

Rpt. 4b

REPORT ON OIL ENGINE MACHINERY.

No. 9902

Received at London Office 23 JAN 1928

Date of writing Report

19

When handed in at Local Office 21st Jan 1928

Port of

Beefast

No. in Survey held at
Reg. Book.

Beefast

Date, First Survey 3rd March 1927 Last Survey 16th Jan 1928

Number of Visits 1017

40271 on the ^{Single}
~~Twin~~ } Screw vessels

CHESAPEAKE

Tons { Gross
Net

Master

Built at Beefast

By whom built Mathman Clark & Co. Ltd. Yard No. 494 When built 1928

Engines made at Beefast

By whom made Mathman Clark & Co. Ltd.

Engine No. 494 When made 1928

Donkey Boilers made at Beefast

By whom made Mathman Clark & Co. Ltd.

Boiler No. 494 When made 1928

Brake Horse Power

Owners Anglo American Oil Co. Ltd. (Stamilton Reg) Port belonging to Beefast

Nom. Horse Power as per Rule 997

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted Yes

OIL ENGINES, &c.—Type of Engines Mathman Clark - Single 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 540 lbs. No. of cylinders 8 No. of cranks 8 Diameter of cylinders 1680 mm.

Length of stroke 1200 mm. Revolutions per minute 90 Means of ignition Compression Kind of fuel used diesel oil

Is there a bearing between each crank Yes Span of bearings (Page 92, Section 2, par. 7 of Rules) 880 mm.

Distance between centres of main bearings 1350 mm. Is a flywheel fitted Yes Diameter of crank shaft journals as per Rule 465 mm.

Diameter of crank pins 470 mm. Breadth of crank webs as per Rule 775 mm. Thickness of ditto as per Rule 290 mm.

Diameter of flywheel shaft as per Rule as approved. Diameter of tunnel shaft as per Rule 370 mm. Diameter of thrust shaft as per Rule 389 mm.

Diameter of screw shaft as per Rule 455 mm. Is the screw shaft fitted with a continuous liner the whole length of the stern tube no

Is the after end of the liner made watertight 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 If without liners, is the shaft arranged to run in oil Yes

Type of outer gland fitted to stern tube Vickers Length of stern bush 72 1/2" Diameter of propeller 18 1/2"

Pitch of propeller 15 1/2" No. of blades four state whether moveable Yes Total surface 100 square feet

Method of reversing semi motor Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Thickness of cylinder liners 53 mm.

Are the cylinders fitted with safety valves Yes Means of lubrication forced Are the exhaust pipes and silencers water cooled or 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.

exhaust led up funnel No. of cooling water pumps two Is the sea suction provided with an efficient strainer which can be cleared

within the vessel Yes two No. of bilge pumps fitted to the main engines one Diameter of ditto 170 mm. Stroke 150 mm.

Can one be overhauled while the other is at work No. of auxiliary pumps connected to the main bilge lines two How driven one motor one steam

Sizes of pumps motor 9x8" - Steam 10x12x12 No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 3 1/2" Cyndam 1 1/2"

Is the ballast pump fitted with a direct suction from the engine room bilges Yes State size 9" Is a separate auxiliary pump suction fitted in

Engine Room and size Yes 6" 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 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 none Is it fitted with a watertight door

worked from 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 No. of stages 3 Diameters 5 7/8-11 1/4-15 1/4 Stroke 600 mm. Driven by main Engines

No. of auxiliary air compressors One Tandem No. of stages 3 Diameters 13 1/2-14 1/4-3 1/4 Stroke 8" Driven by Steam

No. of small auxiliary air compressors No. of stages Diameters Stroke Driven by

No. of scavenging air pumps two Diameter 1600 mm. Stroke 750 mm. Driven by main Engines

Diameter of auxiliary Diesel Engine crank shafts as per Rule approved as fitted 3 3/4" Are the air compressors and their coolers made so as to be easy of access Yes

AIR RECEIVERS:—No. of high pressure air receivers nine Internal diameter 140 mm. 300 mm. Cubic capacity of each 28 1/2 5.3 1/2

material Steel Seamless, lap welded or riveted longitudinal joint Seamless Range of tensile strength 31 1/4 38 200

thickness 25 mm. 16 mm. working pressure by Rules 1580 lbs. No. of starting air receivers two Internal diameter 60"

Total cubic capacity 560 1/2 Material Steel Seamless, lap welded or riveted longitudinal joint

Range of tensile strength 28-32 200 thickness 1" Working pressure by rules 1436 lbs. 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 access Is there a drain arrangement fitted at the lowest part of each receiver Yes

IS A DONKEY BOILER FITTED? *Yes* ✓

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

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS					
COVERS	<i>Tested at Wintertun</i>	<i>united heads</i>	<i>Sacket 2st</i>	<i>batins.</i>	
JACKETS	<i>11 + 29th Aug. 1927</i>	<i>✓</i>	<i>85 lbs</i>	<i>R.L.A.</i>	
PISTON WATER PASSAGES	<i>8th 15 12th Sept 1927</i>	<i>✓</i>	<i>85 lbs</i>	<i>R.L.A.</i>	
MAIN COMPRESSORS—1st STAGE			<i>20 atms</i>		
2nd ..	<i>Tested at Wintertun</i>		<i>50 atms</i>		<i>Sacket 2st</i>
3rd ..			<i>150 atms</i>		<i>batins.</i>
AIR RECEIVERS—STARTING	<i>24th + 26th Oct. 1927</i>	<i>1127 lbs</i>	<i>610 lbs</i>	<i>R.L.A.</i>	
INJECTION					
AIR PIPES		<i>1000 lbs</i>	<i>2000 lbs.</i>	<i>R.L.A.</i>	
FUEL PIPES			<i>2000 lbs</i>	<i>R.L.A.</i>	
FUEL PUMPS	<i>Tested at Wintertun.</i>		<i>150 atms</i>		
SILENCER					
WATER JACKET					
SEPARATE FUEL TANKS	<i>24th + 28th Nov. 1927</i>		<i>15 lbs.</i>	<i>R.L.A.</i>	

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

Yes ✓

Receivers

Yes ✓

Separate Tanks

SPARE GEAR

In excess of Lloyd's Register rules see separate list.

The foregoing is a correct description,

FOR WORKMAN, BLARK & CO., LIMITED

Manufacturer.

Birmingham

Dates of Survey while building	During progress of work in shops--	1927	Mar 3. 16. 31	Apr 8. 15. 21. 28	May 5. 12. 27	June 1. 9. 22	July 7. 18. 23. 28. 29. 30	Aug 2. 3. 5. 8.
	During erection on board vessel--		11. 13. 15. 19. 22. 24. 26. 29. 31	Sept 2. 5. 6. 7. 8. 9. 12. 14. 16. 19. 21. 22. 26. 29	Oct 6. 7. 10.			
	Total No. of visits		Dec 2. 6. 7. 9. 12. 13. 14. 15. 16. 17. 19. 21. 23. 27. 28. 29. 30. 31	Jan 2. 4. 5. 6. 10. 15. 16				104

Dates of Examination of principal parts—Cylinders 29.8.27 Covers 29.8.27 Pistons 12.9.27 Rods 12.9.27 Connecting rods 19.8.27
Crank shaft 18.10.27 Thrust shaft 29.9.27 Tunnel shafts 29.9.27 Screw shaft 29.9.27 Propeller 11.10.27 Stern tube 11.10.27 Engine seatings 12.9.27
Engines holding down bolts 27.12.27 Completion of pumping arrangements 19.1.28 Engines tried under working conditions 10.1.28
Completion of fitting sea connections 21.11.27 Stern tube 21.11.27 Screw shaft and propeller 21.11.27
Material of crank shaft *S.M. Eng. Steel* Identification Mark on Do. 5389 D. R.L.A. Material of thrust shaft *S.M. Eng. Steel* Identification Mark on Do. 5389 D. R.L.A.
Material of tunnel shafts *S.M. Eng. Steel* Identification Marks on Do. 7717 R.L.A. Material of screw shafts *S.M. Eng. Steel* Identification Marks on Do. 7722 R.L.A.

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.)

The machinery of this vessel has been constructed under Special Survey. The materials and workmanship are sound & good. The main machinery were tried out under working conditions with satisfactory results. The fuel oil lines were tested by hydraulic pressure. The air relief valves were adjusted to lift at their respective working pressures. The donkey boiler safety valves were adjusted under steam. In my opinion the vessel is now eligible for notation in the Society's Register Book + L.M.C. 1.28 O.G. (Fitted for oil fuel 1.28. F.P. above 150° F)

The amount of Entry Fee ... £ 6 : — : When applied for,
Special ... £ 124 : 17 : 12/11 1928
Donkey Boiler Fee ... £ 26 : 11 : When received,
Air Receivers ... £ 6 : 6 : 17/11 1928
Travelling Expenses (if any)

Committee's Minute

Assigned

TUES. 31 JAN 1928 ✓

*+ L.M.C. 1.28
Oil Engines 2000 150 lbs*

R. Lee Amey.

Engineer Surveyor to Lloyd's Register of Shipping.



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