

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 5961

Date of writing Report 29th April 52 When handed in at Local Office 29th April 52 Port of Barcelona Received at London Office 1952

No. in Survey held at Barcelona Date First Survey 22nd August 1950 Last Survey 5th November 51
Reg. Book N.N. M.V. VICTORIA Number of Visits 5

on the Single Screw vessel Motor Ferry "5 de Agosto" Tonnage Gross 3250
Net -

Built at Valencia By whom built Union Naval de Levante Yard No. 56 When built 1952

Owners Empresa Nacional Elceno Port belonging to -

Oil Engines made at Barcelona By whom made Maquinista Terrestre Maritima Contract No. - When made 1952

Generators made at Reinosa By whom made Const. Nacl. Maquinaria Elect. Contract No. - When made 1951

No. of Sets 3 Engine Brake Horse Power 275 M.N. as per Rule - Total Capacity of Generators 540 Kilowatts.

Is Set intended for essential services yes

OIL ENGINES, &c.—Type of Engines B & W 525-MTH-40 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 49 kgs Diameter of cylinders 245 mm Length of stroke 400 mm No. of cylinders 5 No. of cranks 5

Mean indicated pressure 7.2 kg Ring order in cylinders 1.5.2.3.4 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 318 mm

Is there a bearing between each crank yes Moment of inertia of flywheel 3,300 or Kg.-cm.² 3,300 Revolutions per minute 470

Flywheel dia. 1,300 mm. Weight 1,325 Kgs. Means of ignition compression Kind of fuel used Diesel

Crank Shaft, dia. of journals 170 mm as per Rule approved Crank pin dia. 155 mm Crank Webs shrunk Mid. length breadth - Thickness parallel to axis -
as fitted - Mid. length thickness - Thickness round eye-hole -

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

Are means provided to prevent racing of the engine when declutched 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. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel -

Lubricating Oil Pumps, No. and size 1 M.E. driven rotary 6 M³

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. 1 Total cubic capacity 550 Lt. Internal diameter 570 mm. thickness 15 mm.

Seamless, lap welded or riveted longitudinal joint welded Material S.M. steel Range of tensile strength 44/50 kg Working pressure by Rules approved

ELECTRIC GENERATORS:—Type Continuous

Pressure of supply 220 volts. Full Load Current 820 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 -

Are all terminals accessible, clearly marked, and furnished with sockets - Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched - 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 13-2-48 Receivers - Separate Tanks -
(If not, state date of approval)

Have Torsional Vibration characteristics if applicable been approved 13-2-48 Armature shaft Drawing No. -
(state date of approval)

SPARE GEAR -

The foregoing is a correct description,
Director Adjunto

Manufacturer.



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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 5-11-51 Covers 5-11-51 Pistons 5-11-51 Piston rods 5-11-52

Connecting rods 5-11-52 Crank and Flywheel shafts 5-11-51 Intermediate shafts

Crank shaft { Material S.M. steel Tensile strength 28/55 kgs }
{ Elongation 26/31% Identification Marks 223, 224, 225 J.T. }

Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers

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.)

These auxiliary engines have been constructed under survey, of tested materials, in accordance with Rules and Regulations, approved plans and Secretary's letters. On completion, these sets were tested in the Works for 8 hours under full load with generators attached, with satisfactory results.

G. J. Hulland

Table with columns for material (S.M. steel), condition (welded), and other technical specifications.

The amount of Fee ... Pts. 9,108--
Starting Air " 880--
Travelling Expenses (if any) £ : :
When applied for 25-4-52 19
When received 25-4-52 19
For F. Larrucea, J. Terrence and self

G. J. Hulland
Surveyor to Lloyd's Register of Shipping.

FRI. 17. OCT 1952

Committee's Minute
Assigned *See F.E. ... Vol 428*



5m. 4.48-T. (MADE AND PRINTED IN ENGLAND)
(The Surveyors are requested not to write on or below the space for Committee Minutes.)