

Rpt. 9

Date of writing report 3/10/55

Survey held at Whyalla

Received London

14 OCT 1955

No. of visits 33

Port Whyalla

First date 6/5/55

No. 230

Last date 30/9/55

REPORT OF PERIODICAL SURVEYS & REPAIRS OF MACHINERY

No. in R.B. 14108 S.S. Name M.V. "IRON KING"
 Owners Broken Hill Pty. Co. Ltd. Gross tons 4584 Date of build 1936 10
 Managers By D. Rowan & Co. Ltd Glasgow Port of Registry Melbourne
 Engines made 1936 Type Quad. Steam recip. Exh Turbo Comp.
 No. of Main Engines 1 No. of Screws 1
 No. of Main Boilers 3 W.P. 250lbs
 No. of Aux./Donkey Boilers W.P.
 Surveyed Afloat or in Dry Dock afloat
 Nature of Survey Part LMC & OE conversion
 Was Damage Report issued? No Int. Cert? Yes
 Last Report (For Head Office only)

Hull	Machinery
*100A1 with freeboard	* LMC
ss NSW 10,49	MS 9,48
8,53	BS 6,53

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.

If so, is the Report sent now, or when will it be sent?

DOCKING Propellers	Wear Down of Stern Bushes	Oil Glands	Sea Connections
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 L.C.)			
1 Cyls., Covers, Pistons & Rods	Good	PORT	STARBOARD
2 Valves & Gears	Good		
3 Connecting Rods, Top Ends & Guides	Good		
4 Crankpins & Bearings	Good		
5 Journals & Bearings	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			
SUPERCHARGERS			
MAIN TURBINES			
18 Casings, Rotors, Blading, Bearings & Thrusts			
19 EXHAUST STEAM TURBINES (WITH RECIP. ENGINES)	Good		
20 STEAM COMPRESSORS	Good		
21 CLUTCHES & HYDRAULIC COUPLINGS			
22 REDUCTION GEARING			
23 THRUST BLOCKS, SHAFTS & BEARINGS	Good		
24 INTERMEDIATE SHAFTS & BEARINGS			
25 HOLDING DOWN BOLTS & CHOCKS	Good		
26 CONDENSERS (MAIN & AUX.)	Good		
27 STEAM RE-HEATERS			
28 DE-SUPERHEATERS			
29 STOP & MANOEUVRING VALVES	Good		
30 MAIN ENGINE DRIVEN PUMPS			
31 CRANKCASE DOORS & EXPLOSION RELIEF DEVICES			
		Have Main Engines been tested working and manoeuvring?	Yes

OPINION OF MACHINERY AND RECOMMENDATIONS. This vessels machinery so far as seen is fit to remain as classed and have record of *LMC 9,55 when the propeller, sea inlet and main discharge valves and blow down cocks and outside fastenings have been examined and have record of "Fitted for Oil fuel 9,55 F.P. above 150°F"

THURSDAY 1 DEC 1955

Date of Committee

Decision

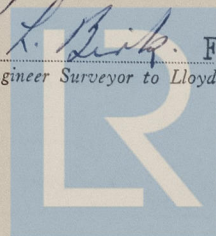
Deferred for 4. ms
 but assign BS 9.55 sps 9.55

F.K.L. BIRK.
 Engineer Surveyor to Lloyd's Register of Shipping

RPT. 9-J. & O'S.-3000-PRINTED IN AUSTRALIA

Fitted for oil fuel 9.55 F.P.
 above 150°F.

Noted
 for
 Head



Lloyd's Register
 Foundation

016059-04067-0175 1/2

If certificate is required state where to be sent

32 Essential Independent Pumps (Identify by position) All independent pumps examined.

33 Bilge, Ballast & Oil Fuel Suction Lines, Fittings & Controls Good --- Oil fuel conversion now carried out as per attached sheet

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

35 Fresh Water Coolers - 36 Lub. Oil Coolers Good 37 Heaters (state service) Feed heaters --Good

38 Independent Air Compressors, Coolers & Safety Devices -

39 Air Receivers & Safety devices--Main Good --Now fitted in oil fuel conversion. 40 Auxiliary

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

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

44 Steering Machinery Good 45 Windlass Good 46 Fire Extinguishing Arrangements Good

AUXILIARY ENGINES (Identify by position) 90KW Steam generator Starboard side ER Flat aft. Good
50KW Steam Generator Port side ER Flat aft. Good
Circulating pump engines Port Good
Forced draught fan Good -- Induced draught fan now removed.

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

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

MAIN Port forward --Good Starboard For'd--Good AUXILIARY, DONKEY or PRESS After --Good

Superheaters As above, Good.

Safety Valves Good

Mountings, Doors & Fastenings Good

Safety Valves Adjusted to { Sat. 250lbs/sq in.
Spt. 240lbs/sq in. (at Owners request)

Boiler Securing Arrangements Good

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? Yes Forced Circulating Pumps -

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 Mild Steel Sections removed and tested Auxiliary (over 3 in. bore) Mild steel Sections removed & Tested
Others examined. - 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)

Boilers. All Boilers. Supports forward and aft renewed. Bottom furnace casings and air casings renewed. Side casings inner and outer renewed, also casing doors. Superheater box end doors renewed. Furnace rear panels and air casings renewed. Uptakes cropped and renewed as necessary. Starboard Boiler. 5 tubes 1 13/16 in dia renewed and 1 1/4 dia tube renewed. Main engine. H.P. Valves faced and new spindles fitted. H.P. & both I.P. guide slippers remounted. 1st End L.P. eccentric straps remounted. Exhaust turbine & Compressor. Completely stripped, gland sealing rings renewed, lubricating oil pump gears and bushes renewed, crack in bottom flange of casing machined and bedded cover and compensating plate fitted. Auxiliaries. Main circ. pump and engines. Cylinder and valve chests bored, new pistons & valves fitted, new valve spindles, shafts dressed, bearings remounted, new sealing rings fitted to pump. Fan engine (FD). Cylinder bored, new piston and rod, shaft dressed, bearings remounted. Main & aux. air pumps. Valves faced, new pump rod, new rings. Independent pumps. All overhauled, buckets built up, rods dressed & renewed as necessary, new liner in bilge pump, sanitary pump steam cyl. bored. Fire pump repositioned after port of boiler room. General service pump now only connected to Fresh water and feed systems. XXXXXXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXXXXXX

CONF.

Survey fee Machy & repairs £85.0.0
Boilers & repair 52 0 0
Electrical 25 0 0
Oil fuel Convsn 50 0 0

Damage fee

Expenses 1 0 0

Late attendance 6 0 0

Date when A/c rendered 3rd October 1955

Rpt. 9a.

Port of Whyalla Continuation of Report No. 230 dated 3.10.55 on the

S.S. "IRON KING"

REPAIRS. (cont)

Main condenser cleaned and tested. Aux. condensed retubed. Feed tank bottom and one side renewed. Return end of main condenser renewed. Ballast pumps. Inboard. New piston. Both buckets built up new rings fitted all valves ground and oil resistant joints fitted.

Electrical. Generators completely overhauled. Main switchboard with switches and circuit breakers overhauled, board rewired. Circuits below Rule resistance rewired and permanent junction boxes fitted. Steering mains renewed. All starters and motors removed & overhauled. Engine room rewired as necessary, boiler room rewired. After accommodation rewired other sections wired as necessary. Tween deck lighting made to Rule requirements. Navigation indicator box renewed, all navigation lights repaired, circuits rewired as necessary. Emergency circuits rewired. Galley rewired and electric range removed. All motor starters removed from boiler room. All junction boxes and fuses tallied and rated.

Oil fuel conversion.

Boiler furnaces stripped of coal burning arrangements, furnace pans renewed, brickwork rebuilt and two burners fitted to each boiler.

Oil burning installation now fitted in accordance with plans approved at London 10.8.53 for Iron Duke, and Secretary's letter dated 9.6.55. Nos. 3 & 4 D.B. tanks have now been fitted to carry oil fuel. All pipes passing through these tanks and the tank ends have been re-jointed with oil resistant materials and afterwards tested as per Rules. Steam heating coils fitted in D.B. tanks and the Settling tanks have been tested to Rules.

Returns from heating coils led to observation tank. Settling tanks to plan approved at Sydney 21.8.53 fitted in previous wing bunker space and not forming part of the hull have been fitted and tested as per Rules. Gutterways and drainage is provided, air pipe and overflow with sight glass fitted, as well as level alarm. Air pipes from D.B. tanks 3 & 4 increased as per Rules and air pipes from oil fuel tanks fitted with gauze wire.

A new weirs type oil fuel transfer pump and the oil fuel pressure unit removed from S.S. "Iron Yampi" as per Whyalla letter dated 4.7.55 now fitted and arranged for stopping from outside the compartment. Quick closing valves fitted to suction from settling tanks and operated from deck.

A CO2 fire extinguishing system has been installed in accordance with the Rules, save all fitted at furnace mouths, sand boxes port and starboard in boiler room, two portable and one 35 gallon froth extinguisher provided. All transfer and low pressure lines in the oil fuel system have been tested and the hot oil lines to the burners tested to 400 lbs/sq in. The minimum distance from boilers to oil fuel tanks is 4 feet. After installation the oil fuel and boiler plant tested under working conditions.

To complete the Survey the propeller sea inlet and main discharge valves and blow down cocks and outside fastenings remain to be examined.

L. K. L. Bink.