

REPORT ON OIL ENGINE MACHINERY.

Date of writing Report 7 NOV 1945 When handed in at Local Office 7 NOV 1945 Port of HULL Received at London Office 9 NOV 1945

No. in Survey held at Goole Date, First Survey 12. 3. 46. Last Survey 24. 10. 19 46. Reg. Book. Number of Visits 14.

87170 on the Single Triple Quadruple Screw vessel "GREBBESTROOM". Tons Gross 1000 Net

Built at Goole By whom built Goole Shipbuilding & Repairing Co. Ltd. Yard No. 459 When built 1946

Engines made at Wint/erthur By whom made Sulzer Bros. Ltd. Engine No. 25432 When made 1945 Installed by The Goole Shipbuilding & Repairing Co. Ltd.

Donkey Boilers made at - By whom made - Boiler No. - When made - Brake Horse Power 1050 Machinery Numeral Owners N.V. Hallandsche Stoomboot Port belonging to Amsterdam

Non-Horse-Power as per Rule 246 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes Trade for which vessel is intended Home Services.

IL ENGINES, &c. Type of Engines See Winterthur Rpt. No. 220 2 or 4 stroke cycle 2 Single or double acting SA 7 T.S. 36 Sulzer Solid Injection. SC

Maximum pressure in cylinders 850 lbs Diameter of cylinders 14.3/16" Length of stroke 23 3/8" No. of cylinders 7 No. of cranks 7 Mean Indicated Pressure 76lbs

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 438 m.m. Is there a bearing between each crank Yes

Revolutions per minute 250 Flywheel dia. 1250mm Weight .8 tons Means of ignition compression Kind of fuel used Pool Diesel

Crank Shaft, Solid forged. dia. of journals as per Rule 218mm as fitted 240mm Crank pin dia. 240mm Crank Webs Mid. length breadth 380mm Mid. length thickness 120mm Thickness parallel to axis - Thickness around eyehole -

Flywheel Shaft, diameter as per Rule 218mm as fitted 250mm Intermediate Shafts, diameter as per Rule approx. 7" as fitted Thrust Shaft, diameter at collars as per Rule 250mm as fitted 174mm

Tube Shaft, diameter as per Rule - as fitted Screw Shaft, diameter as per Rule approx. 8 1/4" as fitted Is the screw shaft fitted with a continuous liner No

Bronze Liners, thickness in way of bushes as per Rule - as fitted npne 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 the tube shaft Yes If so, state type Boole S.B. & R. Co. Ltd. Length of Bearing in Stern Bush next to and supporting propeller 2' 10 1/2"

Propeller, dia. 7' 9" Pitch 5' 8" No. of blades 4 Material M. Bronze Whether Moveable No Total Developed Surface 23.5 sq. feet Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced

Thickness of cylinder liners 26mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material water cooled 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 D.A. 100 mm dia. x 160mm ST. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes Bilge Pumps worked from the Main Engines, No. one Diameter 100mm Stroke 160mm Can one be overhauled while the other is at work -

Pumps connected to the Main Bilge Line No. and Size a) 1-100mm x 160mm b) Plunger Pump - 50/tons per hr. c) Self priming centrifugal pump. 50/tons per hr. How driven A) M.E. b) & c) Electric motor.

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 arrangements -

Ballast Pumps, No. and size 2-50tons/hr. as above. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size One gear pump 28.8 m3/hr. Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size: - In Machinery Spaces E.R. ford. 2 1/2" FER. oil bilge 2 1/2" FE aft 2 1/2". In Pump Room none

In Holds, &c. No. 1 P. & S. = 2 1/2", F. cofferdam No. 2 DBT = 2 1/2", Aft. cofferdam No. 2 DBT - 2 1/2". Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 3"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces fitted from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

Are all Sea Connections fitted direct on the skin of the ship on robust EW steel as far as practicable Are they fitted with Valves or Cocks valves Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates practicable Are the Overboard Discharges above or below the deep water line just below.

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 - What pipes pass through the bunkers none How are they protected -

What 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 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 Part of ER 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. one No. of stages one Diameters 100mm Stroke 340mm Driven by ME

Auxiliary Air Compressors, No. one No. of stages two Diameters 4 1/2" & 1 1/2" Stroke 4 1/2" Driven by Aux. & Oil eng. hand starting. Small Auxiliary Air Compressors, No. - No. of stages see Diameters above Stroke - Driven by -

What provision is made for first Charging the Air Receivers - 800mm Scavenging Air Pumps, No. One Tandem D.A. Diameter 700mm Stroke 340 mm Driven by ME

Auxiliary Engines crank shafts, diameter as per Rule approx. 3", 4.3/16", 4.3/16" as fitted Position - Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Lincoln - See Nott. Rpts. Nos. C.4544, 4507 & 4510.

Handwritten scribble in red ink.

Vertical handwritten number: 13588-013595-0015

Handwritten notes: 4 SCSA One 3 1/2" 4 1/2" - 5 1/2" 30 BHP One 6 1/2" 5 1/2" - 8" 120 BHP One 6 1/2" 5 1/2" - 8" 120 BHP

"GREENSTROOM"

AIR RECEIVERS:—Have they been made under survey Bureau Veritas State No. of Report or Certificate See Winterthur Rpt No. 220.
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes Survey. Yes
 Can the internal surfaces of the receivers be examined and cleaned yes Is a drain fitted at the lowest part of each receiver Yes
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 -
See Winterthur Rpt. No. 320
Starting Air Receivers, No. 4 Total cubic capacity 2,000 litres Internal diameter 478mm thickness 15 mm
 Seamless, lap welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 55-61.3 kg/mm² Working pressure by Rules 61 kg/cm²
 Actual 30 "

IS A DONKEY BOILER FITTED? No 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 See Winterthur Rpt. No. 220 Receivers 17.8.38. Separate Fuel Tanks 5.2.46.
 (If not, state date of approval) 21.8.45. Winterthur Rpt. No. 220
 Donkey Boilers - General Pumping Arrangements 13.10.45. Pumping Arrangements in Machinery Space 5.2.46.
 Oil Fuel Burning Arrangements 5.2.46.

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied Please see list.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } See Winterthur Report No. 220.
 { During erection on board vessel - - - } 1946. Mar. 12. May 22. July 12. Aug 13. 19. 22. 29. Sept 6. 25. Oct. 10. 12. 17. 19. 24.
 Total No. of visits 14.

Dates of Examination of principal parts—Cylinders. Covers. Pistons. Rods. Connecting rods.
 Crank shaft. Flywheel shaft. Thrust shaft. Intermediate shafts. Tube shaft.
 Screw shaft 22.7.46. Propeller 22.7.46. Stern tube 22.7.46. Engine seatings 22.7.46. Engines holding down bolts 29.8.46.
 Completion of fitting sea connections 22.7.46. Completion of pumping arrangements 25.10.46. Engines tried under working conditions 17.10.46.
 Crank shaft, Material Identification Mark See Winterthur Report No. 220 Flywheel shaft, Material Identification Mark 25.10.46.
 Thrust shaft, Material - Identification Mark - Intermediate shafts, Material F.I. Steel Identification Marks LR 432 WAL 31.5.46.
 Tube shaft, Material - Identification Mark - Screw shaft, Material F.I. Steel Identification Mark LR 431 WAL 12.3.46.
 Identification Marks on Air Receivers See Winterthur Report No. 220.

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 -
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No 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 No If so, state name of vessel -

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

The above machinery installed by The Goole Shipbuilding & Repairing Co. Ltd., Goole in accordance with the Secretary's letters, approved plans and the Rules. The materials used and the workmanship are good.
 Vessel's machinery tried under working conditions and found satisfactory. See London letter Ref.E. 19.1.46. A notice board has been fitted at the control station stating that the engines are not to be run continuously below 114 R.P.M.
 Eligible to be recorded in the Register Book;—
+LMC 10,46 O.G. Oil engine 7 cyl. 14.3/16" - 23.5/8" 2SC SA.
MN 246.

The amount of Entry Fee	£	:	:	When applied for,
Fee Installing Mchry.	24	12	7	NOV 1946
Special	£	:	:	
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	19

W.S. Shields
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 6 DEC 1946**

Assigned + LMC 10.46 Oil Eng. O.G.



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