

REPORT ON OIL ENGINE MACHINERY.

No. 108237

of writing Report 12/3 1951 When handed in at Local Office 27 MAR 1951 19 Port of NEWCASTLE-ON-TYNE Received at London Office 28 MAR 1951

Survey held at BLYTH Date, First Survey 11th July 1949 Last Survey 5th March 1951

Book. Single Screw vessel ROSA MAERSK Tons Gross 8191.83
on the Tonn Net 4827.1
Triple
Quadruple

at BLYTH By whom built BLYTH D.D & S.B. CO. LD. Yard No. 343 When built 1951

nes made at COPENHAGEN By whom made A/S BURMEISTER & WAIN Engine No. 4359 When made 1949

ey Boilers made at WALLSEND-ON-TYNE By whom made NORTH EASTERN MARINE ENG. CO. (1938) LD. Boiler No. 3173 When made 1950

e Horse Power 3900 Owners DAMPSKIBS SELSKABET OF 1912 P A/S Port belonging to FREDERICIA

ower as per Rule 802 NHP = 738 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

or which vessel is intended CARRYING PETROLEUM IN BULK

GINES, &c. —Type of Engines 2 or 4 stroke cycle Single or double acting Single

in pressure in cylinders 150 Diameter of cylinders 18 Length of stroke 12 No. of cylinders 6 No. of cranks 2

ndicated Pressure 150 Ahead Firing Order in Cylinders 1-2-4-3-5-6 Span of bearings, adjacent to the crank, measured 18

ner edge to inner edge 18 Is there a bearing between each crank NO Revolutions per minute 1200

el dia. 18 Weight 1200 Moment of inertia of flywheel (lbs. in² or Kg.cm.²) 1200 Means of ignition Spark Kind of fuel used Oil

Solid forged dia. of journals 18 as per Rule 18 Crank pin dia. 18 Crank webs 18 Mid. length breadth 18 Kind of fuel used Oil

Semi built dia. of journals 18 as fitted 18 Crank webs 18 Mid. length breadth 18 Kind of fuel used Oil

All built dia. of journals 18 as fitted 18 Crank webs 18 Mid. length breadth 18 Kind of fuel used Oil

el Shaft, diameter 18 as per Rule 18 Intermediate Shafts, diameter 18 as per Rule 18 Thrust Shaft, diameter at collars 18 as fitted 18

haft, diameter 18 as per Rule 18 Screw Shaft, diameter 18 as per Rule 18 Is the tube shaft fitted with a continuous liner NO

Liners, thickness in way of bushes 18 as per Rule 18 Thickness between bushes 18 as per Rule 18 Is the after end of the liner made watertight in the NO

r boss NO If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner NO

iner 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- NO

e. NO If two liners are fitted, is the shaft lapped or protected between the liners NO Is an approved Oil Gland or other appliances fitted at the after NO

be shaft NO If so, state type NO Length of bearing in Stern Bush next to and supporting propeller 18

er, dia. 18 Pitch 18 No. of blades 3 Material Steel whether moveable NO Total developed surface 18 sq. feet 18

of inertia of propeller (lbs. in² or Kg.cm.²) 18 Kind of damper, if fitted NO

of reversing Engines NO Is a governor or other arrangement fitted to prevent racing of the engine when declutched NO Means of NO

on NO Thickness of cylinder liners 18 Are the cylinders fitted with safety valves NO Are the exhaust pipes and silencers water cooled NO

l with non-conducting material NO If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned NO

he engine NO Cooling Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel NO

mps worked from the Main Engines, No. 1 Diameter 18 Stroke 12 Can one be overhauled while the other is at work NO

onnected to the Main Bilge Line (No. and size ONE - 3" P X S ONE - 150 TON/HR. ONE - 20 TON/HR. Can one be overhauled while the other is at work NO

How driven STEAM STEAM MAIN ENGINE

ling 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 NO

ents NO

umps, No. and size ONE - 150 TON/HR. Power Driven Lubricating Oil Pumps, including spare pump, No. and size ONE - 170 TON/HR. ONE - 150 TON/HR.

ndependent means arranged for circulating water through the Oil Cooler YES Suctions, connected to both main bilge pumps and auxiliary AMIOSHIPS

ps, No. and size:—In machinery spaces ONE - 3" P X S ONE - 3" AFT TWO - 2 1/2" WELL SUCT. In pump room ONE - 8" ONE - 6"

&c. FORWARD HOLD 2-3" ONE - 3"

ent Power Pump Direct Suctions to the engine room bilges, No. and size TWO - 5" ONE P & ONE AFT

el bilge suction pipes in holds and tunnel well fitted with strum-boxes YES Are the bilge suction in the machinery spaces led from easily YES

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

a Connections fitted direct on the skin of the Ship ON BOXES & ON SKIN OF SHIP Are they fitted with valves or cocks VALVES & COCKS Are they fixed YES

igh 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

ch 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

s pass through the bunkers YES How are they protected YES

s pass through the deep tanks YES Have they been tested as per Rule YES

es, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times YES

agement 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 YES

from one compartment to another YES Is the shaft tunnel watertight YES Is it fitted with a watertight door YES worked from YES

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

Compressors, No. TWO No. of stages TWO diameters 8 1/4 & 3 1/2 stroke 7" driven by STEAM ENGINE

Air Compressors, No. 1 No. of stages 1 diameters 18 stroke 12 driven by STEAM ENGINE

uxiliary Air Compressors, No. 1 No. of stages 1 diameters 18 stroke 12 driven by STEAM ENGINE

vision is made for first charging the air receivers STEAM ENGINE DRIVEN COMPRESSORS

ng Air Pumps, No. 1 diameter 18 stroke 12 driven by STEAM ENGINE

ary Engines crank shafts, diameter 18 as per Rule 18 No. 2 Position PORT SIDE ENGINE ROOM

he auxiliary engines been constructed under special survey YES Is a report sent herewith YES

AIR RECEIVERS:—Have they been made under survey... **YES** ✓ State No. of report or certificate **475**
 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, welded or riveted longitudinal joint... ✓ Material... ✓ Range of tensile strength... ✓ Working pressure... Actual...
Starting Air Receivers, No. Total cubic capacity... **SEE COPENHAGEN REPORT NO 12900** Internal diameter... thickness...
 Seamless, welded or riveted longitudinal joint... Material... Range of tensile strength... Working pressure... Actual...
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... Receivers... Separate fuel tanks...
 (If not, state date of approval)
 Donkey boilers... General pumping arrangements... **YES** Pumping arrangements in machinery space... **YES**
 Oil fuel burning arrangements... **YES**
 Have Torsional Vibration characteristics been approved... **NO** Date of approval... ✓

SPARE GEAR.
 Has the spare gear required by the Rules been supplied... **YES** ✓
 State the principal additional spare gear supplied...
ONE CYLINDER COVER COMPLETE WITH VALVES
SEVEN FUEL VALVES
ONE PISTON COMPLETE WITH RINGS
ONE SET OF PISTON RINGS FOR ONE PISTON
ONE COMPLETE CYLINDER LINER
TWO CROSSHEAD BEARING BOLTS & NUTS
 The foregoing is a correct description, Manufacturer...

Dates of Survey while building
 During progress of work in shops... (1949) July 11. (1950) March 28 April 3. 4. Sept 6. Dec. 12. 22. 24. (1951) Jan. 3. 4. 10. 11. 14. 18. 19
 During erection on board vessel... Feb. 20. 22. 24. Mar 2. 5.
 Total No. of visits... 20

Dates of examination of principal parts—Cylinders... Covers... **SEE COPENHAGEN REPORT NO 12900** Pistons... Rods... Connecting rods...
 Crank shaft... Flywheel shaft... Thrust shaft... Intermediate shafts... Tube shaft...
 Screw shaft... 6/9/50 Propeller... 6/9/50 Stern tube... 6/9/50 Engine seatings... 27/12/50 Engine holding down bolts... 27/12/50
 Completion of fitting sea connections... 6/9/50 Completion of pumping arrangements... 2/3/51 Engines tried under working conditions... 6/3/51
 Crank shaft, material... Identification mark... Flywheel shaft, material... Identification mark...
 Thrust shaft, material... Identification mark... **SEE COPENHAGEN REPORT NO 12900** Identification marks...
 Tube shaft, material... Identification mark... Screw shaft, material... Identification mark...
 Identification marks on air receivers...

Welded receivers, state Makers' Name...
 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 SMOTHERING & ELLEHAMMER FOAM**
 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... **NO** If so, state name of vessel... ✓

General Remarks (State quality of workmanship, opinions as to class, &c.) *The main engine & aux. machinery have been satisfactorily fitted on board this vessel in accordance with the approved plans of the workmanship. The machinery has been tried under working conditions on a sea trial & found satisfactory. A notice book has been fitted above the controls stating that the main engine is not to be operated continuously between 54 & 65 RPM. The safety valves of the aux. boilers have been adjusted under steam to 180 lb/sq. in.*

PORT BOILER **STARBOARD BOILER** **EXHAUST GAS BOILER.**
 F. 406" A. 357" F. 256" A. 243" F. 3 3/8" A. 29 1/4"
 The machinery of this vessel is eligible in my opinion to have notation:—
 +LMC 3.51, 2DB WP. 180LB. TS(CL) EXH. GAS BUR. 180LB.
 Subject to tonnage records now taken, being approved by the Committee

The amount of Entry Fee ... £ :
 Special ... £ 78 : 9 : When applied for **27 MAR 1951**
 Donkey Boiler Fee... £ : : When received... 19
 Travelling Expenses (if any) £ :
FRI. 4 MAY 1951
 Assigned **+LMC 3.51 Oil Eng. (with endorsement)**
C.L. 2DB 180 lb

Thomas J. Potts
 Engineer Surveyor to Lloyd's Register of Shipping

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



REIVED 46.1949 D.O. by Rules... Actual... Survey Book... on the T... Quadr... at... es made at... ey Boilers m... Horse Power... Horse Power... for which ve... ENGINES... num pressure... Indicated Pro... of bearings... ations per mi... Solid forg... Semi built... All built... heel Shaft, di... Shaft, diam... ze Liners, thi... uler boss... e liner does n... sive... I... tube shaft... 5... dia... od of reversi... ration... forced... igned with non... to the engine... Pumps worke... ps connected to... cooling water... gements... st Pumps, No... wo independen... pumps, No. an... lds, &c... pendent Powe... ll the bilge suc... ible mud-boxe... Sea Connect... ently high on... ey each fitted... pipes pass th... pipes pass th... ll pipes, cocks, arrangement... or from one... ood vessel, wh... Air Compress... ary Air Com... Auxiliary Ai... provision is m... 310... nging Air P... iary Engines c... The auxiliary e...