

REPORT ON OIL ENGINE MACHINERY.

No. 2747.

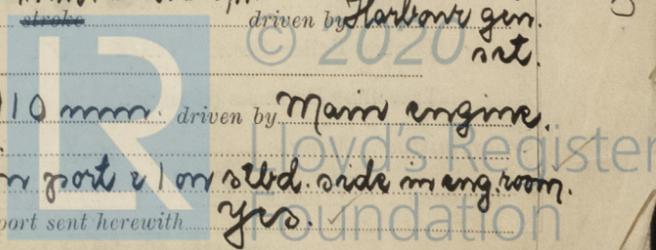
Received at London Office 1 OCT 1949

of writing Report 24th Oct. 49. When handed in at Local Office 28th Oct. 49. Port of Malmö
 in Survey held at Malmö. Date, First Survey 2nd March Last Survey 18th Oct. 1949
 Book Sample Number of Visits 90
 43 on the Single Screw vessel M/T "VENUS" Tons Gross 10606 Net 6205
 at Malmö By whom built Kockums Mekan. V. A. B. Yard No. 345 When built 1949
 engines made at Malmö By whom made Kockums Mekan. V. A. B. Engine No. 626 When made 1949
 key Boilers made at Bothenburg By whom made A. B. Lindholm's Varv Boiler No. 2865/6 When made 1949
 ke Horse Power 6000 Owners Rudolf A. B. Nordström Port belonging to Stockholm
 a. Horse Power as per Rule 1686 = MN Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 de for which vessel is intended ✓

ENGINES, &c. — Type of Engines MAN. D6 2 7 2/120 2 or 4 stroke cycle 2 Single or double acting Double
 mum pressure in cylinders 45 kg. cm² Diameter of cylinders 220 mm Length of stroke 120 mm No. of cylinders 6 No. of cranks 6
 Indicated Pressure 5.25 Flywheel dia. 2082 mm Weight 7700 kg Means of ignition Direct magnet Kind of fuel used Heavy oil
 of bearings, adjacent to the crank, measured from inner edge to inner edge 1110 mm Is there a bearing between each crank yes
 olutions per minute 110 Flywheel dia. 2082 mm Weight 7700 kg Means of ignition Direct magnet Kind of fuel used Heavy oil
 dia. of journals as app^r 500 mm Crank pin dia. 500 mm Crank webs Mid. length breadth 800 mm Thickness parallel to axis 320 mm
 ft. All built as fitted 500 as fitted 500 Mid. length thickness 320 " shrunk Thickness around eyehole 232.5
 wheel Shaft, diameter as app^r 500-414 mm Intermediate Shafts, diameter as app^r 394 mm Thrust Shaft, diameter at collars as app^r 414 mm
 e Shaft, diameter as per Rule Screw Shaft, diameter as app^r 458 mm Is the screw shaft fitted with a continuous liner yes
 ize Liners, thickness in way of bushes as app^r 23 mm Thickness between bushes as app^r 18 mm Is the after end of the liner made watertight in the
 ells boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓
 he 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-
 osive ✓ 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
 of tube shaft ✓ If so, state type ✓ Length of bearing in Stern Bush next to and supporting propeller 1845 mm
 peller, dia. 5460 mm Pitch 4315 mm No. of blades 4 Material Perovskite whether moveable no Total developed surface 9.81 sq. m
 od of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of
 igation Forced Thickness of cylinder liners 45 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled
 gged with non-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
 to the engine ✓ Cooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
 e Pumps worked from the Main Engines, No. none Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work yes
 aps connected to the Main Bilge Line { No. and size 2-1 of 150 m³/H. 1 of 70 m³/H. 1 of 180 m³/H. 1 of 30 m³/H.
 How driven 1 steam & 1 elec. driven. Steam driven. Steam driven.
 ve cooling water led to the bilges no, led overboard. If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
 ngements ✓
 ast Pumps, No. and size 1-150 m³/H. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2, each of 180 m³/H.
 two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both main bilge pumps and auxiliary
 pumps, No. and size: — In machinery spaces 4-90 mm. 2-90 mm. in aft cofferdam. In main pump room: 2-90 mm. In pump room fwd: 1-90 mm.
 olds, &c. 2-90 mm. in dry cargo hold. 2-90 mm. in forward cofferdam.
 ependent Power Pump Direct Suctions to the engine room bilges, No. and size 2-125 mm
 all the bilge suction pipes in holds and tunnel well fitted with strum-boxes yes Are the bilge suction in the machinery spaces led from easily
 ssible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes
 all Sea Connections fitted direct on the skin of the Ship yes Are they fitted with valves or cocks balls Are they fixed
 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
 they each fitted 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
 t pipes pass through the bunkers ✓ How are they protected ✓
 t pipes pass through the deep tanks Injection pipes from aft cofferdam Have they been tested as per Rule yes
 all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times yes
 e 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
 s, or from one compartment to another yes Is the shaft tunnel watertight no tunnel 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 ✓
 n Air Compressors, No. none No. of stages ✓ diameters ✓ stroke ✓ driven by ✓
 dinary Air Compressors, No. 2 No. of stages 2 diameters 300 & 110 mm stroke 220 mm driven by aux. oil eng.
 ll Auxiliary Air Compressors, No. 1 Williams & James No. B. 2058. Size: 4.1 m³ atm. air/H. driven by Flankton gen.
 at provision is made for first charging the air receivers Small compressors
 venging Air Pumps, No. 2 Jamdorn diameter 1650 mm stroke 910 mm driven by Main engine
 xiliary Engines crank shafts, diameter as app^r 170 mm No. 2 Position 1 on port & 1 on starb. side in eng. room.
 e the auxiliary engines been constructed under special survey yes Is a report sent herewith yes

21/11/49
JN

004206-004212-0136



AIR RECEIVERS:—Have they been made under survey *yes* State No. of report or certificate *Got. 10121*

Is each receiver, which can be isolated, fitted with a safety valve as per Rule *yes see aux report*

Can the internal surfaces of the receivers be examined and cleaned *yes* Is a drain fitted at the lowest part of each receiver *yes*

SPARE Injection Air Receivers, No. *1* Cubic capacity of each *200 lit.* Internal diameter *474 mm* thickness *13 mm*

Seamless, lap welded or riveted longitudinal joint *tbl. welded* Material *S.M. steel* Range of tensile strength *44.4-47.2 kg. mm²* Working pressure *41.9*

Starting Air Receivers, No. *2* Total cubic capacity *20.4 m³* Internal diameter *1650 mm* thickness *27 mm*

Seamless, lap welded or riveted longitudinal joint *Riveted* Material *S.M. steel* Range of tensile strength *46.5-50.6 kg. mm²* Working pressure *30.1*

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 *11.3.1948* Receivers *19.11.1948* Separate fuel tanks *14.7.1949*

Donkey boilers *See Got. Rpt. 16835* General pumping arrangements *29.9.1949* Pumping arrangements in machinery space *14.7.1949*

Oil fuel burning arrangements *15.12.1947*

SPARE GEAR.

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

State the principal additional spare gear supplied *1 propeller shaft, 1 bronze propeller.*

The foregoing is a correct description,

KOCKUMS Manufacturer.

Dates of Survey while building: During progress of work in shops - - *from 2nd March to 23rd September, 1949.*

During erection on board vessel - - *" 27th July to 18th October, 1949.*

Total No. of visits *90.*

Dates of examination of principal parts: Cylinders *(7 visits) 17/3-24/5.1949.* Covers *(5 visits) 23/5-21/6.1949.* Pistons *31/5.1949.* Rods *29/9-4/11.48.* Connecting rods *12/11.1949.*

Crank shaft *13/8.1949.* Flywheel shaft *30/4.1949.* Thrust shaft *21/7.1949.* Intermediate shafts *21/7.1949.* Tube shaft *12/11.1949.*

Screw shaft *4/11.1948.* Propeller *11/10.1949.* Stern tube *2/6.1949.* Engine seatings *29/6.1949.* Engine holding down bolts *10/9.1949.*

Completion of fitting sea connections *29-6/10.1949.* Completion of pumping arrangements *6/10.1949.* Engines tried under working conditions *18/10.1949.*

Crank shaft, material *S.M. steel* Identification mark *LLOYD'S 1426-7-8.* Flywheel shaft, material *S.M. steel* Identification mark *LLOYD'S 2365.*

Thrust shaft, material *S.M. steel* Identification mark *LLOYD'S 3299 AB 21.7.49.* Intermediate shafts, material *S.M. steel* Identification mark *LLOYD'S 3082.*

Tube shaft, material *S.M. steel* Identification mark *LLOYD'S 699 BR 4.11.48.* Screw shaft, material *S.M. steel* Identification mark *LLOYD'S 200.*

Identification marks on air receivers *No. 1974 & 1975. Lloyd's Test 44 legs. W.P. 30 legs. S.B. 3.12.48.*

SMALL RECEIVER 1984. O.S. 29-12-48 - (E.W.)

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*

Description of fire extinguishing apparatus fitted *Steam & 5 "Special Steam Engines" app. of 15 liter. each.*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *Oil Tanker* If so, have the requirements of the Rules been complied with *yes*

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with *yes*

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *"BEAUFIGHTER", Rpt. No. 264*

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

The main and auxiliary oil engines, auxiliary air compressors, pumps, etc. of this vessel have been built under special survey in accordance with the Rules and approved plans.

The material fulfil the Rules requirements and the workmanship is good.

The shafting as per forging reports enclosed.

*The machinery of this vessel is eligible, in my opinion, to be classed in the Register Book of this Society with record of **LMC 10.49.***

Working pressure of donkey boilers 180 lbs./sq. Safety Valves adjusted 170 lbs./sq.

Torsional Vibrational Characteristics approved for service speed of 110 RPM strengthened for navigation in ice.

The amount of Entry Fee ... £ *✓* : *✓* : *✓*

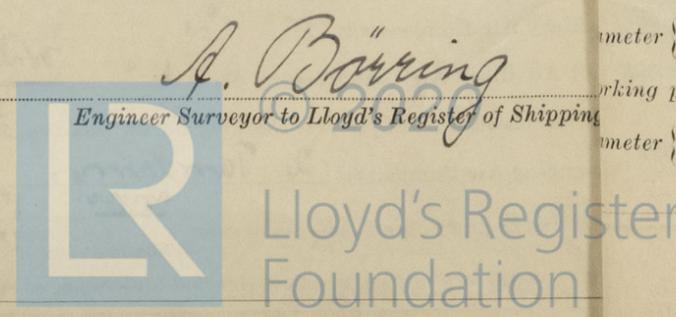
Special ... *Rs. 6190.-* When applied for *28.10.1949.*

Donkey Boiler Fee... £ *✓* : *✓* : *✓* When received *19.*

Travelling Expenses (if any) £ *✓* : *✓* : *✓*

Committee's Minute *FRI. 25 NOV 1949*

Assigned *T LMC 10.49/Oil Eng. S.B. 180 lbs. C.L.*



Certificate (if required) to be sent to Surveyors' Office, Mahara

The Surveyors are requested not to write on or below the space for Committee's Minute.