

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 16926
(LEGHORN N° 1306)

Date of writing Report 12/9/48 19 48 When handed in at Local Office 18.11. 19 48 Port of GENOA Received at London Office 23 NOV 1948

No. in Survey held at GENOA & LEGHORN Date, First Survey 3/7/47 Last Survey 15/8/48 19 48

Reg. Book. ✓ on the Single Screw TRAWLER "SANTA MAFALDA" Number of Visits 16 Tons { Gross 1292
Triple ✓ Net 700
Quadruple ✓

Built at LEGHORN By whom built ODERO-TERNI-ORLANDO Yard No. 221 When built 1948

Owners EMPRESA DE PESCA DE AVEIRO Port belonging to AVEIRO

Oil Engines made at GENOA-SAMPIERDARENA By whom made S.A. ANSALDO-STABIL. MECCANICO Contract No. 213/6/01 When made 1948

Generators made at GENOA-CORNIGLIANO By whom made S.A. ANSALDO-STABIL. ELETTROTEC. Contract No. 13523
13524 When made 1948

No. of Sets ONE Engine Brake Horse Power 180 M.N. as per Rule 45 Total Capacity of Generators 60+
100 Kilowatts.

Is Set intended for essential services YES

OIL ENGINES, &c.—Type of Engines ANSALDO Q2131/6-AIRLESS INJECTION 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 55 Kg/cm² Diameter of cylinders 215 mm Length of stroke 310 mm No. of cylinders 6 No. of cranks 6

Mean indicated pressure 6.5 Kg/cm² Firing order in cylinders 1-3-5-6-4-2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 264 mm

Is there a bearing between each crank YES Moment of inertia of flywheel ($16 \text{ m}^2 \text{ or Kg. cm}^2$) 2308 Kg cm sec² Revolutions per minute 430

Flywheel dia. 1250 mm Weight 955 Kg. Means of ignition COMPRESSION Kind of fuel used DIESEL OIL

Crank Shaft, dia. of journals as per Rule. 25 approved Crank pin dia. 130 mm Crank Webs shrunk Mid. length breadth 900 mm Thickness parallel to axis ✓
as fitted 130 mm Mid. length thickness 64 mm Thickness round eyehole ✓

Flywheel Shaft, diameter as per Rule. 25 approved Intermediate Shafts, diameter as per Rule. 130 mm General armature, moment of inertia ($16 \text{ m}^2 \text{ or Kg. cm}^2$) 302.90
as fitted 130 mm as fitted ✓ 196.35
Kg cm sec²

Are means provided to prevent racing of the engine when declutched GOVERNOR Means of lubrication FORCED Kind of damper if fitted NO

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. ONE 100 mm stroke 52 mm Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES

Lubricating Oil Pumps, No. and size ONE GEAR TYPE: 2300 lit/h

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 HEREWITH ATTACHED.

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 WIRE BRUSHES

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. ONE Total cubic capacity 160 lit. Internal diameter 351 mm thickness 8.5 mm

Seamless, lap welded or riveted longitudinal joint SEAMLESS Material STEEL Range of tensile strength 55/65 Kg/mm² Working pressure by Rules 35 Kg/cm²

ELECTRIC GENERATORS:—Type PROTECTED SELF-VENTILATED.

Pressure of supply 220 volts. Full Load Current 60 Kw: 273
100 Kw: 455 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 shunt wound. See Secretary's letter 17/2/48 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 60 Kw: A d.c. 100 Kw. GENERATOR SHUNT WOUND FOR TRANSL. WINCH MOTOR.

PLANS.—Are approved plans forwarded herewith for Shafting 31/1/48 Receivers 10/6/47 Separate Tanks 7/5/48
(If not, state date of approval) APPROVED IN GENOA.

Have Torsional Vibration characteristics if applicable been approved 26/5/48 & 30/8/48 Armature shaft Drawing No. ANSALDO 1889
(state date of approval) 6/1/48

SPARE GEAR AS PER RULES.

The foregoing is a correct description, and the particulars of the installation are as approved for torsional vibration characteristics.

ANSALDO S. A.
STABILIMENTO MECCANICO

Manufacturer.

© 2020

Lloyd's Register
Foundation

004799-004809-0088

Dates of Survey while building { During progress of work in shops - - } FROM 3/4/47 To 3/5/48
{ During erection on board vessel - - } FROM 19/5/48 To 15/8/48
Total No. of visits 16

Dates of Examination of principal parts—Cylinders 3/4/47 5/3/48 Covers 15/3/48 Pistons 15/3/48 Piston rods ✓
Connecting rods 26/2/48 Crank and Flywheel shafts 26/2/48 Intermediate shafts ✓

Crank shaft { Material STEEL Tensile strength 44 ÷ 50 Kg/mm²
Elongation 29 ÷ 24 % Identification Marks LLOYD'S R911 AG 26/2/48
Flywheel shaft, Material ✓ Identification Marks ✓

Identification marks on Air Receivers 1-89939
LLOYD'S TEST
40 Kg/cm²
W.P. 35 Kg/cm²
G.M. 5-12-47

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 SET HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE'S REQUIREMENTS. THE TORSIONAL VIBRATION CHARACTERISTICS OF THE COMPLETE DYNAMIC SYSTEM HAVE BEEN APPROVED FOR A SERVICE SPEED OF 430 R.p.m. THE MATERIALS AND WORKMANSHIP ARE GOOD. THE SET HAS BEEN SATISFACTORILY FITTED ON BOARD AND AFTERWARDS TRIED UNDER WORKING CONDITION WITH SATISFACTORY RESULTS.

The amount of Fee ... FEE & EXP. ALREADY CHARGED BY GEN. A OFFICE (in Gen. Ac 2121 dated 3/6/48) When applied for 19
Travelling Expenses (if any) £ : : When received 19

Committee's Minute

Assigned

FRI. 7 JAN 1948

Surveyor to Lloyd's Register of Shipping.



© 2020

Lloyd's Register Foundation