

REPORT ON MACHINERY.

Received at London Office 25 FEB. 1918

Date of writing Report 26th March 1918 When rendered in at Local Office 23 FEB. 1918 Port of BUNDERLAND.

No. in Survey held at BUNDERLAND. Date, First Survey 15th May 17 Last Survey 22nd March 1918
Reg. Book. on the new steel 515" WAR POINTER."

Master By whom built Newcastle By whom built Armstrong Whitworth & Co. Ltd. (No. 932) When built 1918
Engines made at Sunderland By whom made George Blanks Ltd. (No. 1064) when made 1918
Boilers made at Sunderland By whom made George Blanks Ltd. (No. 1064) when made 1918

Registered Horse Power Owners The shipping controller Port belonging to London
Nom. Horse Power as per Section 28 514 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 24" 44" 73" Length of Stroke 48" Revs. per minute 75 Dia. of Screw shaft as per rule 14.69 Material of shaft steel
as fitted 15.2 screws 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 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 5'0"

Dia. of Tunnel shaft as per rule 13.32 Dia. of Crank shaft journals as per rule 14" Dia. of Crank pin 14" Size of Crank webs 22" x 9" Dia. of thrust shaft under collars 14" Dia. of screws 11.6" Pitch of Screw 16.6" No. of Blades 4 State whether moveable no Total surface 1.0254

No. of Feed pumps 2 Diameter of ditto 4" Stroke 2'0" Can one be overhauled while the other is at work yes
No. of Bilge pumps 2 Diameter of ditto 4" Stroke 2'0" Can one be overhauled while the other is at work yes

No. of Donkey Engines 3 Sizes of Pumps 10 3/4" x 18" 9 1/2" x 18" 9 1/4" x 18" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 4 @ 3 1/2" In Holds, &c. No. 1 hold 2 @ 3 1/2" No. 2 hold 2 @ 3 1/2"

No. of Bilge Injections 1 size 9" Connected to condenser, or to circulating pump to P. 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 none 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

Dates of examination of completion of fitting of Sea Connections: 10-1-18 of Stern Tube 22-1-18 Screw shaft and Propeller 22-1-18
Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door no worked from access by trunk from deck

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel John Spence & Sons Ltd.

Total Heating Surface of Boilers 7668 sq ft Is Forced Draft fitted yes No. and Description of Boilers three single ended marine
Working Pressure 180 Tested by hydraulic pressure to 360 Date of test: 16-11-14 No. of Certificate 3447

Can each boiler be worked separately yes Area of fire grate in each boiler 63 sq ft No. and Description of Safety Valves to each boiler two direct spring
Area of each valve 9.60" Pressure to which they are adjusted 185 Are they fitted with easing gear yes

Smallest distance between boilers on uptakes and bunkers on woodwork 3-11" Mean dia. of boilers 15-6" Length 11-8 1/2" Material of shell plates steel
Thickness 1 1/2" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR

long. seams DR STR Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 9 1/8" Lap of plates or width of butt straps 1-7 1/2"
Per centages of strength of longitudinal joint: rivets 89.2 plate 85.6 Working pressure of shell by rules 182 Size of manhole in shell 16" x 12"

Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Deighton Material steel Outside diameter 4.2 3/16"
Length of plain part top 14" bottom 32" Thickness of plates top 14" bottom 32" Description of longitudinal joint welded No. of strengthening rings no

Working pressure of furnace by the rules 188 Combustion chamber plates: Material steel Thickness: Sides 3/32" Back 1/16" Top 3/32" Bottom 3/32"
Pitch of stays to ditto: Sides 10 5/8" x 9 1/2" Back 10 1/4" x 8 3/4" Top 10 5/8" x 9 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180

Material of stays steel Diameter at smallest part 2.360" Area supported by each stay 98.50" Working pressure by rules 216 End plates in steam space: Material steel Thickness 1 1/32"
Pitch of stays 21 3/4" x 20 1/2" How are stays secured on wash Working pressure by rules 190 Material of stays steel

Diameter at smallest part 8.290" Area supported by each stay 4730" Working pressure by rules 182 Material of Front plates at bottom steel
Thickness 3/32" Material of Lower back plate steel Thickness 3/32" Greatest pitch of stays 13 5/8" x 8 3/4" Working pressure of plate by rules 188

Diameter of tubes 1 3/4" Pitch of tubes 4 x 3 1/8" Material of tube plates steel Thickness: Front 3/32" Back 3/4" Mean pitch of stays 11 5/8" x 8"
Pitch across wide water spaces 13 5/8" Working pressures by rules 181 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 10" x 1 3/4" Length as per rule 35 9/16" Distance apart 10 5/8" Number and pitch of stays in each 3 @ 9 1/4"

Working pressure by rules 188 Superheater or Steam chest; how connected to boiler none Can the superheater be shut off, and the boiler worked separately no
Diameter no Length 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 Diameter of flue no Material of flue plates no Thickness no

If stiffened with rings no Distance between rings no Working pressure by rules no End plates: Thickness no How stayed no
Working pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear no

IS A DONKEY BOILER FITTED? no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - two top end, two bottom end, two main bearing bolts & nuts, a set of coupling bolts, a set of feed & bilge pump valves, a quantity of assorted bolts nuts & washers, six feed check valves, twelve junk ring studs, a propeller & H.P. piston valve.

The foregoing is a correct description,
FOR GEORGE CLARK LIMITED.

W.S. Mills

Manufacturer. 2 Main Engines Builders

Dates of Survey while building: During progress of work in shops - 1917 May 15, 20 Jun 2, 11, 12, 14, 15, 22, 29 Jul 10, 12, 13, 16, 23, 25 Aug 1, 2, 13, 20, 22, 23, 24, 29 Sep 4, 6, 7, 12, 13, 18, 25, 27, 28
During erection on board vessel - Oct 2, 4, 5, 9, 12, 17, 24, 29 Nov 1, 2, 8, 13, 16, 22, 27, 29, 30 Dec 5, 6, 11, 13, 14, 17, 18, 19 Jan 15, 17, 22, 23, 25, 28, 29 Feb 1, 4, 5, 8, 12, 13, 14
Total No. of visits at Newcastle 1918 Jan 10 Feb 27 Mar 15, 22 (77 + 4) Is the approved plan of main boiler forwarded herewith yes

Dates of Examination of principal parts - Cylinders 24-8-17 Slides 8-11-17 Covers 10-7-17 Pistons 27-9-17 Rods 25-9-17
Connecting rods 2-11-17 Crank shaft 28-9-17 Thrust shaft 5-10-17 Tunnel shafts 6-12-17 Screw shaft 6-12-17 Propeller 15-1-18
Stern tube 15-1-18 Steam pipes tested 15 & 31-1-18 Engine and boiler seatings 10-1-18 Engines holding down bolts 1-2-18
Completion of pumping arrangements 13-2-18 Boilers fixed 1-2-18 Engines tried under steam 12-2-18
Main boiler safety valves adjusted 12-2-18 Thickness of adjusting washers low 1/16 5/8, low 1/16 1/2, low 1/16 5/16, standard 1/16 5/8
Material of Crank shaft Suspension Identification Mark on Do. 816 DSW Material of Thrust shaft Steel Identification Mark on Do. 45135AH
Material of Tunnel shafts Suspension Identification Marks on Do. 816 DSW Material of Screw shafts Suspension Identification Marks on Do. 816 DSW
Material of Steam Pipes Lapwelded wrought iron Test pressure 540 lbs sq in
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 yes If so, state name of vessel Standard Type A

General Remarks (State quality of workmanship, opinions as to class, &c. To complete the survey the screw down non return valves in the hold suction pipe lines require to be made workable from the deck, and the spare gear to be supplied and checked. Vessel returned to R Type for completion. Newcastle surveyors advised. The material and workmanship is good. The machinery has been constructed under special survey and is eligible in our opinion for classification and the record + LMC 3-18 when the survey is complete.

The vessel has been fitted for carrying oil fuel in the double bottom FP above 150°F in accordance with the requirements for standard vessels.

A report on the electric installation will be forwarded when received from the electricians.

Screw down non-return valves to bilge suction made workable from deck & spare gear checked

It is submitted that this vessel is eligible for THE RECORD + LMC 3-18. F.D.

The amount of Entry Fee ... £ : : When applied for, 10/4/18
Special ... £ 117 : : 5-4-19-18
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 9-4-19-18

W.D. Davis, W.L. Hall & Thomas Field
Engineer Surveyors to Lloyd's Register of British & Foreign Shipping.

Committee's Minute FRI. APR 12 1918.
Assigned + L.M.O 3-18 F.D.

SUNDERLAND

The Surveyors are requested not to write on or below the space for Committee's Minute.

MACHINERY CERTIFICATE WRITTEN.

