

## REPORT ON MACHINERY.

No. 24395

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No. in Survey held at Hull Date, First Survey Mar 17<sup>th</sup> Last Survey Nov 13<sup>th</sup> 1911  
Reg. Book. 3 Supp. on the S/S MEKNASSI (Number of Visits 39)  
Master Built at Selby By whom built Lochrane & Sons Tons Gross 153 Net 68  
Engines made at Hull By whom made Amos & Smith Ltd. when made 1911  
Boilers made at S By whom made S when made 5  
Registered Horse Power Owners G GUYOT. Port belonging to Tangier  
Nom. Horse Power as per Section 28 61<sup>✓</sup> Is Refrigerating Machinery fitted for cargo purposes No<sup>✓</sup> Is Electric Light fitted Yes<sup>✓</sup>

ENGINES, &c.—Description of Engines Inverted triple expansion<sup>✓</sup> No. of Cylinders 3<sup>✓</sup> No. of Cranks 3<sup>✓</sup>  
Dia. of Cylinders 11<sup>1</sup>/<sub>2</sub> - 20 - 33<sup>✓</sup> Length of Stroke 24<sup>✓</sup> Revs. per minute 7<sup>1</sup>/<sub>2</sub> as per rule 7<sup>1</sup>/<sub>2</sub> as fitted 7<sup>1</sup>/<sub>2</sub> Material of screw shaft Steel<sup>✓</sup>  
Is the screw shaft fitted with a continuous liner the whole length of the stern tube No<sup>✓</sup> Is the after end of the liner made water tight in the propeller boss Yes<sup>✓</sup> If the liner is in more than one length are the joints burned<sup>✓</sup> 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<sup>✓</sup> If two liners are fitted, is the shaft lapped or protected between the liners No<sup>✓</sup> Length of stern bush 30<sup>✓</sup>  
Dia. of Tunnel shaft as per rule 6.09<sup>✓</sup> as fitted 6<sup>1</sup>/<sub>2</sub> - 6<sup>1</sup>/<sub>2</sub> Dia. of Crank shaft journals as per rule 6.39<sup>✓</sup> as fitted 6<sup>1</sup>/<sub>2</sub> Dia. of Crank pin 6<sup>1</sup>/<sub>2</sub> Size of Crank webs 28<sup>1</sup>/<sub>2</sub> x 4<sup>1</sup>/<sub>2</sub> Dia. of thrust shaft under collars 6<sup>1</sup>/<sub>2</sub> Dia. of screw 8<sup>1</sup>/<sub>2</sub> Pitch of Screw 11<sup>1</sup>/<sub>2</sub> No. of Blades 4 State whether moveable No<sup>✓</sup> Total surface 25 ft<sup>2</sup>  
No. of Feed pumps one Diameter of ditto 2<sup>1</sup>/<sub>2</sub> Stroke 13<sup>✓</sup> Can one be overhauled while the other is at work<sup>✓</sup>  
No. of Bilge pumps one Diameter of ditto 2<sup>1</sup>/<sub>2</sub> Stroke 13<sup>✓</sup> Can one be overhauled while the other is at work<sup>✓</sup>  
No. of Donkey Engines one Sizes of Pumps 4<sup>1</sup>/<sub>2</sub> + 2<sup>1</sup>/<sub>2</sub> x 4<sup>1</sup>/<sub>2</sub> No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room 2 - 2<sup>✓</sup> In Holds, &c. 1 - 2<sup>✓</sup>

No. of Bilge Injections 4 sizes 3<sup>✓</sup> Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 2<sup>✓</sup>  
Are all the bilge suction pipes fitted with roses Yes<sup>✓</sup> Are the roses in Engine room always accessible Yes<sup>✓</sup> Are the sluices on Engine room bulkheads always accessible Yes<sup>✓</sup>  
Are all connections with the sea direct on the skin of the ship Yes<sup>✓</sup> Are they Valves or Cocks Both<sup>✓</sup>  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes<sup>✓</sup> Are the Discharge Pipes above or below the deep water line Above<sup>✓</sup>  
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes<sup>✓</sup> Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes<sup>✓</sup>  
What pipes are carried through the bunkers Hold suction<sup>✓</sup> How are they protected Wood casing<sup>✓</sup>  
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes<sup>✓</sup>  
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes<sup>✓</sup>  
Dates of examination of completion of fitting of Sea Connections 22.9.11 of Stern Tube 22.9.11 Screw shaft and Propeller 22.9.11  
Is the Screw Shaft Tunnel watertight No<sup>✓</sup> Is it fitted with a watertight door No<sup>✓</sup> worked from No<sup>✓</sup>

BOILERS, &c.—(Letter for record S<sup>✓</sup>) Manufacturers of Steel Phoenix & Howard.

Total Heating Surface of Boilers 980 ft<sup>2</sup> Is Forced Draft fitted No<sup>✓</sup> No. and Description of Boilers 1. S.E. Multitubular<sup>✓</sup>  
Working Pressure 180 lbs<sup>✓</sup> Tested by hydraulic pressure to 360 lbs<sup>✓</sup> Date of test 20.10.11 No. of Certificate 1849<sup>✓</sup>  
Can each boiler be worked separately Yes<sup>✓</sup> Area of fire grate in each boiler 31 ft<sup>2</sup> No. and Description of Safety Valves to each boiler 2 Spring loaded<sup>✓</sup> Area of each valve 4.9 in<sup>2</sup> Pressure to which they are adjusted 185 lbs<sup>✓</sup> Are they fitted with easing gear Yes<sup>✓</sup>  
Smallest distance between boilers or uptakes and bunkers or woodwork 7<sup>1</sup>/<sub>2</sub> Mean dia. of boilers 11<sup>1</sup>/<sub>2</sub> Length 9<sup>1</sup>/<sub>2</sub> Material of shell plates Steel<sup>✓</sup>  
Thickness 15<sup>✓</sup> Range of tensile strength 29-33<sup>✓</sup> Are the shell plates welded or flanged No<sup>✓</sup> Descrip. of riveting: cir. seams SR Lap<sup>✓</sup>  
long. seams 5/8 S<sup>✓</sup> Diameter of rivet holes in long. seams 1<sup>1</sup>/<sub>2</sub> Pitch of rivets 7<sup>1</sup>/<sub>2</sub> Lap of plates or width of butt straps 15<sup>3</sup>/<sub>8</sub>  
Per centages of strength of longitudinal joint rivets 91.4<sup>✓</sup> plate 85.7<sup>✓</sup> Working pressure of shell by rules 183 Size of manhole in shell 16 x 12<sup>✓</sup>  
Size of compensating ring 40 x 30 x 15<sup>✓</sup> No. and Description of Furnaces in each boiler 2 plain<sup>✓</sup> Material Steel<sup>✓</sup> Outside diameter 3<sup>1</sup>/<sub>2</sub>  
Length of plain part top 5<sup>1</sup>/<sub>2</sub> - 10<sup>1</sup>/<sub>2</sub> bottom 5<sup>1</sup>/<sub>2</sub> - 11<sup>1</sup>/<sub>2</sub> Thickness of plates crown 2<sup>✓</sup> bottom 2<sup>✓</sup> Description of longitudinal joint welded<sup>✓</sup> No. of strengthening rings -  
Working pressure of furnace by the rules 188 Combustion chamber plates: Material Steel<sup>✓</sup> Thickness: Sides 1<sup>1</sup>/<sub>2</sub> Back 1<sup>1</sup>/<sub>2</sub> Top 1<sup>1</sup>/<sub>2</sub> Bottom 3<sup>1</sup>/<sub>2</sub>  
Pitch of stays to ditto: Sides 8<sup>1</sup>/<sub>2</sub> x 9<sup>1</sup>/<sub>2</sub> Back 8<sup>1</sup>/<sub>2</sub> x 9<sup>1</sup>/<sub>2</sub> Top 8<sup>1</sup>/<sub>2</sub> x 9<sup>1</sup>/<sub>2</sub> If stays are fitted with nuts or riveted heads Yes<sup>✓</sup> Working pressure by rules 196  
Material of stays Steel<sup>✓</sup> Diameter at smallest part 1<sup>1</sup>/<sub>2</sub> = 2.06 Area supported by each stay 83<sup>✓</sup> Working pressure by rules 222 End plates in steam space: Material Steel<sup>✓</sup> Thickness 1<sup>1</sup>/<sub>2</sub> Pitch of stays 16 x 15<sup>✓</sup> How are stays secured No washer<sup>✓</sup> Working pressure by rules 222 Material of stays Steel<sup>✓</sup>  
Diameter at smallest part 6<sup>1</sup>/<sub>2</sub> Area supported by each stay 240<sup>✓</sup> Working pressure by rules 222 Material of Front plates at bottom Steel<sup>✓</sup>  
Thickness 3<sup>1</sup>/<sub>2</sub> Material of Lower back plate Steel<sup>✓</sup> Thickness 3<sup>1</sup>/<sub>2</sub> Greatest pitch of stays 14 x 8<sup>1</sup>/<sub>2</sub><sup>✓</sup> Working pressure of plate by rules 185  
Diameter of tubes 3<sup>1</sup>/<sub>2</sub> Pitch of tubes 4<sup>1</sup>/<sub>2</sub> x 4<sup>1</sup>/<sub>2</sub> Material of tube plates Steel<sup>✓</sup> Thickness: Front 3<sup>1</sup>/<sub>2</sub> Back 27<sup>✓</sup> Mean pitch of stays 9<sup>1</sup>/<sub>2</sub>  
Pitch across wide water spaces 14<sup>✓</sup> Working pressures by rules 184 Girders to Chamber tops: Material Steel<sup>✓</sup> Depth and thickness of girder at centre 8<sup>1</sup>/<sub>2</sub> x 1<sup>1</sup>/<sub>2</sub><sup>✓</sup> Length as per rule 2<sup>1</sup>/<sub>2</sub> - 6<sup>✓</sup> Distance apart 9<sup>✓</sup> Number and pitch of stays in each 20 8<sup>1</sup>/<sub>2</sub><sup>✓</sup>  
Working pressure by rules 192 Superheater or Steam chest; how connected to boiler None<sup>✓</sup> 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



# VERTICAL DONKEY BOILER— Manufacturers of Steel.

No. \_\_\_\_\_ Description \_\_\_\_\_

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 \_\_\_\_\_ Date of adjustment \_\_\_\_\_

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 \_\_\_\_\_ Descrip. of riveting long. seams \_\_\_\_\_

Dia. of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_ Plates \_\_\_\_\_

Working pressure of shell by rules \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Radius 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 \_\_\_\_\_ Dates of survey \_\_\_\_\_

**SPARE GEAR.** State the articles supplied:— *Two sets of top & bottom end connecting rod bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed & bilge pump valves, one main & one donkey feed check valve, one set of air & circulating pump valves, assorted bolts & nuts.*

The foregoing is a correct description,

**FOR AMOS & SMITH LTD.**

Manufacturer.

*W. S. Smith*

Dates of Survey while building { During progress of work in shops -- } 1911:— Mar 17, May 8, 11, 19, 31, Jun 16, 28, 30, July 3, 7, 14, 18, 27, Aug 3, 8, 12, 14, 17.  
 { During erection on board vessel --- } Sep 5, 12, 15, 18, 19, 21, 22, Oct 3, 5, 13, 16, 20, 27, 30, Nov 1, 2, 4, 6, 7, 8, 13.  
 Total No. of visits 39

Managing Director.

Is the approved plan of main boiler forwarded herewith *R/L 24221*

Dates of Examination of principal parts—Cylinders *13.10.11* Slides *20.10.11* Covers *13.10.11* Pistons *20.10.11* Rods *13.10.11*  
 Connecting rods *13.10.11* Crank shaft *13.10.11* Thrust shaft *14.8.11* Tunnel shafts \_\_\_\_\_ Screw shaft *8.8.11* Propeller *8.8.11*  
 Stern tube *8.8.11* Steam pipes tested *4.11.11* Engine and boiler seatings *22.9.11* Engines holding down bolts *2.11.11*  
 Completion of pumping arrangements *13.11.11* Boilers fixed *2.11.11* Engines tried under steam *13.11.11*  
 Main boiler safety valves adjusted *7.11.11* Thickness of adjusting washers *P. S*  
 Material of Crank shaft *S* Identification Mark on Do. *8/2 13.10.11* Material of Thrust shaft *S* Identification Mark on Do. *8/2 14.8.11*  
 Material of Tunnel shafts *✓* Identification Marks on Do. *5.11.11* Material of Screw shafts *S* Identification Marks on Do. *8/2 8.8.11*  
 Material of Steam Pipes *Solid drawn copper* ✓ Test pressure *400 lbs.*

**General Remarks** (State quality of workmanship, opinions as to class, &c. *The machinery & boiler of this vessel have been constructed under Special Survey, are of good material & workmanship & have been fitted & secured on board in accordance with the Rules. They are now in good working condition & are respectfully submitted as being eligible in my opinion to have record of T.L.M.C. 11-11 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 11.11.

*J.W.D.*  
13/11/11

*ARR*

The amount of Entry Fee .. £ *1 : 0 : 0* When applied for, \_\_\_\_\_  
 Special .. £ *9 : 3 : 0* 9-11-11  
 Donkey Boiler Fee .. £ \_\_\_\_\_  
 Travelling Expenses (if any) £ *12 : 3 : 0* 13-11-11

Committee's Minute

Assigned

*+ L.M.C. 11.11*

MACHINERY CERTIFICATE WRITTEN.

*John W. Gwynne*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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