

## REPORT OF SURVEY FOR REPAIRS, &amp;c., OF ENGINES AND BOILERS

Date of writing Report 19th September, 1952 When handed in at Local Office 19 Port of Bremen  
No. in Survey held at Bremerhaven Date. First Survey 23.7.52 Last Survey 19.9.52  
Reg. Book. 51301 on the Machinery of the Wood, Iron or Steel S.S. "ANDREAS G"

Gross 4913 Vessel built at Newcastle By whom Palmer's Co. Ltd. When 1929 8  
Net 2979 Engines made at Newcastle By whom M.B. Marine Eng. Co. Ltd. When 1929 8  
Nominal Horse Power 481 Boilers when made (Main) 1929 8 (Donkey) ---  
No. of Main Boilers 3 Owners Santa Cruz Compania Naviera S.A. Owners' Address ---  
No. of Donkey Boilers --- Managers --- Port Panama Voyage ---  
Steam Pressure in Main Boilers 225 lbs If Surveyed Afloat or in Dry Dock Both  
in Donkey Boilers --- (State name of Dock.) (Norddeutscher Lloyd)

Last Report No. --- Port ---  
Particulars of Examination and Repairs (if any) LMC TSCL O.F. conversion  
Periodical Survey, when made, must be reported in detail and in the form of the Rules. State clearly the nature and extent of examinations and subsequent repairs. Repairs on account of damage (the cause of which must be stated) should be separated from repairs due to other causes; and besides being detailed in the body of the report, should be briefly summarized at the end of the report. State also the dates and initials of any letters respecting this case. Classn. H. 18.7.52

In damage cases where the Surveyor has not made a special damage report, he is required to state whether he offered his services for this purpose, and why they were declined. ---

Was a damage report made by anyone else? If so, by whom? ---

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? Yes

Donkey ---

If not, state for what reasons. --- What parts of the Boilers could not be thus thoroughly examined? ---

What special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each Boiler? ---

State latest date of internal examination of each boiler. P.C. & S. 4.8.52

Did the Surveyor examine the Safety Valves of the Main Boilers? Yes Present condition of funnel(s) Efficient

Did the Surveyor examine the Safety Valves of the Donkey Boilers? --- To what pressure were they afterwards adjusted under steam? 220 lbs.

Did the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? YES and of the Donkey Boilers? ---

Did the Surveyor examine the drain plugs of the Main Boilers? --- and of the Donkey Boilers? ---

Did the Surveyor examine all the mountings of the Main Boilers? yes and of the Donkey Boilers? ---

Has the screw shaft now been drawn and examined? Yes Has it a continuous liner? Yes Is an approved oil retaining appliance fitted at the after end? No

Has shaft now been changed? No If so, state reasons --- Has the shaft now fitted been previously used? --- Has it a continuous liner? ---

Is an approved oil retaining appliance fitted at the after end? --- State date of examination of Screw Shaft 6.8.52 State the wear down in the stern bush Running fit Is electric light and/or power fitted? Yes If so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? Yes

Has the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? Yes

Has the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? Yes

Is the Survey not complete, state what arrangements have been made for its completion and what remains to be done complete.

NOV-DONE: ---

Docking: Vessel placed in dry-dock. Propeller, screw-shaft (drawn), sternbush. Cocks, valves and outside

fastenings of sea connections examined and found satisfactory.

Machinery: The following machinery parts opened up, examined and placed in a satisfactory condition: Main

engine, cylinders, pistons, valves, valve casings, covers, crossheads, guides and connecting rods, crank, thrust and

intermediate shafts with their bearings.

Attached and independent pumps.

Both steam generator, engines, overalls parts, and all other parts in all tanks and spaces.

Pen engine.

Steering engine and windlass.

Valves, cocks, pipes and strainers of pumping arrangements.

Condensers examined and tested.

Change-over valves have been examined and found satisfactory. P.T.O.

General Observations, Opinion and Recommendation: The machinery of this vessel

(State clearly what alteration, if any, is suggested to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.; thus, for example, R3 1.1, R4 M5 1.1, LMC 8.52, or LMC 10.10, P. 10, &c.)

is in good order and eligible in my opinion to remain as classed in the Register Book with fresh record of

LMC 8.52 and TS CL 8.52 and the notation "Fitted for oil fuel 8.52 F.P. above 150° F."

Survey Fee (per Section 22) LMC 40 0 0 Fees applied for ---

Special Damage or Repair Fee (if any) BS 18 15 0 Received by me ---

Travelling expenses (if chargeable) TS CL 5 0 0 O.F. Conversion 9 10 0 Trav. Exp. 15 0 0

Committee's Minute TUES 11 NOV 1952

Assigned + LMC 9.52

S 8.52 CERTIFICATE WRITTEN

Fitted for oil fuel 9.52, F.P. above 150° F.

002592-001601-0139

Lloyd's Register Foundation



Representative lengths of main and auxiliary steam pipes over 3" bore (steel) tested to the Rule Requirements: electrical installation.

### Boiler Survey: - 22.7.28

All three boilers examined internally and externally with mountings, manholes, doors and their fastenings and found satisfactory.

Safety valves adjusted under steam 220 lbs per square inch.

Oil-fuel burning installation examined under working conditions and found satisfactory.

Fire fighting appliances verified. Control rods checked.

### Machinery Repairs (Wear and Tear): -

Stern bush rewooded (bottom shaft) (reconditioned)

Main engine: H.P. crankbearing found metal cracked, now remetalled and refitted.

Both steam generator engines: piston rods machined true, neck bushes renewed and all bearings

G.S. pump: Piston and rods and one pump liner renewed. One liner rebored.

Ballast pump: Bucket rods machined true, new neck bushes fitted and valve seatings machined,

bucket rings renewed.

Both feed pumps: Buckets built up by brazing, grooves recut and rings renewed.

Main circ. pump: Clearance rings renewed, pump spindle skimmed and glands and bearings re-bushed

### Boiler Repairs (Wear and Tear):

Three valve seats and 1 lid renewed.

Centre boiler: 5 c.c. side stays renewed, and 2 surface cracks at the centre combustion, in way of back plate rivets veed out and welded.

On completion of repairs, quayside trials of main engines and auxiliaries carried out with satisfactory results.

### Oil Fuel Conversion:

This vessel has now been converted for burning of oil fuel.

All pipe lines have been examined under pressure and found good.

One oil fuel transfer pump and one oil fuel pressure unit consisting of two pressure pumps and two

heaters with filters, mounted on fabricated stools, having drip trays leading the oil to the starboard oily bilge in the stokehold.

Suction and discharge pipes tested on completion in accordance with the Rule Requirements and found

good. Filling and suction pipes to settling tanks placed on port and starboard tween decks tested and

Steam heating coils in all tanks satisfactorily tested.

Steam heating coil returns led through suitably illuminated observation tank on starboard side of

stokehold passage. A hand lighting-up unit installed and tested in the stokehold.

All lead pipes have been removed.

Change-over valves have been suitably fitted and additionally fitted with spectacle flanges.

A gutterway has been fitted to the D.B. tank top along the deep tank (formerly the crossbunker

part of No.3 hold) at the forward end of the stokehold, leading into the oily bilge wells port and starboard side of the stokehold.

0	0	0A	2/28
0	0	0B	2/28
0	0	0C	2/28
0	0	0D	2/28
0	0	0E	2/28
0	0	0F	2/28
0	0	0G	2/28
0	0	0H	2/28
0	0	0I	2/28
0	0	0J	2/28
0	0	0K	2/28
0	0	0L	2/28
0	0	0M	2/28
0	0	0N	2/28
0	0	0O	2/28
0	0	0P	2/28
0	0	0Q	2/28
0	0	0R	2/28
0	0	0S	2/28
0	0	0T	2/28
0	0	0U	2/28
0	0	0V	2/28
0	0	0W	2/28
0	0	0X	2/28
0	0	0Y	2/28
0	0	0Z	2/28

The tween-deck settling tanks are fitted with solid welded drip trays with drain pipe led to E.R. oily bilge. Oily bilge suction lines have been installed according to the Rule Requirements and to approved plans.

Overflow pipe lines supplied with illuminated observation glasses from the settling tanks leading to No.3 starboard D.B. tank are installed.

Control rods are capable of stopping the oil fuel pumps and shutting off the O.F. supply.

Quick-closing valves are fitted to cross bunkers and settling tanks which can be operated from deck.

Quick-closing valves and safety devices are fitted to all boiler front and oil fuel nozzle valves respectively.

The funnel dampers have been removed.

G.S. pump ballast suction line fitted with blank flange.

Aft peak tank ballast suction line fitted with blank flange.

Fore peak fitted (existing) with suction valve direct on bulkhead internally and with extended control spindle to deck.

Both O.F. pressure pumps connected to main O.F. lines as well as settling tanks.

Steam smothering arrangements under the O.F. unit and under the boilers are capable of being operated from outside the machinery space.

A number of 5 gallon and a 30 gallon chemical fire extinguisher and two sand boxes have been installed in the engine-room and stokehold.

The oil burning equipment is made by Todd Oil Burners Ltd., London.

### Storage of Oil Fuel: -

Nos. 2, 2A and 3, port and starboard D.B. tanks, the former crossbunker and settling-tanks have been arranged to carry oil fuel.

The installation was examined during all stages of installing and testing and under working conditions on completion and found satisfactory and all in accordance with the approved plans.

### Additional Machinery: -

Todd's type oil fuel unit. Heaters and pumps stamped "LLOYDS TEST 21.8.52 EMS with test pressures".

Oil fuel transfer pump (Weirs) stamped: - "No. 254347 and test pressures".

Hand lighting-up set.

Four settling tanks in tween decks.

2 Plans attached.

### ELECTRICAL INSTALLATION

1 - 12 K.W. Dynamo

1 - 15 K.W. Dynamo.

Both dynamos cleaned, overhauled, minor faults repaired and dynamos placed in good order.

All electric fittings and cables overhauled and a number of fittings and part cables renewed.

Additional light points satisfactorily fitted and connected up: -

Below boiler floor plates.

In tween-decks at settling tanks.

At observation tank.

At overflow-sight glass.

At O.F. units in engine-room.



