

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

(Received at London Office - 5 SEP 1934)

Date of writing Report 31 AUG 1934 When handed in at Local Office 31 AUG 1934 Port of LIVERPOOL

No. in Survey held at Birkenhead Date, First Survey 15<sup>th</sup> March Last Survey 24<sup>th</sup> Aug 1934  
 No. of Vists 70

5374 on the Machinery of the Wood, Iron or Steel "SOUTHERN PRINCESS"

Gross 13092 Vessel built at Newcastle By whom Armstrong Whitworth & Co. Ltd. When 1915-5  
 Net 7578 Engines made at Newcastle By whom R. C. Marine Eng. Co. Ltd. When 1915

Donkey Boilers 220 lb Boilers, when made (Main) 1915 (Donkey)

Owners Southern Whaling & Fishing Co. Ltd. Owners' Address Port Duncraig (N.Z.) Voyage  
 Managers R. G. Watt

If Surveyed Afloat or in Dry Dock Cannell's Basin (State name of Dock.) S.O.S. & Basin.

Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

CHARACTER. for Special Survey Date of last Survey and of Periodical Surveys.	Year in which now extended.	Machinery and Boiler Surveys (Including date of N.B., if any).
24100 A1		BS 8,31
Shelter dx with		BS 8,33
fuel tank 7,33		TS(CL) 8,32
sa. Sh. N°3 - 4,28		P. BS 8,33
sa. Rm. N°1 - 32		
Carrying whale oil in hull.		
Fitted for low flash oil fuel 5,15.		

Particulars of Examination and Repairs (if any) Damage, BS, and repairs

Periodical Surveys, when held, must be reported in detail and seriatim in the terms 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 details being detailed in the body of the report, should be briefly summarised at the end of the report. State also the date and initials of any letters respecting this case. "E" 12/7/34 & 17/8/34

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 Not required.

Has a damage report made by anyone else? If so, by whom? Losses - little for the ports.

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

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

What parts of the Boilers could not be thus thoroughly examined? None

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? None

What was the latest date of internal examination of each boiler? 3-8-34

Did the Surveyor examine the Safety Valves of the Main Boiler? Yes To what pressure were they afterwards adjusted under steam? 225 lbs.

Did the Surveyor examine the Safety Valves of Donkey Boiler? Yes To what pressure were they afterwards adjusted under steam? 150 lbs.

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

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

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

Has the screw shaft now been drawn and examined? Yes 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? Yes

Has the shaft now been changed? No If so, state reasons None

Has the shaft now fitted been previously used? Yes 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? Yes

What was the date of examination of Screw Shaft? 3-6-34 State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft Good fit.

Engine parts, when referred to by numbers, should be counted from forward.

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

Damage to stern frame. See report on Hull.  
 Vessel placed in dry dock. Propeller & outside fastenings examined.  
 Tailshaft drawn in, examined and found satisfactory.  
 Stern tube drawn, examined and found in good order.  
 New stern frame bored out & stern tube satisfactorily refitted, tailshaft replaced, alignment of shafting tested and found satisfactory.  
 Stern bush re-wooded.  
 Sea connections opened up, overhauled, examined and found in order.  
 Machinery parts opened up for overhaul, examined and found satisfactory.  
 Main boilers examined internally & externally with their safety valves, doors and mountings and now in good order. Minor repairs effected.  
 The two forward boilers moved outboard to the port & starboard sides, and an R.T.O.

General Observations, Opinion, and Recommendation: The machinery of this vessel as seen  
 (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, B.S. 9,11, B.&M.S. 9,11, or L.M.C. 9,11, 140 lb., E.D., &c.)

is eligible in my opinion to remain as classed with fresh records of BS 8,34, 20M/B (F.C.) 6.29 refitted 8,34, and Tailshaft last seen 6,34.

NOTE: low 5 SB, 20af, HS 14821, NHP. 813. Vessel no longer fitted for low flash oil fuel. now fitted for oil fuel 5,15 F.P. above 155°F  
Press Bhs. low 57 at 80 lbs, 5 at 50 lbs & 2 at 45 lbs.

Survey Fee (per Section 29) £ 6 - - Fees applied for 4 SEP 1934  
 Special Damage Fee (if any) £ 3 - -  
 Travelling expenses (if chargeable) £ 2 - -  
 Received by me 12/9/34  
H. R. Howells  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL  
 Assigned P.S. 8.34. + N.B. (F.C.) 6.29 refitted 8.34. GBR  
G.S. 6.34. C.L.  
 W1159-0958 1/2

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

Is a Certificate required? If so, to be sent to

No 3386  
LLOYDS TEST  
395 LBS  
W.P. 230 LB  
25.6.09 J.E.M.  
(ex Sultan Star)

additional single-ended main boiler marked  
has been satisfactorily fitted between.

This boiler has been examined internally & externally with its safety  
valves, doors and mountings and placed in good order. Minor repairs effected.

All steam pipes in boiler space & main steam pipes to engine removed; steam  
pipes re-arranged, those refitted and new & altered pipes examined under  
hydraulic pressure after annealing & all examined after assembling &  
found satisfactory.

Feed pipes re-arranged, new & altered pipes examined under hydraulic pressure.

The isolated oil fuel pump room has been cut away & removed & oil  
fuel unit removed ashore. A new oil fuel unit has been satisfactorily  
fitted in boiler room and the O.P. pipes & fittings altered or renewed have been  
tested in accordance with rule requirements.

All main boilers & steam pipes examined under steam and safety  
valves adjusted as above, casing gear satisfactorily fitted to all safety valves.

Press Boiler repairs & addition.

The 2 port Hartman Press boilers removed ashore, end plate & internal  
drum removed. The rivets & one end of shell plating were found to be wasted;  
shell plate cracked & part renewed & all rivets renewed. On completion  
of the repairs these boilers were examined under 100 lb hydraulic pressure  
& found satisfactory for W.P. of 50 lb. (See London letter "C." 17/8/04).

One of these boilers has been refitted on board this vessel, & the other has been  
installed in the "Southern Compress"; a Hartman Press boiler 6'6 1/2" diam with  
new shell, tested to 100 lb hydraulic pressure for a W.P. of 50 lb in accordance  
with approved plans & London letters, and end plates modified to suit a new  
cutler filler, pad at end plates welded on the outside as indicated on plan, has  
been fitted to this vessel. The cutler filler was not satisfactory under test,  
and has not been fitted (see letter), the filler end of this boiler has been blanked  
off with a strong steel plate & the boiler refitted for use as before.

5 vertical press boilers have been removed and 2 new horizontal press  
boilers (with internal rotary drum) & 2 new separators built by Kvaerner Buss  
Oslo, marked <sup>LLOYDS TEST</sup> 160 lb  
W.P. 60 lb  
P.B.R. 30.6.04 have been satisfactorily fitted at this time. (Copies  
of certificates not yet received at this office)

A new separator built by Hartmann, Stettin, and marked <sup>No 433B</sup>  
<sup>LLOYDS TEST</sup> 120 lb  
W.P. 60 lb has  
N.S. 9.8.04  
been fitted at this time to work in conjunction with the Hartman P. boilers.  
(Copies of certificates & plans returned herewith).

Position of some boilers changed, satisfactorily refitted.

New steam lines and safety valves for same have been satisfactorily fitted.

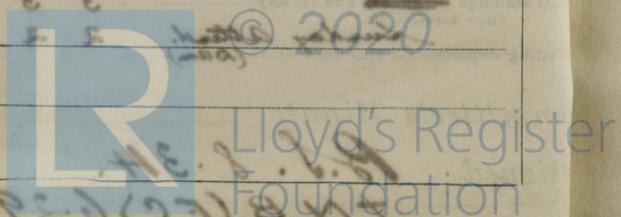
On completion of the survey the safety valves in the steam lines  
to the Hartmann and Kvaerner Press boilers were adjusted to  
their respective working pressures under steam.

The following sketch shows the position & W.P.s of the press  
boilers as now fitted.

H. R. Howells.

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OF THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THE MARGIN.



SOUTHERN PRINCESS

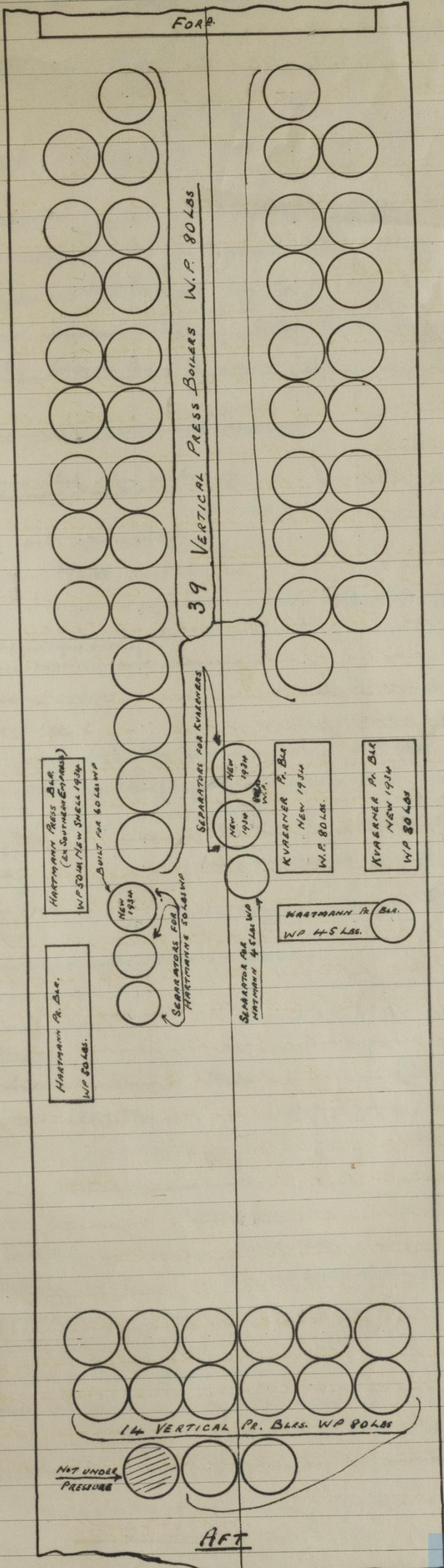
PRESS BOILERS

57 at 80 LBS WP

5 at 50 LBS WP

2 at 45 LBS WP

(including separators)



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