

REPORT ON MACHINERY. 3492

No. 3492
Port of Belfast
Date, first Survey Belfast
Last Survey 22 OCT 1881
Sup. on the Winch Boiler of S. S. "Palmas"
Built at _____ By whom built _____
When built _____
Engines made at _____ By whom made _____ when made _____
Boilers made at _____ By whom made _____ when made _____
Registered Horse Power _____ Owners _____ Port belonging to _____

GINES, &c.—
Description of Engines
Diameter of Cylinders _____ Length of Stroke _____ No. of Rev. per minute _____ Point of Cut off, High Pressure _____ Low Pressure _____
Diameter of Screw shaft _____ Diam. of Tunnel shaft _____ Diam. of Crank shaft journals _____ Diam. of Crank pin _____ size of Crank webs _____
Diameter of screw _____ Pitch of screw _____ No. of blades _____ state whether moveable _____ total surface _____
No. of Feed pumps _____ diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
No. of Bilge pumps _____ diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
Where do they pump from _____
No. of Donkey Engines _____ Size of Pumps _____ Where do they pump from _____
Action pipes fitted with roses _____ Are the roses always accessible _____ Are the sluices on Engine room bulkheads always accessible _____
_____ and sizes _____ Are they connected to condenser, or to circulating pump _____
_____ worked _____
_____ with the sea direct on the skin of the ship _____ Are they Valves or Cocks _____
_____ siently high on the ship's side to be seen without lifting the stokehold plates _____ Are the discharge pipes above or below the deep water line _____
_____ with a discharge valve always accessible on the plating of the vessel _____ Are the blow off cocks fitted with a spigot and brass covering plate _____
_____ rried through the bunkers _____ How are they protected _____
_____, valves, and pumps in connection with the machinery accessible at all times _____
_____, and valves arranged so as to prevent an unintentional connection between the sea and the bilges _____
_____, tube, propeller, screw shaft, and all connections examined in dry dock _____
_____ tunnel watertight _____ and fitted with a sluice door _____ worked from _____

One 60 lbs. Description Circ. Single ended Mult. Whether Steel or Iron Steel
Tested by hydraulic pressure to 120 lbs Date of test 31st Aug. 1880 Cert. No. 37
Superheating apparatus or steam chest Steam dome Saddled on top of boiler
Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately No
Area of square feet of fire grate surface in each boiler 27 sq ft. Description of safety valves Cockburn's No. to each boiler 2
Area of each valve 3.14 sq in. 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 8'-6"
Length of boilers 8'-0" description of riveting of shell long. seams lap & double riv. circum. seams lap & single Thickness of shell plates 7/16"
Diameter of rivet holes 3/4" whether punched or drilled drilled pitch of rivets 2 1/2" Lap of plating H"
Percentage of strength of longitudinal joint 80% working pressure of shell by rules 62 lbs. size of manholes in shell 12" x 16"
No. of compensating rings Ring 4 1/2 x 5/8" iron No. of Furnaces in each boiler Two
Side diameter 2'-8 1/2" length, top 5'-6" bottom 6'-9" thickness of plates 3/8" description of joint welded if rings are fitted _____
Greatest length between rings _____ working pressure of furnace by the rules 85 lbs. combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"
No. of stays to ditto, sides 8 1/4" back 8 1/4" top 8 1/4" If stays are fitted with nuts or riveted heads nutted working pressure of plating by rules 70 lbs.
Diameter of stays at smallest part 1 1/8" working pressure of ditto by rules 60 lbs. end plates in steam space, thickness 5/8"
No. of stays to ditto 16" how stays are secured double nuts & large washer plates 9 1/2 x 1 1/2" working pressure by rules 62 lbs. diameter of stays at smallest part 1 1/2" iron
working pressure by rules 60 lbs. Front plates at bottom, thickness 3/16" Back plates, thickness 9/16"
Greatest pitch of stays 8 3/4" working pressure by rules _____ Diameter of tubes 3 1/4" pitch of tubes 4 1/2 x 4 1/2" thickness of tube _____
Plates, front 5/8" back 5/8" how stayed stay tubes pitch of stays 9" width of water spaces back 7 1/2 x 5 1/2" sides 6 x 5 1/2" bottom 12 1/2"
Diameter of Superheater or Steam dome 3'-6" length 4'-0" thickness of plates 3/8" description of longitudinal joint lap & double riv. diam. of rivet holes 3/4"
No. of rivets 2 1/2" working pressure of shell by rules 150 lbs. diameter of flue _____ thickness of plates _____ If stiffened with rings _____
Space between rings _____ working pressure by rules _____ end plates of superheater, or steam dome; thickness 2" how stayed Conway & 4 1/2" stays
Attached to double angles on shell Superheater or steam dome; how connected to boiler nutted as saddle
James MacLennan, Lewis & Co., Ltd.
James MacLennan, Director
James MacLennan

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 :—

The foregoing is a correct description,

Manufacturer.

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

The amount of Entry Fee .. £ : : received by me,
 Special £ : :
 Donkey Boiler Fee £ : :
 Certificate (if required) .. £ : : 18
 To be sent as per margin.

(Travelling Expenses, if any, £ _____)

Committee's Minute

TUES 23 OCT 1899

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



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Foundation