

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 1365

Received at London Office

16 SEP 1950

Writing Report July 26 19 49 When handed in at Local Office Aug. 22, 1949 Port of Cleveland, Ohio

Survey held at Beloit, Wisconsin Date, First Survey Feb. 25 Last Survey July 26, 19 49

M.S. BAHIA THETIS

Number of Visits 14

Screw vessel Auxiliary Diesel Generator for Argentine Navy Vessel

Tons Gross -- Net --

Halifax N.S.

By whom built Halifax Shipyard

Yard No. 18

When built 1949

Argentine Navy

Port belonging to --

Engines made at Beloit, Wisconsin By whom made Fairbanks Morse & Co. Contract No. 429-T When made 1949

Generators made at Beloit, Wisconsin By whom made Fairbanks Morse & Co. Contract No. 429-T When made 1949

of Sets 1 Engine Brake Horse Power 175 Nom. Horse Power as per Rule -- Total Capacity of Generators 106 Kilowatts.

ENGINES, &c.—Type of Engines Trunk piston, solid injection, positive scavenge 2 or 4 stroke cycle 2 Single or double acting 2

Minimum pressure in cylinders 1150 psi. Diameter of cylinders 6.25" Length of stroke 9" No. of cylinders 5 No. of cranks 6

No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 8" Is there a bearing between each crank Yes

Revolutions per minute 720 Flywheel dia. 27" Weight 1000 lbs. Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule -- as fitted 5.497" Crank pin dia. 5.497" Crank Webs Mid. length breadth 8" Thickness parallel to axis --

Wheel Shaft, diameter as per Rule -- as fitted -- Intermediate Shafts, diameter as per Rule -- as fitted -- Thickness of cylinder liners .375" min.

governor or other arrangement fitted to prevent racing of the engine ~~not constructed~~ Yes Means of lubrication Pressure

the cylinders fitted with safety valves No Are the exhaust pipes and silencers water cooled or lagged with non-conducting material --

Working 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 One 63 g.p.m. One hand pump

Compressors, No. -- No. of stages -- Diameters -- Stroke -- Driven by --

Sucking Air Pumps, No. One Oscillating vane type Diameter vane 17" x 16" Stroke 7.5" Driven by Crankshaft

RECEIVERS:—Have they been made under Survey -- State No. of Report or Certificate --

each receiver, which can be isolated, fitted with a safety valve as per Rule --

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 --

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

Working Air Receivers, No. -- Total cubic capacity -- Internal diameter -- thickness --

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

ELECTRIC GENERATORS:—Type 2 wire, compound wound, drip proof, ventilated, single bearing

Pressure of supply 225 volts. Full Load Current 471 Amperes. Direct or Alternating Current D.C.

Alternating current system, state the periodicity. -- Has the Automatic Governor been tested and found as per rule when full load is suddenly

run on and off Yes Generators, are they compounded as per rule Yes is an adjustable

limiting resistance fitted in series with each shunt field Yes Are all terminals accessible, clearly marked, and furnished with

locks Yes Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes

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

and tested under survey Yes

RECEIVERS:—Crankshaft

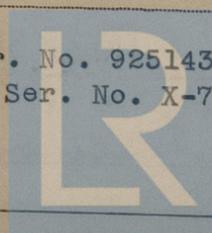
NS. Are approved plans forwarded herewith for ~~Stamp~~ N.Y. Feb. 25, 45 Receivers -- Separate Tanks --

RE GEAR To Rule Requirements. See Clv. Rpt. No. 1363 for list of spares.

The foregoing is a correct description,

Engine Ser. No. 925143
Generator Ser. No. X-72947

Manufacturer.



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Dates of Survey while building { During progress of work in shops - - Feb. 25, Mar. 11, 25, April, 12, 18, 20, May 9, 18, 24, 26, June 8, 15 }
 { During erection on board vessel - - - }
 Total No. of visits 14

Dates of Examination of principal parts—Cylinders 9-5-49 Covers 24-5-49 Pistons 9-5-49 Piston rods
 Connecting rods 12-4-49 Crank ~~and Flywheel~~ shafts 9-5-49 Intermediate shafts --
 Crank ~~and Flywheel~~ shafts, Material Cast Iron Alloy Identification Marks LLOYDS 6816
 Armature ~~Intermediate~~ shafts, Material O.H. Forged Steel Identification Marks LLOYDS 6816A
 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.)

This auxiliary diesel engine generator set was built under this Society's Special Survey in accordance with the Rules and approved plans. On completion the engine was tested under full load and overload power and found satisfactory. The governor and safety devices tested and found efficient. The running parts were afterwards opened up for examination and found good. On completion the generator was run separately under full load and overload with satisfactory results. The generator was then mounted with the engine on a fabricated sub-base, alignment of coupling checked and found good. The materials and workmanship throughout are of a good quality. Attached to this report are the manufacturer's certified test reports covering the crankshaft, armature shaft and connecting rods. It is recommended that this diesel generator set be incorporated in the vessel's machinery record of *LMC (with date), subject to it being installed in the vessel and tested under work conditions, all to the satisfaction of the Society's Surveyors.

The amount of Fee £ : : { When applied for, 19 }
 Travelling Expenses (if any) £ : : { When received, 19 }

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

Committee's Minute FRI. 29 SEP 1850

Assigned See minute on S.C. Rpt.

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 (The Surveyors are requested not to write on or below the space for Committee Minute.)



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