

Rpt. 4c

Date of writing report 14th December, 1964

Received London

Port GENOA

No.

29569

Survey held at GENOA

No. of visits 14

First date 19/12/1963

Last date 2/12/1964

FIRST ENTRY REPORT ON AUXILIARY STEAM TURBINE OR STEAM RECIPROCATING ENGINES

Name of Ship m.t. "GIUSEPPE VERDI" (Or Contract No. if name unknown)

Owners BLACK SEA STEAMSHIP LINES, U.S.S.R. (Or Consignees)

Ship Built at GENOA SESTRI by ANSALDO S.A. CANTIERE NAVALE when 1964 Yard No. 1597

Auxiliary turbines or engines made at GENOA SAMPIERDARE by ANSALDO S.A. STAB. MECCANICO when 1964 Eng. Nos. 1766

Total No. of sets and description One electric generator set consisting of one steam turbine driving a 562.5 kVA alternator through single reduction gearing.

STEAM TURBINES. No. of turbines per set one BHP per set 612 Steam pressure 12Kg/cm2 Steam temperature 205°C

Type of turbines one single row impulse wheel followed by fifteen reaction stages

Particulars of gearing single reduction double helical gearing

RPM of turbine shaft(s) 9931 PCD of pinion(s) 108-832mm PCD of wheel(s) 720.542mm Material of pinion(s) Ni-Cr-Mo Steel Material of wheel rim(s) C-V steel

Has rotor been dynamically balanced? yes Diameter of rotor shaft at bearings 60mm Does the set include a steam condenser? yes Is an emergency governor fitted? yes No. and purpose of attached pumps one lubricating oil pump

Has the set been tested in the shop? yes If so, for how long at full power one hour Was the governing tested and found satisfactory? yes Was the set tested with driven machinery attached? yes

Identification mark turbine rotor P1 BT. 20/5/64-LLOYD'S GEN. Particulars of driven machinery 450kW (.8PF) 400 V.

" " pinion P9 BT. 1/6/64-LLOYD'S GEN 50 cycles, 1500 RPM. ANSALDO SANGIORGIO.

" " gear wheel rim P6 BT. 9/12/63-LLOYD'S GEN No. 500295.

" " gear wheel shaft P47 BT. 9/12/63-LLOYD'S GEN

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 GENOA No. M. 7473.

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

The foregoing description is correct.

ANSALDO S.p.A. STABILIMENTO MECCANICO

Manufacturer

Is this machinery duplicate of a previous case? yes If so, which? m.t. "GALILEO GALILEI" (ANSALDO YARD NO. 1596).

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.

This turbo generator has been manufactured under special survey of tested materials and in accordance with the approved plans, Secretary's letters and Rule Requirements, the material and workmanship are good. The turbo generator has been tested in the shop under full power working conditions with satisfactory results.

Survey Fee Lit. 74.375

Expenses Lit. 1.400 R.T. (see also Ak. 427382 dd. 4/2/1965) Date when a/c rendered 4/2/1965

(W. GIUNTI) & (B.S. THOMPSON)

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 m.t. "GIUSEPPE VERDI" (Yard No. 1597) at ANSALDO S.A. CANTIERE NAVALE SE-STRI in a proper manner and found satisfactory when tested on the (date) 23.11.1964 under full working conditions.

(S. DINNEN)

Engineer 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 INTERNAL COMBUSTION ENGINES

Name of Ship (Or Contract No. if name unknown), Owners (Or Consignees), Ship Built at, Auxiliary Engines or Gas Turbines made at, Total No. of sets and description (including type name)

INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine, Dia. of cylinders, Stroke, 2 or 4 stroke cycle, Maximum approved BHP, RPM, Corresponding MIP, Maximum pressure, Fuel, Are cylinders arranged in Vee or other special formation?, 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), No. and total area of crankcase explosion relief devices, Are flame guards or traps fitted?, Cooling medium for: Cylinders, Pistons, No. of attached pumps: F.W. cooling, S.W. cooling, Lubricating oil, How is engine started?

SHAFTING. Is a damper or detuner fitted?, No. of main bearings, Are bearings of ball or roller type?, Distance between inner edges of bearings in way of cranks, Crankshaft: Built, semi-built, solid, Material of crankshaft, Approved minimum tensile strength, Dia. of pins, Journals, Breadth of webs at mid throw, Axial thickness, If shrunk, radial thickness around eyeholes, Dia. of flywheel, Weight, Are balance weights fitted?, Total weight, Rad. of gyration, Dia. of flywheel shaft, Has each engine been tested in shop?, How long at full power?, Was it tested with driven machinery attached?, Was the governing tested and found satisfactory?, Date of approval of torsional vibration characteristics (for engines of 150 BHP and over), Date of approval of shafting, Identification marks on shafting, Particulars of driven machinery

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, IP, at, LP, at, 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)

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, in a proper manner and found satisfactory when tested on the (date), under full working conditions.

