

REPORT ON MACHINERY

No. 34619

WED. 27 MAR. 1918

Received at London Office

Date of writing Report 20. 3. 1918 When handed in at Local Office 23. 3. 1918 Port of Glasgow

No. in Survey held at Glasgow
Reg. Book.Date, First Survey 13th July 1917

Last Survey 19. 3. 1918

on the Machinery for H. M. DRIFTER

BLIZZARD N^o 93

Tons

Gross

Net

Master

Built at

Lewesloft

By whom built

Colly Bros Ltd.

When built

1918.

Engines made at

Coathbridge

By whom made

H. B. Diesel Eng. Co. N^o 5

when made

1918.

Boilers made at

Aldbury

By whom made

Edwin Danks & Co. Ltd.

when made

1918.

Registered Horse Power

43

Owners

H. H. Government

Port belonging to

Nom. Horse Power as per Section 28

42.5

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

9 1/2", 15 1/2", 26"

Length of Stroke

18"

Revs. per minute

Dia. of Screw shaft

5 1/2"

Material of

Steel

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

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'-1"

Dia. of Tunnel shaft

as per rule 4.80

Dia. of Crank shaft journals

as per rule 5.06

5.04

Dia. of Crank pin

5 1/4"

Size of Crank webs

10" x 3 1/2"

Dia. of thrust shaft under

collars

5 1/4"

Dia. of screw

6-9"

Pitch of Screw

8-6"

No. of Blades

4

State whether moveable

No

Total surface

18 sq ft

No. of Feed pumps

1

Diameter of ditto

2 1/2"

Stroke

9"

Can one be overhauled while the other is at work

No. of Bilge pumps

1

Diameter of ditto

2"

Stroke

9"

Can one be overhauled while the other is at work

No. of Donkey Engines

1

Sizes of Pumps

5 1/4" x 3 1/2" Duplex

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

Two 2" dia. + one Ejector

In Holds, &c.

One 2" dia.

No. of Bilge Injections

1

sizes

2 1/2"

Connected to condenser, or to circulating pump

No

Is a separate Donkey Suction fitted in Engine room & size

Yes 2"

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

Yes

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

None

How are they protected

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

22-3-18 of Stern Tube

22-3-18 Screw shaft and Propeller

22-3-18

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

OILERS, &c.—(Letter for record

S)

Manufacturers of Steel

Total Heating Surface of Boilers

814 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers

1 Single ended marine.

Working Pressure

180

Tested by hydraulic pressure to

360

Date of test

16-4-18

No. of Certificate

384

Can each boiler be worked separately

Area of fire grate in each boiler

36 sq ft

No. and Description of Safety Valves to

each boiler

1 pair Spring loaded

Area of each valve

3.94 sq in

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

6"

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

Pitch of seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Percentages of strength of longitudinal joint

rivets

Working pressure of shell by rules

plate

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

If stays are fitted with nuts or riveted heads

Working pressure by rules

Pitch of stays to ditto: Sides

Back

Top

Bottom

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam spaces

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

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 rivets

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

How stayed

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

Foundation

009493-009504-0246

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *-*

SPARE GEAR. State the articles supplied:—

2 Connecting rod top end + 2 Connecting rod bottom end bolts +
nuts, 2 main bearing bolts, 1 set of coupling bolts + nuts,
1 set of piston rings, 1 set of feed + bilge pump valves
A quantity of assorted bolts + nuts.
Iron of various sizes

The foregoing is a correct description,
FOR THE NORTH BRITISH DIESEL ENGINE WORKS, LTD.

John Holloway
Works Manager.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1914 July 13 Aug 9 31 Sep 6 14 20 Oct 3 22 30 Nov 5 12 15 20 21 26 29 30 Dec 3 12 14 18 24 28 1918
During erection on board vessel -- 11 14 24 25 30 31 Feb 2 8 12 21 26 Mar 5 11 16 18 19 Apr 23 May 5 29 30 Jun 10 18
Total No. of visits 41

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

Dates of Examination of principal parts—Cylinders 26-2-18 Slides 21-2-18 Covers 21-2-18 Pistons 21-2-18 Rods 26-11-14

Connecting rods 26-11-14 Crank shaft 26-2-18 Thrust shaft 16-3-18 Tunnel shafts -- Screw shaft 31-1-18 Propeller 31-1-18

Stern tube 31-1-18 Steam pipes tested ✓ Engine and boiler seatings 5-4-18 Engines holding down bolts 29-4-18

Completion of pumping arrangements 29-7-18 Boilers fixed 5-4-18 Engines tried under steam 29-7-18

Main boiler safety valves adjusted 29-7-18 Thickness of adjusting washers 1/2 P 3/8 S

Material of Crank shaft S Identification Mark on Do 1036 F.A.F. 26-2-18

Material of Tunnel shafts Yone Identification Marks on Do Material of Thrust shaft S Identification Mark on Do 1036 F.A.F. 16-3-18

Material of Steam Pipes Copper Test pressure 360 lb.

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 *yes* If so, state name of vessel *H. M. Duffer "Cold Snap"*

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

The Machinery has been built under Special Survey in accordance with the Rules of the Society + the approved Admiralty Specification + has been forwarded to Lowestoft to be fitted on board the vessel.

The workmanship + materials are of good quality throughout. The Machinery is eligible, in my opinion to have record of T.L.M.C. with date when it has been securely fitted on board + tried under steam with satisfactory results.

The Engines + boiler have been examined during the installation in the vessel, afterwards tried under working conditions + found satisfactory. It is now eligible for the record of T.L.M.C. 7-18 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. T.L.M.C. 7-18

Fitting out at Lowestoft 24-10-0
Biler Fee 24-10-0

The amount of Entry Fee	£	When applied for,
Special Survey	9 0 0	26-3-1918
Donkey Boiler Fee	4 10 0	9-12-18
Travelling Expenses (if any)		5-6-18

Committee's Minute GLASGOW 26 MAR 1918

Assigned Deferred for compln

Geo. A. Ferguson
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping
A.E. Farminer

FRIDEC 13 1918

Lloyd's Register
Foundation