

REPORT ON MACHINERY.

No. **38958**

Received at London Office

THU. 7-AUG. 1919

Survey Report **18.7.19** When handed in at Local Office **31.7.19** Port of **Glasgow**

Survey held at **Glasgow** Date, First Survey **24.4.19** Last Survey **14.7.19** (Number of Visits **124**)

on the **S.S. "Hillmarney" (ex "Hoorfowl")** Gross **1464** Tons Net **610**

R. M. Murray Built at **Glasgow** By whom built **A. H. Inglis Ltd 311** When built **1919**

made at **Glasgow** By whom made **A. H. Inglis Ltd 123** when made **1919**

made at **Glasgow** By whom made **A. H. Inglis Ltd 593** when made **1919**

ed Horse Power **414** Owners **City of Cork Steam Packet Co. Ltd** Port belonging to **London**

orse Power as per Section 28 **414** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**

ES, &c.—Description of Engines **Triple Expansion** No. of Cylinders **3** No. of Cranks **3**

Cylinders **28.46.44** Length of Stroke **45** Revs. per minute **88** Dia. of Screw shaft **12.89** Material of screw shaft **S.**

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

propeller boss **Yes** If the liner is in more than one length are the joints burned **No** If the liner does not fit tightly at the part

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive **No** If two

are fitted, is the shaft lapped or protected between the liners **No** Length of stern bush **6'-0"**

Tunnel shaft as per rule **12.88** Dia. of Crank shaft journals as per rule **12.63** Dia. of Crank pin **14.8** Size of Crank webs **4.12x9.2** Dia. of thrust shaft under

14.8 Dia. of screw **13.62** Pitch of Screw **20'-0"** No. of Blades **4** State whether moveable **Yes** Total surface **75.8**

Feed pumps **2** Diameter of ditto **4.4** Stroke **24** Can one be overhauled while the other is at work **Yes**

Bilge pumps **2** Diameter of ditto **4.4** Stroke **24** Can one be overhauled while the other is at work **Yes**

Donkey Engines **5** Sizes of Pumps **General Service 8x10 2x21. Day Head 4x3 5x5 Day Head** No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room **3-3" 43-3" in Boiler Room.** In Holds, &c. **1-2 1/2" in chain locker, 1-2 1/2" in No. 1 hold, 1-3" in No. 2**

ld, **1-3" in aft hold, 1-2 1/2" in Tunnel Well.** Bilge Injections **1** sizes **10** Connected to condenser, or to circulating pump **Yes** Is a separate Donkey Suction fitted in Engine room & size **Yes 3"**

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**

all connections with the sea direct on the skin of the ship **Yes** Are they Valves or Cocks **Valves**

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**

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**

t pipes are carried through the bunkers **Cause Steam & Cause Exhaust** How are they protected **Fitted close to deck beams.**

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **Yes**

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges **Yes**

es of examination of completion of fitting of Sea Connections **5.3.19** of Stern Tube **18.3.19** Screw shaft and Propeller **18.3.19**

he Screw Shaft Tunnel watertight **Yes** Is it fitted with a watertight door **Yes** worked from **Engine Room top platform**

MLERS, &c.—(Letter for record **S**) Manufacturers of Steel **Steel Co. of Scotland, Glasgow & B. P. Leidsch.**

al Heating Surface of Boilers **6830.8** Is Forced Draft fitted **No** No. and Description of Boilers **2 Double Ended Horizontal**

orking Pressure **165 lbs** Tested by hydraulic pressure to **330 lbs** Date of test **29.3.19** No. of Certificate **14643**

n each boiler be worked separately **Yes** Area of fire grate in each boiler **112.8** No. and Description of Safety Valves to

Forecastle **38** boiler **2 Spring loaded** Area of each valve **12.58** Pressure to which they are adjusted **168 lbs** Are they fitted with easing gear **Yes**

allest distance between boilers or uptakes and bunkers or woodwork **13"** Mean dia. of boilers **14'-0"** Length **18'-0"** Material of shell plates **S**

ickness **1/16"** Range of tensile strength **28/32** Are the shell plates welded or flanged **No** Descrip. of riveting: cir. seams **Triple**

g. seams **DBS, I.R.** Diameter of rivet holes in long. seams **1 1/4"** Pitch of rivets **8 1/2"** Lap of plates or width of butt straps **18 1/4"**

er centages of strength of longitudinal joint rivets **84.2%** Working pressure of shell by rules **180.9** Size of manhole in shell **16"x12"**

ae of compensating rings **End plate flanged** No. and Description of Furnaces in each boiler **6 Harrison & Co. Ltd** Material **S.** Outside diameter **3'-4"**

ength of plain part top **18.8x10.2** Thickness of plates crown **3/8"** Description of longitudinal joint **Weld** No. of strengthening rings

orking pressure of furnace by the rules **175 lbs** Combustion chamber plates: Material **S** Thickness: Sides **3/8"** Back **3/4"** Top **3/8"** Bottom **1"**

itch of stays to ditto: Sides **9 1/2"x8"** Back **None** Top **9 1/2"x7 1/4"** If stays are fitted with nuts or riveted heads **Yes** Working pressure by rules **178 lbs** End plates in steam space:

aterial of stays **S** Diameter at smallest part **1.69"** Area supported by each stay **76"** Working pressure by rules **178 lbs** Material of stays **S**

aterial **S** Thickness **3/16"** Pitch of stays **17 1/8"x14"** How are stays secured **Double nuts & washers** Working pressure by rules **176 lbs** Material of Front plates at bottom **S**

Area at smallest part **6.22"** Area supported by each stay **299.4"** Working pressure by rules **187 lbs** Material of Front plates at bottom **S**

Thickness **7/8"** Material of Lower back plate **None** Thickness **1/8"** Greatest pitch of stays **1/8"** Working pressure of plate by rules **1/8"**

Diameter of tubes **3 1/4"** Pitch of tubes **4 1/2"x4 1/2"** Material of tube plates **S** Thickness: Front **7/8"** Back **3/4"** Mean pitch of stays **9"x9"**

Pitch across wide water spaces **5 1/4"** Working pressures by rules **265 lbs** Girders to Chamber tops: Material **S** Depth and

thickness of girder at centre **10"x12"** Length as per rule **319 1/2"** Distance apart **7 1/2"** Number and pitch of stays in each **4@9 1/2"**

Working pressure by rules **186 lbs** Superheater or Steam chest; how connected to boiler **Can the superheater be shut off and the boiler worked**

separately **Yes** Diameter **10"** Length **10"** Thickness of shell plates **1/8"** Material **S** Description of longitudinal joint **Weld** Diam. of rivet

holes **1/4"** Pitch of rivets **1"** Working pressure of shell by rules **186 lbs** Diameter of flue **10"** Material of flue plates **S** Thickness **1/8"**

If stiffened with rings **Yes** Distance between rings **10"** Working pressure by rules **186 lbs** End plates: Thickness **1/8"** How stayed **Yes**

Working pressure of end plates **186 lbs** Area of safety valves to superheater **186 lbs** Are they fitted with easing gear **Yes**

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No. *See Separate Report N^o*

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 *Book*

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

If fitted with easing 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*

Working pressure of shell by rules *Thickness of shell crown plates* Radius of do. *No. of stays to do.* Dia. of stays *Plates*

Diameter of furnace Top *Bottom* Length of furnace *Thickness of furnace plates* Description of joint *erred Horse*

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:— *2 Top end & 2 bottom end bolts & nuts for connecting rod, 2 main bearing bolts, 1 set coupling bolts, 1 set feed and bilge pump valves, 1 set piston rings, assorted bolts and nuts. Iron of various sizes.*

The foregoing is a correct description,

A. & J. INGLIS LIMITED

Dates of Survey while building

During progress of work in shops -- *1915. Apr 24 May 10. 19. June 2. July 26. Aug 18. Sept 15.*

During erection on board vessel -- *1916. Apr 17. May 24. June 19. July 10. Sept 15. Oct 2. Nov 2. 1917. Feb 26. Mar 12. May 17. June 12. 18. July 29. Aug 3. 16. 29. Sept 3. 10. Oct 1. 2. 18. 24. 26. 28. Nov. 1. 7. 8. 15. 19. 21. 27. Dec. 4. 5. 1918. Jan 9. 11. 17. 21. 22. 23. 26. Apr 2. 16. 18. 22. 29. May 2. 6. 14. June 21. Aug 1. 9. 11. 25. Aug 2. 12. 19. Nov. 5. 12. 2. 1919. Jan 7. 8. 9. 10. 13. 14. 27. 28. 29. Feb 6. 11. 12. 14. 18. 20. 26. 28. Mar 5. 17. 18. 27. 29. Apr 1. 2. 15. 24. 25. May 6. 15. June 4. 19. 22. Aug 2. 9.*

Total No. of visits *124.*

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

" " " donkey " " " *Yes*

Dates of Examination of principal parts—Cylinders *10.1.19* Slides *6.2.19* Covers *2.4.19* Pistons *2.4.19* Rods *3.4.19*

Connecting rods *3.4.19* Crank shaft *18.9.19* Thrust shaft *18.9.19* Tunnel shafts *8.9.19* Screw shaft *10.1.19* Propeller *19.12.19*

Stern tube *1.3.1.19* Steam pipes tested *27.11.18 & 28.6.19* Engine and boiler seatings *2.4.3.19* Engines holding down bolts *1.4.6.19*

Completion of pumping arrangements *1.4.4.19* Boilers fixed *10.4.19* Engines tried under steam *1.4.4.19*

Main boiler safety valves adjusted *1.4.4.19* Thickness of adjusting washers *Port Boiler F 32 A 16. Starboard Boiler F 16 A 16.*

Material of Crank shaft *S* Identification Mark on Do. *EAF 18.9.19* Material of Thrust shaft *S* Identification Mark on Do. *EAF 18.9.19*

Material of Tunnel shafts *S* Identification Marks on Do. *423 FAF 1.11.19* Material of Screw shafts *S* Identification Marks on Do. *423 M 10*

Material of Steam Pipes *Lafu & W. J. & Lun metal* Test pressure *W. J. - 495 lbs. S. J. - 330 lbs.*

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

The engines and boilers of this vessel have been built under Special Survey, the workmanship and materials are good, they have been well fitted on board, tried under steam and found to work satisfactorily.

The Machinery of this vessel is eligible in my opinion for the record + LMC 7.19 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 7.19

Recd. 8/8/19

The amount of Entry Fee .. £ *3* : - : When applied for, *31-7-19*

Special .. £ *40.14* : : When received, *7.8.19*

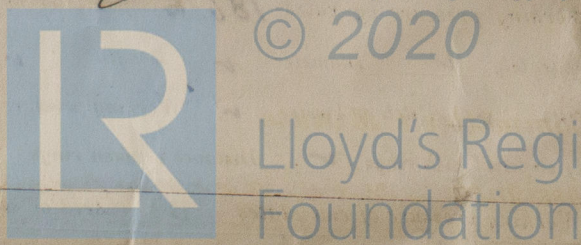
Donkey Boiler Fee .. £ : : *CRB*

Travelling Expenses (if any) £ : : *8*

Committee's Minute *GLASGOW 6 AUG 1919*

Assigned + LMC 7.19

J. S. Murray
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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Lloyd's Register Foundation

Glasgow

Certificate (if required) to be sent to Committee's Minute.