

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Received at London Office 26 JAN 1942

Date of writing Report **Nov. 7th, 1940** When handed in at Local Office **10** Port of **Cleveland, Ohio.**

No. in Survey held at **Mattoon, Illinois.** Date, First Survey **October 11th,** Last Survey **Oct. 28th, 1940.**
Reg. Book. **WILLIAM C McTARNAHAN** Number of Visits **4**

on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel (National Bulk Carriers Inc. Tanker) Tons ^{Gross} ~~Net~~

Built at **-** By whom built **-** Yard No. **-** When built **-**

Owners **-** Port belonging to **-**
Engine **20476**
Oil Engines made at **Mattoon, Ill.** By whom made **Atlas Imperial Diesel Engine Co.** ~~Contract~~ No. **20477** When made **1940**
20478

Generators made at **-** By whom made **-** Contract No. **-** When made **-**
No. of Sets **(1) 3** Engine Brake Horse Power **750** (Total) **2145** Nom. Horse Power as per Rule **174.5** Total Capacity of Generators **-** Kilowatts.

OIL ENGINES, &c.—Type of Engines **(3) Diesel Auxiliaries** 2 or 4 stroke cycle **4** Single or double acting **S**
Maximum pressure in cylinders **750 lbs.** Diameter of cylinders **9"** Length of stroke **10-1/2"** No. of cylinders **(1)-6** No. of cranks **(2)-8**

Span of bearings, adjacent to the crank, measured from inner edge to inner edge **10"** Is there a bearing between each crank **Yes**
Revolutions per minute **514** Flywheel dia. **34"** Weight **1500 lbs.** Means of ignition **Solid injection** Kind of fuel used **Diesel Oil**

Crank Shaft, dia. of journals ^{as per Rule} **6-7/8"** ^{as fitted} **6-7/8"** Crank pin dia. **6-7/8"** Crank Webs ^{as per Rule} **-** Mid. length breadth **10"** Thickness parallel to axis **-**
See ltr on Petrofuel Mid. length thickness **2-7/8"** Thickness around eyehole **-**

Flywheel Shaft, diameter ^{as per Rule} **6-7/8"** ^{as fitted} **6-7/8"** Intermediate Shafts, diameter ^{as per Rule} **-** Thickness of cylinder liners **11/16"**

Is a governor or other arrangement fitted to prevent racing of the engine ~~Yes~~ **Yes** Means of lubrication **Forced feed.**

Are the cylinders fitted with safety valves **Yes** Are the exhaust pipes ~~water cooled~~ **water cooled** **Yes**
Cooling Water Pumps, No. **Not furnished by Eng. Mfg.** The sea suction provided with an efficient strainer which can be cleared within the vessel **-**

Lubricating Oil Pumps, No. and size **(1) Rotary** 11.4 G.P.M. 6/C engine - 18 G.P.M. - 8/C engine at speeds 514 RPM

Air Compressors, No. **None** No. of stages **-** Diameters **-** Stroke **-** Driven by **-**

Scavenging Air Pumps, No. **-** Diameter **-** Stroke **-** Driven by **-**

AIR RECEIVERS:—Have they been made under Survey **Not furnished by Eng. Mfg.** 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 **Not fitted to engines at Mattoon, Ill.**

Pressure of supply **-** volts. Full Load Current **-** Amperes. Direct or Alternating Current **-**

If alternating current system, state the periodicity **-** Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off **-**

Generators, are they compounded as per rule **-** is an adjustable regulating resistance fitted in series with each shunt field **-**

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 **-**

If the generators are under 100 kw. full load rating, have the Maker's 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 **-**

PLANS. Are approved plans forwarded herewith for Shafting **May 23rd, 1940.** Receivers **-** Separate Tanks **-**

SPARE GEAR furnished by Engine Mfg:— 1 Piston complete with rings and wrist pin; 1 connecting rod bearing with bolts and nuts; 1 end main bearing, two halves; 1 intermediate main bearing, two halves; 2 exhaust valves with springs; 1 fuel pump assembly with crosshead and connecting rod; 1 set valves for high pressure fuel pump; 1 exhaust valve with springs and fittings; 3 intake valves with springs and fittings; 4 spray valve stems; 2 sets piston rings for one piston; 1 set hold-down studs and nuts for one cylinder head; 2 main bearing studs and nuts; 1 cylinder head with valves, springs and studs; and 2 high pressure fuel lines, rail to spray valve.

The foregoing is a correct description.

Atlas Imperial Diesel Eng. Co. Manufacturer.
F. J. Finley



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Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - - }
 Total No. of visits

Dates of Examination of principal parts—Cylinders Oct.11-28, 40. Covers Oct.11-28th Pistons Oct.11-28th Piston rods -
 Connecting rods Oct.11-28, 1940. Crank and Flywheel shafts Oct.11-28, 1940. Intermediate shafts -
 Crank and Flywheel shafts, Material O.H. Forged Steel Identification Marks LLOYDS 1330, 1331, 1332, J.S.
 Intermediate shafts, Material - Identification Marks -
 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.)

The above mentioned engines, two (8) cylinders and one (6) cylinders, were built to this Society's Special Survey. The material and workmanship used in their construction are of good quality. The engines were tested under full and intermediate brake loads at the Manufacturer's Works and found efficient. Attached to this report are copies of Cleveland C-2697 and San Francisco ^{Forging} Reports 1330, 1331 and 1332.

Im. 1137.—Transfer. (MADE IN ENGLAND.)
 (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... x \$218.75 : When applied for, 11/7/19 40
 Travelling Expenses (if any) x \$55.50 : When received, 19

S. Drummond
 Surveyor to Lloyd's Register of Shipping.

NEW YORK DEC 10 1941

Committee's Minute
 Assigned See MOB. RPT. NO. 1809.

