

Rpt. 9

Date of writing report 20th August, 1957.
Survey held at CARDIFF.

Received London 22 AUG 1957
No. of visits 16

Port CARDIFF. No. 60204
First date 11th July, Last date 14th August, 1957.

REPORT OF PERIODICAL SURVEYS & REPAIRS OF MACHINERY

No. in R.B. 28850 Name M.V. "SOLARIUM" Gross tons 6239 Date of build 9 - 1936
Owners Shell Petroleum Co., Ltd. Managers - Port of Registry London
Engines made 1936 By N.V. Werkspoor, Amsterdam. Type O.E. 4SA 6Cy.
No. of Main Engines 1 No. of Screws 1
No. of Main Boilers - W.P. -
No. of Aux/Donkey Boilers 1 W.P. 180 lb.
Surveyed Afloat or in Dry Dock Both.
Nature of Survey Docking, DBS, Dge. & Part CS. Carrying petroleum in bulk.
Was Damage Report issued? No Int. Cert.? Yes.
Last Report (For Head Office only)

Records of Survey & Special Notations as per Register Book

Hull	Machinery
100 A1	LMC
Carrying petroleum in bulk.	CS 2-53
8-56	d 8-56
S.S. Shl 2-53	CL 8-56
	sps 2-53
	Mchy. aft.

The condition of any of the following items is to be described as "good" only when the part 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 it is considered that re-examination or repairs should be effected before the due date of the next Periodical Examination a distinguishing mark thus † should be inserted against the item and the circumstances and action recommended described fully under "defects and repairs". At part or complete Special Surveys those items which are not applicable to the ship should be cancelled with a black line; 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.

DOCKING Propellers + Wear Down of Stern Bushes 3/16" Oil Glands - Sea Connections -
Fastenings Good Has Screwshaft/Tubeshaft been drawn? No Date of Examination - Has Shaft been changed? -
Has Shaft now fitted been previously used? - Has Shaft now examined/fitted a continuous liner? - Approved oil gland? -

MAIN ENGINES (Recip. Steam or I.C.) PORT STARBOARD
1 Cyls., Covers, Pistons & Rods No. 3 Good
2 Valves & Gears No. 3 Good
3 Connecting Rods, Side
Top Ends & Guides Centre Nos. 3 & 4 Good
4 Crankpins & Side
Bearings Centre No. 2 Good
5 Journals & Bearings Nos. 2 & 3 Good

MAIN ENGINE DRIVEN AIR COMPRESSORS
6 Cyls., Covers, Pistons & Rods
7 Connecting Rods & Top Ends
8 Crankpins & Bearings
9 Journals & Bearings
10 Coolers & Safety Devices

MAIN ENGINE DRIVEN SCAVENGE PUMPS
11 Cyls., Covers, Pistons & Rods
12 Connecting Rods & Top Ends
13 Crankpins & Bearings
14 Journals & Bearings
15 Levers

SCAVENGE BLOWERS
16
SUPERCHARGERS
MAIN TURBINES
18 Casings, Rotors, Blading, Bearings & Thrusts

19 EXHAUST STEAM TURBINES (WITH RECIP. ENGINES)
20 STEAM COMPRESSORS
21 CLUTCHES & HYDRAULIC COUPLINGS
22 REDUCTION GEARING
23 THRUST BLOCKS, SHAFTS & BEARINGS Good
24 INTERMEDIATE SHAFTS & BEARINGS
25 HOLDING DOWN BOLTS & CHOCKS
26 CONDENSERS (MAIN & AUX.)
27 STEAM RE-HEATERS
28 DE-SUPERHEATERS
29 STOP & MANŒUVRING VALVES
30 MAIN ENGINE DRIVEN PUMPS All Good

31 CRANKCASE DOORS & EXPLOSION RELIEF DEVICES Have Main Engines been tested working and manœuvring? Yes
OPINION OF MACHINERY AND RECOMMENDATIONS The machinery of this vessel, so far as now seen, is in efficient condition and eligible in my opinion to remain as classed with fresh record of CS (with date) when the survey has been completed, and DBS 8-57 now subject to donkey boiler furnaces being examined and dealt with as necessary before the end of February, 1958 (6 months' limit) and to propeller being examined and dealt with as necessary at next dry docking.

Date of Committee TUESDAY 17 SEP 1957
Decision See Rpt 8

30m.6.55. T. (MADE AND PRINTED IN ENGLAND.)

Andrew J. Jones
H. Bradshaw
Engineer Surveyors to Lloyd's Register of Shipping

Lloyd's Register
Foundation

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Has a Survey also been held on Ship?
If so, is the Report sent now, or when will it be sent?

If certificate is required state where to be sent

32 Essential Independent Pumps (Identify by position) Lub. oil standby (psa), forward boiler feed (ps. thrust recess), independent bilge (sf), fan engine (s. flat a.), Butterworth (ss. thrust recess), emergency fire (aft peak store) - Good.

33 Bilge, Ballast & Oil Fuel Suction Lines, Fittings & Controls All Good.

34 Have the remaining Piping Arrangements & Fittings in the machinery space been examined as considered necessary? All Good.

35 Fresh Water Coolers 36 Lub. Oil Coolers 37 Heaters (state service)

38 Independent Air Compressors, Coolers & Safety Devices (Motor driven) compressor end only - Good

39 Air Receivers & Safety devices - Main (No. 1) Upper - Good 40 Auxiliary

41 Oil Fuel Tanks (Not forming part of hull structure) 3 settling tanks (2ss. 1p) 2 lub. oil storage tanks (ss) 2 daily service lub. oil tanks (ss. thrust)

42 Evaporators 43 Have Evaporator Safety Valves been tested under steam?

44 Steering Machinery 45 Windlass 46 Fire Extinguishing Arrangements

AUXILIARY ENGINES (Identify by position) Steam generator engine and diesel generator engine - Good.

ELECTRICAL EQUIPMENT	
PROPULSION	STARBOARD
a Generators	AUXILIARY EQUIPMENT for general examination only.
b Exciters	i Generators & Governors Good
c Air Coolers	m Motors Good
d Motors	n Switchboards & Fittings Good
e Air Coolers	o Circuit Breakers Good
f Control Gear, Cables, etc.	p Cables Good
g Insulation Resistance	q Insulation Resistance Good
h Insulating Oil Test	r Steering Gear Generators and Motors Good
i Overspeed Governors	s Navigation Light Indicators Good
j Magnetic Couplings	
k Air Gap	

BOILERS OPENED UP & EXAMINED (Identify by position and state latest date of internal examination of each boiler)

MAIN AUXILIARY, DONKEY EXPRESS 1.8.57. Good (Furnaces +)

Superheaters Good

Safety Valves Good

Mountings, Doors & Fastenings 180 lbs.

Safety Valves Adjusted to Sat. Spt. Good

Boiler Securing Arrangements Exhaust Gas Heated Economisers

Main Economisers Steam Generator Safety Valves Adjusted to

Steam Heated Steam Generators Forced Circulating Pumps

Were Oil Burning System & Remote Controls examined working in accordance with Rules? Yes

Have Saturated Steam Pipes in cylindrical boiler smoke boxes been examined as required by Rules? Funnel Good

EXAMINATION & TESTING OF STEAM PIPES (State material)

Main Auxiliary (over 3 in. bore)

Were Copper Pipes annealed? Have Saturated Pipes in cylindrical boiler smoke boxes been tested?

PARTICULARS OF DEFECTS & REPAIRS, ETC. (Damage repairs should be detailed separate from wear and tear repairs; state what action has been taken regarding items which are subjects of class)

Wear & Tear Repairs.

Now done:- Independent bilge pump renewed, complete with Haywood Tyler pump type 6x6x6

No. B.R.48887

Boiler:- 9 side c.c. stays and 20 plain tubes renewed.

Boiler examined under hydraulic test on completion of repairs and found satisfactory.

+ On opening up the donkey boiler it was found that the centre furnace had previously

been distorted and compensating rings fitted on every other corrugation up to 6 (3 rings)

from front. Considerable further distortion had then taken place over further

corrugations up to the furnace goose neck. The stbd. wing furnace was also found

to be distorted in a similar manner and the port wing to a lesser degree, but

with no apparent cause at this time.

All furnaces were drilled and found to be very little below original

thickness and also calibrated.

On discussion with Owners' Superintendent and considering the uncertain

future of this vessel, together with delivery dates for new furnaces.

Contd.....

Survey fees Part CS. £46. 0. 0.

DBS. £8. 0. 0.

W.T. Rprs. £10. 10. 0.

Repair £5. 5. 0.

Damage fee

Expenses...

Date when A/c rendered 21 Aug 1954

Rpt. 9a

Port of C A R D I F F.

Continuation of Report No. 60204

dated 21 Aug 1954

on the

-2-

"SOLARIUM"

It was not considered practical for these furnaces to be renewed at this time.

The boiler and especially the furnaces have been carefully examined and considered to remain efficient for 6 months when decisions will be made as regards the vessel's further movements.

It is considered that in view of the present examination, the Owners' Superintendents request that repairs to boiler furnaces be deferred for 6 months until February, 1958 merits the favourable consideration of the Committee.

Damage - stated to have been sustained due to vessel's stern swinging on to quay in Roath Basin when leaving dry dock on 27.7.57.

On diver's examination 1 propeller blade found slightly bent over.

Now done for damage repairs.

Propeller blade brought into top position above water (vessel in light condition) and faired in place.

Other blades examined in similar position and no apparent damage noted.

+ It is submitted that in view of the present examination the Owners' Superintendents request that any further necessary repairs to propeller be deferred to next dry docking merits the favourable consideration of the Committee.

SRL (addition)

Donkey boiler furnaces to be examined and dealt with as necessary before the end of February, 1958 (6 months' limit). Propeller to be examined and dealt with as necessary at next dry docking.

Now done for General Examination for the postponement of the Special Survey.

Main and auxiliary machinery examined under working conditions and found satisfactory.

Considerable voyage repairs and continuous survey carried out satisfactorily.

Electrical system examined and megger tested and found satisfactory. Log books examined and found in order and machinery records satisfactory.

It is submitted that Owners' request for postponement of Special Survey/merits the favourable consideration of the Committee. until February, 1958

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not necessary as CS completed