

Rpt. 4b.

Aux
REPORT ON OIL ENGINE MACHINERY.

No. 14119

APR 1 1939

Date of writing Report 29th Mar 39 When handed in at Local Office 31st Mar 39

Port of Bristol

No. in Survey held at Dursley

Date, First Survey 23-1-39

Last Survey 17-3-1939

Reg. Book.

Number of Visits 2

Single
on the ~~Twin~~
~~Triple~~
~~Quadruple~~MOTOR
Screw vessel

"GUERNSEY QUEEN"

Tons
Gross
Net

Built at Burntisland

By whom built Burntisland S.B. Co. Ltd.

Yard No. 228

When built 1939

Engines made at Dursley

By whom made R. A. Lister & Co. Ltd.

Engine No. 31320

When made 1939

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power 18

Owners

Port belonging to

Nom. Horse Power as per Rule

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

OIL ENGINES, &c.—Type of Engines 18/2 (2 J. P. M.)

2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 450-800 lbs

Diameter of cylinders 4.5"

Length of stroke 5.5"

No. of cylinders 2

No. of cranks 2

Mean Indicated Pressure 110 lbs

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 14.375"

Is there a bearing between each crank No.

Revolutions per minute 1,000

Flywheel dia. 26"

Weight 328 lbs

Means of ignition Compression

Kind of fuel used Diesel

Crank Shaft, Solid forged
Semi-batt
All-battdia. of journals as per Rule
as fitted 3"

Crank pin dia. 3"

Crank Webs

Mid. length breadth 4.25"

Mid. length thickness 3.5"

shrink Thickness parallel to axis
Thickness around eyeholeFlywheel Shaft, diameter as per Rule
as fitted 3"Intermediate Shafts, diameter as per Rule
as fittedThrust Shaft, diameter at collars as per Rule
as fittedTube Shaft, diameter as per Rule
as fittedScrew 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 fittedThickness 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

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

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

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

Means of lubrication

Forced Thickness of cylinder liners 3/25

Are the cylinders fitted with safety valves

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material water cooled silencer the exhaust is led overboard near the water line, what means are arranged to prevent water from being syphoned back to the engine

Cooling Water Pumps, No. one, plunger type

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

Bilge Pumps worked from the Main Engines, No.

Diameter

Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

How driven

Is 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

In 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

led 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

What pipes pass through the bunkers

How are they protected

What 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

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

Is the Shaft Tunnel watertight

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.

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

What provision is made for first Charging the Air Receivers

Scavenging Air Pumps, No.

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter as per Rule
as fitted

No.

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

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?

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

(If not, state date of approval)

Receivers

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

The foregoing is a correct description,

R. A. LISTER & Co., Ltd.

Manufacturer.

Dates of Survey while building
During progress of work in shops-- 23-1-39 14-3-39
During erection on board vessel--
Total No. of visits

Dates of Examination of principal parts—Cylinders 23-1-39 Covers 23-1-39 Pistons 23-1-39 Rods — Connecting rods 23-1-39

Crank shaft 23-1-39 Flywheel shaft 23-1-39 Thrust shaft 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 14-3-39

Crank shaft, Material Steel Identification Mark E.M. 5. 8-3-38 Flywheel shaft, Material Steel Identification Mark as crank shaft

Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks

Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

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

Is this machinery duplicate of a previous case

If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) All parts of this Engine were examined in a finished machined condition before assembly. Cylinders tested with hydraulic pressure 2000 lbs per sq inch and jackets 1000 lbs per sq inch. The crank shaft has been taken from maker's tested stock. The materials and workmanship have been found good.

Upon completion the engine examined on test bed under full working conditions and found satisfactory. For identification purposes the cylinders have been stamped Lloyd's Test F.B.S.(S) M. 444. 23-1-39.

This Engine is intended for Burntisland S.B. Co. Yard No 228.

The amount of Entry Fee .. £ : : When applied for,
Special ... £ 3 : 3 : 31st Mar 1939.
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : 16 : 5-5-1939.

Committee's Minute

Assigned

J. Brooke Smith
Engineer Surveyor to Lloyd's Register of Shipping.



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See Lth. JE 1984 a

FRI 19 MAY 1939

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