

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Received at London Office

Date of writing Report 19.1. 19 48 When handed in at Local Office to Port of WINTERTHUR

No. in Survey held at Winterthur Date, First Survey 17.9.47 Last Survey 30.9. 19 47  
Reg. Book. Number of Visits 5

on the ~~Deck~~ ~~Triple~~ ~~Quadruple~~ Screw vessel **M.T. "PARGO"**

Tons { Gross  
Net

Built at Groningen By whom built Scheepswerf "FOXHOL" Yard No. 84 When built 1948

Owners "Arrasto", Cia de Pesca do Centro de Portugal Port belonging to Figueira da Foz.

Oil Engines made at Winterthur By whom made Sulzer Bros., Ltd. Eng. No. 607 When made 1947

Generators made at --- By whom made --- Contract No. --- When made ---

No. of Sets 1 Engine Brake Horse Power 100 Nom. Horse Power as per Rule 25 Total Capacity of Generators --- Kilowatts.

**OIL ENGINES, &c.**—Type of Engines Sulzer Opposed Piston 4ZGH9 2 or 4 stroke cycle 2 Single or double acting Single  
Maximum pressure in cylinders 1200 lb. Diameter of cylinders 90 mm. Length of stroke 2x120 mm No. of cylinders 4 No. of cranks 4x2  
Span of bearing, adjacent to the Crank, measured from inner edge to inner edge 187 mm. Is there a bearing between each crank Yes (In pairs)

Revolutions per minute 1250 Flywheel dia. 580 mm. Weight 220 kg. Means of ignition Compression and of fuel used Heavy oil  
Crank Shaft, dia. of journals as per Rule Appd. 20.11.47. as fitted 90 mm. Crank pin dia. 80 mm. Crank Webs Mid. length breadth 125 mm Thickness parallel to axis ---  
as fitted 90 mm. Crank pin dia. 80 mm. Crank Webs Mid. length thickness 27 mm Thickness around eye-hole ---

Flywheel Shaft, diameter as per Rule --- as fitted --- Intermediate Shafts, diameter as per Rule --- as fitted --- Thickness of cylinder liners 9 mm.

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

Cooling Water Pumps, No. 2 S.A. 46 mm. dia. x 55 mm. stroke. - Pump speed 450 R.P.M. Is the sea suction provided with an efficient strainer which can be cleared within the vessel ---

Lubricating Oil Pumps, No. and size 1 Gear Pump - 1,2 m<sup>3</sup>/hour.  
Air Compressors, No. --- No. of stages --- Diameters --- Stroke --- Driven by ---

Scavenging Air Pumps, No. 4 S.A. Diameter 190 mm. Stroke 92 mm. Driven by Engine.  
**AIR RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule See Main Engine Report No. 256.

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 No information received.

Pressure of supply --- volts. Load --- Amperes. Direct or Alternating Current ---  
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 ---  
Generators, do they comply with the requirements regarding rating --- are they compound wound ---

are they over compounded 5 per cent. ---, 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 ---

PLANS. Are approved plans forwarded herewith for Shafting 20.11.47. Receivers --- Separate Tanks ---  
(If not, state date of approval)

SHAFT GEAR See List.

**Sulzer Brothers**

Limited

The foregoing is a correct description,

*W. Stober* *mm Steiger*

Manufacturer.



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4<sup>c</sup> 257.

Dates of Survey while building	During progress of work in shops - -	17.9.47 to 30.9.47. - 5 visits.
		During erection on board vessel - - -
	Total No. of visits	---

Dates of Examination of principal parts—Cylinders	17.9.47 30.9.47.	Covers	17.9.47 30.9.47.	Pistons	30.9.47	Piston rods	---
Connecting rods	---	Crank and Flywheel shaft	17.9.47 18.9.47.	Intermediate shaft	---		

Crank and Flywheel shafts, Material **S.M. steel** Identification Mark **031.**  
**B.V. LLOYD'S No.1573 L.R.**

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. ---)

This auxiliary machinery has been constructed under Special Survey in accordance with the requirements of the Rules, the Secretary's letters and the approved plans. Torsional vibration characteristics approved 20.11.47 and 12.1.48. Materials and workmanship are good. The engine has been despatched for installation in the vessel.

1m.0.28 - Transfer. (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... **Yes. 100.-** When applied for, **Monthly A/c** Paid **5/2/48**  
 Travelling Expenses (if any) £ : : When received, 19...

*J. Buchanan*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI 3 JUN 1948**  
 Assigned *Su F.E. mclay. rpt.*

