Rpt. 4.

REPORT ON MACHINERY.

No. 17405

Port of Hull

Received at London Office WED. 10 JAN 1906

No. in Reg. Book. Sup 25 — Survey held at Hull & Goole — Date, first Survey June 15th — Last Survey Dec. 11th 1905 — (Number of Visits 18)

on the Screw Trawler "Reeve" — Tons Gross 172 Net 52

Master — Built at Goole — By whom built Goole S. & R.C. Lt.d — 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 Kelsall Bros. & Beeching, Ltd — Port belonging to Hull

Nom. Horse Power as per Section 28 51 — Is Refrigerating Machinery fitted for cargo purposes No — Is Electric Light fitted No

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

Dia. of Cylinders 12", 18", 30" — Length of Stroke 21 — Revs. per minute 105 — Dia. of Screw shaft as per rule 6.88 as fitted 7¼" — Material of screw shaft Iron

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No — 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 yes ✓ — Length of stern bush 2'-9½"

Dia. of Tunnel shaft as per rule 5.56 as fitted 6¼" — Dia. of Crank shaft journals as per rule 5.8" as fitted 6" — Dia. of Crank pin 6" — Size of Crank webs 12" x 3¾" — Dia. of thrust shaft under collars 6½ — Dia. of screw 8'-6" — Pitch of screw 10'-0" — No. of blades 4 — State whether moveable No — Total surface 24 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" x 2¾" x 4" — No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room One 2" dia. — In Holds, &c. One 2" dia.

2½" Ejector suction from all bilges & discharge on deck

No. of bilge injections 1 — sizes 3½" — Connected to condenser, or to circulating pump Cond.r — 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 For. & 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 None

Is it fitted with a watertight door ✓ — worked from ✓

BOILERS, &c.— (Letter for record (S)) Total Heating Surface of Boilers 900 sq. ft. — Is forced draft fitted No

No. and Description of Boilers One S.E. Cyl.r Mult.r — Working Pressure 160 lbs — Tested by hydraulic pressure to 320 lbs

Date of test 11.11.05 — Can each boiler be worked separately ✓ — Area of fire grate in each boiler 24½ sq. ft. — No. and Description of safety valves to each boiler Two direct spring — Area of each valve 3.14 sq. in. — Pressure to which they are adjusted 165 lbs — Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 12" — ~~Mean~~ Ext. dia. of boilers 10'-6" — Length 9'-6" — Material of shell plates Steel

Thickness 27/32" — Range of tensile strength 28-32 — Are they welded or flanged No — Descrip. of riveting: cir. seams D.R. Lap — long. seams D.B.S.S. Rivets

Diameter of rivet holes in long. seams 1 1/16" — Pitch of rivets 5 3/8" — ~~Lap of plates or~~ width of butt straps 11½"

Per centages of strength of longitudinal joint rivets 87.6 plate 80.2 — Working pressure of shell by rules 160 lbs — Size of manhole in shell 16" x 12"

Size of compensating ring 2'-6" x 2'-4" x 27/32" — No. and Description of Furnaces in each boiler Two plain — Material Steel — Outside diameter 2'-10"

Length of plain part top 6'-4½" bottom 5'-11" — Thickness of plates crown 21/32" bottom 21/32" — Description of longitudinal joint Welded — No. of strengthening rings ✓

Working pressure of furnace by the rules 177 lbs — Combustion chamber plates: Material Steel — Thickness: Sides 5/8" — Back 21/32" — Top 5/8" — Bottom 5/8"

Pitch of stays to ditto: Sides 8½" x 8½" — Back 10" x 9" — Top 8½" x 7½" — If stays are fitted with nuts or riveted heads Nuts — Working pressure by rules 165 lbs

Material of stays Steel — Diameter at smallest part 1½" — Area supported by each stay 72¼ sq. in. — Working pressure by rules 194 lbs — End plates in steam space:

Material Steel — Thickness 7/8" — Pitch of stays 15" x 15" — How are stays secured D. Nuts — Working pressure by rules 161 lbs — Material of stays Steel

Diameter at smallest part 2 5/16" — Area supported by each stay 225 sq. in. — Working pressure by rules 187 lbs — Material of Front plates at bottom Steel

Thickness 7/8" — Material of Lower back plate Steel — Thickness 7/8" + ¾" Dbld. — Greatest pitch of stays 16" x 10" — Working pressure of plate by rules 278 lbs

Diameter of tubes 3" — Pitch of tubes 4 5/8" x 4 3/8" — Material of tube plates Steel — Thickness: Front 7/8" — Back 13/16" — Mean pitch of stays 9¼" x 8¾"

Pitch across wide water spaces 13½" — Working pressures by rules 161 lbs — Girders to Chamber tops: Material Steel — Depth and thickness of girder at centre 7¼" x 1½" — Length as per rule 2'-2" — Distance apart 7½" — Number and pitch of Stays in each 2 @ 8½"

Working pressure by rules 228 lbs — Superheater or Steam chest; how connected to boiler Riveted — Can the superheater be shut off and the boiler worked separately No — Diameter 2'-6" — Length 2'-6" — Thickness of shell plates 5/8" — Material Steel — Description of longitudinal joint D.R. Lap — Diam. of rivet holes 1" — Pitch of rivets 3¼" — Working pressure of shell by rules 343 lbs — Diameter of flue ✓ — Material of flue plates ✓ — Thickness ✓

If stiffened with rings ✓ — Distance between rings ✓ — Working pressure by rules ✓ — End plates: Thickness 5/8" — How stayed Dbld

Working pressure of end plates 280 lbs — Area of safety valves to superheater ✓ — Are they fitted with easing gear ✓

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 + 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. Fellthorpe Manufacturer.

Dates of Survey while building — During progress of work in shops - - 1905:- Jan 15.23. Sep 12.14.25 Oct 2.4.18.20.26.28. Nov 6.

During erection on board vessel - - Nov 11.20.21.22.24 Dec. 11.

Total No. of visits 18

Is the approved plan of main boiler forwarded herewith yes

" " " 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 12.05 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 12.05.

10.1.06.

10.1.06

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 : - : -

Special .. .. .. £ 8 . - : -

Donkey Boiler Fee .. .. £ / : :

Travelling Expenses (if any) £ / : :

When applied for, 9/1/1906.

When received, 6/3/06

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

Committee's Minute FRI. 19 JAN 1906

Assigned + L.M.C. 12.05

MACHINERY CERTIFICATE WRITTEN