

REPORT ON OIL ENGINE MACHINERY.

No. 565

Received at London Office

Survey Report 7th March 1952 When handed in at Local Office 7th March 1952 Port of KIEL
 Survey held at Kiel Date, First Survey 16th October Last Survey 15th December 1951
 Number of Visits 20
 Single Double Screw vessel "PAMIR" Tons Gross 2796 Net 2522
 On the Tide Quadruple Hamburg By whom built Blohm & Voss Yard No. --- When built 1905
 Made at Kiel By whom made Krupp-Germaniawerft Engine No. 6594 When made 1943
 Boilers made at --- By whom made --- Boiler No. --- When made ---
 Power 900 Owners Reedererei Schlieffen, Lübeck Port belonging to Lübeck
 As per Rule 180 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Which vessel is intended ---

GINES, &c. — Type of Engines Heavy oil engine, Krupp F 4 6a- 2 or 4 stroke cycle 4 Single or double acting S.A.
 pressure in cylinders 50 kg/cm² Diameter of cylinders 153/4 6pu Length of stroke 18 1/8 No. of cylinders 6 No. of cranks 6
 Indicated Pressure 7.9 kg/cm² Ahead Firing Order in Cylinders 1-2-3-6-5-4 Span of bearings, adjacent to the crank, measured
 edge to inner edge 412 mm Is there a bearing between each crank yes Revolutions per minute 350
 dia. 1310 mm Weight 1780 kg Moment of inertia of flywheel (lbs.in² or Kg.cm²) 1650 Means of ignition Comp. Kind of fuel used Diesel
 Solid forged as per Rule dia. of journals as fitted 250 Crank pin dia. 245 mm Crank webs Mid. length breadth 360 mm Mid. length thickness 100 mm central hole dia. 160 mm
 Shaft, diameter as per Rule --- Intermediate Shafts, diameter as per Rule --- Thrust Shaft, diameter at collars as fitted 220 mm
 t, diameter as per Rule --- Screw Shaft, diameter as fitted 208 mm Is the tube shaft fitted with a continuous liner yes
 ners, thickness in way of bushes as per Rule --- Thickness between bushes as fitted 16 mm Is the after end of the liner made watertight in the
 loss no If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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-
 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
 shaft no If so, state type --- Length of bearing in Stern Bush next to and supporting propeller 1020 mm
 dia. 2150 mm Pitch 1.33 mm No. of blades 2 Material bronze whether moveable no Total developed surface 0.725 m² sq. feet
 inertia of propeller (lbs.in² or Kg.cm²) 250 kg/m² Kind of damper, if fitted ---
 reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when devaluated yes Means of
 forced Thickness of cylinder liners 26 mm Are the cylinders fitted with safety valves yes Is the exhaust manifold water cooled
 with non-conducting material yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
 engine --- Cooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
 ps worked from the Main Engines, No. none Diameter --- Stroke --- Can one be overhauled while the other is at work ---
 nected to the Main Bilge Line { No. and size 2, 1 bilge pump 30 m³/hr., 1 ballast pump 90 m³/hr. (self-priming)
 How driven E-motors
 ng 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
 its ---
 ps, No. and size 1 of 90 m³/hr. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 L.O. stand-by pump
 dependent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both main bilge pumps and auxiliary
 s, No. and size:—In machinery spaces one 100 mm suction one 60 mm suction In pump room ---
 Nos. 1 & 4 hold each one 70 mm suction Nos. 2 & 3 holds each one 80 mm suction
 at Power Pump Direct Suctions to the engine room bilges, No. and size One direct 100 mm suction and one 125 mm emergency
 bilge suction pipes in holds and tunnel well fitted with strum-boxes yes Are the bilge suction in the machinery spaces led from easily
 and-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes
 Connections fitted direct on the skin of the Ship yes Are they fitted with valves or cocks valves and one cock Are they fixed
 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
 h fitted with a discharge valve always accessible on the plating of the vessel yes Is the blow off cock fitted with a spigot and brass covering plate yes
 pass through the bunkers none How are they protected ---
 pass through the deep tanks 2 bilge suction pipes Have they been tested as per Rule yes
 cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times yes
 cement 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
 from one compartment to another yes Is the shaft tunnel watertight --- Is it fitted with a watertight door --- worked from ---
 el, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
 compressors, No. --- No. of stages --- diameters --- stroke --- driven by ---
 Air Compressors, No. 2 No. of stages 2 diameters 110/100 stroke 110 driven by E-motor
 Air Compressors, No. --- No. of stages --- diameters --- stroke --- driven by ---
 is made for first charging the air receivers one 15 KW heavy oil generator set (hand starting)
 Air Pumps, No. --- diameter --- stroke --- driven by ---
 engines crank shafts, diameter as per Rule --- No. 3
 as fitted 85 mm Position stbd. fwd. and aft. top
 liary engines been constructed under special survey no-Germanischer Lloyd Is a report sent herewith yes

AIR RECEIVERS:—Have they been made under survey. Germanischer Lloyd State No. of report or certificate. ---
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, welded or riveted longitudinal joint --- Material --- Range of tensile strength --- Working pressure ---
Starting Air Receivers, No. 7 Total cubic capacity 1 of 0.1 m³ Internal diameter 420 + 318 mm thickness 16 mm
Seamless, welded or riveted longitudinal joint seamless Material S.M. steel Range of tensile strength 60.5 kg/mm² Working pressure ---
IS A DONKEY BOILER FITTED yes If so, is a report now forwarded no, W.P. 3.0 atm. H = 5 atm.
Is the donkey boiler intended to be used for domestic purposes only yes
PLANS. Are approved plans forwarded herewith for shafting 6.12.51 Receivers --- Separate fuel ---
(If not, state date of approval)
Donkey boilers --- General pumping arrangements 5.11.51 Pumping arrangements in machinery space 30.11.51
Oil fuel burning arrangements ---
Have Torsional Vibration characteristics been approved yes Date of approval 10.12.51

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes

State the principal additional spare gear supplied ---

Howaldtswerke Aktiengesellschaft
WERK KIEL

The foregoing is a correct description,

Manufacturer.

18.3.1952

Dates of Survey while building
During progress of work in shops ---
During erection on board vessel 16., 20., 21., 22., 24., 25.10.51; 6., 9., 14., 16., 20., 23., 30.11.51;
Total No. of visits 20
Dates of examination of principal parts—Cylinders --- Covers --- Pistons --- Rods --- Connecting rods ---
Crank shaft --- Flywheel shaft --- Thrust shaft --- Intermediate shafts --- Tube shaft ---
Screw shaft --- Propeller --- Stern tube 20.10.51 Engine seatings 6.11.51 Engine holding down bolts ---
Completion of fitting sea connections 9.11.51 Completion of pumping arrangements 4.12.51 Engines tried under working conditions and at sea
Crank shaft, material S.M. steel Identification mark CH 1239, PR818 Flywheel shaft, material --- Identification mark ---
Thrust shaft, material S.M. steel Identification mark GL 10 51 Intermediate shafts, material S.M. steel Identification marks ---
Tube shaft, material --- Identification mark --- Screw shaft, material S.M. Steel Identification mark CH 5
Identification marks on air receivers 21422 H, Nos. 10001, 10003, 10004, 10005, 10006, 10007; 11 51, CL PD 6
Velded receivers, state Makers' Name Makers' of 6 receivers not known. Makers of 1 aux. air receiver: Rheinisch Röhrenwerke A.G., Dinslaken.
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 4 fire extinguishers, 2 foam fire extinguishers and fire main line
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 ---
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, Speed restrictions, &c.)

This engine (second hand) has been re-conditioned and hydraulically tested under the survey of German Lloyd and plans and torsional vibrations have been approved by Lloyd's Register of Shipping. Brinell of crankshaft showed satisfactory results. The engine has now been opened out and examined internally. Cylinder covers tested hydraulically with satisfactory results. The workmanship and the materials are satisfactory. The engine has been satisfactorily installed on board the vessel and subsequently examined under working conditions and found in good order. This engine is eligible, in my opinion, to be classed with the LMC 12,51 without the distinguishing mark * and the notation "N.E. re-fitted 1951 (Aux.)".

The amount of Entry Fee ... £ : :

Special ... £ : :

Donkey Boiler Fee... £ : :

Travelling Expenses (if any) £ : :

When applied for 19

When received 19

Committee's Minute

Assigned

TUES. 1 JUL 1952

Engineer Surveyor to Lloyd's Register of



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