

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 14090

20 JAN 1955

Received at London Office

4c.  
 Date of writing Report 13th Jan 1955 When handed in at Local Office 15th Jan 1955 Port of TRIESTE  
 Survey held at Monfalcone - Trieste Date, First Survey See Rpt. Last Survey 46 19  
 Number of Visits 1  
 Gross 12505  
 Net 7406  
 Single Screw vessel Yr. "ALDERAMINE"  
 Built at Monfalcone By whom built Cant. Riuniti dell'Adriatico Yard No. 1793 When built 1954  
 Owners "Ronsa" - Raffineria Obio Minerale S. A. Port belonging to GENOA  
 Engines made at Trieste By whom made Cant. Riuniti dell'Adriatico Eng. Nos. 5597, 5598, 5599 When made 1954  
 Generators made at Monfalcone By whom made - do - Contract No. 72534 When made 1954  
 of Sets 3 Engine Brake Horse Power 375 M.N. as per Rule 75 Total Capacity of Generators 250 each Kilowatts.  
 Set intended for essential services yes

L ENGINES, &c.—Type of Engines CRDA - SULZER 5 BH 29 2 or 4 stroke cycle 4 Single or double acting S.A.  
 Maximum pressure in cylinders 60 kg/cm<sup>2</sup> Diameter of cylinders 290 mm Length of stroke 360 mm No. of cylinders 5 No. of cranks 5  
 Indicated pressure 67 kg/cm<sup>2</sup> Firing order in cylinders 1-3-5-4-2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 334 mm  
 There a bearing between each crank yes Moment of inertia of flywheel (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) PD<sup>2</sup> = kgm<sup>2</sup> 2000 Revolutions per minute 500  
 Flywheel dia 1500 mm Weight 1400 kg Means of ignition compr. Kind of fuel used heavy oil  
 Crank Shaft, dia. of journals as per Rule as app. 200 mm Crank pin dia. 185 mm Crank Webs Mid. length breadth 260 mm Thickness parallel to axis shrunk  
 Flywheel Shaft, diameter as per Rule as app. 150 mm Intermediate Shafts, diameter as per Rule as app. General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>)  
 Means provided to prevent racing of the engine when decoupled yes Means of lubrication forced Kind of damper if fitted  
 Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material yes  
 Cooling Water Pumps, No. 2 of 35 T./h. S.W. & 2 of 35 T./h. F.W. indep. Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes  
 Lubricating Oil Pumps, No. and size 1 of 12.8 T./h. each engine attached  
 Air Compressors, No. No. of stages Diameters Stroke Driven by  
 SAVING Air Pumps, No. Diameter Stroke Driven by  
 AIR RECEIVERS:—Have they been made under Survey yes State No. of Report or Certificate Cert. No. A. 20  
 Each receiver, which can be isolated, fitted with a safety valve as per Rule yes  
 The internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces yes  
 There a drain arrangement fitted at the lowest part of each receiver yes  
 High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness  
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules  
 Starting Air Receivers, No. 2 Total cubic capacity 220 ft. each Internal diameter 452 mm thickness 9 mm  
 Seamless, lap welded or riveted longitudinal joint Seamless Material S.M.S. Range of tensile strength 63.8 kg/cm<sup>2</sup> Working pressure by Rules 30 kg/cm<sup>2</sup>

ELECTRIC GENERATORS:—Type D 400 - Protected self ventilated  
 Voltage of supply 220 volts Full Load Current 1135 Amperes Direct or Alternating Current D.C.  
 Alternating current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown on and off yes Generators, are they compounded as per Rule yes is an adjustable regulating resistance fitted in series with each shunt field yes  
 Are all terminals accessible, clearly marked, and furnished with sockets yes Are they so spaced  
 Shielded that they cannot be accidentally earthed, short circuited, or touched yes Are the lubricating arrangements of the generators as per Rule yes  
 The generators are under 100 kw. full load rating, have the makers supplied certificates of test and do the results comply with the requirements  
 The generators are 100 kw. or over have they been built and tested under survey yes  
 Details of driven machinery other than generator none

PLANS.—Are approved plans forwarded herewith for Shafting 1st July 1953 Receivers Separate Tanks  
 Have Torsional Vibration characteristics if applicable been approved 1st July 1953 Armature shaft Drawing No. 6681-15/72534  
 GEAR To Rule requirements

DUAL GLASS  
 L. R. & I.

CANTIERI RIUNITI DELL'ADRIATICO  
 CANTIERE NAVALE MONFALCONE

The foregoing is a correct description,

Manufacturer.



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Lloyd's Register  
 Foundation

012836-012844-0097

Dates of Survey while building  
During progress of work in shops - -  
During erection on board vessel - -  
Total No. of visits

See Rpt. 4b

Dates of Examination of principal parts—Cylinders May 54 Covers May 54 Pistons May 54 Piston rods ✓  
Connecting rods May 54 Crank and Flywheel shafts May 54 Intermediate shafts ✓

Crank shaft Material E.F.S. & S.M.S. Tensile strength  
Elongation Identification Marks Lloyd's { SS 3052 - G.M. 29.12.53  
SS 2993 - G.M. 10.12.53  
616 - J.L. 10.2.54

GENERATOR Flywheel shafts Material S.M.S. Identification Marks Lloyd's I 137-138-139 F.B.C.

Identification marks on Air Receivers 2-164377 & 2-164378

Lloyd's TEST 60 kg/cm<sup>2</sup> - W.P. 30 kg/cm<sup>2</sup>

G.M. 14.5.54

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.)

These auxiliary generating set engines have been constructed under special survey from test materials and are in accordance with the Secretary's Letters, the approved plans and Rule requirements. The torsional vibration characteristics of the shafting installation of these auxiliary engines have been approved for a service speed of 500 R.P.M.

The workmanship and the materials are good.

These engines have been installed on board the vessel in an efficient manner and found satisfactory when tried under full working conditions.

One 60 kW. auxiliary generator steam engine set made by Messrs. Termomeccanica Italiana - La Spezia, has also been fitted on board in an efficient manner and found satisfactory when tried under full working load.

One 30 kW. auxiliary generator diesel engine set made by Messrs. Süddeutsche Breusen A.G. (see Augsburg Surv. Rpt. No. 288) was installed on board the vessel as an emergency set and found satisfactory when tried under full working load. In my opinion these engines are eligible for full classification.

DUAL CLASS  
L.R. & R.I.

Line 238,500. = Less 15% for dual class

The amount of Fee ... £ 202,700. = When applied for 15.1.1955  
Carfund 5,060. =  
Travelling Expenses (if any) £ 5,060. = When received 19  
3% Rev. Tax. 6,385.

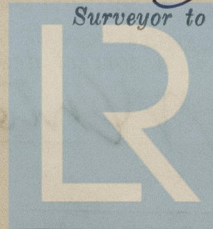
FRIDAY 11 FEB 1955

Committee's Minute.

Assigned

See Rpt 4b

Surveyor to Lloyd's Register of Shipping.



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