

REPORT ON MACHINERY.

SAT. 7 OCT 1899

Port of Mull Received at London Office 18

No. in Survey held at Mull Date, first Survey Nov. 14/98 Last Survey Sep. 1st 1899

Reg. Book. 54 on the Steam Vessel Nuttallia (Number of Visits 1) Tons Gross 229
Net 115

Master James Built at Greenock By whom built James & Co. Glasgow When built 1899

Engines made at Mull By whom made James & Co. Glasgow when made 1899

Boilers made at Mull By whom made James & Co. Glasgow when made 1899

Registered Horse Power 64 Owners North Western & Fishing Co Port belonging to Greenock

Nom. Horse Power as per Section 28 64 Is Electric Light fitted No

ENGINES, &c.—Description of Engines Simple Compound No. of Cylinders Three No. of Cranks Three

Diameter of Cylinders 13" 21" 34" Length of Stroke 24" Revolutions per minute 110 Diameter of Screw shaft as per rule 6.5"
as per rule 6.15" Diameter of Crank shaft journals 6 5/8" Diameter of Crank pin 6 5/8" Size of Crank webs 9" 4 1/4"
as fitted 6 1/2"

Diameter of screw 8" 6" Pitch of screw 11:0 No. of blades 4 State whether moveable No Total surface 26 29 ft

No. of Feed pumps one Diameter of ditto 17 1/2" Stroke 24" Can one be overhauled while the other is at work -

No. of Bilge pumps one Diameter of ditto 2 1/4" Stroke 24" Can one be overhauled while the other is at work -

No. of Donkey Engines one Sizes of Pumps 2 1/2" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room one 2 In Holds, &c. two 2

Suction suction in Engine Bilge and hold and discharge on deck

No. of bilge injections one size 3" Connected to condenser, or to circulating pump Is a separate donkey suction fitted in Engine room & size 3"

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 Yes

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 suction to forward How are they protected wood cased

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 from 1898 Is the screw shaft tunnel watertight in tunnel

Is it fitted with a watertight door - worked from -

BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 10879 ft Is forced draft fitted No

No. and Description of Boilers One Cylindrical Working Pressure 180 lb Tested by hydraulic pressure to 360 lb

Date of test 2/5/99 Can each boiler be worked separately - Area of fire grate in each boiler 29.5 ft No. and Description of safety valves to each boiler Two Spring loaded Area of each valve 3.95 ft Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean diameter of boilers 11:0"

Length 9:6" Material of shell plates Steel Thickness 1" Description of riveting: circum. seams all in lock long seams all chop 2 1/2"

Diameter of rivet holes in long. seams 1/32" Pitch of rivets 7" Lap of plates or width of butt straps 15"

Per centages of strength of longitudinal joint 85.74% Working pressure of shell by rules 187 lb Size of manhole in shell 16" 12"

Size of compensating ring 6" 1" No. and Description of Furnaces in each boiler one bottom Material Steel Outside diameter 41"

Length of plain part top 15" Thickness of plates bottom 10 1/16" Description of longitudinal joint welded No. of strengthening rings 4

Working pressure of furnace by the rules 184 lb Combustion chamber plates: Material Steel Thickness: Sides 2 1/32" Back 9/16" Top 2 1/32" Bottom 2 1/32"

Pitch of stays to ditto: Sides 8 3/4" Back 7 1/4" Top 8 3/4" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 207 lb End plates in steam space: Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 8 1/4" x 7 1/4" Working pressure by rules 192 lb

Material Steel Thickness 1 1/32" Pitch of stays 15 1/4" How are stays secured all nut Working pressure by rules 180 lb Material of stays Steel

Diameter at smallest part 2 2 1/2" Area supported by each stay 15 1/4" Working pressure by rules 234 lb Material of Front plates at bottom Steel

Thickness 2 1/32" Material of Lower back plate Steel Thickness 1 3/16" Greatest pitch of stays 12" Working pressure of plate by rules 180 lb

Diameter of tubes 3 1/4" Pitch of tubes 4 3/4" Material of tube plates Steel Thickness: Front 2 1/32" Back 1 3/16" Mean pitch of stays 9 1/2"

Pitch across wide water spaces 15 Working pressures by rules 180 lb Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 7 3/4" x 1 3/4" Length as per rule 28 1/16" Distance apart 8" Number and pitch of Stays in each two 8 3/4"

Working pressure by rules 205 lb 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 -

DONKEY BOILER— Description *No donkey boiler*

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 ca
 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:— *Two top end bolts. Two bottom end bolts. Two
 main bearing bolts. One set coupling bolts. One set feed pump valves
 One set Bridge pump valves. One check valve. Safety valves spring &c*
The vessel efficient with masts and sails as a fishing vessel

The foregoing is a correct description,
Charles D. Holmes Manufacturer.

Dates of Survey while building _____ During progress of work in shops— *1898: Nov 14. 28. Dec 5* 1899: Jan 3. 11. 20. 24. 30. Feb 15. 21. Mar 3. 8. 24. 28. Apr 12. 18. 25. May 3. 12. 16.
 During erection on board vessel— *Jun 2. 8. 16. 23. 27. July 12. 24. 29. Aug 10. 14. 15. 23. 24 Sep 1—*
 Total No. of visits *34*

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

ENGINES—Length of stern bush *31"* Diameter of crank shaft journals *6 1/2"* as per rule *6 1/2"* Diameter of thrust shaft under collars *6 5/8"*
 as fitted *6 5/8"*

BOILERS—Range of tensile strength *29500* Are they welded or flanged *✓* DONKEY BOILERS—No. *—* Range of tensile strength *—*

Is the approved plan of main boiler forwarded *h* with *Rpt No 12685* Is the approved plan of donkey boiler forwarded herewith *—*

*This case is similar in all respects to The "Uralia". Hull
 Report No 12685. dated 30 June 1899.*

*The Machinery and Boiler of this Steam Fishing
 Vessel have been constructed under Special Order and placed
 on board in accordance with the Society's Rules. They are now
 in my opinion in safe working condition and the case is
 respectfully submitted for the Notification & L.N.C. S. 99 in
 the Register Book.*

It is submitted that
 this vessel is eligible for
 THE RECORD.

+ L.M.C. 999

7/10/99

The amount of Entry Fee... £ *1* : : When applied for, *1/9/1899*
 Special ... £ *9* : *12* : :
 Donkey Boiler Fee ... £ : : : When received, *29/9/1899*
 Travelling Expenses (if any) £ : : : *29/9/1899*

Committee's Minute

Assigned

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

TUES. 10 OCT 1899

+ L.M.C. 999

GMS 357/49



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 Foundation