

# REPORT ON MACHINERY. SAT. 19 NOV 1898

Port of Glasgow

Received at London Office 18

No. in Survey held at Glasgow Date, first Survey 26 JULY 1898 Last Survey 9. NOVEMBER 1898  
Reg. Book. (Number of Visits TWELVE)

on the S.S. "JUPITER." Tons { Gross 171.98  
Net 52.14

Master Built at Glasgow By whom built Mackie & Thompson When built 1898

Engines made at Glasgow By whom made Muir & Houston when made 1898

Boilers made at Glasgow By whom made Muir & Houston when made 1898

Registered Horse Power Owners W. WIDDOWSON Port belonging to HULL

Nom. Horse Power as per Section 28 53. Is Electric Light fitted No.

**ENGINES, &c.**—Description of Engines Triple screw No. of Cylinders 3 No. of Cranks 3  
 Diameter of Cylinders 17, 19 1/2 + 32" Length of Stroke 22" Revolutions per minute 118 Diameter of Screw shaft as per rule 6.48  
 as fitted 6 5/8"  
 Diameter of Tunnel shaft as per rule ✓ Diameter of Crank shaft journals 6 5/8" Diameter of Crank pin 6 5/8" Size of Crank webs 4 3/4" thick  
 as fitted ✓  
 Diameter of screw 8.6" Pitch of screw 9.0 to 10.9" No. of blades 4 State whether moveable no Total surface 25 sq. ft.  
 No. of Feed pumps 1 Diameter of ditto 2 1/4" Stroke 11" Can one be overhauled while the other is at work ✓  
 No. of Bilge pumps 1 Diameter of ditto 2 1/4" Stroke 11" Can one be overhauled while the other is at work ✓  
 No. of Donkey Engines one Sizes of Pumps 1 1/2" x 3" x 4" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room Two 2" + 1-3" Ejector In Holds, &c. Two 2"  
 No. of bilge injections 1 sizes 2 1/2" Connected to condenser, or to circulating pump pumps Is a separate donkey suction fitted in Engine room & size yes 2"  
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible ✓  
 Are all connections with the sea direct on the skin of the ship yes. Are they Valves or Cocks valves & cocks.  
 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 and all boiler mountings accessible at all times yes.  
 Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges yes.  
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock before launch Is the screw shaft tunnel watertight ✓  
 Is it fitted with a watertight door ✓ worked from ✓

**BOILERS, &c.**— (Letter for record (S) Total Heating Surface of Boilers 800 sq. ft. Is forced draft fitted no.  
 No. and Description of Boilers 1 Single ended multitubular Working Pressure 200 Tested by hydraulic pressure to 400  
 Date of test 22/10/98 Can each boiler be worked separately ✓ Area of fire grate in each boiler 33 sq. ft. No. and Description of safety valves to  
 each boiler 2 Patent Spring Area of each valve 3.14" Pressure to which they are adjusted 200 lbs Are they fitted  
 with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 14" Mean diameter of boilers 10.6"  
 Length 9.0" Material of shell plates steel Thickness 31/32" Description of riveting: circum. seams double long. seams treble.  
 Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 8" Lap of plates or width of butt straps 1 1/4"  
 Per centages of strength of longitudinal joint rivets 95 Working pressure of shell by rules 200 lbs Size of manhole in shell 16 x 12"  
 plate 85.9  
 Size of compensating ring Mc Keils No. and Description of Furnaces in each boiler 2 Fox's Material steel Outside diameter 38"  
 Length of plain part top ✓ Thickness of plates crown 17/32" Description of longitudinal joint welded No. of strengthening rings ✓  
 bottom ✓ Working pressure of furnace by the rules 215 Combustion chamber plates: Material steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 7/8"  
 Pitch of stays to ditto: Sides 8 x 8" Back 8 x 8" Top 8 x 7 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 211  
 Material of stays steel Area at smallest part 1.43" Area supported by each stay 64" Working pressure by rules 216 End plates in steam space:  
 Material steel Thickness 1 Pitch of stays 15 x 15" How are stays secured nuts Working pressure by rules 210 Material of stays steel  
 Area at smallest part 5.34" Area supported by each stay 225" Working pressure by rules 237 Material of Front plates at bottom steel  
 Thickness 13/16" Material of Lower back plate steel Thickness 13/16" Greatest pitch of stays 12 1/2 x 8" Working pressure of plate by rules 214  
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2 x 4 1/2" Material of tube plates steel Thickness: {Front 13/16" Back 13/16" Mean pitch of stays 9"  
 Pitch across wide water spaces 14" Working pressures by rules 218" {doubling 9/16" Girders to Chamber tops: Material Iron Depth and  
 thickness of girder at centre 7 1/2 x 1 1/2" Length as per rule 26" Distance apart 7 1/2" Number and pitch of Stays in each 2-8"  
 Working pressure by rules 216 Superheater or Steam chest; how connected to boiler ✓ Can the superheater be shut off and the boiler worked  
 separately ✓ Diameter ✓ Length ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet  
 holes ✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness ✓  
 If stiffened with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness ✓ How stayed ✓  
 Working pressure of end plates ✓ Area of safety valves to superheater ✓ Are they fitted with easing gear ✓



16562. eg.

**DONKEY BOILER**— Description *None*

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  Pressure to which they are adjusted  If fitted with easing gear  If steam from main boilers can enter the donkey boiler

Diameter of donkey boiler  Length  Material of shell plates  Thickness

Description of riveting long. seams  Diameter of rivet holes  Whether punched or drilled  Pitch of rivets

Lap of plating  Per centage of strength of joint  Rivets  Thickness of shell crown plates  Radius of do.  No. of Stays to do.

Dia. of stays  Diameter of furnace Top  Bottom  Length of furnace  Thickness of furnace 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 uptake plates  Thickness of water tubes

**SPARE GEAR.** State the articles supplied:— *2 Top end & 2 bottom end connecting rod bolts, 2 Main bearing bolts, 1 set coupling bolts, 1 set Feed & bilge pump valves &c.*

The foregoing is a correct description,

*Wm Houston & Co* Manufacturer.

Dates  During progress of work in shops - -  
 During erection on board vessel - -  
while building  Total No. of visits

*James Stewart* 1898: - JULY, 26. SEP. 28. 30. OCT. 3. 7. 8. 10. 15. 18. 22. 26. NOV. 9.

TWELVE

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

**ENGINES**—Length of stern bush *2-6"* Diameter of crank shaft journals *as per rule 6.7"* Diameter of thrust shaft under collars *as fitted 6.7 1/2"*

**BOILERS**—Range of tensile strength *28 to 32* Are they welded or flanged *neither* **DONKEY BOILERS**—No.  Range of tensile strength

Is the approved plan of main boiler forwarded herewith *Yes* Is the approved plan of donkey boiler forwarded herewith

*The machinery of this vessel has been built under special survey, the material & workmanship is of good quality, and it has been securely fastened in place. The machinery has been tried under steam & found satisfactory, and is now in, my opinion, eligible to be classed in the Register Book & to have a record L.M.C. 11. 98 noted therein.*

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 11. 98.

*A.C.A.*  
21. 11. 98

*J.S.*  
21. 11. 98

GLASGOW

Certificate (if required) to be sent to

The amount of Entry Fee... £ 1 : : : When applied for, 9. 11. 98.  
Special ... £ 8 : : :  
Donkey Boiler Fee ... £ : : : When received, 17. 11. 98.  
Travelling Expenses (if any) £ : : :

Committee's Minute TUES. 22 NOV 1898

Assigned

*J.W. Dimmock*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



© 2020 Lloyd's Register Foundation