

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 5084

Received at London Office

5-FEB-1954

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

No. in Survey held at CASTELLAMMARE. Date, First Survey... Last Survey... 1953. Number of Visits...

on the Twin Screw vessel M.V. "SHAKTI". Tons Gross 2788 Net 1445

Built at CASTELLAMMARE DI STABIA. By whom built NAVALMECCANICA CANTIERE NAVALE. Yard No. 590. When built 1949

Owners THE GOVERNMENT OF INDIA. Port belonging to...

Oil Engines made at LEGNANO. By whom made FRANCO TOSSI. Contract No... When made...

Generators made at TRIESTE. By whom made C.R.D.A. Contract No... When made...

No. of Sets 3. Engine Brake Horse Power 2240. M.N. as per Rule... Total Capacity of Generators 108 Kilowatts.

Is Set intended for essential services YES (1240 BHP. EMERGENCY).

OIL ENGINES, &c.—Type of Engines One TOSI QI 4 Ch. Two QI 2 Ch. 2 or 4 stroke cycle 4 Single or double acting

Maximum pressure in cylinders 60 Kg/cm². Diameter of cylinders 180 mm. Length of stroke 320 mm. No. of cylinders 222. No. of cranks 222.

Mean indicated pressure 5.52 Kg/cm². Firing order in cylinders... Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 214 mm.

Is there a bearing between each crank YES. Moment of inertia of flywheel (16 m² or Kg.-cm.²)... Revolutions per minute 2240.

Flywheel dia... Weight... Means of ignition COMPRESSOR. Kind of fuel used DIESEL.

Crank Shaft, dia. of journals as per Rule... Crank pin dia 115 mm. Crank Webs Mid. length breadth... Thickness parallel to axis... shrunk. Mid. length thickness... Thickness round eyehole...

Flywheel Shaft, diameter as per Rule... Intermediate Shafts, diameter as per Rule... General armature, moment of inertia (16 m² or Kg.-cm.²)...

Are means provided to prevent racing of the engine when declutched... 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...

Cooling Water Pumps, No. SEE RPT 4 B. Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES.

Lubricating Oil Pumps, No. and size... Attached gear pumps.

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

Scavenging Air Pumps, No... Diameter... Stroke... Driven by...

AIR RECEIVERS:—Have they been made under Survey NO. State No. of Report or Certificate...

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... 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 COMPOUND ENCLOSED VENTILATED DRIP PROOF.

Pressure of supply 110 volts. Full Load Current 765 Amperes. Direct or Alternating Current DIRECT.

If alternating current system, state the periodicity... Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown on and off YES. Generators, are they compounded as per Rule YES. is 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.

If the generators are under 100 kw. full load rating, have the makers supplied certificates of test... and do the results comply with the requirements...

If the generators are 100 kw. or over have they been built and tested under survey...

Details of driven machinery other than generator NONE.

PLANS.—Are approved plans forwarded herewith for Shafting... Receivers... Separate Tanks...

Have Torsional Vibration characteristics if applicable been approved... Armature shaft Drawing No...

SPARE GEAR AS PER RULE REQUIREMENTS.

The foregoing is a correct description,

Manufacturer.



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Dates of Survey while building { During progress of work in shops - -) NONE.
 { During erection on board vessel - -) SEE Rpt. 4B.
 Total No. of visits.....

Dates of Examination of principal parts—Cylinders..... Covers..... Pistons..... Piston rods.....

Connecting rods..... Crank and Flywheel shafts..... Intermediate shafts.....

Crank shaft { Material..... Tensile strength.....
 { Elongation..... Identification Marks.....

Flywheel shaft, Material..... Identification Marks.....

Identification marks on Air Receivers.....

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 machinery has been built during the war under the survey of the Registrar Italian and the Italian Navy Surveyors. It has been dismantled & examined over all parts and the crankshafts Binned tested with satisfactory results, see Secretary's letter to Genoa August 1947 (copy not available).
 The machinery has been tested under working conditions in accordance with the Rules of this Society and found satisfactory. It is considered eligible, in our opinion to be included in the H.M.C. record.

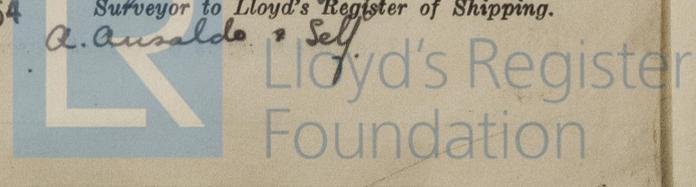
The amount of Fee ... £ Included - Rpt. 4B. fee. { When applied for 19.....
 Travelling Expenses (if any) £ : : { When received 19.....

FRIDAY 30 JUL 1954 FRIDAY - 6 AUG 1954

Committee's Minute.....

Assigned See Rpt. 4B.

J. Hutton for W. Satchell, J. Stevenson.
 Surveyor to Lloyd's Register of Shipping.



Form 48-T. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee Minute.)