

Rpt. 4.

## REPORT ON MACHINERY

No. 40879

WED. 23 FEB. 1921

-7 AUG 1929

Date of writing Report 19. 2. 1921 When handed in at Local Office 19. 2. 1921 Port of Glasgow

No. in Survey held at TROON. Date, First Survey 15. 1. 1919 Last Survey 23. 3. 1920  
Reg. Book. on the TUG ARTHUR BEMELMANS (Number of Visits 55)

Master Built at Bowling By whom built Scott &amp; Sons 300 Tons Gross 72 Net 40

Engines made at TROON. By whom made Caisa SBC (No 96). when made 1920

Boilers made at By whom made H.W. Dalglis when made 1925

Registered Horse Power Owners Soc. pour la Manutention des Ls Port belonging to

Nom. Horse Power as per Section 28 43 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &amp;c.—Description of Engines Triple Expansion Surf. Cond. 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 as per rule Material of screw shaft as fitted

Is the screw shaft fitted with a continuous liner the whole length of the stern tube 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

Dia. of Tunnel shaft as per rule 4 1/2 Dia. of Crank shaft journals as per rule 5.04 Dia. of Crank pin 5 1/4 Size of Crank webs 16 1/2 Dia. of thrust shaft under

collars 5 1/4 Dia. of screw Pitch of Screw No. of Blades State whether moreable Total surface

No. of Feed pumps 1 Diameter of ditto 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 Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room In Holds, &amp;c.

No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room &amp; size

Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

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

OILERS, &amp;c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

Working Pressure 180 Tested by hydraulic pressure to 320 Date of test 30. 9. 25 No. of Certificate 16935

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

each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork 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

long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Per centages of strength of longitudinal joint rivets Working pressure of shell by rules 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 Thickness of plates crown Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

Area 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

Pitch across wide water spaces 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 Steam dome: description of joint to shell % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

010096 - 010102 - 0320

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

FOR AILSA SHIPBUILDING CO., LIMITED

ENGINEER-MANAGER

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1919 Jan 15-21 Feb 4-26 Mar 3-20 24-31 Apr 2-4 7-23 May 2-7 13-22 July 8-16 Aug 5-19 25-29 Sep 1-5  
During erection on board vessel - - - 12-24 Oct 2-10 16-23 28-31 Nov 6-27 Dec 1-9 12-17 19-23 (1920) Jan 9-15 19-22 Feb 4-9 13-17 23-27 Mar 1-3 5-7  
Total No. of visits 55.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 19.8.19 Slides 15.1.20 Covers 8.7.19 Pistons 4.2.20 Rods 20.3.19

Connecting rods 1.12.19 Crank shaft 19.8.19 Thrust shaft Tunnel shafts None Screw shaft None Propeller None

Stern tube None Steam pipes tested - Engine and boiler seatings - Engines holding down bolts -

Completion of pumping arrangements - Boilers fixed - Engines tried under steam -

Completion of fitting sea connections - Stern tube - Screw shaft and propeller -

Main boiler safety valves adjusted - Thickness of adjusting washers -

Material of Crank shaft Steel Identification Mark on Do. 19.8.19 P.T.B. Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Steel Identification Marks on Do. 19.8.19 P.T.B. Material of Screw shafts Steel Identification Marks on Do.

Material of Steam Pipes

Test pressure

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 Admiralty Drifter

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

The materials and workmanship are good  
These engines have been built under special survey in accordance with the Rules and Specification (Admiralty)

These engines have been lying completed in shops since March 1920 with the exception of the thrust shaft which requires to be finished to length. The Disposals Board are now removing the engines to one of their depots. It is not known for what purpose they will ultimately be used. If fitted in a classed vessel they will be eligible in our opinion for classification.

The amount of Entry Fee ... £ : :  
Special ... £ 10 : 0 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 22.2.1921  
When received, 30.4.1921

Committee's Minute

Assigned No action

Engineer Surveyor to Lloyd's Register of Shipping.

D. C. Barr. M. Mac

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See Glasgow Report No. 49473