

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 12333

Received at London Office

MAY -1 1939

Date of writing Report 28th April 1939 When handed in at Local Office 29th April 1939 Port of GOTHENBURG

No. in Survey held at GOTHENBURG

Date First Survey 19th Nov. 1938

Last Survey 18th April 1939

Reg. Book

Supplement 823/2

Single
Double
Triple
Quadruple

Screw vessel

N^o 1 BRITAMSEA

Number of Visits

Tons Gross 8237.20
Net 4929.11

GOTHENBURG

By whom built A.B. GÖTAVERKEN

Yard No. 533 When built 1939

made at GOTHENBURG

By whom made A.B. GÖTAVERKEN

Engine No. 1342 When made 1939

Boilers made at GOTHENBURG

By whom made A.B. GÖTAVERKEN

Boiler No. When made 1939

Horse Power 3610

Owners SKIBS A/S CANADA TANK

Port belonging to OSLO

Horse Power as per Rule 653

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

For which vessel is intended GENERAL

Engines, &c. Type of Engines Heavy Oil Engine 2 or 4 stroke cycle 4 Single or double acting 59

Pressure in cylinders 45 kg/cm² Diameter of cylinders 740 mm (29 1/8") Length of stroke 500 mm (19 3/4") No. of cylinders 8 No. of cranks 8

Rated Pressure 7.75 kg/cm² Rings, adjacent to the Crank, measured from inner edge to inner edge 1004 mm Is there a bearing between each crank Yes

Revolutions per minute 110 Flywheel dia. None Weight Means of ignition Compression Kind of fuel used Diesel Oil

Solid forged dia. of journals as fitted 488 mm Crank pin dia. 488 mm Crank Webs Mid. length breadth shrunk Thickness parallel to axis 310 mm

Semi built All built as fitted 488 mm Central bolts Thrust Shaft, diameter at collars as fitted 375 mm

Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as fitted 360 mm

ft. diameter as per Rule as fitted Screw Shaft, diameter as fitted 390 mm Is the shaft fitted with a continuous liner Yes

ers, thickness in way of bushes as per Rule 19 mm Thickness between bushes as per Rule 14.5 mm Is the after end of the liner made watertight in the

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

oes 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 Fits tightly

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 1560 mm

ia. 4990 mm Pitch 36.15 mm No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 2.44 sq. feet

reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when de-clutched Yes Means of lubrication

Thickness of cylinder liner 32 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

er Pumps, No. Two - 200 ton/hour Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

worked from the Main Engines, No. 1 Diameter 130 mm Stroke 250 mm Can one be overhauled while the other is at work

led to the Main Bilge Line No. and Size One ballast pump 100 t/h One plunger 30 t/h One plunger 20 t/h

How driven Steam Steam Main engine

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

ps, No. and size One 100 ton/hour Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size Two - 1667 lit./hr. each.

ident means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

d size:—In Machinery Spaces Three - 3 1/2"; Two - 2 1/2"; One - 2 1/2" from cofferdam In Pump Room Two - 2 1/2"

by cargo hold - Two - 2 1/2" (Steam driven bilge pump in food pump room) Main: 3 - 3 1/2"

Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 5" from ballast pump; One 3 1/2" from separate bilge pump.

ge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces

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

nections fitted direct on the skin of the ship Fitted on cast iron stands Are they fitted with Valves or Cocks Yes

iciently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line Above

d with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes

through the bunkers No coal bunkers How are they protected

through the deep tanks Heating coils only Have they been tested as per Rule Yes

cks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

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

other Is the Shaft Tunnel watertight No tunnel Is it fitted with a watertight door worked from

chat means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

ressors, No. None No. of stages

ompressor, No. One No. of stages 2 Diameters 232-90 mm Stroke 220 mm Driven by Aut. oil engine

Small Auxiliary Air Compressor, No. One No. of stages 2 Diameters 320-280 mm Stroke 150 mm Driven by Steam engine

What provision is made for first Charging the Air Receivers The steam driven main engine compressor

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as fitted 150 mm No. 1 aut. oil engine; 1 steam engine Position On port side in the engine room

Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Yes, of the oil engine.

AIR RECEIVERS:—Have they been made under survey *Yes*

State No. of Report or Certificate *439-440*

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*

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. *2*

Total cubic capacity *2 x 13.5 = 27 cu*

Internal diameter *1850 x 1800*

thickness *25.5 x 25*

Seamless, lap welded or riveted longitudinal joint *Pointed*

Material *S.M. Steel*

Range of tensile strength *46.1-48.8*

Working pressure *27 by rule*

Actual *25 by rule*

IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

Is the donkey boiler intended to be used for domestic purposes only *No*

PLANS. Are approved plans forwarded herewith for Shafting *8 1/2 x 3/8 37*

Receivers *9.8.37*

Separate Fuel Tanks *6.1.39*

Donkey Boilers *27.5.38*

General Pumping Arrangements *9.8.37*

Pumping Arrangements in Machinery Space *9.8.37*

Oil Fuel Burning Arrangements *—*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*

State the principal additional spare gear supplied *For the main engine: 2 fuel needle valves, 6 exhaust valves, 6 piston rings, 1 telescopic cooling pipe with flange, 1 fuel oil pump with links, 1 top half of crank pin bushes, 2 halves of main bearing bushes, 1 propeller shaft with nut and 1 cast iron propeller*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops-- *1938. Oct. 17, 27. Nov. 19, 22, 23, 24, 25. Dec. 6, 14, 15, 16, 19, 20, 22, 30. 1939 Jan. 3, 5, 9, 11, 13, 14, 17, 18, 21, 26. Feb. 4, 7, 11, 13, 14, 15, 16, 17, 22, 25, 28. March 3, 6, 7, 10, 17, 20, 21, 22, 24, 27, 28, 29, 30, 31. April 1, 4, 6, 11, 12.*
During erection on board vessel-- *1939 March 3, 17, 28, 31. April 1, 11, 12, 13, 14, 15, 18.*
Total No. of visits *67.*

Dates of Examination of principal parts—Cylinders *13-15/2/39* Covers *13-15/2-39* Pistons *3/1/39* Rods *4/1/39* Connecting rods *3/1/39*

Crank shaft *1/2/38, 1/2/38* Flywheel shaft *—* Thrust shaft *2/1.1/39* Intermediate shafts *16.2.39* Tube shaft *—*

Screw shaft *3.3.39* Propeller *3.3.39* Stern tube *3.3.39* Engine seatings *25.2.39* Engines holding down bolts *19/3/39*

Completion of fitting sea connections *3.3.39* Completion of pumping arrangements *—* Engines tried under working conditions *24/3/39*

Crank shaft, Material *S.M. Steel* Identification Mark *LLOYD'S No. 2885/6 H.26.12.38* Flywheel shaft, Material *—* Identification Mark *—*

Thrust shaft, Material *S.M. Steel* Identification Mark *LLOYD'S No. 2883/1 H.21.1.39* Intermediate shafts, Material *S.M. Steel* Identification Marks *LLOYD'S No. 2884/6 H.2.2.39*

Tube shaft, Material *—* Identification Mark *—* Screw shaft, Material *S.M. Steel* Identification Mark *LLOYD'S No. 2883/40 H.3.3.39*

Identification Marks on Air Receivers *No. 439-440 LLOYD'S TEST 40H6 W.P. 25 H6 H.7.5.39*

Is the flash point of the oil to be used over 150° F. *Yes*

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yes*

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 *No*

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *"ALBERT L. ELLSWORTH" Lister Gardner 504.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The main and auxiliary machinery of this vessel has been built under Special Survey and all the requirements of the Rules have been complied with. The shafting as per forging report attached. The workmanship is good and the material fulfils the requirements of the Rules. The dimensions are as specified and in accordance with the Rules and approved plans. The auxiliary machinery consists of one 3-cylinder 45 C.S.A. diesel oil engine having a cylinder diameter of 240" and 360" stroke manufactured by Messrs W.B. Lister & Co. and one compound steam engine having cylinder diameters of 12" x 16" and 7" stroke manufactured by Messrs J. & W. Galloway & Co. Ltd, Nottingham, each working a generator of 25 kw. The main and auxiliary engines have been tested on a trial trip and found to work satisfactorily. The machinery of this vessel is eligible in my opinion to be classed in the Register Book with notation of LMC 4.39 (Working pressure of Donkey boilers 150 LBS/SQ")*

The amount of Entry Fee *114.00* When applied for, *29.4.1939*

Special *2045.35* When received, *16.5.1939*

Donkey Boiler Fee *159.60*

Travelling Expenses (if any) *£*

Committee's Minute

Assigned *+ Lmb. 4.39 Oil Eng 2 D.B. - 150 lbs*

Stru. Johnson
Engineer Surveyor to Lloyd's Register of Shipping.



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