

## REPORT ON MACHINERY.

No. 10057.

Received at London Office MAR. 22 1918.

Date of writing Report 10 When handed in at Local Office 20.3.18 10 Port of Middlesbrough  
No. in Survey held at Stockton-on-Tees Date, First Survey 15.11.17 Last Survey 13.11.18  
Reg. Book. on the Steel Screw Steamer KENILWORTH (S.S. No. 662) Tons { Gross 545.7.10  
Net 328.7.99  
Master J. G. Crane Built at Stockton By whom built Richardson Duck & Co When built 1918.  
Engines made at Stockton By whom made Messrs Blair & Co Ltd. (No. 1855) when made 1918.  
Boilers made at Stockton By whom made Messrs Blair & Co Ltd when made 1918.  
Registered Horse Power Owners DalGLISH Steam Shipping Co Port belonging to Newcastle  
Nom. Horse Power as per Section 28 615 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Tri-compound No. of Cylinders 3 No. of Cranks 3  
Dia. of Cylinders 28-465-78 Length of Stroke 54 Revs. per minute 66 Dia. of Screw shaft as per rule 15.84 Material of steel  
as fitted 17 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  
in the propeller boss yes If the liner is in more than one length are the joints burned in one 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 tight fit If two  
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 5'-7 1/2"  
Dia. of Tunnel shaft as per rule 14.29 Dia. of Crank shaft journals as per rule 15.0 Dia. of Crank pin 16" Size of Crank webs 31 x 10 1/2" Dia. of thrust shaft under  
as fitted 15 collars 16" Dia. of screw 19'-0" Pitch of Screw 18'-6" No. of Blades 4 State whether moveable no Total surface 114 sq ft  
No. of Feed pumps 2 Diameter of ditto 4" Stroke 36" Can one be overhauled while the other is at work yes  
No. of Bilge pumps 2 Diameter of ditto 5" Stroke 36" Can one be overhauled while the other is at work yes  
No. of Donkey Engines 5 Sizes of Pumps 11 x 10 5 x 21 8 x 5 x 8 No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room 3 @ 3 1/2" & 1 @ 3 1/2" under boilers 8 x 5 x 8 In Holds, &c. 2 @ 3 1/2" in each hold; Tunnel with 1 @ 2 1/2"  
Arranged to carry oil fuel in double bottom tanks  
No. of Bilge Injections 1 sizes 8" Connected to condenser & to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 4"  
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 stowhold 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 Suctions to forward holds How are they protected wood  
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 3.12.18 of Stern Tube 3.12.18 Screw shaft and Propeller 31.1.18  
Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top platform

BOILERS, &c.—(Letter for record (5)) Manufacturers of Steel Messrs John Spencer & Sons Ltd  
Hawdens  
Total Heating Surface of Boilers 9006 Is Forced Draft fitted yes No. and Description of Boilers 3 single ended  
Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 9.2.18 No. of Certificate 5866  
Can each boiler be worked separately yes Area of fire grate in each boiler 72 sq ft No. and Description of Safety Valves to  
each boiler 2 direct spring Area of each valve 12.56 Pressure to which they are adjusted 185 Are they fitted with easing gear yes  
Smallest distance between boilers or uptakes and bunkers or woodwork 10'-0" External Mean dia. of boilers 16'-0" Length 12'-0" Material of shell plates steel  
Thickness 1 1/2" Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 2 R. lap  
long. seams 2 B-3 Riv Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 9 3/8" Lap of plates or width of butt straps 20 3/8 x 1 3/8  
5 Rivs per pitch rivets 21.4 Working pressure of shell by rules 183 Size of manhole in shell 16" x 12"  
Per centages of strength of longitudinal joint plate 85.33  
Size of compensating ring 7 1/2" x 1 1/2" No. and Description of Furnaces in each boiler 4 Dighton Material steel Outside diameter 42 1/2"  
Length of plain part top 17 Thickness of plates crown 32 Description of longitudinal joint weld No. of strengthening rings  
bottom 32  
Working pressure of furnace by the rules 191 Combustion chamber plates: Material steel Thickness: Sides 2 1/32 Back 2 1/32 Top 2 1/32 Bottom 1 1/16  
Pitch of stays to ditto: Sides 8 1/2 x 8 1/2 Back 9 1/2 x 8 1/2 Top 9 x 8 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 183  
Material of stays steel Diameter at smallest part 1.99 Area supported by each stay 81.5 Working pressure by rules 220 End plates in steam space:  
Material steel Thickness 1 1/2" Pitch of stays 16 1/2 x 21 How are stays secured nuts & 8 x 3/4 washers Working pressure by rules 187 Material of stays steel  
Diameter at smallest part 7.24 Area supported by each stay 333 Working pressure by rules 226 Material of Front plates at bottom steel  
Thickness 3 1/32 Material of Lower back plate steel Thickness 1" Greatest pitch of stays 15 1/2 x 8 1/2 Working pressure of plate by rules 220  
Diameter of tubes 2 1/2" Pitch of tubes 3 3/4 x 3 3/4 Material of tube plates steel Thickness: Front 3 1/32 Back 1 1/16 Mean pitch of stays 8 1/2  
Pitch across wide water spaces 13 1/2 Working pressures by rules 184 Girders to Chamber tops: Material steel Depth and  
thickness of girder at centre 8" x 2" Length as per rule 33 Distance apart 9" Number and pitch of stays in each 3 @ 8 1/2"  
Working pressure by rules 187 Superheater or Steam chest; how connected to boiler none 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

010056-010066-0202



4/ No 10057.  
IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— *Two each of con. and top-end, Bottom-end and main bearing bolts and nuts; one set of coupling bolts and nuts; one set of feed and bilge pump valves; assorted bolts and nuts; iron of various sizes; one pair bottom end bushes; one pair of top end bushes; H.P. piston valve ring; one H.P. piston rod and one H.P. valve spindle gland; one amplifier for centrifugal pumps; and one tail end shaft.*

The foregoing is a correct description,  
FOR BLAIR & Co., LIMITED.

*Geo. Matthews*

Manufacturer.

Dates of Survey while building  
During progress of work in shops *1917 Oct 15 Nov 1, 2, 14, 15, 16, 20, 22, 23, 26, 28, 29, 30 Dec 3, 4, 6, 7, 10, 12, 13, 14, 17, 19, 21, 22*  
During erection on board vessel *28. 1918 Jan 3, 4, 7, 11, 14, 15, 17, 18, 21, 23, 25, 28, 29, 30, 31 Feb 1, 5, 6, 9, 12, 19, 21, 22, 27, 28 Mar*  
Total No. of visits *6, 12, 13, 15, 19. 57.*

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

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *3.12.17* Slides *26.11.17* Covers *3.12.17* Pistons *7.12.17* Rods *21.12.17*  
Connecting rods *13.12.17* Crank shaft *21.12.17* Thrust shaft *19.12.17* Tunnel shafts *17.1.18* Screw shaft *21.1.18* Propeller *18.1.18*  
Stern tube *28.11.17* Steam pipes tested *4/18* 28.12.17 Engine and boiler settings *29.11.17* Engines holding down bolts *12.2.18*  
Completion of pumping arrangements *15.3.18* Boilers fixed *28.2.18* Engines tried under steam *28.2.18*  
Main boiler safety valves adjusted *28.2.18* Thickness of adjusting washers *P/Bh 3-1/32 P-19/32 S-19/32 S/Bh 5-3/8*  
Material of Crank shaft *By Steel* Identification Mark on Do. *7125* Material of Thrust shaft *By Steel* Identification Mark on Do. *2981-N*  
Material of Tunnel shafts *By Steel* Identification Marks on Do. *2981-N* Material of Screw shafts *By Steel* Identification Marks on Do. *7125*  
Material of Steam Pipes *Lap welded W. Iron* Test pressure *540 lbs*

Is an installation fitted for burning oil fuel *no*

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 *no* If so, state name of vessel ☒

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

*The machinery of this vessel has been built under special survey. The materials and workmanship are sound and good. The boilers were tested by hydraulic pressure and the engines and boilers examined under steam and all found satisfactory.*

*The machinery is now in a good and safe working condition and renders the vessel eligible in my opinion to have the notation of  $\times$  LMC 3.18 and "carrying oil fuel F.P. above 150°F in double bottom tanks" in the Register Book.*

*The vessel is fitted with Electric Light & "Wireless"*

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 3.18 F.D.

The amount of Entry Fee ... £ *3-0-0*  
Special ... £ *50-15-0*  
Donkey Boiler Fee ... £ *✓*  
Travelling Expenses (if any) £ *✓*

When applied for,

*19/3/1918*

When received,

*21/3/1918*

*W. Morrison*

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

Committee's Minute *FRI APR 12 1918*

Assigned *+ L. M. C. 3.18 F.D.*

MACHINERY CERTIFICATE  
WRITTEN



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Foundation