

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 102228

Received at London Office

21 NOV 1935

Date of writing Report 18 Nov 1935 When handed in at Local Office 21 NOV 1935 Port of London

No. in Survey held at Bedford Date, First Survey 1st October 1935 Last Survey 1st March 1935
Reg. Book. Number of Visits 419820 on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel m/v AGUILA IITons { Gross 1369
Net 822.

Built at Leith By whom built Henry Robb & Co. Yard No. When built 1931/1

Owners Cia Argentina de Fierro Port belonging to Buenos Ayres

Oil Engines made at Bedford By whom made W. H. Allen Sons & Co. Ltd Contract No. K1/54605 When made 1935

Generators made at Bedford By whom made W. H. Allen Sons & Co. Ltd Contract No. E1/54606 When made 1935

No. of Sets 1 Engine Brake Horse Power 38 Nom. Horse Power as per Rule 10.9 Total Capacity of Generators 25 Kilowatts.

OIL ENGINES, &c. Type of Engines Diesel injection (2327) 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 630 lb. Diameter of cylinders 200 mm Length of stroke 275 mm No. of cylinders 2 No. of cranks 2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 214 mm Is there a bearing between each crank Yes

Revolutions per minute 450 Flywheel dia. 1220 mm Weight 2800 lb. Means of ignition Compression Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule 108.5 mm as fitted 130 mm Crank pin dia. 130 mm Crank Webs Mid. length breadth 181 mm Mid. length thickness 50 mm Thickness parallel to axis shrunk Thickness around eye hole

Flywheel Shaft, diameter as per Rule as fitted bank shaft Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 14 mm

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced.

Are the cylinders fitted with safety valves No Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

Cooling Water Pumps, No. 1 Centrifugal 300 gal. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 1 - Gear type 5.1 gallon per minute

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

Scavenging Air Pumps, No. Diameter Stroke Driven by

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

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

Is 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. 1 Total cubic capacity 5 cu ft. Internal diameter 18" thickness 5/16"

Seamless, lap welded or riveted longitudinal joint Material Steel Range of tensile strength 26/30 Tons Working pressure by Rules 300 lb.

ELECTRIC GENERATORS:—Type Open with canopy (63°F. 6 hour)

Pressure of supply 110 volts. Load 227 Amperes. Direct or Alternating Current Direct

If alternating current system, state frequency of periods per second

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes

Generators, do they comply with the requirements regarding rating Yes are they compound wound Yes

are they over compounded 5 per cent. Yes, if not compound wound state distance between each generator

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 or shielded that they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

PLANS. Are approved plans forwarded herewith for Shafting 5.5.32. Receivers Separate Tanks

SPARE GEAR One complete set of valves for one cylinder including springs 2 injection nozzles

1 set piston & scraper rings for one piston, 1 set studs & nuts for one cylinder cover, 2 bottom end bolts

2 main bearing bolts, one fuel pump, 1 gauge & pin.

The foregoing is a correct description,
W. H. ALLEN, SONS & CO., LD.,

H. Scott-Kemmis

Manufacturers.



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Lloyd's Register
Foundation

014899 - 014911 - 0128

Dates of Survey while building { During progress of work in shops - - } 1935 Oct. 1. 15. 21. Nov. 1. = 4 Visits.
{ During erection on board vessel - - - }
Total No. of visits

Dates of Examination of principal parts—Cylinders 1.10.35/15.10.35 Covers 1.10.35/15.10.35 Pistons 15.10.35 Piston rods

Connecting rods 1.10.35 Crank and Flywheel shaft 15.10.35 Intermediate shaft

Crank and Flywheel shafts, Material *4.2. Steel* Identification Mark

K1/54605 Lloyds 5988
GRC. 16.9.35 9AL 15.10.35

Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) *Workmanship good.*

*This two cylinder engine has been specially surveyed during construction and is in accordance with the approved plan and the Rules.
The materials used have been made at works approved by the Committee and tested by the Surveyors to this Society as required by the Rules
Full power, 10% overload, governing, regulation, & simulation tests were witnessed, the engine being direct coupled to its generator, and found satisfactory.
It is now being dispatched to Buenos Aires for fitting onboard.*

*Note: On receipt by Rushion & Hornby. built & tested under survey tested by hydraulic pressure with mountings fitted & found satisfactory on the 1/11/35
Receipt is stamped Mountings stamped*

LLOYDS 84179
TP. 600th
WP. 300th
18.9.35
C. H. L. P.

Lloyds Test Book
SAL 1-11-35

*Attached hereto: Copy of Special certificate issued
Anging report on crank shaft.
Copy of certificate of on receipt.
Makin Certificate of test of generator.*

The amount of Fee ... £ 6.6.0 When applied for, 21 NOV 1935
Travelling Expenses (if any) £ 1.12.0 When received, 11/11/35

Geo. Loring
Surveyor to Lloyd's Register of Shipping.

FRI. 14 AUG 1936

FRI 14 MAY 1937

Committee's Minute
Assigned