

REPORT ON OIL ENGINE MACHINERY.

No. 16830.

AUG 1949

Received at London Office

Reporting Report 30th June 1949. When handed in at Local Office 3rd August 1949. Port of Gothenburg.
Actual Survey held at Lysekil Date, First Survey 11th April Last Survey 12th April 1949.
Number of Visits 2

by Rule on the ~~XXXX~~ ~~XXXX~~ ~~XXXX~~ Single Screw Motor Schooner "B L E N D A" (ex Swedish war vessel) Tons Gross
Actual ~~XXXXXX~~ re- Grisslehamn By whom/built Grisslehamns Varv Yard No. --- When built ---
fuel made at Lysekil By whom made Skandia-Verken A-B. Engine No 222960 When made 1949
Boilers made at --- By whom made --- Boiler No. --- When made ---
Horse Power 300 Owners --- Port belonging to ---
Horse Power as per Rule 112 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted ---

which vessel is intended ---
GINES, &c. Type of Engines Modified hot bulb engine 2 or 4 stroke cycle 2 Single or double acting Single
Pressure in cylinders 23 kg/cm² (12.19/32") (14.9/16")
Indicated Pressure 4.2 kg/cm² Diameter of cylinders 320 mm. Length of stroke 370 mm. No. of cylinders 4 No. of cranks 4
Bearings, adjacent to the crank, measured from inner edge to inner edge 430 mm. Is there a bearing between each crank Yes
Revolutions per minute 325 Moment of inertia of flywheel (Kg.cm.sec²) 1790 Kind of fuel used Diesel oil
Flywheel dia. 1050 mm. Weight 1050 kgs. Means of ignition Hot bulb
Solid forged dia. of journals as appd. 160 mm. Crank pin dia. 160 mm. Crank webs Mid. length breadth 260 mm. Thickness parallel to axis ---
as fitted 160 mm. Mid. length thickness 82.5 mm. shrunk Thickness around eye-hole ---

Propeller Shaft, diameter as per Rule --- as fitted --- Intermediate Shafts, diameter as per Rule --- as fitted --- Thrust Shaft, diameter at collars as per Rule 126 mm. as fitted 126 mm.
Screw Shaft, diameter as per Rule --- as fitted --- Is the ~~XXXX~~ shaft fitted with a continuous liner No
Liners, thickness in way of bushes as per Rule --- Thickness between bushes as per Rule --- Is the after end of the liner made watertight in the stern tube Yes If so, state type Cedervalls box Length of bearing in Stern Bush next to and supporting propeller 480 m/m

Propeller, dia. 1530 mm. Pitch 1000 mm. No. of blades 3 Material Cast iron Whether moveable No Total developed surface 9567 sq. cm.
Moment of inertia of propeller (Kg.cm.sec²) 337
Method of reversing Engines Direct with Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of starting Automatic thickness of cylinder liners --- Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled
lubricators Water cooled If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

connected to the Main Bilge Line (No. and size --- How driven ---)
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 ---
Independent Power Pump Direct Suctions to the engine room bilges, No. and size ---
Two independent means arranged for circulating water through the Oil Cooler --- Suctions, connected to both main bilge pumps and auxiliary pumps, No. and size: --- In machinery spaces --- In pump room ---

Are the bilge suction pipes in holds and tunnel well fitted with strum-boxes --- Are the bilge suction pipes 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 ---
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 ---
How are they protected ---
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 ---
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 ---
On 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 ---
Revolving Air Pumps, No. --- Crank case compression diameter --- stroke --- driven by ---
Auxiliary Engines crank shafts, diameter as per Rule --- as fitted --- Position ---
Have the auxiliary engines been constructed under special survey --- Is a report sent herewith ---



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AIR RECEIVERS:—Have they been made under survey..... Yes..... State No. of ~~XXXXXX~~ certificate..... 9740 - 97
 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.....
 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..... ---
 Starting Air Receivers, No..... 2..... Total cubic capacity..... 400 litres..... Internal diameter..... ---..... thickness..... ---
 Seamless, lap welded or riveted longitudinal joint..... ---..... Material..... ---..... Range of tensile strength..... ---..... 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..... London 21.4.1949..... Receivers..... London 9.3.1948 Separate fuel
 (If not, state date of approval)
 Donkey boilers..... ---..... General pumping arrangements..... ---..... Pumping arrangements in machinery space..... ---
 Oil fuel buring arrangements..... ---..... Have Torsional Vibration characteristics been approved..... Yes.....
SPARE GEAR. Date of approval..... London 20.4.1949
 Has the spare gear required by the Rules been supplied..... Yes. To be checked on board.
 State the principal additional spare gear supplied..... ---

The foregoing is a correct description, and the particulars of the installation as fitted are as approved torsional vibration characteristics.

Skandiaverken AB. *A. Leijerstam* Manufacturer.

Dates of Survey while building
 During progress of work in shops - - - 11th and 12 April, 1949.
 During erection on board vessel - - - ---
 Total No. of visits..... 2
 Dates of examination of principal parts—Cylinders..... 12.4.1949 Covers..... 12.4.1949 Pistons..... 12.4.1949 Rods..... --- Connecting rods..... ---
 Crank shaft..... 12.4.1949 Flywheel shaft..... --- Thrust shaft..... 12.4.1949 Intermediate shafts..... --- Tube shaft..... ---
 Screw shaft..... 12.4.1949 Propeller..... --- Stern tube..... --- Engine seatings..... --- Engine holding down bolts..... ---
 Completion of fitting sea connections..... --- Completion of pumping arrangements..... --- Engines tried under working conditions..... 11
 Crank shaft, material..... S.M. Steel Identification mark..... LLOYDS No. 738 OS 12.4.49 Flywheel shaft, material..... --- Identification mark..... ---
 Thrust shaft, material..... S.M. Steel Identification mark..... LLOYDS No. 703 OS 12.4.49 Intermediate shafts, material..... --- Identification marks..... ---
 Tube shaft, material..... --- Identification mark..... --- Screw shaft, material..... --- Identification mark..... ---
 Identification marks on air receivers..... Nos. 1869 - 1870 LLOYD'S TEST 40 KGS. WP 20 KGS. OS 15.6.48

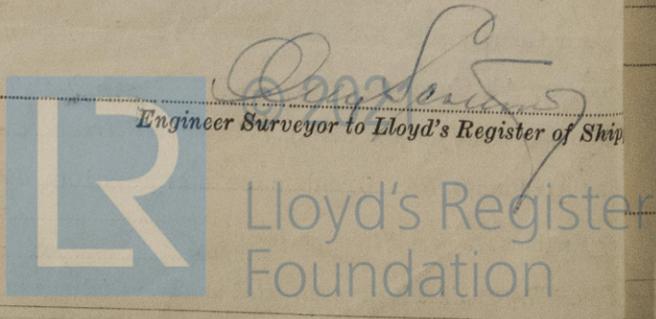
Welded receivers, state Makers' Name..... A-B. Svetsmekano, Gothenburg.
 Is the flash point of the oil to be used over 150°F..... Yes.....
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with..... ---
 Description of fire extinguishing apparatus fitted..... ---
 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.....
 This machinery has been built under special survey in accordance with the Rules and approved plans. The workmanship and the materials used are good and test sheets in respect of the crank- and thrust shaft the air receivers are attached.
 The engine has been tried under full working power conditions in shop and found satisfactory and is eligible, in my opinion, to be classed +LMC with date when securely fitted on board the vessel under the supervision and to the satisfaction of the Society's Surveyors.

The amount of ~~XXXX~~ Fee..... Kr. 540:00 :
 Special..... £ --- : --- : When applied for..... 3rd Aug. 1949.
 Donkey Boiler Fee... £ --- : --- : When received..... 19 ---
 Travelling Expenses (if any) Kr. : 71:65:

Committee's Minute..... TUES. 26 FEB 1952

Assigned.....



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