

4c.

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 430

DEC 1928

Received at London Office

of writing Report Nov. 6 1928 When handed in at Local Office 19 Port of Cleveland, Ohio  
 in Survey held at Lorain, Ohio Date, First Survey June 4 Last Survey Sept 6 1928.  
 Book. 53 on the Single Twin Triple Quadruple Screw vessel  tanker "MARTHA E. ALLEN" Tons { Gross 2935 Net 1994  
 Built at Lorain, Ohio By whom built American Shipbuilding Co. Yard No. 803 When built 1928  
 Owners Lake Tankers Corporation Port belonging to Whiting, Ind.  
 Engines made at Amsterdam By whom made Perksport Contract No.          When made 1928  
 Generators made at New Jersey By whom made Diehl mfg. Co. Contract No.          When made           
 No. of Sets one Engine Brake Horse Power 100 Nom. Horse Power as per Rule 28 Total Capacity of Generators 45 Kilowatts.

**ENGINES, &c.**—Type of Engines Auxiliary Perksport 2 or 4 stroke cycle 4 Single or double acting 5  
 Maximum pressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 320 mm Length of stroke 450 mm No. of cylinders 2 No. of cranks 2  
 Position of bearings, adjacent to the Crank, measured from inner edge to inner edge 430 mm Is there a bearing between each crank Yes  
 Revolutions per minute 250 Flywheel dia. 1600 mm Weight 3640 kg Means of ignition Self ignition Kind of fuel used Diesel oil  
 Crank Shaft, dia. of journals as per Rule approved Crank pin dia. 185 mm Crank Webs Mid. length breadth 290 mm Thickness parallel to axis 100 mm  
as fitted 185 mm Mid. length thickness shrunk Thickness around eyehole solid  
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners ✓  
as fitted as fitted  
 Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced feed  
 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Water cooled  
 Cooling Water Pumps, No. one Hydro Eleet. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
3 Ballast pumps  
 Lubricating Oil Pumps, No. and size one rotary pump. Capacity 45 L. per minute  
 Air Compressors, No. one No. of stages 3 Diameters 400, 350, 90 mm Stroke 220 mm Driven by Crank shaft  
 scavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓  
**AIR RECEIVERS:**—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 air  
 Is there a drain arrangement fitted at the lowest part of each receiver Yes  
 High Pressure Air Receivers, No. one Cubic capacity of each 60 L. Internal diameter 243 mm thickness 12 mm  
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 55/65 kg Working pressure by Rules 45 kg/cm<sup>2</sup>  
 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 Diehl mfg. Co. Compound wound  
 Pressure of supply 220 volts. Load 323 Amperes. Direct or Alternating Current A.C.  
 If alternating current system, state frequency of periods per second ✓  
 Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes  
 Generators, do they comply with the requirements regarding rating Yes are they compound wound Yes  
 Are they over compounded 5 per cent. Yes, if not compound wound state distance between each generator ✓  
 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  
**PLANS.** Are approved plans forwarded herewith for Shafting See Surveyors Report 110416. Amsterdam. Receivers ✓ Separate Tanks ✓  
 (If not, state date of approval)  
**SHAFTING GEAR** See Surveyors Report 110416. Amsterdam.

The foregoing is a correct description,

The American Ship Bldg Co.  
*Amsterdam*

Manufacturer.



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010933 - 010942 - 010943



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

See surveyor's Report - 11041<sup>b</sup> Amsterdam.  
From June 4 to Sept. 6. 1928

Dates of Examination of principal parts—Cylinders \_\_\_\_\_ Covers \_\_\_\_\_ Pistons \_\_\_\_\_ Piston rods \_\_\_\_\_  
Connecting rods \_\_\_\_\_ Crank and Flywheel shaft \_\_\_\_\_ Intermediate shaft \_\_\_\_\_  
Crank and Flywheel shaft, Material Steel Identification Mark Lloyds. 2704. 26/1/28. U.S. 1579-6588.  
(Spare). 2571. H.S. 12.4.28. 1202-6510. Intermediate shafts, Material ✓ Identification Marks ✓  
Is this machinery duplicate of a previous case no. If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.) The above engines have been built in accordance with the Rules & approved plans, & under Special Survey. (See Amsterdam surveyor's Report No. 11041<sup>b</sup>) They have been fitted on board in a satisfactory manner, & found in order when tried out under working conditions. Spare gear has been furnished as required by the Rules.

The amount of Fee ... £ ✓ : ✓ When applied for, ✓ 19 \_\_\_\_\_  
Travelling Expenses (if any) £ ✓ : ✓ When received, ✓ 19 \_\_\_\_\_

E. Drummond

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

NEW YORK NOV 21 1928

Assigned See Report on form 46.



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