

Rpt. 4c

11 SEP 1961

22 AUG 1962

Date of writing report 16th August, 1961

Received London

Port BIRMINGHAM

No. 668

Survey held at

No. of visits 4

First date 15/6/61

Last date 18/7/61.

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship "ARAMOANA" Owners Petbow Ltd.
(Or Contract No. if name unknown) (Or Consignees)
Ship Built at Dumbarton by William Denny when 1961 Yard No. 1502
Auxiliary Engines or Gas Turbines made at Shrewsbury by Rolls Royce Ltd. when 1961 Eng. Nos. 2188/1
Total No. of sets and description (including type name) Marine Diesel, Type C8/TFL, intended for Driving Generator

INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 8 Dia. of cylinders 5.125" Stroke 6.000"
2 or 4 stroke cycle 4 Maximum approved BHP 297 at 1500 RPM Corresponding MIP 191 psi. Maximum pressure 1590 p.s.i.
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 No. and type of mechanically driven scavenge pumps or blowers
per engine None No. of exhaust gas driven blowers or superchargers per engine One Is welded construction
used for: Bedplate? No Entablature? - Total internal volume of crankcase (if 20 cu. ft. or over) Less than 20 cu. ft. No. and total area of
crankcase explosion relief devices None Are flame guards or traps fitted? No Cooling medium for: Cylinders Water
Pistons No No. of attached pumps: F.W. cooling One S.W. cooling None Lubricating oil One How is engine started? Bryce-Berger
and electric motor Hydraulic Starter

SHAFTING. Is a damper or detuner fitted? Yes No. of main bearings 9 Are bearings of ball or roller type? No Distance between
inner edges of bearings in way of cranks 4.800 Crankshaft: Built, semi-built, solid. Material of crankshaft EN.19 Approved
minimum tensile strength 50 tons/sq. in. Journals 5.000" Breadth of webs at mid throw 6.150" Axial
thickness 1.163" If shrunk, radial thickness around eyeholes - Dia. of flywheel 21.85" Weight 251 lb. Are balance
weights fitted? No Total weight ---- Rad. of gyration 7.05" Dia. of flywheel shaft Integral with crankshaft
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) 22/8/61
Date of approval of shafting Identification marks on shafting Crank Shaft No. LC.4224 - LR - D.L. - 12/12/60.
Particulars of driven machinery 516A

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)

G.D.D. Wilson (Chief Designer)
(G.D.D. Wilson) Manufacturer
for ROLLS-ROYCE LIMITED

Is this machinery duplicate of a previous case? No 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 engine has been constructed under Survey in accordance with approved plans and
Secretary's letters.

The materials and workmanship are good.

The engine has been despatched to Messrs. Petbow Ltd., Sandwich, Kent.

Survey Fee £27.10.0d. 4c 3895Expenses £ 2. 0.0d. 9/9/61

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 TS ARAMOANA
at Dumbarton in a proper manner and found satisfactory when tested on the (date) 8-6-62 under full working conditions.

GLASGOW 21 AUG 1962

Engineer Surveyor to Lloyd's Register

SEE ACCOMPANYING MACHINERY REPORT



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Lloyd's Register
Foundation

Rpt. 4c

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 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.

