

REPORT ON OIL ENGINE MACHINERY.

No. 609

Received at London Office

4 JUL 1952

Date of writing Report 10th June 1952 When handed in at Local Office 10th June 1952 Port of K I E L

No. in Survey held at Reg. Book. 22328 on the Twin Screw vessel "JALNA" ex "PEIK" Date, First Survey 26th March Last Survey 18th May 1952 Number of Visits 2

Built at Newcastle By whom built Armstrong Whitworth & Co., Shipbld. Ltd. Yard No. - When built -
 Engines made at Hamburg By whom made Howaldtswerke A.G. Engine No. 47 When made 1952
 Donkey Boilers made at - By whom made - Boiler No. - When made -
 Brake Horse Power max 3000 Owners Bulls Tankrederi A/S Port belonging to Sandfjord
 M.N. Power as per Rule 600 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes
 Trade for which vessel is intended Ocean going

OIL ENGINES, &c. — Type of Engines 2 or 4 stroke cycle Single or double acting
 Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks
 Mean Indicated Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured from inner edge to inner edge Is there a bearing between each crank Revolutions per minute
 Flywheel dia. Weight Moment of inertia of flywheel (lbs. in² or Kg. cm.²) Means of ignition Kind of fuel used
Crank Shaft, Solid forged dia. of journals as per Rule Crank pin dia. Crank webs Mid. length breadth shrunk Thickness parallel to axis
 Semi built dia. of journals as fitted Crank webs Mid. length thickness Thickness around eyehole
 All built as per Rule Intermediate Shafts, diameter as fitted 500 Thrust Shaft, diameter at collars as fitted
 Flywheel Shaft, diameter as fitted Tube Shaft, diameter as fitted Screw Shaft, diameter as fitted 460 Is the shaft fitted with a continuous liner yes
Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted 22.5 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
 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 1640 mm
Propeller, dia. 14.9" Pitch 12.0" No. of blades 4 Material bronze whether moveable Total developed surface 88 sq. feet
 Moment of inertia of propeller (lbs. in² or Kg. cm.²) Kind of damper, if fitted
Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forced Thickness of cylinder liners Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or 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. 4 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. Diameter Stroke Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line No. and size as built How driven
 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
Ballast Pumps, No. and size existing Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2, 30 m³/h each
 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 In pump room
 In holds, &c.
Independent Power Pump Direct Suctions to the engine room bilges, No. and size
 Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes 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
 Are all Sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed sufficiently 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
 Are 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
 What pipes pass through the bunkers How are they protected
 What 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
 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 Is the shaft tunnel watertight Is it fitted with a watertight door worked from
 If 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. 1 existing and No. of stages 2 diameters 2 x 200/175 stroke 120 mm driven by E-motor
Auxiliary Air Compressors, No. 1 new compr. No. of stages 2 diameters 2 x 200/175 stroke 120 mm driven by E-motor
Small Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
 What provision is made for first charging the air receivers 1 existing steam driven air compressor
Scavenging Air Pumps, No. 1 air pump diameter stroke driven by main engine
Auxiliary Engines crank shafts, diameter as per Rule 135 mm No. 2 Position 1 at port side & 1 at starbd. side
 Have the auxiliary engines been constructed under special survey yes Is a report sent herewith yes, No. 609, Rpt. 4c

AIR RECEIVERS:—Have they been made under survey.....no.....State No. of report or certificate.....Germ. Lloyd cert. Nos. 75075D & 75077 D
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.....-
Starting Air Receivers, No.....2, existing & 2 new ones.....Total cubic capacity.....2 new of 0.1 m³ each.....Internal diameter.....300 mm.....thickness.....10.5 mm
Seamless, welded or riveted longitudinal joint.....seamless.....Material.....SM-Steel.....Range of tensile strength.....-.....Working pressure.....-
IS A DONKEY BOILER FITTED.....yes.....If so, is a report now forwarded.....as built
Is the donkey boiler intended to be used for domestic purposes only.....no
PLANS. Are approved plans forwarded herewith for shafting.....yes.....Receivers.....-.....Separate fuel tanks.....-
Donkey boilers.....-.....General pumping arrangements.....-.....Pumping arrangements in machinery space.....-
Oil fuel burning arrangements.....-
Have Torsional Vibration characteristics been approved.....yes.....Date of approval.....19.10.51.

SPARE GEAR.

Has the spare gear required by the Rules been supplied.....yes
State the principal additional spare gear supplied.....-

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building.....During progress of work in shops.....-
During erection on board vessel.....26.3., April: 7., 8., 15., 16., 18., 19., 24., 25., 28., 30., May: 2., 5., 7., 8., 9., 12., 13., 14., 15., 17., 18.
Total No. of visits.....22
Dates of examination of principal parts—Cylinders.....-.....Covers.....-.....Pistons.....-.....Rods.....-.....Connecting rods.....-
Crank shaft.....-.....Flywheel shaft.....-.....Thrust shaft.....-.....Intermediate shafts.....18.4.52.....Tube shaft.....-
Screw shaft.....18.4.52.....Propeller.....18.4.52.....Stern tube.....-.....Engine seatings.....2 & 5/5/52.....Engine holding down bolts.....8/5/52
Completion of fitting sea connections.....-.....Completion of pumping arrangements.....-.....Engines tried under working conditions.....17/5/52 and 18/5/52
Crank shaft, material.....-.....Identification mark.....-.....Flywheel shaft, material.....-.....Identification mark.....-
Thrust shaft, material.....-.....Identification mark.....-.....Intermediate shafts, material.....S.M. Steel.....Identification marks.....LLOYD'S FS 6 & 668 K FS 2
Tube shaft, material.....-.....Identification mark.....-.....Screw shaft, material.....S.M. Steel.....Identification mark.....LLOYD'S FS 599
Identification marks on air receivers.....2 new aux. air receivers, Nos. 75073 D and No. 75077 D, 7 1/2 51 GL.
Inh. 100 ltr, Betriebsdruck 40 ATM

Welded receivers, state Makers' Name.....Westdeutsche Mannesmannröhren AG, Werk Rath, Düsseldorf Rath.

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.....as built

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.....-

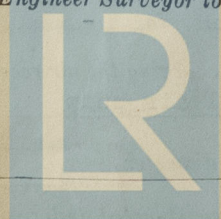
Is this machinery duplicate of a previous case.....-.....If so, state name of vessel.....-

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.....These main engines have been satisfactorily installed under Special Survey in the above named classed vessel, in accordance with the Rules, and tried under full power working conditions.

This machinery is eligible, in my opinion, for classification with the notation LMC 5,52 and NE 52, with the distinguishing mark +.

The amount of Entry Fee ... £ : :
Special ... : :
Donkey Boiler Fee... £ : :
Travelling Expenses (if any) £ : :
When applied for.....19.....
When received.....19.....

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation