

# REPORT ON OIL ENGINE MACHINERY.

No. 7466

Date of writing Report

When handed in at Local Office **March 22<sup>nd</sup> 1927** Port of **Trieste**

Received at London Office

**26 MAR 1927**

No. in Survey held at **Trieste**

Date, First Survey **30/12/1925**

Last Survey **7/3/1927**

Number of Visits **124**

72172 on the **Single** Screw vessel **HILDA**

Tons <sup>Gross</sup> **6137**  
<sub>Net</sub> **3826**

Built at **San Rocco**

By whom built **Cant. San Rocco S.A.**

Yard No. **762** When built **1927**

Engines made at **Trieste**

By whom made **Stabilimento Tecnico Triestino**

Engine No. **6077** When made **1927**

Donkey Boiler made at **Annan**

By whom made **Cochran & Co, Annan, S.A.**

Boiler No. **9729** When made **1926**

Brake Horse Power

Owners **Soc. Anon. di Nav. a Vap. Russino**

Port belonging to **Dussinpiccolo**

Nom. Horse Power as per Rule **489**

Is Refrigerating Machinery fitted for cargo purposes **no**

Is Electric Light fitted **yes**

Trade for which vessel is intended

**IL ENGINES, &c.**—Type of Engines **Courmeister & Wain Diesel** 2 or 4 stroke cycle **4** Single or double acting **Single**

Maximum pressure in cylinders **35 Kgs/cm<sup>2</sup>** Diameter of cylinders **740 mm** Length of stroke **1500 mm** No. of cylinders **6** No. of cranks **6**

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **1004 mm** Is there a bearing between each crank **yes**

Revolutions per minute **95** Flywheel dia. **2900 mm** Weight **24400** Means of ignition **Compression** Kind of fuel used **Diesel Oil**

Crank Shaft, dia. of journals as per Rule **470 mm** as fitted **472 mm** Crank pin dia. **472 mm** Crank Webs Mid. length breadth **750 mm** Thickness parallel to axis **310 mm**

Flywheel Shaft, diameter as per Rule **470 mm** as fitted **472 mm** Intermediate Shafts, diameter as per Rule **317 mm** as fitted **317 mm** Thrust Shaft, diameter at collars as per Rule **333 mm** as fitted **333 mm**

Tube Shaft, diameter as per Rule **-** as fitted **-** Screw Shaft, diameter as per Rule **350 mm** as fitted **352 mm** Is the <sup>tube</sup> shaft fitted with a continuous liner **yes**

Bronze Liners, thickness in way of bushes as per Rule **18 mm** as fitted **19 mm** Thickness between bushes as per Rule **13.75 mm** as fitted **15.75 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 **one length**

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 whole length**

two liners are fitted, is the shaft lapped or protected between the liners **no** Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft **no**

Propeller, dia. **4680 mm** Pitch **3730 mm** No. of blades **4** Material **Orange** whether Moveable **no** Total Developed Surface **6.68** sq. feet

Method of reversing Engines **Comp Air** Is a governor or other arrangement fitted to prevent racing of the engine when decelerated **yes** Means of lubrication **oil**

Thickness of cylinder liners **58.5 to 41 mm** Are the cylinders fitted with safety valves **yes** Are the exhaust pipes and silencers water cooled or lagged with insulating material **both**

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

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

Ballast Pumps, No. **two** Diameter **160 mm** Stroke **225 mm** Can one be overhauled while the other is at work **yes**

Large Pumps worked from the Main Engines, No. **two** Diameter **170 mm x 150 mm** One **300 mm x 300 mm**

Pumps connected to the Main Bilge Line { No. and Size **Two duplex @ 170 mm x 150 mm** One **300 mm x 300 mm** How driven **Electric Motor**

Small Pumps, No. and size **One duplex 300 mm x 300 mm** Lubricating Oil Pumps, including Spare Pump, No. and size **2 @ 30 tons per hour**

two independent means arranged for circulating water through the Oil Cooler **no oil cooler** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces **3 @ 80 mm** **2 @ 60 mm to Cofferdam** **1 @ 80 mm to Tunnel Well**

Holds, &c. **N<sup>o</sup> 1 - 2 @ 80** **N<sup>o</sup> 2 - 2 @ 80** **N<sup>o</sup> 3 - 2 @ 80** **Deep Tank - 2 @ 80** **N<sup>o</sup> 4 - 2 @ 80 mm** **N<sup>o</sup> 5 - 2 @ 80 mm**

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **1 @ 180 mm** **2 @ 80 mm**

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes **yes** Are the Bilge Suctions in the Machinery Spaces 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**

How are they protected **yes** Have they been tested as per Rule **yes**

Do all pipes pass through the deep tanks **Air Escape overflow pipes from N<sup>o</sup> 6** **5 to 6** **5 to 6**

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** Is it fitted with a watertight door **yes** worked from **Upper Deck**

Are all wood vessels, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. **One** No. of stages **three** Diameters **150, 175, 700 mm** Stroke **610 mm** Driven by **Main Eng. C.S.**

Auxiliary Air Compressors, No. **Three** No. of stages **three** Diameters **79, 288, 322 mm** Stroke **170 mm** Driven by **Aux. Diesel Eng.**

Auxiliary Air Compressors, No. **one** No. of stages **two** Diameters **32, 80 mm** Stroke **140 mm** Driven by **Hand**

Engaging Air Pumps, No. **none** Diameter **-** Stroke **-** Driven by **-**

Auxiliary Engines crank shafts, diameter as per Rule **161.5 mm** as fitted **162 mm**

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule **yes, on charging lines**

Are the internal surfaces of the receivers be examined **yes** What means are provided for cleaning their inner surfaces **accessible for cleaning**

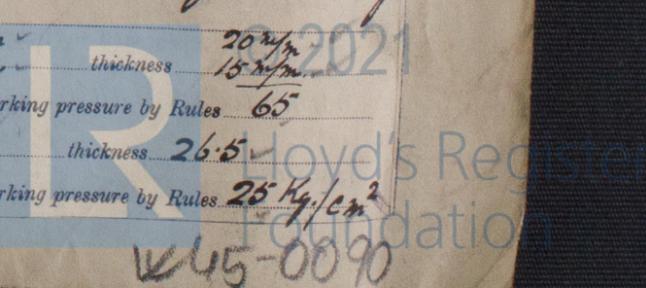
Is a drain arrangement fitted at the lowest part of each receiver **yes**

Pressure Air Receivers, No. **3 main + 3 aux** Cubic capacity of each **2 @ 500 lit** **1 @ 250** Internal diameter **450 mm** thickness **20 mm**

Are they lap welded or riveted longitudinal joint **Seamless** Material **Steel** Range of tensile strength **See Certs.** Working pressure by Rules **65**

Eng Air Receivers, No. **Two** Total cubic capacity **30 m<sup>3</sup>** Internal diameter **1953** thickness **26.5**

Are they lap welded or riveted longitudinal joint **Riveted** Material **Steel** Range of tensile strength **44/50.5** Working pressure by Rules **25 Kgs/cm<sup>2</sup>**



W45-0090

IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval) *E 17.8.26*

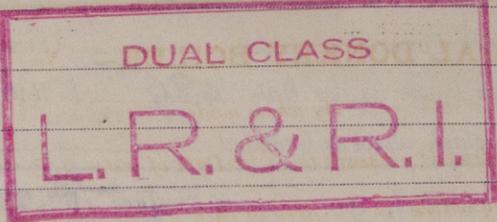
Receivers *With Rpt on "Fella"* Separate Tanks *Yes*

Donkey Boilers *Yes*

General Pumping Arrangements *Yes 12.7.26*

Oil Fuel Burning Arrangements *With Rpt on "Fella" (Rpt. N° 7074)*

SPARE GEAR *See attached list.*



The foregoing is a correct description, STABILIMENTO TECNICO TRIESTINO

*H. Ant. ...*

Manufacturer.

Dates of Survey while building

*See attached list*

Dates of Examination of principal parts - Cylinders *26.10.26* Covers *16.7.26* Pistons *20.11.26* Rods *29.4.26* Connecting rods *10.6.26*  
Crank shaft *22.12.26* Flywheel shaft *15.3.26* Thrust shaft *15.3.26* Intermediate shafts *8.3.26* Tube shaft *-*  
Screw shaft *21.6.26* Propeller *18.2.26* Stern tube *17.8.26* Engine seatings *29.12.26* Engines holding down bolts *26.2.27*  
Completion of fitting sea connections *12.5.26* Completion of pumping arrangements *7.3.27* Engines tried under working conditions *4.3.27*  
Crank shaft, Material *S. N. 9 Steel* Identification Mark *122, 123, 124 N.G.* Flywheel shaft, Material *S. N. 9 Steel* Identification Mark *172 N.G.*  
Thrust shaft, Material *S. N. 9 Steel* Identification Mark *172 N.G.* Intermediate shafts, Material *S. N. 9 Steel* Identification Marks *152, 153, 154, 156, 157, 158*  
Tube shaft, Material *-* Identification Mark *-* Screw shaft, Material *S. N. 9 Steel* Identification Mark *239 N.G.*  
Spare *209 N.G.*

Is the flash point of the oil to be used over 150° F. *Yes*

Is this machinery duplicate of a previous case If so, state name of vessel *Similar to "Fella" Tri. Rpt. N° 7444*

General Remarks (State quality of workmanship, opinions as to class, &c.)

*The machinery of this vessel has been constructed under special survey in accordance with the Rules and Approved Plans; the materials and workmanship are good. The machinery has been efficiently installed on board the vessel, examined under full working conditions and found satisfactory and is eligible, in our opinion, for classification, and to have the record L.M.C. 3.27 - C.L. in the Register Book.*

*The auxiliary engines on this vessel are as follows.*

*Port side forward. No 5080 Gray 7289. Replaced by one from M.V. "Clicia" 10.37.  
aft No 5078 Gray 7292.  
Starboard side No 5079 Gray 7290*

The amount of Entry Fee *Lira 550* When applied for, *23 3 1927*  
Special *Lira 11,742*  
Donkey Boiler Fee *Lira 45,526* When received, *11 5 1927*  
Travelling Expenses (if any) *Lira 4,35*

Committee's Minute *FRI. 1 APR 1927*  
Assigned *+ L.M.C. 3.27 C.L. Oil engines D.B.*

*For G.O. Common & Selves  
H.B. Forster & V. Lockney  
Engineer Surveyors to Lloyd's Register of Shipping*



Private Office

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

Rpt. 51  
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