of blades 4 state whether moveable in total surface 16:0

Feed pumps One diameter of ditto 2 1/2 Stroke 11 Can one be overhauled while the other is at work

Bilge pumps One diameter of ditto 2 1/2 Stroke 11 Can one be overhauled while the other is at work

Where do they pump from Engine room Bilge & Hold.

Donkey Engines One Size of Pumps 3 x 6 Where do they pump from Engine room bilge

Discharge to Sea. Also 3" Ejector with suction in Engine room bilge and discharge on deck.

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

Are there bilge injections One and sizes 3" Are they connected to condenser, or to circulating pump Circulating Pump.

Are the pumps worked By Rocking levers from after Engine piston rod 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

Are all pipes carried through the bunkers Suction to Forward How are they protected Iron casing.

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times Yes in Engine room.

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges Yes

Were stern tube, propeller, screw shaft, and all connections examined in dry dock How New

Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from Yes

BOILERS, &c.—

Number of Boilers One Description Cylindrical Guss Whether Steel or Iron Iron

Working Pressure 45 lbs Tested by hydraulic pressure to 150 lbs Date of test/mark No 1591 150 LBS W.E.R. 22. 4. 85

Description of superheating apparatus or steam chest

Can each boiler be worked separately Can the superheater be shut off and the boiler worked separately

Area of square feet of fire grate surface in each boiler Description of safety valves Spring loaded No. to each boiler Two

Area of each valve 7.07 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 Diameter of boilers

Length of boilers description of riveting of shell long. seams circum. seams Thickness of shell plates

Diameter of rivet holes whether punched or drilled pitch of rivets Lap of plating

Percentage of strength of longitudinal joint working pressure of shell by rules size of manholes in shell

Number of compensating rings No. of Furnaces in each boiler Two

Outside diameter length, top bottom thickness of plates description of joint if rings are fitted

Greatest length between rings working pressure of furnace by the rules combustion chamber plating, thickness, sides back top

Pitch of stays to ditto, sides back top If stays are fitted with nuts or riveted heads working pressure of plating by

rules Diameter of stays at smallest part working pressure of ditto by rules end plates in steam space, thickness

Pitch of stays to ditto how stays are secured working pressure by rules diameter of stays at

smallest part working pressure by rules Front plates at bottom, thickness Back plates, thickness

Greatest pitch of stays working pressure by rules Diameter of tubes pitch of tubes thickness of tube

Plating, front back how stayed pitch of stays width of water spaces

Diameter of Superheater or Steam chest 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

24/7/90

DONKEY BOILER— Description *No donkey boiler.*

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:— *The top end bolts, Two bottom end bolts, Two main bearing bolts, One set coupling bolts, One set Sea pump valves, One set of Bilge pump valves.*

The vessel efficient with masts and sails as a Trawler.
 The foregoing is a correct description,

 Manufacturer.

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

The Engines and Boiler of this vessel were formerly fitted on board the S.S. "Viking" No 176 in the Register Book and have been examined and overhauled as per Bristol Machinery Report No 5133 and now placed on board the Steam Trawler "Dartmouth" at this port.

The Sea Connections Propeller & Thrust Chafing Propeller, Stem tube, Stem bush, all Bilge, Sea and Main Steam pipe fitted new. The main Steam pipe tested by hydraulic pump to 200 lbs per square inch as required. The Boiler examined under steam and the safety valves set to 75 lbs per square inch. The Engines tried at moorings and worked satisfactorily.

*The Case is respectfully submitted in the notice on L.M.C. 6.90 *N.B. 85 Engines made in 1874 in the Society Register Book.*

This submitted that this vessel is eligible to have L.M.C. 6.90 records, and the Boiler made in 74 Engines made in 74 inserted in the Register Book

The amount of Entry Fee .. £ ✓ : : received by me.

Special £ 3 : ✓ : ✓

Donkey Boiler Fee £ ✓ : : ✓

Certificate (if required) .. £ ✓ : : ✓

To be sent as per margin.

(Travelling Expenses, if any, £ ✓)

James Jones

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

Committee's Minute

TUES 29 JULY 1890

L.M.C. 6/90

*Engines made in 1874
Boiler made in 1885*

MDB740/5