

REPORT ON OIL ENGINE MACHINERY.

No. 123578 124211

Date of writing Report 25/11/51 1951 When handed in at Local Office 28/11/51 1951 Port of Stamford
 Received at London Office
 No. in Reg. Book. Stamford Date, First Survey 2/10/51 Last Survey 9/10/51 1951
 Number of Visits 3
 Single on the Twin Triple Quadruple Screw vessel Motor Launch "SWALLOW C." Tons Gross Net
 Built at Wivenhoe By whom built James W Cook (Wivenhoe) Ltd. Yard No. 1063 When built
 Engines made at Stamford By whom made Blackstone & Co Ltd. Engine No. 49131 When made 10/51
 Donkey Boilers made at By whom made Boiler No. When made
 Brake Horse Power 180 Owners Port belonging to
 M.N. Power as per Rule 32 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
 Trade for which vessel is intended

IL ENGINES, &c. — Type of Engines EVMGR.4. 2 or 4 stroke cycle 4 Single or double acting Simple
 Maximum pressure in cylinders 800 lb. Diameter of cylinders 8 3/4 Length of stroke 11 1/2 No. of cylinders 4 No. of cranks 4
 Mean Indicated Pressure 108 lb. Ahead Firing Order in Cylinders 1. 2. 4. 3. Span of bearings, adjacent to the crank, measured from inner edge to inner edge 10 1/16 Is there a bearing between each crank Yes Revolutions per minute 600
 Flywheel dia. 40" Weight 2200 lb. Moment of inertia of flywheel (lbs. in² or Kg. cm²) 566000 Means of ignition Compression Kind of fuel used Diesel
 Crank Shaft, Solid forged dia. of journals as approved Crank pin dia. 6 3/4 Crank webs Mid. length breadth 4 3/4 Thickness parallel to axis
Semi built as fitted 6 3/4 Mid. length thickness 2 25/32 Thickness around eyehole
All built as per Rule as fitted

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted
 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

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted Is the after end of the liner made watertight in the propeller boss
 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 Oil Gland or other appliance fitted at the after end of tube shaft If so, state type

Propeller, dia. Pitch No. of blades Material whether moveable Total developed surface sq. feet
 Moment of inertia of propeller (lbs. in² or Kg. cm²) Kind of damper, if fitted
 Method of reversing Engines S.M. GEAR Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Grease Thickness of cylinder liners 19/32 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Cooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work
 Pumps connected to the Main Bilge Line (No. and size How driven

Is the cooling water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements

Ballast Pumps, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 Supply 810 GPH. 1 Scavenge 1160 GPH.
 Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both main bilge pumps and auxiliary bilge pumps, No. and size:—In machinery spaces In pump room

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Are the bilge suction 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 Are they fitted with valves or cocks Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the overboard discharges above or below the deep water line

Are they each fitted with a discharge valve always accessible on the plating of the vessel Are the blow off cocks fitted with a spigot and brass covering plate
 That pipes pass through the bunkers How are they protected
 That pipes pass through the deep tanks Have they been tested as per Rule

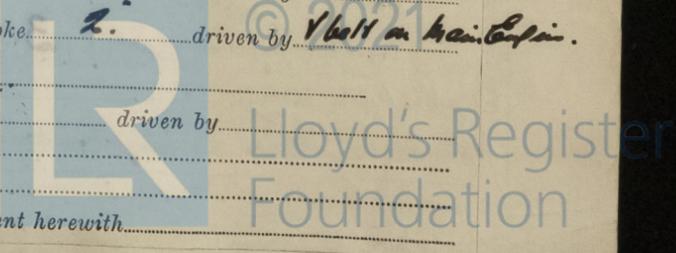
Are all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times
 Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another Is the shaft tunnel watertight 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

Main Air Compressors, No. No. of stages diameters stroke driven by
 Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
 Small Auxiliary Air Compressors, No. One No. of stages One diameters 1 5/8 stroke 2 driven by 1 Volt in Main Engine

Is that provision is made for first charging the air receivers
 Scavenging Air Pumps, No. diameter stroke driven by
 Auxiliary Engines crank shafts, diameter as per Rule as fitted No. Position
 Have the auxiliary engines been constructed under survey a report sent herewith

JM
 7/12/51
 except
 T.V.C.

014372-014381-0069



C. 11219.
C. 11249.
C. 11255. } *Sheffield Certificate*

AIR RECEIVERS:—Have they been made under survey *Yes.* State No. of report or certificate

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 Is a drain fitted at the lowest part of each receiver
 Injection Air Receivers, No. Cubic capacity of each Internal diameter thickness
 Seamless, welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules
 Starting Air Receivers, No. *3* Total cubic capacity *15 cu ft.* Internal diameter *17 3/8"* thickness *3/16"*
 Seamless, welded or riveted longitudinal joint *Welded.* Material *Steel* Range of tensile strength Working pressure by Rules
 Actual *300 lps.*

IS A DONKEY BOILER FITTED If so, is a report now forwarded
 Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for shafting *Y/8/47.* Receivers. Separate fuel tanks
 (If not, state date of approval)
 Donkey boilers. General pumping arrangements Pumping arrangements in machinery space
 Oil fuel burning arrangements

Have Torsional Vibration characteristics been approved *To be submitted* Date of approval
 SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes.*
 State the principal additional spare gear supplied *Spare gear list attached.*

The foregoing is a correct description,
BLACKSTONE & CO. LTD. R. Drangal. Manufacturer.

Dates of Survey while building
 During progress of work in shops - - *2/10/51. 9/10/51.*
 20/12/50
 During erection on board vessel - - -
 Total No. of visits *2 In Shops.*
 Dates of examination of principal parts—Cylinders *2/10/51* Covers *2/10/51* Pistons *2/10/51* Rods Connecting rods *2/10/51*
 Crank shaft *20/12/50.* Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
 Screw shaft Propeller Stern tube Engine seatings Engine holding down bolts *2/10/51*
 Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions *2/10/51*
 Crank shaft, material *S.M. Steel* Identification mark *JBT. 1695.* Flywheel shaft, material Identification mark
 Thrust shaft, material Identification mark Intermediate shafts, material Identification marks
 Tube shaft, material Identification mark Screw shaft, material Identification mark
 Identification marks on air receivers *20135/34 GS. 12/2/51. 20135/34 JS. 2/12/51. 20135/40 JS. 2/12/51.*

Welded receivers, state Makers' Name *L. Jenkins & Co Ltd.*
 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 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. *This engine has been built under survey in accordance with plans approved and the requirements of the rules. Steel used in the manufacture has been made at works approved by the Comm, the and tested in the presence of the Society's Surveyor. The engine has been tested at the maker's works on full load & 10% overload with satisfactory results, the workmanship is good, and the engine is in my opinion, eligible to be fitted in a classed ship. The S.M. reverse reduction gear box No 10898 supplied by Modern Wheel Drive and intended for installation with this engine was not run with the engine on 9/10/51.*)

The amount of Entry Fee *35 s. £ 13 : 6/8.*
 Special £ : : When applied for *28/11 19 51.*
 Donkey Boiler Fee... .. £ : : When received *19*
 Travelling Expenses (if any) £ *3*
 FRIDAY 17 JUL 1953

L. Potts
 Engineer Surveyor to Lloyd's Register of Shipping.

Certificate (if required) to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute)

Assigned *Sae F.E. Welch rpt.*

