

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 947

Date of writing Report **JAN. 17 1945** When handed in at Local Office 19 **CHICAGO, ILLINOIS** Received at London Office **29 NOV 1945**

No. in Reg. Book. Survey held at **BELOIT, WISCONSIN** Date, First Survey **OCTOBER 30** Last Survey **JANUARY 4 1945** Number of Visits **4**

Single on the Twin Triple Quadruple } Screw vessel **TRANSPORT FERRIES LST (3) 3519** Tons { Gross Net

Built at **Montreal, Que.** By whom built **Canadian Vickers Limited** Yard No. **207** When built **1945**

Owners Port belonging to **ENG. NO. 862292** When made **1945**

Oil Engines made at **BELOIT, WISCONSIN** By whom made **FAIRBANKS MORSE & COMPANY** **GEN. NO. 1-67315** When made **1945**

Generators made at **BELOIT, WISCONSIN** By whom made **FAIRBANKS MORSE & COMPANY** **GEN. NO. 1-67315** When made **1945**

No. of Sets **1** Engine Brake Horse Power **100** Nom. Horse Power as per Rule **17.6** Total Capacity of Generators **60** Kilowatts.

OIL ENGINES, &c.—Type of Engines **AUXILIARY VERTICAL DIESEL** 2 or 4 stroke cycle **4** Single or double acting **SINGLE**

Maximum pressure in cylinders **800** Diameter of cylinders **5 1/2"** Length of stroke **7 1/2"** No. of cylinders **6** No. of cranks **6**

M.I.P. **98.8** Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **5.75"** Is there a bearing between each crank **YES**

Revolutions per minute **1000** Flywheel dia. **21.75"** Weight **275 LBS.** Means of ignition **COMPRESSION** Kind of fuel used **FUEL OIL**

as per Rule **3.1"** Crank Shaft, dia. of journals **5 1/2"** Crank pin dia. **3.6"** Mid. length breadth **6.5"** Thickness parallel to axis **1.375"**

as fitted **5 1/2"** Crank Webs **1.375"** Thickness around eye hole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners

as fitted **YES** Means of lubrication **FORCED**

Is a governor or other arrangement fitted to prevent racing of the engine when declutched **YES**

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

540 RPM

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 - 19 GPM**

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. 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 **COMPOUND WOUND, PIPE VENTILATED**

Pressure of supply **225** volts. Full Load Current **267** 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 **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

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

(If not, state date of approval)

SPARE GEAR **SUPPLIED AS REQUIRED BY THE RULES.**

The foregoing is a correct description,

SIGNED: E. J. Fish, Ass't, Chief Inspector for Manufacturer.



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Dates of Survey while building { During progress of work in shops -- } OCTOBER 30; NOVEMBER 27; DECEMBER 11; JANUARY 4,
{ During erection on board vessel --- }
Total No. of visits

Dates of Examination of principal parts—Cylinders NOV. 27, 1944 Pistons DITTO Piston rods
Connecting rods DITTO Crank and Flywheel shafts DITTO Intermediate shafts
Crank and Flywheel shafts, Material STEEL Identification Marks NG-460 - I56
Intermediate shafts, Material Identification Marks
Identification marks on Air Receivers

Is this machinery duplicate of a previous case engine no. 848082 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

THE ABOVE MENTIONED AUXILIARY DIESEL ENGINE IS BUILT TO THIS SOCIETY'S SPECIAL SURVEY REQUIREMENTS OF TESTED MATERIALS AND IN ACCORDANCE WITH APPROVED PLANS.

ON THE 11th DAY OF DECEMBER, 1944, FULL RUNNING TESTS WERE CARRIED OUT IN ACCORDANCE WITH THE ENGINE MAKER'S STANDARD PRACTICE. THE ENGINE WAS OPERATED AT LOW, INTERMEDIATE, FULL, AND OVERLOAD BREAK TEST LOADS, UNDER GOVERNOR CONTROL, WITH SATISFACTORY RESULTS.

ON COMPLETION THE ENGINE NO. 862292 MOUNTED ON A STEEL SUB BASE AND DIRECT COUPLED TO 60 K.W. GENERATOR NO. X-67315, WAS TESTED FOR ALIGNMENT AND FOUND SATISFACTORY.

IN MY OPINION THIS GENERATOR SET IS SUITABLE FOR USE ON A VESSEL CLASSED OR INTENDED FOR CLASSIFICATION WITH THIS SOCIETY.

ATTACHED HEREWITH REPORTS 7b and 10. (CRANKSHAFT FORGING REPORT SAME AS ENGINE NO. 848082). THIS GENERATOR SET HAS BEEN SHIPPED TO CANADIAN VICKERS, LTD. MONTREAL, QUEBEC, CANADA.

The amount of Fee £ 75.00 When applied for, Jan. 17 19 45
Travelling Expenses (if any) £ 9.50 When received, 19

R. H. Jones
Surveyor to Lloyd's Register of Shipping.

FRI. 21 DEC 1945

Committee's Minute

Assigned

See F. E. Machy. rpt.

LR-FAF-7816-70



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No. 947

Mil. Rpt. 6709

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Generators made at **BELOIT, WISCONSIN** By whom made **FAIRBANKS MORSE & COMPANY**

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Is a governor or other arrangement fitted to prevent racing of the engine when declutched **YES** Means of lubrication **FORCED**

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

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 - 19 GPM**

Air Compressors, No. **1** No. of stages **1** Diameters **1 1/2"** Stroke **1 1/2"** Driven by **Electric**

Scavenging Air Pumps, No. **1** Diameter **1 1/2"** Stroke **1 1/2"** Driven by **Electric**

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

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

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

High Pressure Air Receivers, No. **1** Cubic capacity of each **100** Internal diameter **1 1/2"** thickness **1/8"**

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

Starting Air Receivers, No. **1** Total cubic capacity **100** Internal diameter **1 1/2"** thickness **1/8"**

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

ELECTRIC GENERATORS:—Type **COMPOUND WOUND, PIPE VENTILATED**

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

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SPARE GEAR **SUPPLIED AS REQUIRED BY THE RULES.**

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SIGNED: E. J. Fish, Ass't, Chief Inspector for Manufacturer.