

REPORT ON MACHINERY.

No. 17919

Received at London Office **REC. 30 NOV. 1921**

Date of writing Report 17 Nov 1921 When handed in at Local Office 19 Nov 1921 Port of Greenock

No. in Survey held at Greenock Date, First Survey 28th October, 1919 Last Survey 10th August 1921

Reg. Book. on the Old Steamer Kermare (Number of Visits 115)

Master Built at Ardnaman By whom built Ardnaman & Co Tons ^{Gross} 115 _{Net} When built 1921

Engines made at Greenock By whom made John S Kincaid & Co when made 1921

Boilers made at Greenock By whom made John S Kincaid & Co when made 1921

Registered Horse Power Owners Port belonging to

Com. Horse Power as per Section 28 553 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders From No. of Cranks From

Dia. of Cylinders 36" 42" 48" 48" Length of Stroke 42" Revs. per minute 95 Dia. of Screw shaft ^{as per rule} 13.75 Material of Steel
_{as fitted} 14.76 screw shaft

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

at 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 56"

Dia. of Tunnel shaft ^{as per rule} 12.85 Dia. of Crank shaft journals ^{as per rule} 13.5 Dia. of Crank pin 13.75 Size of Crank webs 27 1/2" x 9" Dia. of thrust shaft under

collars 13.75 Dia. of screw 14" x 0 Pitch of Screw 18" x 3 No. of Blades 4 State whether moceable No Total surface 74 sq ft

No. of Feed pumps Two Diameter of ditto 8" Stroke 20" Can one be overhauled while the other is at work Yes

No. of Bilge pumps Two Diameter of ditto 3 1/2" Stroke 21" Can one be overhauled while the other is at work Yes

No. of Donkey Engines Two Sizes of Pumps 10" x 10" & 6" x 8" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room In Holds, &c.

Circulating Pump Exhaust Engine No. of Bilge Injections two sizes 8" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes

Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

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

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

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

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

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top of the frame

BOILERS, &c.—(Letter for record No) Manufacturers of Steel White Iron & Open Iron

Total Heating Surface of Boilers 8932 Is Forced Draft fitted Yes No. and Description of Boilers From Single Ended

Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 28/9/20 & 1/10/20 No. of Certificate 1496-1502

Can each boiler be worked separately Yes Area of fire grate in each boiler 53.62 sq ft No. and Description of Safety Valves to

each boiler Two Spring Area of each valve 8.29 sq in Pressure to which they are adjusted lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 13" Mean dia. of boilers 13.9" Length 12'0" Material of shell plates Steel

Thickness 1 9/32 Range of tensile strength 28-32 Are the shell plates welded or flanged Yes Descrip. of riveting: seams all on top

Long. seams all on top Diameter of rivet holes in long. seams 1 7/16 Pitch of rivets 9/8 Lap of plates or width of butt straps 19 1/2

Per centages of strength of longitudinal joint rivets 85-85 Working pressure of shell by rules 211 lbs Size of manhole in shell 16" x 12"

Size of compensating ring 8" x 1 9/32 No. and Description of Furnaces in each boiler 3 Furnaces Material Steel Outside diameter 43 1/4

Length of plain part ^{top} 10 1/16 Thickness of plates ^{bottom} 10 1/16 Description of longitudinal joint welded No. of strengthening rings None

Working pressure of furnace by the rules 203 lbs Combustion chamber plates: Material Steel Thickness: Sides 1 1/16 Back 1 1/16 Top 1 1/16 Bottom 1 3/16

Pitch of stays to ditto: Sides 8 7/8 x 8 1/2 Back 8 1/4 Top 8 7/8 x 5 1/4 If stays are fitted with nuts or riveted heads None Working pressure by rules 211 lbs

Material of stays Iron Area at smallest part 2.1 sq in Area supported by each stay 78 sq in Working pressure by rules 203 lbs End plates in steam space:

Material Steel Thickness 1 1/4 Pitch of stays 20" x 18" How are stays secured all nuts Working pressure by rules 204 lbs Material of stays Steel

Area at smallest part 7.2 sq in Area supported by each stay 16 sq in Working pressure by rules 209 lbs Material of Front plates at bottom Steel

Thickness 1 1/32 Material of Lower back plate Steel Thickness 1 1/16 Greatest pitch of stays 13" Working pressure of plate by rules 205 lbs

Diameter of tubes 2 1/2 Pitch of tubes 3 3/4" x 3 7/8" Material of tube plates Steel Thickness: Front 1 1/32 Back 1 1/16 Mean pitch of stays 7.8"

Pitch across wide water spaces 13 1/2 Working pressures by rules 209 lbs Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 10 1/4" x 1 9/16 Length as per rule 37.62 Distance apart 8 1/4 Number and pitch of stays in each Three 8 7/8"

Working pressure by rules 205 lbs 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

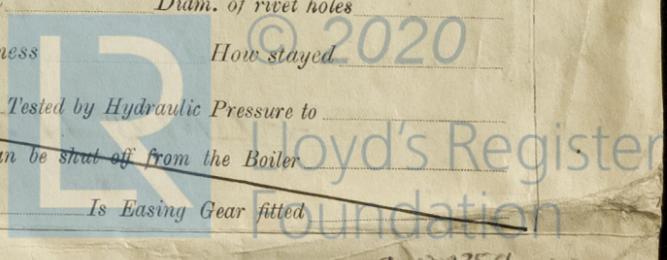
SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

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

Kincaid & Co

14-48



202249-20259-013

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *No*

SPARE GEAR. State the articles supplied:— *The top end bolts. The bottom end bolts. The main bearing bolts. One set coupling bolts. One set dead pump valves. One set Bilge pump valves. The main crank pin bushes. The escape valve opening cock. One safety valve opening bolt. One pair top end bushes.*

The foregoing is a correct description,
THE JOHN G. KINCAID & COY., LIMITED

Lloyd's Register
General Manager,

Manufacturer.

Dates of Survey while building	During progress of work in shops --	1919. Oct 28. Nov 21. 24. 28. Dec 2. 8. 12. 15. 18. 22. 26. 30. 1920. Jan 8. 13. 16. 20. 25. 28. Feb. 3. 10. 17. 19. 24. Mar. 1. 4. 8. 10. 17. 22. 26. 30.
		31. Oct 2. 7. 13. 19. 28. May. 5. 7. 13. 17. 21. 26. 31. June 4. 8. 9. 11. 16. 24. July 15. 21. 26. 28. Aug. 2. 4. 11. 17. 19. 25. 30. Sept 2. 6. 8. 11. 14.
		16. 17. 22. 24. 28. 30. Oct 4. 8. 11. 21. 28. Nov. 3. 5. 11. 12. 18. 25. 30. Dec. 2. 8. 15. 20. 24. 29. 1921. Feb. 11. 15. 21. Mar. 7. 8. May. 23. 27. June 1. 3.
	During erection on board vessel --	Jan. 10. 16. 24. 25. 27. 29. July 14. 15. 20. 26. 27. 28. Aug. 1. 2. 3. 10
	Total No. of visits	115.

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

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

Dates of Examination of principal parts—Cylinders *15/7/20* Slides *28/7/20* Covers *15/7/20* Pistons *20/8/20* Rods *21/7/20*
 Connecting rods *21/7/20* Crank shaft *29/6/20* Thrust shaft *29/6/20* Tunnel shafts *30/7/20* Screw shaft *29/6/20* Propeller
 Stern tube *14/9/20* Steam pipes tested *24/6/21 10/5/21* Engine and boiler seatings Engines holding down bolts *20/7/21*
 Completion of pumping arrangements Boilers fixed *1/6/21* Engines tried under steam
 Completion of fitting sea connections Stern tube Screw shaft and propeller
 Main boiler safety valves adjusted Thickness of adjusting washers
 Material of Crank shaft *Steel* Identification Mark on Do. *380* Material of Thrust shaft *Steel* Identification Mark on Do. *380*
 Material of Tunnel shafts *Steel* Identification Marks on Do. *380* Material of Screw shafts *Steel* Identification Marks on Do. *380*
 Material of Steam Pipes *Iron* Test pressure *600 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 *Old Ardmore SA RH 17792*

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

The Engines 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 our opinion in safe working condition, and the case is respectfully submitted for the notification of L.M.C. 11. 21 fitted for oil fuel 11.21 F.P. above 150°F

GREENOOK

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

The amount of Entry Fee ...	£ 6 : 0	When applied for,	
Special ...	£ 102 : 10		22/11/1921
Donkey Boiler Fee ...	£ :	When received,	
Travelling Expenses (if any) £	3 : 0		30.12.1921

James James

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned *+ LMC 11.21.*

Fitted for oil fuel 11,21 F.P. above 150°F.



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Foundation