

REPORT ON MACHINERY.

28549 2m

No. 2721

(Received in London Office 24/11/80)

No. in Survey held at
eg. Book.

Belfast

Date, first Survey 23 March 80 Last Survey 24th Nov. 1880

346.31
Tons 179.9

on the

S.S. William Hinde

Master H. Lyle

Built at Belfast

When built 1880

Engines made by Jno Rowan & Sons (Lim)

By whom made at Belfast

when made 1880

Boilers made by Jno Rowan & Sons (Lim)

By whom made at Belfast

when made 1880

Registered Horse Power 60

Owner William Hinde

Port belonging to Belfast

ENGINES, &c.—

Description of Engines

Compound, Inverted, Direct-acting.

Diameter of Cylinders 19" x 38" Length of Stroke 30" No. of Rev. per minute 90 Point of Cut off, High Pressure 15" Low Pressure 9/16"

Diameter of Screw shaft 7" Diameter of Tunnel shaft 6 1/2" Diameter of Crank shaft journals 7" Diameter of Crank pin 7 1/2" size of Crank webs 5" x 8 1/2"

Diameter of screw 9'-0" Pitch of screw 14'-0" No. of blades four state whether moveable in total surface 30 sq. ft

No. of Feed pumps two diameter of ditto 2" Stroke 30" Can one be overhauled while the other is at work yes

No. of Bilge pumps two diameter of ditto 3" Stroke 30" Can one be overhauled while the other is at work yes

Where do they pump from Engine Room, Stokehold, Fore and Aft holds

No. of Donkey Engines one Size of Pumps 4" x 6" Where do they pump from Sea and Bilge holds also 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 as far as possible

No. of bilge injections one and sizes 3" & 1" Are they connected to condenser, or to circulating pump circulating pump.

How are the pumps worked Off 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 except bilge discharge which is a fore bilge 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 before launching

Is the screw shaft tunnel watertight stuffing box fitted and fitted with a sluice door yes worked from deck.

BOILERS, &c.—

Number of Boilers one Description Cylindrical, Single ended, Steel

Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test 27th October 1880

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 37 sq. ft Description of safety valves Direct Spring.

No. to each boiler two area of each valve 8.940" 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 10"

Diameter of boilers 12' 8" Length of boilers 9' 6" description of riveting of shell long. seams butt double circum. seams lap single

Thickness of shell plates 7/16" steel diameter of rivet holes 3/4" inches steel whether punched or drilled drilled pitch of rivets 2 7/8"

Lap of plating 11 3/4" butt joints percentage of strength of longitudinal joint 71 working pressure of shell by rules 80 lbs

Size of manholes in shell 15 1/2" x 12" size of compensating rings 5" x 5/8" riveted on

No. of Furnaces in each boiler two outside diameter 40 7/8" length, top 6'-6" bottom 8'-6"

Thickness of plates 1 3/32" steel description of joint welded & single butt lap if rings are fitted yes greatest length between rings 3'-5"

Working pressure of furnace by the rules 104 lbs

Combustion chamber plating, thickness, sides 7/16" steel back 7/16" steel top 7/16" steel

Pitch of stays to ditto sides 8" x 8" back 8" x 8" top 8" x 8"

If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 91 lbs

Diameter of stays at smallest part 1" steel working pressure of ditto by rules 92 lbs

End plates in steam space, thickness 1/2" steel pitch of stays to ditto how stays are secured secured in plate

Working pressure by rules 81 lbs diameter of stays at smallest part 2 3/4" x 1 1/2" working pressure by rules 96 lbs

Front plates at bottom, thickness 7/8" steel Back plates, thickness 7/8" steel greatest pitch of stays 15 1/2" working pressure by rules 104 lbs

IRON 47-0053

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Diameter of tubes 3 1/2 inch pitch of tubes 4 3/4 thickness of tube plates, front 7/8 back 7/8
How stayed stay tubes pitch of stays 14 1/4 x 9 1/2 width of water spaces 1 1/4 x 6
Diameter of Superheater or Steam chest — length —
Thickness of plates — description of longitudinal joint — diameter 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 Upright.
Made at Belfast By whom made John Rowan & Sons, Ltd. when made 1880
Where fixed Stokehold working pressure 60 lbs Tested by hydraulic pressure to 120 No. of Certificate 27
Fire grate area 8 sq. ft Description of safety valves direct spring No. of safety valves one area of each 70
If fitted with easing gear yes If steam from main boilers can enter the donkey boiler Stop valve on
Diameter of donkey boiler 3' 9" length 8' 6" description of riveting lap single
thickness of shell plates 7/8" diameter of rivet holes 1 1/16 whether punched or drilled punched
pitch of rivets 2 1/8" lap of plating 2 1/2 per centage of strength of joint 61.8
thickness of crown plates 7/16 steel stayed by flue or uptake & dished
Diameter of furnace, top 2' 9" bottom 3' 3" length of furnace 14-0
thickness of plates 7/8" steel description of joint lap single
thickness of furnace crown plates 7/8 steel stayed by uptake &
Working pressure of shell by rules 79 lbs working pressure of furnace by rules 80 lbs two tubes
diameter of uptake 10 3/4 thickness of plates 7/16 L. m. thickness of water tubes 7/16

The foregoing is a correct description,
Manufacturer.

For JOHN ROWAN & SONS, LTD.
J. A. Adamson Manager

General Remarks (State quality of workmanship, opinions as to class, &c. The Engines and Boilers are
now in good order and safe working condition and eligible
in my opinion to be noted in the Register Book & Lloyd's M.C.

*It is submitted that this
vessel is eligible to
have the uptake entered in
Lloyd's Register Book
Jm.
29/11/80*

The amount of Entry Fee £ 2 : 0 : 0 received by me, Jm.
Special £ 2 : 0 : 0
Testing steel for boilers £ 2 : 2 : 0
Certificate (if required) .. £ 2 : 2 : 0 27/11 1880
To be sent as per margin.

(Travelling Expenses, if any, £ 6. 6. 0)
Committee's Minute Tuesday, November, 30th 1880.

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

