

REPORT ON MACHINERY.

No. 29138

Date of writing Report 31-1-16 19 When handed in at Local Office 31-1-16 Port of Hull Received at London Office TUE. 15 FEB. 1916

No. in Survey held at Hull Date, First Survey 28-7-15 Last Survey 26-1-16 19
Reg. Book.

pt 11 on the steel screw trawler Donna Hook (Number of Vests 42 Gross 307 Tons Net 150)

Master Built at Leby By whom built Cochrane & Sons Ltd When built 1915-1

Engines made at Hull By whom made C. D. Holmes & Co. Ltd (11112) when made 1915-1

Boilers made at Hull By whom made C. D. Holmes & Co. Ltd when made 1915-1

Registered Horse Power Owners Moody & Kelly Port belonging to Fleetwood

Nom. Horse Power as per Section 28 88 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 13 1/2 - 23 - 37 Length of Stroke 26 Revs. per minute Dia. of Screw shaft as per rule 7 1/2 as fitted 8 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 Yes 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 9/16 as fitted Dia. of Crank shaft journals as per rule 7 1/2 as fitted 7 1/2 Dia. of Crank pin 7 1/2 Size of Crank webs 4 1/2 x 14 1/2 Dia. of thrust shaft under collars 7 1/2 Dia. of screw 9-6 Pitch of Screw 11-3 No. of Blades 4 State whether moveable No Total surface 34 1/2

No. of Feed pumps one Diameter of ditto 2 1/2 Stroke 14 3/4 Can one be overhauled while the other is at work Yes

No. of Bilge pumps one Diameter of ditto 2 1/2 Stroke 14 3/4 Can one be overhauled while the other is at work Yes

No. of Donkey Engines one 2 1/2 gals Sizes of Pumps 6 x 4 1/4 x 6 duplex No. and size of Suctions connected to both Bilge and Donkey pumps

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

all suctions also connected to ejecta

No. of Bilge Injections one sizes 3 1/2 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2 1/2 gals

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 No

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 suctions How are they protected Along 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 10-8-15 of Stern Tube 10-8-15 Screw shaft and Propeller 10-8-15

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

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

Total Heating Surface of Boilers 1540 sq ft Is Forced Draft fitted No No. and Description of Boilers one single ended

Working Pressure 180 lbs Tested by hydraulic pressure to 340 lbs Date of test 6-12-15 No. of Certificate 3118

Can each boiler be worked separately Yes Area of fire grate in each boiler 468 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 185 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 15 in Mean dia. of boilers 165 3/4 Length 10-9 Material of shell plates steel

Thickness 1 1/8 Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams double long. seams Y. R. & B. Diameter of rivet holes in long. seams 1 7/32 Pitch of rivets 8 Lap of plates or width of butt straps 18

Per centages of strength of longitudinal joint rivets 86.6 plate 85.6 Working pressure of shell by rules 181 lbs Size of manhole in shell 16 x 12

Size of compensating ring 7 x 1 1/8 No. and Description of Furnaces in each boiler 3 plain Material steel Outside diameter 39

Length of plain part top 78 1/2 bottom 77 Thickness of plates crown 3/4 Description of longitudinal joint welded No. of strengthening rings

Working pressure of furnace by the rules 188 Combustion chamber plates: Material steel Thickness: Sides 1 1/16 Back 2 3/32 Top 4 1/16 x 3 1/8 Bottom 1 1/16

Pitch of stays to ditto: Sides 9 1/2 x 9 1/2 Back 10 1/2 x 8 1/2 Top 11 x 9 1/2 Bottom 11 x 9 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181

Material of stays steel Diameter at smallest part 2.4 Area supported by each stay 107 Working pressure by rules 202 End plates in steam space

Material steel Thickness 1 1/4 Pitch of stays 21 x 19 How are stays secured D. & W. Working pressure by rules 185 Material of stays steel

Diameter at smallest part 7.5 Area supported by each stay 400 Working pressure by rules 195 Material of Front plates at bottom steel

Thickness 1 Material of Lower back plate steel Thickness 7/8 Greatest pitch of stays 14 x 8 3/8 Working pressure of plate by rules 199

Diameter of tubes 3 1/2 Pitch of tubes 5 1/16 x 4 3/4 Material of tube plates steel Thickness: Front 1 Back 7/8 Mean pitch of stays 9 1/2

Pitch across wide water spaces 13 3/4 Working pressures by rules 190 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 11 1/4 x 13 1/4 Length as per rule 39 Distance apart 9 1/2 Number and pitch of stays in each Three 9 1/2

Working pressure by rules 187 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked separately Yes 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

W271-0200

IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— *Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of air, feed & bilge pump valves, one main & one donkey check valve & a quantity of bolts & nuts iron of various sizes*

The foregoing is a correct description,

Charles D. Holmes & Co. Ltd.
Arthur Holmes
DIRECTOR

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1915: Jul 28, 30, Aug 6, 7, 10, Sep 20, 24, 28, 29, 30, Oct 1, 6, 8, 11, 16, 19, 20, 23, 25, 27, 29
During erection on board vessel - - 2002, 5, 9, 10, 11, 12, 16, 18, 22, 24, 25, 30 Dec 6, 7, 21, 24, 1916: Jan 5, 7, 11, 13, 26
Total No. of visits 42

Is the approved plan of main boiler forwarded herewith *Ref No 29123 "Night Hawk"*

Dates of Examination of principal parts—Cylinders 6-10-15 Slides 18-11-15 Covers 16-11-15 Pistons 16-11-15 Rods 18-11-15
Connecting rods 11-11-15 Crank shaft 10-11-15 Thrust shaft 25-11-15 Tunnel shafts Screw shaft 7-8-15 Propeller 7-8-15
Stern tube 10-8-15 Steam pipes tested 7-1-16 Engine and boiler seatings 10-8-15 Engines holding down bolts 5-1-16
Completion of pumping arrangements 26-1-16 Boilers fixed 11-1-16 Engines tried under steam 26-1-16
Main boiler safety valves adjusted 13-1-16 Thickness of adjusting washers *7/4 & 7/6*

Material of Crank shaft *Iron* Identification Mark on Do. *1542 FLS* Material of Thrust shaft *Iron* Identification Mark on Do. *7236 8A W*
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts *Iron* Identification Marks on Do. *1577 FLS*

Material of Steam Pipes *solid drawn copper* ✓ Test pressure *40 lbs* ✓

Is an installation fitted for burning oil fuel *no* ✓ 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 *yes* If so, state name of vessel *Night Hawk* ✓

General Remarks (State quality of workmanship, opinions as to class, &c. *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 & tight. The machinery has been properly fitted & secured on board the vessel & on completion was tested under steam & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 187 lbs.*

In my opinion the vessel is eligible for the Record + L.M.C. 1-16

It is submitted that
this vessel is eligible for
THE RECORD + L.M.C. 1-16

JWR
16/2/16
GPR

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 13 : 4 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : 82 :
When applied for, 14-2-1916
When received, 24-2-1916

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

Committee's Minute FRI 18 FEB 1916

Assigned *+ L.M.C. 1-16*

MACHINERY PERMANENTLY
WHITTEN.



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Foundation