

REPORT ON OIL ENGINE MACHINERY.

No. 45480

24 MAR 1926

Received at London Office

Date of writing Report 12th March 1926 When handed in at Local Office 13.3.1926 Port of GLASGOWNo. in Survey held at GLASGOW
Reg. Book. SUPP.Date, First Survey 16.10.25 Last Survey 11th March 1926.

Number of Visits 49

382 on the Single }
Twin } Screw vessels "OAKBANK"
Triple }Tons { Gross 5154
Net 3174

Master Built at GLASGOW By whom built HARLAND & WOLFF LTD. No. 6865 When built 1926

Engines made at GLASGOW By whom made HARLAND & WOLFF LTD. Engine No. 685 When made 1926

Monkey Boilers made at BELFAST By whom made HARLAND & WOLFF LTD. Boiler No. 879 When made 1926

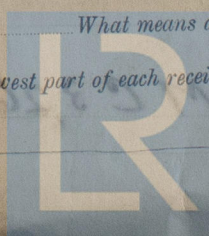
Brake Horse Power 2300 Owners MESSRS ANDREW WEIR & CO (BANK LINE) Port belonging to GLASGOW

Nom. Horse Power as per Rule 716.717 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

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 630⁷/₁₆"
 Length of stroke 960⁷/₁₆" 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) 872⁷/₁₆"
 Distance between centres of main bearings 1300⁷/₁₆" Is a flywheel fitted YES Diameter of crank shaft journals as per Rule 376⁷/₁₆"
 as fitted 384⁷/₁₆"
 Diameter of crank pins 384⁷/₁₆" METAL ROUND as per Rule 165⁷/₁₆" Thickness of ditto as per Rule 235⁷/₁₆"
 as fitted 175⁷/₁₆"
 Diameter of flywheel shaft as per Rule 376⁷/₁₆" Diameter of tunnel shaft as per Rule 93⁷/₁₆" Diameter of thrust shaft as per Rule 10 1/4"
 as fitted 384⁷/₁₆" as fitted 10" as fitted 11 1/8"
 Diameter of screw shaft as per Rule 103⁷/₁₆" Is the screw shaft fitted with a continuous liner the whole length of the stern tube YES
 as fitted 11"
 Is the liner made watertight in the propeller boss YES If the liner is in more than one length are the joints burned
 Is 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
 Do liners are fitted, is the shaft lapped or protected between the liners If without liners, is the shaft arranged to run in oil
 Is the outer gland fitted to stern tube WOOD LINED No O.G. Length of stern bush 50" Diameter of propeller 11' 9"
 Diameter of propeller 9' 9" to 11' 3" SET 11' 3" No. of blades 3 EACH state whether moveable YES Total surface 84 square feet
 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 307 3/8"
 Are the cylinders fitted with safety valves YES Means of lubrication FORCED & SIGHT FEED Are the exhaust pipes and silencers water cooled & lagged with
 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
 in 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 CIRCULATING 4 1/2" CENT. BALLAST 9" x 9" x 10" STRIKE No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 30 3/2" x 10 1/2" IN TUNNEL
 in holds, etc. 40 2 1/2" COFFER DAMS, 20 2 1/2", 30 3 1/2" x 10 3/2" No. of ballast pumps ONE How driven ELECTRIC MOTOR Sizes of pumps 9 x 9 x 10"
 Is a ballast pump fitted with a direct suction from the engine room bilges YES State size 5" DIA OR TAIL PIPES. Is a separate auxiliary pump suction fitted in
 the Room and size CIRC 5" 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 fired 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
 Is the vessel protected 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 (65⁴/₁₆" x 4) No. of stages 3 Diameters 600 x 640 x 148⁷/₁₆" Stroke 350⁷/₁₆" Driven by MAIN ENGINE
 No. of auxiliary air compressors ONE (25⁴/₁₆" x 2) No. of stages 2 Diameters 400 x 350⁷/₁₆" Stroke 260⁷/₁₆" Driven by ELECTRIC MOTOR
 No. of small auxiliary air compressors ONE (65⁴/₁₆" x 2) No. of stages 2 Diameters 106 x 34⁷/₁₆" Stroke 80⁷/₁₆" Driven by STEAM CYLINDER
 No. of scavenging air pumps Diameter Stroke Driven by
 Diameter of auxiliary Diesel Engine crank shafts as per Rule 167⁷/₁₆" Are the air compressors and their coolers made so as to be easy of access YES
 as fitted 170⁷/₁₆"

RECEIVERS:—No. of high pressure air receivers 7 Internal diameter 295⁷/₁₆" Cubic capacity of each 20 88 " " 50 150 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 7/8"
 Total cubic capacity 1076 CU. FT. Material STEEL Seamless, lap welded or riveted longitudinal joint T.R.D.B.S.
 Range of tensile strength 28/32 TONS thickness SHELL 1 1/2" ENDS 1 3/4" x 1 1/2" Working pressure by rules ENDS 360.75 LBS/SQ IN. Is 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 clearing their
 internal surfaces LOOSE ENDS & MANHOLE DOORS Is there a drain arrangement fitted at the lowest part of each receiver YES



Lloyd's Register Foundation

W191 - 0007

IS A DONKEY BOILER FITTED? YES

If so, is a report now forwarded? YES, BELFAST N° 94

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	25.01.25	✓	✓	N° 23827	
COVERS	23-11-25 to 7-12-25	15 LBS/□	50 LBS/□	Nmb. J.D.B.	
JACKETS	6-11-25 to 19-11-25	15 LBS/□	50 LBS/□	Nmb.	
PISTON WATER PASSAGES	9-11-25 to 24-11-25	15 LBS/□	50 LBS/□	Nmb.	
MAIN COMPRESSORS—1st STAGE	17-11-25 to 20-11-25	71 LBS/□	150 LBS/□	Nmb. J.D.B.	
2nd	26-11-25 to 30-11-25	220 LBS/□	500 LBS/□	Nmb.	
3rd	17-11-25 to 19-11-25	1000 LBS/□	2000 LBS/□	Nmb.	
AIR RECEIVERS—STARTING	30-11-25	356 LBS/□	585 LBS/□	N.B.	BELFAST REPORT N°
INJECTION	30-12-25 to 14-1-26	1000 LBS/□	2000 LBS/□	Nmb.	A.V. N° 824/5/6/7/8/9
AIR PIPES ETC. STARTING	30-11-25 to 17-2-26	356 LBS/□	712 LBS/□	Nmb.	
FUEL PIPES FILLING & SUCTIONS	17-2-26 to 23-2-26	✓	30 LBS/□	✓	
FUEL PUMPS	✓	✓	✓	✓	
SILENCER	✓	✓	✓	✓	
WATER JACKET	✓	✓	✓	✓	
SEPARATE FUEL TANKS	14-1-26	✓	10 LBS/□	Nmb.	

PLANS. Are approved plans forwarded herewith for shafting SENT WITH "M/S INVERBANK" Receivers NO
(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.

MANAGER FINNIESTON WORKS

Dates of Survey while building	During progress of work in shops--	1925. Oct 16. 22. 23. 26. 28. Nov 3. 4. 6. 9. 10. 11. 12. 13. 16. 17. 18. 19. 20. 23. 24. 25. 26. 27. 30. Dec 1. 2. 3. 4. 7. 9. 10. 28. 30. 31.
	During erection on board vessel--	1926. Jan 11. 12. 13. 14. 15. 18. 19. July 13. 7. 23. 24. Mar 11.
	Total No. of visits	49.

Dates of Examination of principal parts—Cylinder 6/12/25 19/12/25 Covers 23/12/25 7/1/26 Pistons 9/12/25 24/12/25 Rods 17/12/25 Connecting rods 12/1/26
Crank shaft 5. 9/12/25 Thrust shaft 9/12/25 Tunnel shafts 4/12/25 Screw shaft 22/10/25 3/12/26 Propeller 25/12/25 Stern tube 4/1/26 Engine seating 25/12/25
Engines holding down bolts 12/2/26 17/2/26 Completion of pumping arrangements 26/2/26 Engines tried under working conditions 11/3/26.
Completion of fitting sea connections 15/1/26 Stern tubes 28/12/25 11/1/26 Screw shaft and propellers 13/1/26.

Material of crank shaft STEEL Identification Mark on Do. P.M. 555 5.555 Material of thrust shaft STEEL Identification Mark on Do. P. 3522 5.352
Material of tunnel shafts STEEL Identification Marks on Do. SEE UNDER Material of screw shafts STEEL Identification Marks on Do. P. 3530 5.34

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	3842 LLOYDS 984 T.N. 22/4/25	N°1	3564 LLOYDS 984 T.N. 4/4/25	N°2	3567 LLOYDS 984 T.N. 14/4/25	N°3	3642 LLOYDS 984 T.N. 8/4/25	N°4	3645 LLOYDS 984 T.N. 15/4/25	N°5	3613 LLOYDS 984 T.N. 23	N°6
	STARBOARD	3841 LLOYDS 984 T.N. 13/4/25	N°1	3565 LLOYDS 984 T.N. 28/4/25	N°2	3566 LLOYDS 984 T.N. 22/4/25	N°3	3643 LLOYDS 984 T.N. 4/4/25	N°4	3644 LLOYDS 984 T.N. 14/4/25	N°5	3612 LLOYDS 984 T.N. 11/4/25	N°6

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 my opinion eligible to be classed with record of L.M.C 3-26.

The amount of Entry Fee ... £ 6 : 0 :
Special ... £ 110 : 16 :
Donkey Boiler Fee ... £ ✓ :
Travelling Expenses (if any) £ ✓ :
When applied for, 18/3/26.
When received, 12.4.26

A. M. Crivick
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 23 MAR 1926

Assigned + L.M.C 3,26

CERTIFICATE WRITTEN



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