

Inc. Rpt. No. 6665

pt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Received at London Office 17 OCT 1945

Date of writing Report 18 Aug. 1945 When handed in at Local Office 21st. Aug. 45 Port of QUEBEC, P.Q.

No. in Reg. Book - Survey held at LAUZON, P.Q. Date, First Survey 26-3-45 Last Survey 10-8-45 19 45 Number of Visits Continuous attendance

on the Twin Screw vessel TRANSPORT FERRY H.M.S.-IST(3) 3512 Tons (Gross 4290.74 (Net 2430.45

Built at LAUZON, P.Q. By whom built DAVIE SHIPBUILDING & REPAIRING COMPANY LIMITED. Gard No. 567 When built 1945

Owners BRITISH ADMIRALTY Port belonging to 1084 Oil Engines made at MONTREAL, P.Q. By whom made DOMINION ENG. CO. LTD. Contract No. 1085 When made 1944

Generators made at ST. CATHARINES, ONT. By whom made ENGLISH ELEC. CO. OF CANADA Contract No. 90708 90709 When made 1944

No. of Sets Two Engine Brake Horse Power 120 each Nom. Horse Power as per Rule 21.1 Total Capacity of Generators 120 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 1000 Lbs. Sq. in. Diameter of cylinders 7 1/2" Length of stroke 9" No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge - Is there a bearing between each crank Yes

Revolutions per minute 750 Flywheel dia. - Weight 752 Lbs. Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule - as fitted - Crank pin dia. - Crank Webs Mid. length breadth - Thickness parallel to axis - shrunk Thickness around eye hole -

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

Is a governor or other arrangement fitted to prevent racing of the engine when decelerated 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 Lagged

Cooling Water Pumps, No. and size 1 each installed in unit Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Lubricating Oil Pumps, No. and size 1 each installed in unit Air Compressors, No. Two No. of stages Two Diameters 4 1/2" & 1 1/2" Stroke 4" Driven by 9 BHP Heavy Oil Engine

Scavenging Air Pumps, No. - Diameter - Stroke - Driven by - IR RECEIVERS:—Have they been made under Survey Yes State No. of Report Certificate 5520 & 5521

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 Hand hole

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. Two Total cubic capacity 10.780 Cub. ft. Internal diameter 19 7/8" thickness 15/16" Seamless, lap welded or riveted longitudinal joint Welded Material OH Steel Range of tensile strength 64,650 62,900 Working pressure by Rules 1000 Lbs.

ELECTRIC GENERATORS:—Type COMPOUND WOUND, Continuous rating

Pressure of supply 225 volts. Full Load Current 266 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 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 Approved Separate Tanks - (If not, state date of approval)

SHAFTING AS PER BRITISH ADMIRALTY REQUIREMENTS. built to B.C. class

The foregoing is a correct description. DAVIE SHIPBUILDING & REPAIRING CO. LTD. Manufacturer. GENERAL SUPERINTENDENT

Dates of Survey while building { During progress of work in shops -- } **B.C. SURVEY WHILE BUILDING**
 { During erection on board vessel --- } **26-3-45 to 10-8-45.**
 Total No. of visits **Daily attendance**

Dates of Examination of principal parts—Cylinders - Covers - Pistons - Piston rods -
 *Connecting rods - Crank and Flywheel shafts - Intermediate shafts -
 *Crank and Flywheel shafts, Material - Identification Marks -
 Intermediate shafts, Material - Identification Marks -
 Identification marks on Air Receivers **IR 5520 HGLP 16-11-44 and IR 5521 HGLP 16-11-44**

Is this machinery duplicate of a previous case **YES** If so, state name of vessel **CN 948**

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

The above mentioned Auxiliary Diesel Engines Nos. 1084 and 1085 & Generators Nos. 90708 and 90709 were built under Survey of British Corporation in accordance with Admiralty instructions.

These Units have been properly installed on board the above Vessel, and on completion tried out under specified tests, including overload & found satisfactory, and it is recommended for the favourable consideration of the Committee that the record of **L.M.C.** & the notation of Oil Engines be made in the case of this Vessel.

Copies of Certificates covering Generators Nos. 1084 and 1085 are attached to this Report, also copies of Air Receivers Certificates Nos. 5520 and 5521.

1M-342-Transfer. (Printed in U. S. A.)
 (The Surveyors are requested not to write on or below the space for Committee Minutes.)

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

W. Bloomfield
 Surveyor to Lloyd's Register of Shipping.

FRI. 9 NOV 1945

Committee's Minute

Assigned *See F.E. machy. rph.*