Rpt. 4.

REPORT ON MACHINERY.

No. 18875

Port of Hull

Received at London Office JUES. APL 16 1907

No. in Reg. Book. 48 Supp. Survey held at Selby & Hull. Date, first Survey Nov. 9/06 Last Survey Mar. 21st 1907. (Number of Visits 19)

on the Screw Trawler "President" Tons Gross 257 Net 109

Master Built at Selby By whom built Cochrane & Sons When built 1907

Engines made at Hull By whom made Charles D. Holmes & Co. when made 1907

Boilers made at do By whom made do when made 1907

Registered Horse Power Owners The Anchor Steam Fishing Co. Ld Port belonging to Grimsby

Nom. Horse Power as per Section 28 ~~70~~ 71 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 12½", 22", 35" Length of Stroke 24" Revs. per minute 110 Dia. of Screw shaft as per rule 7.29" as fitted 7½" 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 yes ✓ 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 36" ✓

Dia. of Tunnel shaft as per rule 6.6" as fitted 6⅞" Dia. of Crank shaft journals as per rule 6.9" as fitted 7⅛" Dia. of Crank pin 7⅛" Size of Crank webs 13½"×4⅞" Dia. of thrust shaft under collars 7⅛" ✓ Dia. of screw 8'-7½" Pitch of Screw 10'-6" to 11'-6" No. of Blades 4 ✓ State whether moveable No Total surface 28 sq. ft.

No. of Feed pumps 1 Diameter of ditto 2⅛" Stroke 24" Can one be overhauled while the other is at work ✓

No. of Bilge pumps 1 Diameter of ditto 2⅛" Stroke 24" Can one be overhauled while the other is at work ✓

No. of Donkey Engines One Sizes of Pumps 2¾"×5" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room Two 2" dia. ✓ In Holds, &c. Three 2" dia. ✓

Ejector suction from all bilges & discharge on deck.

No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump Pump 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 None

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 ✓

Dates of examination of completion of fitting of Sea Connections 17.11.06 of Stern Tube 17.11.06 Screw shaft and Propeller 17.11.06

Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record (S) Manufacturers of Steel David Colville & Sons Ld.

Total Heating Surface of Boilers 1126 sq. ft. Is Forced Draft fitted No No. and Description of Boilers One S.E. Cylr. Multr.

Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 28.2.07 No. of Certificate 1549

Can each boiler be worked separately ✓ Area of fire grate in each boiler 38 sq. ft. No. and Description of Safety Valves to each boiler Two spring Area of each valve 3.9 □" Pressure to which they are adjusted 205 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 6" Mean dia. of boilers 13'-0" Length 10'-6" Material of shell plates Steel

Thickness 1 3/16" Range of tensile strength 28½-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R. Lap long. seams D.R.S. Rivets Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 7½" ~~Lap of plates or~~ width of butt straps 17⅛"

Per centages of strength of longitudinal joint rivets 92.5 plate 84 Working pressure of shell by rules 204 lbs Size of manhole in shell 16"×12"

Size of compensating ring 7"×1 3/16" No. and Description of Furnaces in each boiler Two Holmes Material Steel Outside diameter 3'-7"

Length of plain part top bottom ✓ Thickness of plates crown bottom 23/32" Description of longitudinal joint Welded No. of strengthening rings ✓

Working pressure of furnace by the rules 209 Combustion chamber plates: Material Steel Thickness: Sides 23/32" Back 11/16" Top 23/32" Bottom 23/32"

Pitch of stays to ditto: Sides 9"×9" Back 9¼"×8⅝" Top 8¾"×8½" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 205 lbs

Material of stays Steel Diameter at smallest part 1⅝" Area supported by each stay 81 □" Working pressure by rules 230 End plates in steam space:

Material Steel Thickness 1 5/32" Pitch of stays 17½"×17½" How are stays secured D.N. & W. + screwed into end plates Working pressure by rules 206 lbs Material of stays Steel

~~Diameter~~ area at smallest part 7 □" Area supported by each stay 306 lbs Working pressure by rules 228 Material of Front plates at bottom Steel

Thickness 15/16" Material of Lower back plate Steel Thickness 15/16" Greatest pitch of stays 14½"×8⅝" Working pressure of plate by rules 213 lbs

Diameter of tubes 3¼" Pitch of tubes 5"×4¾" Material of tube plates Steel Thickness: Front 15/16" Back 29/32" Mean pitch of stays 9¾"

Pitch across wide water spaces 15" ✓ Working pressures by rules 200 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9¼"×1¾" Length as per rule 2'-8⅞" Distance apart 8¾" Number and pitch of stays in each 3 @ 8½"

Working pressure by rules 211 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

Sm.4.—1.

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006680-0066693-0134

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 Stayed by

Diameter of uptake Thickness of uptake plates Thickness of water tubes Dates of survey

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,

PER PRO CHARLES D. HOLMES & Co. Manufacturer.

H. Allon

Dates of Survey while building — During progress of work in shops — 1906:- Nov 9. 12. 15. 16. 17. Dec. 6. 17. 1907:- Jan 15. 22. 30. Feb 5. 19. 28. Mar 4. 8.

During erection on board vessel — Mar 13. 16. 19. 21.

Total No. of visits 19. Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 5. 2. 07 Slides 4. 3. 07 Covers 8. 3. 07 Pistons 28. 2. 07 Rods 28. 2. 07

Connecting rods 28. 2. 07 Crank shaft 8. 3. 07 Thrust shaft 8. 3. 07 Tunnel shafts ✓ Screw shaft 16. 11. 06 Propeller 16. 11. 06

Stern tube 16. 11. 06 Steam pipes tested 16. 3. 07 Engine and boiler seatings 17. 11. 06 Engines holding down bolts 13. 3. 07

Completion of pumping arrangements 21. 3. 07 Boilers fixed 13. 3. 07 Engines tried under steam 21. 3. 07

Main boiler safety valves adjusted 21. 3. 07 Thickness of adjusting washers F 5/16" A 5/16"

Material of Crank shaft Iron Identification Mark on Do. 313 J.H. 8. 3. 07 Material of Thrust shaft Iron Identification Mark on Do. 313 J.H. 8. 3. 07

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. K.H. 2753 3. 1906

Material of Steam Pipes Solid drawn copper Test pressure 400 lbs

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 3. 07 in the Register Book.

It is submitted that this vessel is eligible for the RECORD +LMC 307

16/4/07

16.4.07

The amount of Entry Fee .. £ 1 : — : —

Special .. .. .. £ 10 : 10 : —

Donkey Boiler Fee .. .. £ — : — : —

Travelling Expenses (if any) £ — : 8 2

When applied for, 15/4/ 1907

When received, 30/4/07 1907

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

Committee's Minute FRI. APL 19 1907

Assigned +LMC 3. 07

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

Certificate (if required) to be sent to Hull

MACHINERY CERTIFICATE WRITTEN.

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