

a List of

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 46845

25 MAY 1936

Received at London Office

26 MAY 1936

Date of writing Report 19 When handed in at Local Office 19 Port of Goolé Date, First Survey 18th Dec. 1935 Last Survey 6th May 1936 Number of Visits 11.

No. in Survey held at Reg. Book. 37091 on the Single Triple Quadruple Screw vessel "ASHANTI" Tons Gross 534 Net 274

Built at Goolé By whom built Goolé S. B. & Repg Co. Ltd Yard No. 312 When built 1936 Engines made at Cologne By whom made Humboldt, Deutz & Brown A.G. Engine No. 370109/15 When made 1936 Donkey Boilers made at None By whom made Boiler No. When made Brake Horse Power 410 Owners J. E. Evans & Co. Ltd Port belonging to London Nom. Horse Power as per Rule 82 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes Trade for which vessel is intended Ocean-going 11" 17 1/2"

OIL ENGINES, &c. Type of Engines Heavy Oil (Deutz - R.V. 7. M. 345) 2 or 4 stroke cycle 4 Single or double acting Single Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 280 mm Length of stroke 450 mm No. of cylinders 7 No. of cranks 7 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 307.5 mm Is there a bearing between each crank Yes Revolutions per minute 350 Flywheel dia. 1250 mm Weight 2600 kg Means of ignition Comp Kind of fuel used Heavy Oil Crank Shaft, dia. of journals as per Rule 190 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 339 mm Kind of fuel used Heavy Oil Thickness parallel to axis shrunk Thickness around eye-hole Flywheel Shaft, diameter as per Rule as fitted 190 mm Intermediate Shafts, diameter as per Rule 4.35 (4.50) Thrust Shaft, diameter at collars as per Rule as fitted 4 5/8" Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 5.00 (5.21) Is the tube screw shaft fitted with a continuous liner No 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 Stewart Length of Bearing in Stern Bush next to and supporting propeller 21"

Propeller, dia. 65 Variable Pitch 35-45 No. of blades 4 Material C.I. whether Moveable No Total Developed Surface 10.8 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 25 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-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 Up funnel

Cooling Water Pumps, No. One & cross connected to bilge pump Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes What special arrangements are made for dealing with cooling water if discharged into bilges Water overboard Bilge Pumps worked from the Main Engines, No. One Diameter 100 mm Stroke 85 mm Can one be overhauled while the other is at work Pumps connected to the Main Bilge Line No. and Size 2-Aux Bilge pumps 3" 40 ton/h and Above main engine pumps How driven Aux Heavy Oil Engine Ballast Pumps, No. and size All above pumps Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size One & one spare

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 4 @ 3" In Pump Room In Holds, &c. Fore peak 1 @ 3" No 1 Ballast Tank - 3 @ 3" No 2 det. 3 @ 3" After peak 1 @ 3" Hold - 2 @ 3"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 @ 3" included above Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes 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 Strum Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Yes

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 Above 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 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 No Tunnel 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 2 Diameters 145" + 60" Stroke 85 mm Driven by Main Engines Auxiliary Air Compressors, No. One No. of stages One Diameters 28" air at 450 lbs/sq" Stroke Driven by Aux Engine (Hand starting) Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by Scavenging Air Pumps, No. Diameter Stroke Driven by

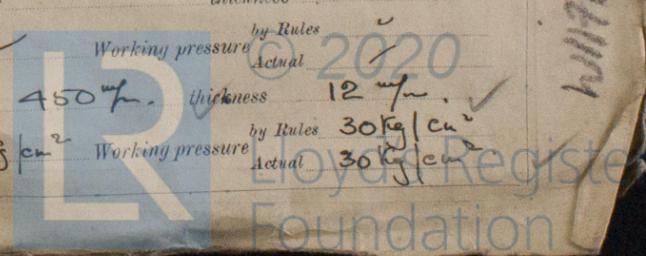
Auxiliary Engines crank shafts, diameter as per Rule as fitted See Saw Reports 0.1466 No. - Auxiliary Main Gns & Aux Gns Position - S^d side by Pn Port side + Port side for d

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

Pressure Air Receivers, No. None Cubic capacity of each Internal diameter thickness less, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure Actual 2020

Working Air Receivers, No. 2 Total cubic capacity 1000 litres Internal diameter 450 mm thickness 12 mm less, lap welded or riveted longitudinal joint lap welded Material Steel Range of tensile strength 38 kg/cm² Working pressure by Rules 30 kg/cm² Actual 30 kg/cm²

4110-9114



IS A DONKEY BOILER FITTED?

None

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

31-12-35

Receivers

21-7-32

Separate Tanks

22-1-36

Donkey Boilers

General Pumping Arrangements 20+24-12-35

Oil Fuel Burning Arrangements

PLAN OF ENGINE ROOM PUMPING ARRANGEMENTS AS ACTUALLY FITTED FORWARDED HEREWITH. SPARE GEAR.

Has the spare gear required by the Rules been supplied

Yes ✓

State the principal additional spare gear supplied

See Due Report.

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building

1935:- Dec. 18. 1936:- Mar 2. 23. 26. Apr 2. 9. 23. 28. 30. May 4. 6.

Dates of Examination of principal parts - Cylinders Due Rpt. Covers Due Rpt. Pistons Due Rpt. Rods ✓ Connecting rods Due Rpt.

Crank shaft Due Rpt. Flywheel shaft None. Thrust shaft Due Rpt. Intermediate shafts 9-4-36 Tube shaft None

Screw shaft 23-3-36 Propeller 26-3-36 Stern tube 22-3-36 Engine seatings 23-3-36 Engines holding down bolts 23-4-36

Completion of fitting sea connections 26-3-36 Completion of pumping arrangements 4-5-36 Engines tried under working conditions 4-5-36

Crank shaft, Material Steel Identification Mark 10411 Flywheel shaft, Material None Identification Mark

Thrust shaft, Material Steel Identification Mark 308.H.B Intermediate shafts, Material Steel Identification Marks 399/20-3-36

Tube shaft, Material None Identification Mark Screw shaft, Material Steel Identification Mark 285.C.S.P. 28/3-36

Is the flash point of the oil to be used over 150° F. Yes ✓ (FORGING REPORTS WITH N°313 "BENGUELA")

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 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 None ✓

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 Machinery of this Vessel has been fitted on board under Special Survey, the workmanship & materials are good, and when tried at sea was found satisfactory in every respect.

The Machinery of this Vessel is eligible, in my opinion, to have the record of L.M.C. 5-36. 06 & the notations of Oil Eng. 4.S.C. SA.

7.C. 11"-17 1/16" 82 N.H.P.

The amount of Entry Fee	.. £	When applied for,
Special	.. £	19.
Donkey Boiler Fee	.. £	When received,
Travelling Expenses (if any)	£	19.

Signature of Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 30 JUN 1936

FRI. 14 AUG 1936

FRI. 16 OCT 1936

Assigned + L.M.C. 5-36 subject oil eng. of



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