

REPORT ON MACHINERY.

No. 22013

Port of GlasgowNo. in Survey held at Glasgow

Reg. Book.

Date, first Survey 21st March

Received at London Office

IUES. 23 AUG 1904

Last Survey 12th Aug 1904(Number of Visits 21)on the Steel Screw Steamer "Juvetna"

Master

Built at GlasgowBy whom built Glasgow Iron Works

Tons { Gross

Net

When built 1904Engines made at GlasgowBy whom made McIlie & Baxter (No. 187)when made 1904Boilers made at doBy whom made Hutson & Sons (No. 530)when made 1904

Registered Horse Power

Owners H. FlinnNom. Horse Power as per Section 28 83Is Refrigerating Machinery fitted No.Port belonging to LiverpoolIs Electric Light fitted NoENGINES, &c. Description of Engines Triple ExpansionDia. of cylinders 13 1/2" 21" 34"Length of Stroke 24"Revs. per minute 130No. of Cylinders ThreeNo. of Cranks ThreeIs the screw shaft fitted with a continuous liner the whole length of the stern tube YesDia. of Screw shaft 7 1/4"as per rule 7 1/4"as fitted 7 1/4"Material of Iron

screw shaft

in the propeller boss Yes If the liner is in more than one length are the joints burned Yes

Is the after end of the liner made water tight

If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yesliners are fitted, is the shaft lapped or protected between the liners YesDia. of Tunnel shaft 6 3/4"as per rule 6 3/4"as fitted NoneDia. of Crank shaft journals 6 1/4"as per rule 6 1/4"as fitted 6 1/4"Length of stern bush 2' 5"collars 6 3/4"Dia. of screw 8 1/2"Pitch of screw 9 1/2"No. of blades 4State whether moveable NoTotal surface 25"No. of Feed pumps 2Diameter of ditto 2 1/4"Stroke 12"Can one be overhauled while the other is at work YesNo. of Bilge pumps 2Diameter of ditto 2 1/4"Stroke 12"Can one be overhauled while the other is at work YesNo. of Donkey Engines 1SIZES OF PUMPS 5 1/4" 3 1/2" 5"In Engine Room Two 2"

No. and size of Suctions connected to both Bilge and Donkey pumps.

In Holds, &c. Two 2"No. of bilge injections 1Connected to condenser, or to circulating pump YesIs a separate donkey suction fitted in Engine room & size Yes 2"Are all the bilge suction pipes fitted with roses YesAre the roses in Engine room always accessible YesAre the sluices on Engine room bulkheads always accessible NowAre all connections with the sea direct on the skin of the ship YesAre they Valves or Cocks Large valves, smaller cocks.Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates YesAre the discharge pipes above or below the deep water line AboveAre they each fitted with a discharge valve always accessible on the side of the vessel YesAre the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges YesWhen were stern tube, propeller, screw shaft, and all connections examined in dry dock New YorkIs the screw shaft tunnel watertight No tunnelIs it fitted with a watertight door Yesworked from Engine app.

BOILERS, &c.—

(Letter for record S)Total Heating Surface of Boilers 1650^{sq} ftIs forced draft fitted NoNo. and Description of Boilers One Single EndedWorking Pressure 160 lbsTested by hydraulic pressure to 320 lbsDate of test 24/6/04Can each boiler be worked separately YesArea of fire grate in each boiler 58.9^{sq} ftNo. and Description of safety valves to each boiler Two Direct-SpringArea of each valve 3" diamPressure to which they are adjusted 165 lbsAre they fitted with easing gear YesSmallest distance between boilers or uptakes and bunkers or woodwork Several feetMean dia. of boilers 13' 6"Length 9' 3"Material of shell plates slutThickness 1 1/2"Range of tensile strength 27,000Are they welded or flanged NoDescrip. of riveting: cir. seams D. R. L.long. seams D. B. S.Diameter of rivet holes in long. seams 1 1/8"Pitch of rivets 8"Lap of plates 16 7/8"width of butt straps 16 7/8"Per centages of strength of longitudinal joint 89Working pressure of shell by rules 160 lbsSize of manhole in shell 16" x 12"Size of compensating ring 21 x 27 x 1 1/2"No. and Description of Furnaces in each boiler 3 plainMaterial slutOutside diameter 42"Length of plain part 72"Thickness of plates 3/4"Description of longitudinal joint weldNo. of strengthening rings noneWorking pressure of furnace by the rules 160 lbsCombustion chamber plates: Material slutThickness: Sides 9/16"Back 9/16"Top 9/16"Bottom 3/4"Pitch of stays to ditto: Sides 7 1/2" x 8"Back 8 1/2" x 8"Top 7 1/2" x 8"Bottom 7 1/2" x 8"If stays are fitted with nuts or riveted heads nutsWorking pressure by rules 160 lbsMaterial of stays slutThickness 1"Pitch of stays 17 1/2"How are stays secured D. nutsWorking pressure by rules 161Material of stays slutDiameter at smallest part 5.56"Area supported by each stay 293"Working pressure by rules 190Material of Front plates at bottom slutThickness 3/4"Material of Lower back plate slutThickness 3/4"Greatest pitch of stays 13 1/2"Working pressure of plate by rules 162 lbsDiameter of tubes 3"Pitch of tubes 4 1/2" x 4 1/2"Material of tube plates slutThickness: Front 3/4"Back 1/2"Mean pitch of stays 8 1/2"Pitch across wide water spaces 13 1/2"Working pressures by rules 200 lbsGirders to Chamber tops: Material slutDepth and thickness of girder at centre 7 1/2" x 7 1/2" x 2"Length as per rule 22 1/2"Distance apart 83"Number and pitch of Stays in each 2 - 7 1/2"Working pressure by rules 200 lbsSuperheater or Steam chest; how connected to boiler NoneCan the superheater be shut off and the boiler worked separately YesDiameter 1"Length 17 1/2"Thickness of shell plates 1"Material slutDescription of longitudinal joint weldDiam. of rivet 1"Pitch of rivets 8"Working pressure of shell by rules 160 lbsDiameter of flue 16"Material of flue plates slutThickness 1"If stiffened with rings YesDistance between rings 17 1/2"Working pressure by rules 161End plates: Thickness 1"How stayed By staysWorking pressure of end plates 162 lbsArea of safety valves to superheater Two 2"Are they fitted with easing gear Yes

DONKEY BOILER—

No. Description *None*
 Made at By whom made
 Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area When made Where fixed
 No. of safety valves Area of each Pressure to which they are adjusted Description of safety valves
 enter the donkey boiler Dia. of donkey boiler Length If fitted with easing gear If steam from main
 strength Descrip. of riveting long. seams Dia. of rivet holes Material of shell plates Thickness Range
 Lap of plating Per centage of strength of joint Rivets Thickness of shell crown plates Radius of do. No. of Stays to d
 Dia. of stays. Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Thickness of water tubes
 joint Thickness of furnace crown plates Stayed by Working pressure of shell by rule
 Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates

SPARE GEAR. State the articles supplied:— *Two top & two bot. end bells. Two main bearing
 Set coupling bolts. Lead & Bulge pump valves. LP piston packing. Ecc.
 3 Boiler tubes. 6 Cond. tubes. Assorted bolts & iron.*

The foregoing is a correct description,
McKie Macartney Manufacturer.

Dates of Survey while building During progress of work in shops— *1904, Mar 21, Apr 1, 18, 20, May 2, 4, 11, 15, 19, 25, 26, 27, June 11, 14, 24, 29, Aug*
 During erection on board vessel *5, 8, 10, 12.*
 Total No. of visits *21*

Is the approved plan of main boiler forwarded herewith
 " " " donkey " " "

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

*The machinery of this vessel has been constructed & fitted
 on board under special survey & in accordance with the
 requirements of the Rules. The workmanship is good.*

*The machinery is in my opinion eligible for the record of
 & LMC 8.04 in the Register.*

It is submitted that
 this vessel is eligible for
 THE RECORD. — LMC 8.04

24.8.04
24.8.04

Certificate (if required) to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee. £
 Special £ *12 : 9*
 Donkey Boiler Fee £
 Travelling Expenses (if any) £

When applied for,
 22 AUG 1904
 When received,
 25/8/04

Committee's Minute

Glasgow 22 AUG 1904

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

Assigned

L.M.C. 8.04 Subject to classification of Hull
 When fee is paid