

## REPORT ON OIL ENGINE MACHINERY.

No.

19035

8-DEC-1952

Writing Report 14-11-52 When handed in at Local Office 26-11-52 Port of GENOA

Survey held at TURIN Date, First Survey 22-6-51 Last Survey 16-9-52

on the Twin Triple Screw vessel FOR CANTIERI RIUNITI DELL'ADRIATICA YARD N° 1484

TRIESTE By whom built CANTIERI RIUNITI DELL'ADRIATICA

made at TURIN By whom made SOC. ANON. FIAT S.G.M.

Boilers made at SERVICE 5425 By whom made TRIALS 7340

Horse Power 1085 x 2 = 2170 Owners SOC. ANTARTIDE DI PALERMO

Power as per Rule 1470 Is Refrigerating Machinery fitted for cargo purposes

for which vessel is intended WHALE FACTORY SHIP Is Electric Light fitted

Engines, &c. — Type of Engines FIAT 757 AIRLESS INJECTION 2 or 4 stroke cycle 2 Single or double acting SINGLE

um pressure in cylinders 60 kg/cm² Diameter of cylinders 750 mm Length of stroke 1320 mm No. of cylinders 7 No. of cranks 7

Indicated Pressure TRIALS 7.6 kg/cm² Ahead Firing Order in Cylinders 1-6-3-4-5-2-7 Span of bearings, adjacent to the crank, measured inner edge to inner edge 968 mm Is there a bearing between each crank YES

Revolutions per minute TRIALS 133

Weight Moment of inertia of flywheel (lbs. in² or Kg. cm.²) Means of ignition COMPRESSION Kind of fuel used DIESEL

Solid forged dia. of journals as per Rule APPROVED as fitted 550 mm Crank pin dia. 550 mm Crank webs Mid. length breadth 316 mm shrunk Thickness parallel to axis 318 mm

Thickness around eye hole 252.5 mm

Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as fitted 550 mm

Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the (tube screw) shaft fitted with a continuous liner

Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted Is the after end of the liner made watertight in the

er boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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-

ve 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

ube shaft If so, state type Length of bearing in Stern Bush next to and supporting propeller

ler, dia Pitch No. of blades Material whether moveable Total developed surface sq. feet

t of inertia of propeller (lbs. in² or Kg. cm.²) Kind of damper, if fitted

of reversing Engines DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when declutched GOVERNOR Means of

FORCED Thickness of cylinder liners Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled

ed with non-conducting material LAGGED If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

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

umps worked from the Main Engines, No Diameter Stroke Can one be overhauled while the other is at work

connected to the Main Bilge Line No. and size How driven

ooling water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

ments

Pumps, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size

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

mps, No. and size:—In machinery spaces In pump room

, &c.

ident Power Pump Direct Suctions to the engine room bilges, No. and size

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

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

sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed

ly 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

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

pes pass through the bunkers How are they protected

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

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

angement 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

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

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

ir Compressors, No. No. of stages diameters stroke driven by

y Air Compressors, No. No. of stages diameters stroke driven by

uxiliary Air Compressors, No. No. of stages diameters stroke driven by

ovision is made for first charging the air receivers

ing Air Pumps, No. ONE (2 PISTONS IN TANDEM) diameter 1400 mm stroke 980 mm driven by MAIN ENGINE CRANK

y Engines crank shafts, diameter as per Rule as fitted Position

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

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AIR RECEIVERS:—Have they been made under survey..... YES State No. of report or certificate GEN. 28/11/52  
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..... 4 Total cubic capacity..... 32 cu ft Internal diameter..... 13 1/2 in thickness..... 3/8 in  
Seamless, welded or riveted longitudinal joint..... Welded Material S.M. STEEL Range of tensile strength..... Working pressure.....  
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 CRANK-THRUST 19-4-51 Receivers..... Separate fuel tanks.....  
Donkey boilers..... General pumping arrangements..... Pumping arrangements in machinery space.....  
Oil fuel burning arrangements.....  
Have Torsional Vibration characteristics been approved..... No Date of approval.....

SPARE GEAR.

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

TO BE SUPPLIED AT TRIESTE

FIAT  
STABILIMENTO GRANDI MOTORI  
Via V. D'Azeglio  
The foregoing is a correct description, and the details of the installation as fitted are as approved for torsional vibration characteristics  
Manufacturer.

Dates of Survey while building  
During progress of work in shops - - - From 22-6-51 to 16-9-52  
During erection on board vessel - - -  
Total No. of visits..... 25  
Dates of examination of principal parts—Cylinders..... 7/2/52 to 4/4/52 Covers..... 7/2/52 to 4/4/52 Pistons..... 24/8/52 to 9/10/51 Rods..... 10/11/51 Connecting rods..... 22/5/51  
Crank shaft..... 28/12/51 Flywheel shaft..... Thrust shaft..... 28/12/51 Intermediate shafts..... Tube shaft.....  
Screw shaft..... Propeller..... Stern tube..... Engine seatings..... Engine holding down bolts.....  
Completion of fitting sea connections..... Completion of pumping arrangements..... Engines tried under working conditions.....  
Crank shaft, material..... S.M. STEEL LLOYDS No 512 28-12-51 H.B. Identification mark..... 512 19-11-51 F.F.  
Thrust shaft, material..... S.M. STEEL LLOYDS No 12 231/A 17-4-51 J.S. Identification mark..... 12 231 17-9-51  
Tube shaft, material..... Identification mark..... Screw shaft, material..... Identification mark.....  
Identification marks on air receivers..... N<sup>os</sup> 1181 - 1182 - 1183 - 1184 LLOYDS TEST 48.5 HGS W.P. 30  
23-11-51 J.S.  
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.....  
Description of fire extinguishing apparatus fitted.....  
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..... YES If so, state name of vessel..... IGNAZIO BIBOLINI ANSALDO MUGLIANO TdA

General Remarks (State quality of workmanship, opinions as to class, &c.)  
These engines have been constructed under Special Survey of tested materials and in accordance with the Approved Plans, Section 1 and to Rule requirements. The workmanship and materials are good. The torsional vibration characteristics and details of the shafting installation have not been submitted as the Engine Builders have stated that the vessel is at present in suspension. The engines have now been despatched to Trieste for fitting on board the vessel. When the shafting and torsional vibration characteristics have been approved and the engines installed on board the ship and tried under working conditions to the satisfaction of the Surveyors to the Society, the vessel will be in my opinion eligible for the record of LLOYDS MACHINERY CERTIFICATE (WITH DATE)  
OIL ENGINE made in the Register Book of the Society.

23 F.E. 1044.500  
The amount of Entry Fee 4m 25% 264. 8.05.875=  
Special CAR FUND ... 24.172 = When applied for 2/12/52  
Donkey Boiler Fee... £ : : When received 19  
Travelling Expenses (if any) 113.995=  
REV. TAX. 28.322 =  
Committee's Minute

H. F. Mansfield  
Engineer Surveyor to Lloyd's Register of Shipping

FRIDAY - 4 DEC 1953

Assigned See minute on hull for r/h

