

Rpt. 9

Date of writing report 23-9-55

Received London

28 OCT 1955

Port NEWCASTLE-ON-TYNE

No. 112862

Survey held at Newcastle-on-Tyne

No. of visits 30

First date 18-4-55

Last date 13-9-55

REPORT OF PERIODICAL SURVEYS & REPAIRS OF MACHINERY

No. in R.B. 32167 S.S. Name "WAVE KNIGHT" Gross tons 8187 Date of build 5-1946
Owners The Admiralty Managers Port of Registry London
Engines made 1944 By N.E. Marine Eng. Co. (1938) Ltd. Wallsend Type 2 steam turbine DR. geared to sc. shaft
No. of Main Engines 1 No. of Screws 1
No. of Main Boilers 2 WT. W.P. 460 lb. SPT 440 lb
No. of Donkey Boilers 2 W.P. 180 lb
Surveyed Afloat or in Dry Dock
Nature of Survey PKC, Completion CS (steam) BS, DBS, SPS Alterations & Additions.
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 AI	* LMC 7/51 MN 1360
SS 7/51 NWC	BS 12/53 OF 5/46
11/53	CL 11/53
Leaving petroleum in bath.	

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 Good Wear Down of Stern Bushes 0.180" Oil Glands Sea Connections Good
Fastenings 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

2 Valves & Gears

3 Connecting Rods, Top Ends & Guides

Side

Centre

4 Crankpins & Bearings

Side

Centre

5 Journals & Bearings

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

16 SCAVENGE BLOWERS

17 SUPERCHARGERS

MAIN TURBINES

18 Casings, Rotors, Blading, Bearings & Thrusts

L.P. Good.

19 EXHAUST STEAM TURBINES (WITH RECIP. ENGINES)

20 STEAM COMPRESSORS

21 CLUTCHES & HYDRAULIC COUPLINGS

22 REDUCTION GEARING

23 THRUST BLOCKS, SHAFTS & BEARINGS

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

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 as now seen is in good order and eligible in our opinion to remain as classed with fresh record of survey BS 9.55, SPS 9.55 & * LMC CS (steam) 9.55.

Subject

Date of Committee

TUESDAY 24 JAN 1956

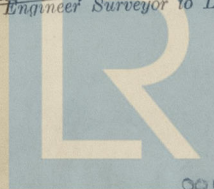
Decision

LMC CS 9.55 subject
SPS 9.55 BS 9.55

30m, 5.54. T.

CERTIFICATE WRITTEN.

James A. Stephenson
Engineer Surveyor to Lloyd's Register of Shipping



Lloyd's Register
Foundation

004316-004124-0034/2

If certificate is required state where to be sent.

32 Essential Independent Pumps (Identify by position) *Outboard extraction good. O.F. transfer good. Both main & aux.*
O.F. pressure good. Air ejector good.
 33 Bilge, Ballast & Oil Fuel Suction Lines, Fittings & Controls *good.*
 34 Have the remaining Piping Arrangements & Fittings in the machinery space been examined as considered necessary? *Yes.*
 35 Fresh Water Coolers *good.* 36 Lub. Oil Coolers *good.* 37 Heaters (state service) *Both fed good.*
 38 Independent Air Compressors, Coolers & Safety Devices
 39 Air Receivers & Safety devices—Main 40 Auxiliary
 41 Oil Fuel Tanks (Not forming part of hull structure)
 42 Evaporator & Distiller *good.* 43 Have Evaporator Safety Valves been tested under steam? *+*
 44 Steering Machinery 45 Windlass *good.* 46 Fire Extinguishing Arrangements *good.*

AUXILIARY ENGINES (Identify by position)

PROPULSION	PORT	STARBOARD	AUXILIARY EQUIPMENT
a Generators			1 Generators & Governors <i>good.</i>
b Exciters			2 Motors <i>good.</i>
c Air Coolers			3 Switchboards & Fittings <i>good.</i>
d Motors			4 Circuit Breakers <i>good.</i>
e Air Coolers			5 Cables <i>good.</i>
f Control Gear, Cables, etc.			6 Insulation Resistance <i>good.</i>
g Insulation Resistance			7 Steering Gear Generators and Motors <i>good.</i>
h Insulating Oil Test			8 Navigation Light Indicators <i>good.</i>
i Overspeed Governors			
j Magnetic Couplings			
k Air Gap			

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

MAIN	PORT & STARBOARD 29.8.55. <i>good.</i>	AUXILIARY, DONKEY & PRESS PORT & STARBOARD 29.8.55. <i>good.</i>
Superheaters	<i>good.</i>	<i>good.</i>
Safety Valves	<i>good.</i>	<i>good.</i>
Mountings, Doors & Fastenings	<i>good.</i>	<i>good.</i>
Safety Valves Adjusted to	Sat. 460 lbs/sq. in. Spt. 440 lbs/sq. in.	180 lbs/sq. in.
Boiler Securing Arrangements	<i>good.</i>	<i>good.</i>
Main Economisers		Exhaust Gas Heated Economisers.
Steam Heated Steam Generators		Steam Generator Safety Valves Adjusted to
Were Oil Burning System & Remote Controls examined working in accordance with Rules?	<i>Yes</i>	Forced Circulating Pumps
Have Saturated Steam Pipes in cylindrical boiler smoke boxes been examined as required by Rules?		Funnel <i>good.</i>

EXAMINATION & TESTING OF STEAM PIPES (State material)

Main <i>Selected 1000 lbs/sq. in. good. (Steel).</i>	Auxiliary (over 3 in. bore) <i>Selected 360 lbs/sq. in. good. (Steel).</i>
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)

Repairs (Wear & Tear) H.P. & L.P. turbine low couplings dispatched to Richardson, Westgarth, West Hartlepool for overhaul (excessive radial clearance) certificates No 2244-5-6 received.
Ownership Alterations & Additions. To supply steam to the new aft pump room, the Port & Starboard main boiler superheater outlet headers have been satisfactorily fitted with forged steel standpipes as per attached drawing No 27. The remaining steam pipes were made to Rule Requirements & hydraulically tested to 1000 lbs/sq. in. To supply steam to the auxiliary machinery in the event of failure of the donkey boiler, an emergency steam line has been fitted between the main boiler steam range & the donkey boiler range. The steam pipes were made to Rule Requirements & hydraulically tested to 1000 lbs/sq. in. As this is an emergency steam line it is blanked off by means of spectacle flanges until required. A.H.P. isolating valve, a reducing valve & relief valve are to be fitted at future date. Drawing No 44 of steam pipe layout attached. The donkey boiler stop valves are non return type.
Generator safety Valves. No opportunity was afforded at this time for adjusting safety valves under steam. Owners Representative state that this will be carried out on vessel's return in 12.55. Circular 1980. The following information obtained from Owners Representative.

LEAVE THIS SPACE BLANK

Survey fees	CS £ 49-0-0
	BS £ 26-0-0
	Elect. SS £ 10-0-0
	Elect. Ut 5-0-0
Damage fee	
Expenses...	

Date when A/c rendered 27 OCT 1955

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ort of NEWCASTLE-ON-TYNE.

Continuation of Report No. 112 862 dated 23-9-55.

on the

"WAVE KNIGHT"

R.P.M. 116. S.H.P. 6800. MN = $\frac{6800}{5} = 1360$
 Boiler heating surface: 6000 sq. ft. Superheaters: 800 sq. ft. T.H.S. = 13600 sq. ft.
 Circular 2032. The machinery & electrical arrangements were examined in accordance with Circular 2032 & found to be satisfactory.
 SRH item in italics. "Ex. cracks in H.P. turbine lower casing at each conn. off." Opportunity not afforded at this time for examination.

SURVEY OF ELECTRICAL INSTALLATION.

2-30 KW. STEAM GENERATORS 1-35 KW. DIESEL GENERATOR (FITTED AT THIS TIME)

A special survey of the electrical equipment was carried out, generators, motors, cables, fittings, switchboards and distribution boards were examined.

Addition to equipment.

New diesel generator set fitted in engine room on port side. G.E.C. Ser. No. ST 15564/6. 35 KW. 115V. 305A. 1800 RPM. driven by "Foden" diesel engine. Gen. yoke marked LLOYDS 10-10-54

Main switch board modified to accommodate control gear for additional generator, additional double pole 300A. circuit breaker fitted, together with 2 double pole change over switches for selection of generators. Generator cables 37/103. VC. LCAB. All equipment fitted in accordance with rule requirement.

2- Vent. units fitted on boat decks driven by 2HP Met. Dick elect. motors. Two unit fed from M.S. bw. board by 7/044 LC cable. Aft. unit fed from DB in aft. accommodation alleyway by 7/036 LCAB cable.

An additional pump room was added aft at this time and ventilation was arranged by fitting 2 fans (as to Dwg No 34 attached to ship report) one exhaust and one supply, each fan driven by 0.75 HP motor fed by 7/029 LCAB cable from DB in aft accommodation.

Flame-proof fittings were fitted at following positions:-

- 8 New fittings under new spar deck
- 5 New fittings in additional pump room aft
3. Additional fittings in existing M.S. pump room and 1 additional fitting in transfer pump room.

Repairs.

All cables on fwd. gangway; 11 cables port side and 6 cables stbd. side of after gangway were renewed and remainder overhauled and painted. Generators and auxiliary motors were cleaned & overhauled. Switchboards and D.B's, navigation lights and electrical fittings and installation were overhauled and put in order.

On completion the above appts was seen under working condition, gens tested for compounding and governing, circuit breakers tested, insulation resistance test carried out and all found satisfactory.

SURVEYOR J. HAN ROSE

Lloyd's Register Foundation