

REPORT ON OIL ENGINE MACHINERY.

No. 46022

Date of writing Report 6th Oct. 1926 When handed in at Local Office 6th Oct. 1926 Port of GLASGOW Received at London Office 13 Oct 1926

No. in Survey held at GLASGOW Date, First Survey 18th Feby. 1926 Last Survey 2nd Oct. 1926
 Reg. Book. Number of Visits 55

on the Single Twin Triple Screw vessels "DOLORES DE URQUIZA" Tons Gross 2218
Net 1458

Built at GLASGOW By whom built A. J. INGLIS LTD. Yard No. 725A When built 1926

Engines made at GLASGOW By whom made HARLAND & WOLFF LTD. Engine No. 725 When made 1926

Donkey Boilers made at ✓ By whom made ✓ Boiler No. — When made —

Brake Horse Power 1400 Owners ENTRE RIOS RAILWAYS Port belonging to Shiemy

Nom. Horse Power as per Rule 287 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

OIL ENGINES, &c.—Type of Engines DIESEL 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 500 LBS/SQ No. of cylinders 12 Diameter of cylinders 400 mm No. of cranks 12 Length of stroke 750 mm

No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 556 mm Is there a bearing between each crank YES

Revolutions per minute 200 Flywheel dia. 1720 mm Weight 2480 KGS. Means of ignition COMPRESSION Kind of fuel used ABOVE 150° F

Crank Shaft, dia. of journals as per Rule 250.2 mm as fitted 252 mm Crank pin dia. 252 mm Crank Webs Mid. length breadth 490 Thickness parallel to axis 153 mm
 as fitted 252 mm Mid. length thickness 153 shrunk Thickness around eye-hole 117 mm

Wheel Shafts, diameter as per Rule 250.2 mm as fitted 252 mm Intermediate Shafts, diameter as per Rule 6 9/16" as fitted 6 8/16" Thrust Shaft, diameter at collars as per Rule 175 mm as fitted 240 mm

Propeller Shafts, diameter as per Rule 6.9" as fitted 7" Screw Shaft, diameter as per Rule 7 1/4" as fitted 7 5/8" Is the tube screw shaft fitted with a continuous liner YES

Liner thickness in way of bushes as per Rule 33/64" as fitted 9/16" Thickness between bushes as per rule 25/64" as fitted 7/16" Is the after end of the liner made watertight in the after boss YES

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

Does the liner 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 ✓

Are the liners 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 shafts YES

Propeller, dia. 7' 9" Pitch 7' 0" No. of blades 3 EACH Material BRONZE whether Movable SOLID Total Developed Surface 2250 SQ. FT. EACH

Method of reversing Engines COMPRESSED AIR Is a governor or other arrangement fitted to prevent racing of the engine when disengaged YES Means of lubrication ✓

Thickness of cylinder liners 32 to 25 mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with insulating 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 ✓

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

Pumps fitted to the Main Engines, No. TWO Diameter 120 mm Stroke 55 mm Can one be overhauled while the other is at work YES

Connections connected to the Main Bilge Line { No. and Size THREE, MAIN ENGINE 120 mm x 55 mm x FIRE & GENERAL SERVICE 7" DIA x 8" STROKE DUPLEX
 How driven MAIN ENGINE (2) x F.T.G.S. MOTOR }
 Bilge Service Pumps, No. and size ONE - 40 TON Lubricating Oil Pumps, including Spare Pump, No. and size TWO - 30 TON

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 Engine Room 2 @ 2 1/2" AND 1 @ 1 1/2"

Waste Sinks 1 @ 2" Compartments 2 @ 2 1/4" and 6 @ 3"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE 4 1/2" DIA.

Are the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES Are the Bilge Suctions in the Machinery Space easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YES

Sea Connections fitted direct on the skin of the ship YES Are they fitted with Valves or Cocks YES

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 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 ✓

How are they protected Steel Oil-tight thro' tubes

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 YES

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 level.

What means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓

Air Compressors, No. TWO 60 kg/cm² No. of stages 3 Diameters 453 x 408 x 92 mm Stroke 230 mm Driven by MAIN ENGINE

ENGINE Air Compressors, No. TWO 60 kg/cm² No. of stages 3 Diameters 270 x 235 x 65 mm Stroke 165 mm Driven by AUX. ENGINE

Auxiliary Air Compressors, No. ONE 60 kg/cm² No. of stages 2 Diameters 80 x 32 mm Stroke 150 mm Driven by HAND

Blowing Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓

Are the Engines crank shafts, diameter as per Rule 138 mm OR 5% LESS 131 mm as fitted 145 mm

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule YES

Internal surfaces of the receivers be examined YES What means are provided for cleaning their inner surfaces LOOSE ENDS & MANHOLE DOORS

Drain arrangement fitted at the lowest part of each receiver YES

Pressure Air Receivers, No. 7 Cubic capacity of each 5 @ 58 LITRES 2 @ 37 " Internal diameter 295 mm thickness 5.8"

Are they welded or riveted longitudinal joint SEAMLESS Material STEEL Range of tensile strength 28/32 TONS Working pressure by Rules 1375 LBS/SQ

Air Receivers, No. One Total cubic capacity 260 ft.³ Internal diameter 5 ft. 0 ins. thickness 27/32

Are they welded or riveted longitudinal joint Riveted Material steel Range of tensile strength 28-32 tons Working pressure by Rules 364 LBS/SQ

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	✓	✓	✓	✓	
COVERS	22-3-26 to 9-4-26	15 LBS/□	50 LBS/□	NMB	
JACKETS	22-3-26 to 9-4-26	15 LBS/□	50 LBS/□	NMB	
PISTON WATER PASSAGES	23-3-26 to 14-4-26	10 LBS/□	30 LBS/□	NMB	
MAIN COMPRESSORS—1st STAGE L.P.	19-3-26 to 29-3-26	71 LBS/□	500 LBS/□	NMB	
2nd " M.P.		220 LBS/□	500 LBS/□	NMB	
3rd " H.P.		19-3-26 & 22-3-26	1000 LBS/□	2000 LBS/□	NMB
AIR RECEIVERS—STARTING	29-6-26	356 lb./sq. in.	585 lb./sq. in.	W.B.	Refect Rept. 9579.
INJECTION	25-3-26 & 1-4-26	1000 LBS/□	2000 LBS/□	NMB	A.V. N ^{os} 845/6/7/8/9/50
AIR PIPES ETC. STARTING	25-2-26 to		712 LBS/□	NMB	
FUEL PIPES ETC. STARTING	✓	✓	✓	✓	
FUEL PUMPS FILLING & SUCTION PIPES	✓	✓	30 LBS/□	✓	
SILENCER	✓	✓	✓	✓	
WATER JACKET	✓	✓	✓	✓	
SEPARATE FUEL TANKS	✓	✓	✓	NMB	

PLANS. Are approved plans forwarded herewith for Shafting Receiver Separate Tanks
 Donkey Boilers NONE General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR
 Supplied as per attached list.

The foregoing is a correct description,

J. C. Green

Manufacturer.

Dates of Survey while building: During progress of work in shops-- 1926 Feb. 18-25 Mar 1-3 5-8 16-17 18-19-22-23 25-26-29-30 31 Apr 1-2 6-9-12-13 14-15-16-22-26-27-28
 During erection on board vessel-- May 6-11-14-19-24-29 June 2-4-8-10-14-15-25 July 7-12-13 Aug 16-27 Sep 6-23-14-16-28 Oct 1-2
 Total No. of visits 55

Dates of Examination of principal parts—Cylinders 22/3/26 to 9/4/26 Covers 22/3/26 to 9/4/26 Pistons 23/3/26 to 14/4/26 Connecting rods 30-3-26
 Crank shaft 5. 2/4/26 Flywheel shaft 5. 2/4/26 Thrust shaft 5. 2/4/26 Intermediate shafts 10/6/26 & 25/6/26 Tube shafts 16/4/26 & 24/5/26
 Screw shafts 12/4/26 & 5/6/26 Propellers 2/6/26 Stern tube 7/7/26 Engine seatings 13-7-26 Engines holding down bolts 27-8-26
 Completion of fitting sea connections 13-7-26 Completion of pumping arrangements 16-9-26 Engines tried under working conditions 2-10-26
 Crank shaft, Material STEEL Identification Mark N^o 725 LLOYDS 5. Flywheel shaft, Material STEEL Identification Mark M1100 M1142
 Thrust shaft, Material STEEL Identification Mark ON CRANK SHAFT Intermediate shafts, Material STEEL Identification Mark LLOYDS LLOYDS LLOYDS
 Tube shaft, Material STEEL Identification Mark 778 3/771 389 LLOYDS LLOYDS LLOYDS
 Screw shaft, Material STEEL Identification Mark 1222 1223 1224 1225 1226 LLOYDS LLOYDS LLOYDS LLOYDS
 Is the flash point of the oil to be used over 150° F. YES

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.)

INTERMEDIATE SHAFTS:— PORT N^o 1 789 LLOYDS 12/11 T.N. 16/3/26 N^o 2 824 LLOYDS 12/11 T.N. 19/4/26 N^o 3 796 LLOYDS 12/11 T.N. 16/3/26 N^o 4 791 LLOYDS 11/8 T.N. 2/3/26 N^o 5 891 LLOYDS 12/11 T.N. 13/4/26
 STAR^o 798 LLOYDS 12/11 T.N. 1/4/26 790 LLOYDS 11/9 T.N. 5/3/26 797 LLOYDS 12/24 T.N. 23/3/26 888 LLOYDS 12/36 T.N. 9/4/26 890 LLOYDS 12/11 T.N. 16/4/26

This machinery has been constructed under special survey in accordance with the rules and approved plans. The materials and workmanship are sound and good, it has been fitted on board the vessel in an efficient manner, tried under full power working condition and everything found satisfactory and is in our opinion eligible to be classed with record of * L. M. C.-10, 26: T.S. - P. & S.- O.G. & C.L.

The amount of Entry Fee ... £ 54 : 0 :
 Special ... £ 68 : 11 :
 Donkey Boiler Fee ... £ - : - :
 Travelling Expenses (if any) £ - : - :
 When applied for, 11-10-26
 When received, 20-10-26

H. M. Curick & J. D. Boyle
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 12 OCT 1926

Assigned + LMC 10, 26

CERTIFICATE WRITTEN 13-10-26



A. B. Glasgow
 11/10/26

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

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