

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 77086

Received at London Office

THU. 25 OCT. 1923

Date of writing Report

10

When handed in at Local Office

19/10/23 Port of

NEWCASTLE-ON-TYNE

No. in Survey held at WALKER
Reg. Book.

Date, First Survey 15 June 1920 Last Survey 23.10.1923

Number of Visits

on the ^{Single} ~~Twin~~ ^{Triple} Screw vessels T. SCREW. ARNUSTons ^{Gross}
_{Net}

Master Built at WALKER By whom built S. H. W. R. L^d Yard No. 1122 When built 1923
 Engines made at WALKER By whom made SWAN. HUNTER. W. RICHARDSON Engine No. 1122 When made 1923
 Donkey Boilers made at WALKER By whom made SWAN. HUNTER. W. RICHARDSON Boiler No. 1122 When made 1923
 Brake Horse Power 1800 Owners PHILIPPINE CO Port belonging to
 Nom. Horse Power as per Rule 513 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

ENGINES, &c.—Type of Engines NEPTUNE MARINE OIL ENGINE 2 stroke cycle 2 Single or double acting SINGLE

pressure in cylinders 500 LBS No. of cylinders 6 No. of cranks 6 Diameter of cylinders 17"

stroke 35" Revolutions per minute 122? Means of ignition HEAT OF COMPRESSION Kind of fuel used FUEL OIL

bearing between each crank YES Span of bearings (Page 32, Section 2, par. 7 of Rules) 2'-3 3/8"

between centres of main bearings 3'-6 3/8" Is a flywheel fitted YES Diameter of crank shaft journals as per Rule 11 3/8"

of crank pins 12 7/8" Breadth of crank webs as per Rule NO RULE as fitted 20 3/8" Thickness of ditto as per Rule NO RULE as fitted 7 1/2"

of flywheel shaft as per Rule 11 3/8" as fitted 11 7/8" Diameter of tunnel shaft as per Rule 9.43" as fitted 9 3/4" Diameter of thrust shaft as per Rule 11 7/8" as fitted 11 7/8"

of screw shaft as per Rule 10.82" as fitted 11 7/8" Is the screw shaft fitted with a continuous liner the whole length of the stern tube NO -

er end of the liner made watertight in the propeller boss YES. If the liner is in more than one length are the joints turned

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

ers are fitted, is the shaft lapped or protected between the liners If without liners, is the shaft arranged to run in oil YES

uter gland fitted to stern tube CEDARNAL Length of stern bush 3'-11" Diameter of propellers 11.6

propeller 10'-3" No. of blades 4 state whether moveable YES Total surface 39 square feet

of reversing COMPRESSED AIR Is a governor or other arrangement fitted to prevent racing of the engine when disengaged YES Thickness of cylinder liners 1 1/2"

cylinders fitted with safety valves YES Means of lubrication FORCED OIL FEED Are the exhaust pipes and silencers water cooled or lagged with

acting material LAGGED If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

UP FUNNEL No. of cooling water pumps 4 Is the sea suction provided with an efficient strainer which can be cleared

ke vessel YES No. of bilge pumps fitted to the main engines NONE Diameter of ditto Stroke

be overhauled while the other is at work No. of auxiliary pumps connected to the main bilge lines 3 How driven MOTOR

BALLAST BON ACCORD pumps 2 G. S. BILGE PUMP No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 2-2 1/2" at aft end of ER

olds, etc. 2 OF 2 1/2" IN FORWARD HOLD No. of ballast pumps How driven E.R.P. MOTOR, E.B.B. STEAM. Sizes of pumps E.P. 7x8x8

allast pump fitted with a direct suction from the engine room bilges YES State size 4" Is a separate auxiliary pump suction fitted in

Room and size 2-2 1/2" 2-3 1/2" Are all the bilge suction pipes fitted with roses YES Are the roses in Engine Room always accessible YES

sluices on Engine Room bulkheads always accessible NONE Are all connections with the sea direct on the skin of the ship YES

valves or cocks BOTH Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates YES

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

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

location between the sea and the bilges YES Is the screw shaft tunnel watertight NONE Is it fitted with a watertight door

from 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 2 No. of stages 3 Diameters 4 1/4-16 3/4-19 5/8 Stroke 17 1/2 Driven by MAIN ENGINES

auxiliary air compressors 2 No. of stages 3 Diameters 19 1/2/120/55 Stroke 180 Driven by ONE ELECTRIC MOTOR

small auxiliary air compressors 1 No. of stages 2 Diameters 140 x 45 Stroke 150 Driven by ONE STEAM

scavenging air pumps 6 EACH ENGINE Diameter 21 1/2" Stroke 35 Driven by HOT BULB ENGINE

er of auxiliary Diesel Engine crank shafts as per Rule See counter then left Are the air compressors and their coolers made so as to be easy of access YES

RECEIVERS:—No of high pressure air receivers 6 Internal diameter 14" Cubic capacity of each 7 CUB. FT.

WELDOLESS STEEL Seamless, lap welded or riveted longitudinal joint SEAMLESS Range of tensile strength 26/30 TONS

working pressure by Rules 1032 1/2" No. of starting air receivers 4 Internal diameter 3'-6"

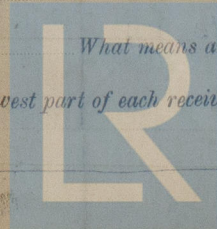
cubic capacity 400 CUB. FEET Material STEEL Seamless, lap welded or riveted longitudinal joint LAP. T. RIVETED

of tensile strength 30/34 TONS thickness 1/2" Working pressure by rules 263 1/2" Is each receiver, which can be isolated,

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

surfaces PLUG IN. H.P. RECEIVER - MANHOLE Is there a drain arrangement fitted at the lowest part of each receiver YES

STARTING AIR RECEIVER



Lloyd's Register
Foundation
48-0176

IS A DONKEY BOILER FITTED? *Yes*

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

HYDRAULIC TESTS: *Donkey Boiler tested 230lbs 24.8.22 - Certificate no 9686.*

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	27.7.22 17.1.22 31.1.22 16.6.22-27.6.22.	500 lb	1000 lb	L.G.S. LLOYD'S TEST.	
" " COVERS	8.5.22 14.7.22	500 "	1000 lb	" " "	
" " JACKETS	" " "	10-15-lb	30 lb	" " "	
" " PISTON WATER PASSAGES	14.5.23	30-35 lb	75 lb	" " "	
MAIN COMPRESSORS—1st STAGE	31.8.22 5.9.22	50 lb	100 lb	" " "	
" 2nd "	3.4.22 21.3.23	250 lb	500 lb	" " "	
" 3rd "	20.9.22. 21.9.22	850 lb	1700 lb	" " "	
AIR RECEIVERS—STARTING	24.2.22. - March 1922	250 lb	425	" " "	
" INJECTION	20.4.22. 24.4.22	1000 lb	2000 lb - at work.	" " "	
AIR PIPES	6.4.22 4.10.22	850 lb	1700 lb	" " "	
FUEL PIPES	25.4.22	850 lb	1700 lb	" " "	
FUEL PUMPS	FUEL VALVES 19.7.22	850 lb	1700 lb	" " "	
SILENCER		1 or 2 lb		" " "	
" WATER JACKET		None.		" " "	
SEPARATE FUEL TANKS				" " "	

AIR STARTING TANKS. TESTED 425 lb WP 250 lb L.G.S. 12.7.22

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

YES

Receivers

YES

Separate Tanks

SPARE GEAR.

Spare Gear in accordance with the rules. as per appended list also a quantity of General tools, spare parts, and stores -

The foregoing is a correct description.

FOR SWAN, HUNTER & WILKINSON, LTD.

G. J. Duncanson Manufacturer.

Dates of Survey while building	During progress of work in shops -	1921 June 15, 17, 30, Dec. 6, Jan. 17, 19, 21, Feb. 3, 21, Mar. 31, April 5, 13, 26, 28, May 3, 5, 9, 12, 13, 19, 26, June 8, 17, 28, 29, July 5, 8, 14, 21, 25, 27, Aug. 3, 5, 12, 18, 23, 24, 26, 29, Oct. 3, 4, 6, 7, 12, 18, 19, 30, 21, 22, 24, 25, 26, 27, 28, 31, Nov. 1, 2, 3, 4, 14, 15, 18, 21, 22, 29, 30, Dec. 1, 3, 7, 9, 13, 14, 19, 20, 21, 22, 23, 1922 Jan. 5, 6, 7, 11, 13, 16, 18, 24, 25, 28, 29, 30, 31, Feb. 1, 5, 7, 8, 12, 15, 16, 19, 20, 21, 23, 26, 28, 29, 30, March 4, 6, 9, 17, 20, 24, 27, 31, Apr. 1, 10, 16, 20, 22, 23, 28, 29, 30, May 4, 7, 13, 1922 June 1, 19, 22, 25, 26, 27, 28, 31, July 3, 5, 8, 12, 14, 17, 26, 27, 31, Aug. 1, 7, 9, 10, 11, 13, 14, 15, 16, 17, 18, 20, 21, 23, 26, 27, 28, 30, 31, Sep. 6, 13, 16, 17, 19, 20, 21, 24, 25, 26, Oct. 1, 3, 10, 11, 15, 17, 22/23 Oct. 13.										
	During erection on board vessel -	23.2.23 16.9.22 26.7.22 29.3.22 31.3.22 6.4.22										
	Total No. of visits	260.	30.8.22 4.8.22 14.7.22 22.5.22 27.4.23 28.3.22 23.2.23 29.8.22 26.4.21 19.1.21									
	Dates of Examination of principal parts—Cylinders	6.4.22	Covers	22.5.22	Pistons	24.4.22	Rods	19.1.21	Connecting rods	19.1.21		
Compressor Crankshaft	22.10.20	28.8.23	none	Screw shaft	21.9.23	Propeller	16.11.22	Stern tube	21.9.23	Engine seatings	July	
Crank shaft	19.1.21	Thrust shaft	19.1.21	Tunnel shafts	none	ST-E. Shaft tests	28.8.22, 30.8.22 and Oct	Engines tried under working conditions	179.23. 2	Port E. Shaft tests	12.9.22 and other dates	
Engines holding down bolts	21. August 23	Completion of pumping arrangements	21.9.23.	Screw shaft and propeller	10.3.22.	19.9.22.						
Completion of fitting sea connections	21.9.23.	Stern tube	21.9.23.	10.3.22								

Material of crank shaft	STEEL	Identification Mark on Do.	LLOYD'S 5208	Material of thrust shaft	STEEL	Identification Mark on Do.	LLOYD'S 5.
Material of tunnel shafts	none.	Identification Marks on Do.		Material of screw shafts	STEEL	Identification Marks on Do.	LLOYD'S

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 Engines, built under Special Survey. The material and workmanship found good and efficient. The Engines were tested, a number of times in the shop, under various conditions, with satisfactory results. The machinery was subsequently fitted up on board the vessel and tried under working conditions (Vessel at morning). The vessel proceeded subsequently on sea trials with satisfactory results, returning to port for adjustments found necessary. On the 17 October 23. October the vessel proceeded on an extended sea trial. The Engines working satisfactorily. During construction, the cylinders, their covers, water jackets, the scavenger cylinders, pistons, and compressors - and various water way pipes, valves, & connections. Starting Tanks, were tested. Hydraulic pressure as required - found or made good. In our opinion the vessel is now eligible for registration - L.M.C. 10.23. made in the Register.

The amount of Entry Fee	£ 6	When applied for,	3/10/23
Special	£ 100.13	When received,	11/10/23
Donkey Boiler Fee	£ 7.14		
Travelling Expenses (if any)	£		

Committee's Minute *FRI. 26 OCT. 1923*

Assigned *+ L.M.C. 10.23 oil engine O.G. P.A.*

Leonard S. Hallerons & J. R. Beveridge
Engineer Surveyor to Lloyd's Register of Shipping