

REPORT ON MACHINERY.

Aberdeen No. 10989
No. 31980.
WED. OCT. 30. 1912.

Received at London Office

Date of writing Report 19 When handed in at Local Office 25.10.12 Port of Glasgow

No. in Survey held at Coathridge Date, First Survey 29.4.12 Last Survey 8.10.1912.
Reg. Book. on the "S.S. Loch Morar" (Number of Visits 19.)

Master J. B. Booth Built at Aberdeen By whom built J. Duthie & Co (380) Tons Gross 228.14 Net 86.48
Engines made at Coathridge By whom made W. & G. Ridgerwood (389) when made 1912

Boilers made at Port-Glasgow By whom made Glasgow Shipbuilding & Eng. Co (604) when made 1912

Registered Horse Power 71. Owners United Steam Fishing Co of Aberdeen Port belonging to Aberdeen.

Nom. Horse Power as per Section 28 71 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12" 20" 34" Length of Stroke 23" Revs. per minute 118. Dia. of Screw shaft as per rule 6.89" Material of screw shaft iron

Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight

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

liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 2'-9"

Dia. of Tunnel shaft as per rule 6.11" Dia. of Crank shaft journals as per rule 6.34" Dia. of Crank pin 6 3/4" Size of Crank webs 24 1/2" Dia. of thrust shaft under

collars 6 3/4" Dia. of screw 8'-6" Pitch of Screw 11'-3" No. of Blades 4 State whether moveable No Total surface 31.6'

No. of Feed pumps Nil Diameter of ditto 2 5/8" Stroke 11 1/2" Can one be overhauled while the other is at work —

No. of Bilge pumps Nil Diameter of ditto 2 5/8" Stroke 11 1/2" Can one be overhauled while the other is at work —

No. of Donkey Engines 2 Sizes of Pumps 5 1/2", 3 1/2" + 5" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two of 2' In Holds, &c. Fishhold & slushwell, one each 2' Also ejector, drawing from all parts, and with separate suction to engine room 2'

No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump C.P. 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 none

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 — Sole sea & S.W. tank How are they protected — Strong wood casing

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

Dates of examination of completion of fitting of Sea Connections — 10.10.12 of Stern Tube 8.10.12 Screw shaft and Propeller 10.10.12.

Is the Screw Shaft Tunnel watertight — None Is it fitted with a watertight door — worked from —

OILERS, &c.—(Letter for record S. Manufacturers of Steel

Total Heating Surface of Boilers 12507 Is Forced Draft fitted No No. and Description of Boilers One, cyl. mult. Single.

Working Pressure 180 lbs. Tested by hydraulic pressure to 360 Date of test 21.10.12. No. of Certificate 1049.

Can each boiler be worked separately — Area of fire grate in each boiler 487 No. and Description of Safety Valves to

each boiler 2: direct spring Area of each valve 5.94" Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes.

Smallest distance between boilers or uptakes and bunkers or woodwork about 4' Mean dia. of boilers 12' 6" Length 10' 3" Material of shell plates

ft. Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

as it Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell

Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

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

Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

Thickness Material of Lower back plates Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

Pitch across wide water spaces Working pressures by rules Girders, to Chamber tops: Material Depth and

thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

Working pressure by rules 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

Rpt. about 1.11.12.

VERTICAL DONKEY BOILER — Manufacturers of Steel

No. _____ Description _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of Safety _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with casing gear _____ If steam from main boilers can enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Descrip. of riveting long seams _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Plates _____

Working pressure of shell by rules _____ 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 _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Radius of do. _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied: — Two top & 2 bottom end bolts & nuts; 2 main bearing & 1 set coupling bolts & nuts; 1 set each, Air, Circulating, Feed & Bilge pump valves; 1 main, & 1 donkey check valve; 1 safety valve spring; bolts & nuts assorted, and iron of various sizes.

The foregoing is a correct description,

For W. Y. Y. Lidgerwood Manufacturer. *R. Sneddon*

Dates of Survey while building

During progress of work in shops	1912. April 29. May 7. 17. 22. 28. June 12. 24. 28. July 5. 28. 30. Aug. 9. 20. 26.
During erection on board vessel	Sept. 4. 17. 25. Oct. 2. 8. Aberdeen. Oct. 8. 10. 11. 16. 18. 23. 28. Nov. 4. 6. 9. (10)
Total No. of visits	19.

Is the approved plan of main boiler forwarded herewith _____

_____ " " " donkey " " "

Dates of Examination of principal parts

Cylinders	24/6/12	Slides	24/6/12	Covers	24/6/12	Pistons	20/8/12	Rods	20/8/12
Connecting rods	20/8/12	Crank shaft	30/7/12	Thrust shaft	17/9/12	Tunnel shafts	17/9/12	Screw shaft	3/10/12
Stern tube	3/10/12	Steam pipes tested	4.11.12	Engine and boiler seatings	10.10.12	Engines holding down bolts	18.10.12		
Completion of pumping arrangements	23.10.12	Boilers fixed	4.11.12	Engines tried under steam	6.11.12				

Main boiler safety valves adjusted — 9.11.12. Thickness of adjusting washers — Port 5" Starboard 4"

Material of Crank shaft *Stub* Identification Mark on Do. *5268* Material of Thrust shaft *Stub* Identification Mark on Do. *5268*

Material of Tunnel shafts *Stub* Identification Marks on Do. *5268* Material of Screw shafts *sm* Identification Marks on Do. *5268*

Material of Steam Pipes *Copper solid deacon 3 1/2" bore. No. 4. T.S.W.S.* Test pressure — 360 lbs per sq inch.

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

These engines have been built under special survey the materials and workmanship are of good description, they have now been forwarded to Aberdeen when they are to be fitted on board.

The steam trawler "Loch Morar" These engines, together with the boiler (Greenock reports No. 16349) have now been properly fitted on board the above mentioned vessel, tried under steam at moorings, with satisfactory results, and are now in good looking order, and in my opinion entitled to the record.

* L.M.C. 11.12. in the Register Book.

Ridley Howell

It is submitted that this vessel is eligible for THE RECORD + LMC 11.12.

The amount of Entry Fee £ 1 : 0 : _____ When applied for, _____

Special Donkey Boiler Fee £ 10 : 13 : _____ 28/10/12

Travelling Expenses (if any) £ _____ : _____ : _____ When received, _____

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

Committee's Minute **GLASGOW. 29 OCT. 1912**

FRI. NOV. 15. 1912

Assigned Transmit to London

+ L.M.C. 11.12

MACHINERY CERTIFICATE PRINTED.

Lloyd's Register Foundation

Glasgow

Certificate (if required) to be sent to

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