

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 16429

Received at London Office

20 MAY 1947

Date of writing Report 25/4/47 19

When handed in at Local Office 14/5/47 19

Port of GENOA

No. in Survey held at GENOA

Reg. Book.

Date, First Survey 1/10/46

Last Survey 12/2/47

19

Number of Visits 26

Single on the Twin Screw vessel

"KERSTIN"

Tons

Gross 299.51

Net

Built at GENOA - SESTRI

By whom built S.A. ANSALDO - CANTIERI NAVALI

Yard No. 857

When built 1947

Engines made at GENOA - SAMPIERDARENA

By whom made S.A. ANSALDO - STAB. MECCANICO

Engine No. 2656072

When made 1947

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power 300

Owners

A.B. GLUCKSMANN

Port belonging to

PANAMA.

Nom. Horse Power as per Rule 63. MN: 68

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted YES.

Trade for which vessel is intended

FOR COASTING SERVICE IN THE MEDITERRANEAN.

OIL ENGINES, &c. — Type of Engines ANSALDO Q265/6R - SOLID INJECTION 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 54 Kg/cm²

Diameter of cylinders 265 mm

Length of stroke 410 mm

No. of cylinders 6

No. of cranks 6

Mean Indicated Pressure 6.75 Kg/cm²

Span of bearings, adjacent to the crank, measured from inner edge to inner edge 350 mm

Is there a bearing between each crank YES

Revolutions per minute 360

Flywheel dia. 900 mm

Weight 355 Kg

Means of ignition COMPRESSION

Kind of fuel used DIESEL OIL

Crank Shaft, Solid forged

dia. of journals

as per Rule as approved

as fitted 165 mm

Crank pin dia. 165 mm

Crank webs

Mid. length breadth 270 mm

Thickness parallel to axis

Flywheel Shaft, diameter

as per Rule as approved

as fitted 165 mm

Intermediate Shafts, diameter

as per Rule as approved

as fitted 180 mm

Thrust Shaft, diameter at collars

as fitted 125 mm

Tube Shaft, diameter

as per Rule as approved

as fitted

Screw Shaft, diameter

as per Rule as approved

as fitted 130 mm

Is the screw shaft fitted with a continuous liner

YES

Bronze Liners, thickness in way of bushes

as per Rule as approved

as fitted 11 mm

Thickness between bushes

as per Rule as approved

as fitted 8.5 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 YES

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 YES

If two liners are fitted, is the shaft lapped or protected between the liners YES

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 460 mm

Propeller, dia. 1500 mm

Pitch 900 mm

No. of blades THREE

Material BRONZE

whether moveable SOLID

Total developed surface 0.7952 sq. m

Method of reversing Engines DIRECT

Is a governor or other arrangement fitted to prevent racing of the engine when disengaged YES

Means of lubrication FORCED

Thickness of cylinder liners 24.5 mm

Are the cylinders fitted with safety valves YES

Are the exhaust pipes and silencers water cooled

Are they lagged with non-conducting material YES

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine YES

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

Diameter 115 mm

Stroke 100 mm

Can one be overhauled while the other is at work YES

Pumps connected to the Main Bilge Line

No. and size ONE DRIVEN BY M.E. : 15 Tons/h.

How driven ONE DRIVEN BY AUX. ENGINE : 30 Tons/h. 35 Tons/h. on plan (OK by TRB)

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 ONE : 30 Tons/h.

Power Driven Lubricating Oil Pump, including spare pump, No. and size ONE - GEARTYPE - 3600 l/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 : 50 mm diam — TWO : 65 mm diam.

In holds, &c. IN HOLD : TWO 65 mm diam.

Independent Power Pump Direct Suctions to the engine room bilges, No. and size ONE : 65 mm diam.

Are 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 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

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 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 YES

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

Main Air Compressors, No. ONE

No. of stages ONE

diameters 265 mm

stroke 410 mm

driven by MAIN ENGINE

Auxiliary Air Compressors, No. ONE

No. of stages TWO

diameters LP 70 mm HP 30 mm

stroke 55 mm

driven by AUX. ENGINE

Small Auxiliary Air Compressors, No.

No. of stages

diameters

stroke

driven by

What provision is made for first charging the air receivers SMALL AUXILIARY AIR COMPRESSOR

* Widdowson eng fitted 8.4.48

Scavenging Air Pumps, No.

diameter

stroke

driven by

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted 56 mm

No. ONE

Position

STARBOARD SIDE OF ENGINE ROOM

Have the auxiliary engines been constructed under special survey NO

Is a report sent herewith

003075-003082-0053

Lloyd's Register Foundation

8 HP Kerstin engine, driving general service pump fitted 9.4.48

AIR RECEIVERS:—Have they been made under survey. YES State No. of report or certificate HEREWITH ATTACHED.
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, lap welded or riveted longitudinal joint. ✓ Material. ✓ Range of tensile strength. ✓ Working pressure by Rules. ✓
Starting Air Receivers, No. THREE Total cubic capacity. 480 litres. Internal diameter. 303 mm thickness. 7.5 mm Actual. ✓
Seamless, lap welded or riveted longitudinal joint. SEAMLESS Material. STEEL Range of tensile strength. 55-65 Working pressure by Rules. 50 Kg/cm² Actual. 30 Kg/cm²
IS A DONKEY BOILER FITTED. ✓ If so, is a report now forwarded. ✓
Is the donkey boiler intended to be used for domestic purposes only. ✓
PLANS. Are approved plans forwarded herewith for shafting. 25/11/46 Receivers. 21/11/46 Separate fuel tanks. ✓
(If not, state date of approval)
Donkey boilers. ✓ General pumping arrangements. 1/10/46 Pumping arrangements in machinery space. 1/10/46
Oil fuel burning arrangements. ✓
SPARE GEAR.
Has the spare gear required by the Rules been supplied. YES
State the principal additional spare gear supplied: Two cylinder covers.

ANSALDO S. A. ANSALDO S. A.
STABILIMENTO MECCANICO STABILIMENTO MECCANICO
The foregoing is a correct description, and the particulars of the installation are as approved for torsional vibration
Manufacturer. characteristics.

Dates of Survey while building
During progress of work in shops - 1946: Oct. 1-21-23-25-28. Nov. 13-15-20-25-27-30 DEC. 2-5-7-9-16-23-30 1947: Jan 7-11
During erection on board vessel - 1946 DEC. 30-1947 JAN. 7-24-27-31- FEB. 12
Total No. of visits. 26

Dates of examination of principal parts—Cylinders. 21/10/46 Covers. 15/11/46 Pistons. 20/11/46 Rods. ✓ Connecting rods. 11/1/47
Crank shaft. 25/11/46 Flywheel shaft. 25/11/46 Thrust shaft. 11/1/47 Intermediate shafts. 17/1/47 Tube shaft. ✓
Screw shaft. 25/11/46 Propeller. 5/11/46 Stern tube. 30/12/46 Engine seatings. 30/12/46 Engine holding down bolts. 7/1/47
Completion of fitting sea connections. 30/12/46 Completion of pumping arrangements. 27/1/47 Engines tried under working conditions. 24/1/47
Crank shaft, material. STEEL Identification mark. GS 25-11-46 Flywheel shaft, material. STEEL Identification mark. ✓
Thrust shaft, material. STEEL Identification mark. GS 11-1-47 Intermediate shafts, material. STEEL Identification marks. GS. 17-1-47
Tube shaft, material. ✓ Identification mark. ✓ Screw shaft, material. STEEL Identification mark. GS. 17-1-47
Identification marks on air receivers: N°1-70511 N°1-70512 N°1-70515
LOYD'S TEST LOYD'S TEST LOYD'S TEST
100 Kg/cm² 100 Kg/cm² 100 Kg/cm²
W.P. 50 Kg/cm² W.P. 50 Kg/cm² W.P. 50 Kg/cm²
AG. 19-12-46 AG. 19-12-46 AG. 19-12-46

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. THREE FOAM EXTINGUISHERS OF 12 LITRES EACH. ONE CO₂ CONTAINER OF 5 KG. FIRE HOSES.
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, &c. THE MACHINERY OF THIS VESSEL HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. THE TORSIONAL VIBRATION CHARACTERISTICS OF THE COMPLETE DYNAMIC SYSTEM HAVE BEEN APPROVED FOR A SERVICE SPEED OF 360 R.p.m., WITH THE PROVISION THAT THE ENGINE SHOULD NOT TO BE RUN CONTINUOUSLY BETWEEN 250 AND 290 R.p.m. THE MATERIALS AND WORKMANSHIP ARE GOOD AND THE COMPLETE INSTALLATION WHEN TRIED UNDER WORKING CONDITION AT FULL POWER WAS FOUND SATISFACTORY. THE MACHINERY OF THIS VESSEL IS ELIGIBLE TO BE CLASSED IN THE SOCIETY'S REGISTER BOOK WITH THE NOTATION: + L.M.C. 2-47. OIL ENGINE.

The amount of Entry Fee ... ✓
Special Survey. Lit. 30.000.- When applied for. 25/2/47 OFF.
Hydraulic tests. " 5.000.-
Donkey Boiler Fee... "
CAR EXPENSES. Lit. 2550.- When received. 28/4/ 1947
Travelling Expenses (if any) Lit. 1.700.-

Committee's Minute
Assigned + LMC 2.47 Oil Eng.
C.L.

[Signature]
Joint Engineer Surveyor of Lloyd's Register of Shipping.