

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 45400

11 FEB 1926

Received at London Office

Date of writing Report 11 Feb 1926 When handed in at Local Office 13.2.1926 Port of GLASGOW

No. in Survey held at GLASGOW
Reg. Book. 40377

Date, First Survey

Last Survey 9 Feb 1926

Number of Visits

Single }
Twin } Screw vessel "OLIVEBANK"
Triple }

Tons { Gross 5154
Net 353

Master Built at GLASGOW By whom built HARLAND & WOLFF LTD. Yard No. 6849 When built 1926

Engines made at GLASGOW By whom made HARLAND & WOLFF LTD. Engine No. 684 When made 1926

Donkey Boilers made at BELFAST By whom made HARLAND & WOLFF LTD. Boiler No. 878 When made 1926

Brake Horse Power 2300 Owners MESSRS ANDREW WEIR & CO. (BANK LINE LTD) Port belonging to GLASGOW

Nom. Horse Power as per Rule 716 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

OIL ENGINES, &c.—Type of Engines DIESEL 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 500 LBS/SQ IN. No. of cylinders 12 No. of cranks 12 Diameter of cylinders 630 mm = 24 13/16

Length of stroke 960 mm = 37 3/8. Revolutions per minute 125 Means of ignition COMPRESSION Kind of fuel used ABOVE 150°F

Is there a bearing between each crank YES Span of bearings (Page 92, Section 2, par. 7 of Rules) 872 mm

Distance between centres of main bearings 1300 mm Is a flywheel fitted YES Diameter of crank shaft journals as per Rule 376 mm as fitted 384 mm

Diameter of crank pins 384 mm METAL ROVER Breadth of crank webs as per Rule 165 mm as fitted 175 mm Thickness of ditto as per Rule 235 mm as fitted 250 mm

Diameter of flywheel shaft as per Rule 376 mm as fitted 384 mm Diameter of tunnel shaft as per Rule 9 3/4" as fitted 10" Diameter of thrust shaft as per Rule 10 1/4" as fitted 11 1/8"

Diameter of screw shaft as per Rule 10 3/4" as fitted 11" 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 watertight in the propeller boss YES 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 If without liners, is the shaft arranged to run in oil

Type of outer gland fitted to stern tube WOOD LINED, NO O.G. Length of stern bush 50" Diameter of propeller 11.9"

Pitch of propeller 9.9 to 11.3 SET 11.3 No. of blades 3 EACH state whether moveable YES Total surface 84 square feet TOP 50 mm

Method of reversing COMPRESSED AIR Is a governor or other arrangement fitted to prevent racing of the engine when disengaged YES Thickness of cylinder liners 807 35/64

Are the cylinders fitted with safety valves YES Means of lubrication FORCED & SIGHT FEED Are the exhaust pipes and silencers water cooled & lagged with non-conducting material YES If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

No. of cooling water pumps TWO Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES No. of bilge pumps fitted to the main engines NONE Diameter of ditto Stroke

Can one be overhauled while the other is at work No. of auxiliary pumps connected to the main bilge lines THREE How driven ELECTRIC MOTOR

Sizes of pumps BILGE CIRCULATING 4 1/2" CENTRAL BALLAST 9" x 9" x 10" STROKE No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 30 3/2" x 10 2 1/2" TUNNEL

and in holds, etc. 2 1/2" COFFERDAMS, 20 2 1/2", 30 3" x 40 3 1/2" No. of ballast pumps ONE How driven ELECTRIC MOTOR Sizes of pumps 9" x 9" x 10"

Is the ballast pump fitted with a direct suction from the engine room bilges YES State size 5" DIA. Is a separate auxiliary pump suction fitted in Engine Room and size CIRC. 6" ON BILGE MAIN 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 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 floor plates YES

Are the discharge pipes above or below the deep water line ABOVE & BELOW Are they each fitted with a discharge valve always accessible on the plating of the vessel YES

Are all pipes, cocks, valves and pumps in connection with the machinery 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 Is the screw shaft tunnel watertight YES Is it fitted with a watertight door YES

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

No. of main air compressors TWO (65 kg/cm²) No. of stages 3 Diameters 600 x 540 mm Stroke 350 mm Driven by MAIN ENGINE

No. of auxiliary air compressors ONE (25 kg/cm²) No. of stages 2 Diameters 400 x 350 mm Stroke 260 mm Driven by ELECTRIC MOTOR

No. of small auxiliary air compressors ONE (65 kg/cm²) No. of stages 2 Diameters 106 x 34 mm Stroke 80 mm Driven by STEAM CYLINDER

No. of scavenging air pumps Diameter Stroke Driven by Diameter of auxiliary Diesel Engine crank shafts as per Rule 167 mm as fitted 170 mm Are the air compressors and their coolers made so as to be easy of access YES

AIR RECEIVERS:—No. of high pressure air receivers 7 Internal diameter 295 mm Cubic capacity of each 2088 5 @ 150 LITRES EACH

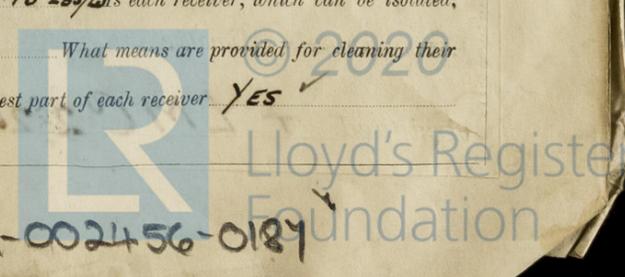
material SOLID DRAWN STEEL Seamless, lap welded or riveted longitudinal joint SEAMLESS Range of tensile strength 28/32 TONS

thickness .57" working pressure by Rules 1350 LBS/SQ IN. No. of starting air receivers 2 Internal diameter 6'-0 3/8"

Total cubic capacity 1076 CU/FT. Material STEEL Seamless, lap welded or riveted longitudinal joint T.R.O.B.S.

Range of tensile strength 28/32 TONS thickness ENDS 1 1/32" x 1 1/32" Working pressure by rules ENDS 360.75 LBS/SQ IN. each receiver, which can be isolated,

fitted with a safety valve as per Rule ONE ON COMMON PIPE Can the internal surfaces of the receivers be examined YES What means are provided for cleaning their inner surfaces LOOSE ENDS & MANHOLE DOORS Is there a drain arrangement fitted at the lowest part of each receiver YES



002449-002456-0184

IS A DONKEY BOILER FITTED? **YES**

If so, is a report now forwarded? **YES**. BELFAST No. 9462.

HYDRAULIC TESTS:—

DESCRIPTION	DATE OF TEST	WORKING PRESSURE	TEST PRESSURE	STAMPED	REMARKS
ENGINE CYLINDERS	✓	✓	✓	✓	
COVERS	30-9-25 to 2-11-25	15 LBS/□	50 LBS/□	H.M.S.	
JACKETS	13-10-25 to 27-10-25	15 LBS/□	50 LBS/□	H.M.S.	
PISTON WATER PASSAGES	21-10-25 to 23-10-25	15 LBS/□	50 LBS/□	H.M.S.	
MAIN COMPRESSORS—1st STAGE L.P.	27-10-25 to 4-11-25	71 LBS/□	150 LBS/□	H.M.S.	
2nd M.P.	30-10-25 to 3-11-25	220 LBS/□	500 LBS/□	H.M.S.	
3rd H.P.	2-11-25 to 4-11-25	1000 LBS/□	2000 LBS/□	H.M.S.	
AIR RECEIVERS—STARTING	3-11-25	356 LBS/□	575 LBS/□	H.M.S.	
INJECTION	20-10-25 to 10-11-25	1000 LBS/□	2000 LBS/□	H.M.S.	
AIR PIPES ETC. STARTING	2-11-25 to 26-1-26	356 LBS/□	712 LBS/□	H.M.S.	
FUEL PIPES FILLING & SUCTIONS	18/1/26 to 26/1/26	✓	30 LBS/□	✓	
FUEL PUMPS	✓	✓	✓	✓	
SILENCER	✓	✓	✓	✓	
WATER JACKET	✓	✓	✓	✓	
SEPARATE FUEL TANKS	2-12-25	✓	10 LBS/□	H.M.S.	

PLANS. Are approved plans forwarded herewith for shafting **SENT WITH "M/S INVERBANK" RECEIVERS YES**
(If not, state date of approval) **APPROVED 15/5/23**

Separate Tanks **STANDARD**

SPARE GEAR

Supplied as per attached list.

The foregoing is a correct description,
For HARLAND & WOLFF, LTD.

J. C. Green

Manufacturer.

Dates of Survey while building
 During progress of work in shops— 1925. June 18, Aug 21, 24, 31, Sept 4, 16, 17, 22, 25, 27, 30, Oct 2, 6, 8, 12, 14, 15, 16, 17, 20, 21, 23, 26, 27, 28, 30
 During erection on board vessel— --
 Nov 2, 3, 4, 6, 10, 11, 12, 14, 17, 18, 24, 27, 30, Dec 2, 14, 28, 1926. Jan 12, 13, 14, 18, 26, Feb 2, 3, 9.
 Total No. of visits **50**

Dates of Examination of principal parts—Cylinders 13/10/25 to 27/10/25 Covers 30/9/25 to 2/11/25 Pistons 2/10/25 to 23/10/25 Rods 29/9/25 Connecting rods 2/10/25
 Crank shaft 5, 20/10/25 Thrust shaft 30/10/25 Tunnel shafts 30/10/25 Screw shafts 6/10/25 to 29/10/25 Propeller 28/10/25 Stern tube 2/11/25 Engine seatings 3/17/11/25
 Engines holding down bolts 1/4/1/26 Completion of pumping arrangements 2/2/26 Engines tried under working conditions 9/2/26
 Completion of fitting sea connections 30/11/25 Stern tube 24/11/25 Screw shaft and propeller 30/11/25
 Material of crank shaft **STEEL** Identification Mark on Do. **SEE UNDER** Material of thrust shaft **STEEL** Identification Mark on Do. **SEE UNDER**
 Material of tunnel shafts **STEEL** Identification Marks on Do. **SEE UNDER** Material of screw shafts **STEEL** Identification Marks on Do. **SEE UNDER**
 Is the flash point of the oil to be used over 150° F. **YES** ✓
 Is this machinery duplicate of a previous case **YES** ✓ If so, state name of vessel **"M/S INVERBANK"**

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

TUNNEL SHAFTS:—
 PORT: 3611, 3511, 3509, 3512, 3553, 3551
 No. 1, No. 2, No. 3, No. 4, No. 5, No. 6
 STAR: 3833, 3498, 3510, 3532, 3504, 3853
 T.N. 2/8/25, T.N. 14/8/25, T.N. 7/8/25, T.N. 2/8/25, T.N. 2/8/25, T.N. 2/8/25

This machinery has been constructed under special survey in accordance with the rules and approved plans. The materials and workmanship are sound and good, it has been fitted on board the vessel in an efficient manner, tried under full power working conditions and everything found satisfactory and is in our opinion eligible to be classed with record of L.M.C. 2-26.

The amount of Entry Fee ... £ 6 : 0 :
 Special ... £ 110 : 16/-
 Donkey Boiler Fee ... £ ✓ :
 Travelling Expenses (if any) £ ✓ :
 When applied for, 15/2/26.
 When received, 25/2/26.

A. M. Crinick
 Engineer Surveyor to Lloyd's Register of Shipping.
 FRI. 19 MAR 1926

Committee's Minute **GLASGOW 16 FEB 1926**
 Assigned + LMC 2, 26

CERTIFICATE WRITTEN 15-3-26
 dated 17-2-26



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Glasgow
 12/2/26

Certificate (if required) to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)