

N. D. O.

No. 103754

Received at London Office 14 JUN 1946

NEWCASTLE-ON-TYNE

Reg. Book.

Single	} Screw vessel
on the Twin	
Triple	
Quadruple	

Built at	HEBBURN-ON-TYNE	By whom built	R+W. HAWTHORN LESLIE & CO LD.	Yard No.	684	When built	1946
Engines made at	NEWCASTLE-ON-TYNE	By whom made	R+W HAWTHORN LESLIE & CO LD.	Engine No.	4022	When made	1946
Donkey Boilers made at	WALLSEND-ON-TYNE	By whom made	N.E. MARINE ENG. CO. LD.	Boiler No.	3124	When made	1946
Brake Horse Power	2800	Owners	ANGLO-SAXON PETROLEUM CO LD.	Port belonging to	LONDON		
Nom. Horse Power as per Rule	377	Is Refrigerating Machinery fitted for cargo purposes			Is Electric Light fitted	YES	
Trade for which vessel is intended	MN = 500		OPEN SERVICE				

IL ENGINES. &c.—Type of Engines WERKSPOR - SUPERCHARGED 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 700 lbs./ins^2 ✓ Diameter of cylinders 650 mm. ✓ Length of stroke 400 mm. ✓ No. of cylinders 6 ✓ No. of cranks 6 ✓
Mean Indicated Pressure 135 lbs./ins^2 ✓

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 844 mm. Is there a bearing between each crank YES

Revolutions per minute 120 ^{normal 115} Flywheel dia. 2260 mm. Weight 6.3 tons Means of ignition COMPRESSION Kind of fuel used DIESEL OIL.

Crank Shaft, { Solid forged as per Rule 442 mm. Crank pin dia. 460 mm. Crank Webs Mid. length breadth 870 mm. Thickness parallel to axis 267 + 290 mm.
Semi built dia. of journals as fitted 460 mm. Mid. length thickness 267 mm. shrunk Thickness around eyehole 204 mm.
All built

Flywheel Shaft, diameter *as per Rule* 340MM. *as fitted* 340MM. ✓ **Intermediate Shafts, diameter** *as per Rule* 312MM. *as fitted* 350MM. ✓ **Thrust Shaft, diameter at collars** *as per Rule* 328MM. *as fitted* 340MM. ✓

Tube Shaft, diameter as per Rule ☒ as fitted ☒ Screw Shaft, diameter as per Rule ☒ as fitted ☒

Is the ~~tube~~ screw shaft fitted with a continuous liner { ☒ YES ☐ NO

Bronze Liners, thickness in way of bushes as per Rule 18.5 mm. as per Rule 370 on body 13.9 mm.
as fitted 20 mm. Thickness between bushes as fitted 15 mm. 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 **SAE** brand or other appliance noted at the after end of the case.....
 shaft **No** If so, state type..... ✓ Length of Bearing in **Stern Bush** next to and supporting propeller..... **1480mm.**

Propeller, dia. 14'-0" Pitch 11'-9" No. of blades 4 Material MANG. BRONZE whether Moveable No Total Developed Surface 62 sq. feet

Method of reversing Engines: AIR SERVO MOTOR. Is a governor or other arrangement fitted to prevent racing of the engine when disclutched? YES Means of lubrication

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

ONE M.E. + ONE STANDBY FOR CYLINDERS. ✓
Cooling Water Pumps, No. FOUR " " " " " " PISTONS Is the seg suction provided with an efficient strainer which can be cleared within the vessel YES

Bilge Pumps worked from the **Main Engines**, No. ONE. Diameter NOTARY. Stroke Can one be overhauled while the other is at work?

No. and Size THREE - ONE NOTARY - 28 TONS / HR. - ONE BRILLIST - 100 TONS / HR. - ONE BILGE - 32 TONS / HR.

Pumps connected to the Main Bilge Line	No. and Size		How driven	
	No.	Size		
			M. ENGINE.	STEAM.
				STEAM.

Is the cooling water led to the bilges.....No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

Ballast Pumps, No. and size ONE - 100 TONS/HR. ✓ Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size ONE M. ENG C 40 TONS/HR.
ONE STANDBY C 50 TONS/HR.

Are two independent means arranged for circulating water through the **Oil Cooler** *YES* ✓ **Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge**
 3 x 3" *In Pump Room 1 x 3"*

In Holds, &c. FORE HOLD - 20 2 1/2" - FORD STORE 20 2" - F.A. COFFERDAMS 10 4" EACH.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size TWO - ONE C7 AND ONE C3

Are all the Bilge Suction pipes in Hold and Tunnel Well fitted with strum-bones YES Are the Bilge Suctions in the Machinery Spaces

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

Are all **Sea Connections** fitted direct on the skin of the ship YES Are they fitted with Valves or Cocks BOTH

Are the **Overboard Discharges** above or below the deep water line ABOVE

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

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 ^{OIL FUEL.} ONE 4" FAT COFFERDAM SECTION. How are they protected

What pipes pass through the deep tanks..... NONE..... Have they been tested as per Rule..... YES.....

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 **NONE** Is it fitted with a watertight door ☒ worked from ☒

Is there any leakage of either fuel oil or of lubricating oil from saturating the woodwork ☒

Main Air Compressors, No.	No. of stages	Diameters	Stroke	Driven by
1	2	20 x 20 in.	10 in.	1000 H.P. DIESEL ENGINE

Auxiliary Air Compressors, No. TWO ✓ No. of stages 2
 { ONE C 50 g FREE MA / MIN Stroke
 Diameters
 { ONE C 122 f " " " " " " Driven by " STEAM ENGINE. ✓
 Stroke

Small Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 12 Stroke 12 Driven by Aux Steam or Oil Engine Driven Air Compressors.

What provision is made for first Charging the Air Receivers By the main engine

Scavenging Air Pumps, No. NONE. ✓ Diameter 1 1/2 ✓ Stroke ONE - 4 CYCL. ✓ Driven by 4555A. ✓

Auxiliary Engines	crank shafts, diameter	as per Rule	as APPROVED ENGR. APPROVED	No.
	as fitted			Position
	4 1/16" DIA. JOURNALS	3 1/4" DIA. CRANKSHAFTS.	STARBD. SIDE OF ENG. ROOM.	Ver

Have the Auxiliary Engines been constructed under special survey YES ✓ Is a report sent herewith YES ✓

004125-004134 - 0136

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AIR RECEIVERS:—Have they been made under survey

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

Can the internal surfaces of the receivers be examined and cleaned

Injection Air Receivers, No.

Cubic capacity of each

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Starting Air Receivers, No.

ONE.

Total cubic capacity

500 g.

Internal diameter

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Donkey Boilers

9-4-45

General Pumping Arrangements

YES

Oil Fuel Burning Arrangements

YES

Receivers

No (SEE ABOVE)

Separate Fuel Tanks

Pumping Arrangements in Machinery Space

YES

SPARE GEAR.

Has the spare gear required by the Rules been supplied

YES

State the principal additional spare gear supplied

AS PER LIST ATTACHED.

The foregoing is a correct description,

R.B. Johnson

Manufacturer. R.W. HAWTHORN LESLIE & CO. LD.

Dates of Survey while building { During progress of work in shops - 1945 June 27, July 17, Aug 29, Sep 15, 7.11.14.22.28, Oct 1.10.16.18.23.25, Nov 1.5.6.9.12.13.19.20.22.27.30
During erection on board vessel - 1946 Dec 4.7.11.13.18.20.22.28, Jan 5.8.12.14.15.18.22.24.28.29, Feb 4.7, Mar 1.14.22.28, Apr 3, May 1.
Total No. of visits 53.

Dates of Examination of principal parts—Cylinders 16-10-45 etc. Covers 16-10-45 etc. Pistons 6-11-45 etc. Rods 6-11-45 etc. Connecting rods 6-11-45 etc.

Crank shaft 1-11-45 etc. Flywheel shaft 19-3-46 Thrust shaft 28-1-46 Intermediate shafts 28-1-46 Tube shaft

Screw shaft 28-1-46 Propeller 7-5-46 Stern tube 28-1-46 Engine seatings 5-2-46 Engines holding down bolts 22-3-46.

Completion of fitting sea connections 5-2-46 Completion of pumping arrangements 18-4-46 Engines tried under working conditions 14-5-46

Crank shaft, Material O.H. STEEL. Identification Mark 14705. Flywheel shaft, Material O.H. STEEL. Identification Mark 14705.

Thrust shaft, Material O.H. STEEL. Identification Mark 14705. Intermediate shaft, Material O.H. STEEL. Identification Marks 14705 F 6138.

Tube shaft, Material Identification Mark 14705. Screw shaft, Material O.H. STEEL. Identification Mark 14705 F 6137 14705.

Identification Marks on Air Receivers EX M.V. ELAX. Examined internally and under water pressure 550 lbs/sq. in. - found tight and in good condition.

MARKED - RETEST LLOYDS 550 LBS/SQ. IN. W.P. 550 LBS/SQ. IN. A.E.M. 28-3-46

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

YES

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

YES

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery duplicate of a previous case

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 and installed on board under special survey in accordance with the Rules - Approved Plans and Secretary's letters. The Materials and Workmanship are good.

Satisfactory Basin & Sea Trials were witnessed and the Machinery is eligible in my opinion for the record + LMC 5-46 and the notations TSCL. - OIL ENG. MCHYART - ONE DB-180 LB.

Forging Reports etc attached

The amount of Entry Fee .. £5 : : When applied for, 20.5.1946
Special ... £81 : 11 :
AIR RECEIVER ... £4 : 4 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : 27.5.1946

Committee's Minute

FRI. 21 JUN 1946

Assigned + L.M.C. 5-46. Oil Eng. C.L.

D.B. 180 lb.

J.B. Martin
Engineer Surveyor to Lloyd's Register of Shipping.



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