

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 57900

Received at London Office 3 FEB 1937

Date of writing Report 11-2-37 When handed in at Local Office 3. 2. 37 Port of Glasgow

Date, First Survey 13. 11. 35 Last Survey 10-2-1937

Number of Visits 546

on the Single Twin Triple Quadruple Screw vessel M.V. "Sussex"

Tons { Gross 11063
Net 6516

uilt at Glasgow By whom built John Brown & Co Ltd. Yard No. 546. When built

Port belonging to 204/224

il Engines made at Glasgow By whom made British Aquiliana Ltd. Contract No. When made 1936.

enerators made at Rugby. By whom made British Thomson Houston Co. Contract No. When made 1936

No. of Sets 4. Engine Brake Horse Power 440 Nom. Horse Power as per Rule 503. Total Capacity of Generators 1200 Kilowatts.

L ENGINES, &c.—Type of Engines Heavy oil (KHSI type) 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 480 lb/sq. in. Diameter of cylinders 250 1/2" Length of stroke 420 1/2" No. of cylinders 5 No. of cranks 5

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 1/2" Is there a bearing between each crank Yes

Revolutions per minute 400 Flywheel dia. 1300 1/2" Weight 11000 lbs Means of ignition Amp Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 154 1/2" as fitted 160 1/2" Crank pin dia. 160 1/2" Crank Webs Mid. length breadth 214 1/2" Thickness parallel to axis shrunk

Flywheel Shaft, diameter as per Rule 154 1/2" as fitted 160 1/2" Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 19.5 1/2"

Is there 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 Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Lagged

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

Lubricating Oil Pumps, No. and size

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

Scavenging Air Pumps, No. 1 each engine Diameter 650 1/2" Stroke 240 1/2" Driven by Crank shafts

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

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. 1 per H. engine Total cubic capacity 3.5 ft. Internal diameter 10.98" thickness .51"

Seamless, lap welded or riveted longitudinal joint Material 5 Range of tensile strength 28-32 Tons Working pressure by Rules 1200

ELECTRIC GENERATORS:—Type Protected

Pressure of supply 220 volts. Load 1365 Amperes. Direct or Alternating Current Diesel

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 there 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 5. 11. 35 Receivers Drawing No. 63566 for shafting Separate Tanks

(If not, state date of approval)

PREPARE GEAR

As per attached list for prime mover.

The foregoing is a correct description.

For

BRITISH AUXILIARIES, LIMITED,

WORKS MANAGER

Manufacturer.



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Foundation

002947-002955-0268

Dates of Survey while building
 During progress of work in shops - - 1935 Nov.: 13. (1936) Jan.: 7. 17. 29 Feb.: 26 Mar.: 10. 25 Apr.: 1. 7. 14. 16. 21. 28. 29
 During erection on board vessel - - - May.: 4. 6. 14. 20. 27 June.: 3. 9. 18. 23 July.: 7. 9. 27. 30 Aug.: 6. 10. 12. 18. 24 Sep.: 2. 4. 9. 16
 Total No. of visits 46 Oct.: 1. 8. 12. 14. 16 Nov.: 2. 3. 6. 12 (1937) Feb.: 10

Dates of Examination of principal parts—Cylinders 14-10-36. Covers 12-11-36. Pistons 9-9-36. Piston rods —

Connecting rods 28-4-36. Crank and Flywheel shaft 12-3-36. 8-4-36. F.R. Intermediate shaft

Crank and Flywheel shaft, Material *18. Hpt. Steel* Identification Mark *9492 9493 9495 9496* } P.K. Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case *cfp.* If so, state name of vessel *M.O. Esch*

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

These engines have been built under special Survey and in accordance with the Rules. The materials and workmanship are good. On completion they have been tried on the bench at full power with satisfactory results.

They have been securely fitted on board and satisfactorily tried under working conditions.

3/2/37

The amount of Fee ... £ 50 : 6 : 29-1-37

Travelling Expenses (if any) £ : : 20-4-37 21/4

John R. Munn
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 12 FEB 1937

FRI 25 JUN 1937

Assigned

See fls. 56-57900

TUE. 6 JUL 1937

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