

REPORT ON OIL ENGINE MACHINERY.

Received at London Office

13 SEP 1929

Date of writing Report 10 When handed in at Local Office

2/9/1929 Port of Trieste

No. in Survey held at Reg. Book. 23951 on the *Single* *Twin* *Triple* *Quadruple* Screw vessel *Infante Don Jaime*

Date, First Survey Nov 28, 1928 Last Survey Aug 30 1929

Number of Visits 41

Tons Gross 3959 Net 2405

Built at *Manfaccione* By whom built *Cantiere Nav. Triestino* Yard No. 206 When built 1929

Engines made at *Copenhagen* By whom made *Burmeister & Wain* Engine No. 1574 When made 1929

Donkey Boilers made at *Hockton* By whom made *Piley Bros.* Boiler No. 5858 When made 1929

Brake Horse Power 5200 Owners *Compagnia Transmediterranea* Port belonging to *Palma de Mallorca*

Nom. Horse Power as per Rule 724 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 *Diesel, pump type, solid inject.* 2 or 4 stroke cycle *4* Single or double acting *single*

Maximum pressure in cylinders 39 kg Diameter of cylinders 550 mm Length of stroke 1000 mm No. of cylinders 2 x 8 No. of cranks 2 x 8

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 730 mm Is there a bearing between each crank *yes*

Revolutions per minute 190 Flywheel dia. 1362 Weight 901 kg Means of ignition *compression* Kind of fuel used *diesel oil*

Crank Shaft, dia. of journals as per Rule 347.2 mm as fitted 360 mm Crank pin dia. 360 mm Crank Webs Mid. length breadth 550 mm Thickness parallel to axis 218 mm

Flywheel Shaft, diameter as per Rule 347.2 mm as fitted 360 mm Intermediate Shafts, diameter as per Rule 249 mm as fitted 250 mm Thrust Shaft, diameter at collars as per Rule 262 mm as fitted 273 mm

Tube Shaft, diameter as per Rule — as fitted — Screw Shaft, diameter as per Rule 271 mm as fitted 275 mm Is the tube shaft fitted with a continuous liner *yes*

Bronze Liners, thickness in way of bushes as per Rule 15.8 mm as fitted 16 mm Thickness between bushes as per rule 11.85 mm as fitted 12 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 —

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 —

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 the tube shaft *no* Length of Bearing in Stern Bush next to and supporting propeller 1400 mm

Propeller, dia. 3150 mm Pitch 3316 mm No. of blades 3 Material *bronze* whether Movable *no* Total Developed Surface 3.13 m²

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 38 mm Are the cylinders fitted with safety valves *yes* Are the exhaust pipes and silencers *water cooled* or 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 —

Cooling Water Pumps, No. *Two 225T each* 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. 2 Diameter 150 mm Stroke 175 mm Can one be overhauled while the other is at work *yes*

Pumps connected to the Main Bilge Line No. and Size *Four. Two 150 x 175, One 150 Tons, One 80 Tons* How driven *2 from Main Eng. — 2 by electric motors*

Ballast Pumps, No. and size *One 150 T. One Transfer 30 T. Lubricating Oil Pumps, including Spare Pump, No. and size Two at 100 Tons each*

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 *2 @ 3" and 1 to each Cofferdam 3" — Two 3" under motors. — One 3" in Tunnel Well*

In Holds, &c. *2 @ 3" in No 1 Hold, 2 @ 3" in No 2 Hold, 1 @ 3" in Cofferdam, 2 @ 3" in No 3 Hold, 1 @ 2 1/2" in Tunnel excess flat*

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *4 @ 4 3/4"*

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

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 *none* How are they protected —

What pipes pass through the deep tanks *none* 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* Is it fitted with a watertight door *yes* worked from *above cylinder*

If 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. *none* No. of stages — Diameters — Stroke — Driven by —

Auxiliary Air Compressors, No. 3 No. of stages 2 Diameters 320 x 280 mm Stroke 170 mm Driven by *Aux. Diesel Eng*

Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 106 x 34 mm Stroke 80 mm Driven by *Steam eng.*

Scavenging Air Pumps, No. — Diameter — Stroke — Driven by —

Auxiliary Engines crank shafts, diameter as per Rule 168 mm as fitted 180 mm

IR RECEIVERS:— Is each receiver, which can be isolated, fitted with a safety valve as per Rule *safety valves to the Compressors*

Can the internal surfaces of the receivers be examined *yes* What means are provided for cleaning their inner surfaces *manhole or cover*

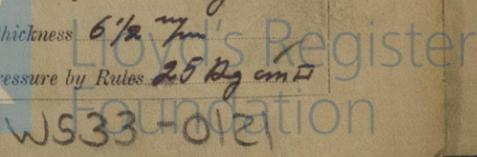
Is there a drain arrangement fitted at the lowest part of each receiver *yes*

High Pressure Air Receivers, No. *one* Cubic capacity of each 18 m³ Internal diameter *mean 192.5 mm thickness 26 1/2 mm*

Seamless, lap welded or riveted longitudinal joint *weld DB* Material *steel* Range of tensile strength *Shear 44.5 kg Heads 47.5* Working pressure by Rules 25 kg cm²

Starting Air Receivers, No. *one* Total cubic capacity 250 Litres Internal diameter 368 mm thickness 6 1/2 mm

Seamless, lap welded or riveted longitudinal joint *Hamless* Material *steel* Range of tensile strength *41-47 kg* Working pressure by Rules 25 kg cm²



IS A DONKEY BOILER FITTED? *yes*

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

PLANS. Are approved plans forwarded herewith for Shafting *in London (No 205)* Receivers *in London (No 205)* Separate Tanks *in London (205)*

Donkey Boilers *in London (205)* General Pumping Arrangements *yes* Oil Fuel Burning Arrangements *—*

SPARE GEAR *as per separate list*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building: During progress of work in shops -- *1928 Nov 28, Dec 28, 1929 Jan 12, 18, 26, Feb 1, 19, Mar 9, 15, 26, 26, 28, 30 Apr 2, 3, 4, 5, 15, 20, 23, 26, 27, May 6, 10, 14, 16, 25.*
During erection on board vessel -- *1929 Jan 17, May 21, 27, June 14, 28, July 8, 23, 26, Aug 6, 13, 19, 21, 25, 30.*

Total No. of visits *Fortyone*
See also Copenhagen Report No 8020

Dates of Examination of principal parts—Cylinders *23.7.29* Covers *23.7.29* Pistons *23.7.29* Rods *23.7.29* Connecting rods *23.7.29*

Crank shaft *26.7.29* Flywheel shaft *—* Thrust shaft *26.7.29* Intermediate shafts *26.7.29* Tube shaft *—*

Screw shaft *14.5.29* Propeller *27.8.29* Stern tube *21.5.29* Engine seatings *21.5.29* Engines holding down bolts *6.8.29*

Completion of fitting sea connections *21.5.29* Completion of pumping arrangements *19.8.29* Engines tried under working conditions *30.8.29*

Crank shaft, Material *SMS* Identification Mark *K 5.4.29* Flywheel shaft, Material *—* Identification Mark *—*

Thrust shaft, Material *SMS* Identification Mark *63-64 (K) 10.6.29* Intermediate shafts, Material *SMS* Identification Marks *9470674 HK*

Tube shaft, Material *—* Identification Mark *—* Screw shaft, Material *SMS* Identification Mark *9471621 HK*

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*

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 *—*

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *M.V. Infanta Cristina (Jard No 20)*

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

The machinery of this vessel has been built at Copenhagen (Main & Aux. Eng.) and partly in Trieste, fitted on board at Marseilles come under special survey in accordance with the Rule and approved plans, tested under full working condition and found satisfactory. It is submitted the machinery of this vessel eligible for the notation of + L M C 8.29

It is submitted that this vessel is eligible for THE RECORD. + L M C 8.29.

oil Engines etc La
16cy 21 5/8 - 39 3/8 - 722 NHP
CL. D.B. 100 lb

Minister's Main Cpu

R. P. Sparrow
Engineer-in-Charge to Lloyd's Register of Shipping.



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The amount of Entry Fee ... *112 -*
1/5 Special ... *2459 -*
Donkey Boiler Fee *see. M. Reg. No. 193573*
Travelling Expenses (if any) *619 -*
Agency fee 290 -
Committee's Minute

When applied for, *10/9/29*
When received, *19.10.29*

Assigned *+ L.M.C. 8.29* Oil Engines
D.B. 100 lb

Trieste Office

(The Surveys are requested not to write on or below the space for Committee's Minute.)