

Rpt. 4b.

Aux
REPORT ON OIL ENGINE MACHINERY.

No. 14118

APR 1 1939

Date of writing Report 29th Mar. 1939

When handed in at Local Office 31st Mar. 1939

No. in Survey held at Dursley

Reg. Book.

Date, First Survey 23-1-39

Last Survey 20-3-1939

Number of Visits 3

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. G. Pister & Co. Ltd.

Engine No. 60/4090/616 When made 1939

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 60

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 Heavy Oil Type 616. 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 450/600 lbs

Mean Indicated Pressure 113 lbs

Diameter of cylinders 4.5"

Length of stroke 5.5"

No. of cylinders 6

No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 12.3125"

Is there a bearing between each crank no.

Revolutions per minute 1100

Flywheel dia. 23"

Weight 415 lbs

Means of ignition Compression

Kind of fuel used Diesel oil

Crank Shaft, { Solid forged
Semi built dia. of journals as per Rule
All built as fitted

3 3/4"

Crank pin dia. 3"

Crank Webs

Mid. length breadth 4.25"

Mid. length thickness 1.6"

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 fittedIs the { tube
screw } shaft fitted with a continuous linerBronze 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 3/125"

Are the cylinders fitted with safety valves

Two having air starting

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

Cooling Water Pumps, No. one

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

003698-003705-0099

State No. of Report or Certificate

Is a drain fitted at the lowest part of each receiver

Is a drain fitted at the lowest part of each receiver

thickness

Working pressure

...thickness

Working pressure

If so, is a report now forwarded?

If so, is a report now forwarded?

Receivers

Separate Fuel Tank:

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	{ During progress of work in shops-- }	23-1-39, 18-3-39, 20-3-39
of Survey while building	{ During erection on board vessel-- }	
	Total No. of visits	

Dates of Examination of principal parts—Cylinders 23-1-39. 18-3-39. Covers 23-1-39. Pistons 23-1-39. 18-3-39. Rods ✓ Connecting rods 23-1-39.

Crank shaft 23-1-39. 18-3-39. Flywheel shaft 23-1-39. 18-3-39 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. 20-3-39

Crank shaft, Material Steel Identification Mark Lloyd S Flywheel shaft, Material as crank shaft Identification Mark ✓

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 No. If so, state name of vessel.

General Remarks (State quality of workmanship opinions as to class, &c)

This auxiliary Engine has been built under Special Survey and in accordance with approved plan. All parts were examined in a finished machined condition before assembly. Cylinder heads & jackets tested with hydraulic pressure 100 lbs and 50 lbs per sq inch respectively. 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 ³ M. 492 18-3-39.

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

The amount of Entry Fee .. £	:	:	} When applied for, 31st Mar. 1939
Special £ 3	:	3	
Donkey Boiler Fee ... £	:	:	
Travelling Expenses (if any) £ 1	:	5	} When received, 5-5-1939
	:	:	

Committee's Minute

Assigned

L. Brooke Smith

Engineer Surveyor to Lloyd's Register of Shipping.

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Foundation