

REPORT ON OIL ENGINE MACHINERY.

No. 32143

JUL 21 1937

Date of writing Report

19

When handed in at Local Office

20 JULY 1937

Port of

Received at London Office

Sunderland.

No. in Survey held at
14th Reg. Book.

Date, First Survey

July 24

Last Survey

July 20 1937.

Number of Visits

41

Single
on the Twin Screw vessel

"ALDERSDALE"

Tons
Gross
Net

Built at Birkenhead

By whom built

Cammell Laird & Co. Ltd.

Yard No. 1025

When built 1934.

Engines made at

Sunderland

By whom made

Wm. Leavford & Sons Ltd.

Engine No. 200

When made 1934.

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power

2850

Owners.

Port belonging to

Nom. Horse Power as per Rule

684

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

23 5/8 - 91 5/16

L. ENGINES, &c.

Type of Engines

Opposed piston airless injection

2 or 4 stroke cycle

2

Single or double acting

Single.

Maximum pressure in cylinders

540 lb/sq. in.

Diameter of cylinders

600 in.

Length of stroke

Upper 980 in.

No. of cylinders

4.

No. of crank

(3 throws).

Mean Indicated Pressure

84 lb/sq. in.

Mean of bearings, adjacent to the Crank, measured from inner edge to inner edge

940 in.

Revolutions per minute

94

Flywheel dia.

F. 2050 in.

Weight

A. 88 cwt.

Means of ignition

Temperature

Kind of fuel used

Steam

Crank Shaft, dia. of journals

as per Rule 425 in.

as fitted 450 in.

Crank pin dia.

450 in.

Crank Webs

Mid. length breadth

650 in.

Thickness parallel to axis

255 in.

Flywheel Shaft, diameter

as per Rule 425 in.

as fitted 450 in.

Intermediate Shafts, diameter

as per Rule

as fitted

Thrust Shaft, diameter at collars

as per Rule 425 in.

as fitted 450 in.

Screw Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

Is the

tube

screw

shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes

as per Rule

as fitted

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

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

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

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia.

Pitch

No. of blades

Material

whether Moveable

Total Developed Surface

sq. feet

Method of reversing Engines

Hand lever.

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

Yes.

Means of lubrication

Thickness of

cylinder liners

25 in.

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

Cooling Water Pumps, No.

one main engine driven

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

Bilge Pumps worked from the Main Engines, No.

None

Diameter

Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

How driven

the cooling water led to the bilges

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

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces

In Pump Room

Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

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

Are the Bilge Suctions in the Machinery Spaces

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Are all Sea Connections fitted direct on the skin of the ship

Are they fitted with Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates

Are the Overboard Discharges above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

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

That pipes pass through the bunkers

How are they protected

That 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

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

Is the Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

on 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.

No. of stages

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Small Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Scavenging Air Pumps, No.

One.

Diameter

1960 in.

Stroke

610 in.

Driven by

Leads from Main Engine

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

No.

Position

Lloyd's Register
Foundation

W1165-0008

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

Can the internal surfaces of the receivers be examined and cleaned

Is a drain fitted at the lowest part of each receiver

High Pressure Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

by Rules

Actual

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

thickness

by Rules

Actual

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

Range of tensile strength

Working pressure

Seamless, lap welded or riveted longitudinal joint

Material

If so, is a report now forwarded?

IS A DONKEY BOILER FITTED?

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

Receivers

Separate Fuel Tanks

PLANS. Are approved plans forwarded herewith for Shifting

(If not, state date of approval)

Pumping Arrangements in Machinery Space

Donkey Boilers

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

One cylinder liner + jacket Complete, one starting air non-return valve Complete, one cyl. relief valve Complete, 4 Scavenge pump Suct. + del. valve discs (halves) two fuel pump bodies Complete with Suct. + del. valves, one intermediate crosshead with Suct. + del. valves, one bell crank lever suction tappet for fuel pump, four fuel valves Complete, 1 roller chain for camshaft drive.

The foregoing is a correct description,
WILLIAM DOXFORD & SONS, Limited.

Manufacturer.

Dates of Survey while building
During progress of work in shops - 1936. May 24. Apr 13, 26, 28, 29, 30. May 4, 5, 6, 10, 11, 13, 21, 25, 28, 31. June 1, 4, 7, 8, 10, 14, 15, 17.
During erection on board vessel - 25, 28, 29, 30. July 2, 5, 6, 7, 8, 9, 12, 13, 14, 15, 16, 20.
Total No. of visits 41

Dates of Examination of principal parts - Cylinders 26/4/37 29/4/37 Covers 2/7/34 9/7/34 Rods 2/7/37 9/7/34 Connecting rods 6/7/34.
Crank shaft 25/5/37 15/6/34 Flywheel shaft as crank Thrust shaft as crank Intermediate shafts Tube shaft
Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts
Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions
Crank shaft, Material Ingot Steel Identification Mark S.O. 4280 G.O.C Flywheel shaft, Material as crank Identification Mark as crank
Thrust shaft, Material as crank Identification Mark Intermediate shafts, Material Identification Marks
Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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

If so, have the requirements of the Rules 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 No. If so, state name of vessel M/V. "BRITISH FAME"

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

This machinery has been built under Special Survey in accordance with the Rules of the Society & the Secretary's letter E 25/4/34.

The materials & workmanship are good.

The engine has been tried under full load conditions on test bed with satisfactory results & has been despatched to Messrs Cammell Laird & Co, Birkenhead for installation on board the vessel, after which it will be eligible, in my opinion, to have notation of L.M.C. (with date) oil eng. in the Register Book.

The amount of Entry Fee £ 6 : - :
4/5 Special ... £ 84 : 10 :
Donkey Boiler Fee ... £ 12 : 12 :
Travelling Expenses (if any) £ : :
Committee's Minute

When applied for,

20 JULY 1937

When received,

Admitted from 6/8/37.

Assigned

J. S. Fraser.

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation