

# REPORT ON MACHINERY.

No. 12948

THURS. 17 MAY 1894

Port of Glasgow

Received at London Office 18

No. in Survey held at Glasgow  
Reg. Book.

Date, first Survey 1<sup>st</sup> February Last Survey 9<sup>th</sup> May 1894  
(Number of Visits 19)

on the "P. P. Eury"

Tons } Gross 156  
          } Net 59

Master Not appointed Built at Glasgow By whom built Macfie & Thomson

When built 1894

Engines made at Glasgow By whom made Wain & Houston when made 1894

Boilers made at Glasgow By whom made Wain & Houston when made 1894

Registered Horse Power 45 Owners Great Northern S. S. Fishing Co. Ltd. Port belonging to Mull

Nom. Horse Power as per Section 28 39.87

**ENGINES, &c.** — Description of Engines Triple expansion No. of Cylinders three

Diameter of Cylinders 11-17-27 1/2" Length of Stroke 20" Revolutions per minute \_\_\_\_\_ Diameter of Screw shaft as per rule 5.18  
as fitted 5.38

Diameter of Tunnel shaft as per rule 4.825 Diameter of Crank shaft journals 5 3/8" Diameter of Crank pin 5 3/8" Size of Crank webs 10" x 3 1/2"  
as fitted 5"

Diameter of screw 7-3 Pitch of screw 9'-6" No. of blades 4 State whether moveable no Total surface 20 sq ft

No. of Feed pumps on Diameter of ditto 2 1/2" Stroke 10" Can one be overhauled while the other is at work ✓

No. of Bilge pumps on Diameter of ditto 2 3/4" Stroke 10" Can one be overhauled while the other is at work ✓

No. of Donkey Engines on Sizes of Pumps 5 x 2 1/2 x 5" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room three 2" In Holds, &c. one 2"

No. of bilge injections on sizes 2 1/2" Connected to condenser, or to circulating pump pumps a separate donkey suction fitted in Engine room & size 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 no

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 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 the screw shaft tunnel watertight none

Is it fitted with a watertight door ✓ worked from ✓

**BOILERS, &c.** — (Letter for record S) Total Heating Surface of Boilers 690 sq ft

No. and Description of Boilers one cylindrical return tube Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs

Date of test 25/4/94 Can each boiler be worked separately ✓ Area of fire grate in each boiler 30 sq ft No. and Description of safety valves to  
each boiler one pair direct spring Area of each valve 3.97 sq" Pressure to which they are adjusted 160 lbs Are they fitted  
with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean diameter of boilers 10-0

Length 9'-0" Material of shell plates steel Thickness 3/32 Description of riveting: circum. seams Lap single long. seams double butt

Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 1/2" Lap of plates or width of butt straps 17"

Per centages of strength of longitudinal joint ribs 94 Working pressure of shell by rules 163 lbs Size of manhole in shell 16" x 12"  
plate 85

Size of compensating ring W. R. Mills No. and Description of Furnaces in each boiler two plain Material steel Outside diameter 37"

Length of plain part top 5-9 Thickness of plates crowns 4/16 Description of longitudinal joint welded No. of strengthening rings none  
bottom 8-0 bottom 4/16 x 3/4

Working pressure of furnace by the rules 164 lbs Combustion chamber plates: Material steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 3/4"

Pitch of stays to ditto: Sides 8 x 8 Back 8 x 8 Top 8 x 7 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 170 lbs

Material of stays steel Diameter at smallest part 1.45 Area supported by each stay 64 sq" Working pressure by rules 181 lbs End plates in steam space:  
Material steel Thickness 3/32 Pitch of stays 14" How are stays secured double nuts & washers Working pressure by rules 172 lbs Material of stays steel  
Area at smallest part 3.49 Area supported by each stay 196 sq" Working pressure by rules 160 lbs Material of Front plates at bottom steel

Thickness 4/16 Material of Lower back plate steel Thickness 1 1/16 Greatest pitch of stays 11 1/2" Working pressure of plate by rules 244 lbs

Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" Material of tube plates steel Thickness: Front 4/16 x 7/16 Back 4/16 Mean pitch of stays 9"

Pitch across wide water spaces 13 1/2" x 11 1/2" Working pressures by rules 184 & 209 Girders to Chamber tops: Material iron Depth and  
thickness of girder at centre 6" x 1 1/2" Length as per rule 24" Distance apart 7" Number and pitch of Stays in each two 8"

Working pressure by rules 180 lbs Superheater or Steam chest; how connected to boiler none 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 \_\_\_\_\_

If not, state whether, and when, one will be sent? In a Report also sent on the Hull of the Ship? [62.—L.R.P.H.—Form No. 8.—4/92.—Copyright Link.]

GLS 169-0440



12948 g/s

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 \_\_\_\_\_ Plates \_\_\_\_\_ 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:— *Four connecting rod bolts & nuts (top & bottom ends) two main bearing bolts, one set of coupling bolts, one set of feed & bridge pump valves, bolts nuts & nuts of various sizes*

The foregoing is a correct description,  
*Wm & Houston* Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *Engines & boiler the particulars of which are given on the other side) have been constructed under special survey. The materials & workmanship are of good description, they have been well fitted on board. Steam has been raised on the boiler, the safety valves adjusted & the engines tried under steam.*

*It is submitted that this machinery is eligible to have notification \*L.M.C 5-94*

*It is submitted that this vessel is eligible for THE RECORD + L.M.C 5, 94*

*J.R.R.  
17-5-94*

*[Large handwritten signature]*

Certificate (if required) to be sent to *Glasgow*

MACHINERY CERTIFICATE WRITTEN.

|                                |             |                   |
|--------------------------------|-------------|-------------------|
| The amount of Entry Fee..      | £ 1 : " : " | When applied for, |
| Special .. .. .                | £ 8 : " : " | 15/5/94           |
| Donkey Boiler Fee .. .. .      | £ " : " : " | When received,    |
| Travelling Expenses (if any) £ | " : " : "   | 15/5/94           |

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

Committee's Minute **FR! 18 MAY 1894**

Assigned *+ L.M.C 5, 94*

The Surveyors are requested not to write on or below the space for Committee's Minutes.

