

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 1347

Received at London Office

11 AUG 1949

Date of writing Report 19 When handed in at Local Office 19 Port of Cleveland, Ohio

No. in Survey held at St. Louis, Missouri Date, First Survey February 4 Last Survey May 26 1949

Reg. Book. Single Argentine Vessel Hull No. 112 Number of Visits 14

on the Twin Diesel Generator Sets Tons Gross - Net -

Triple Screw vessel

Quadruple

Built at Uddevalla, Sweden By whom built Uddevallavarvet Aklubolag Yard No. 112 When built 1949

Owners YACIMIENTOS PETROLIFEROS FISCALES OF ARGENTINA Port belonging to 9236-0094

Oil Engines made at St. Louis By whom made Busch Sulzer Bros. Engine 9236-0100

Generators made at Erie, Pa. By whom made Burke Electric Co. Gen. 9236-0095

No. of Sets 4 ✓ Engine Brake Horse Power 465 ✓ Nom. Horse Power as per Rule Total Capacity of Generators 1280 ✓ Kilowatts.

OIL ENGINES, &c.—Type of Engines Trunk piston solid injection supercharged Buchi system 2 or 4 stroke cycle 4 ✓ Single or double acting Single ✓

Maximum pressure in cylinders 570 psi Diameter of cylinders 9" ✓ Length of stroke 11.5" ✓ No. of cylinders 7 ✓ No. of cranks 7 ✓

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge (3.937") 10 1/16" + 9 1/16" Is there a bearing between each crank Yes ✓

Revolutions per minute 600 ✓ Flywheel dia. 30.5 Weight 1200 lb Means of ignition Compress. Kind of fuel used Diesel Oil ✓

Crank Shaft, dia. of journals as per Rule - as fitted 7" ✓ Crank pin dia. 6" ✓ Crank Webs Mid. length breadth 11" ✓ Thickness parallel to axis -

Flywheel Shaft, diameter as per Rule - as fitted - Intermediate Shafts, diameter as per Rule - as fitted - Thickness of cylinder liners 9/16" ✓

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes ✓ Means of lubrication Pressure ✓

Are the cylinders fitted with safety valves Yes ✓ Are the exhaust pipes and silencers water cooled or lagged with non-conducting material - 4/10/49

Cooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel -

Lubricating Oil Pumps, No. and size 1-7" dia. impeller; 1 hand pump

Air Compressors, No. - No. of stages - Diameters - Stroke 21000 RPM Driven by Exhaust

Turbo Charger Diameter Buchi type exhaust Stroke-turbo charger Driven by Turbine

Scavenging Air Pumps, No. One - State No. of Report or Certificate -

AIR RECEIVERS:—Have they been made under Survey -

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. - Total cubic capacity - Internal diameter - thickness -

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

ELECTRIC GENERATORS:—Type 2 Wire, compound, drip proof, single bearing, direct coupled, Class B insulation.

Pressure of supply 230 ✓ volts. Full Load Current 1391 ✓ Amperes. Direct or Alternating Current D.C.

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 ✓

PLANS. Are approved plans forwarded herewith for Shafting Receivers Separate Tanks

SPARE GEAR No Rule Requirements. See attached Busch Sulzer list of Spare Parts.

3 original Vibration characteristics of the shafting installation of this auxiliary machinery approved in the Secretary's letter dated 26-10-48 for a service speed of 600 RPM.

The foregoing is a correct description,

Manufacturer.



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Dates of Survey while building { During progress of work in shops - - Feb. 4, 19, 26 Mar. 10, 16, 24, 28 April 8, 14, 22, 28 May 6, 18, 26, 1949
During erection on board vessel - - -
Total No. of visits 14

Dates of Examination of principal parts—Cylinders April 8.49 Covers April 8.49 Pistons April 8.49 Piston rods -
Connecting rods April 28. 49 Crank and Flywheel shafts April 28.49 Intermediate shafts -
Crank and Flywheel shafts, Material O.H. Forged Steel Identification Marks Lloyds 5939 Lloyds 5933
Armature L.R. 1173 L.R. 1175
Intermediate shafts, Material O.H. Forged Steel Identification Marks L.R. 1174 L.R. 1176
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 and generators were constructed under Special Survey in accordance with the Rules of this Society and approved plans. The materials tested by the Society's Surveyors and the quality of same and workmanship is good throughout.

On completion, each engine was brake tested at Busch-Sulzer Bros. Works, St. Louis, Missouri, under full and 10% overload power and found satisfactory. The governor controls were tested and found efficient. On completion of running tests the working parts were examined and found in good condition. Each generator was tested under full and 25% overload at the Works of Burke Electric Co., Erie, Pa., and the results found satisfactory.

The generators were shipped to St. Louis and mounted with their respective engines on a common fabricated sub base. The couplings and alignment checked and found good on each.

The completed units have been shipped to the shipbuilders, Uddevalla, Sweden, for installation in vessels intended for classification with this Society and it is recommended that this auxiliary machinery be included in the vessel's record of *LMC (with date), subject to being installed and tested under working conditions to the satisfaction of the Society's Surveyors. Attached to this report are copies of the certificate, forging reports, generator reports and spare parts lists, also approved drawings of the crankshafts, connecting rods and armature shafts.

The amount of Fee £ \$550.00 : { When applied for, July 26, 1949
Travelling Expenses (if any) £ 250.00 : { When received, 19__

R. S. Haagenesen.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 24 APR 1951
Assigned Sue F.E. Welch rpt.

1M-8-46 Transfer. (Printed in U. S. A.)
(The Surveyors are requested not to write on or below the space for Committee Minute.)