

ENGINES, &c. Type of Engines *Opposed piston airless injection or 4 stroke cycle* **2** Single or double acting *Single.*
 Maximum pressure in cylinders *640 lbs/sq. in.* Diameter of cylinders *23 5/8" 600 mm* Length of stroke *Upper 980 mm 91 3/4" Lower 1240 mm* No. of cylinders *4* No. of cranks *4 Triple throw*
 Indicated Pressure *85 lbs/sq. in.* of bearings, adjacent to the Crank, measured from inner edge to inner edge *886 mm* Between each triple throw *Between each triple throw*
 Revolutions per minute *105* Flywheel dia. *1690 mm* Weight *F. 1.33 Tons. A. 3.26 Tons* Is there a bearing between each crank *Yes*
 Material of crank shaft, { *Solid forged* dia. of journals *as per Rule 431 mm* Crank pin dia. *450 mm* Crank Webs *Mid. length breadth 650 mm* Kind of fuel used *Heavy oil.*
 { *Semi built* as fitted *450 mm* Mid. length thickness *255 mm* Thickness parallel to axis *255 mm*
 { *All built* as fitted *450 mm* Thickness around eye hole *201 mm*
 Wheel Shaft, diameter *as per Rule 431 mm* Intermediate Shafts, diameter *as per Rule 450 mm* Thrust Shaft, diameter at collars *as per Rule 431 mm*
 as fitted *450 mm* as fitted *450 mm* as fitted *450 mm*
 Shaft, diameter *as per Rule* Screw Shaft, diameter *as per Rule 450 mm* Is the { tube { shaft fitted with a continuous liner { *Yes*
 as fitted { screw {
 Liners, thickness in way of bushes *as per Rule 22 mm* Thickness between bushes *as per Rule 14 mm* Is the after end of the liner made watertight in the
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *One length.*
 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 liners are fitted, is the shaft lapped or protected between the liners *Is an approved Oil Gland or other appliance fitted at the after end of the tube*
 If so, state type *—* Length of Bearing in Stern Bush next to and supporting propeller *5' 8"*
 Pitch *11'-9"* No. of blades *4* Material *Bronze* whether Moveable *no.* Total Developed Surface *93* sq. feet
 of reversing Engines *Hand lever* Is a governor or other arrangement fitted to prevent racing of the engine when disconnected *Yes* Means of lubrication
 Thickness of cylinder liners *25 mm* Are the cylinders fitted with safety valves *Yes* Are the exhaust pipes and silencers *water cooled or 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
 Suction Water Pumps, No. *1 Engine driven 1 Steam driven* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *(F.W. Cooling)*
 Pumps worked from the Main Engines, No. *none* Diameter *—* Stroke *—* Can one be overhauled while the other is at work *—*
 Pumps connected to the Main Bilge Line { No. and Size *2 @ 4" x 8" x 8" Duplex.*
 How driven *Steam*
 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
 Pumps, No. and size *1 @ 10" x 12" x 10"* Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size *one Engine driven 110 mm x 50 mm*
one Steam driven 8" x 4" x 18"
 independent means arranged for circulating water through the Oil Cooler *Yes* Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 s, No. and size: *In Machinery Spaces 2 @ 3 1/2" 1 @ 6" - aft. hull.* *In Pump Room 2 @ 2" 1 @ 2"*
(Dunker) *Main room 4" x 8"*
 dependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *1 @ 8" (Ballast pump) 1 @ 6"*
 All the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes *Yes* Are the Bilge Suctions in the Machinery Spaces
 easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges *Yes*
 Sea Connections fitted direct on the skin of the ship *Yes* Are they fitted with Valves or Cocks *Both*
 fixed sufficiently high on the ship's side to be seen without lifting the platform ladders *Yes* Are the Overboard Discharges above or below the deep water line *Below*
 each filled 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*
 pipes pass through the bunkers *none* How are they protected *—*
 pipes pass through the deep tanks *none* Have they been tested as per Rule *—*
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *Yes*
 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 *(Dunker)* Is the Shaft Tunnel watertight *none* Is it fitted with a watertight door *—* worked from *—*
 wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
 Air Compressors, No. *Two* No. of stages *Three* Diameters *1 1/2" - 9 1/2" - 2 3/4"* Stroke *4"* Driven by *Steam Engine*
 Auxiliary Air Compressors, No. *—* No. of stages *—* Diameters *—* Stroke *—* Driven by *—*
 Auxiliary Air Compressors, No. *—* No. of stages *—* Diameters *—* Stroke *—* Driven by *—*
 provision is made for first Charging the Air Receivers *(Steam driven Compressors)*
 Charging Air Pumps, No. *Two* Diameter *1510 mm* Stroke *510 mm* Driven by *Lever from Main Engine*
 Auxiliary Engines crank shafts, diameter *as per Rule* No. *—* Position *—*
 as fitted *—* Is a report sent herewith *—*

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

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

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

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

2 main piston heads, 40 piston rings, 4 fuel valves complete, 16 spray plugs, 1 Cent. Cam. rod both end spher. 2 Side Cam. rod both end spher. bearings, 1 main spher. bearing, 2 main bearings studs, 4 Cent. Side (each) to both end bolts & nuts, 2 Side rod bolts & nuts, 1 Set Coupling bolts & nuts, 2 NR Starting air valves, 2 spher. valves, 1 fuel pump Suct. Chamber, 2 fuel pump bodies complete with valves, 1 Sea. Pump Suct. & Del. 1 Set of pads for thrust block, 1 Set of 3 pads for int. shaft & tail shaft bearings, 8 rubber hoes for piston cooling, 1 main shaft for camshaft drive, 1 C.I. Propeller, 1 Propeller shaft &c. &c.

The foregoing is a correct description

WILLIAM DOXFORD & SONS, LIMITED.

T.V.C. affd 18/4/46 for British Major

Manufacturer.

Dates of Survey while building

Dates of Examination of principal parts—Cylinders

Crank shaft

Screw shaft

Completion of fitting sea connections

Crank shaft, Material

Thrust shaft, Material

Tube shaft, Material

Identification Marks on Air Receivers

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

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

Description of fire-extinguishing apparatus fitted

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

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

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

Special Survey in accordance with the approved Plans & the rules of the Society.

The materials & workmanship are good. It has been securely fitted as aboard the vessel & tried under full working conditions with satisfactory results.

The two donkey boilers have also been fixed on board, fitted to burn oil fuel (v.p. above 150° F.), safety valves adjusted under steam to working pressure. Section 20 of the rules has been complied with.

The machinery is now eligible in my opinion to have notation of L.M.C. 5. 49 (oil Eng.) T.S. (CL.) 2 D.B. 150 lb.

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

Committee's Minute

Assigned

J. T. Law.

Engineer Surveyor to Lloyd's Register of Shipping



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