

REPORT ON MACHINERY.

27183

To. 2697

No. in Survey held at Glasgow & Belfast

Date, first Survey 25th March Last Survey July 1st 1880

(Received in London Office 14/1/80)

on the Screw Steamer "Whitehead"

11925
Tons 748 1/2

Master J. J. Calmon Built at Belfast When built 1880

Engines made at Glasgow By whom made J. Howden & Co when made 1880

Boilers made at Glasgow By whom made J. Howden & Co when made 1880

Registered Horse Power 130 Owners Ulster Steam Ship Co Ltd Port belonging to Belfast

ENGINES, &c.—

Description of Engines Compound Inverted, direct acting, 2 Cylinders.
 Diameter of Cylinders 28" x 53" Length of Stroke 38" No. of Rev. per minute — Point of Cut off, High Pressure — Low Pressure —
 Diameter of Screw shaft 10" Diameter of Tunnel shaft 9" Diameter of Crank shaft journals 10" Diameter of Crank pin 10" size of Crank webs 12 x 6 1/2"
 Diameter of screw 13.11 Pitch of screw 17 ft at 4/9 No. of blades 4 state whether moveable no total surface 62 sq. ft.
 No. of Feed pumps 2 diameter of ditto 3" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work Yes.
 Where do they pump from Fore, Main & After Holds
 No. of Donkey Engines 2 Size of Pumps 9 x 7 + 9 x 5 Where do they pump from Sea, Bilge, Hotwell and Ballast Tanks

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 5" dia. Are they connected to condenser, or to circulating pump Circulating pump.
 How are the pumps worked By levers from the piston rod crosshead.
 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
 That pipes are carried through the bunkers Bilge pipes to Fore hold How are they protected By wood casing
 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 Previous to being launched by Mr. Hattest
 Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from Stepper platform

BOILERS, &c.—

Number of Boilers 2 Description Cylindrical multitubular
 Working Pressure 75 lbs. Tested by hydraulic pressure to 140 lbs Date of test 15th April 1880.
 Description of superheating apparatus or steam chest Cylindrical 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 36 Description of safety valves Spring
 Number to each boiler 2 area of each valve 9.62 Are they fitted with easing gear Yes
 Number of safety valves to superheater — area of each valve — are they fitted with easing gear —
 Smallest distance between boilers and bunkers or woodwork About 3 1/2" to Deck
 Diameter of boilers 12.0" Length of boilers 9.6" description of riveting of shell long. seams treble lap circum. seams Double Lap
 Thickness of shell plates 7/8" diameter of rivet holes 1/8" whether punched or drilled drilled pitch of rivets 4 5/8"
 Thickness of plating 7 3/4" per centage of strength of longitudinal joint 65 working pressure of shell by rules 75 lbs.
 Size of manholes in shell 15" x 11 1/2" size of compensating rings 3 1/2 x 3 1/2 angles x 58
 Number of Furnaces in each boiler 2 outside diameter 3. 3 7/8" length, top 3. 4 1/2" between flanges bottom 3. 4 1/2" between flanges
 Thickness of plates 7/16" description of joint welded if rings are fitted flanges greatest length between rings —
 Working pressure of furnace by the rules 127 lbs.
 Combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"
 Thickness of stays to ditto sides 8" x 8" back 9 1/2" x 6 3/4" top 10" x 8"
 Are stays fitted with nuts or riveted heads Nuts working pressure of plating by rules 110 lbs working pressure of 75 lbs
 Diameter of stays at smallest part 1 1/8" working pressure of ditto by rules 75 lbs
 Thickness of plates in steam space, thickness 1/16" pitch of stays to ditto 18" x 15" how stays are secured Double nuts & continuous washers.
 Working pressure by rules — diameter of stays at smallest part 1 3/8" working pressure by rules 98 lbs.
 Front plates at bottom, thickness 3/4" 1/16" Back plates, thickness 3/4" 1/16" greatest pitch of stays 10" x 8" working pressure by rules —



