

REPORT ON MACHINERY.

No. 26955

Received at London Office MON. 16 APR. 1917

of writing Report 10th April 17 When handed in at Local Office 11th April 17 Port of Sunderland
in Survey held at Sunderland Date First Survey 2nd Mar. / East Survey 3rd April 1917
Book. (Number of Visits) 88

on the Machinery of the S.S. Dockleaf Tons { Gross 5311
Net 3005
ster Gibson Built at Sunderland By whom built Bartram & Sons Ltd. When built 1914

ines made at Sunderland By whom made J. Dickinson & Sons Ltd. when made 1914
lers made at " By whom made " when made 1914

istered Horse Power " Managers } Lane & Macandrew Ltd. Port belonging to London
Owners

n. Horse Power as per Section 28 476 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

GINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3
of Cylinders 27 1/2, 45, 75 Length of Stroke 48 Revs. per minute 70 Dia. of Screw shaft as per rule 14.9 Material of screw shaft iron
as fitted 15 1/8

he 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 ✓ 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 ✓ If two

rs are fitted, is the shaft lapped or protected between the liners Length of stern bush 5'-3"
of Tunnel shaft as per rule 13.5 Dia. of Crank shaft journals as per rule 14.18 Dia. of Crank pin 14 1/2 Size of Crank webs 26 x 9 1/4 Dia. of thrust shaft under
as fitted 13 3/4 as fitted 14 1/2

ars 14 1/2 Dia. of screw 17-9 Pitch of Screw 16'-9" No. of Blades 4 State whether moveable no Total surface 99 sq ft

of Feed pumps 2 Dia. of ditto 7 Stroke 24 Can one be overhauled while the other is at work Yes
of Bilge pumps 2 Dia. of ditto 5 Stroke 24 Can one be overhauled while the other is at work Yes

of Donkey Engines 3 Sizes of Pumps 9 x 11 x 10 & 2 of 7 1/2 x 5 x 6 and size of Suctions connected to both Bilge and Donkey pumps
Engine Room 3 of 3 1/2 & 1 of 3 in E.R. 2 of 3 1/2 in stokehold Holds, &c. Oil cargo pumps & 2 of 2 1/2
in fore hold.

of Bilge Injections 1 sizes 7 Connected to condenser, or to circulating pump pumps Is a separate Donkey Suction fitted in Engine room & size Yes 4"
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 no

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

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
at pipes are carried through the bunkers none How are they protected ✓

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

es of examination of completion of fitting of Sea Connections 9/11/16 of Stern Tube 30/11/16 Screw shaft and Propeller 30/11/16

he Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

PLERS, &c.—(Letter for record S) Manufacturers of Steel J. Spencer & Sons

al Heating Surface of Boilers 8055 Is Forced Draft fitted no No. and Description of Boilers 3 single ended
orking Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 10/11/16 No. of Certificate 3365

each boiler be worked separately Yes Area of fire grate in each boiler Oil fuel No. and Description of Safety Valves to
h boiler 2 direct spring Area of each valve 9.6 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

allest distance between boilers or uptakes and bunkers or woodwork 24 Mean dia. of boilers 15'-10 1/8" Length 11'-10 1/2" Material of shell plates Steel
ickness 1 5/16 Range of tensile strength 28 1/2-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams d.t.c.

g. seams 7.7. d. c. 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 1/8
ercentages of strength of longitudinal joint rivets 88.5 Working pressure of shell by rules 190 lbs Size of manhole in shell 16" x 12"
plate 85.5

e of compensating ring 8 3/4 x 1 5/16 No. and Description of Furnaces in each boiler 3 Dighton Material Steel Outside diameter 50"
ngth of plain part top ✓ Thickness of plates crown 1 1/32 Description of longitudinal joint welded No. of strengthening rings ✓
bottom ✓ bottom ✓

orking pressure of furnace by the rules 189 lbs Combustion chamber plates: Material Steel Thickness: Sides 2 1/32 Back 2 1/32 Top 2 1/32 Bottom 7/8
ch of stays to ditto: Sides 8 1/2 x 8 Back 8 1/2 x 8 Top 8 x 8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 219 lbs

terial of stays Steel Diameter at smallest part 1.73 Area supported by each stay 68 Working pressure by rules 204 lbs End plates in steam space:
terial Steel Thickness 1 1/4 Pitch of stays 20 1/2 x 17 How are stays secured d. n. w. Working pressure by rules 209 lbs Material of stays Steel

meter at smallest part 7.85 Area supported by each stay 348.5 Working pressure by rules 234 lbs Material of Front plates at bottom Steel
ickness 2 9/32 Material of Lower back plate Steel Thickness 2 9/32 Greatest pitch of stays 15 1/2 x 8 Working pressure of plate by rules 187 lbs

meter of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates Steel Thickness: Front 2 9/32 Back 7/8 Mean pitch of stays 9" x 9"
ch across wide water spaces 14 1/4 Working pressures by rules 261 lbs Girders to Chamber tops: Material Steel Depth and
ickness of girder at centre 8" x 2" Length as per rule 34 15/16 Distance apart 8" Number and pitch of stays in each 3 of 8"

orking pressure by rules 182 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked
rately ✓ Diameter ✓ Length ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint 2 Diam. of rivet
s ✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness ✓

stiffened with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness ✓ How stayed ✓

orking pressure of end plates ✓ Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

IS A DONKEY BOILER FITTED? *Yes*

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

SPARE GEAR. State the articles supplied:—

Two top end & 2 bottom end bolts 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed & bilge pump valves, a quantity of assorted bolts nuts & iron, propeller shaft & minor parts.

The foregoing is a correct description,

*John Y. Johnson & Sons, Limited
F. Dickinson*

Manufacturer.

Dates of Survey while building: During progress of work in shops - - - 1915 Mar. 2, 16, 19, 22, 30, Apr. 1, 7, 12, Dec. 20, 30, Jan. 20, 28, Feb. 4, 14, 29, Mar. 2, 9, 14, 16, 21, 23, 27, 28, 30, Apr. 4, 6, 11, 14, May 10, 12, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Jun. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Jul. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Aug. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Sep. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Oct. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Nov. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Dec. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Jan. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Feb. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Mar. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Apr. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, May 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Jun. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Jul. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Aug. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Sep. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Oct. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Nov. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Dec. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Total No. of visits (88)

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

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

Dates of Examination of principal parts—Cylinders 18/8/16 Slides 26/7/16 Covers 3/8/16 Pistons 13/6/16 Rods 3/8/16
Connecting rods 18/9/16 Crank shaft 11/7/16 Thrust shaft 31/7/16 Tunnel shafts ✓ Screw shaft 11/10/16 Propeller 9/10/16
Stern tube 28/11/16 Steam pipes tested 29 & 30/12/16 Engine and boiler seatings 30/11/16 Engines holding down bolts 19/12/16
Completion of pumping arrangements 2/4/17 Boilers fixed 19/12/16 Engines tried under steam 20/3/17
Main boiler safety valves adjusted 20/3/17 Thickness of adjusting washers P.A. 1/2" F. 1/2" S.A. 1/2" F. 3/8" Iron. A. 1/2" F. 1/2"
Material of Crank shaft *Steel* Identification Mark on Do. 794 42, 46. Material of Thrust shaft *Steel* Identification Mark on Do. 2/8/16
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *iron* Identification Marks on Do. 9/11/16
Material of Steam Pipes *Solid drawn copper* ✓ Test pressure 360 lbs. ✓

Is an installation fitted for burning oil fuel *Yes* Is the flash point of the oil to be used over 150°F. *Yes*

Have the requirements of Section 49 of the Rules been complied with *Yes*

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 used are good, and the workmanship is satisfactory, it has been properly fitted on board and secured, and the engines have been tried under full power at sea. In my opinion this vessel is eligible for the record of L.M.C. 4.17; fitted for oil fuel over 150°F.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 4.17.

Fitted for oil fuel 4.17. F.P. above 150°F.

The amount of Entry Fee ... £ 3 : :
Special *Boards* ... £ 43 : 16 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 11. 4. 1917
When received, 24. 4. 1917

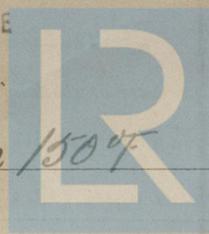
Charles Cooper
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute

Assigned

Fitted for Oil fuel 4.17 F.P. above 150°F

MACHINERY CERTIFICATE WRITTEN



FRI 5 JUL 1913

Lloyd's Register Foundation

BUNDERLAND.

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