

REPORT ON OIL ENGINE MACHINERY.

Received at London Office 8 FEB 1954

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Date of writing Report 2-11-1953 When handed in at Local Office 4-2-1954 Port of GENOA

Survey held at TURIN Date, First Survey 11-7-52 Last Survey 19-10-1953

Vessel Name M.V. "AGOSTINO FASSIO" Number of Visits 29

Builder CANTIERI NAVALI di TARANTO YD N° 143 Tons Gross Net

By whom built CANTIERI NAVALI di TARANTO Yard No. 143 When built

By whom made "FIAT" S.G.M.I. Engine No. 3735 When made 1953

By whom made FRANCO TOSI Boiler No. 6382 When made 1954

Horse Power 4000 Owners Port belonging to

Power as per Rule 1400 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Intended for which vessel is intended

Engines, &c. Type of Engines FIAT TYPE 759 AIRLESS INJECTION 2 or 4 stroke cycle 2 Single or double acting SINGLE

Maximum pressure in cylinders 60 kg/cm² Diameter of cylinders 750 mm Length of stroke 1320 mm No. of cylinders 9 No. of cranks 9

Indicated Pressure 6.25 kg/cm² Ahead Firing Order in Cylinders 1,7,5,3,9,2,6,4,8 Span of bearings, adjacent to the crank, measured

from inner edge to inner edge 968 mm Is there a bearing between each crank YES Revolutions per minute 120

Wheel dia. 2430 mm Weight 3920 kg Moment of inertia of flywheel (lbs. in² or Kg cm²) 43472 Means of ignition COMP Kind of fuel used DIESEL

Crank dia. 550 mm as per Rule As APP as fitted 550 mm Crank pin dia. 550 mm Crank webs Mid. length breadth 916 mm Mid. length thickness 316 mm Thickness parallel to axis 318 mm Thickness around eye-hole 250 mm

Intermediate Shafts, diameter as per Rule As APP as fitted 400 mm Thrust Shaft, diameter at collars as per Rule As APP as fitted 550 mm

Screw Shaft, diameter as per Rule As APP as fitted 1436 mm Is the shaft fitted with a continuous liner YES

Brass 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

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

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

Propeller, dia. 5300 mm Pitch VAR No. of blades 4 Material M.B. whether moveable Total developed surface 9.8 m²

Moment of inertia of propeller (lbs. in² or Kg cm²) 154122 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 60 mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled

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

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

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 How driven

Is the cooling 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

arrangements

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

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

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

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 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

How are they protected

Do pipes pass through the bunkers Have they been tested as per Rule

Do pipes pass through the deep tanks

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

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. No. of stages diameters stroke driven by

Auxiliary Air Compressors, No. 2 No. of stages 2 diameters 220/135 stroke 200/110 driven by DIESEL ENG. & ELECT. MOTOR

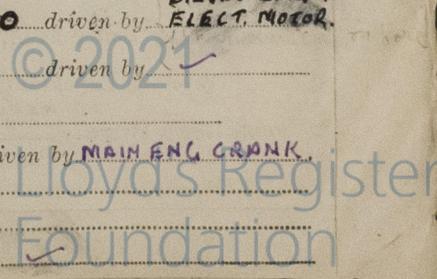
All Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

Is provision made for first charging the air receivers

Reversing Air Pumps, No. 1-TWO PISTONS IN TANDEM diameter 1600 mm stroke 980 mm driven by MAIN ENG. CRANK

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

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



AIR RECEIVERS:—Have they been made under survey... *YES* ✓ State No. of report or certificate *N° M 255* ✓
 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... by Rules...
Starting Air Receivers, No. *2* ✓ Total cubic capacity... *24 m³* Internal diameter... *1500 mm* thickness... *30 mm*
 Seamless, welded or riveted longitudinal joint... *WELDED* Material... *M.S.* Range of tensile strength... *42/48 Kg/cm²* Working pressure... by Rules...
 Actual... *18* (Reg. Book)

IS A DONKEY BOILER FITTED... *YES*... If so, is a report now forwarded... *YES*.
 Is the donkey boiler intended to be used for domestic purposes only... *No*.
PLANS. Are approved plans forwarded herewith for shafting... *10-10-52* Receivers... *25/7/52* Separate fuel tanks...
 (If not, state date of approval)
 Donkey boilers... ✓ General pumping arrangements... ✓ Pumping arrangements in machinery space... ✓
 Oil fuel burning arrangements... ✓
 Have Torsional Vibration characteristics been approved... *YES* ✓ Date of approval... *6-7-53* (120)

SPARE GEAR.

Has the spare gear required by the Rules been supplied... *YES*
 State the principal additional spare gear supplied... *TO BE SUPPLIED AT TARANTO.*

FIAT
 STABILIMENTO GRANDI MOTORI

The foregoing is a correct description,
Antonio Gregorini Manufacturer.

Dates of Survey while building
 During progress of work in shops - - - *11-7-52 - 19-10-53*
 During erection on board vessel - - -
 Total No. of visits... *29*
 Dates of examination of principal parts—Cylinders... *20-7-53* Covers... *30-7-53* Pistons... *23-6-53* Rods... *3-7-53* Connecting rods... *3-7-53*
 Crank shaft... *24-5-53* Flywheel shaft... ✓ Thrust shaft... *24-2-53* 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... *18-9-53*
 Crank shaft, material *E.F. STEEL* Identification mark... *LL0405 5748A* Flywheel shaft, material... Identification mark...
 Thrust shaft, material *E.F. STEEL* Identification mark... *LL0405 1L 450* Intermediate shafts, material... Identification marks...
 Tube shaft, material... Identification mark... Screw shaft, material... Identification mark...
 Identification marks on air receivers...
 Welded receivers, state Makers' Name... *MESSRS. ANSALDO CARPENTERIA GENOVA - VOLTRI.*
 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... ✓ If so, state name of vessel... ✓

General Remarks (State quality of workmanship, opinions as to class, &c.) *This engine has been built under Special Survey in accordance with the Society's Rules, the approved plans and the Secretary's letters. The materials & workmanship are of the highest quality. The torsional vibration characteristics of the shafting have been approved for a service speed of 120 R.P.M. The engine has been despatched to Taranto for fitting aboard the vessel. When this has been done and the engine tried under working conditions to the satisfaction of the Society's Surveyors the vessel will be eligible to have the record of S.L.M.C. (with data) OIL ENGINE in the Register Book of this Society.*

The amount of Entry Fee... *£1,750.000.-*
 Special CAP FUND... *£1,19,195.-* When applied for... *3-11-1953*
 Donkey Boiler Fee... £... When received... *21-12-1953*
 Travelling Expenses (if any) *£1,84,995.-*
 Committee's Minute... *FRIDAY 12 APR 1954*
 Assigned... *See Ref. H.L.*



Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.