

W1140-0165 1/2

Rpt. 5a.

## REPORT ON BOILERS.

No. 8734

APR. 24 1922

Date of writing Report *18th April 1922* When handed in at Local Office *1921* Port of *Belfast*

No. in Survey held at *Belfast* Date, First Survey *1921* Last Survey *1921*

Reg. Book. *S.S. British Workman* (Number of Visits *1*) Gross *6994* Tons Net *4066*

on the *S.S. British Workman* Built at *Belfast* By whom built *Workman Clark & Co. Ltd.* When built *1922*

Master *Belfast* By whom made *Belfast* When made *Belfast*

Engines made at *Belfast* By whom made *Belfast* When made *Belfast*

Boilers made at *Belfast* By whom made *Belfast* When made *Belfast*

Registered Horse Power *1* Owners *British Tanker Co. Ltd.* Port belonging to *London*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of *Societe Metallurgique des Landes*

(Letter for record *S*) Total Heating Surface of Boilers *1096* Is forced draft fitted *No* No. and Description of Boilers *One, by Link & Luffe End* Working Pressure *120 lbs* Tested by hydraulic pressure to *230 lbs* Date of test *24-11-21*

No. of Certificate *806* Can each boiler be worked separately *✓* Area of fire grate in each boiler *27.3 sq ft* No. and Description of safety valves to each boiler *2 Direct Spring* Area of each valve *7.07 sq in* Pressure to which they are adjusted *125 lbs*

Are they fitted with easing gear *Yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *No*

Smallest distance between boilers or uptakes and bunkers or woodwork *Hand 13" Sub* dia. of boilers *10'-6"* Length *10'-6"*

Material of shell plates *Steel* Thickness *5"* Range of tensile strength *28-32 tons* Are the shell plates welded or flanged *No*

Descrip. of riveting: cir. seams *Laps* Abk long. seams *Butt* Diameter of rivet holes in long. seams *7/16"* Pitch of rivets *4 7/8"*

Per centages of strength of longitudinal joint *93.5* Working pressure of shell by rules *125 lbs* Size of manhole in shell *16" x 12"* Size of compensating ring *7-9 x 3-3-4 5/8"* No. and Description of Furnaces in each boiler *2, by Link & Luffe* Material *Steel* Outside diameter *35 1/2"* Length of plain part *top 2" bottom 8"* Thickness of plates *3/8"* crown *3/8"* bottom *3/8"*

Description of longitudinal joint *Weld* No. of strengthening rings *2* Working pressure of furnace by the rules *165 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *5"* Back *3"* Top *5"* Bottom *5"* Pitch of stays to ditto: Sides *8 1/2" x 9 1/2"* Back *10 1/2" x 9 1/2"*

Top *10" x 8 1/2"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *129 lbs* Material of stays *Steel* Diameter at smallest part *1 1/2"* Area supported by each stay *80 1/2 sq in* Working pressure by rules *126 lbs* and plates in steam space: Material *Steel* Thickness *1"*

Pitch of stays *24" x 15"* How are stays secured *Nuts & Washers* Working pressure by rules *130 lbs* Material of stays *Steel* Diameter at smallest part *4 1/8"*

Area supported by each stay *360 sq in* Working pressure by rules *123 lbs* Material of Front plates at bottom *Steel* Thickness *3/8"* Material of Lower back plate *Steel* Thickness *3/8"* Greatest pitch of stays *14 1/4"* Working pressure of plate by rules *154 lbs* Diameter of tubes *3"*

Pitch of tubes *4 1/2" x 4 1/2"* Material of tube plate *Steel* Thickness: Front *3/4"* Back *3/4"* Mean pitch of stays *2 3/4" x 8 1/2"* Pitch across wide water spaces *14 1/4"* Working pressures by rules *121 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *6" x (1/2" x 3")* Length as per rule *26 1/2"* Distance apart *8 1/2"* Number and pitch of Stays in each *2-10"*

Working pressure by rules *128 lbs* Superheater or Steam chest: how connected to boiler *✓* Can the superheater be shut off and the boiler worked separately *✓*

Diameter	Length	Thickness of shell plates	Material	Description of longitudinal joint	Diam. of rivet

holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

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

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

The foregoing is a correct description,  
FOR WORKMAN, CLARK & CO., LIMITED,

Manufacturer.

Is the approved plan of boiler forwarded herewith

Total No. of visits

Dates of Survey  
During progress of work in shops - -  
while building During erection on board vessel - - -

See other sheet

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

See other sheet

Survey Fee ... £ : : When applied for, 191

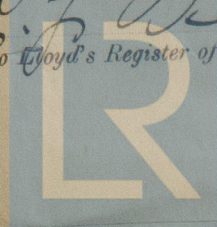
Travelling Expenses (if any) £ : : When received, 191

Committee's Minute

FRI. APR. 28 1922

Assigned

R. L. Bevan  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.



Lloyd's Register  
Foundation



Belfast

Continuation of Report No. 8734 dated 18<sup>th</sup> April 1922 on the

S.S. British Workman

List of Pumps

Keir's Main Feed Pump	9 1/2" x 7" x 21"
" Aux <sup>y</sup> " " "	6 1/2" x 4 1/2" x 10"
Motor Driven " " "	"
Ballast Pump	10" x 11" x 10"
For " " " "	8" x 8" x 10"
2 Crank Driven Bilge Pumps	6" x 12"
General Services " " "	6" x 4 1/2" x 6"
2 Forced Lubrication " " "	7" x 8" x 18"
Dual Air Pump	11" x 20" x 15"

Spare Gear, Principal items

- 2 Bolts or studs & nuts - each size - turbine bearing ✓
- 5% total number do. each turbine casing joint ✓
- 2 Thermometers for oil circulating system ✓
- 4 Diaphragm gland packing rings ✓
- 1 Set pads for Turbine thrust blocks ✓
- 1 " bearing bushes turbine rotor ✓
- 1 " " low speed gear wheel shaft ✓
- 2 " Carbon packing for H.P. Turbine steam end ✓
- 1 Spring H.P. Turbine escape valve ✓
- 1 " L.P. " " " ✓
- 1 set bearing bushes for one Intermediate Shaft ✓
- 1 " " " Pinion Shaft ✓
- 1 " " " extension. ✓
- 1 spare pinion with complete flexible coupling H.P. & L.P. turbines ✓
- 2 bolts or studs & nuts each size gear bearing ✓
- 5% total number do. for each gear case joint ✓
- 10% tubes for oil cooler ✓
- 1 set bolts & nuts main shaft couplings ✓
- 24 Condenser tubes & 50 ferrules ✓
- 2 C.I. propeller blades & 9 studs & nuts ✓
- 1 Propeller shaft ✓
- 1 set pads for Nichell thrust to main shaft line ✓
- 4 Liners for <sup>each</sup> turbine abutting block (various thicknesses) ✓
- Bolts, nuts, bar iron etc ✓
- 7 Boiler tubes & 12 tube stoppers ✓
- 6 Valves for main & aux<sup>y</sup> feed checks. ✓
- Bucket, rod, valves, springs for Lub<sup>y</sup> oil pump ✓
- " " " " " for air pump, also valves. ✓
- Impeller & shaft for Main Centrifugal pump. ✓
- Set of spare gear for all aux<sup>y</sup> pumps, Fans, Air compressors, turbo generators etc. ✓