

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 13997  
AUG 1954

Received at London Office

Date of writing Report 15th June 1954 When handed in at Local Office 26.7.54 Port of TRIESTE

Survey held at Monfalcone - Trieste Date, First Survey Please see Last Survey Rpt. 46 1954  
Number of Visits 1

Single on the Triple Screw vessel Hv. "FIACCOLA" Tons Gross 12460 Net 7487

Monfalcone By whom built Cantieri Riuniti dell'Adriatico Yard No. 1787 When built 1954

"CITMAR" Cia. Ital. Trasporti Marittimi Port belonging to VENICE

Engines made at Trieste By whom made Cant. Riun. dell'Adriatico Eng. No. 5591/2/3 When made 1954

Generators made at Monfalcone By whom made - - - Contract No. 14327 When made 1954

No. of Sets 3 Engine Brake Horse Power 350 each M.N. as per Rule 70 each Total Capacity of Generators 690 Kilowatts.

Set intended for essential services. Yes

IL ENGINES, &c.—Type of Engines C.R.D.A. - SULZER 6BH29 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 6 No. of cranks 6

Mean indicated pressure 14.5 kg/cm<sup>2</sup> Firing order in cylinders 1.2.3.6.5.4 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 334 mm

Is there a bearing between each crank Yes Moment of inertia of flywheel 2000 PD<sup>2</sup> = kgm<sup>2</sup> 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. Crank pin dia. 185 mm Crank Webs Mid. length breadth 320 mm Thickness parallel to axis 92 mm

as fitted 200 mm Mid. length thickness 92 mm shrunk Thickness round eye hole

Flywheel Shaft, diameter as per Rule as app. Intermediate Shafts, diameter as per Rule as fitted PD<sup>2</sup> = kgm<sup>2</sup> 240

General armature, moment of inertia 240

Are means provided to prevent racing of the engine when declutched Yes Means of lubrication forced Kind of damper if fitted governor

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. 1 x engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Lubricating Oil Pumps, No. and size 1 x engine

Air Compressors, No. No. of stages Diameters Stroke Driven by

scavenging Air Pumps, No. Diameter Stroke Driven by

AIR RECEIVERS:—Have they been made under Survey State No. of Report or Certificate

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

Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

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

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. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type C.R.D.A. - D 800 - Protected & self ventilated

Pressure of supply 220 volts Full Load Current 1045 Amperes Direct or Alternating Current D.C.

Is an 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

Are the generators under 100 kw. full load rating, have the makers supplied certificates of test and do the results comply with the requirements

Are the generators 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 Yes Receivers Separate Tanks Yes

Have Torsional Vibration characteristics if applicable been approved 5th February 1953 Armature shaft Drawing No. 6681/15

SHAFTING:—As per Rules

The foregoing is a correct description.

CANTIERI RIUNITI DELL'ADRIATICO  
CANTIERE NAUTICO MONFALCONE

Manufacturer.



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Lloyd's Register  
Foundation

011912-011926-0087



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  $\frac{5}{4} \div \frac{12}{5}$  Covers  $\frac{5}{4} \div \frac{12}{5}$  Pistons  $\frac{5}{4} \div \frac{12}{5}$  Piston rods ✓

Connecting rods  $\frac{5}{4} \div \frac{12}{5}$  Crank and Flywheel shafts  $\frac{5}{4} \div \frac{12}{5}$  Intermediate shafts ✓

Crank shaft { Material S.M.S. Tensile strength 53.1% 56.6 kg/mm<sup>2</sup>  
Elongation 33.1% 29% on 1d. Identification Marks Lloyd's SS { 2319 } R.C. with date  
2347 }  
2349 }

Flywheel shaft, Material see crankshaft Identification Marks ✓

Identification marks on Air Receivers see Rpt. 4b

Is this machinery duplicate of a previous case yes If so, state name of vessel "FIAMMA" - C.R.D.A. /ord 1776 -

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

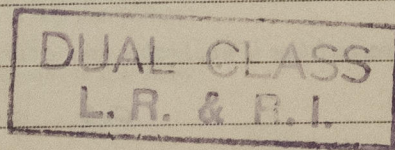
These auxiliary generating set engines have been constructed under special survey from test materials and are in accordance with the Secretary's letters, the approved plans and Requirements. The torsional vibration characteristics of the shafting installation of auxiliary engines have been approved for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

The workmanship and the materials are good.

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

One 30 kW auxiliary generator steam engine set made by Messrs. Franco Tosi of Legnano has also been fitted on board in an efficient manner and found satisfactory when tried under full working load.

In my opinion these engines are eligible for full classification.



Less 15% for dual  
The amount of Fee ...pass. £ 19.1.250. = When applied for 26.7 1954  
car fund 4.780. =  
Travelling Expenses (if any) £ 4.780. = When received 19  
Ret. Tax 3% 6.025. =

FRIDAY 1 OCT 1954

Committee's Minute

Assigned

See Rpt. 4b

