

# REPORT ON MACHINERY.

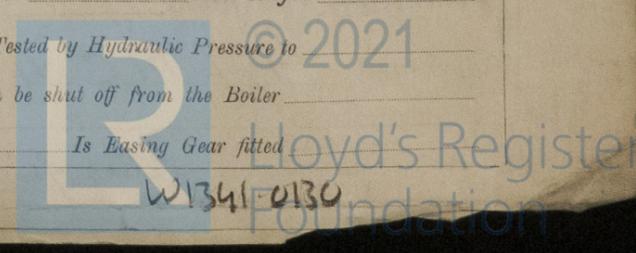
Received at London Office

Date of writing Report 4. 4. 1922 When handed in at Local Office 4. 4. 1922 Port of Glasgow  
 No. in Survey held at Dalmuir Date, First Survey 18. 1. 1921 Last Survey 6 April 1922  
 Reg. Book. on the S.S. "Saint Jerome" (Number of Visits) 1 Gross 4205 Net 2312  
 Master Tom Beardmore & Co. Ltd. Built at Dalmuir By whom built Tom Beardmore & Co. Ltd. When built 1922  
 Engines made at Dalmuir By whom made Tom Beardmore & Co. Ltd. (624) when made 1922  
 Boilers made at Dalmuir By whom made Tom Beardmore & Co. Ltd. (624) when made 1922  
 Registered Horse Power 349 Owners The Association Petroliere Port belonging to Le Havre  
 Nom. Horse Power as per Section 28 349 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

**ENGINES, &c.**—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 23" 36" 58" Length of Stroke 42" Revs. per minute 74 Dia. of Screw shaft as per rule 12.75" as fitted 13.75" Material of screw shaft Steel  
 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 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 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive no If two liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 4' 10"  
 Dia. of Tunnel shaft as per rule 11.8" as fitted None Dia. of Crank shaft journals as per rule 11.875" as fitted 12" Dia. of Crank pin 12 1/4" Size of Crank webs 8" x 22 1/2" Dia. of thrust shaft under collars 12 1/4" Dia. of screw 15.9" Pitch of Screw 15-8" No. of Blades 4 State whether moveable yes Total surface 80 sq ft  
 No. of Feed pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 5 Sizes of Pumps (2) 9 1/2" x 7" x 18" 8" x 9" x 10" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room (3) 3 1/2" In Holds, &c. (1) 2 1/2" in well in boiler room  
 No. of Bilge Injections 1 sizes 7 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size yes 3 1/2"  
 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 below  
 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 oil Steam heating pipes How are they protected no  
 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  
 Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door no worked from no

**BOILERS, &c.**—(Letter for record 7 (7)) Manufacturers of Steel Tom Beardmore & Co. Ltd.  
 Total Heating Surface of Boilers 5548 sq ft Is Forced Draft fitted yes No. and Description of Boilers 2 Single ended  
 Working Pressure 180 Tested by hydraulic pressure to 320 Date of test 27/10/21. 17/11/21 No. of Certificate 15937. 15954  
 Can each boiler be worked separately yes Area of fire grate in each boiler no No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 11.04 sq in Pressure to which they are adjusted 185 Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork well clear Mean dia. of boilers 14.6 Length 12-3 Material of shell plates Steel  
 Thickness 1 3/32" Range of tensile strength 28 to 32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double lap long. seams triple butt Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8 3/4" Lap of plates or width of butt straps 19 3/8"  
 Per centages of strength of longitudinal joint rivets 97.5 Working pressure of shell by rules 184 Size of manhole in shell 16" x 12" plate 85.0  
 Size of compensating ring 2' 9" x 2' 5" No. and Description of Furnaces in each boiler 3 Dugout Material Steel Outside diameter 42 1/4"  
 Length of plain part top no bottom no Thickness of plates crown 1 1/2" bottom 1 1/2" Description of longitudinal joint welded No. of strengthening rings no  
 Working pressure of furnace by the rules 180 Combustion chamber plates: Material Steel Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 1/16"  
 Pitch of stays to ditto: Sides 9 1/2" x 9 1/2" Back 10 x 9 Top 9 x 9 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181  
 Material of stays iron Area at smallest part 2.03 Area supported by each stay 90 sq in Working pressure by rules 180 End plates in steam space: Material Steel Thickness 1 1/8" Pitch of stays 19" x 17" How are stays secured 2 nuts Working pressure by rules 192 Material of stays Steel  
 Area at smallest part 5.92 Area supported by each stay 232 Working pressure by rules 192 Material of Front plates at bottom Steel Thickness 15/16" Material of Lower back plate Steel Thickness 3/32" Greatest pitch of stays 14 1/4" Working pressure of plate by rules 182  
 Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 3/8" Material of tube plates Steel Thickness: Front 15/16" Back 7/8" Mean pitch of stays 11 1/16"  
 Pitch across wide water spaces 13 1/2" Working pressures by rules 182 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 5/8" x 3 1/4" length as per rule 33 1/16" Distance apart 7 1/2" centres Number and pitch of stays in each (3) 9"  
 Working pressure by rules 181 Steam dome: description of joint to shell none % of strength of joint no  
 Diameter no Thickness of shell plates no Material no Description of longitudinal joint no Diam. of rivet holes no  
 Pitch of rivets no Working pressure of shell by rules no Crown plates no Thickness no How stayed no

**SUPERHEATER.** Type none Date of Approval of Plan no Tested by Hydraulic Pressure to no  
 Date of Test no Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler no  
 Diameter of Safety Valve no Pressure to which each is adjusted no Is Easing Gear fitted no



IS A DONKEY BOILER FITTED? *yes*

If so, is a report now forwarded? *yes*

SPARE GEAR. State the articles supplied: - *2 Top end bolts and nuts, 2 Bottom end bolts & nuts, 2 main bearing bolts & nuts, 1 set of coupling bolts & nuts, fuel & bilge pump valves, iron, bolts & nuts of various sizes.*

The foregoing is a correct description,

For WILLIAM BEARDMORE & CO., LIMITED

*W. D. O'Connell*

Manufacturer.

Dates of Survey while building: During progress of work in shops - *1921 Jan 18 Feb 8 9. Mar 8 17 Apr 5. 15. 26 May 12 19. 27. 30 Jun 3 Aug 9. 12. 16 19. 24. 31 Sep 13. 20. 27. 30 Oct 10. 20. 27*  
During erection on board vessel - *28. 29. 31 Nov 4. 17. 24. 28 Dec 1 1922 Jan 24 Feb 8. 14 Mar 9. 14. 15. 23. 24. 27*  
Total No. of visits: *19*  
Is the approved plan of main boiler forwarded herewith *yes*  
" " " donkey " " " *yes*

Dates of Examination of principal parts - Cylinders *10/10/21* Slides *28/10/21* Covers *10/10/21* Pistons *28/10/21* Rods *28/10/21*  
Connecting rods *28/10/21* Crank shaft *28/11/21* Thrust shaft *28/11/21* Tunnel shafts *-* Screw shaft *28/11/21* Propeller *28/11/21*  
Stern tube *28/11/21* Steam pipes tested *24/11/21* Engine and boiler seatings *24/11/21* Engines holding down bolts *24/11/22*  
Completion of pumping arrangements *24/3/22* Boilers fixed *24/11/22* Engines tried under steam  
Completion of fitting sea connections *27/2/22* Stern tube *27/3/22* Screw shaft and propeller *27/3/22*  
Main boiler safety valves adjusted *24/3/22* Thickness of adjusting washers *Port Boiler 13/32, 5/16, St. Boiler 13/32, 3/8*  
Material of Crank shaft *Steel* Identification Mark on Do. *624 27/11/21* Material of Thrust shaft *Steel* Identification Mark on Do. *2336 27/11/21*  
Material of Tunnel shafts *Iron* Identification Marks on Do. *-* Material of Screw shafts *Steel* Identification Marks on Do. *2330 27/11/21*  
Material of Steam Pipes *Steel* Test pressure *520 lbs*

Is an installation fitted for burning oil fuel *yes* Is the flash point of the oil to be used over 150° F. *yes*

Have the requirements of Section 49 of the Rules been complied with *yes*

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *S.S. British Enterprise*

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

*These engines and boilers have been built under special survey, the materials and workmanship are of good description, they have been well fitted on board. This machinery is in my opinion eligible to have notification + L.M.C 4.22. and fitted for oil fuel F.P. above 150° F in the Register Book, subject to a satisfactory trial of all machinery.*

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

*F.L.M.C. - 4.22. F.D. C.L.*

*Fitted for Oil Fuel, 4.22., F.P. above 150° F.*

*(See wire 7/4/22 re subject)*

The amount of Entry Fee ... £ 5 :  
Special ... £ 77 : 7  
Donkey Boiler Fee ... £ :  
Travelling Expenses (if any) £ :

When applied for. *25/3/22*

When received. *29.3.22*

*A. M. McEand*  
Engineer Surveyor to Lloyd's Register of Shipping.

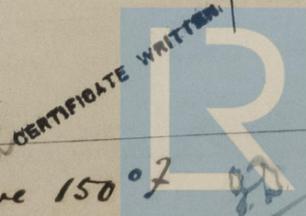
Committee's Minute

Assigned + LMC 4,22 } subject to

*Fitted for oil fuel 4.22 F.P. above 150° F*

GLASGOW

APR 1922



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*Glasgow*

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

*4.4.22*