Rpt. 4.

REPORT ON MACHINERY.

No. 17201

Port of Hull

Received at London Office MON 25 SEP 1905

No. in Reg. Book. 819 Survey held at Hull Date, first Survey April 11th Last Survey Sep. 11th 1905 (Number of Visits 22)

on the Screw Trawler "Amy" Tons Gross 223 Net 79

Master Built at Goole By whom built Goole S.B. & R. Co. When built 1905

Engines made at Hull By whom made Earle's S.B. & E. Co. Ltd when made 1905

Boilers made at do By whom made do when made 1905

Registered Horse Power Owners J. Marr & Son Ltd. Port belonging to Fleetwood

Nom. Horse Power as per Section 28 64 ✓ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 ✓ No. of Cranks 3

Dia. of Cylinders 12", 20", 32" Length of Stroke 24" Revs. per minute 112 Dia. of Screw shaft as per rule 6·90" as fitted 7¼" 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 2'-8"

Dia. of Tunnel shaft as per rule 6·19" as fitted 6¼" ✓ Dia. of Crank shaft journals as per rule 6·5" as fitted 6¾" ✓ Dia. of Crank pin 6¾" Size of Crank webs 13½"×4½" Dia. of thrust shaft under collars 6¾" ✓ Dia. of screw 8'-6" Pitch of screw 11'-0" No. of blades 4 State whether moveable No Total surface 26 sq. ft.

No. of Feed pumps 1 ✓ Diameter of ditto 2½" Stroke 10" Can one be overhauled while the other is at work ✓

No. of Bilge pumps 1 ✓ Diameter of ditto 2½" Stroke 10" Can one be overhauled while the other is at work ✓

No. of Donkey Engines One Sizes of Pumps 4"×2¾"×4" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room One 2" dia. ✓ In Holds, &c. Three 2½" dia. ✓

Ejector suction from Engine room bilge & holds & discharge on deck. ✓

No. of bilge injections 1 sizes 3½" Connected to condenser, or to circulating pump Cond. Is a separate donkey suction fitted in Engine room & size 2½" ✓ Ejector ✓

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 ✓

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 Hold suctions How are they protected Wood casing

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 Before launch Is the screw shaft tunnel watertight ✓

Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.— (Letter for record (S)) Total Heating Surface of Boilers 1110 sq. ft. Is forced draft fitted No

No. and Description of Boilers One S.E. cyl. Multr. Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs

Date of test 28.7.05 Can each boiler be worked separately ✓ Area of fire grate in each boiler 33 sq. ft. No. and Description of safety valves to each boiler Two direct spring Area of each valve 3·9 sq." Pressure to which they are adjusted 1 Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 6" Mean dia. of boilers 12'-0" Length 10'-0" Material of shell plates Steel

Thickness 1" Range of tensile strength 28-32 Are they welded or flanged ✓ Descrip. of riveting: cir. seams DR Lap long. seams DBS 5 Rivets

Diameter of rivet holes in long. seams 1" Pitch of rivets 6 13/16" Lap of plates or width of butt straps 14½"

Per centages of strength of longitudinal joint rivets 85·6 plate 85·3 Working pressure of shell by rules 182 lbs Size of manhole in shell 16"×12"

Size of compensating ring 2'-6"×2'-4"×1" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 3'-5"

Length of plain part top 6'-4" bottom 5'-9" Thickness of plates crown 3/4" bottom 3/4" Description of longitudinal joint Welded No. of strengthening rings ✓

Working pressure of furnace by the rules 181 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8"

Pitch of stays to ditto: Sides 8"×7½" Back 8¼"×7" Top 8"×7½" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 224 lbs

Material of stays Steel Diameter at smallest part 1⅜" Area supported by each stay 60 sq." Working pressure by rules 197 lbs End plates in steam space:

Material Steel Thickness 1" Pitch of stays 16"×15½" How are stays secured D. Nuts Working pressure by rules 181 lbs Material of stays Steel

Diameter at smallest part 2 9/16" Area supported by each stay 248 sq." Working pressure by rules 207 lbs Material of Front plates at bottom Steel

Thickness 7/8" Material of Lower back plate Steel Thickness ⅞+¾" Mg. Greatest pitch of stays 16"×11½" Working pressure of plate by rules 278 lbs

Diameter of tubes 3¼" Pitch of tubes 5"×4¾" Material of tube plates Steel Thickness: Front 7/8" Back 13/16" Mean pitch of stays 10"×9½"

Pitch across wide water spaces 13½" Working pressures by rules 183 lbs Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 8½"×1¾" Length as per rule 2'-8 5/16" Distance apart 8" Number and pitch of Stays in each 3 @ 7½"

Working pressure by rules 195 lbs Superheater or Steam chest; how connected to boiler None 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 ✓

If not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship? yes

[2000—6,04—Copyable Ink.]

DONKEY BOILER— No. Description

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 Plates 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 + two bottom-end connecting rod bolts + nuts. Two main bearing bolts + nuts. One set of coupling bolts + nuts. One set of feed + bilge pump valves. Main + donkey feed check valves. Assorted bolts + nuts &c.

The foregoing is a correct description,

F. J. Palethorpe Manufacturer.

Dates of Survey while building	During progress of work in shops	1905:- Apr 11. 25. 28. May 11. 18. 22. 25. 31. Jun 2. 7. 14. 15. 19. 28. Jul 6.
	During erection on board vessel	July 18. 21. 25. 28. Aug 29. 31 Sep. 11.
	Total No. of visits	22

Is the approved plan of main boiler forwarded herewith Yes (To be returned)

" " " donkey " " " ✓

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

The Engines and Boiler of this vessel have been constructed under Special Survey, are of good material and workmanship, and have been fitted and secured on board in accordance with the Rules. They are now in good working condition and in my opinion eligible to have the notation of +LMC 9.05 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD +L.M.C. 9.05

GM

25.9.05

GM

Certificate (if required) to be sent to Hull

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee	£ 1 : :	When applied for, 23/9/1905		
Special	£ 9 : 12 :			
Donkey Boiler Fee	£ – : – :	When received, 20/10/1905		
Travelling Expenses (if any)	£ – : 6 4			

CGM

21.10.05

J. Kerr

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

Committee's Minute TUES. 26 SEP 1905

Assigned +LMC 9.05

MACHINERY CERTIFICATE WRITTEN.