

REPORT ON MACHINERY.

No. 15491

Port of Bull

MON. 24 AUG 1903

Received at London Office

No. in Survey held at Bereley & Bull

Date, first Survey Jan 19th

Last Survey Aug 11th

1903

Reg. Book.

144 on the Steam Trawler Malabar

(Number of Visits 25)

Tons { Gross 170
Net 57

Master

Built at Bereley

By whom built Cook & Bell & Semell

When built 1903

Engines made at Bull

By whom made Amos Smith

when made 1903

Boilers made at Bull

By whom made Amos Smith

when made 1903

Registered Horse Power

Owners Bull & Fishings & Co

Port belonging to Bull

Nom. Horse Power as per Section 28 45

Is Refrigerating Machinery fitted h

Is Electric Light fitted h

ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders Three No. of Cranks Three

Dia. of Cylinders 10: 17: 28 Length of Stroke 21 Revs. per minute 115 Dia. of Screw shaft 6.58 Material of screw shaft Iron

Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight in the propeller boss Yes 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 - If two liners are fitted, is the shaft lapped or protected between the liners - Length of stern bush 28

Dia. of Tunnel shaft 5.48 Dia. of Crank shaft journals 5.76 Dia. of Crank pin 6 Size of Crank webs 3 1/4 Dia. of thrust shaft under collars 6 Dia. of screw 8.9 Pitch of screw 8.9 No. of blades 14 State whether moveable h Total surface 24 sq ft

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

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

No. of Donkey Engines two Sizes of Pumps 3.6 & 5.5 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room one 2 In Holds, &c. two 2

Direct suction in Engine Bilge & hold and discharge on deck.

No. of bilge injections one sizes 2 1/2 Connected to condenser, or to circulating pump h Is a separate donkey suction fitted in Engine room & size gallon

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible h

Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the discharge pipes above or below the deep water line above

Are they each fitted with a discharge valve always accessible on the plating of the vessel Yes Are the blow off cocks fitted with a spigot and brass covering plate Yes

What pipes are carried through the bunkers Suctions to forward How are they protected hard wood

Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges Yes

When were stern tube, propeller, screw shaft, and all connections examined in dry dock Jan 1903 Is the screw shaft tunnel watertight h

Is it fitted with a watertight door - worked from -

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 7504 sq ft Is forced draft fitted h

No. and Description of Boilers One Cylal Invert Working Pressure 200 lb Tested by hydraulic pressure to 400 lb

Date of test 6/7/03 Can each boiler be worked separately - Area of fire grate in each boiler 25 1/4 sq ft No. and Description of safety valves to each boiler Two Spring Area of each valve 3.14 sq ft Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 9 Mean dia. of boilers 10.6 Length 9.3 Material of shell plates Steel

Thickness 1 Range of tensile strength 27.32 Are they welded or flanged - Descrip. of riveting: cir. seams all lap long seams all lap

Diameter of rivet holes in long. seams 1/8 Pitch of rivets 7 7/16 Lap of plates or width of butt straps 16 1/4

Per centages of strength of longitudinal joint 99.37 Working pressure of shell by rules 200 lb Size of manhole in shell 16 x 12

Size of compensating ring 40 x 30 x 1 No. and Description of Furnaces in each boiler Two Plain Material Steel Outside diameter 35 1/2

Length of plain part 5.0 Thickness of plates 49/64 Description of longitudinal joint welded No. of strengthening rings -

Working pressure of furnace by the rules 245 lb Combustion chamber plates: Material Steel Thickness: Sides 11/16 Back 10/16 Top 10/16 Bottom 11/16

Pitch of stays to ditto: Sides 8 1/4 Back 7 1/2 Top 8 1/4 If stays are fitted with nuts or riveted heads h Working pressure by rules 264 lb

Material of stays Steel Diameter at smallest part 1 3/8 Area supported by each stay 7 1/8 Working pressure by rules 232 lb End plates in steam space:

Material Steel Thickness 29/32 Pitch of stays 13 1/4 How are stays secured all nut Working pressure by rules 270 lb Material of stays Steel

Diameter at smallest part 2 9/32 Area supported by each stay 13 1/4 Working pressure by rules 234 lb Material of Front plates at bottom Steel

Thickness 15/16 Material of Lower back plate Steel Thickness 15/16 Greatest pitch of stays 1 1/2 Working pressure of plate by rules 200 lb

Diameter of tubes 3 1/4 Pitch of tubes 4 3/4 Material of tube plates Steel Thickness: Front 15/16 Back 14/16 Mean pitch of stays 9 1/2

Pitch across wide water spaces 13 1/2 Working pressures by rules 210 lb Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 7 1/2 x 1 1/4 Length as per rule 30 Distance apart 6 5/8 Number and pitch of Stays in each two 8 1/4

Working pressure by rules 235 lb 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 -

W840 - 0064

Amos Smith



DONKEY BOILER— No. _____ Description *None*
 Made at _____ By whom made _____ When made _____ Where fixed _____
 Working pressure _____ tested by hydraulic pressure to _____ 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 _____
 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 _____ 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 _____
 Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
 Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied: *Two top end bolts. Two bottom end bolts. Two main bearing bolts. One set coupling bolts. One set dead pump valve. One set Bilge pump valve. One set check valve. Safety Valve spring &c.*
The level apparatus with masts and sails as a marker.
 The foregoing is a correct description,
 Manufacturer. **FOR AMOS & SMITH**
W. H. Hill

Dates of Survey while building
 During progress of work in shops - 1903 - Jan 19. Feb. 10. 16. 26. Mar 5. 10. Apr 15. 20
 During erection on board vessel - July 1. 6. 15. 20. 24. 28. 30 Aug 5. 7. 11.
 Total No. of s 25
 MANAGER *for* May 14. 25 June 4. 8. 17. 24.
 Is the approved plan of main boiler forwarded herewith *R/L No. 15265*
 " " " donkey " " " "

General Remarks (State quality of workmanship, opinions as to class, &c. *Workmanship good.*)

Notes
The Safety Valves have been adjusted to 185 lbs at the Superintendent Engineer's request. There is no reason why the pressure should not be marked 200 lbs in the Register Book.

This case is similar in all respects to the 'Poonah' hull Report No 15265 dated 15th May 1903.

The Machinery and Boiler of this Steam Trawler have been constructed under Special Survey and placed on board in accordance with the Society's Rules. They are and in my opinion in safe working condition and the case is respectfully submitted in the notification + LMC P. 03 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 8.03.

W. H. Hill
 25. 8. 03
 25. 8. 03

The amount of Entry Fee... £ 1 : 0 :
 Special ... £ 0 : 0 :
 Donkey Boiler Fee ... £ ✓ : :
 Travelling Expenses (if any) £ ✓ : :
 When applied for, 21/8/1903
 When received, 31. 8. 03

James James
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **TUES. 25 AUG 1903**
 Assigned **+ LMC 8,03**

Hull Certificate (if required) to be sent to

