

# REPORT ON MACHINERY.

No. 42795

pt. 4.

Received at London Office

WED. JUN. 13 1923

Date of writing Report 8<sup>th</sup> June 1923 When handed in at Local Office 9. 6. 1923 Port of Glasgow  
 Date, First Survey 4<sup>th</sup> June 1920 Last Survey 7<sup>th</sup> June 1923  
 (Number of Visits 46)

Survey held at Glasgow Date, First Survey 4<sup>th</sup> June 1920 Last Survey 7<sup>th</sup> June 1923  
 on the S.S. Hookwood (Number of Visits 46)

Built at Middlesbrough By whom built Furness S. B. C. No. 61 When built  
 Engines made at Glasgow By whom made Ross & Duncan No. 1113 when made 1923

Boilers made at do By whom made do No. 1685-6 when made 1923

Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

Net Horse Power as per Section 28 156 Is Refrigerating Machinery fitted for cargo purposes \_\_\_\_\_ Is Electric Light fitted \_\_\_\_\_

Engines, &c. — Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

No. of Cylinders 17" - 27 1/2" - 45" Length of Stroke 33" Revs. per minute \_\_\_\_\_ Dia. of Screw shaft 9.85" as per rule 9.25" as fitted 10 3/16" Material of screw shaft S.

Is the after end of the liner made water tight \_\_\_\_\_ the screw shaft fitted with a continuous liner the whole length of the stern tube Yes

If the liner does not fit tightly at the part \_\_\_\_\_ the propeller boss \_\_\_\_\_ 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 Yes If two \_\_\_\_\_

are fitted, is the shaft lapped or protected between the liners \_\_\_\_\_ Length of stern bush 40 1/2"

No. of Tunnel shaft \_\_\_\_\_ as per rule 8.62" Dia. of Crank shaft journals \_\_\_\_\_ as per rule 9.05" Dia. of Crank pin 9 1/2" Size of Crank webs 17 1/2" x 6" Dia. of thrust shaft under \_\_\_\_\_

as fitted 8 3/4" Dia. of screw 12.3" Pitch of Screw 12.6" No. of Blades 4 State whether moceable No Total surface 50 sq

No. of Feed pumps 2 Diameter of ditto 2 1/4" Stroke 16 1/2" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3" Stroke 16 1/2" Can one be overhauled while the other is at work Yes

No. of Donkey Engines \_\_\_\_\_ Sizes of Pumps \_\_\_\_\_ No. and size of Suctions connected to both Bilge and Donkey pumps \_\_\_\_\_

Engine Room \_\_\_\_\_ In Holds, &c. \_\_\_\_\_

No. of Bilge Injections \_\_\_\_\_ sizes \_\_\_\_\_ Connected to condenser, or to circulating pump \_\_\_\_\_ Is a separate Donkey Suction fitted in Engine room & size \_\_\_\_\_

Are the roses in Engine room always accessible \_\_\_\_\_ Are the sluices on Engine room bulkheads always accessible \_\_\_\_\_

Are they Valves or Cocks \_\_\_\_\_ all connections with the sea direct on the skin of the ship \_\_\_\_\_

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates \_\_\_\_\_ Are the Discharge Pipes above or below the deep water line \_\_\_\_\_

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel \_\_\_\_\_ Are the Blow Off Cocks fitted with a spigot and brass covering plate \_\_\_\_\_

How are they protected \_\_\_\_\_ at pipes are carried through the bunkers \_\_\_\_\_

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times \_\_\_\_\_

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges \_\_\_\_\_

Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_

Manufacturers of Steel Colvilles

Heating Surface of Boilers 2806 Is Forced Draft fitted No No. and Description of Boilers two single ended

Working Pressure 180 Tested by hydraulic pressure to 320 Date of test 7.6.23 No. of Certificate 16273-16274

each boiler be worked separately Yes Area of fire grate in each boiler 39.5 sq No. and Description of Safety Valves to \_\_\_\_\_

Are they fitted with easing gear \_\_\_\_\_ boiler rain spring loaded Area of each valve 4.9 sq Pressure to which they are adjusted \_\_\_\_\_

Mean dia. of boilers 12.0" Length 10.6" Material of shell plates S.

Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D. R.

seams T.R.I.B.S. Diameter of rivet holes in long. seams 1" Pitch of rivets 7" Lap of plates or width of butt straps 14 7/8"

percentages of strength of longitudinal joint \_\_\_\_\_ rivets 86.4 Working pressure of shell by rules 182 Size of manhole in shell 16" x 12"

of compensating ring 30 1/2" x 26 1/2" No. and Description of Furnaces in each boiler 2 - iron Material S Outside diameter 3'-7 1/8"

Thickness of plates \_\_\_\_\_ top 9/16" Description of longitudinal joint weld No. of strengthening rings \_\_\_\_\_ bottom \_\_\_\_\_

Working pressure of furnace by the rules 189 Combustion chamber plates: Material S Thickness: Sides 1/16" Back 5/8" Top 1/16" Bottom 1/16"

Thickness of stays to ditto: Sides 9 1/2" x 9" Back 8 1/2" x 8 1/2" Top 9 1/2" x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 187

Material of stays S Area at smallest part 2.07 Area supported by each stay 85.5 Working pressure by rules 195 End plates in steam space: \_\_\_\_\_

Material S Thickness 1" Pitch of stays 16" x 17" How are stays secured D.N.L.W. Working pressure by rules 197 Material of stays S

Area at smallest part 4.57 Area supported by each stay 272 Working pressure by rules 182 Material of Front plates at bottom S

Thickness 7/8" Material of Lower back plate S Thickness 27/32" Greatest pitch of stays 14" x 8 1/2" Working pressure of plate by rules 216

Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates S Thickness: Front 7/8" Back 3/4" Mean pitch of stays 10"

Working pressures by rules 183 Girders to Chamber tops: Material S Depth and \_\_\_\_\_

Thickness of girder at centre 7" x 1 3/4" Length as per rule 30 5/8" Distance apart 9" Number and pitch of stays in each 2-9 1/2"

Working pressure by rules 214 Steam dome: description of joint to shell \_\_\_\_\_ % of strength of joint \_\_\_\_\_

Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet holes \_\_\_\_\_

Working pressure of shell by rules \_\_\_\_\_ Crown plates \_\_\_\_\_ Thickness \_\_\_\_\_ How stayed \_\_\_\_\_

Superheater. Type \_\_\_\_\_ Date of Approval of Plate \_\_\_\_\_ Tested by Hydraulic Pressure to \_\_\_\_\_

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler \_\_\_\_\_

Pressure to which each is adjusted \_\_\_\_\_ Is Easing Gear fitted \_\_\_\_\_

W415-0089



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Ross Duncan

Manufacturer.

Dates of Survey while building... Total No. of visits 46

Dates of Examination of principal parts—Cylinders 5-6-23 Slides 5-6-23 Covers 5-6-23 Pistons 18-5-23 Rods 18-5-23

Connecting rods 18-5-23 Crank shaft 18-5-23 Thrust shaft 26-5-23 Tunnel shafts 26-5-23 Screw shaft 5-6-23 Propeller 5-6-23

Stern tube 5-6-23. Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Completion of fitting sea connections Stern tube Screw shaft and propeller

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft S. Identification Mark on Do. 1113 J.S.C. Material of Thrust shaft S Identification Mark on Do. 1113 H.C.

Material of Tunnel shafts S. Identification Marks on Do. 1113 H.C. Material of Screw shafts S Identification Marks on Do. 1113 J.S.C.

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. These engines and boilers

have been built under Special Survey in accordance with

the Rules and approved plans, the materials and workmanship

are good.

The engines and boilers are being shipped to Trinidad

where they will be fitted on board.

The machinery is eligible in my opinion to be classed

+ L.M.C. (with date) when satisfactorily fitted on board

and tried under steam.

The amount of Entry Fee ... £ 3 : 0 : 0

Special 4/3 ... £ 31 : 4 : 0

Donkey Boiler Fee ... £ : : :

Travelling Expenses (if any) £ : : :

Committee's Minute GLASGOW 12 JUN 1923

Assigned Deferred

Jas Cairns, Engineer Surveyor to Lloyd's Register of Shipping.

TUE JUL 17 1923 FRI JUL 27 1923

See Indb 1164

FRI. 14 SEP. 1923 FRI. AUG. 31 1923 TUE AUG. 21 1923

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

