

REPORT ON MACHINERY.

No. 6575

No. in Survey held at Glasgow & Bowling
Reg. Book.

Date, first Survey June 18th 1883

Received at London Office 9th May 1884

Last Survey May 3rd 1884

(Number of Visits 3)

Tons 288.59
136.79

on the Screw Steamer "Har"

Master G. F. Maudslon Built at Bowling By whom built Scott & Co

When built 1884

Engines made at Glasgow By whom made John Gilmour & Co when made 1884

Boilers made at " By whom made " when made 1884

Registered Horse Power 55 Owners "Har" S. Ship Coy Ltd Port belonging to Glasgow

ENGINES, &c.—

Description of Engines Compound Inverted Direct acting
Diameter of Cylinders 18" & 36" Length of Stroke 28" No. of Rev. per minute 100 Point of Cut off, High Pressure — Low Pressure —
Diameter of Screw shaft 6 3/4" Diam. of Tunnel shaft 6 1/4" Diam. of Crank shaft journals 6 3/4" Diam. of Crank pin 6 3/4" size of Crank webs 4 1/4" x 8 1/2"
Diameter of screw 9 1/2" Pitch of screw 13 1/2" No. of blades 4 state whether moveable Yes total surface —
No. of Feed pumps One diameter of ditto — Stroke 28" Can one be overhauled while the other is at work —
No. of Bilge pumps One diameter of ditto — Stroke 28" Can one be overhauled while the other is at work —
Where do they pump from All compartments
No. of Donkey Engines One Size of Pumps 5" cyl 4" x 8" W.M. Where do they pump from Sea ridge & Hotwell

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 — Are they connected to condenser, or to circulating pump To circulating
How are the pumps worked By Levers
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 ship previous to being launched
Is the screw shaft tunnel watertight Yes and fitted with a sluice door — worked from Upper deck

BOILERS, &c.—

Number of Boilers One Description Cylindrical Mult^l Whether Steel or Iron Iron Shell
Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test 28th Decr 1883
Description of superheating apparatus or steam chest Vertical
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 33 ft² Description of safety valves Direct Spring No. to each boiler Two
Area of each valve 8.29" 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" Diameter of boilers 11-0"
Length of boilers 9-0" description of riveting of shell long. seams Treble-lap circum. seams Double-lap Thickness of shell plates 7/8"
Diameter of rivet holes 1 3/16" whether punched or drilled Drilled pitch of rivets 4 3/4" Lap of plating 7 1/4"
Per centage of strength of longitudinal joint 72 working pressure of shell by rules 90 lbs size of manholes in shell 16 x 12"
Size of compensating rings Double riveted ring 4 1/2" x 7/8" No. of Furnaces in each boiler Two
Outside diameter 3-4" length, top 6-6" bottom 8-3" thickness of plates 1/2" description of joint Butt & weld if rings are fitted Yes
Greatest length between rings 6-6" working pressure of furnace by the rules 86 lbs combustion chamber plating, thickness, sides 7/16" back 7/16" top 1/2"
Pitch of stays to ditto, sides 8" back 8" top 9" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 84 lbs Diameter of stays at smallest part 1 3/8" working pressure of ditto by rules 100 lbs end plates in steam space, thickness 1 1/16"
Pitch of stays to ditto 14 1/2" x 14" how stays are secured Nuts working pressure by rules 80 lbs diameter of stays at smallest part 2 1/8" working pressure by rules 100 lbs Front plates at bottom, thickness 5/8" Back plates, thickness 5/8"
Greatest pitch of stays 12" working pressure by rules 83 lbs Diameter of tubes 3 1/2" pitch of tubes 4 3/4" thickness of tube plates, front 5/8" back 5/8" how stayed Tubes pitch of stays 15" x 9 1/2" width of water spaces 5"
Diameter of Superheater or Steam chest 2-3" length 3-9" thickness of plates 3/16" description of longitudinal joint Lap diam. of rivet holes 7/8"
Pitch of rivets 2 1/4" working pressure of shell by rules 110 lbs 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 7/16" how stayed Drilled and punched
One stay 1 3/4" dia Superheater or steam chest; how connected to boiler Punched to shell

GLS149-0141

DONKEY BOILER—

Description

Round Vertical

6515 gls

Made at Cateshead by whom made Clark Chapman & Coy when made 1884 where fixed In Stockhold S. King
 Working pressure 80 lbs tested by hydraulic pressure to 160 lbs No. of Certificate 1523 fire grate area 107 description of safety
 valves Direct Spring No. of safety valves One area of each 4" if fitted with easing gear Yes if steam from main boilers can
 enter the donkey boiler No diameter of donkey boiler 4'6" ~~length~~ 9' high description of riveting Double lap
 Thickness of shell plates 3/16" diameter of rivet holes 3/4" whether punched or drilled punched pitch of rivets 3" lap of plating 3"
 per centage of strength of joint 45% thickness of crown plates 3/16" stayed by Dished + 4 Stays fitted
 Diameter of furnace, top 3'2 3/8" bottom 3'10" length of furnace 4'6" thickness of plates 3/16" description of joint Single lap
 Thickness of furnace crown plates 3/16" stayed by Same as shell crown + uptake working pressure of shell by rules 80 lbs
 Working pressure of furnace by rules 86 lbs diameter of uptake 12" thickness of plates 3/16" thickness of water tubes 3/16"

SPARE GEAR. State the articles supplied:—Two top & bottom connecting rod bolts, 1 set coupling
bolts, Two main bearing bolts, One set feed & stirge valve donkey suction and
discharge valves, Bolts, nuts, and various sizes of iron assorted,
Forging Report (Cranks & Shaft) appended all shafting has been turned
The foregoing is a correct description, & finished at the Engineers works.
John Gilman & Co Manufacturer.

General Remarks

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

These Engines & Boilers are
of good workmanship and materials and are now in good
order & safe working condition and eligible in my opinion
to be noted in the Register Book Lloyds M.C. 5/84

This submits that this vessel
 eligible to have the notification
 dm 6.5.84 received

9/5/84

The amount of Entry Fee .. £ 1 : 0 : 0 received by me,
 Special .. £ 8 : 5 :
 Donkey Boiler Fee .. £ : :
 Certificate (if required) .. £ : : 2/07 1884
 To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute

FRIDAY 9 MAY 1884

+ 2nd

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

James Morrison
 Clyde District

Lloyd's Register
 Foundation