

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 41.

Date of writing Report 2<sup>nd</sup> Nov. 1950

When handed in at Local Office

Received at London Office

Port of

Augsburg

29 NOV 1950

Survey held at

Augsburg

Date, First Survey

13<sup>th</sup> July 50

Last Survey

13<sup>th</sup> Oct. 1950

Book

M.T. IRLAND

Single  
on the Twin  
Triple  
Quadruple

Screw vessel

at Hamburg

By whom built

Deutsche Werft A. S.

Yard No. 5.235

When built

Engines made at

Augsburg

By whom made

Maschinenfabrik

Port belonging to

Generators made at

By whom made

Augsburg-Nürnberg

Contract No. 857230

When made 1950

of Sets 1

Engine Brake Horse Power 95

M.N. as per Rule 244

Contract No.

When made

intended for essential services

Total Capacity of Generators

Kilowatts.

ENGINES, &amp;c.—Type of Engines M.A.N. Standard Type 93V33

2 or 4 stroke cycle 4

Single or double acting Single

Maximum pressure in cylinders 52 atm

Diameter of cylinders 220 mm

Length of stroke 330 mm

No. of cylinders 3

No. of cranks 3

Indicated pressure

Firing order in cylinders 1-3-2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 260 mm

Are there a bearing between each crank yes

Moment of inertia of flywheel (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>) 2200 kg/m<sup>2</sup>

Revolutions per minute 400

Flywheel dia. 1200 mm

Weight 2360 kg

Means of ignition div. injection

Kind of fuel used state oil

Crank Shaft, dia. of journals

as per Rule

Crank pin dia. 130 mm

Crank Webs

Mid. length breadth 240 mm

Thickness parallel to axis

Flywheel Shaft, diameter

as per Rule

Intermediate Shafts, diameter

as per Rule

General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>)

Means provided to prevent racing of the engine when declutched yes

Means of lubrication forced

Kind of damper if fitted

Are the cylinders fitted with safety valves yes

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

Driving Water Pumps, No.

1 x 2.5 m<sup>3</sup>/h

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size

1 x 1.1 m<sup>3</sup>/h

Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Driving Air Pumps, No.

Diameter

Stroke

Driven by

RECEIVERS:—Have they been made under Survey

State No. of Report or Certificate

Is there a receiver, which can be isolated, fitted with a safety valve as per Rule

Are 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

Pressure Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

Is the joint, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Driving Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Is the joint, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

ELECTRIC GENERATORS:—Type

Voltage of supply

Full Load Current

Amperes

Direct or Alternating Current

Is the system, alternating current system, state the periodicity

Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown off

Are the generators, are they compounded as per Rule

Is there an adjustable regulating resistance fitted in series with each shunt field

Are the terminals accessible, clearly marked, and furnished with sockets

Are they so spaced

Is it so arranged that they cannot be accidentally earthed, short circuited, or touched

Are the lubricating arrangements of the generators as per Rule

Are generators under 100 kw. full load rating, have the makers supplied certificates of test

and do the results comply with the requirements

Are generators 100 kw. or over have they been built and tested under survey

Is there any other driven machinery other than generator

S.—Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Receivers

Separate Tanks

Are torsional Vibration characteristics if applicable been approved

(state date of approval)

Armature shaft Drawing No.

GEAR 1. cyl. cover, 1 cyl. liner, 1 piston, 5 fuel oil valves, 3 safety valves, 2 fuel oil pumps, 1 set of wheels for camshaft drive, 2 inlet - 5 exhaust valves, 2 oil pump valves etc.

The foregoing is a correct description

Maschinenfabrik Augsb.-Nürnberg A. G.

Manufacturer.



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Lloyd's Register  
Foundation

003421-003428-0064



Dates of Survey while building During progress of work in shops - - 1950: July 13. 27. 28 August 7. 17. 23 Sept. 6. 7. 8. 11. October 3. 12. 13  
During erection on board vessel - - -  
Total No. of visits 13.

Dates of Examination of principal parts—Cylinders 28. 7. 50 Covers 17. 8. 50 Pistons 7. 8. 50 Piston rods

Connecting rods 7. 8. 50 Crank and Flywheel shafts 13. 7. 50 Intermediate shafts

Crank shaft Material S. M. Steel Tensile strength 55.0 kg/mm<sup>2</sup>  
Elongation on 50 = 33.2 % on 70 = 28.6 % Identification Marks Lloyds 2068/3815 B. HKS. 13.

Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers

Is this machinery duplicate of a previous case If so, state name of vessel M. 17. N. Standard Type.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This heavy oil auxiliary engine has been inspected during construction, in accordance with the approved plans and instructions thereto.

The material used in the construction is good and the workmanship was found to be satisfactory.

Subject engine has been tested running on makers test bed during several hours under full-over and partial loads with satisfactory results.

In my opinion the vessel for which this auxiliary engine is intended will be eligible in my opinion with the notation of + L. M. C. (with) when the whole machinery has been satisfactorily fitted aboard and is under full working conditions with satisfactory results.

The amount of Fee Sp. Inv. 129. 00:  
Test material 50. 00:  
Rep. test bed 40. 00:  
Travelling Expenses (if any) 11. 00:

When applied for 19  
When received 19

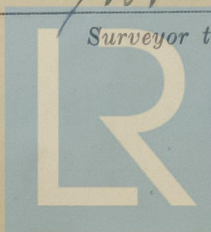
Committee's Minute

TUES. 14 AUG 1951

Assigned

See F. E. Mch. rpb.

Surveyor to Lloyd's Register of Shipping.



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