

Rpt. 9

Date of writing report 21.5.59

Survey held at BRISBANE

Received London

No. of visits Twelve

Port BRISBANE

First date 6.3.59

Last date 15.5.59

No. 8488

# REPORT OF PERIODICAL SURVEYS & REPAIRS OF MACHINERY

No. in R.B. 72190 Name **MS "KURANDA"**

Owners John Burke Ltd.

Gross tons 1262

Date of build 1937 - 4

Engines made 1937 By N.E. Marine Eng. Co. Ltd. NWC

Port of Registry Brisbane

No. of Main Engines 1 No. of Screws 1

Type T 30y. 16" 28" & 48" X 33"

No. of Main Boilers 2 W.P. 235 lb

Records of Survey & Special Notations as per Register Book

No. of Aux./Donkey Boilers - W.P. -

Surveyed Afloat or in Dry Dock Both

Nature of Survey Dkg. Conversion to oil fuel

Was Damage Report issued? No Int. Cert? Yes

Last Report (For Head Office only)

Hull	Machinery
100A1 with freeboard	100A1
SS NSW 1/55	ES 1/55
DS 11/58	MBS 12/58
	TS (CI) 1/58
	SPS 1/55

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 5/32" Oil Glands - Sea Connections -

Fastenings Good Has Screwshaft/Tubeshaft been drawn? No Date of Examination - Has Shaft been changed? -

MAIN ENGINES (Recip. Steam or I.C.) PORT Has Shaft now examined/fitted a continuous liner? - Approved oil gland? -

- 1 Cyls., Covers, Pistons & Rods
- 2 Valves & Gears
- 3 Connecting Rods { Side  
Top Ends & Guides { 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

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

- EXHAUST STEAM TURBINES (WITH RECIP. ENGINES)
- STEAM COMPRESSORS
- CLUTCHES & HYDRAULIC COUPLINGS
- REDUCTION GEARING
- THRUST BLOCKS, SHAFTS & BEARINGS
- INTERMEDIATE SHAFTS & BEARINGS
- HOLDING DOWN BOLTS & CHOCKS

- CONDENSERS (MAIN & AUX.)
- STEAM RE-HEATERS
- DE-SUPERHEATERS
- STOP & MANOEUVRING VALVES
- MAIN ENGINE DRIVEN PUMPS
- CRANKCASE DOORS & EXPLOSION RELIEF DEVICES

OPINION OF MACHINERY AND RECOMMENDATIONS Have Main Engines been tested working and manoeuvring?

This vessel's machinery so far as seen, is now in good condition and eligible in my opinion to be continued as classed, without fresh record of survey and to have Notation " Fitted for oil, F.P. above 150°F, 5/59 " made in the Register Book.

TUESDAY 30 JUN 1959  
OF 5,59

Noted for Header

H. Gerrard  
Engineer Surveyor to Lloyd's Register of Shipping



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Lloyd's Register Foundation

If certificate is required state where to be sent

32 Essential Independent Pumps (Identify by position)

33 Bilge, Ballast &amp; Oil Fuel Suction Lines, Fittings &amp; Controls Good

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

35 Fresh Water Coolers

36 Lub. Oil Coolers

Heaters (state service)

37 Independent Air Compressors, Coolers &amp; Safety Devices

38 Air Receivers &amp; Safety devices—Main

40 Auxiliary

41 Oil Fuel Tanks (Not forming part of hull structure)

42 Evaporators

43 Have Evaporator Safety Valves been tested under steam?

44 Steering Machinery Gen. exmd.: Good

45 Windlass Gen. exmd.: Good

46 Fire Extinguishing Arrangements Good

AUXILIARY ENGINES (Identify by position)

ELECTRICAL EQUIPMENT		AUXILIARY EQUIPMENT	
PROPULSION	PORT	STARBOARD	
Generators			Generators & Governors Good
Exciters			
Air Coolers			Motors Good
Motors			Switchboard & Fittings Good
Air Coolers			Circuit Breakers Good
Control Gear, Cables, etc.			Cables Good
Insulation Resistance			Insulation Resistance Good
Insulating Oil Test			Steering Gear Generators and Motors —
Overspeed Governors			Navigation Light Indicators Good
Magnetic Couplings			
Air Gap			

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

MAIN	AUXILIARY, DONKEY or PRESS
Superheaters	
Safety Valves	
Mountings, Doors & Fastenings	
Safety Valves Adjusted to { Sat. Spt.	
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	Funnel Good.
Have Saturated Steam Pipes in cylindrical boiler smoke boxes been examined as required by Rules?	

EXAMINATION &amp; 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 &amp; 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)

Conversion from coal to oil fuel. The existing stoker motors and gear removed from the boiler furnace and the furnace fronts altered to suit Babcock and Wilcox high pressure oil fuel burning gear as shown and amended on Plan No. 525/2 "Fire Precaution Installation" and Plan No. 525/3 "Fuel Oil Installation," approved in London 6th January 1959. The existing coal bunker; and fresh water tanks (p & s) in No. 2 Hold were combined and converted into oil fuel deep tanks as part of the ship's structure and not independent tanks as originally submitted, but as the pumping arrangement is basically the same, Sydney Office advised that it would not be necessary to re-submit plans. Steam heating coils have also been fitted in the tanks in accordance with the Rules and Evans Deskin & Co. Ltd. Plan No. F861/2, copy enclosed.

Whilst on trials it was found that combustion was bad, due to the removal of the damper rendering the induced draught fan ineffective and the forced draught fan being unable to supply sufficient air. After consultation with Sydney Office it was decided to replace the damper, as the passage through the induced draught fan would prevent the complete closure of the gas passage even if the damper were closed, and thus not contravene Para. E 329 of the Rules. This has now proved satisfactory.

(Contd)

Oil fuel burning installation Survey fees	£30. 0. 0.
Fitting of emergency fire pump & generating set.	10. 0. 0.
Late Attendance Fees.	6. 0. 0.
Damage fee	
Expenses	3. 17. 0.

Date when A/c. rendered 20th May 1959.

S.S. "KURANDA"

Lighting up arrangements consist of two electric heating elements incorporated in the oil fuel re-circulating line, the power for these and the electrically driven service pumps, and transfer pump, being obtained from a new emergency generating unit located on the shelter deck in a deckhouse converted from the old coal chute. This unit consists of a hand or battery started 2 cylinder 25B.H.P. Southern Cross radiator cooled compression ignition oil engine driving a 14 kW compound wound generator connected to a change over switch supplying either the ship's mains or emergency lights.

Owing to restrictions of space, this unit has been installed transversely but the lubrication and water cooling arrangements have been modified so that it complies with Para. M238 of the Rules.

Fire Extinguishing Arrangements: The space under the funnel hood between the inner and outer funnel, plated over. Air tight covers fitted to the fiddley top. All glass removed from skylights and the openings blanked off. Hydraulic operating gear controlled from outside the machinery space, fitted to the skylights. All ventilators fitted with closing flaps. An additional emergency fire pump consisting of a two cylinder air cooled 12 BHP Peiter, type AVA2, compression ignition oil engine, serial No. 3217398R, driving a Sigmund GL4A pump serial No. 740393, Lloyd's No. 33617 NWC 27/1/58, "installed in the tween deck accommodation alleyway, port side, outside of the machinery space. An additional 3" sea suction for this pump fitted in the machinery space with an extended spindle to the tween deck and the pump discharge connected to the existing fire main. Two 30 ft. hoses with spray type nozzles installed in forward port and starboard corners of boiler room and one 40 ft. hose with spray type nozzle installed in E.R. Four 2 gallon froth type extinguishers distributed around boiler room and two placed in E.R. One 35 gallon froth type extinguisher placed in boiler room adjacent to E.R. door and supplied with sufficient hose to reach either end of boiler room or E.R. 1 1/2" saturated steam smothering pipes installed in boiler room and extending partly into E.R. This supply controlled from the deck. On account of space restrictions, two sand bins each containing 6 cu.ft. of sand, fitted, together with scoops.

Emergency stops for cutting off the power to the electrically driven oil fuel transfer and unit pressure pumps, fitted outside of the machinery space and satisfactorily tested. Extended spindles to the deck from the forced and induced draught fan engines steam valves, and to all the oil fuel tank outlet valves, fitted and tested.

Altered Bilge Pumping Arrangements. In No. 2 Hold: Three 2 1/2" suction port, centre and starboard fitted forward of Floor 41 (note, vessel is single bottomed.) These suction pipes, together with the pipes running forward, pass through pipe tunnels (p & s) underneath the wing O.T. deep tanks. One 1 1/2" oily bilge suction to transfer pump, with a suitable non return valve in the hold, fitted in the oil gutterway aft of Floor 41. This pipe passes through the oil fuel deep tank and is of heavy gauge steel with welded joints.

In Boiler Room: One 1 1/2" oily bilge suction to transfer pump, from oil gutterway forward of Floor 36. One 2" suction to bilge main, led from centre of oil gutterway and two 2 1/2" suction (p&s) repositioned aft of Floor 36.

In Engine Room: An additional 2" suction fitted at the centre of the forward end of the engine room, at the Chief Engineer's request.

Electrical Alterations. The original stoker motors removed and the same 7/064 VG mains used for supplying the oil fuel service pumps. The two motors are 3 HP, 110 volt, 24 amp, totally enclosed type and certificates of type tests were produced and found satisfactory.

S.S. " KURANDA "

Main switchboard : The DP knife switch originally used for supplying the midship accommodation has now been used for supplying the oil fuel transfer pump motor which is 2 HP, 110 volt 18 amp and the cables used are 7/036 V.I.R., LAS, 180 feet lead plus return.

The existing small extension panel on the switchboard now replaced with a larger panel of Zelemite. This panel now contains (1) DP knife switch and fuses for midship accommodation.

(2) DP knife switch and fuses for oil fuel heating elements.

(3) DP knife switch for rectifier for shore supply. Fuses are in rectifier.

(4) Change over D.P. knife switch from emergency generator supply.

The emergency generator switchboard in the deck house contains one (1) voltmeter, one (1) ammeter, earth lamps, one (1) Circuit Breaker and one (1) change over D.P. knife switch for supply to either mains or emergency lights.

Minor repairs and alterations carried out on the whole installation.

*H. Gerrard.*

(H. Gerrard.)

Surveyor to Lloyd's Register.

