

REPORT ON MACHINERY.

No. 29553

Received at London Office

Date of writing Report 15-9-16 to which is added 19-9-16 1916 Port of Hull SAT 30 SEP 1916

To. in Survey held at Hull Date, First Survey 22nd September 1915 East Survey 14-9-16 1916
Reg. Book. 136 on the steel screw trawler "St. Hubert" (Number of Visits 43)

Master Built at Beverley By whom built Cook, Welton & Gemmell Tons Gross 349 Net 140
When built 1916-9

Engines made at Hull By whom made C. D. Holmes & Co. Ltd when made 1916-9

Boilers made at Hull By whom made C. D. Holmes & Co. Ltd when made 1916-9

Registered Horse Power Owners St. Andrews S. F. Co. Ltd Port belonging to Hull

Nom. Horse Power as per Section 28 82 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

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

Dia. of Cylinders 12 3/4" - 23" - 37" Length of Stroke 26" Revs. per minute 105 Dia. of Screw shaft as per rule 7.86" Material of screw shaft Iron
as fitted 8" (Number of Visits 43)

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

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 35 1/2"

Dia. of Tunnel shaft as per rule 6.99" Dia. of Crank shaft journals as per rule 7.43" Dia. of Crank pin 7 1/2" Size of Crank webs 1 1/2" x 5" Dia. of thrust shaft under

collars 7 1/2" Dia. of screw 9'-7 1/2" Pitch of Screw 11'-4 1/2" No. of Blades 4 State whether moceable no Total surface 35 ft

No. of Feed pumps one Diameter of ditto 2 5/8" Stroke 16 Can one be overhauled while the other is at work

No. of Bilge pumps one Diameter of ditto 2 5/8" Stroke 16 Can one be overhauled while the other is at work

No. of Donkey Engines one 7 1/2" dia. Sizes of Pumps 6" 3 1/2" x 6" 4 wheel No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room two 12" dia. In Holds, &c. one 2" dia. in each compartment

all suction also connected to 2 1/2" ejector

No. of Bilge Injections one size 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2 1/2" 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 Forward suction How are they protected strong wooden casings

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 9-6-16 of Stern Tube 9-6-16 Screw shaft and Propeller 9-6-16

Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

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

Total Heating Surface of Boilers 12600 sq ft Is Forced Draft fitted no No. and Description of Boilers one single ended

Working Pressure 200 lbs Tested by hydraulic pressure to 410 lbs Date of test 8-8-16 No. of Certificate 3154

Can each boiler be worked separately Area of fire grate in each boiler 46.5 sq ft No. and Description of Safety Valves to

each boiler two spring loaded Area of each valve 4.9 sq in 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" lagged in Mean dia. of boilers 165" Length 10'-6" Material of shell plates steel

Thickness 1 15/16" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double

long. seams R R B 1 Diameter of rivet holes in long. seams 1 3/32" Pitch of rivets 8 5/8" Lap of plates or width of butt straps 18"

Per centages of strength of longitudinal joint rivets 86.8 plate 85 Working pressure of shell by rules 201 Size of manhole in shell 16" x 12"

Size of compensating ring 7" x 1 1/4" No. and Description of Furnaces in each boiler three plain Material steel Outside diameter 39"

Length of plain part top 76.9" bottom 66" Thickness of plates crown 3 25/32" Description of longitudinal joint welded No. of strengthening rings

Working pressure of furnace by the rules 202 Combustion chamber plates: Material steel Thickness: Sides 1 1/16" Back 2 3/32" Top 3/4" Bottom 1 1/16"

Pitch of stays to ditto: Sides 9" x 9" Back 10 1/2" x 8 1/4" Top 10 1/2" x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 202

Material of stays steel Diameter at smallest part 2.07" Area supported by each stay 92.25 Working pressure by rules 202 End plates in steam space

Material steel Thickness 1 1/4" Pitch of stays 19 1/2" x 19 1/2" How are stays secured 8 7/8" x W Working pressure by rules 202 Material of stays steel

Diameter at smallest part 7.5" Area supported by each stay 365" Working pressure by rules 214 Material of Front plates at bottom steel

Thickness 1 5/16" Material of Lower back plate steel Thickness 1 7/16" Greatest pitch of stays 14" x 10 1/2" Working pressure of plate by rules 201

Diameter of tubes 3 1/2" Pitch of tubes 5 1/2" x 5" Material of tube plates steel Thickness: Front 1 5/8" + 2/32" Back 7/8" Mean pitch of stays 10 1/2"

Pitch across wide water spaces 14" double Working pressures by rules 249 lbs Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 11" x 1 3/4" Length as per rule 37.7" Distance apart 9 1/2" Number and pitch of stays in each three 9"

Working pressure by rules 204 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

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - 2 Connecting Rod Top End bolts & nuts
 2 Connecting Rod Bottom end bolts & nuts. 2 Main bearing bolts
 1 set coupling bolts. 1 set Feed & Bilge Pump Valves.
 Assorted bolts & nuts. Iron various sizes. 1 shaft for Centrif
 Pump. 1 Feed pump plunger. 1 doz Piston studs & nuts.
 Values for Donkey. 1 Safety valve spring. 1 set Air Pump Valve

The foregoing is a correct description,

Frank S. Stinger
 DIRECTOR

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } 1915: - Sep 22, 1916: - JAN 13, 25, Feb. 2, 3, 4, 29. MAR. 16. APR. 13, 17, 19, 24. MAY 5, 25
 { During erection on board vessel - - - } JAN. 4, 6, 7, 9, 12, 15, 22, 27, JULY 7, 10, 14, 17, 19, 21, 26, 31, AUG. 3, 8, 15, 21, 25, 28, 29, SEP. 5, 6, 9
 Total No. of visits 43

Is the approved plan of main boiler forwarded herewith *Yd*

" " " donkey " " "

Dates of Examination of principal parts - Cylinders 4-7-16 Slides 19-7-16 Covers 14-7-16 Pistons 14-7-16 Rods 14-7-16
 Connecting rods 7-7-16 Crank shaft 4-7-16 Thrust shaft 7-7-16 Tunnel shafts ✓ Screw shaft 7-6-16 Propeller 7-6-16
 Stern tube 6-6-16 Steam pipes tested 5-9-16 Engine and boiler seatings 9-6-16 Engines holding down bolts 28-8-16
 Completion of pumping arrangements 14-9-16 Boilers fixed 9-9-16 Engines tried under steam 14-9-16
 Main boiler safety valves adjusted 9-9-16 Thickness of adjusting washers F 1/4 A 1/4
 Material of Crank shaft *Iron* Identification Mark on Do. 1599FLS Material of Thrust shaft *Iron* Identification Mark on Do. 74572
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. 1593F
 Material of Steam Pipes *Solid drawn copper* ✓ Test pressure 400lbs ✓
 Is an installation fitted for burning oil fuel Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, etc.) *The machinery of this vessel has been constructed under special survey in accordance with the approved plans & the rules of this society, the materials & workmanship are good. The boiler & steam pipes have been tested as above & found sound & good. The machinery has been properly fitted & secured on board the vessel & on completion tried under steam & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 216 lbs. In my opinion the vessel is eligible for the award of LMC 9.16*

It is submitted that this vessel is eligible for THE BROOD + LMC 9.16.

Frank S. Stinger
 30/9/16

The amount of Entry Fee ... £ 1 : 0 :
 Special ... £ 12 : 6 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : 2/-

When applied for, 29.9.16
 When received, 29/9.16
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUE. 3-OCT. 1916
 Assigned + LMC 9.16



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