

Report of Survey for Repairs, &c., of Engines and Boilers.

(Received at London Office -1 FEB 1937)

When handed in at Local Office 30/1 1937 Port of Antwerp

Survey held at Antwerp Date, First Survey 15-10-36 Last Survey 14-1-1937 (No. of Visits 42)

on the Machinery of the Wood, Iron or Steel. Turb. S.S. Leopoldville

Gross 11256 Vessel built at Hoboken By whom H.A. J. Cokerull When 1929.8

Net 6521 Engines made at Seraing By whom H.A. J. Cokerull When 1929

Power 1019 Boilers, when made (Main) 1929 (Donkey)

Main Boilers 6 Owners Maritime Belge (Lloyd Royal Owners' Address)

Donkey Boilers 2 Managers Office Maritime International Port Antwerp Voyage Congo

Pressure 216 lb If Surveyed Afloat or in Dry Dock both afloat in land (State name of Dock.) Dock & Riv. in Mercantile Dry Dock

Key Boilers

Insert Character of Ship and Machinery precisely as in the Register Book.

Report No. Port Antwerp

Particulars of Examination and Repairs (if any) Dope. N.T.S. B.S. alteration

CHARACTER. for Special Survey Date of last Survey and of Periodical Surveys.	Years assigned now expired.	Machinery and Boiler Surveys (including date of N.B. if any).
1-100 A1		1-1 MC 10.33
with freeboard		B.S. 11-35
8-35		C.P. 8-35
1-1. Ant h: 1-32		1-1 LLOYD'S
		R.M.C. 3.36

Damage report made by anyone else? If so, by whom? Report made

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

Is not done, state for what reasons?

Parts of the Boilers could not be thus thoroughly examined?

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?

Last date of internal examination of each boiler 15-10-36 the 3 fore Boilers 26-10-36 the 3 aft

Surveyor examine the Safety Valves of the Main Boiler? Yes To what pressure were they afterwards adjusted under steam? 218 lb per sq

Surveyor examine the Safety Valves of Donkey Boiler? Yes To what pressure were they afterwards adjusted under steam?

Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? Yes, and of the Donkey Boilers?

Surveyor examine the drain plugs of the Main Boilers? Yes, and of the Donkey Boiler?

Surveyor examine all the mountings of the Main Boilers? Yes, and of the Donkey Boiler?

Screw shaft now been drawn and examined? Yes both Is it fitted with continuous liner? Yes Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?

Screw shaft now been changed? Yes both if so, state reasons Liners badly scored.

Screw shaft now fitted been previously used? No. Has it a continuous liner? Yes Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?

Distance of examination of Screw Shaft 9.12.36 both State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft Runged both

Electric light and power fitted? Yes

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

Damage stated to have been caused by heavy weather on the 6th September 1936 when leaving Ajaccio. Mooring chain fowling the Starb. propeller when leaving in the morning chain at Punta delgada on the 29th September 1936

Damage: Vessel in dry dock propeller, stern bushes and fastenings of sea connections examined.

Starb. and Starb. propeller shaft drawn in for examination, and the bronze liners on the Port and Starb. propeller shafts badly scored. Lignum vitae in Port and Starb. stern bushes badly scored. Starb. stern bush and stern tube fractured and all tap bolts in stern sheered

Done: the two Spare Tail shafts (cont. liners). (Please see next page)

General Observations, Opinion, and Recommendation: The machinery of this vessel so far as 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, B.S. 9,11, B.&M.S. 9,11, & L.M.C. 9,11, or L.M.C. 140 lb., F.D., &c.) CS 3,34,

is in a safe working condition, and eligible in our opinion to be continued as classed in the Society's Register Book with notation of 2 L.P. turbines with D.R. gearing and hydraulic coupling and 6 S.B. (4 ft.) and alteration N.H.P. 1197, also fresh record of B.S. 1-37, and fresh date of P. & St. T.S.N. 12-36.

Survey Fee (per Section 29) 122.50 - Fees applied for 30-1-1937

Special Damage or Repair Fee (if any) 26.25

per Section 29. Tax 25.50

Travelling expenses (if chargeable) 52.50

Rate & fund. attendance 4804.20 pd 8-3-37

Committee's Minute AS. 1-37

Assigned note Michy phs

Received by me 725.13240.60 pd 25-2-37

TUE 23 FEB 1937

TUE 25 MAY 1937

FRI 13 AUG 1937

W251-0045(1/3)

Engineer Surveyor to Lloyd's Register of Shipping.



Twin S.S. "Leopoldville"

have now been fitted - The two working tail shafts have been examined in the lathe before fitting on the new liners. A new cast bronze liner has now been fitted to each of the shafts and these shafts are now kept as spare on board.

The Lignum vitae in the Port Stern tube bush has been renewed and neck and gland bushes bored out to suit the new shaft.

The Starb. Stern bush and tube have been renewed complete.

2nd Damage Found: A piece of about 16" x 10" broken out of one of the bronze propeller blades (built propeller) Starb. side.

A new bronze propeller blade has now been fitted.

Alterations and B.S.:

Now done: Port and Starb. main engine H.P. cylinder liners renewed with piston rings

H.P. and 1st I.P. piston valve rings and liners in casings renewed.

L.P. Bower Wash turbines fitted to Port and Starb. engine as per attached Bremen Report h: 1837.

Port and Starb. Thrust shaft and 1st Intermediate shaft abaft thrust shaft removed and 1st & 2nd intermediate shaft renewed, abaft L.P. Turbine shaft. see attached foreing report h: 5127. 5991

The Port and Starb. main condensers have been renewed, now 480 m² cooling surface

Port and Starb. main Injection valves now renewed, now 650 mm

Also two additional intermediate condensers fitted. A new Weirs contact feed water heater has been fitted instead of the surface heater.

The two main circulating pumps have been replaced by two new Drysdale centrifugal steam driven pumps.

output 5500 gallons per minute at 445 Rev. Suct. deliv. 17"

Three lubricating oil pumps fitted. (Weirs pumps) diam of cyl. 9" stroke 18" capacity 50 m³ oil each at 24 double strokes per minute. Suct. and deliv. 4"

One of the main funnels has now been removed.

Superheaters of the North Eastern Type ME. L.E. S.C.O. (combustion chamber superheaters) have now been fitted to the wing comb. chamber of each of the four wing boilers.

See also attached plans of superheaters, pipes & connections.

The superheaters, and all steam and water pipes with valves and branch pieces have been tested.

(Please see next page)

Twin. S.S. Leopoldville.

in accordance with the rule requirements.

Plans: M.N. 10910 A- 9157/40-8921/80-81-9157/30.
9157/20. main & superheaters examined with attached
Manchester Report.

Alteration of pipes plan N: 1929. 10 C. 1.

Examined the six main boilers int. and ext. with
safety valves, doors and mountings

Repairs effected to the 3 aft boilers: All plain tubes
renewed and girders rebedded and all girder stays
on comb. chamber tops renewed.

The six main boilers tested by hydraulic pressure
to 250 lb per sq" and found all in order.

Examined the six main boilers under steam, also the
superheaters under steam, and adjusted the safety valves
of the main boilers to 218 lb per sq" and the safety valves of the
safety superheaters to 217 lb per sq" and found all in order.
A dynamo of 50 Kw. has been replaced by one of 100 Kw.

The electric installation has been examined under working
conditions and megger test made, with satisfactory
results.

Main and auxil. machinery tried under working
conditions and found same satisfactory.

Shore gear examined on board as per Bremen Ref. N: 1837.

J.R.