Newcastle-on-Tyne No. 94275

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8648

Received at London Office 22 JUN 1936

Date of writing Report 19-6-36 When handed in at Local Office 20-6-36 Port of MANCHESTER

No. in Reg. Book. Survey held at ASHTON-U-LYNE. Date, First Survey APRIL 8. 1936 Last Survey 18-6-1936 Number of Visits 6

on the Single / ~~Twin~~ / ~~Triple~~ / ~~(Quadruple)~~ Screw vessel Motor Tanker BRITISH ENDURANCE Tons Gross 8303 Net 4939

Built at NEWCASTLE. By whom built SWAN, HUNTER & WIGHAM, RICHARDSON LTD Yard No. 1500 When built 1936.

Owners Port belonging to

Oil Engines made at ASHTON-U-LYNE. By whom made NATIONAL GAS & OIL ENG: CO. ~~Contract~~ Engine No. 44594 When made 1936

Generators made at SUNDERLAND. By whom made SUNDERLAND FORGE & ENG. CO. Contract No. 29077 When made 1936

No. of Sets ONE. Engine Brake Horse Power 47.5. Nom. Horse Power as per Rule 13.5. Total Capacity of Generators 30. Kilowatts.

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

Maximum pressure in cylinders 650. LBS. Diameter of cylinders 5 3/4" Length of stroke 8 1/2" No. of cylinders 4. No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6 15/16" Is there a bearing between each crank YES.

Revolutions per minute 600. Flywheel dia. 32" Weight 1030 LBS. Means of ignition COMPRESSION. Kind of fuel used HEAVY OIL.

Crank Shaft, dia. of journals as per Rule APPROVED. as fitted 3 3/4" Crank pin dia. 3 3/4" Crank Webs Mid. length breadth 5 1/4" Mid. length thickness 1 11/16" shrunk Thickness parallel to axis Thickness around eyehole SOLID.

Flywheel Shaft, diameter as per Rule / as fitted / **Intermediate Shafts**, diameter as per Rule / as fitted / Thickness of cylinder liners 9/16"

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 NO Are the exhaust pipes and silencers water cooled or lagged with non-conducting material —

Cooling Water Pumps, No. ONE Is the sea suction provided with an efficient strainer which can be cleared within the vessel —

Lubricating Oil Pumps, No. and size ONE. 180 GALLS. PER HOUR.

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

Pressure of supply 110 volts. **Load** 273. 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 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 — Are all terminals accessible, clearly marked, and furnished with sockets —

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.

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

SPARE GEAR

ONE COMPLETE SET OF VALVES FOR ONE CYLINDER. ONE CYLINDER LINER.
ONE SET OF EXHAUST VALVES & BODIES. ONE CYLINDER COVER.
TWO SETS OF PISTON & SCRAPPER RINGS. ONE SET OF CYLINDER COVER STUDS.
ONE SET OF FUEL PUMP PARTS. ONE SET MAIN BEARING BRASSES & STUDS.
ONE SET EACH TOP & BOTTOM END BRASSES, BOLTS, NUTS ETC: ETC.

The foregoing is a correct description,

THE NATIONAL GAS AND OIL ENGINE Co. Limited,

A B Bamford

JOINT MANAGING DIRECTOR.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } April 8. 14. 28. May. 11. June 9. 11.
{ During erection on board vessel - - - }
{ Total No. of visits } 6.

Dates of Examination of principal parts—Cylinders 11-5-36 Covers 11.5.36. Pistons 11.5.36 Piston rods —

Connecting rods 11.5.36. Crank and Flywheel shaft 8.4.1936. Intermediate shaft —

Crank and Flywheel shafts, Material Steel Identification Mark 6476. M.A.B. 25.3.36.

Intermediate shafts, Material — Identification Marks

Is this machinery duplicate of a previous case YES If so, state name of vessel M/CH Report 8623.

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

This Engine Has Been Constructed Under Special Survey Of Tested Materials And Is In Accordance With The Secretary's Letters, Approved Plans And Rule Requirements. The Materials And Workmanship Are Of A Good Quality And The Engine When Tested In Shop Under Full Load Conditions Gave Satisfactory Results.

In My Opinion The Engine Is Suitable To Be Placed On Board A Vessel, Classed With This Society, For The Purpose Intended.

Certificate Of Test For Generator Is Attached.

This Auxiliary Oil Engine has been satisfactorily fitted on board the vessel.

Andrew.
Newcastle on Tyne
9/10/36.

The amount of Fee ... ... £ 5 : 5: 0 | When applied for, 20.6.19 36 M

Travelling Expenses (if any) £ 15. 0: | ~~When~~ received, as per letter Lon/Nwc. 19.8.19 36 APb

J. M. Leicester.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 13 OCT 1936

Assigned See Nwc. 94295

(The Surveyors are requested not to write on or below the space for Committee Minute.)

1m,6,31—Transfer.