

Rpt. 4c

Date of writing report 26-6-64

Received London

Port

No. 51

Survey held at

No. of visits

First date

Last date

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship (Or Contract No. if name unknown) Owners (Or Consignees)
Ship Built at **Genova Sestri** by **Ansaldo, Cantieri Navali** when **1963** Yard No. **1596**
Auxiliary Engines or Gas Turbines made at **Milan** by **Alfa Romeo** when **1963** Eng. Nos. **00505**
Total No. of sets and description (including type name) **1 - 1627 Ind.**

INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine **6** Dia. of cylinders **125 mm.** Stroke **170 mm.**
2 or 4 stroke cycle **4** Maximum approved BHP **165** at **1800** RPM Corresponding MIP **8.5 Kg/cm²** Maximum pressure **75 Kg/cm²**
Fuel **Gas Oil** Are cylinders arranged in Vee or other special formation? **line** 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) **less than 20 cu. ft.** and total area of
crankcase explosion relief devices **-** Are flame guards or traps fitted? **-** Cooling medium for: Cylinders **Water**
Pistons **Oil** No. of attached pumps: F.W. cooling **1** S.W. cooling **-** Lubricating oil **2** How is engine started?
By hand inertia starter

SHAFTING. Is a damper or detuner fitted? **damper** No. of main bearings **7** Are bearings of ball or roller type? **No.** Distance between
inner edges of bearings in way of cranks **137 mm.** Crankshaft: **solid** Material of crankshaft **38 NCD4 steel** Approved
minimum tensile strength **95 Kg/mm²** Dia. of pins **85 mm.** Journals **94 mm.** Breadth of webs at mid throw **200 mm.** Axial
thickness **31 mm.** If shrunk, radial thickness around eyeholes **-** Dia. of flywheel **548 mm.** Weight **137 Kg.** Are balance
weights fitted? **-** Total weight **-** Rad. of gyration **181.5 mm.** Dia. of flywheel shaft **430 mm.**
Has each engine been tested in shop? **yes** How long at full power? **4 hours** Was it tested with driven machinery attached? **No.** Was the
governing tested and found satisfactory? **Yes** Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) **22.5.1963**
Date of approval of shafting **21.3.63** Identification marks on shafting **LLOYD'S M.L.G.L.**
Particulars of driven machinery **centrifugal pump**

Port and No. of Certificate for Starting Air Receivers

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 **at** IP **" " " "**
LP **at** 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
For generators under 100 Kw., has Makers' Certificate been obtained? **Are Certificates attached?**

The foregoing description is correct and the particulars are as approved for torsional vibration characteristics (strike out words not applicable)

ALFA ROMEO S.p.A., Milano

Manufacturer

Is this machinery duplicate of a previous case? **yes** If so, which? **Rpt. 50 - Engine 00495 - for Ansaldo's Yard No. 1595**

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 above machinery was constructed under special survey, in accordance with the Rules and approved plans.
All the materials were submitted to the tests required by the Rules and found satisfactory.
Workmanship satisfactory throughout.

Survey Fee
Expenses **see previous report No. 50.**
Date when rendered

(Ing. G. LEVI)

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 "GIUSEPPE VERDI" Yard No. 1597.
at **ANSALDO-SESTRI, Genoa** in a proper manner and found satisfactory when tested on the (date) **1/12/1964** under full working conditions.

(S. DINNEN)

Engineer Surveyor to Lloyd's Register

012113-012116-0056

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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 wheel(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.