

REPORT ON MACHINERY.

No. 6295

No. in Survey held at *Glasgow*

Date, first Survey *May 1. 82* Last Survey *Oct. 27. 1883*

Reg. Book.

on the *Screw Steamer "Moravia"*

Tons *2147.00*

Master *Oscar Peroldt* Built at *Glasgow* By whom built *Messrs. A & J. Inglis* When built *1883*

Engines made at *Glasgow* By whom made *do* when made *1883*

Boilers made at *do* By whom made *do* when made *1883*

Registered Horse Power *310* Owners *Hamburg Amerikanische Packfahrt Actiengesellschaft* Port belonging to *Hamburg*

ENGINES, &c.—

Description of Engines *Compound Inverted Surface Condensing*
 Diameter of Cylinders *40" & 44"* Length of Stroke *54"* No. of Rev. per minute *65* Point of Cut off, High Pressure *1/2"* Low Pressure *1/2"*
 Diameter of Screw shaft *14"* Diam. of Tunnel shaft *1 1/2"* Diam. of Crank shaft journals *14 1/4"* Diam. of Crank pin *4 3/4"* size of Crank webs *16 1/4" x 9 1/4"*
 Diameter of screw *18" 0'* Pitch of screw *20" 6'* No. of blades *4* state whether moveable *yes* total surface *44 sq. ft.*
 No. of Feed pumps *Two* diameter of ditto *5"* Stroke *24"* Can one be overhauled while the other is at work *yes*
 No. of Bilge pumps *Two* diameter of ditto *5"* Stroke *24"* Can one be overhauled while the other is at work *yes*
 Where do they pump from *Piegs of Engine Room and all Compartments*
 No. of Donkey Engines *Two* Size of Pumps *5' x 10' & 10' x 10'* Where do they pump from *Sea, Tanks, Boilers, Piegs of Engine Room & all Compartments. Hotwell & through Condenser*
 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"* Are they connected to condenser, or to circulating pump *Circulating pump*
 How are the pumps worked *By Levers attached to Crankshafts*
 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 *Before launching*
 Is the screw shaft tunnel watertight *yes* and fitted with a sluice door *yes* worked from *Cop. Platform*

BOILERS, &c.—

Number of Boilers *Two* Description *Cyl. & Multitubular* Whether Steel or Iron *Steel*
 Working Pressure *85 lbs* Tested by hydraulic pressure to *140 lbs* Date of test *May 24. 1883*
 Description of superheating apparatus or steam chest *None*
 Can each boiler be worked separately *yes* Can the superheater be shut off and the boiler worked separately *—*
 No. of square feet of fire grate surface in each boiler *115 sq. ft.* Description of safety valves *Direct spring* No. to each boiler *Two*
 Area of each valve *20.8 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 *12 inches* Diameter of boilers *14' 6"*
 Length of boilers *18' 6"* description of riveting of shell long. seams *Triple rivet lap* circum. seams *Double rivet lap* Thickness of shell plates *7/8"*
 Diameter of rivet holes *1 3/8"* whether punched or drilled *drilled* pitch of rivets *5 1/2"* Lap of plating *9 5/8"*
 Percentage of strength of longitudinal joint *45%* working pressure of shell by rules *90 lbs* size of manholes in shell *16" x 12"*
 Size of compensating rings *Angle Iron 3 1/2" x 3 1/2" x 3/4"* No. of Furnaces in each boiler *6*
 Outside diameter *46"* length, top *6' 3"* bottom *8' 9"* thickness of plates *7/16"* description of joint *Riveted* if rings are fitted *—*
 Greatest length between rings *—* working pressure of furnace by the rules *108* combustion chamber plating, thickness, sides *1/2"* back *1/2"* top *1/2"*
 Pitch of stays to ditto, sides *9' x 9'* back *9' x 9'* top *9' x 9'* If stays are fitted with nuts or riveted heads *Nuts* working pressure of plating by rules *95* Diameter of stays at smallest part *1 1/2"* working pressure of ditto by rules *130* end plates in steam space, thickness *1 1/16"*
 Pitch of stays to ditto *15 3/4" x 15"* how stays are secured *Nuts & Washers* working pressure by rules *95 lbs* diameter of stays at smallest part *2 1/4"* working pressure by rules *100 lbs* Front plates at bottom, thickness *1 1/16"* Back plates, thickness *—*
 Greatest pitch of stays *—* working pressure by rules *—* Diameter of tubes *3 3/4"* pitch of tubes *4 1/2" x 4 1/2"* thickness of tube plates, front *3/4"* back *1 1/16"* how stayed *Tubes* pitch of stays *13 1/2" x 13 1/2"* width of water spaces *4"*
 Diameter of Superheater or Steam chest *None* 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 *—*

6295 gr

DONKEY BOILER—

Description

Cylindrical & multitubular (Steel)

Made at Glasgow

by whom made Messrs. A. & J. Inglis

when made 1883

where fixed Stockholm

Working pressure 85

tested by hydraulic pressure to 140 lb

No. of Certificate 996

fire grate area 22 sq ft

description of safety

valves Direct Spring

No. of safety valves Two

area of each 7 sq in

if fitted with easing gear Yes

if steam from main boilers can

enter the donkey boiler No

diameter of donkey boiler 9' 0"

length 8' 0"

description of riveting

Longitudinal. Cis Lap

Thickness of shell plates 5/8"

diameter of rivet holes 1"

whether punched or drilled drilled

pitch of rivets 4"

lap of plating 4"

per centage of strength of joint 45%

thickness of end plates 3/4"

stayed by Stay 2 1/16" dia

pitched 15" x 15"

Diameter of furnace top 2' 10"

bottom 9

length of furnace 5' 6"

thickness of plates 1/2"

description of joint

Combustion chamber

stayed by 1 3/8" stays

pitched 8 1/2" x 8 1/2"

working pressure of shell by rules 98 lb

Thickness of furnace crown plates 1/2"

Working pressure of furnace by rules 118 lb

diameter of uptake

thickness of plates

thickness of water tubes

SPARE GEAR. State the articles supplied:

1/2 crank shaft, 1 propeller shaft, 1 H.P. slide

1 set Propeller blades, 1 air pump rod, 2 slide valve spindles, 1 air

connecting rod bushes, 20 condenser tubes and packing, India Rubber

Valve & Mott's nut Assorted. And Spare Gear as required by the Rules

The foregoing is a correct description,

Manufacturer.

A & J Inglis

General Remarks

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

The above Engine and Boiler have been constructed under special survey. The material and workmanship are of good description and well finished, and were found to be good and efficient when tested under steam. And are in my opinion eligible to be noted in the Society's Register Book. Clyde M. C. 10. 83

The amount of Entry Fee .. £ 3 : 0 : 0 received by me,

Special

£ 35 : 10 : 0

Donkey Boiler Fee .. £ 0 : 0 : 0

Certificate (if required) .. £ 0 : 0 : 0

To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute

26/10/1883

J. M. C. Gregor

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

Clyde District

