

REPORT ON OIL ENGINE MACHINERY.

No. 74783
WFD. 28 SEP. 1921

Date of writing Report

19

When handed in at Local Office

27 SEP 1921

Port of

Received at London Office

Newcastle-on-Tyne

No. in
Reg. Book.

Survey held at

NEWCASTLE-ON-TYNE

Date, First Survey

12th August 1920

Last Survey

7th Sept 1921

Number of Visits

54

36690

Single
Twin
Triple

Screw vessel

CONDE DE CHURRUCA

Tons { Gross 4500
Net 2785

Master

Built at Newcastle

By whom built Armstrong Whitworth & Co.

Engines made at Winterthur

By whom made Sulzer Frères S.A.

Engine No. 2835 When built 1921

Donkey Boiler made at Newcastle

By whom made Armstrong Whitworth & Co. Ltd.

Boiler No. 45 When made 1921

Brake Horse Power 2500

Owners Sociedad Commercial de Oriente

Port belonging to S. Sebastian

Nom. Horse Power as per Rule 680

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

OIL ENGINES, &c. Type of Engines

Sulzer maine Diesel

2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders

No. of cylinders 8

No. of cranks

Diameter of cylinders

Length of stroke

Revolutions per minute

Means of ignition

Kind of fuel used

Is there a bearing between each crank

Span of bearings (Page 92, Section 2, par. 7 of Rules)

Distance between centres of main bearings

Is a flywheel fitted

Diameter of crank shaft journals

Diameter of crank pins

Breadth of crank webs

Thickness of ditto

Diameter of flywheel shaft

Diameter of tunnel shaft

Diameter of thrust shaft

Diameter of screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

If the liner is in more than one length are the joints burned

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 without liners, is the shaft arranged to run in oil

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RECEIVERS:—No of high pressure air receivers

Internal diameter

Cubic capacity of each

Seamless, lap welded or riveted longitudinal joint

Range of tensile strength

working pressure by Rules

No. of starting air receivers

Internal diameter

cubic capacity

Material

Seamless, lap welded or riveted longitudinal joint

Range of tensile strength

thickness

Working pressure by rules

Is each receiver, which can be isolated,

with a safety valve as per Rule

Can the internal surfaces of the receivers be examined

What means are provided for cleaning their

er surfaces

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

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Lloyd's Register
Foundation

005210 - 005218 - 0096

IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS					
" " COVERS					
" " JACKETS.....					
" " PISTON WATER PASSAGES.....					
MAIN COMPRESSORS—1st STAGE.....					
" 2nd					
" 3rd					
AIR RECEIVERS—STARTING					
" INJECTION	14. 7. 21	70 ATMOS.	140 ATMOS.	R.L.A.	
AIR PIPES	11. 5. 21 7. 21	1000 LBS.	2000 LBS.	R.L.A.	
FUEL PIPES					
FUEL PUMPS					
SILENCER					
" WATER JACKET					
SEPARATE FUEL TANKS ... 2 SETTLING	10. 6. 21		15 LBS.	R.L.A.	

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

Receivers

Separate Tanks

SPARE GEAR 1 Cylinder Cover with studs; 2 Combined Fuel & Air valves complete without advance valves; 2 Advance Air Valves; 4 Fuel
needle valves with guides; 2 Fuel Pulverisers complete; 2 Fuel Pulveriser plates for fuel valve; 24 distance rings; 4 Spray plates; 1 Working
with studs but without studs; 14 Piston rings; 1 Working Cylinder with oil wiper; 2 Oil wiper rings; 2 Oil wiper rings; 1 pair skew gear for bottom of
shaft; 1 pair skew gear for scavenge valve shaft; 1 pair skew gear for camshaft; 1 Connecting rod bottom end bearing with liners; 2 Bottom End Bolts
2 sets Top End Bearings (4 valves) with liners; 4 Top End Bolts & nuts; 1 Main Bearing (2 Half-Bearings); 1 Compressor shaft Bearing (2 Half-Bearings); 2
nuts for main bearing; 3 Crankshaft coupling bolts; 18 Cylinder cover studs & nuts; 1 Rotating slide scavenge air valve; 4 piston cooling water pipes; 4
cooling water pipes; 4 angles; 4 water cooling pipes; 2 Fuel Cam insertion pieces; 4 Cam rollers & pins; 4 fuel pump plungers with bushes
2 valves for fuel & return valves; 4 Crosshead lubricating pipes
The foregoing is a correct description.

SIR W. G. ARMSTRONG, WHITWORTH & CO. LIMITED.
Brown & Shumway Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1920 Aug. 12. Sep. 9. Oct. 7. 13. Nov. 5. Feb. 10. Apr. 11. May 9. 10. 11. 15. 19. 23. 24. Jun. 6. 8. 9. 10. 15. 17. 20. 27. 29. 30.
	During erection on board vessel - -	5. 7. 11. 13. 14. 15. 16. 20. 21. 22. 25. 26. 27. Aug. 9. 10. 12. 13. 16. 22. 25. 26. 31. Sep. 1. 2. 3. 5. 7.
	Total No. of visits	54.

Dates of Examination of principal parts—Cylinders	11. 4. 21	Covers	11. 4. 21	Pistons	11. 4. 21	Rods	23. 5. 21	Connecting rods	23. 5.
Crank shaft	11. 4. 21	Thrust shaft	11. 4. 21	Tunnel shafts	19. 5. 21	Screw shaft	19. 5. 21	Propeller	19. 5. 21
Engines holding down bolts	5. 7. 21	Completion of pumping arrangements	7. 9. 21	Engines tried under working conditions	16. 8. 21	Completion of fitting sea connections	19. 5. 21	Stern tube	5. 7. 21
Material of crank shaft	S.M. Steel	Identification Mark on Do.	2835	Material of thrust shaft	S.M. Steel	Identification Mark on Do.	1293	Screw shaft and propeller	14. 7. 21
FLY-WHEEL SHAFTS	S.M. Steel	Identification Marks on Do.	71 R.L.A. 1345 R.L.A.	Material of screw shafts	S.M. Steel	Identification Marks on Do.	1293 1293 1043 R.L.A. 1031 R.L.A. 1042 R.L.A. 977 R.L.A.		
Material of tunnel shafts	S.M. Steel	Identification Marks on Do.	1294 R.L.A.						
Is the flash point of the oil to be used over 150° F.	Yes								

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. Spare Gear (cont'd) Scavenge pumps & Compressor Gear:— 1 B.E. bearing
Top End Bearings: 1 Compressor T.E. Bearing. 1 S.P. piston ring. 5 1/2 Stage H.P. Compressor rings: 6 2 1/2 Stage rings: 3 3/4 Stage rings: 1 Valve line for 2 1/2 Stage with 2
2 dly valves: 18 bolts & 18 nuts. Valve rings for 1 1/2 & 2 1/2 Stages. Oil & Water pumps: 3 Piston rings for water & 3 for oil pumps. 4 Valve seats for water pumps. 2
Cooling pumps: 6 for oil & 6 for water. 1 for crosshead lub pump. 4 valves for cylinder lub pump. General Copper joints - Oil & Cooler tubes -
Air - fuel pipes - liners - nipples - flanges - jointing - packing - Bolts nuts & Lin.

The main Engines were not built under special Survey. All parts were opened up and examined - found in
order - The Engines & Aux^y machinery were efficiently installed - were tried out under working and
satisfactorily - All oil, water & air pressure lines, valves, tanks & pipes were tested by hydraulic pres
In my opinion the vessel is eligible to be classed L.M.C. 9. 21 in the Register Book

The amount of Entry Fee ... £	6 : 0	Where applied for,	
Special ... £	59 : 0	When received,	19
Donkey Boiler Fee ... £	:		
Travelling Expenses (if any) £	:		

R. Lee Ames.
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute
Assigned
FRI. OCT. 27. 1921
27th. 9. 21
Oil engines