

# REPORT ON BOILERS.

No. 75999

Received at London Office WED. OCT. 4 1922  
NEWCASTLE-ON-TYNE

Date of writing Report 25.9.22 When handed in at Local Office 3.10.22 Port of NEWCASTLE-ON-TYNE

No. in Survey held at WALKER ON TYNE Date, First Survey 6 July 1921 Last Survey 29 Sept. 1922

Reg. Book. on the STEEL SCREW STEAMER BRITISH GUNNER 1130 Tons 1130

Master WALKER Built at WALKER By whom built SWAN HUNTER WIGHAM When built 1922

Engines made at WALKER By whom made SWAN HUNTER W. RICHARDSON. L<sup>o</sup> When made 1922

Boilers made at WALKER By whom made S. H. - W. R. L<sup>o</sup> When made 1922

Registered Horse Power 1130 Owners BRITISH TANKER CO L<sup>o</sup> Port belonging to LONDON

**MULTITUBULAR BOILERS** — MAIN, AUXILIARY OR DONKEY. — Manufacturers of Steel SPENCER & CO L<sup>o</sup>

Letter for record S Total Heating Surface of Boilers 1020 sq ft Is forced draft fitted NO No. and Description of Boilers ONE. S. E. CYL. MULTI Working Pressure 120 lb Tested by hydraulic pressure to 230 lb Date of test 26.1.22

No. of Certificate 9644 Can each boiler be worked separately --- Area of fire grate in each boiler OIL FUEL No. and Description of Safety valves to each boiler TWO. DIRECT. SPRING Area of each valve 5.98 sq in Pressure to which they are adjusted 125 lb

Are they fitted with easing gear YES In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler N. R. VALVE

Smallest distance between boilers or uptakes and bunkers or woodwork 6'-0" Mean dia. of boilers 10'-6" Length 10'-6"

Material of shell plates STEEL Thickness 3/32" Range of tensile strength 30/34 TONS Are the shell plates welded or flanged NO

Description of riveting: cir. seams L. DR long. seams DBS. DR Diameter of rivet holes in long. seams 7/8" Pitch of rivets 3 1/2"

Gap of plates or width of butt straps 8 3/4" Per centages of strength of longitudinal joint 75.190 Working pressure of shell by rules 75.070

Size of manhole in shell 16 x 12" Size of compensating ring 2-9 3/4 x 2-1 3/4" No. and Description of Furnaces in each boiler 2. DEIGHTON Material STEEL Outside diameter 3-2 7/8" Length of plain part 7'-0 1/4" Thickness of plates 3/8"

Description of longitudinal joint WELD No. of strengthening rings NONE Working pressure of furnace by the rules 152 lb Combustion chamber plates: Material STEEL Thickness: Sides 17/32" Back 21/32" Top 17/32" Bottom 7/8" Pitch of stays to ditto: Sides 9 1/2 x 8" Back 9 1/2 x 8 1/4"

Top 9 1/2 x 8" If stays are fitted with nuts or riveted heads SEE PLAN Working pressure by rules 120 lb Material of stays STEEL Area at smallest part 13/8" Area supported by each stay 78.4 sq in Working pressure by rules 129 lb End plates in steam space: Material STEEL Thickness 7/8"

Pitch of stays 20 x 13 1/2" How are stays secured DN Working pressure by rules 120 lb Material of stays STEEL Area at smallest part 2 1/4"

Area supported by each stay 286 sq in Working pressure by rules 121 lb Material of Front plates at bottom STEEL Thickness 7/8" Material of lower back plate STEEL Thickness 7/8" Greatest pitch of stays 13 1/2 x 9 1/2" Working pressure of plate by rules 230 lb Diameter of tubes 2 1/2"

Pitch of tubes 3 1/4 x 3 1/4" Material of tube plates STEEL Thickness: Front 7/8" Back 9/8" Mean pitch of stays 9 3/8" Pitch across wide water spaces 13 1/2" Working pressures by rules F. 159 lb Girders to Chamber tops: Material STEEL Depth and thickness of girder at centre 6 3/4 x 1 1/4" Length as per rule 28.71" Distance apart 9 1/4" Number and pitch of Stays in each 398 pitch

Working pressure by rules 123 lb 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 NONE 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

**VERTICAL DONKEY BOILER** — No. None Description Manufacturers of steel

Made at By whom made When made Where fixed Working pressure

Tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler

Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile strength

Length Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

No. of plating Per centage of strength of joint Rivets Working pressure of shell by rules Thickness of shell crown plates

Dia. of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace

Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown plates

Radius of do. Stayed by Diameter of uptake Thickness of uptake plates

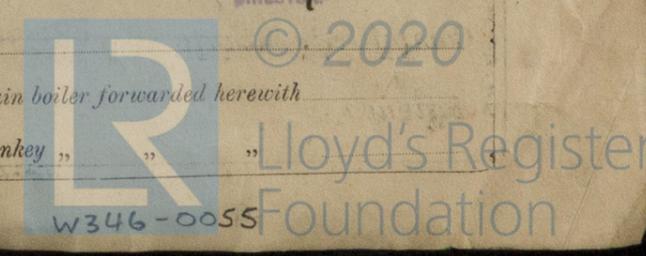
Thickness of water tubes

The foregoing is a correct description,  
SWAN, HUNTER & WIGHAM RICHARDSON, LTD. Manufacturer.

*G. J. Dwyer*  
DIRECTOR

Notes: During progress of work in shops -- See Machinery Report.  
During erection on board vessel --  
Total No. of visits.

Is the approved plan of main boiler forwarded herewith



**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.)

The Donkey Boilers fitted upon board in deck house.  
 The Boilers built under special survey. The material workmanship found good and efficient.  
 The Boilers tested under hydraulic pressure, 230 lbs. found satisfactory.  
 The Boilers tested under steam and its safety valves adjusted 125 lbs.  
 The Boilers fitted for Burmah oil fuel under natural draught.  
 Flash point of oil above 150° F.

pt. 4a.

Date of writing Report

No. in Survey held  
 Reg. Book.  
 on the *Roll*

Master  
 Engines made at  
 Boilers made at  
 Registered Horse Power  
 Shaft Horse Power

**URBINE ENGINE**

Diameter of Rotor Shaft  
 Diameter of Journals  
 Diameter of Wheel Shaft  
 Width of Face *12.20"*

No. of Screw Shafts

No. of Blades

Thickness at Bottom of

**PARTICULARS**

1ST EXPANSION

2ND

3RD

4TH

5TH

6TH

7TH

8TH

No. and size of Feed

No. and size of Bilge

No. and size of Bilge

No. of Bilge Injections

Are all the bilge suction

Are all connections with

Are they fixed sufficient

Are they each fitted with

What pipes are carried

Are all Pipes, Cocks,

Are the Bilge Suction

Is the Screw Shaft

**BOILERS, &c.**

Total Heating Surface

Working Pressure

Can each boiler be worked

each boiler.

Smallest distance between

Thickness

long. seams

Per centages of strength

Size of compensating

Length of plain part

Working pressure of

Pitch of stays to ditto

Material of stays

Material

Diameter at smallest

Thickness

Diameter of tubes

Pitch across wide

thickness of girder at

Working pressure by

Thickness of shell plate

Working pressure of

Certificates (if required) to be sent to

The amount of Entry Fee	.. £	:	:	When applied for.
Special	.. £	See Mach's	report.	19
Donkey Boiler Fee	.. £	:	:	When received,
Travelling Expenses (if any)	£	:	:	19

Committee's Minute FRI. 6 OCT. 1922  
 Assigned See other Rpt. No. 75999

*L. G. Shannon*  
 Engineer Surveyor to Lloyd's Register of Shipping

