

See also Leith Rpt. N^o 19840.

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 4849

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No. in Survey held at SICKLA, SKM. District Date First Survey 13/3/35 Last Survey 22/3/1939 Reg. Book. Number of Visits 16

Single Motor "GUERNSEY QUEEN"
on the Twin Screw vessel

Tons { Gross
Net

Built at Buntisland By whom built Buntisland Shipbuilding Co. Ltd. Yard No. 228 When built 1939

Engines made at Stockholm. By whom made A.B. Atlas-Diesel. Engine No. 85614 When made 1939

Donkey Boilers made at By whom made Boiler No. When made

Brake Horse Power 800 Owners Coast Lines Lim. Port belonging to LONDON.

Nom. Horse Power as per Rule 157 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which vessel is intended 1378 2276

OIL ENGINES, &c. Type of Engines Polar Diesel Oil Engine, type M45M 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 55 kg/cm² Diameter of cylinders 340 mm. Length of stroke 570 mm No. of cylinders 5 No. of cranks 5

Mean Indicated Pressure 7 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 484 mm. Is there a bearing between each crank Yes.

Revolutions per minute 250 Flywheel dia. 1550 mm. Weight 2580 kg. Means of ignition Compression Kind of fuel used Marine Diesel Oil.

Crank Shaft, dia. of journals as per Rule as fitted 220 mm. Crank pin dia. 220 mm. Crank Webs Mid. length breadth 308.3 mm. Thickness parallel to axis shrunk Thickness around eyehole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted 260 mm.

Tube 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

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 By compressed air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

Thickness of cylinder liners 25.5 mm. Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers insulated 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 Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. 1 Diameter 100 mm. Stroke 140 mm (Double-acting) 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 2- Each 350 ltr/min

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

For starting air. Main Air Compressors, No. One No. of stages 2 Diameters 175/70 mm Stroke 350 mm Driven by Main Engine

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 860 mm Stroke 350 mm Driven by Main Engine

Auxiliary Engines crank shafts, diameter as per Rule as fitted No. Position



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AIR RECEIVERS:—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

High Pressure Air Receivers, No. None fitted 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. 2 Total cubic capacity 1600 litres Internal diameter 650 mm thickness 14 mm

Seamless, lap welded or riveted longitudinal joint Riveted Material S.H. Steel Range of tensile strength Shell 44-50 kg/cm² Working pressure _____

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 E. 23/12/36 Receivers E 10.9.35 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

As per enclosed list. The spare gear has been examined before it was despatched. The additional water circulating pump and the daily fuel supply pump will be delivered by the Ship Builders.

The foregoing is a correct description,

AKTIEBOLAGET ATLAS DIESEL

S. Jacobson Manufacturer.

Dates of Survey while building { During progress of work in shops - - 13, 4, 35; 30, 23, 28, 36; 20, 11, 3, 31, 37; 14, 6, 38; 28, 27, 14, 17, 22, 39;
During erection on board vessel - - 16
Total No. of visits 16

Dates of Examination of principal parts—Cylinders 17/3/39 Covers 17/3/39 Pistons 17/3/39 Rods 13, 4, 35;
Crank shaft 28, 36, 20, 37, 39 Seav. air pump Thrust shaft 30, 28, 36, 17, 39 Intermediate shafts 20, 31, 37;
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 S.H. Steel. Identification Mark LLOYDS No 6863 Seav. air pump Identification Mark LLOYDS No 6897
Thrust shaft, Material S.H. Steel. Identification Mark K.A. 20.1.37. Identification Mark _____
Tube shaft, Material _____ Identification Mark LLOYDS No 6809 Intermediate shafts, Material _____ Identification Marks K.A. 11.2.37.
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 _____
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 Yes. If so, state name of vessel Please see Skm. Rpt. No 4709.

General Remarks (State quality of workmanship, opinions as to class, &c.)
I am of opinion that this engine is of superior material and workmanship and as it has been designed and constructed under special survey, I have respectfully to submit that it be classed +LHC, as soon as it has been fitted into Messrs. The Bruntsland S. B. Co's Yard No 228, to the satisfaction of the Society's Surveyors.

The amount of Entry Fee .. £ : : When applied for, _____
Special ... £ Kr. 500.- : : _____ 19. _____
Donkey Boiler Fee ... £ : : When received, _____
Travelling Expenses (if any) £ Kr. 5.- : : 11. 8. 19 5928/75.

R. H. Andersson
Engineer/Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 19 MAY 1939
Assigned See Lth. J.C. 1984a

