

t. 4c. **REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.** No. 1437

Received at London Office
 Date of writing Report 19th July 1951 When handed in at Local Office 19 Port of HAMBURG

No. in Survey held at HAMBURG Date, First Survey - Last Survey - 19
 Number of Visits -

0933 on the Single Book Overbook Screw vessel "IRLAND" Tons Gross - Net -

Built at Hamburg By whom built Deutsche Werft A.G. Yard No. 235 When built 1950

Engines made at Augsburg By whom made Maschinenfabrik Augsburg-Nürnberg Contract No. - When made 1950

Generators made at Hamburg By whom made A. E. G. Contract No. - When made 1950

of Sets One Engine Brake Horse Power 95 M.N. as per Rule 27 Total Capacity of Generators 55 Kilowatts.

Set intended for essential services -

INTERNAL ENGINES, &c.—Type of Engines M.A.N. Standard Type G 3 V 33 2 or 4 stroke cycle 4 Single or double acting S.A.

Maximum pressure in cylinders 52 atm. Diameter of cylinders 220 mm Length of stroke 330 mm No. of cylinders 3 No. of cranks 3

Minimum indicated pressure 7 atm. Firing order in cylinders 1-3-2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 260 mm

Is there a bearing between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 2200 kg/m² Revolutions per minute 400

Wheel dia. 1200 mm Weight 2360 kg Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule as approved Crank pin dia. 130 mm Crank Webs Mid. length breadth 240 mm Thickness parallel to axis -

as fitted 130 mm Mid. length thickness 61 shrunk Thickness round eyehole -

Intermediate Shafts, diameter as per Rule - as fitted - General armature, moment of inertia (16 m² or Kg.-cm.²) -

Means provided to prevent racing of the engine when declutched yes Means of lubrication forced Kind of damper if fitted none

Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged

Driving Water Pumps, No. 1 - 2.5 T.P.H. Is the sea suction provided with an efficient strainer which can be cleared within the vessel no

Lubricating Oil Pumps, No. and size 1 - 1.1 T.P.H.

Air Compressors, No. One No. of stages two Diameters 250 and 100 mm Stroke 200 Driven by clutch

Refrigerating Air Pumps, No. - Diameter - Stroke - Driven by -

RECEIVERS:—Have they been made under Survey yes State No. of Report or Certificate 352/3

Each receiver, which can be isolated, fitted with a safety valve as per Rule yes

Are the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces free access

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

Pressure Air Receivers, No. none Cubic capacity of each - Internal diameter - thickness -

Are they lap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure by Rules -

Refrigerating Air Receivers, No. 352 & 353 Total cubic capacity each 10 m³ Internal diameter 1750 mm thickness 24.5 mm

Are they lap welded or riveted longitudinal joint Riveted Material S.M. Steel Range of tensile strength 42.7/44 kgs Working pressure by Rules Appd.

ELECTRIC GENERATORS:—Type A.E.G. Spray water proof, Ventilated, Type AW 105

Voltage of supply 110 volts. Full Load Current 478 Amperes. Direct or Alternating Current Direct

Is the alternating current system, state the periodicity - Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown 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

so as to be fielded that they cannot be accidentally earthed, short circuited, or touched yes Are the lubricating arrangements of the generators as per Rule yes

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

Do generators 100 kw. or over have they been built and tested under survey -

Is there any driven machinery other than generator Clutch driven air compressor

Are approved plans forwarded herewith for Shafting - Receivers - Separate Tanks -

(If not, state date of approval)

Torsional Vibration characteristics if applicable been approved not applicable Armature shaft Drawing No. -

(state date of approval)

RE GEAR to Rule Requirements

The foregoing is a correct description,



[Signature]

Manufacturer.



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003421-003428-0063

Dates of Survey while building
 During progress of work in shops - - - 18. 7. 11, 16
 During erection on board vessel - - - Nov. 10, 14, 16, Dec. 19, 20, 21, 1950
 Total No. of visits Six

Dates of Examination of principal parts—Cylinders _____ Covers _____ Pistons _____ Piston rods _____

Connecting rods _____ Crank and Flywheel shafts _____ Intermediate shafts _____

Crank shaft { Material _____ Tensile strength _____
 Elongation _____ Identification Marks _____

Flywheel shaft, Material _____ Identification Marks _____

Identification marks on Air Receivers No. 352 9.10.50 W.F.C.
 No. 353 9.10.50 W.F.C.

Is this machinery duplicate of a previous case no If so, state name of vessel _____

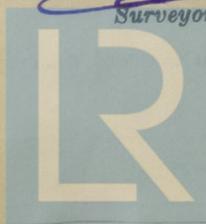
GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This generator engine has been built under Special Survey. Augsburg Report No. 41. Properly installed on board the vessel, full load, overload, full speed and overspeed running and governor trials have been completed with good results.

5m. 4. 18.—T. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee 1/3 F.E. 4. 12. 0 When applied for 15th Apr 1951
1/5 F.E. £ 4 : 0 : 0
 Travelling Expenses (if any) £ - : - : - When received _____ 19

TUES. 14 AUG 1951

Committee's Minute _____
 Assigned See F.E. sketch opt

W. F. Board
 Surveyors to Lloyd's Register of Shipping.

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