

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 Last Survey 19

Reg. Book. on the ^{Single} ~~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/sq. Diameter of cylinders 380 mm. Length of stroke 570 mm. No. of cylinders 6 No. of cranks 6

Mean indicated pressure 91 lbs/sq. 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 m² or Kg.-cm.²) 4500 Kg.m² 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 585 mm. Thickness parallel to axis 125 mm. shrunk 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 m² or Kg.-cm.²)

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/sq

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 YES 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 YES and do the results comply with the requirements YES

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

Have Torsional Vibration characteristics if applicable been approved YES See LETTER 275 AB Armature shaft Drawing No.

SPARE GEAR SEE ATTACHED LIST.

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

Sheila V. Spaul
Secretary

Manufacturer.



014023-014031-0190

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 *6. 6. 49* Covers *18. 7. 50* Pistons *7. 4. 50* Piston rods *✓*

Connecting rods *5. 12. 49* 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/in² F.S. 28.1-31.2 tons/in²*

Elongation *C.S. 27.3% 2" F.S. 32.3% 3"* Identification Marks *N^o 1. 1251. 90 20.10.49. N^o 2. 1250. 90 18.10.49. N^o 3. 1251. 90 3.2.50. N^o 4. 1252. 90 16.2.50. N^o 5. 1256. 90 20.4.50.*

Flywheel shaft, Material *✓* Identification Marks *✓*

Identification marks on Air Receivers *LLOYDS TEST "R.O.B." 23.3.50. N^o 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

FRI. 21 DEC 1951

Committee's Minute

Assigned

Su F. E. mealy, rpt.

A. J. Hamilton & B. E. Moore
Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

STE
PS.
t
a
a
t
a
th
Pr
Fe
This Certif
While the
understood t
any inaccur
the Society,
cers or Agen
rt. Pump.)