

REPORT ON OIL ENGINE MACHINERY.

No 34200

Date of writing Report

When handed in at Local Office

27 APR 1945

Port of

Received at London Office

Sunderland.

4 MAY 1945

No. in Survey held at
Reg. Book.

Date, First Survey 23rd July 44 Last Survey 27 April 1945

Number of Visits 68

on the Single Screw vessel

"WEYBANK"

Tons: Gross 7368
Net 4961Built at Sunderland

By whom built

Wm. Lee Ford & Sons Ltd.

Yard No. 724

When built 1945

Engines made at Sunderland

By whom made

Wm. Lee Ford & Sons Ltd.

Engine No. 724

When made 1945

Donkey Boilers made at Stockton

By whom made

Stockton Chem. Engs & Riley Bros Ltd.

Boiler No. 6844

When made

Brake Horse Power 2500

Owners

Bank Line Ltd.

Port belonging to

Glasgow.

Nom. Horse Power as per Rule 516

Is Refrigerating Machinery fitted for cargo purposes

No. Is Electric Light fitted Yes.

Trade for which vessel is intended

23 3/4

9 5/16

OIL ENGINES, &c.—Type of Engines

Opposed piston airless injection

2 or 4 stroke cycle 2

Single or double acting

Single

Maximum pressure in cylinders

640 lb/sq. in.

Diameter of cylinders

600 mm

Length of stroke

Upper 980 mm

Lower 1340 mm

No. of cylinders

3

No. of cranks

3 (3 throw)

Mean Indicated Pressure

88 lb/sq. in.

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

F. 2300 mm

F. 5 3/4 tons

Compression

Is there a bearing between each crank

Revolutions per minute

108

Flywheel dia.

A. 2400 mm

Weight

A. 5 1/2 tons

Means of ignition

Compression

Kind of fuel used

Crank Shaft, dia. of journals

as per Rule 418 mm

as fitted 450 mm

Crank pin dia.

450 mm

Crank Webs

Mid. length breadth 650 mm

Mid. length thickness 255 mm

Thickness parallel to axis 255 mm

Flywheel Shaft, diameter

as per Rule 418 mm

as fitted 450 mm

Intermediate Shafts, diameter

as per Rule 308 mm

as fitted 365 mm

Thrust Shaft, diameter at collars

as per Rule 418 mm

as fitted 450 mm

Tube Shaft, diameter

as per Rule 18 mm

as fitted 21 1/2 mm

Screw Shaft, diameter

as per Rule 341 mm

as fitted 392 mm

Is the tube shaft fitted with a continuous liner

Yes.

Bronze Liners, thickness in way of bushes

as per Rule 18 mm

as fitted 21 1/2 mm

Thickness between bushes

as per Rule 13 1/2 mm

as fitted 16 3/4 mm

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

one length.

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

Propeller, dia.

15'-9"

Pitch 11'-9"

No. of blades 4

Material Bronze

whether Moveable

No.

Total Developed Surface

90 sq. feet

Method of reversing Engines

Hand lever

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

Yes.

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

insulating 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 Engine Driven

one Steam Driven

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

Yes.

(F.R. Cooling)

Bilge Pumps worked from the Main Engines, No.

None

Diameter

Stroke

Can one be overhauled while the other is at work

No.

Pumps connected to the Main Bilge Line

No. and Size

2 @ 5 1/2" x 6" x 15" Ballast pump.

How driven

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

1 @ 12 1/2" x 14" x 24"

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

one Engine Driven 8 1/2" x 6 1/2" x 15"

one Steam Driven 5 1/2" x 6" x 15"

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" C.R.

2 @ 2 1/2" C.R.

1 @ 3" Tunnel well.

In Pump Room

No.

No.

No.

No.

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

1 @ 8" (Ballast)

1 @ 5" (C.R.)

1 @ 7" main Engine

Circ. Pump.

Are the Bilge Suctions in the Machinery Spaces

Yes.

Are they fitted with Valves or Cocks

Both

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

Yes.

Are the Bilge Suctions in the Machinery Spaces

Yes.

Are they fitted with Valves or Cocks

Both

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

Yes.

Are they fitted with Valves or Cocks

Both

Are the Overboard Discharges above or below the deep water line

Below.

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

Yes.

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

Yes.

How are they protected

None

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

Yes.

Have they been tested as per Rule

No.

That pipes pass through the bunkers

None

That pipes pass through the deep tanks

None

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

Yes.

Is it fitted with a watertight door

No (Bulkhead)

worked from

No.

Main Air Compressors, No.

Two

No. of stages

3

Diameters

Stroke

Driven by

Steam Engine

13 1/2" x 7"

Auxiliary Air Compressors, No.

-

No. of stages

-

Diameters

Stroke

Driven by

-

-

Small Auxiliary Air Compressors, No.

-

No. of stages

-

Diameters

Stroke

Driven by

-

-

Is provision made for first Charging the Air Receivers

(Steam driven Compressor)

Diameter

Stroke

Driven by

Main Engine

-

-

Savenging Air Pumps, No.

One

Diameter

Stroke

Position

-

-

-

-

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

-

-

-

-

-

-

Have the Auxiliary Engines been constructed under special survey

-

-

Is a report sent herewith

-

-

-

-

AIR RECEIVERS:—Have they been made under survey

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

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

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

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

1 C.I. Propeller, 1 Cyh. liner & packer complete, 1 main piston head & 2 (each) side & centre top & butt end bearing bolts & nuts, 2 main bearing slides & nuts, 1 set. Camshaft bolts & nuts, 4 fuel valve complete, 1 R.R. Starling air valve, 1 Cyh. relief valve, 4 sea pump 1/2 drive, 1 fuel pump body with X.H. St. nut, full crank lever, valves & clapper, 3 nuts for upper piston cooling water, 6 links roller chain for camshaft drive, 1 set. fuel pad for thrust, 3 sets for int. shaft & lat. shaft bearings.

The foregoing is a correct description

WILLIAM BOXFORD & SONS, Limited.

Director.

Manufacturer.

Dates of Survey while building

Dates of Examination of principal parts—Cylinders

Crank shaft

Screw shaft

Completion of fitting sea connections

Crank shaft, Material

Thrust shaft, Material

Tube shaft, Material

Identification Marks on Air Receivers

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

Description of fire extinguishing apparatus fitted

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

Survey in accordance with the approved plans & the rules of the Society. The materials & workmanship are good. It has been securely fitted on board the vessel & tried under working conditions alongside Quay with satisfactory results. The two donkey boilers have also been securely fitted on board, fitted to burn fuel (F.P. above 150° F), Section 20 of the rules has been complied with & the safety valves adjusted to working pressure in accordance with rule requiring. The machinery is eligible in my opinion to have notation.

NOTED LMC 4.45 (oil Eng.) T.S. (CL) 2 DB 120 lbs/o.

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

Committee's Minute

Assigned + LMC 4.45 Oil Eng.

C.L. 2 DB 120 lbs/o

18 MAY 1945

Assigned + LMC 4.45 Oil Eng.

C.L. 2 DB 120 lbs/o

J. St. Lasw.

Engineer Surveyor to Lloyd's Register of Shipping.



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