

**Rpt. 9A REPORT OF MACHINERY SURVEYS AND REPAIRS (ENGINES AND AUXILIARIES)**  
 FOR CONSIDERATION BY THE COMMITTEE OF LLOYD'S REGISTER OF SHIPPING

Received London  
 28 JUL 1966

11 AUG 1966

Ship's Name ~~MS~~ "LUCIANO CASTRO"  
 Gross tons L.R. 521364 Port of Registry Santos Port SANTOS  
 Date of build 3-1950 Is there a rpt. 8? No Rpt. No. 4620  
 No. of visits 2 First date 12.7.66 Last date 14.7.66  
 Interim Cert. issued & copy herewith? Yes Damage rpt. issued & copy herewith? Yes Last rpt. (H.Q. only) *BAJ. 38948*  
 Date of completing rpt. 18.7.66 Surveyed at, if different from Port above --  
 Is a rpt. 9B attached? No MN 102 Nature of survey Damage  
 Survey fees Damage fee Cr\$ 50.000 Expenses

S.A. fee

MAIN ENGINES, RECIP., STEAM OR I.C. (State Port—P or Starboard—S)

- |   |  |      |
|---|--|------|
| 1 | Cyls., covers, pistons & rods                    |      |
| 2 | Valves & gears                                   |      |
| 3 | Con. rods, cross-heads, bearings & guides centre | Side |
| 4 | Crankpins & bearings centre                      | Side |
| 5 | Journals & bearings                              |      |

MAIN ENGINE DRIVEN AIR COMPRESSORS (State Port—P or Starboard—S)

- |    |                               |   |                                   |
|----|-------------------------------|---|-----------------------------------|
| 6  | Cyls., covers, pistons & rods | 7 | Con. rods, cross-heads & bearings |
| 8  | Crankpins & bearings          | 9 | Journals & bearings               |
| 10 | Coolers & safety devices      |   |                                   |

MAIN ENGINE DRIVEN SCAVENGE PUMPS (State Port—P or Starboard—S)

- |    |                               |    |                                   |
|----|-------------------------------|----|-----------------------------------|
| 11 | Cyls., covers, pistons & rods | 12 | Con. rods, cross-heads & bearings |
| 13 | Crankpins & bearings          | 14 | Journals & bearings               |

MAIN TURBINES (State Port—P or Starboard—S)

- |    |  |    |        |
|----|--|----|--------|
| 16 | Casings, rotors, blading, bearings & thrusts | 15 | Levers |
|----|--|----|--------|

- |    |                   |    |               |
|----|-------------------|----|---------------|
| 17 | Reduction gearing |    |               |
| 18 | Scavenge blowers  | 19 | Superchargers |

I recommend that the machinery of this ship remain as classed with/without fresh record of survey, subject to any outstanding conditions being dealt with as previously recommended.

(Where conditions of class are recommended to be retained, imposed, amended or deleted, particulars must be stated above and on the interim certificate.)

Date of Committee

Minute

*G.A. Stewart*  
 G.A. Stewart  
 Surveyor to Lloyd's Register of Shipping

TUESDAY - 9 AUG 1966

*As now*

FOR CHAIRMAN  
 CLERK OF THE COMMITTEE

014835-014842-0182

ALSO FOR

SPL FOR

NOTED BY  
 TRO  
 CESR MG

SRL ✓

POSTING ✓

HEADER ✓

CERT ✓

At part or complete Special Surveys those items which are not applicable to the ship are to be cancelled; this need not be done when the machinery is on a continuous survey basis. When any part has been subjected to pressure test this should be stated. Engine parts when referred to by numbers should be counted from forward.

considered that re-examination, or repairs should be made before that date a distinguishing mark must be inserted against the item and the circumstances and action taken or recommended described fully under "defects and repairs".

The condition of any item is to be described as "good" only when it has been examined, found or placed in good condition, and is considered to be acceptable until the due date of the next Periodical Examination. Where repairs have been effected or it is

- |  |                                     |                                |
|--|-------------------------------------|--------------------------------|
| 20 Exhaust steam turbines (with recip. eng.) | 21 Thrust blocks shafts & bearings  |                                |
| 22 Steam compressors                         | 23 Intermediate shafts & bearings   |                                |
| 24 Clutches & hydraulic couplings            | 25 Condensers (main & aux.)         |                                |
| 26 Steam re-heaters                          | 27 Air ejectors (main & aux.)       |                                |
| 28 De-superheaters                           | 29 Forced &/or induced draught fans |                                |
| 30 Stop & manoeuvring valves                 | 31 Holding down bolts & chocks      | 32 Detuner or vibration damper |
| 33 Main engine driven pumps                  |                                     |                                |

State  
Port P. or  
Starboard S.

- 34 Crankcase doors & explosion relief devices
- 35 Have main engines been tested working & manoeuvring? (To be done on completion of ES or CS cycle)

36 Essential independent pumps

- 37 Bilge, ballast & oil fuel suction lines, fittings & controls
- 38 Have the remaining piping arrangements & fittings in the machinery space been examined as considered necessary?

39 Fresh water coolers

40 Lub. oil coolers

41 Heaters (state service)

42 Feed water filters

43 Auxiliary air receivers & safety devices

44 Starting air pipes

45 Main air receivers & safety devices

46 Independent air compressors coolers & safety devices

47 Oil fuel tanks (not forming part of the hull structure)

48 Have all evaporators safety valves been tested under steam?

49 Evaporators HP & LP

50 Distillers

51 Fire extinguishing arrangements

52 Steering machinery

53 Windlass

Identify  
by  
position

#### AUXILIARY ENGINES

#### PARTICULARS OF DEFECTS, REPAIRS, ALTERATIONS, ETC.

DAMAGE - STARBOARD AUXILIARY ENGINE (Rpt. 10 attached).

It was stated that on the 10th July 1966 whilst on voyage from Buenos Aires/Santos water was noticed leaking from the Nos. 3 and 4 cylinder heads. It was stated that the Starboard auxiliary engine was in service at the time and had been running normally.

Now done: Starboard auxiliary engine examined and water found to be leaking from the Nos. 3 and 4 cylinder heads. All (4) cylinder heads removed ashore, examined under hydraulic test and the Nos. 3 and 4 cylinder heads found to be fractured. The fracture in both heads extending from the combustion chamber crown to the cooling water inlet port. Repairs have been effected by fitting the Owners' spare cylinder heads.

The reason for repairs must be stated and those on account of damage, the alleged cause of which must be given, should be detailed separately from wear and tear repairs. State what action has been taken regarding items which are subjects of class. State also where appropriate, for the information of the Technical Records Dept., the material of the defective item and whether it is a forging, casting or welded fabrication. Any alterations in existing particulars in the Register Book should also be reported above.