

REPORT ON MACHINERY.

No. 27616

Received at London Office

26 SEP 1919 Port of Sunderland
 Date, First Survey 7 Apr 19 Last Survey 19th Sept 1919
 (Number of Visits 31)
 Survey held at Sunderland
 in 59 on the new steel S/S "CYPRIAN PRINCE"
 Tons Gross 3110 3071
 Net 1860 1853
 Master Reed Built at Sunderland By whom built J. Blumer & Co S/S No. 252 When built 1919
 Engines made at Sunderland By whom made J. Dickinson & Sons Ltd (No. 844) when made 1919
 Boilers made at Sunderland By whom made J. Dickinson & Sons Ltd (No. 844) when made 1919
 Registered Horse Power 358 Owners Prince Line Ltd (Turner, Withy & Co Ltd) Port belonging to Newcastle
 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

GINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3
 a. of Cylinders 25"-41"-68" Length of Stroke 45" Revs. per minute 80 Dia. of Screw shaft as per rule 13.58" Material of Scraper Iron
as fitted 14.2" screw shaft
 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
 the propeller boss yes If the liner is in more than one length are the joints burned yes 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 yes If two
 liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 5'-0"
 Dia. of Tunnel shaft as per rule 12.4" Dia. of Crank shaft journals as per rule 13.03" Dia. of Crank pin 13.4" Size of Crank web 8 7/16" x 27 1/2" Dia. of thrust shaft under
as fitted 12.3" as fitted 13.4"
 Bars 13 1/2" Dia. of screw 16'-0" Pitch of Screw 16'-3" No. of Blades 4 State whether moveable no Total surface 75 sq ft
 No. of Feed pumps 2 Diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 3 Sizes of Pumps 10 1/2" x 21" 2 @ 9 1/2" x 7 1/8" No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 5 @ 3" (the additional suction being at fore end of sea well) In Holds, &c. No. 1 hold 2 @ 3" No. 2 hold 2 @ 3" No. 3 hold 2 @ 3" No. 4 hold 2 @ 2 1/2" x 1 @ 3 1/2" Tunnel well 1 @ 3"
 No. of Bilge Injections 2 sizes 8" Connected to condenser, or to circulating pump yes 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 main below, all others 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
 How are they protected under limber boards
 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 top platform

ILERS, &c.—(Letter for record S) Manufacturers of Steel John Spence & Sons Ltd.
 Total Heating Surface of Boilers 5817 sq ft Is Forced Draft fitted no No. and Description of Boilers three, single ended marine
 Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 23-8-19 No. of Certificate 3600
 Can each boiler be worked separately yes Area of fire grate in each boiler 51 sq ft No. and Description of Safety Valves to
 each boiler two, direct spring Area of each valve 5.95 sq ft Pressure to which they are adjusted 185 Are they fitted with easing gear yes
 Smallest distance between boilers on uptakes and bunkers on woodwork 1'-10" Mean dia. of boilers 14'-0" Length 11'-8 1/2" Material of shell plates steel
 Thickness 1 1/8" Range of tensile strength 28 3/4 - 33 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR.
 g. seams DBS. TR Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8 1/2" Lap of plates or width of butt straps 1'-6"
 Percentages of strength of longitudinal joint rivets 86.1 Working pressure of shell by rules 181 Size of manhole in end 16" x 12"
 plate 86
 Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 completed (right) Material steel Outside diameter 3'-7"
 Length of plain part top 17" Thickness of plates bottom 3 1/2" Description of longitudinal joint welded No. of strengthening rings —
 Working pressure of furnace by the rules 190 Combustion chamber plates: Material steel Thickness: Sides 13 1/16" Back 3 1/4" Top 13 1/16" Bottom 13 1/16"
 Pitch of stays to ditto: Sides 9 3/8" x 12 1/8" Back 9" x 10 1/2" Top 9 3/8" x 12 1/8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 194
 Material of stays steel Area at smallest part 2.350 sq ft Area supported by each stay 1140 sq ft Working pressure by rules 185 End plates in steam space:
 Material steel Thickness 1 1/8" Pitch of stays 23 1/2" x 19 1/2" How are stays secured DN & W Working pressure by rules 181 Material of stays steel
 Area at smallest part 8.290 sq ft Area supported by each stay 4640 sq ft Working pressure by rules 186 Material of Front plates at bottom steel
 Thickness 3 1/2" Material of Lower back plate steel Thickness 3 1/2" Greatest pitch of stays 13 1/2" x 9" Working pressure of plate by rules 185
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates steel Thickness: Front 3 1/2" Back 3 1/4" Mean pitch of stays 9 1/2"
 Pitch across wide water spaces 14 1/2" Working pressures by rules 189 Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 10 1/4" x 3 1/4" Length as per rule 2'-11 1/2" Distance apart 9 3/8" Number and pitch of stays in each 2 @ 12 1/8"
 Working pressure by rules 216 Steam dome: description of joint to shell none % 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

003377-003384-008

IS A DONKEY BOILER FITTED? *no*

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

SPARE GEAR. State the articles supplied:—Two connecting rod top and bottom end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed and bilge pump valves iron and bolts of various sizes, three main and three donkey chest valves, two safety valve springs, one propeller.

The foregoing is a correct description,

John Dickinson & Sons, Limited

W. Dickinson

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1919 Apr 7, 16, 25, 30 May 12, 19, 21, 23 Jun 2, 3, 13, 20, 24 Jul 10, 11, 14, 22, 28 Aug 8, 12, 15, 21, 23, 27
During erection on board vessel --- Sept 1, 2, 3, 5, 12, 19
Total No. of visits (24)

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

Dates of Examination of principal parts—Cylinders 13-6-19 Slides 13-6-19 Covers 11-7-19 Pistons 20-6-19 Rods 12-5-19
Connecting rods 19-5-19 Crank shaft 14-7-19 Thrust shaft 14-7-19 Tunnel shafts 21-7-19 Screw shaft 21-7-19 Propeller 14-7-19
Stern tube 29-7-19 Steam pipes tested 8-9-19 Engine and boiler seatings 21-5-19 Engines holding down bolts 5-9-19
Completion of pumping arrangements 5-9-19 Boilers fixed 5-9-19 Engines tried under steam 12-9-19
Completion of fitting sea connections 21-5-19 Stern tube 8-8-19 Screw shaft and propeller 8-8-19
Main boiler safety valves adjusted 12-9-19 Thickness of adjusting washers *P 13 1/4 P 7 5/8 L 1 1/2 P 15 5/8 S 1 1/2 S 1 1/2 S 1 1/2 S 1 1/2*
Material of Crank shaft *Steel* Identification Mark on Do. *844 L C 10* Material of Thrust shaft *Steel* Identification Mark on Do. *844 L C 10*
Material of Tunnel shafts *Steel* Identification Marks on Do. *844 L C 10* Material of Screw shafts *Steel* Identification Marks on Do. *844 L C 10*
Material of Steam Pipes *Steel* Test pressure *540 lb sq in*

Is an installation fitted for burning oil fuel? *no*

Is the flash point of the oil to be used over 150°F. *-*

Are 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 C type, natural draught*

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

The materials and workmanship are good.
The machinery has been constructed under special survey and is eligible in my opinion for classification and the record + LMC 9, 19.

It is submitted that
this vessel is eligible for
THE RECORD + LMC 9, 19.

JWD
6/10/19
ARR

The amount of Entry Fee ... £ : : When applied for, *23-9-1919*
Special ... £ *68 4 1*
Donkey Boiler Fee ... £ : : When received, *25 SEP 1919*
Travelling Expenses (if any) £ : :

L. C. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 7-OCT. 1919

Assigned

+ LMC 9, 19

MASTERY CERTIFICATE
MAILED



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Foundation