

COPY

AC No.1476

## LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER



26 MAY 1952

Port of HONG KONG.

13th May, 1952.

AC No.1476

Fee \$1800.00

\$35.00

Total \$1835.00

13/5/52.

PRELIMINARY REPORT : SPECIAL SURVEY

This is to Certify that

C. RITCHIE

the undersigned Surveyor to this Society did at the request of the Owners, Messrs. Whangpoo S.S. Co. Ltd., survey the Steel Screw Steamer "BANDRA", 3194 tons gross of Glasgow, whilst afloat and in dry dock at this Port on 8th April, 1952 and subsequently, for the purpose of recommending repairs, etc. for Periodical Special Survey.

The vessel holds class in the Society's Register Book of +100A1 11,51; S.S. Cal. 2,47; +LMC; MS 2,47; CL 2,49 & BS 2,51.

The survey of the general condition of the vessel is reported hereunder, and the recommendations made thereto are based on the requirements of the Society's Rules for the holding of Periodical Special Survey for the Classification of Steel Vessels.

NOW DONE : -

Vessel placed in dry dock. The bottom & side plating, stern frame, stem, & rudder cleaned & examined.

The shell plating was now drilled & hammer tested at the specified stations; & the plate thicknesses ascertained amidships & in the vicinity of the peak bulkheads in each strake at P. & S. sides; & also drill tested at shell plating where considered necessary. All keel plates were drill tested at this time.

Double bottom tanks, domestic F.W. tanks, & fore & after peaks examined internally.

Holds, tween decks, fore & after peaks, chain locker, spaces under bridge, engine & boiler spaces & coal bunkers cleared for survey, ceiling lifted as required by rules, all oxidation removed & steelwork throughout the vessel examined.

Ash shoots & plating under same examined.

This Certificate is issued upon the terms of the Rules and Regulations of the Society, which provide that:—

While the Committees of the Society use their best endeavours to ensure that the functions of the Society are properly performed, it is to be understood that neither the Society nor any Member of any of its Committees is under any circumstances to be held responsible for any inaccuracy in any report or certificate issued by the Society or its Surveyors, or in any publication of the Society, or for any error of judgment, default or negligence of any of its Committees or any Member thereof, or the Surveyors, or other Officers or Agents of the Society.



S.S. "BANDRA" - continued

Decks, casings, hatchways, hatches & hatch beams, cleats & fastenings, vents with coamings, ceiling, plates under sounding pipes, steering engine quadrant, W.T. doors, scuppers, skylights, boats, masts, spars, rigging, anchors, chain cables (cable ranged).

All tank top plating, & tween deck plating, & certain of the upper (main) deck plates were now drill tested, gauged, & the thicknesses ascertained.

FOUNDRECOMMENDEDShell Plating : Port Side : -

- |  |  |
|--|--|
| (1) Keel plate No.1, thin & wasted.  | (1) To renew 8'-6" x 63" x .62".   |
| (2) Keel plate No.2, thin & wasted.  | (2) To renew 21'-4" x 46" x .62".  |
| (3) Keel plate No.3, thin & wasted.  | (3) To renew 23'-7" x 46" x .62".  |
| (4) Keel plate No.14, thin & wasted.   | (4) To renew 24'-6" x 43" x .62".  |
| (5) Stem wrapper plate wasted at lower part.                                     | (5) To crop & part renew wrapper plate for 8'-9" x 12" x .50"; & renew 16 stem rivets.                                   |
| (6) Shell plate A 1 wasted.  | (6) To renew 11'-6" x 81" x .50".  |
| (7) Shell plate B 1 thin.  | (7) To renew 15' x 60" x .50"  |
| (8) Shell plate E 1 holed.   | (8) To renew 19'-6" x 64" x .50".  |
| (9) Shell plate E 2 wasted at lower seam; & after butt rivets also wasted.       | (9) To crop & part renew lower part for 18'-2" x 12" x .50"; & to renew aft butt rivets for lower 2/3rds.                |
| (10) Shell plate E 3 wasted at lower seam; & towards after butt.                 | (10) To crop & part renew lower part for 23'-6" x 15" x .50"; & to crop & part renew after part for 4'-10" x 20" x .50". |
| (11) Frame rivets at shell plate F 4 wasted.                                     | (11) To renew approx. 100 shell frame rivets.  |
| (12) Frame rivets at shell plate F 5 & rivets at after butt (lower half) wasted. | (12) To renew approx. 60 rivets.   |
| (13) Frame rivets at shell plate F 6 wasted.                                     | (13) To renew approx. 100 rivets.  |
| (14) Shell plate G 15 grooved & holed.   | (14) To renew, 23'-3" x 63" x .50"   |
| (15) Shell plate G 8 wasted.   | (15) To renew, 23'-5" x 63" x .56".  |
| (16) Shell plate G 9 wasted.   | (16) To renew, 23'-6" x 63" x .56".  |

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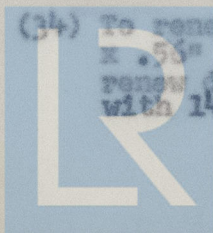


S.S. "BANDRA" - continuedFOURRECOMMENDEDShell Plating : Port Side : - Contd.....

- |   |  |
|---|--|
| (17) Shell plate G 13 indented at three areas.                                    | (17) To fair in place.   |
| (18) Shell plate F 15 wasted.   | (18) To renew, 23' x 78" x .50".   |
| (19) Shell plate H 16 wasted at end.  | (19) To crop & part renew for 2½ frame spaces, 5'-6" x 66" x .50".                                   |
| (20) Shell plate H 10 thinned below scupper; & plate edge of J 9 wasted.          | (20) To fit doubler in way of scupper; & to fit flat bar at upper part to bad seams above on J 9.    |
| (21) Shell plate J 11 wasted at lower edge of plate.                              | (21) To fit flat bar on upper part of H 11 immediately below J 11 lower seam.                        |
| (22) Shell plates F 8 & 9. After part of F 8 & ford part of F 9 wasted & thinned. | (22) To crop & part renew after part of F 8 & ford section of F 9, for total of 18'-6" x 67" x .56". |
| (23) Shell plate H 17 minutely holed at lower part.                               | (23) To fit small doubler internally.  |
| (24) Side plating at poop, K 19, lower part wasted & holed.                       | (24) To crop & part renew lower part 11'-9" x 22".   |

Shell Plating : Stbd. Side : -

- |   |   |
|---|---|
| (25) Shell plate A 1 wasted.  | (25) To renew 11'-4" x 82" x .50".  |
| (26) Shell plate E 1 wasted.  | (26) To renew 19'-9" x 64" x .50".  |
| (27) Shell plate E 2 wasted.  | (27) To renew 18'-3" x 66" x .50".  |
| (28) Shell plate G 6 wasted.  | (28) To renew 23'-2" x 66" x .50".  |
| (29) Shell plate G 9 wasted.  | (29) To renew 23'-2" x 66" x .56".  |
| (30) Shell plate F 10 wasted.   | (30) To renew 23'-2" x 68" x .50".  |
| (31) Shell plate B 15 wasted at ford end (after part already renewed).      | (31) To crop & part renew ford end, 14'-6" x 78" x .50".  |
| (32) Shell plate E 3, top seam rivets wasted.                               | (32) To renew approx. 100 rivets.   |
| (33) Shell plate F 3, lower part after end wasted.                          | (33) To crop & part renew lower part after end for 10' x 18" x .50".  |
| (34) Shell plate F 7, ford batt strap wasted, & fitted doubler also wasted. | (34) To renew batt strap 67" x 10" x .56" with 72 rivets; & to renew doubler 4'-8" x 36" x .56", with 140 rivets. |

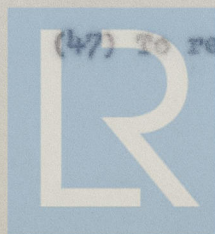


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S.S. "RANDRA" - ContinuedFOUNDRECOMMENDEDShell Plating : Stbd. Side :- Contd.....

- |  |   |
|--|---|
| (35) F'cle side plating after part badly indented; & top seam wasted.  | (35) To fair in place indented area; & to fit flat bar at upper seam.   |
| (36) Side plating in way f'cle fairleads chafed & worn.  | (36) To crop & part renew plating below fairleads.  |
| (37) Poop side plating pitted in line with half round bar at upper part.   | (37) To extend half round bar ford for five spaces.   |
| (38) Bulwark plating abaft after cargo door at aft well deck, wasted; & plating below cargo door wasted at edge. | (38) (a) To fit doubler full depth of plate in way wasted area.<br>(b) To fit flat bar immediately cargo door at bulwark plating.   |
| (39) Bulwark plating abaft after cargo door at ford well deck, wasted.   | (39) To fit doubler for full depth at wasted area.  |
| (40) Stbd. Hawse Pipe, ship's side flange worn badly.  | (40) To stud & build up flange with E.W.  |
| (41) Stbd. Bilge Keel wasted at ford end.  | (41) To fit flat bar 3'-6" x 6" x .50" at ford end.   |
| (42) Port Bower Anchor   | (42) To be retested at earliest opportunity (as previously recommended).  |
| (43) Stbd. Bower Anchor shows excessive wear at crown pin.   | (43) To remove crown pin for exam., with view to fitting bush & side washers to stock.  |
| (44) Spare Bower Anchor  | (44) To free joining pin & ring.  |
| (45) Anchor Cables (270 fms.) ranged & calibrated, (every 10th link).  | (45) (a) To renew five lengths (75 fms.) of 2" stud link chain cable; viz the 2nd & 4th lengths on P. side; & the 2nd., 3rd & 4th lengths on S. side, which are all below limit size.<br>(b) To drift all shackle pins for exam.; & to tighten loose studs & replace any missing studs. |
| (46) Rigging in efficient condition.   | (46) ---  |
| (47) Chain locker chain pipe S. side badly wasted.   | (47) To renew pipe.   |



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S.S. "BANDRA" - continuedFOUND

- (48) Chain Locker bottom plating at P. & S. sides thin; & divisional bulkhead plate holed at mid height.
- (49) Rudder single plate type; plate wasted above 3rd arm; & pintle clearances excessive being, from top to bottom :- 1/4", 9/32", 3/8", 3/8" & 3/8".
- (50) Roofings at wheelhouse & wireless room leaking.
- (51) Side scuttles in tween decks, several covered over with cement.

RECOMMENDED

- (48) To completely double bottom plating at P. & S. sides viz 2 off. 5'-6" x 24"; 2 off. 5'-3" x 24"; & 2 off 4'-9" x 24", all x .45"; & to crop & part renew bulkhead at mid height for 5'-3" x 40" x .35".
- (49) (a) To remove rudder for exam. of pintles & gudgeon bushes; with view to renewal of latter  
(b) To crop & part renew rudder plate above 3rd arm for 4'-8" x 36" x .83".
- (50) To cover roofings with malthoid & make leak proof.
- (51) To overhaul side scuttles & deadlights.

P'ole Head : -

- (52) Waterways at P. & S. sides thin in places.
- (53) Cable stoppers P. & S. badly worn.
- (54) Hoisting Wire Reels. Shaft & brakes broken.
- (55) Deck service pipe line at S. side broken.
- (56) Foremost Island Deck.
- (57) Domestic F.W. Tanks:
- (58) Fare Peak : Shell frames thinned generally above upper stringer at P. & S. sides. Cement box fitted at 4th space lower part at S. side.
- (52) To completely double waterways at P. & S. sides.
- (53) To build up both stoppers by S.W.
- (54) To repair shaft & brakes of insurance wire reel.
- (55) To renew short length deck line.
- (56) To renew deck plank; & caulk & pay deck.
- (57) To refasten stiffener bottom brackets where loosened at P. & S. wing tanks & at cr. tank; & to renew fractured top bkt. at ford end in cr. tank.
- (58) (a) To fit reverse angles to shell frames Nos. 155, 157, 159, & 161 at P. & S. sides above upper stringer, varying in length between 7' & 20' x 3" x 3" x .45".

- (b) To clear away cement box (shell plate in way being renewed).



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S.S. "BANDRA" - continuedFOUND

- (59) After Peak : Bulkhead stiffeners 3 off. bent at upper parts.
- (60) Ballast Tanks, Peaks, & Domestic Tanks.
- (61) Cement chocks in holds & tween decks.

RECOMMENDED

- (59) To fair 3 stiffeners in place.
- (60) To clean & cement wash as necessary.
- (61) To replace where removed for inspection; & to renew as necessary where broken away.

Upper Deck, Ford Well : -

- (62) Deck plating between winches at Nos.1 & 2 hatchways, thin.
- (62) (a) To renew deck plating abaft No.1 Hatchway, the centre & adjoining plates between frames 127/131,  
(b) To renew deck plating abaft No.2 Hatchway, the centre & adjoining plates between frs. 103/109.
- (63) Saloon House, plating at ford & P. & S. sides, thinned & wasted at lower parts; door at P. side seized; steel doors in way windows mostly wasted.
- (63) (a) To fit doublers at P. & S. sides at lower parts & at front for their entire lengths for height of 3',  
(b) To renew doubler in way steam pipes at ford S. corner,  
(c) To overhaul 11 steel W.T. covers over windows at P. & S. sides & front of saloon casing,  
(d) To make S. side door workable.
- (64) F'cle bulkhead P. side horizontal bracket thinned & loosened.
- (64) To renew bkt.
- (65) F'cle bulkhead wasted at S. side inboard of door frame.
- (65) To crop & part renew plating for full depth by 2' wide & fasten by E.W.
- (66) F'cle after bulkhead wasted at S. side.
- (66) To crop & part renew bhd. for 3' x 18" x .35".
- (67) No.1 hatchway doublers at S. side, coaming plate & S. front corner wasted.
- (67) To renew coaming doublers at front & at S. side.
- (68) No.2 hatchway doublers at S. side & at ford & after ends of coaming plates wasted.
- (68) To renew coaming doublers at front & at S. side; & for full width at after end.
- (69) Six in No. hatch beam sockets at No.1 & 2 hatchway buckled.
- (69) To remove, fair & refit 6 beam sockets.



S.S. "BANDRA" - continuedFOUNDRECOMMENDED

- |   |  |
|---|--|
| (70) Deck service line at S. side in bad condition.   | (70) To renew 33' deck line.   |
| (71) Bulwark rails, section for of second portable bulwark door holed & set up & aftermost part wasted together with horizontal bracket at S. side. | (71) To renew rail 8' x 6" x 3" S.A.; & 4' at aftermost part with bracket.                             |
| (72) Bulwark rail aftermost part & horizontal bracket to bulkhead, wasted.  | (72) To renew aftermost part of 8' of rail with bracket. (frs. 95/99).                                 |
| (73) Freeing port doors at P. & S. sides, port shutters missing.  | (73) To overhaul freeing ports ; & to renew 4' port shutters.  |
| (74) Gangway doors at P. & S. sides wasted & in bad condition.  | (74) To renew both gangway doors, complete with fittings & attached vertical & horizontal angles, etc. |
| (75) Bulwark plating at P. side, between the two portable cargo doors, holed at upper part under rail.  | (75) To fit doubler below bulwark rail.  |
| (76) Portable cargo doors in bulwarks 2 at each of P. & S. sides in poor condition.   | (76) To overhaul all 4' cargo doors.   |
| (77) Awning bars under bulwark top rails rust bound.  | (77) To remove, chip & replace.  |
| (78) Bulwark stanchions mostly rust bound.  | (78) To release, chip & refasten.  |
| (79) Fore mast house P. & S. doors loose.   | (79) To strengthen P. & S. doors.  |
| (80) Accommodation ladder.  | (80) To overhaul adjustable ladder & fair platform stanchion.  |
| (81) Portable hand pump.  | (81) To overhaul.  |

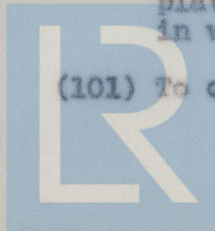
After Well Deck: -

- |  |   |
|--|---|
| (82) P. & S. ventilators to hold, abreast main mast, holed & set in at trunks.                 | (82) To crop & part renew about 4' at trunk bottoms.      |
| (83) Bulwark rail P. side aftermost part holed (frs. 25/28), with bulkhead horizontal bracket. | (83) To crop & part renew rail; & renew horizontal bkt.   |
| (84) Gangway doors P. & S. sides warped & wasted.  | (84) To overhaul both gangway doors & renew as necessary. |
| (85) Bulkhead horizontal bracket at S. side, thin.   | (85) To renew bracket.                                    |



S.S. "BANDRA" - continuedFOUNDRECOMMENDED

- |  |   |
|--|---|
| (86) Portable cargo doors in bulwarks at P. & S. sides.  | (86) To overhaul both doors.  |
| (87) Poop bulkhead holed at S. side lower part; & wasted over galley door.   | (87) To crop & part renew bulkhead, at S. side lower part; & to fit doubler over galley door.               |
| (88) Galley window steel W.T. cover wasted.  | (88) To overhaul cover.   |
| (89) Bakery door.  | (89) To be welded & made watertight.  |
| (90) Deck plating between No.3 winches, thin.  | (90) To renew deck plate 9' x 62" x .37".   |
| (91) Deck service line at S. side holed.   | (91) To renew section.  |
| (92) Steel hatch beams at ford & after well deck hatchways mostly buckled at ends.                                   | (92) To crop about 24 hatch beam ends & part renew.   |
| (93) Wood decks at ford & after well decks, several areas worn & seams defective.                                    | (93) To crop & remove sections for exam. & caulk & pay; & to renew wood decks as necessary.                 |
| (94) Crossbunker S. vent. holed at heel section.   | (94) To patch heel section.   |
| <br><u>Poop Deck : -</u>   |   |
| (95) Several mushroom vent. tops, broken.  | (95) To renew.  |
| (96) Waterways at stern & at P. & S. sides plating thin.   | (96) To fit doublers to waterways throughout & to remove & replace bollards in way at stern, P. & S. sides. |
| (97) Steering gear house, plating at after side holed at lower part; & wasted on ford side of door at P. side.       | (97) To fit doublers about 38" x 15" at lower part & 2'-6" x 6" by door.                                    |
| (98) Ceiling lights at ford end of waterway at P. side & on deck at S. side, broken & filled over with cement boxes. | (98) To blank off lights.   |
| (99) Two gooseneck oval vents holed.   | (99) To renew both vents.   |
| (100) Gun platform holed at sides.   | (100) To crop & discard gun platform wings & brackets in way.   |
| (101) Wood decks opened up in places.  | (101) To caulk & pay with pitch.  |





S.S. "BANDRA" - continuedFOUNDRECOMMENDEDSaloon Deck : -

- |  |  |
|--|--|
| (102) Teak rails at P. & S. sides badly split & cut in places.                           | (102) To repair.   |
| (103) Wood deck lifting in scattered areas.  | (103) To lift in selected areas for exam.; & to caulk & pay generally. |
| (104) One double gooseneck air pipe broken at fr. 83; & two mushroom vent covers broken. | (104) To renew air pipe & both vent covers.                            |
| (105) Two double gooseneck air pipes at ford end P. side, holed.                         | (105) To renew both air pipes.   |
| (106) Curtain plates thinned at ford end at P. & S. sides.                               | (106) To renew curtain plates each 14' x 18" x .37".                   |
| (107) Handrails P. side, 1 section missing.  | (107) To renew 3' section.   |

Boat Deck : -

- |  |  |
|--|--|
| (108) Wood deck bulged & warped in places; & sections bulged at P. side. | (108) (a) To reave out, caulk & pay wood decks.<br>(b) To lift bulged sections at P. side, relay, caulk & pay. |
| (109) Handrails at P. side broken.                                       | (109) To reweld handrails.   |

RECOMMENDED(110) Tween Deck Plating No.1 Hold : -

- (a) To fit doubling plates by E.W. at P. & S. stringers between frs. 152/125 for width of 15".
- (b) To crop & part renew centre strake plate ford of No.1 hatchway between frs. 145/141 for 4'-6" x 4'-3".
- (c) To fit doubler over three inner strakes immediately abaft No.1 hatchway for full width of latter.
- (d) To crop & part renew plate adjacent to stringer at P. side frs. 128/123 for 9'-3" x 62" x .34", & to fit doubler in plate next adjoining 4'-8" x 3'-6" at after bulkhead.
- (e) To crop & part renew plate adjoining middle at P. side for 8'-6" x 62" x .34".
- (f) To fit doubler over middle strake & plate adjoining at S. side by bulkhead for 8'-8" x 2'-8".
- (g) To crop & part renew stringer at S. side frs. 123/130, for 11'-6" x 57" x .40"; & also the plate adjoining for 8' x 61" x .34" (frs. 128/124).



S.S. "BANDRA" - continuedRECOMMENDED(111) Tween Deck Plating, No. 2 Hold : -

- (a) To fit doubler ford of No. 2 hatchway at middle strake frs. 119/120.
- (b) To fit doubler abreast No. 2 hatchway in second strake from stringer (outbd. edge) between frs. 107/115, for 16'-6" x 15" x .34" at S. side & similarly at P. side between frs. 105/115.
- (c) To fit doubling plates by E.W. at P. & S. stringers between frs. 125/106 for width of 12".
- (d) To fit doublers at middle strake for 5'-2" x 45" and the adjoining strakes at P. & S. sides for 2'-9" x 4'-9" & 5'-2" x 3'-9", all by after bulkhead (fr. 103).

(112) Tween Deck Plating - Cross Bunker, Etc. : -

- (a) To fit doublers at strake adjoining middle at S. side by ford bulkhead for 5'-9" x 60" x .34" & in same strake by B.R. casing from fr. 96 to casing; & in strake again adjoining for one fr. space by casing.
- (b) To renew plate ford of B.R. casing in strake adjoining stringer for 11'-9" x 62" x .34".
- (c) To fit doubler at P. side in strake adjoining middle ford of B.R. casing, fr. 95 to casing.
- (d) To fit doubler at S. side abreast B.R. at stringer around small hatchway frs. 85/94.
- (e) To fit doubler abreast E.R. & further aft at P. side stringer between bhds. 23 & 63 ; & at S. side from frs. 53 to 17, all approx. 15" wide.
- (f) To fit doubler abreast E.R. casing P. side at stringer frs. 69/72; & doubler abreast E.R. casing frs. 63/66.
- (g) To fit doublers at P. & S. sides in strakes second from middle, at outbd. edges for about 15" wide between frs. 63/52 at P. side; & frs. 63/45 at S. side.
- (h) To fit doubler at S. stringer plate, frs. 72/64; & to renew stringer plate, frs. 64/56 for 22' x 40" x .40".

(113) Tank Top Plating - No. 3 Hold: -

- (a) To renew hatchway doublers at P. & S. sides, 24'-6" x 13" x .34".
- (b) To fit doublers in strake alongside hatchway at S. side frs. 39/29 at outbd. edge.
- (c) To renew plate adjoining stringer P. side frs. 28/36 for 13'-9" x 51" x .34"; & to renew plate next strake adjoining frs. 25/33, for 16'-9" x 60" x .34".
- (d) To fit doubler at mid strake frs. 192/245.



U.S. "BANDRA" - continuedRECOMMENDED(113) Tank Top Plating - No.3 Hold : - Contd.....

- (e) To fit doubler in strake adjoining middle at P. side from bhd. to fr. 26 $\frac{1}{2}$ ; & at S. side from bhd. 32 to fr. 25.

(114) Tank Top Plating : No.1 Hold : -

- (a) To fit doubling plates between bkts. at stringer plate in 8 ford spaces at S. side frs. 141/151.
- (b) To fit doubling plates at stringer plates & plates next adjoining 34" x 34" x .38", 5'-3" x 27" x .38" by after bulkhead at P. & S. sides.

(115) Tank Top Plating : Cross Bunkers : -

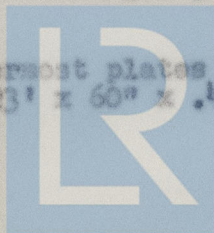
- (a) To renew plate at after end in strake adjoining middle at S. side for 26'-9" x 66" x .38".
- (b) To renew stringer plate & plate adjoining at S. side, 24'-6" x 70" x .38" & 24' x 66" x .38".
- (c) To crop & part renew plate at after end in strake adjoining middle at P. side for 12' x 66" x .38".

(116) Tank Top Plating : Boiler Room : -

- (a) To fit doubler to plating in strake adjoining middle ford of ford stool under P. Boiler for 5'-8" x 44" x .38".
- (b) To fit doubler in strake adjoining stringer in way of ford stool of P. Boiler for 7'-4" x 64" x .38"; & in same strake between the ford & after stools to renew plate, 10'-3" x 70" x .52".
- (c) To fit four doublers each 7'-7" x 64" x .38" below after stools of both boilers.
- (d) To fit doubler in strake adjoining middle in way of ford stool under S. Boiler for 5'-8" x 44" x .38".
- (e) To renew plate in strake adjoining middle at S. side between ford & after boiler stools for 16' x 66" x .52".

(117) Tank Top Plating : After Hold : -

- (a) To renew the two aftermost stringer plates at both the P. & S. sides; 2 off 14'-6" x 67" x .38" & 2 off 16'-10" x 39" x .34".
- (b) To renew plate between frs. 43 $\frac{1}{2}$ /32 in strake adjoining middle at P. side.
- (c) To fit doubler to ford stringer plate at S. side by bulkhead.
- (d) To renew the two aftermost plates in strake adjoining middle at S. side; 23' x 60" x .40" & 18'-9" x 63" x .34".



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S.S. "BANDRA" - continuedRECOMMENDED(118) Bulkheads : -

- (a) To crop & part renew bulkhead plate at fr. 103 at lower part in strake next to margin for 5'-3" x 26" at S. side.
- (b) To crop & part renew bulkhead plate at fr. 125 (between Nos.1 & 2 holds) in way bilge for 7'-6" x 42".

Cross Bunker : Shell Frames : -FOUNDRECOMMENDED

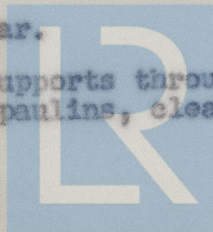
- (119) Shell frames in bunkers found generally wasted & thinned in way of E, F, & G strakes of shell plating, up to main deck.

- (119) (a) To crop & part renew B.A. shell frames as follows:-  
 P. side Nos.103, 101, 99, 97, 95, 94, 92, 91, 90, 88, 85, 80, 79, & 77, each for 14' x 6" x 3 $\frac{1}{2}$ " x .45".  
 S. side Nos.99, 98, 97, 96, 95, 94, 93, 92, 91, 90, 86, 85, & 84 for approx. 14' x 6" x 3 $\frac{1}{2}$ " x .45".
- (b) To fit reverse angles as follows:-  
 P. side: Nos.104, 102, 100, 98, 96, 89, 86, 84, 82, 78 & 76, each approx. 12' long x 3" x 3" O.A.  
 S. side: Nos.104, 103, 102, 101, 100, 88, 82, & 80, each approx. 12' x 3" x 3" O.A.

TO COMPLETE SPECIAL SURVEY : -

To complete the Special Survey, in addition to carrying out the recommendations listed above, the following remains to be dealt with :-

- (A) To remove mast wedging for exam.
- (B) To examine hawsers & warps, & general equipment.
- (C) To test to Rule requirements all D.B. Tanks, Domestic F.W. Tanks, & Peaks.
- (D) To examine & test all air & sounding pipes.
- (E) To verify freeboard.
- (F) To inspect aux. steering gear.
- (G) To examine hatch covers & supports throughout, in position; & the efficiency of the tarpaulins, cleats, & battens for securing of hatches.



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S.S. "DANDRA" - continuedTO COMPLETE SPECIAL SURVEY : - Contd.....

- (H) To test W.T. doors.
- (I) To remove lining on ship's side in way of sidelights, & plating in way of same to examine.
- (J) To examine closing appliances of air & sounding, pipes, & vents, etc.
- (K) To test Windlass & Steering Gear.

MACHINERY

Main Engines, Boilers, & Auxiliary Machinery, Etc. now opened up at this time for survey, with view to assessing repairs and/or renewals for periodical special survey L.M.C., and recommendations are listed below:-

HOW DONE : -

At Docking - The propeller, stern bush, sea cocks & valves with their shell fastenings, etc.

Main Engines :

All cylinders, casings, covers, pistons, rods, valves & gear, crosshead & crankpins & brasses, guides & shoes, main bearing journals & brasses, crank, thrust & intermediate shafting, reversing gears, condensers, & attached pumps examined.

Aux. Engines :

Generators, Centrifugal Pump, Fan & Steering Engine, cylinders, casings, covers, pistons, rods, valves & valve gear, crosshead & crank pins & brasses, guides & shoes, main bearing journals & brasses, examined.

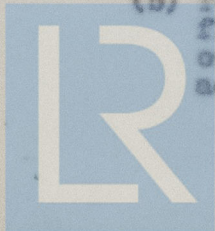
Pumps :

Centrifugal, Ballast, Feed, Bilge, Gen. Service, impellers & casings or cylinders, chambers, covers, rods, valves & gear, suction & delivery valves examined.

FOUNDRECOMMENDEDMain Engines :

(120) Crankshaft lifted; & bottom halves of main bearing brasses cracked & slightly wiped.

(120) (a) To reset all six bottom halves of main bearing brasses;  
(b) To rebore crankshaft fit top & bottom halves of main bearings & adjust same.



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S.S. "BANDRA" - continuedFOUNDRECOMMENDEDMain Engines : - Contd.....

- |  |   |
|--|---|
| (121) Thrust Shaft support bearings, bottom halves both in poor condition. | (121) To remetal & fit both bottom halves of shaft support bearings.  |
| (122) Thrust Shoes, one badly scored & others lightly scored.              | (122) To remetal one thrust shoe; & to machine & refit the remainder.   |
| (123) Shafting.  | (123) To realign all main, thrust, & tunnel shafting.   |
| (124) H.P. Bottom end Bearing lower half cracked.                          | (124) To remetal & refit lower half H.P. bearing; & refit M.P. & L.P. bottom ends.  |
| (125) Valve Spindles, H.P., M.P. & L.P., scored in way of packing glands.  | (125) To skim up all three spindles in way of glands; & renew neck & gland bushes.  |
| (126) Quadrant brass.  | (126) To renew one slipper brass.   |
| (127) H.P., M.P. & L.P. Cross-heads, pins mostly worn.                     | (127) (a) To remove H.P., M.P. & L.P. piston rods & skim up crosshead pins.<br>(b) To remetal & refit all crosshead pin bearings to suit new pin sizes. |
| (128) M.P. Piston rod scored.  | (128) To machine rod, & renew neck & gland bushes.  |
| (129) Weigh shaft bearing worn.  | (129) To remetal & refit bearing.   |
| (130) Main stop valve.   | (130) To machine & overhaul.  |
| (131) Valve Gear.  | (131) To overhaul & adjust all valve gear.  |
| (132) Link Gear.   | (132) To renew four G.M. bearings & remetal guide bush.   |
| (133) M.E. Feed Ram Pumps.   | (133) To machine both rams & renew their neck & gland bushes; & to test for truth.  |
| (134) M.E. Sanitary Pumps.   | (134) To re-bore chamber, make & fit new bucket, renew neck & gland bushes; & renew suct. & disch. valve chests.  |
| (135) Air Pump.  | (135) To machine valves.  |

Auxiliaries, Etc. : -(136) Fan Engines (2 in No.):

- (136) To renew both piston valves & piston rings; skim piston rod & renew neck & gland bushes; & adjust all bearings.



S.S. "DAVIDA" - continuedPUMPRECOMMENDEDAppliances, Etc. :- Contd.....(137) Main Circulating Pump & Engine.

- (137) (a) To re-bore L.P. cyls. & renew H.P. & L.P. piston rings.  
 (b) To machine piston & valve rods & renew neck & gland bushes.  
 (c) To re-bed L.P. slide valve.  
 (d) To lift crankshaft for exam. of bearings & adjust latter & all other bearings.  
 (e) To machine inlet & exhaust valves.  
 (f) To fit spare impeller shaft & supply spare.  
 (g) To machine impeller landing in way of sealing rings & renew latter & the lignum vitae bushes.

(138) S.S. Pump (Duplex) .

- (138) (a) To refit D valves, machine valve spindles & renew neck & gland bushes.  
 (b) To renew all links & pins of valve gear, & piston rings.  
 (c) To re-bore water and cyls. & fit bushes to same.

(139) Ford. Feed Pump.

- (139) (a) To overhaul valve gear & renew pins & bushes.  
 (b) To re-bore water cyl. & renew bucket & rings & piston rings.

(140) After Feed Pump.

- (140) To re-bore shuttle valve chamber & make new shuttle & bore out end caps to suit; & in addition carry out the recommendations as for the ford feed pump, given above.

(141) Sanitary & Fire Pump (Duplex).

- (141) (a) To re-bore water and cylinders & renew buckets & rings.  
 (b) To renew one bucket rod & skin the other & renew neck & gland bushes for the latter.  
 (c) To machine both valve rods & round their neck & gland bushes.  
 (d) To reface both slide valves, overhaul valve gear, & renew pins & bushes as necessary, & renew piston rings.



S.S. "BANDRA" - continuedFOUNDRECOMMENDED

- |   |   |
|---|---|
| (142) <u>30 K.W. Steam Generator</u>  | (142) (a) To lift crankshaft & remetal main & pedestal bearings.<br>(b) To overhaul governor & renew link pins & bushes.<br>(c) To adjust all bearings & renew H.P. & L.P. piston rings.  |
| (143) <u>5KW. Steam Generator</u>   | (143) To renew governor & piston rings.   |
| (144) <u>Steering Gear Engine.</u><br>(all opened up).  | (144) To skim piston rod & renew neck & gland bushes & piston rings.  |
| (145) <u>Bridge Telemotor</u> ram slack; & trouble reported with telemotor piping during recent trip in cold weather. | (145) (a) To renew ram & overhaul bridge telemotor.<br>(b) To clean out, anneal, test & replace telemotor piping throughout.<br>(c) To renew charging tank; & recharge system on completion.  |
| (146) <u>Windlass</u> opened up for survey.   | (146) (a) To renew main pinion, one ecc. sheave, control valve pins & bushes, & slide valve pins & bushes.<br>(b) To overhaul hand gear & refit slide valves.<br>(c) To machine guide rods & renew bushes, & renew two crosshead pins & bushes. |
| (147) <u>Pumping Arrangements:</u>  | (147) To open up valves, cocks, pipes & strainers for exam.   |
| (148) <u>Main Steam Pipes</u> ( & Aux. steam pipes above 3" dia.).  | (148) To test.  |
| (149) <u>Main Feed Pipes.</u>   | (149) To test & copper pipes to anneal before testing.  |
| (150) <u>Ford Deck Steam Line.</u>  | (150) To anneal & test.   |
| (151) <u>Feed Heater.</u>   | (151) To overhaul control valve.  |
| (152) <u>Tailshaft</u> now drawn in for exam.   | (152) (a) To skim continuous liner lightly in lathe in way of ford gland.<br>(b) To repack stern gland.   |
| (153) <u>Stern Tube Bush.</u>   | (153) To re-wood lignum vitae bush (wear down 5/16").   |
| (154) <u>Sea Cock &amp; Valves</u> all now opened up for exam.  | (154) To renew all grating lugs, & aux. condenser overbd. discharge valve.  |
| (155) <u>Stern Valves.</u>  | (155) To open up for survey & overhaul.   |



S.S. "BANDRA" - continuedFOUND

- (156) Propeller M.B. 4 bladed built up type:

Tips fractured in places; leading edges all cut, ragged, with areas of about 2" x 8" missing in places.

Cement covering blade studs & nuts at bosses mostly broken away.

- (157) Spare Gear (Machinery).

RECOMMENDED

- (156) (a) To repair tips & leading edges of blades, voeing out cracks & stoppering same, & building up with welding & inserting fitted pieces at missing areas at edges.  
(b) To test for pitch.  
(c) To harden up all stud nuts & recover with cement.

- (157) To be checked.

BOILERS

- (158) Ford Port Boiler:

Port Wing furnace set down & bulged deeply at crowns; back tube plate slightly bulged into C C & bottom 5 rows of tubes shortened & opened up; & main stop valve chest fractured.

- (158) (a) To crop approx. one third of furnace at crowns for entire length, or completely renew furnace.  
(b) To renew longitudinal water space stay adjoining the bulged furnace.  
(c) To crop & part renew back tube plate between 5th & 6th rows of tubes  
(d) To renew 6 rows of tubes & the screwed stays in way.  
(e) To remove water gauge column & pipes for full exam. & renew 3 gauge cock plugs.  
(f) To renew gauge cock.  
(g) To renew main stop valve chest in cast steel or bronze.  
(h) To gauge S. wing & cr. furnaces for circularity.  
(j) To further exam. front end plate below centre furnace at the turn of the plate to circumferential flange.

- (159) After Port Boiler pitted at crowns & at Gaurley necks; main stop valve chest cracked at edge of stiffening web piece.

- (159) (a) To build up pitting at all three furnace crowns by S.W.  
(b) To renew 11 tubes & 8 C C back screwed stays.  
(c) To renew 3 w.g. cock plugs; gauge cock, & main stop drain cock.  
(d) To remove main stop valve chest for full exam. & hydraulic test.



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S.S. "BANDRA" - continuedFOUNDRECOMMENDED

(159) Contd.....

- (159) (e) To vee out & build up with S.W. the grooving at bottom seam of Gaurley necks of all 3 furnaces.  
 (f) To renew main check valve lid & spindle.  
 (g) To drill test furnace crowns.

(160) After Starbd Boiler.  
 pitted at crowns & along line of fire bars at cr. furnace; main stop valve chest cracked at edge of stiffening web piece.

- (160) (a) To build up pitting at P. & S. furnace crowns & the pitting at centre furnace along the line of fire bars by S.W.  
 (b) To renew 2 tubes in centre box.  
 (c) To renew 6 rivets at scarf of C C bottom wrapper plate.  
 (d) To renew 3 w.g. cock plugs; gauge cock & main stop drain cock.  
 (e) To remove main stop valve chest for full exms. & hydraulic test.  
 (f) To vee out star. cracking at back end plate in way of main stays & build up with S.W.  
 (g) To renew two end screwed stays at P. & S. ends of cr. C C, 4th row up, & the holes to be built up with S.W. & retapped.  
 (h) To drill test furnace crowns.

(161) Fore Stbd. (Donkey) Boiler  
 (Not in use).

Furnaces, C C plates, & tube plate heavily & extensively pitted & corroded on water side, with some grooving at the turn of furnace fronts.

- (161) To be dealt with if donkey boiler is to be again put to use.

(162) Electrical Installation.  
 Installation now megger tested; lighting circuits' insulation in poor condition. Generators-armatures, commutators, field coils, shafts & bearings not yet examined.

- (162) (a) To overhaul switchboard.  
 (b) To overhaul both generators' electrical ends.  
 (c) To renew lighting circuits throughout ship, as necessary, as well as renewing fittings.

(Signed) C. W. HONG  
 Surveyor to Lloyd's Register.



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