

Rpt. 4c

Date of writing report 24th December 1956 Received London 21 JAN 1957 Port YOKOHAMA No. 2151B
Survey held at Yokohama No. of visits 34 First date 20-9-56 Last date 8-12-56

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship M.V. "GEORGIA MARU" Owners Mitsubishi Kaiun K.K.
(Or Contract No. if name unknown) (Or Consignees)
Ship Built at Yokohama, Japan by Yokohama Shipyard & Engine Wks. when 1956-12 Yard No. 815
Auxiliary Engines or Gas Turbines made at Yokohama by - do - when 1956-9 Eng. Nos. D-133125
Total No. of sets and description (including type name) 2 sets, Yokohama M.A.N. trunk piston, precombustion type Diesel engine

INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 5 Dia. of cylinders 235m/m Stroke 330m/m
2 or 4 stroke cycle 4 Maximum approved BHP 240 at 514.3 RPM Corresponding MIP 7.52 kg/cm2 Maximum pressure 60 kg/cm2
Fuel Diesel Oil Are cylinders arranged in Vee or other special formation? No If so, No. of
crankshafts per engine - Is engine of opposed piston type? - No. and type of mechanically driven scavenge pumps or blowers
per engine - No. of exhaust gas driven blowers or superchargers per engine - Is welded construction
used for: Bedplate? - Entablature? - Total Internal volume of crankcase (if 20 cu. ft. or over) 1.087m3 No. and total area of
crankcase explosion relief devices 2 x 173cm2 Are flame guards or traps fitted? No Cooling medium for: Cylinders Sea water
Pistons - No. of attached pumps: F.W. cooling - S.W. cooling 1 set Lubricating oil 1 set How is engine started? by
Compressed Air

SHAFTING. Is a damper or detuner fitted? No No. of main bearings 6 Are bearings of ball or roller type? No Distance between
inner edges of bearings in way of cranks 284 m/m Crankshaft: Built, semi-built, solid Material of crankshaft Electric furnace steel Approved
minimum tensile strength 55 kg/mm2 Dia. of pins 155 m/m Journals 155 m/m Breadth of webs at mid throw 273 m/m Axial
thickness 80 m/m If shrunk, radial thickness around eyeholes - Dia. of flywheel 1200m/m Weight 1320 kgs Are balance
weights fitted? No Total weight - Rad. of gyration 1007m/m Dia. of flywheel shaft -
Has each engine been tested in shop? Yes How long at full power? 2 Hrs. Was it tested with driven machinery attached? Yes
governing tested and found satisfactory? Yes Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) 10-5-56
Date of approval of shafting 10-2-56 Identification marks on shafting D-133125 U-133129
NAG-807 NAG-1394 23-5-56
Particulars of driven machinery Air Compressor: 150m3/hr x 30kg/cm2 x 2 set
Generator: 170 K.V.A. x 2 set
Port and No. of Certificate for Starting Air Receivers Yokohama YAR-76

AUXILIARY GAS TURBINES. BHP per set At RPM of output shaft. Open or closed cycle?
Arrangement of turbines. HP drives at RPM HP gas inlet temp. pressure
(A small diagram should be attached showing gas cycle) IP " " " " " "
LP " " " " " "
No. of air compressors per set Centrifugal or axial flow type? Material of turbine blades
Material of compressor blades No. of air coolers per set No. of heat exchangers per set How are
turbines started? Are the turbines operated in conjunction with free piston gas generators?
Total No. of free piston gas generators Dia. of working pistons Dia. of compressor pistons No. of double strokes
per minute at full power Gas delivery pressure Gas delivery temperature
Have the turbines and attached equipment been tested in shop? How long at full power? Were they tested with driven machinery
attached? Particulars of gearing
Date of approval of plans Identification marks Particulars of driven machinery

ELECTRIC GENERATORS. Port and No. of Certificate for generators of 100 Kw. and over Kobe M-33196
For generators under 100 Kw., has Makers' Certificate been obtained? No Are Certificates attached? No

The foregoing description is correct and the particulars are as approved for torsional vibration characteristics (strike out words not applicable)
Chief engineer of Yokohama Shipyard and Engine Works. Manufacturer

Is this machinery duplicate of a previous case? Yes If so, which? M.V. "YOWA MARU"

GENERAL REMARKS. State if the machinery has been constructed under special survey in accordance with the Rules, approved plans and Secretary's letters.
State quality of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.
The Oil Engine Electric Generator sets have been constructed under the supervision of the Society's Surveyors
in accordance with the Rules, Approved plans and Secretary's letters.
The workmanship and materials have been found satisfactory.
The Oil engine Electric Generator sets have been examined during and after shop trial and found in order.
The Oil engine Electric Generator sets have been satisfactory installed in the Vessel and tested under working
condition.
It is submitted that the Oil Engine Electric Generator sets are eligible to be classed with this Society with
the notation of LMC 12,56. Crank case explosion relief device fitted as per plan in accordance with Cir No.2045
Survey Fee ¥76,000.-
Expenses
Date when a/c rendered

Declaration to be signed by Surveyor at fitting-out Port:— The above described machinery has been fitted on board the M.V. "GEORGIA MARU"
at Yokohama in a proper manner and found satisfactory when tested on the (date) 4th Dec. '56 under full working conditions.
Engine Surveyor to Lloyd's Register

Date of writing report Received London Port No. Survey held at No. of visits First date Last date

FIRST ENTRY REPORT ON AUXILIARY STEAM TURBINE OR STEAM RECIPROCATING ENGINES

Name of Ship (Or Contract No. if name unknown) Owners (Or Consignees) Ship Built at by when Yard No. Auxiliary turbines or engines made at by when Eng. Nos. Total No. of sets and description

STEAM TURBINES. No. of turbines per set BHP per set Steam pressure Steam temperature

Type of turbines Particulars of gearing RPM of turbine shaft(s) PCD of pinion(s) PCD of wheels(s) Material of pinion(s) Material of wheel rim(s) Has rotor been dynamically balanced? Diameter of rotor shaft at bearings Does the set include a steam condenser? Is an emergency governor fitted? No. and purpose of attached pumps Has the set been tested in the shop? If so, for how long at full power? Was the governing tested and found satisfactory? Was the set tested with driven machinery attached? Identification marks Particulars of driven machinery

STEAM RECIPROCATING ENGINES. BHP of each at RPM Steam pressure

Dia. of cylinders Stroke Dia. of crankshaft journals Pins Material of crankshaft Is crankcase enclosed? If so, is the internal volume 20 cu. ft. or over? No. and total area of crankcase explosion relief devices fitted? Are the bearings forced lubricated? No. and Purpose of attached pumps Is a Governor Fitted? Identification Marks

Particulars of Driven Machinery

ELECTRIC GENERATORS. Port and No. of Certificate for generators of 100 Kw. and over

For generators under 100 Kw., has Makers' Certificate been obtained? Are Certificates attached?

The foregoing description is correct.

Manufacturer

Is this machinery duplicate of a previous case? If so, which?

GENERAL REMARKS. State if the machinery has been constructed under special survey in accordance with the Rules, approved plans and Secretary's letters. State quality of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.

Survey Fee Expenses Date when a/c rendered Engineer Surveyor to Lloyd's Register

Declaration to be signed by Surveyor at fitting-out Port:— The above described machinery has been fitted on board the at in a proper manner and found satisfactory when tested on the (date) under full working conditions.

