

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 15293

Date of writing Report 19 When handed in at Local Office 27. 11. 1951 Port of BELFAST Received at London Office 29 NOV 1951  
 No. in Survey held at BELFAST Date, First Survey Please see p. 46. Last Survey 19  
 Reg. Book. on the <sup>Single</sup> ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel M.S. "JUAN PERON" Number of Visits  
 Built at BELFAST By whom built HARLAND & WOLFF LTD. Yard No. 1384 When built 10/51.  
 Owners. COMPANIA ARGENTINA de PESCA. S.A. Port belonging to BUENOS AIRES.  
 Oil Engines made at BELFAST By whom made HARLAND & WOLFF LTD. Contract No. 1384 When made 10/51.  
 Generators made at BELFAST By whom made HARLAND & WOLFF LTD. Contract No. 1384 When made 10/51.  
 No. of Sets 5 Engine Brake Horse Power 620 (each) M.N. as per Rule 775 TOTAL 155 EACH Total Capacity of Generators 2125 Kilowatts.  
 Is Set intended for essential services. YES

OIL ENGINES, &c.—Type of Engines HEAVY OIL. 2 or 4 stroke cycle 4 Single or double acting SINGLE.  
 Maximum pressure in cylinders 700 lbs/p. Diameter of cylinders 380 mm. Length of stroke 570 mm. No. of cylinders 6 No. of cranks 6  
 Mean indicated pressure 91 lbs/p. Firing order in cylinders 1-3-5-6-4-2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 455 mm.  
 Is there a bearing between each crank YES Moment of inertia of flywheel (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) 4500 Kg.m<sup>2</sup> Revolutions per minute 300  
 Flywheel dia. 2210 mm. Weight 6230 Kgs. Means of ignition COMPRESSION Kind of fuel used DIESEL OIL.  
 Crank Shaft, dia. of journals as per Rule 280 mm. Crank pin dia. 230 mm. Crank Webs Mid. length breadth 885 mm. Thickness parallel to axis 125 mm. shrunk  
 as fitted 280 mm. Mid. length thickness 125 mm. Thickness round eyehole 170.25 mm.  
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>)

Are means provided to prevent racing of the engine when disengaged 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 LAGGED.  
 Cooling Water Pumps, No. FROM MAIN SYSTEM. Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES (MAIN)  
 Lubricating Oil Pumps, No. and size ONE. DIRECT DRIVE FROM SHAFT.

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 YES State No. of Report or Certificate X317

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 HANDHOLE.

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. 2 Total cubic capacity 180 litres EACH Internal diameter 17 1/4" thickness 3/8"

Seamless, lap welded or riveted longitudinal joint WELDED Material STEEL Range of tensile strength 28/32 Working pressure by Rules 356 lbs/p.

ELECTRIC GENERATORS:—Type DRIP-PROOF.

Pressure of supply 225 volts. Full Load Current 1890 Amperes. Direct or Alternating Current DIRECT.

If 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

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

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

If the generators are 100 kw. or over have they been built and tested under survey YES

Details of driven machinery other than generator

PLANS.—Are approved plans forwarded herewith for Shafting YES Receivers YES Separate Tanks YES  
 (If not, state date of approval)

Have Torsional Vibration characteristics if applicable been approved YES See LETTER 27.5.48 Armature shaft Drawing No.  
 (state date of approval)

SPARE GEAR SEE ATTACHED LIST.

The foregoing is a correct description,  
 For HARLAND & WOLFF LIMITED

Manufacturer.



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014023-014031-0140



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

Dates of Examination of principal parts—Cylinders 28.4.49 7.2.49 12.9.49  
6.6.49 Covers 18.7.50 Pistons 7.4.50 Piston rods ✓  
5.12.49  
Connecting rods 28.2.50 Crank and Flywheel shafts 18.10.49 20.4.50 Intermediate shafts ✓

Crank shaft Material WEBS & CRANKPINS: C.S. JOURNALS: F.S. Tensile strength C.S. 28.0-34.1 tons/in<sup>2</sup> F.S. 28.1-31.5 tons/in<sup>2</sup>  
Elongation C.S. 27.3% 2" F.S. 32.3% 3" Identification Marks N°1. 1251. 9D 20.10.49 N°2. 1250. 9D 18.10.49  
N°3. 1251. 9D 3.2.50 N°4. 1252. 9D 16.2.50  
N°5. 1256. 9D 20.4.50  
Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers. LLOYDS TEST "R.O.B." 28.3.50 N° 472

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 Engines have been constructed under Special Survey, and in accordance with Rules approved plans and Secretary's Letters. The materials and workmanship are good.

The completed units have been installed on board, and examined under full working conditions with satisfactory results.

The amount of Fee ... £ : : When applied for 19  
Travelling Expenses (if any) £ : : When received 19

Committee's Minute

Assigned

Su F.E. mealy. rpt.

FRI. 21 DEC 1951

A. T. Tait & J. B. E. E. E.  
Surveyor to Lloyd's Register of Shipping.



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