

REPORT ON MACHINERY.

Received at London Office

Date of writing Report 21st Nov 1924 at London Office Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 21st Nov 1924 Last Survey 19
 Reg. Book. on the new steel **S/S "KAFIRISTAN"** (Number of Plates 5193)
 Master Built at Sunderland By whom built Short Brothers (S/S No. 417) When built 1924
 Engines made at Sunderland By whom made Dickinson & Sons Ltd (No. 877) when made 1924
 Boilers made at Sunderland By whom made Dickinson & Sons Ltd (No. 877) when made 1924
 Registered Horse Power Owners Common Bros. Port belonging to Newcastle-on-Tyne
 Nom. Horse Power as per Section 28 363 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 25-41-68 Length of Stroke 48 Revs. per minute 65 Dia. of Screw shaft as per rule 14 1/2 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 5-0"
 Dia. of Tunnel shaft as per rule 12.68 Dia. of Crank shaft journals as per rule 13.31 Dia. of Crank pin 13 3/4 Size of Crank webs 24 1/2 x 8 1/2 Dia. of thrust shaft under
 collars 13 3/4 Dia. of screw 17-3 Pitch of Screw 16-3 No. of Blades 4 State whether moveable no Total surface 933 sq ft
 No. of Feed pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps 9 1/2 x 10 1/2 & 5 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3 @ 3" In Holds, &c. No. 1 hold - 2 @ 3" No. 2 hold (with
cross bunker) - 2 @ 3 1/2" No. 3 hold - 2 @ 3" No. 4 hold - 2 @ 3" Tunnel well - 1 @ 2 1/4"
 No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size yes 5"
 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 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 forward hold suction How are they protected under timber 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
 Dates of examination of completion of fitting of Sea Connections 30-7-24 of Stern Tube 13-8-24 Screw shaft and Propeller 13-8-24
 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 Daird Bell & Sons Ltd & John Brown & Co. Ltd
 Total Heating Surface of Boilers 58060 Is Forced Draft fitted no No. and Description of Boilers two single ended marine
 Working Pressure 180 Tested by hydraulic pressure to 320 Date of test 23 & 31-7-24 No. of Certificate 38908 & 3893
 Can each boiler be worked separately yes Area of fire grate in each boiler 740 sq ft No. and Description of Safety Valves to
 each boiler two direct spring Area of each valve 11.050 Pressure to which they are adjusted 185 Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 25" Mean dia. of boilers 17-0" Length 11-6" Material of shell plates Steel
 Thickness 1 5/16" Range of tensile strength 29 1/2 - 33 ton Are the shell plates welded or flanged no Descrip. of riveting: cir. seams WR
 long. seams DBS-TR Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 9 1/2" Lap of plates or width of butt straps 20 1/4"
 Per centages of strength of longitudinal joint 88.6 Working pressure of shell by rules 180 Size of manhole in steel 16 x 12"
 Size of compensating ring flanged No. and Description of Furnaces in each boiler 4 Morrison Material Steel Outside diameter 45"
 Length of plain part top 17" Thickness of plates bottom 1 3/8" Description of longitudinal joint welded No. of strengthening rings none
 Working pressure of furnace by the rules 183 Combustion chamber plates: Material Steel Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 1 1/16"
 Pitch of stays to ditto: Sides 9 1/2 x 10 1/2" Back 9 x 10" Top 9 x 10" If stays are fitted with nuts or riveted heads nut in ends Working pressure by rules 180
 Material of stays Steel Diameter at smallest part 2.050" Area supported by each stay 900 Working pressure by rules 202 End plates in steam space:
 Material Steel Thickness 1 3/16" Pitch of stays 22 x 18" How are stays secured W & W Working pressure by rules 184 Material of stays Steel
 Diameter at smallest part 1 3/16" Area supported by each stay 3960 Working pressure by rules 192 Material of Front plates at bottom Steel
 Thickness 7/8" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 12 1/4" Working pressure of plate by rules 230
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/2 x 4 1/2" Material of tube plates Steel Thickness: Front 1 1/8" Back 1 1/8" Mean pitch of stays 9"
 Pitch across wide water spaces 13 1/2 (5/8)" Working pressures by rules 193 Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 20 1/4 x 1 1/2" Length as per rule 33 9/16" Distance apart 10" Number and pitch of stays in each 3 @ 9"
 Working pressure by rules 190 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

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IS A DONKEY BOILER FITTED? yes If so, is a report now forwarded? yes
 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, one screw shaft and one propeller

The foregoing is a correct description, limited

S. Dickinson Manufacturer.

Dates of Survey while building { During progress of work in shops - - } 1924. March 31. May 7, 9, 21, 26 June 12 July 2, 3, 7, 10, 12, 15, 23, 25, 28, 30, 31 Aug 6, 11
 { During erection on board vessel - - - } 13, 16, 18, 19, 20, 21, 22, 25, 27, 28
 Total No. of visits 30 Is the approved plan of main boiler forwarded herewith yes
 " " " donkey " " " yes

Dates of Examination of principal parts - Cylinders 25-7-24 Slides 12-7-24 Covers 6-8-24 Pistons 23-7-24 Rods 23-7-24
 Connecting rods 6-8-24 Crank shaft 28-7-24 Thrust shaft 28-7-24 Tunnel shafts 28-7-24 Screw shaft 28-7-24 Propeller 11-8-24
 Stern tube 11-8-24 Steam pipes tested 28-7-24 16-8-24 Engine and boiler seatings 11-8-24 Engines holding down bolts 21-8-24
 Completion of pumping arrangements 22-8-24 Boilers fixed 18-8-24 Engines tried under steam 22-8-24
 Main boiler safety valves adjusted 22-8-24 Thickness of adjusting washers Port bl - F 3/8" A 1/2" Star bl - F 3/8" A 1/2"

Material of Crank shaft I. Steel Identification Mark on Do. LLOYD'S N26847 L.C.D. 28-7-24 Material of Thrust shaft I. Steel Identification Mark on Do. LLOYD'S N26847 L.C.D. 28-7-24
 Material of Tunnel shafts I. Steel Identification Marks on Do. LLOYD'S N26847 L.C.D. 28-7-24 Material of Screw shafts I. Steel Identification Marks on Do. LLOYD'S N26847 L.C.D. 28-7-24

Material of Steam Pipes solid drawn copper Test pressure 400 lbs per sq"
 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 "Waziristan" (Sld Rpt N-2872)

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 8.24

It is submitted that this vessel is eligible for THE RECORD + LMC 8.24 CL

JWD 1/9/24
APK

The amount of Entry Fee ... £ 5 : : When applied for.
 Special ... £ 79 : 9 : : 25 AUG 1924
 Donkey Boiler Fee ... £ : : :
 Travelling Expenses (if any) £ : : : 27 : 19 :

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

Committee's Minute FRI 5 SEP 1924

FRI. 27 FEB 1931

Assigned + Ldb 8.24
C.L.



SUNDERLAND.

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

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