

MACHINERY OF SHIPS NOT BUILT UNDER SURVEY

Rpt. 4c

Date of writing report 3.12.64 Received London 12 MAR 1965 Port Nagasaki No. FE-1321
Survey held at Sasebo No. of visits 5 First date 13.10.64 Last date 24.11.64

FIRST ENTRY REPORT ON AUXILIARY STEAM TURBINE OR STEAM
RECIPROCATING ENGINES

Name of Ship "MOBIL PROGRESS" (now named "AUSTRALIAN PROGRESS") Owners Associated Steamship Co.
(Or Contract No. if name unknown) (Or Consignees)
Ship Built at Hamburg by W. Schlieker when 1960 Yard No. 525
Auxiliary turbines ~~engines~~ made at Hamburg by Siemens - Schckertwerke A.G. when - Serial T.1857
Total No. of sets and description 2- Steam Turbine Coupled to 500 KVA Generator with Single Stage Reduction Gear T.1858

STEAM TURBINES. No. of turbines per set 1 BHP per set 770 Steam pressure 30 kg/cm² Steam temperature 393°C
Type of turbines Axial-Flow Impulse Condensing Type
Particulars of gearing Double Herical Gear with Pinion, Single Stage Reduction
RPM of turbine shaft(s) 10,000 PCD of pinion(s) 92.592 mm PCD of wheel(s) 771.599 mm Material of
pinion(s) unknown Material of wheel rim(s) unknown Has rotor been dynamically balanced? unknown Diameter of rotor
shaft at bearings Front 60 mm Rear 75 mm Does the set include a steam condenser? No Is an emergency governor fitted? Yes No. and purpose of
attached pumps 1 - Lubricating Oil Has the set been tested in the shop? - If so, for how long at full
power? - Was the governing tested and found satisfactory? Yes Was the set tested with driven machinery attached? Yes
Identification marks Not Clear Particulars of driven machinery 1 - Constant Voltage
Generator - 500 KVA, 450 V, 60 Cycle, 640 A, 1,200 r.p.m. each.

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.
The auxiliary steam turbines installed on board this ship have now been stripped down and examined in their
entirety in accordance with the requirements of Chapter C, Section 11, of the Regulations and found to be, so
far as could be ascertained, showed no sign of defects.

Survey Fee 80 Expenses Date when a/c rendered
Y. Kojima
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 above ship
found satisfactory when tested on the (date) 24.11.64 under full working
conditions.

No.

Last date

Rpt.

Yard No.

when

Eng. Nos

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..... at..... 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

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.....

IP "..... at..... " IP " " " " " " " " " " " "

(A small diagram should be attached showing gas cycle) 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 they 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 stroke 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)

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 letter. 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 Reg

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.

Engineer Surveyor to Lloyd's Reg

Engineer Surveyor to Lloyd's Register