

# REPORT ON OIL ENGINE MACHINERY.

No. 3125

Received at London Office

8 - OCT 1947

Date of writing Report

30. 9. 1947 When handed in at Local Office

30. 9. 1947 Port of BARROW

Date of Survey held at

Barrow

Date, First Survey 24/4/45

Last Survey 21/9/47

No. of Book.

Number of Visits

 on the Single  
Twin  
Triple  
Quadruple

Screw vessel

ACCRA

 Gross 11600  
 Net 6448

Built at

Barrow

By whom built Hickens - Grimsby Ltd Yard No. 948 When built 1947

Engines made at

do.

By whom made do. Engine No. do. When made do.

Monkey Boilers made at

Motherwell

By whom made Brownlie Boilers Wks Boiler No. 1930-A When made 1947

Indicated Horse Power

9400

Owners ELDER Dempster Lines Ltd Port belonging to Liverpool

Net Horse Power as per Rule

1843

Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes

Made for which vessel is intended

West African

## ENGINES, &c.

Type of Engines

Opposed Piston

2 or 4 stroke cycle 2 Single or double acting

Maximum pressure in cylinders

640 lb.

Indicated Pressure

91 lb.

No. of bearings, adjacent to the Crank, measured from inner edge to inner edge

Revolutions per minute

118

Crank shaft, diameter

as per Rule

Intermediate Shafts, diameter

as per Rule

Screw Shaft, diameter

as per Rule

Liners, thickness in way of bushes

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 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

If so, state type

Propeller, dia. 15' 6"

Pitch 15' 6"

No. of blades 4

Material Im. Bronze

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

Thickness of cylinder liners 25"

Are the cylinders fitted with safety valves

Are the exhaust pipes and silencers water cooled or lagged with

Inducting material lagged

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Pumps worked from the Main Engines, No. none

Can one be overhauled while the other is at work

No. and Size Em. Bilge, 110 1/2"; Em. Bilge, 110 1/2"; Bilge, 110 1/2"; Ballast 270 1/2"How driven Electrically

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

Pumps, No. and size 1 at 270 1/2"Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 3 of 45 1/2" each

Independent means arranged for circulating water through the Oil Cooler

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

No. and size: In Machinery Spaces Eng. Rm. 3 at 5" dia. + 2 at 3 1/2" dia.; Tunnel 1 at 2 1/2", 1 at 3" + 1 at 5" dia.In Pump Room 3 at 2 1/2" eachRefrig. Drain Tank 1 at 2 1/2" dia.

No. 5 + 6 each 2 at 3" dia.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 3 at 5" dia.

Are the Bilge Suctions in the Machinery Spaces

If the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

Are they fitted with Valves or Cocks

Are the Overboard Discharges above or below the deep water line

Are the Blow Off Cocks fitted with a spigot and brass covering plate

How are they protected

Have they been tested as per Rule

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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

Is the Shaft Tunnel watertight

Is it fitted with a watertight door

worked from upper (D)

If vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by Elec. motor

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by 3 1/2 H.P. O. Eng.

Provision is made for first Charging the Air Receivers

Charging Air Pumps, No. 1, Auto, each engine

Diameter

Stroke

Driven by Main crank

Crank shafts, diameter

as per Rule

Auxiliary Engines been constructed under special survey

Is a report sent herewith

 Lloyd's Register  
 Foundation



AIR RECEIVERS: - Have they been made under survey *yes.* State No. of Report or Certificate *25, 26.*  
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.*  
Injection Air Receivers, No. *none* Cubic capacity of each *—* Internal diameter *—* thickness *—*  
Seamless, lap welded or riveted longitudinal joint *—* Material *—* Range of tensile strength *—* Working pressure *—*  
Starting Air Receivers, No. *3* Total cubic capacity *540 cu. ft.* Internal diameter *4'-6"* thickness *1 1/4"*  
Seamless, lap welded or riveted longitudinal joint *riveted* Material *steel* Range of tensile strength *28/32* Working pressure *3600 lb.*

IS A DONKEY BOILER FITTED? *yes.* Is a report now forwarded? *Chicago Rpt. 7/14/39*  
Is the donkey boiler intended to be used for domestic purposes only *no*  
PLANS. Are approved plans forwarded herewith for Shafting *27.2.46* Receivers *18.10.46.* Separate Fuel Tanks *7.1.47.*  
(If not, state date of approval)  
Donkey Boilers *—* General Pumping Arrangements *13.3.46* Pumping Arrangements in Machinery Space *3.4.46.*  
Oil Fuel Burning Arrangements *3.4.46*

### SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes*  
State the principal additional spare gear supplied *main engines, 31 Piston rings, 1 complete main bearing, 1 fuel pump, 1 body & working parts; auxiliary engines, main bearing bottom half bearings for one engine, 2 pistons, 32 piston rings & 12 scraper rings, 1 gudgeon pin, 1 con. rod, 1 cylinder head assembly with additional fuel & exhaust valves.*

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building  
During progress of work in shops - *1945 May 10, June 24, July 24, Aug 31, Sept 3, 13, Oct 9, 17, 30 Nov 2, 15, 26, Dec 17 Jan 7, 21, 23, 26, 30, 31 Feb 7, 12, 25, 27 Apr 11, 15 May 1, 6, 7, 11, 14, 17, 20, 23, 26, 29, 31 June 3, 4, 11, 14, 17, 20, 23, 26, 29, 31 July 2, 5, 12, 19, 26, 30 Aug 2, 6, 12, 15, 22, 26, 30 Sept 11, 17, 18, 20, 24, 30 Oct 2, 9, 14, 16, 17, 23, 25, 29 Nov 1, 6, 12, 20, 26, Dec 9, 15, 22, 25, 29, 31 Jan 5, 7, 12, 13, 14, 19, 20, 24, 25, 28 Mar 3, 5, 11, 12, 17, 19, 21, 24, 25, 26, 27, 28, 31 Apr 2, 10, 14, 15, 16, 21, 23, 25 May 1, 5, 9, 14, 19, 22, 23, 24, 25, 30 June 5, 10, 12, 14, 25, 30 July 15, 18, 23, Aug 7, 21, 22, 26, 27, 28 Sept 1, 5, 8, 9, 12, 20, 21.*  
During erection on board vessel - *—*  
Total No. of visits *138.*

Dates of Examination of principal parts - Cylinders *18/2/46 to 24/12/46* Covers *—* Pistons *14/10/46 to 6/11/46* Rods *14/10/46 to 6/11/46* Connecting rods *3/3/46 to 25/3/46*  
Crank shaft *16.7.46.P.* Flywheel shaft *—* Thrust shaft *as for crank* Intermediate shafts *—* Tube shaft *—*  
Screw shaft *30.9.46.S.* Propeller *7.2.47.P.* Stern tube *21.1.47.P.* Engine sealings *14.2.47* Engines holding down bolts *27.5.47*  
Completion of fitting sea connections *13.2.47* Completion of pumping arrangements *8.9.47* Engines tried under working conditions *20.9.47*  
Crank shaft, Material *steel* Identification Mark *148 + test nos.* Flywheel shaft, Material *—* Identification Mark *—*  
Thrust shaft, Material *—* Identification Mark *—* Intermediate shafts, Material *steel* Identification Marks *148. 41689*  
Tube shaft, Material *—* Identification Mark *—* Screw shaft, Material *steel* Identification *148. 41681*  
Identification Marks on Air Receivers *148. L.R.H. 9.10.46. (Starting). 148. L.R.H. 19.2.47. (Whistle).*

R	S.
148 41694	4.12.46 L.R.H.
148 41706	20.12.46 ..
148 41702	20.12.46 ..
148 41704	20.12.46 ..
148 42155	9.1.47 ..
148 41713	15.1.47 ..
148 41696	4.12.46 L.R.H.
148 41700	20.12.46 ..
148 41707	20.12.46 ..
148 41699	20.12.46 ..
148 42157	9.1.47 ..
148 41714	15.1.47 ..

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*  
Description of fire extinguishing apparatus fitted *2. Phoenix 30 gal. Foam type engine with 50' hose; 7 Phoenix 2 gal.; 2 Pyrene C.T.*  
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 *not required*  
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 constructed under Special Survey in accordance with the approved plans, Secretary's letters and the requirements of the Rules. Workmanship and materials are good.  
The machinery has been efficiently fitted on board and tried under working conditions at sea and found satisfactory and is eligible, in my opinion, for the

NOTATION \* L.M.C. 9.47. OIL ENG. C.L. 2 D.B. 120/16.

The amount of Entry Fee .. £ 31 : - : When applied for, 19  
Special ... £ 214 : - :  
Donkey Boiler Fee ... £ 16 : - :  
Travelling Expenses (if any) £ : : : When received, 19

Committee's Minute

Assigned + LMC 9.47 Oil Eng. Subject.  
C.L. 2 D.B. 120/16.

Engineer Surveyor to Lloyd's Register of Shipping



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