

## REPORT ON BOILERS.

No. 76680

Received at London Office

Date of writing Report *May 1<sup>st</sup> 1923* When handed in at Local Office *May 2<sup>nd</sup> 1923* Port of *NEWCASTLE* *FIRTH* *MAY 1923*

No. in Survey held at *Newcastle on Tyne* Date, First Survey *Oct 7<sup>th</sup> 1919* Last Survey *April 28<sup>th</sup> 1923*

Reg. Book. *67692* on the *TWINSCREW STEAMER "MONGOLIA."* (Number of Visits *see other sheet*) Gross *16385* Tons Net *10255*

Master  Built at *Newcastle on Tyne* By whom built *Sir W. G. Armstrong Whitworth & Co. Ltd.* When built *1922*

Engines made at *Newcastle on Tyne* By whom made *Sir W. G. Armstrong Whitworth & Co. Ltd.* When made *1922*

Boilers made at *Newcastle on Tyne* By whom made *Sir W. G. Armstrong Whitworth & Co. Ltd.* When made *1922*

Registered Horse Power *2567 in Feb* Owners *Penninsular & Oriental S. Nav. Co. Ltd.* Port belonging to *London*

*Particulars of S. S. Boilers*  
MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *J. Spencer & Sons Ltd.*

(Letter for record *5*) Total Heating Surface of Boilers *See front sheet* Is forced draft fitted *Yes* No. and Description of

Boilers *Three Double End & Four Single End Cylinders* Working Pressure *200 lb* Tested by hydraulic pressure to *350* Date of test *16.9.21*  
*30.9.21*

No. of Certificate *9603* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *75 sq ft* No. and Description of

safety valves to each boiler *Two Direct Spring Loaded* Area of each valve *12.56 sq in* Pressure to which they are adjusted *205 lb*

Are they fitted with easing gear *Yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *Yes*

Smallest distance between boilers or uptakes and bunkers or woodwork *See front sheet* Mean dia. of boilers *17'* Length *11'6"*

Material of shell plates *Steel* Thickness *1 1/2"* Range of tensile strength *20 to 33* Are the shell plates welded or flanged *No*

Descrip. of riveting: cir. seams *Lap Double* long. seams *OT Shape Rivets* Diameter of rivet holes in long. seams *1 9/16"* Pitch of rivets *10 1/2"* *54"*

Lap of plates or width of butt straps *22 3/4"* Per centages of strength of longitudinal joint *90* Working pressure of shell by

rules *214 lb* Size of manhole in shell *16 x 12"* Size of compensating ring *37 x 33 x 1 1/2"* No. and Description of Furnaces in each

boiler *4* Material *Steel* Outside diameter *44 1/2"* Length of plain part *37'8"* Thickness of plates *2 1/2"* *32"*

Description of longitudinal joint *Weld* No. of strengthening rings *None* Working pressure of furnace by the rules *240 lb* Combustion chamber

plates: Material *Steel* Thickness: Sides *5"* Back *1 1/2"* Top *5"* Bottom *1"* Pitch of stays to ditto: Sides *8' x 8 1/4"* Back *8 1/2' x 8 3/4"*

Top *8' x 8"* If stays are fitted with nuts or riveted heads *None* Working pressure by rules *204 lb* Material of stays *Steel* Area at

smallest part *1.73* Area supported by each stay *66"* Working pressure by rules *210 lb* End plates in steam space: Material *Steel* Thickness *1 1/4"*

Pitch of stays *21 x 16 1/2"* How are stays secured *Washers* Working pressure by rules *208 lb* Material of stays *Steel* Area at smallest part *7.06"*

Area supported by each stay *34 yd* Working pressure by rules *213 lb* Material of Front plates at bottom *Steel* Thickness *1"* Material of

Lower back plate *Steel* Thickness *3/2"* Greatest pitch of stays *14 1/4"* Working pressure of plate by rules *203 lb* Diameter of tubes *2 3/4"*

Pitch of tubes *4' x 4'* Material of tube plates *Steel* Thickness: Front *1"* Back *3/4"* Mean pitch of stays *9 1/4"* Pitch across wide

water spaces *14 1/4"* Working pressures by rules *202 lb* *237 lb* Girders to Chamber tops: Material *Steel* Depth and thickness of

girder at centre *9' x 1 1/2"* Length as per rule *31 1/2"* Distance apart *8'* Number and pitch of Stays in each *3: 8'*

Working pressure by rules *211 lb* Steam dome: description of joint to shell *None* % of strength of joint *Yes*

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 *See front sheet* 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 *2" for SE. boilers* Pressure to which each is adjusted *280 lb* Is Easing Gear fitted *Yes*

For The foregoing is a correct description,  
SIR W. G. ARMSTRONG, WHITWORTH & CO. LIMITED  
Manufacturer.

Dates of Survey  During progress of work in shops  Is the approved plan of boiler forwarded herewith

while building  During erection on board vessel  Total No. of visits *see front sheet*

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

*See remarks on the front sheet.*

Survey Fee  £ *See Mr. Austin's report* When applied for,  19

Travelling Expenses (if any) £  When received,  19

Committee's Minute

Assigned

TUE 15 MAY 1923

*W. K. Austin* *Maurice Pitson*  
Engineer Surveyor to Lloyd's Register of Shipping.