

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 7272

Received at London Office MAY 10 1937

Date of writing Report 19 When handed in at Local Office 19 Port of Philadelphia

No. in Survey held at Grove City Pa & Chester Pa. Date, First Survey Dec 1 1936 Last Survey April 1 1937 Reg. Book. Number of Visits 9

on the ^{Single} ~~Triple~~ ~~Quadruple~~ Motor Screw vessel

TEXAS. SUN.

Tons { Gross Net

Built at Chester Pa By whom built Sun Shipbuilding Co Yard No. 119 When built 1937

Owners Sun Oil Co Port belonging to Philadelphia

Oil Engines made at Grove City Pa By whom made Cooper Bessemer Corp Engine 1135 Contract No. 1136 When made 1936-7

Generators made at Schenectady N.Y. By whom made General Electric Co Gen 1137 Contract No. 1720382 When made "

No. of Sets 3 Engine Brake Horse Power 150 Nom. Horse Power as per Rule Total Capacity of Generators 300 Kilowatts.

OIL ENGINES, &c.—Type of Engines Cooper Bessemer Diesel GND-4 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 700 lbs Diameter of cylinders 10 1/2" Length of stroke 13 1/2" No. of cylinders 4 No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 12 1/4" Is there a bearing between each crank ajs

Revolutions per minute 325 Flywheel dia. 42" Weight 1292 lbs Means of ignition Solid Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule 7 1/2" as fitted 7 1/2" Crank pin dia. 7 1/2" Crank Webs Mid. length breadth 12 1/8" Thickness parallel to axis shrunk Mid. length thickness 3 1/4" Thickness around eyehole

Flywheel Shaft, diameter as per Rule 7" as fitted 7" Intermediate Shafts, diameter as per Rule 6 3/4" as fitted 6 3/4" Thickness of cylinder liners 7/8" & 7/16"

Is a governor or other arrangement fitted to prevent racing of the engine when detached ajs Means of lubrication Forced

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

Cooling Water Pumps, No. 3 5/16" x 3 1/2" D.A. Capacity 47 G.P.M. Is the suction provided with an efficient strainer which can be cleared within the vessel ajs

Lubricating Oil Pumps, No. and size 3" x 3 1/2" S.A. Capacity 20 G.P.M. ajs

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

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

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 MPC-6 Form A. 100 KW continuous 40°C

Pressure of supply 240 volts. Load 417 Amperes. Direct or Alternating Current Direct

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 ajs

Generators, do they comply with the requirements regarding rating ajs are they compound wound ajs

are they over compounded 5 per cent. ajs, if not compound wound state distance between each generator

is an adjustable regulating resistance fitted in series with each shunt field ajs Are all terminals accessible, clearly marked, and furnished with sockets ajs

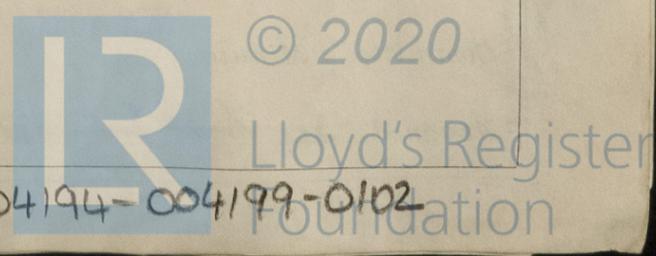
are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched ajs Are the lubricating arrangements of the generators as per Rule ajs

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval) Receivers Separate Tanks

SPARE GEAR To rule requirements plus one set of flywheel studs & dowels for coupling, and one set of parts for water pump for each engine.

The foregoing is a correct description,

Manufacturer.



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

Dec 1st 29th 1936, Jan 16, Feb 15th 16th 17th 18th 1937.
 March 25th April 1st 1937.
 9

Dates of Examination of principal parts—Cylinders Dec 1+29. 1936 Covers Dec 1+29. 1936 Pistons Dec 1+29. 1936 Piston rods

Connecting rods Dec 1+29. 1936 Crank and Flywheel shaft Dec 1+29. 1936 Intermediate shaft

Crank and Flywheel shafts, Material O.H. Steel Identification Mark LLOYDS 2946. 2945. 2945 WJF. 8-12-36 8-25-36. 8-12-36

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 mentioned engines (three engines) have been built under Special Survey, and on completion were tested, coupled to generators under full and intermediate loads in the shop. The materials and workmanship were found to be sound and efficient, and the electrical load tests satisfactory.

Attached hereto is copy of crank shaft drawing and crank shaft forging certificate No 2945, 2946, 2945.

For identification purposes the generator sets were numbered as follows:-

Engine No	1135	1136	1137
Coop's Bessemer "MO" No.	1176	1255	1291
Generator No	1720382	1720381	1720383
Lloyd's crank shaft No	WJF 2946 8-12-36.	WJF 2945 8-25-36.	WJF 2945 8-12-36.

The above mentioned engines have been satisfactorily fitted on board the vessel, tried out under full power with satisfactory results.

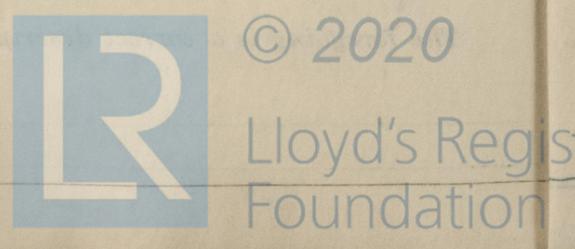
1in. 9.28 - Transfer. (The Surveyors are requested not to write on or below the space for Committee Minutes.)

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

W.A. Cunliffe
 Surveyor to Lloyd's Register of Shipping.

NEW YORK APR 28 1937

Committee's Minute
 Assigned See First Entry Rpt. on Oil Eng.



Rpt. 4c.
 Date of visit
 No. in Reg. Book.
 Built at
 Owners
 Oil Engine
 Generator
 No. of St.
 OIL EN
 Maximum
 Span of be
 Revolutions
 Crank Sh
 Flywheel
 Is a govern
 Are the cyl
 Cooling V
 Lubricati
 Air Comp
 Scavengin
 AIR RL
 Can the int
 Is there a
 High Pre
 Seamless, l
 Starting
 Seamless, l
 ELECT
 Pressure
 If alternat
 Has the A
 Generato
 are they ov
 is an adjus
 are they so
 PLANS.
 SPARE
 one s