

REPORT ON OIL ENGINE MACHINERY.

No. 29703

Date of writing Report

19

When handed in at Local Office

17 April 1928

Port of

Funderland.

Received at London Office

19 APR 1928

No. in Survey held at

Funderland.

Date, First Survey

23rd Sep. 27

Last Survey

14 April 1928

Reg. Book.

Number of Visits 58

H1024

Single
Twin
Triple

Screw vessels

M.V. "GLENMOOR"

Tons.

Gross 4393

Net 2649

Built at

Funderland.

By whom built

William Duffell & Co. Ltd

Yard No. 591

When built 1928.

Engines made at

do

By whom made

do

Engine No. 591

When made 1928.

Donkey Boilers made at

Aman.

By whom made

Brehan & Co

Boiler No.

When made

Brake Horse Power

440

Owners

The Mer Line Ltd.

Port belonging to

London.

Nom. Horse Power as per Rule

417.

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

OIL ENGINES, &c.

Type of Engines

Injected Diesel Injection

2 or 4 stroke cycle

2

Single or double acting

Single

Maximum pressure in cylinders

588 lbs

No. of cylinders

3

Diameter of cylinders

540 1/2 (21 1/2)

No. of cranks

3 x 3 throw

Length of stroke

2 x 280

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

980 mm

Is there a bearing between each crank

Yes

Revolutions per minute

90

Flywheel dia.

8-8

Weight

10 1/2 tons

Means of ignition

TEMP. OF COMPRESSOR

Kind of fuel used

CRUDE OIL F. POWER 185

Crank Shaft, dia. of journals

as per Rule

as fitted

400 1/2

Crank pin dia.

430 1/2

Crank Webs

Mid. length breadth

610 1/2

Flywheel Shafts, diameter

as per Rule

as fitted

400 1/2

Intermediate Shafts, diameter

as per Rule

as fitted

330 1/2

Thrust Shaft, diameter at collars

as per Rule

as fitted

400 1/2

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

350 1/2

Is the

screw

shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes

as per Rule

as fitted

20 1/2

Thickness between bushes

as per Rule

as fitted

Is the after end of the liner made watertight in the

propeller boss

Yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft

Propeller, dia.

15-6"

Pitch

13-9"

No. of blades

4

Material

BRONZE

whether Movable

No

Total Developed Surface

76

sq. feet

Method of reversing Engines

COMPRESSED AIR

Is a governor or other arrangement fitted to prevent racing of the engine when disengaged

Yes

Means of lubrication

FORCED

Thickness of cylinder liners

8 REINFORCED

The cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

Lagged

Cooling Water Pumps, No.

See shaft 28/4/28

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Yes

Can one be overhauled while the other is at work

Yes

Bilge Pumps fitted to the Main Engines, No.

No. and Size

3

ONE @ 40 TONS BILGE, ONE @ 40 TONS G.S.P. ONE @ 200 TONS BALLAST P.

How driven

STEAM.

Ballast Pumps, No. and size

1 @ 200 TONS.

Lubricating Oil Pumps, including Spare Pump, No. and size

1 ENGINE DRIVEN S.P.

1 STEAM. DIRECT ACTING.

Are two independent means arranged for circulating water through the Oil Cooler

No OIL COOLER.

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size

In Engine and Boiler Room

4 @ 2 1/2" V 1 @ 3" TUNNEL WELL.

In Holds, &c.

2 @ 3 1/2" No. 1. 2 @ 3 1/2" No. 2. 2 @ 5" DEEP TANK. 2 @ 3" No. 3. 1 @ 3 1/2" No. 4.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

1 @ 8" TO BALLAST PMP. 1 @ 4 1/2" TO GENERAL SERVICE.

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

Yes

Are the Bilge Suctions in the Machinery Space

ed from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Yes

Are all Sea Connections fitted direct on the skin of the ship

Yes

Are they fitted with Valves or Cocks

Both.

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates

Yes

Are the Overboard Discharges above or below the deep water line

Yes

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 pass through the bunkers

How are they protected

What pipes pass through the deep tanks

See shaft 28/4/28

Have they been tested as per Rule

Yes

See shaft 28/4/28

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

Yes

Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another

Yes

Is the Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

TOP PLATFORM.

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Main Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Steam

Auxiliary Air Compressors, No.

No. of stages

3

Diameters

1 1/2, 9/8, 3/8

Stroke

Driven by

Steam

Small Auxiliary Air Compressors, No.

No. of stages

3

Scavenging Air Pumps, No.

ONE DOUBLE ACTING

Diameter

1540 1/2

Stroke

610 1/2

Driven by

MAIN ENGINE.

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Yes

Can the internal surfaces of the receivers be examined

Yes

What means are provided for cleaning their inner surfaces

MANHOLE DOOR 16" x 12"

Is there a drain arrangement fitted at the lowest part of each receiver

Yes

High Pressure Air Receivers, No.

None

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Starting Air Receivers, No.

Two

Total cubic capacity

220 CUB. FT.

Internal diameter

3-6"

Seamless, lap welded or riveted longitudinal joint

RIVETTED

Material

MILD STEEL.

Range of tensile strength

28 TO 32

Working pressure by Rules

610 LBS.

2019

Lloyd's Register
Foundation

W1129-0237

IS A DONKEY BOILER FITTED?
HYDRAULIC TESTS:—

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

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	Plain cylindrical form soundness ascertained by inspection.				
COVERS	None				
JACKETS	13/10/27, 2/11/27, 25/10/27	4 lbs.	30 lbs.	J.H.	
PISTON WATER PASSAGES	29/11/27	30 lbs.	100 lbs.	J.H.	
MAIN COMPRESSORS—1st STAGE	None				
2nd	None				
3rd	None				
AIR RECEIVERS—STARTING	8/2/28	600 lbs.	800 lbs.	4620 J.H.	
INJECTION	None				
AIR PIPES	27/1/28	600 lbs.	800 lbs.	J.H.	
FUEL PIPES	14/2/28	8000 lbs.	12000 "	J.H.	
FUEL PUMPS	14/2/28	8000 "	12000 "	J.H.	
SILENCER	Lagged with asbestos & open to atmosphere				
WATER JACKET	None				
SEPARATE FUEL TANKS	29/2/28 & 20/3/28	Nil	10 lbs.	4622, 4625 J.H.	

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval)

Donkey Boilers

General Pumping Arrangements

Receivers

Separate Tanks

Duplicate
M.S. VINEMOOR
& WESTMOOR

SPARE GEAR 1 cylinder liner, 3 main pistons with rings complete, 2 piston skirts (upper & lower), 1 piston rod, 6 piston rings, 2 centre connecting rods, 2 side connecting rods, 2 main bearing studs & nuts, 1 set coupling bolts for crankshaft, 1 set bolts for line shaft, 1 spur & 1 bevel wheel for camshaft drive, 4 fuel valves with casings complete, 1 valve, 1 relief valve, 2 seawater pump suction & delivery valves, 1 fuel pump, 1 complete with 3 spare vanes, 1 propeller shaft, 1 C.T. Propeller, 1 spare straight length of crankshaft, 1 spare spring, lengths of fuel pipe, couplings, assorted bolts & nuts, 1 ring of size 1/2". The foregoing is a correct description.

Manufacturer.

Dates of Survey while building: During progress of work in shops: 27. Sep. 23, 26. Oct. 3, 4, 12, 13, 14, 20, 24, 25, 26, 27, 28, 31. Nov. 2, 7, 10, 16, 18, 21, 25, 29. Dec. 1, 8, 12, 13, 14, 16, 21, 28. Jan. 5, 12, 16. During erection on board vessel: 20, 27, 28, 31. Feb. 8, 9, 10, 14, 21, 27, 29. Mar. 2, 6, 7, 12, 16, 20, 21, 27, 30. Apr. 2, 4, 13, 14. Total No. of visits: 58.

Dates of Examination of principal parts: Cylinders 31/10/27, Covers None, Pistons 29/11/27, Rods 25/10/27, Connecting rods 20/10/27, Crank shaft 1/12/27, Flywheel shaft 8, Thrust shaft 28/10/27, Intermediate shafts 31/10/27, Tube shaft —, Screw shaft 12/1/28, Propeller 19/1/28, Stern tube 7/3/28, Engine seatings 12/3/28, Engines holding down bolts 27/3/28, Completion of fitting sea connections 7/3/28, Completion of pumping arrangements 14/4/28, Engines tried under working conditions 14/4/28, Crank shaft, Material I. STEEL, Identification Mark 5564 D, Flywheel shaft, Material I. STEEL, Identification Mark 5564 D, Thrust shaft, Material I. STEEL, Identification Mark 5564 D, Intermediate shafts, Material I. STEEL, Identification Marks 498, 352, 3488, 3520, Tube shaft, Material —, Identification Mark —, Screw shaft, Material I. STEEL, Identification Mark 5564 D.

Is the flash point of the oil to be used over 150° F. *Yes*

Is this machinery duplicate of a previous case No. If so, state name of vessel —

General Remarks (State quality of workmanship, opinions as to class, &c.) This machinery has been built under Special Survey & the workmanship and materials are good. On completion the machinery was tried at sea under full working conditions with satisfactory results. The machinery throughout is now in a good & efficient condition & eligible in my opinion to the notation *FLM.C. 4-28* & *T.S. C. L. 4-28* marked in the Society's Register Book. The two donkey boilers are also fitted to burn oil fuel F.P. above 150° F. & the requirements of Section 35 of the Rules fully complied with.

The amount of Entry Fee ... £ 5-0-0 When applied for, Special ... £ 87-11-0 13 Apr 1928 Donkey Boiler Fee ... £ 4-4-0 When received, Travelling Expenses (if any) £ : 18 Apr 1928

Committee's Minute FRI. 27 APR 1928

Assigned

+ L.M.C. 4, 28 C.L. al Eng.

Garbottle
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation