

## REPORT ON MACHINERY.

No. 17225

Received at London Office FRI DEC 28 1917

Date of writing Report 8 Dec 1917 When handed in at Local Office 13 Dec 1917

Port of GreenockNo. in Survey held at Port Glasgow  
Reg. Book.Date, First Survey 7<sup>th</sup> February, 1916, Last Survey 12 December 1917  
(Number of Voids 88)1247 on the Steel Steamer "Adgarloch"Master                      Built at Port Glasgow By whom built Ferguson BrosTons } Gross 541  
          } Net 416  
When built 1917Engines made at Port Glasgow By whom made Ferguson Bros when made 1917Boilers made at Port Glasgow By whom made The Clyde & S. S. Co Ltd when made 1917Registered Horse Power                      Owners Andersson Ltd - Lang. Fergus Port belonging to GreenockNom. Horse Power as per Section 28 114 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders Three No. of Cranks Three  
 Dia. of Cylinders 16" - 26" - 42" Length of Stroke 27" Revs. per minute 110 Dia. of Screw shaft as per rule 8.65 Material of 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 16"  
 Dia. of Tunnel shaft as per rule 7.75 Dia. of Crank shaft journals as per rule 8.13 Dia. of Crank pin 8 1/4" Size of Crank webs 5 1/4" - 5 1/2" Dia. of thrust shaft under  
 collars 8 1/4" Dia. of screw 10.6" Pitch of Screw 11.0" No. of Blades 4 State whether moveable no Total surface 14.16 sq ft  
 No. of Feed pumps Two Diameter of ditto 5" Stroke 13 1/2" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps Two Diameter of ditto 5" Stroke 13 1/2" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines Two Sizes of Pumps 4 1/2" - 6" - 7.8" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room Two 2 1/2" In Holds, &c. Two 2"

No. of Bilge Injections Two sizes 5" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 2 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 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                      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  
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from                     

BOILERS, &c.—(Letter for record S) Manufacturers of Steel As per Report attached hereto

Total Heating Surface of Boilers 1960 sq ft Is Forced Draft fitted no No. and Description of Boilers One Single End  
 Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 7/9/17 No. of Certificate 1305  
 Can each boiler be worked separately no Area of fire grate in each boiler 60.9 sq ft No. and Description of Safety Valves to  
 each boiler Two Spring Area of each valve 5.94 sq in 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 22" Mean dia. of boilers                      Length                      Material of shell plates  
 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  
 Per centages of strength of longitudinal joint                      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                      Thickness of plates                      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                      Area 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                       
 Area at smallest part                      Area supported by each stay                      Working pressure by rules                      Material of Front plates at bottom                       
 Thickness                      Material of Lower back plate                      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                      Steam dome: description of joint to shell                      % of strength of joint                       
 Diameter                      Thickness of shell plates                      Material                      Description of longitudinal joint                      Diam. of rivet holes                       
 Pitch of rivets                      Working pressure of shell by rules                      Crown plates                      Thickness                      How stayed                     

SUPERHEATER. Type                      Date of Approval of Plan                      Tested by Hydraulic Pressure to                     Date of Test                      Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler                     Diameter of Safety Valve                      Pressure to which each is adjusted                      Is Easing Gear fitted



IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

SPARE GEAR.

State the articles supplied:— The top end bolts. The bottom end bolts. The main bearing bolts. One set coupling bolts. One set feed pump valves. One set bridge pump valves. Anti-siphon.

The foregoing is a correct description,

FERGUSON BROTHERS (PORT-GLASGOW), LTD.

P. Ferguson

DIRECTOR

Manufacturer.

Dates of Survey while building  
During progress of work in shops: (1916) Feb. 7, 14, Mar. 2, 8, 16, 20, 23, 30, Apr. 3, 6, 14, 18, 24, 28, May 3, 8, 16, June 5, 23, 30, July 5, 12, 19, Aug. 3, 24, Sep. 12, 14, 19, 21, 25, 28, Oct. 2, 10, 11, 31, Nov. 2, 6, 8, 10, 21, 23.  
During erection on board vessel: Dec. 15 (1917), Jan. 9, 22, 24, Feb. 6, 22, Mar. 1, 9, 20, Apr. 3, 20, 23, May 3, June 17, 26, July 3, 14, 18, 23, 25, 30, 31, Aug. 6, 15, 20, 22, 27, 30, Sep. 3, 5, 13, 20, 28, Oct. 3, 5, 9, 12, 17, 23.  
Total No. of visits 88.

Is the approved plan of main boiler forwarded herewith? Yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 28/9/17 Slides 28/9/17 Covers 28/9/17 Pistons 28/9/17 Rods 19/10/17  
Connecting rods 28/9/17 Crank shaft 19/7/16 Thrust shaft 15/6/17 Tunnel shafts ✓ Screw shaft 28/9/17 Propeller 28/9/17  
Stern tube 28/9/17 Steam pipes tested as failing Engine and boiler seatings 19/10/17 Engines holding down bolts 19/10/17  
Completion of pumping arrangements 15/11/17 Boilers fixed 15/11/17 Engines tried under steam 12/12/17  
Completion of fitting sea connections 28/9/17 Stern tube 28/9/17 Screw shaft and propeller 28/9/17  
Main boiler safety valves adjusted 7/12/17 Thickness of adjusting washers 2 7/16 - 5 5/16.

Material of Crank shaft S. Iron Identification Mark on Do. 195 Material of Thrust shaft S. Iron Identification Mark on Do. 195

Material of Tunnel shafts S. Iron Identification Marks on Do. ✓ Material of Screw shafts S. Iron Identification Marks on Do. 195

Material of Steam Pipes Copper ✓ Test pressure 160 lb. ✓

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

Have the requirements of Section 49 of the Rules been complied with? ✓

Is this machinery duplicate of a previous case? Yes ✓ If so, state name of vessel 'Adagard' No. 17109.

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

The machinery and boilers of this steamer have been constructed under special survey 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 + LMC 12-17 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 12.17.

HWB  
1/1/18

The amount of Entry Fee ... £ 2 : 0 :  
Special ... £ 17 : 2 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 15th Dec. 1917.  
When received, 22-1-1918.

James James

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 27 DEC. 1917

Assigned + LMC 12.17

MACHINERY CERTIFICATE  
WRITTEN 28



© 2020

Lloyd's Register  
Foundation