

# REPORT ON MACHINERY.

No. 995.

Received at London Office MON. 7 MAY. 1923

Date of writing Report 30-4-1923 When handed in at Local Office

Port of Cadix

No. in Survey held at Cadix

Date, First Survey 17-11-1920 Last Survey 28-4-1923

Reg. Book. 66582 on the Twin S.S. "MANUEL ARNUS"

(Number of Visits 54)

Tons } Gross  
          } Net

Master Built at Cadix By whom built Sociedad Espanola de Construcion Naval When built 1923

Engines made at Barrow By whom made Vickers Ltd. when made 1921

Boilers made at Barrow By whom made Parsons Marine Steam Turbine Co. when made 1921

Registered Horse Power 1173. Owners Cia. Transatlantica Port belonging to Barcelona

Shaft Horse Power at Full Power 6250 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

## TURBINE ENGINES, &c.—Description of Engines

No. of Turbines

Diameter of Rotor Shaft Journals, H.P. L.P. Diameter of Pinion Shaft

Diameter of Journals Distance between Centres of Bearings Diameter of Pitch Circle

Diameter of Wheel Shaft Distance between Centres of Bearings Diameter of Pitch Circle of Wheel

Width of Face Diameter of Thrust Shaft under Collars Diameter of Tunnel Shaft as per rule as fitted

No. of Screw Shafts continuous Lines as per rule Diameter of Propeller Pitch of Propeller

No. of Blades State whether Moveable Total Surface Diameter of Rotor Drum, H.P. L.P. Astern

Thickness at Bottom of Groove, H.P. L.P. Astern Revs. per Minute at Full Power, Turbine Propeller

## PARTICULARS OF BLADING.

	H.P.			L.P.			ASTERN.		
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
1ST EXPANSION									
2ND									
3RD									
4TH									
5TH									
6TH									
7TH									
8TH									

No. and size of Feed pumps Four Mains:— 12" diam cylinders, 21" stroke, 9" diam pump

No. and size of Bilge pumps Two Duplex 7" 8" 8"

No. and size of Bilge suction in Engine Room and Boiler Room 15 - 3 1/2"

In Holds, &c. 17 - 3 1/2"

No. of Bilge Injections 2 sizes 13" Connected to condenser, or to circulating pump No Is a separate Donkey Suction fitted in Engine Room & size Two 3 1/2"

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes

Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line Both

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 are carried through the bunkers Ballast & Bilge How are they protected Sheet metal

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

Are the Screw Shaft Tunnels watertight Yes Are they fitted with a watertight door No worked from Engine Room & Bridge.

## BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate

Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler

Area of each valve Pressure to which they are adjusted 180 lbs per sq in Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 20" Mean dia. of boilers Length Material of shell plates

Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell plates

Size of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter

Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings bottom

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom Working pressure by rules

Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

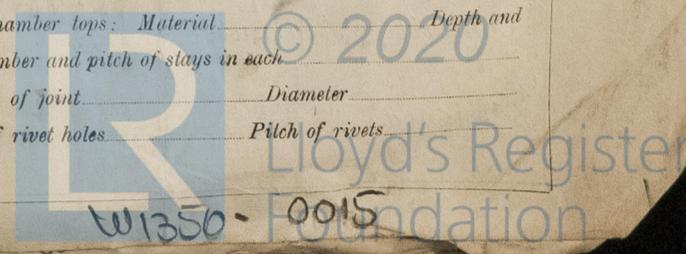
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

Working pressure by rules Steam dome: description of joint to shell % of strength of joint Diameter

Thickness of shell plates Material Description of longitudinal joint Diameter of rivet holes Pitch of rivets

Working pressure of shell by rules Crown plates: Thickness How stayed



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