

REPORT ON OIL ENGINE MACHINERY.

No. 14870

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of writing Report 21-5-37 10 When handed in at Local Office 4-6-37 10 Port of GENOA
in Survey held at TURIN Date, First Survey 25/2/36 Last Survey 1/4/1937
Book. 257 on the Single Screw vessel "FELLA" Number of Visits 35

at TRIESTE By whom built Stabilimento Tecnico Yard No. 745 When built 1926/3
Engines made at TURIN By whom made FIAT. Stab. Grandi Motori Engine No. 2403 When made 1937

Boilers made at By whom made Boiler No. When made
Horse Power 4550 Owners "ITALIA" Soc. Anon. di Nav. Port belonging to Venice
Horse Power as per Rule 1328 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Intended for which vessel is intended
Type of Engines FIAT DL 646 Solid injection 2 or 4 stroke cycle 2 Single or double acting Double
Minimum pressure in cylinders 35 kgs/sq.cm. Diameter of cylinders 640 mm Length of stroke 1160 mm No. of cylinders 6 No. of cranks 6
EFFECTIVE Indicated Pressure 4.27 kgs/sq.cm. Mean Indicated Pressure 5.13 kgs/cm²
of bearings, adjacent to the Crank, measured from inner edge to inner edge 928 mm Is there a bearing between each crank Yes
Revolutions per minute 115 to 130 Flywheel dia. 2 x Weight 60000 kg Means of ignition Compression Kind of fuel used Diesel Oil

Crank Shaft, dia. of journals as per Rule 439.9 mm Crank pin dia. 450 mm Crank Webs Mid. length breadth shrunk Thickness parallel to axis 290 mm
as fitted 450 mm Mid. length thickness shrunk Thickness around eye-hole 212.5 mm

Intermediate Shafts, diameter as per Rule 336.3 mm Thrust Shaft, diameter at collars as per Rule 353 mm
as fitted 366 mm as fitted 450 mm

Screw Shaft, diameter as per Rule 368.6 mm Is the shaft fitted with a continuous liner Yes
as fitted 405 mm

Liners, thickness in way of bushes as per Rule 18.8 mm Thickness between bushes as per rule 14.1 mm Is the after end of the liner made watertight in the
as fitted 20 mm as fitted 18 mm Yes
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes

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 the tube
If so, state type Length of Bearing in Stern Bush next to and supporting propeller 1600 mm

Propeller, dia. 4650 mm Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
Means of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when de-clutched Yes Means of lubrication
Thickens of cylinder liners upper 48.25% lower 40.75% Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
ducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

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

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
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 Bilge

No. and size:—In Machinery Spaces In Pump Room
Independent 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 Suctions in the Machinery Spaces

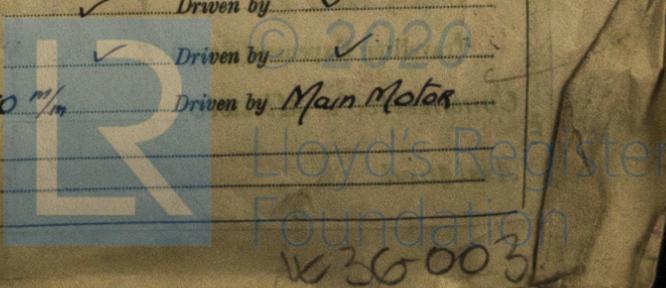
in easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
sized sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line

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
pipes pass through the bunkers How are they protected
pipes pass through the deep tanks Have they been tested as per Rule

All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
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
partment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
Air Compressors, No. No. of stages Diameters Stroke Driven by
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
Engining Air Pumps, No. 2, each with 3 coils in tandem Diameter 880 mm Stroke 850 mm Driven by Main Motor
Auxiliary Engines crank shafts, diameter as per Rule 99.9 mm
as fitted 110 mm



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AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule
 Can the internal surfaces of the receivers be examined and cleaned Is a drain fitted at the lowest part of each receiver
High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure
Starting Air Receivers, No. Total cubic capacity Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure

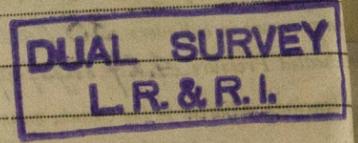
IS A DONKEY BOILER FITTED? If so, is a report now forwarded?
 Is the donkey boiler intended to be used for domestic purposes only Separate Tanks

PLANS. Are approved plans forwarded herewith for Shafting 8/11/35, 21/1/36 Receivers Oil Fuel Burning Arrangements
 (If not, state date of approval) 28/2/36
 Donkey Boilers General Pumping Arrangements

SPARE GEAR.

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

To be placed on board at Trieste



The foregoing is a correct description,
 Manufacturer: *Ing. Giovanni Chiesari*

Dates of Survey while building
 During progress of work in shops: 1936 Feb. 25, May 29, June 10, 24, July 10, 16, 24, Aug. 6, 13, 31, Sept. 5, 11, 17, 28, Oct. 8, 12, 14, 22, 29, Nov. 5, 12, 19, 26, Dec. 17, 23, 30 :: 1937 Jan. 21, 28, Feb. 4, 8, Mar. 25, Apr. 1, 8
 During erection on board vessel:
 Total No. of visits: 35

Dates of Examination of principal parts—Cylinders 14/10/36 Covers 3/8/36, 8/11/36 Pistons 31/8/36 Rods 28/9/36 Connecting rods 10/7/36
 Crank shaft 29/10/36 Flywheel shaft Thrust shaft 29/10/36 Intermediate shafts 26/6/36, 2/7/36 Tube shaft
 Screw shaft 28/7/36 Propeller Stern tube Engine seatings Engines holding down bolts
 Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shaft, Material S.M. Steel Identification Mark 10418 J. 1. 3. 2. 36 Flywheel shaft, Material Identification Mark 9464, 9465, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36
 Thrust shaft, Material S.M. Steel Identification Mark 5278 2. 7. 26 J. Q. Intermediate shafts, Material S.M. Steel Identification Marks 9462, 9463, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36
 Tube shaft, Material Identification Mark Screw shaft, Material S.M. Steel Identification Mark 9462 28. 7. 3

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
 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 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 materials and the workmanship are good and the engine when tried on the test bed was found to work satisfactorily.
 The machinery has now been forwarded to Trieste, where it will be installed on board the M/V "FELLA", and when this has been carried out to satisfaction of the Society's Surveyors at that Port, the vessel will be eligible, in our opinion, to be classed in the Society's Register Book and to have the notation + N.E. (with date)

Trieste 24

The amount of Entry Fee .. £17 5/6 : When applied for, 8.2.37
 1/5 Special ... £17 9/8 1/2 :
 EXTRA FEE FOR HYD TESTS ... £17 10/0 : When received, 17.8.1937
 Donkey Boiler Fee ... £17 10/0 :
 Travelling Expenses (if any) £17 3/0 : 28/8/37

A. Griffiths & G. C. Ballance
 Engineer Surveyors to Lloyd's Register of Shipping

Committee's Minute **FRI 15 OCT 1937**
 Assigned *Su Trs 11878*

