

REPORT ON OIL ENGINE MACHINERY.

No. 1306 { 944011
K: 16926 }

Received at London Office

Date of writing Report 12/9/48 19 48 When handed in at Local Office 18.11. 19 48 Port of LEGHORN
 Date, First Survey 12/5/48 Last Survey 15/8/48 19 48
 Number of Visits 18
 Survey held at LEGHORN
 Date, First Survey 12/5/48 Last Survey 15/8/48 19 48
 Number of Visits 18
 on the Single Triple Quadruple Screw vessel TRAWLER " SANTA MAFALDA " Tons Gross 1272 Net 700
 Built at LEGHORN By whom built ODERO-TERNI-ORLANDO Yard No. 221 When built 1948
 Engines made at AMSTERDAM By whom made N.V. WERKSPoor Engine No. 480 When made 1948
 Smokestacks made at ANNAN By whom made COCHRAN & CO LTD ANNAN Boiler No. 14948 When made 1948
 Brake Horse Power 1100 Owners EMPRESA DE PESCA DE AVEIRO Port belonging to AVEIRO
 N. Power as per Rule 198 NHP=182 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted YES
 Trade for which vessel is intended FISHING

MAIN ENGINES, &c.—Type of Engines T.M.A.S. 398-SOLIS INJECTION 2 or 4 stroke cycle 4 Single or double acting SINGLE
 Maximum pressure in cylinders 48 Kg/cm² Diameter of cylinders 390 mm Length of stroke 680 mm No. of cylinders 8 No. of cranks 8
 Mean Indicated Pressure 6.8 Kg/cm² Ahead Firing Order in Cylinders ✓ Span of bearings, adjacent to the crank, measured
 from inner edge to inner edge 496 mm Is there a bearing between each crank YES Revolutions per minute 295
 Flywheel dia. 1500 mm Weight 1240 Kg Moment of inertia of flywheel (16lbs. in² or Kg.cm²) ✓ Means of ignition COMPRESSION Kind of fuel used DIESEL OIL
 Crankshaft, Solid forged ✓ dia. of journals as per Rule as approved Crank pin dia. 300 mm Crank webs Mid. length breadth 500 mm Thickness parallel to axis ✓
 All built ✓ as fitted 310 mm Mid. length thickness 125 mm Thickness around eyehole ✓
 Flywheel Shaft, diameter as per Rule ✓ as fitted ✓ Intermediate Shafts, diameter as per Rule as approved as fitted 329 mm Thrust Shaft, diameter at collars as fitted 280 mm
 Main Shaft, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule as approved as fitted 280 mm Is the tube shaft fitted with a continuous liner YES
 Bronze Liners, thickness in way of bushes as per Rule as approved as fitted 14.5 mm Thickness between bushes as per Rule as approved as fitted 15.5 mm Is the after end of the liner made watertight in the
 propeller boss YES If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ONE LENGTH
 If the 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-
 corrosive ✓ 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
 end of tube shaft No If so, state type ✓ Length of bearing in Stern Bush next to and supporting propeller 1050 mm
 Propeller, dia. 2440 mm Pitch 1452 No. of blades 4 Material BRONZE whether moveable SOLIS Total developed surface 2.38 sq. m.
 Moment of inertia of propeller (16lbs. in² or Kg.cm²) ✓ Kind of damper, if fitted ✓
 Method of reversing Engines DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when decelerated GOVERNOR Means of
 lubrication FORCES Thickness of cylinder liners 30 mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled
 lagged with non-conducting material LAGGED If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
 back to the engine ✓ Cooling Water Pumps, No. TWO Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES
 Bilge Pumps worked from the Main Engines, No. ONE ROTARY PUMP: 40 T/h. Can one be overhauled while the other is at work ✓
 Pumps connected to the Main Bilge Line No. and size ONE: 60 Tons/h - ONE: 30 Tons/h How driven ELECTRIC MOTOR
 Is the cooling 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
 arrangements ✓
 Main Pumps, No. and size ONE: 60 Tons/h Power Driven Lubricating Oil Pumps, including spare pump, No. and size ONE: 40 Tons/h
 Are two independent means arranged for circulating water through the Oil Cooler YES Suctions, connected to both main bilge pumps and auxiliary
 bilge pumps, No. and size:—In machinery spaces ONE: 75 mm - ONE: 85 mm - ONE: 66 mm In pump room ✓
 Holds, &c. ONE: 66 mm IN EACH HOLD.
 Independent Power Pump Direct Suctions to the engine room bilges, No. and size ONE: 75 mm - ONE: 85 mm
 Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes YES 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 YES
 Are all Sea Connections fitted direct on the skin of the Ship YES Are they fitted with valves or cocks VALVES Are they fixed
 sufficiently 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
 Are 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
 Do all pipes pass through the bunks ✓ How are they protected ✓
 Do all pipes pass through the deep tanks ✓ 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 YES
 Is 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 YES Is the shaft tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓
 If the vessel is 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. ONE No. of stages TWO diameters 150/100 mm stroke 100 mm driven by MAIN ENGINE
 Auxiliary Air Compressors, No. ONE No. of stages TWO diameters 185/80 mm stroke 150 mm driven by PORT AUX. ENG.
 All Auxiliary Air Compressors, No. ONE No. of stages TWO diameters 100/45 mm stroke 45 mm driven by CENT. AUX. ENG.
 Is provision made for first charging the air receivers MANUAL COMPRESSOR
 Charging Air Pumps, No. ✓ diameter ✓ stroke ✓ driven by ✓
 Auxiliary Engines crank shafts, diameter as per Rule ✓ No. THREE Position AT THE FORWARD END OF E.R.
 Have the auxiliary engines been constructed under special survey YES Is a report sent herewith YES

51/49

5800-608400-661400

Lloyd's Register
Foundation

AIR RECEIVERS:—Have they been made under survey... YES State No. of report or certificate C 2518 OF AMSTERDAM
dated 7-6-48.

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... YES Cubic capacity of each... YES Internal diameter... YES thickness... YES
Seamless, welded or riveted longitudinal joint... YES Material... YES Range of tensile strength... YES Working pressure... YES

Starting Air Receivers, No... TWO Total cubic capacity... 5000 LIT. Internal diameter... 768 mm thickness... 16 mm
Seamless, welded or riveted longitudinal joint... FUSION WELDED CLASS 7 Material... STEEL Range of tensile strength... YES Working pressure... 30 kg

IS A DONKEY BOILER FITTED... YES If so, is a report now forwarded... SEE GLASGOW REP. N° 72645
Is the donkey boiler intended to be used for domestic purposes only... YES

PLANS. Are approved plans forwarded herewith for shafting... YES Receivers... PLAN N° 87174
(If not, state date of approval) 11/10/46 Separate fuel tanks... APPROVED IN GENOA

Donkey boilers... YES General pumping arrangements... 12/2/48 Pumping arrangements in machinery space... 12/2/48
Oil fuel burning arrangements... YES

Have Torsional Vibration characteristics been approved... YES Date of approval... SEE LONDON LETTER 'E' 8/11/46

SPARE GEAR.
Has the spare gear required by the Rules been supplied... YES
State the principal additional spare gear supplied... YES

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

Manufacturer... SEE AMSTERDAM REP. N° 16542.

Dates of Survey while building... FROM 19/5/48 TO 15/8/48
During progress of work in shops... SEE AMSTERDAM REP. N° 16542.
During erection on board vessel... 18

Total No. of visits... 18
Dates of examination of principal parts—Cylinders... YES Covers... YES Pistons... YES Rods... YES Connecting rods... YES

Crank shaft... YES Flywheel shaft... YES Thrust shaft... 12/5/48 Intermediate shafts... 12/5/48 Tube shaft... YES
Screw shaft... 12/5/48 Propeller... 24/5/48 Stern tube... 3/4/48 Engine seatings... 12/5/48 Engine holding down bolts... 4/6/48

Completion of fitting sea connections... 10/5/48 Completion of pumping arrangements... 3/7/48 Engines tried under working conditions... 5/8/48

Crank shaft, material... STEEL Identification mark... LLOYD'S 54609 Flywheel shaft, material... YES Identification mark... LLOYD'S 5874
Thrust shaft, material... STEEL Identification mark... LLOYD'S 5528 Intermediate shafts, material... STEEL Identification marks... K.K. 16-3

Tube shaft, material... YES Identification mark... LLOYD'S 5874 Screw shaft, material... STEEL Identification mark... K.K. 16-3-4

Identification marks on air receivers... 6189-6190
LLOYD'S TEST
48.5 kg/cm²
W.P. 30 kg/cm²
K.K. 3-6-48
AMSTERDAM.

Welded receivers, state Makers' Name... N.V. WERFSPOOR-AMSTERDAM.

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... 1 FOAM EXTING. 136 lit. - 4 FOAM EXTING. 9 lit. - CO₂ CONTAINER 5KG. - STEAM HOSE CONNECTIONS.

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo... NO 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... NO If so, state name of vessel... YES

General Remarks (State quality of workmanship, opinions as to class, &c.)... THE MAIN ENGINE AND SHAFTING, WHICH HAVE BEEN

CONSTRUCTED UNDER SPECIAL SURVEY OF THE AMSTERDAM SURVEYORS (SEE AMSTERDAM REPORT N° 16542) HAVE BEEN SATISFACTORILY FITTED ON BOARD. THE MACHINERY HAS BEEN SURVEYED DURING FITTING OUT AND IS IN ACCORD WITH THE APPROVED PLANS, SECRETARY'S LETTERS AND RULE REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE GOOD. ON COMPLETION THE MACHINERY HAS BEEN TRIED UNDER WORKING CONDITION AT SEA AT FULL POWER AND FOUND SATISFACTORY. THE COMPOSITE COCHRAN DONKEY BOILER N° 19948 (SEE GLASGOW REPORT N° 72645) HAS NOW BEEN SATISFACTORILY FIXED ON BOARD, EXAMINED UNDER STEAM AND ITS SAFETY VALVES ADJUSTED TO 105 lbs/sq. in.

THE MACHINERY OF THIS VESSEL IS ELIGIBLE, IN OUR OPINION, TO BE CLASSED IN THE SOCIETY REGISTER BOOK WITH THE NOTATION: +L.M.C. 8-48, C.L. 8-48, "OIL ENGINE".

When applied for... 18.11.1948
PAYABLE IN LEHMAN
When received... 19

Committee's Minute... 7 JAN 1949

Assigned... 7 JAN 1949

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