

REPORT ON OIL ENGINE MACHINERY.

No. 44025
21 JUL 1936

Date of writing Report 16-7-1936 When handed in at Local Office 20 JUL 1936 Port of HULL Received at London Office

No. in Survey held at Goole Date, First Survey 18th Dec. 1935 Last Survey 11th July 1936

Reg. Book. 87708 on the Single Triple Quadruple Screw vessel "CABENDA" Tons Gross 534 Net 274

Built at Goole By whom built Goole Shipbuilding & Repairing Co. Ltd Yard No. 314 When built 1936

Engines made at Stockport By whom made Merrlees, Johnston & Day, Ltd Engine No. 70389 When made 1936

Donkey Boilers made at None By whom made None Boiler No. None When made None

Brake Horse Power 450 Owners J. E. Evans & Co. Ltd Port belonging to London

Nom. Horse Power as per Rule 91 Is Refrigerating Machinery fitted for cargo purposes None Is Electric Light fitted Yes

Trade for which vessel is intended Ocean going

MAIN ENGINES, &c.—Type of Engines Heavy Oil 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 700 lbs/sq in Diameter of cylinders 12 1/2" Length of stroke 19" No. of cylinders 6 No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 17 1/8" Is there a bearing between each crank Yes

Revolutions per minute 375 Flywheel dia. 49" Weight 1. ton Means of ignition Comp Kind of fuel used Heavy oil

Crank Shaft, dia. of journals 7 1/2" Crank pin dia. 7 1/2" Crank Webs Mid. length breadth 10 1/4" Thickness parallel to axis shrunk

Flywheel Shaft, diameter as per Rule None Intermediate Shafts, diameter as per Rule 4.4" Thrust Shaft, diameter at collars as per Rule App

Stern Tube Shaft, diameter as per Rule None Screw Shaft, diameter as per Rule 5.05" Is the tube screw shaft fitted with a continuous liner None

Bronze Liners, thickness in way of bushes as per Rule None Thickness between bushes as per Rule None 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 Yes

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 None

If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube Yes

Shaft Yes If so, state type crewark Length of Bearing in Stern Bush next to and supporting propeller 21"

Propeller, dia. 65" Pitch 35-45" No. of blades 4 Material C.I. whether Moveable None 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 13/16" Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes

Is the exhaust 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 & Good Conn 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 All overboard

Bilge Pumps worked from the Main Engines, No. One Diameter 3 1/2" Stroke 4" Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line No. and Size 2 - 3" Rotary 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" dia In Pump Room Yes

In Holds, &c. Hold 2 @ 3" fore peak 1 @ 3" NOT D/B tank 3 @ 3" No 2 D/B tank 3 @ 3" aft peak 1 @ 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 Strums

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 Yes

What pipes pass through the bunkers None How are they protected None

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 Yes worked from None

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork None

Main Air Compressors, No. One No. of stages 2 Diameters 2 3/8" & 7" Stroke 8 1/2" Driven by Main Engine

Auxiliary Air Compressors, No. One No. of stages One Diameters 1" Stroke None Driven by Aux Engine (hand starting)

Small Auxiliary Air Compressors, No. None No. of stages None Diameters None Stroke None Driven by None

Scavenging Air Pumps, No. None Diameter None Stroke None Driven by None

Auxiliary Engines crank shafts, diameter as per Rule See Saw Reports No. Aux: Main & Aux Gen. as fitted D1482 & 3 Position Side of Engine Port & Port side for'd

IR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes

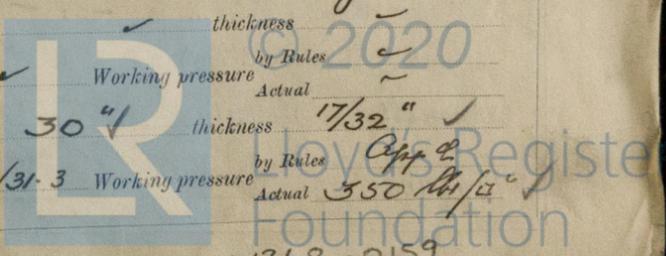
Can the internal surfaces of the receivers be examined and cleaned Yes Is a drain fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. None Cubic capacity of each None Internal diameter None thickness None

Seamless, lap welded or riveted longitudinal joint Yes Material Steel Range of tensile strength 30-1/31.3 Working pressure Actual 350 lbs/sq in

Starting Air Receivers, No. 2 Total cubic capacity 110 cu ft Internal diameter 30" thickness 17/32"

Seamless, lap welded or riveted longitudinal joint Yes Material Steel Range of tensile strength 30-1/31.3 Working pressure Actual 350 lbs/sq in



IS A DONKEY BOILER FITTED? *Yes*

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 *11-11-35* Receivers *Man Rpt.* 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 FITTED FORWARDED WITH HULL RPT NO 46845 ASHANTI

Has the spare gear required by the Rules been supplied? *Yes*

State the principal additional spare gear supplied *✓*

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building: During progress of work in shops - - -
During erection on board vessel - - - 1935: - Dec. 18. 1936: - Apr. 30. May 14. 25. 26. June 5. 8. 12. 16. 18. 25. 26. 30. July 4. 11.
Total No. of visits *15.*

Dates of Examination of principal parts—Cylinders *Man Rpt* Covers *Man*— Pistons *Man*— Rods *✓* Connecting rods *Man*—

Crank shaft *Man*— Flywheel shaft *✓* Thrust shaft *Man*— Intermediate shafts *12-6-36* Tube shaft *✓*

Screw shaft *25-5-36* Propeller *8-6-36* Stern tube *5-6-36* Engine seatings *25-5-36* Engines holding down bolts *25-6-36*

Completion of fitting sea connections *5-6-36* Completion of pumping arrangements *7-7-36* Engines tried under working conditions *7-7-36*

Crank shaft, Material *Steel.* Identification Mark *1017 G.T.C* Flywheel shaft, Material *✓* Identification Mark *✓*

Thrust shaft, Material *Steel.* Identification Mark *2216 C.H.P.* Intermediate shafts, Material *Steel* Identification Marks *287 C.S.P*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *Steel* Identification Mark *287 C.S.P*

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 *Yes* 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 *No.*

Is this machinery duplicate of a previous case *Part.* If so, state name of vessel *Auxiliary etc. as M.V. ASHANTI.*

General Remarks (State quality of workmanship, opinions as to class, &c. *Hull Rpt. No 46845. Main Engines are different.*

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

The Machinery of this Vessel is eligible, in my opinion, to have the record of L.M.C. 7-36. 06. & the notations of Oil Eng. 4.S.C.S.A. 6 Cy. 12 1/2" - 19" 91 N.H.P.

The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee	£ - : -	When applied for,
<i>1/5</i> Special	£ 4 : 11	<i>20 JUL 1936</i>
Donkey Boiler Fee	£ - : -	When received,
Travelling Expenses (if any)	£ : :	<i>1.10 36/10 5/10</i>

D. J. Johnson
Engineer Surveyor to Lloyd's Register of Shipping.
B. Moffatt

Committee's Minute *TUE. 11 AUG 1936*
Assigned *+ L.M.C. 7-36 oil inf. 09*

