

REPORT ON OIL ENGINE MACHINERY.

No. 20695
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Date of writing Report 6th Feb. 1939 When handed in at Local Office 10th Feb. 1939 Port of GREENOCK
Date, First Survey 2nd SEPTEMBER 1938 Last Survey 3rd Feb. 1939No. in Survey held at Greenock
Reg. Book. Suppt.87047 on the Single Screw vessel "AFRICA SHELL" Tons Gross 70582
Triple
Quadruple Net 332.25Built at Greenock By whom built Geo. Bramble (Marine) Ltd. Yard No. 207 When built 1939-2Engines made at Amsterdam By whom made N.V. Werkspoor Engine No. 732/3 When made 1938Donkey Boilers made at Loughlin (Glasgow) By whom made Alb. Anderson & Sons Boiler No. 3507 When made 1938Brake Horse Power 600 Owners Shell Co. of East Africa Ltd. Port belonging to London
Shell Co. of East Africa Ltd.Nom. Horse Power as per Rule 162 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YesTrade for which vessel is intended Carrying Petroleum in bulk.IL ENGINES, &c.—Type of Engines Heavy Oil—Ink Piston 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders _____ Diameter of cylinders _____ Length of stroke _____ No. of cylinders _____ No. of cranks _____

Mean Indicated Pressure _____ Is there a bearing between each crank _____

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge Ans. Rpt. 15397

Revolutions per minute _____ Flywheel dia. _____ Weight _____ Means of ignition _____ Kind of fuel used _____

Crank Shaft, Solid forged as per Rule _____ Crank pin dia. _____ Crank Webs _____ Mid. length breadth _____ Thickness parallel to axis _____
Semi-built dia. of journals _____ as fitted _____ Mid. length thickness _____ Thickness around eyehole _____
All built as fitted _____Flywheel Shaft, diameter _____ as per Rule _____ Intermediate Shafts, diameter _____ as per Rule _____ Thrust Shaft, diameter at collars _____ as per Rule _____
as fitted _____ as fitted _____ as fitted _____ as fitted _____Tube Shaft, diameter _____ as per Rule _____ Screw Shaft, diameter _____ as per Rule _____ Is the tube _____ shaft fitted with a continuous liner _____
as fitted _____ as fitted _____ as fitted _____ as fitted _____Bronze Liners, thickness in way of bushes _____ as per Rule _____ Thickness between bushes _____ as per Rule _____ Is the after end of the liner made watertight in the
as fitted _____ as fitted _____ as fitted _____ as fitted _____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 _____

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 No If so, state type _____ Length of Bearing in Stern Bush next to and supporting propeller 2' 8 1/2"Propeller, dia. 5'-10" Pitch 4'-3" No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 125 (each) sq. feet

Method of reversing Engines _____ Is a governor or other arrangement fitted to prevent racing of the engine when declutched _____ Means of lubrication _____

Thickness of cylinder liners _____ 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 YesCooling Water Pumps, No. One—each engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel YesBilge Pumps worked from the Main Engines, No. Ans. Diameter Rpt. Stroke 15397 Can one be overhauled while the other is at work YesPumps connected to the Main Bilge Line { No. and Size { Two @ 130 am. x 90 am. } { One @ 8" x 7" x 10" }
How driven { Main Engines } { Steam }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 One @ 8" x 7" x 10" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size Ans. Rpt.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 Three @ 2 1/2" In Pump Rooms Two each @ 2 1/2"In Holds, &c. Two @ 2 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One @ 3" One 3 1/2" emergencyAre all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces Yesled from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YesAre all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks BothAre 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 AboveAre 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 YesWhat pipes pass through the bunkers None How are they protected _____What pipes pass through the deep tanks Cargo pipes Have they been tested as per Rule YesAre all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YesIs 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 _____ 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 Two Diameters 30 1/2" against Stroke head of 20 1/2" Driven by SteamAuxiliary Air Compressors, No. None No. of stages _____ Diameters _____ Stroke _____ Driven by _____Small Auxiliary Air Compressors, No. None No. of stages _____ Diameters _____ Stroke _____ Driven by _____What provision is made for first Charging the Air Receivers Boiler lit up on natural draught: fuel hand pump & heater.Scavenging Air Pumps, No. None Diameter _____ Stroke _____ Driven by _____Auxiliary Engines Steam as per Rule _____ as fitted _____ Position _____

Have the Auxiliary Engines been constructed under special survey _____ Is a report sent herewith _____

AIR RECEIVERS:—Have they been made under survey.

State No. of Report or Certificate

Is each receiver, which can be isolated, fitted with a safety valve as per Rule 15397
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, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

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

Actual

IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

23-5-38

Receivers

Ans. Rpt. 15397

Separate Fuel Tanks

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

Yes
As per attached list.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops--
During erection on board vessel--
Total No. of visits

Dates of Examination of principal parts—Cylinders

Crank shaft

Flywheel shaft

Thrust shaft

Intermediate shafts

Connecting rods

Screw shafts 2-9-38

Propellers 7-11-38

Stern tubes 27-7-38

Engine seatings 20-10-38

Engines holding down bolts 18-12-38

Completion of fitting sea connections 8-11-38

Completion of pumping arrangements 27-1-39

Engines tried under working conditions 3-2-39

Crank shaft, Material

Identification Mark

Thrust shaft, Material

Identification Mark

Tube shaft, Material

Identification Mark

Identification Marks on Air Receivers

Ans. Rpt. 15397.

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

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.)

These engines have been properly fitted on board, tried under full power & found satisfactory. Material & workmanship found good.
The vessel's machinery is eligible, in my opinion, & the classed in the Register Book with record — LMC — 2.39.
Oil Sp. : and notation DB — 180 lbs..

The amount of Entry Fee

£

When applied for,

Special

£

11th FEB. 1939

Donkey Boiler Fee

£

When received,

Travelling Expenses (if any)

£

14 FEB 1939

Committee's Minute

GLASGOW

14 FEB 1939

Assigned

+ LMC 2.39

oil Sp.

DB. 180 lbs.

Engineer Surveyor to Lloyd's Register of Shipping.



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GLASGOW

10/2/38

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