

# REPORT ON OIL ENGINE MACHINERY.

No. 16830.

AUG 1949

Received at London Office

by 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~~ Single Screw ~~XXXX~~ Motor Schooner "B L E N D A" (ex Swedish war vessel) Tons ~~XXXX~~  
Actual ~~XXXXXX~~ re-

Grisslehamn By whom/built Grisslehamns Varv Yard No. --- When built ---  
fuel tank 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/cm<sup>2</sup> (12.19/32") (14.9/16")  
Indicated Pressure 4.2 kg/cm<sup>2</sup> Diameter of cylinders 320 mm. Length of stroke 370 mm. No. of cylinders 4 No. of cranks 4

Ahead Firing Order in Cylinders 1-4-2-3  
bearings, adjacent to the crank, measured from inner edge to inner edge 430 mm. Is there a bearing between each crank Yes

Moment of inertia of flywheel (Kg.cm.sec<sup>2</sup>) 1790  
Revolutions per minute 325 Flywheel dia. 1050 mm. Weight 1050 kgs. Means of ignition Hot bulb Kind of fuel used Diesel oil

(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 ---  
~~XXXXXX~~ as fitted 160 mm. Mid. length thickness 82.5 mm. Thickness around eye-hole ---

Propeller Shaft, diameter as per Rule --- Intermediate Shafts, diameter as per Rule --- Thrust Shaft, diameter at collars as per Rule 126 mm.  
as fitted --- as fitted --- as fitted ---

Screw Shaft, diameter as per Rule --- Is the ~~XXXX~~ shaft fitted with a continuous liner No  
as fitted --- as fitted 120 mm.

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  
as fitted --- as fitted ---

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

Is --- 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  
tube shaft Yes If so, state type Cedervalls box Length of bearing in Stern Bush next to and supporting propeller 480 mm

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.sec<sup>2</sup>) 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  
compr. air.

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

enged with non-conducting material. --- Is the sea suction provided with an efficient strainer which can be cleared within the vessel ---  
to the engine --- Cooling Water Pumps, No. 1x164 litres per minute

Pumps worked from the Main Engines, No. 1x235 lit. per minute Diameter 120 mm. Stroke 64 mm. Can one be overhauled while the other is at work ---  
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  
gements. ---

Power Driven Lubricating Oil Pumps, including spare pump, No. and size None  
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 ---

olds, &c. --- Independent Power Pump Direct Suctions to the engine room bilges, No. and size ---

all the bilge suction pipes in holds and tunnel well fitted with strum-boxes. --- Are the bilge suction in the machinery spaces led from easily  
possible 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  
ciently 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.

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  
at pipes pass through the bunkers. --- How are they protected ---

at pipes pass through the deep tanks. --- Have they been tested as per Rule ---

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  
ces, or from one compartment to another. --- Is the shaft tunnel watertight --- Is it fitted with a watertight door --- worked from ---

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork. ---

in Air Compressors, No. --- No. of stages --- diameters --- stroke --- driven by ---

auxiliary Air Compressors, No. --- No. of stages --- diameters --- stroke --- driven by ---

all Auxiliary Air Compressors, No. --- No. of stages --- diameters --- stroke --- driven by ---

at provision is made for first charging the air receivers. ---

avenging Air Pumps, No. Crank case compression diameter --- stroke --- driven by ---  
auxiliary Engines crank shafts, diameter as per Rule --- No. --- Position ---  
as fitted --- Is a report sent herewith ---



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AIR RECEIVERS:—Have they been made under survey..... Yes..... State No. of ~~APPROVED~~ 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

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. *W. Leijonhufvud* 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.)

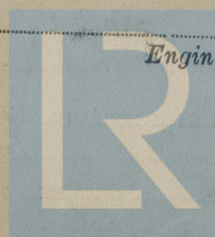
This machinery has been built under special survey in accordance with the Rules and approved plans. The workmanship and the materials used are good and test sheets in respect of the crank- and thrust shaft the air receivers are attached.

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 condition 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



Engineer Surveyor to Lloyd's Register of Ship

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