

COPY

"KINUGASA MARU"

Information received verbally from Owners Representative on 22/11/51 and enlarged upon subsequent to interview with the Chief Officer and Chief Engineer at this Office on 3/12/51, the Master being indisposed.

Vessel left Kasado Dock on September 12th 1951.

Vessel left Vancouver with 7543 tons of iron ore on October 10th 1951. 11/12 October, speed 10.8 Knots. Soundings taken and water found in No.1 Hold bilge. Investigation showed a port side shell plate fractured 6'-0" below the water line 2" forward of the heel of frame No.164, 14" in length. A cement box was built in way and the leakage temporarily stopped.

Vessel put into Port Adak for bunkers and repairs ~~at~~<sup>t</sup> the above defect. Three days after leaving Port Adak soundings in No.1 Hold bilge again showed water present. On investigation a starboard side shell plate was found to be fractured, 13'-0" below the water line, about 25" abaft the heel of frame No.158. A strong and extensive cement box was fitted spanning four adjacent frame spaces and the leakage temporarily stopped.

At midnight on November 9th soundings taken in No.2 Hold bilge showed the presence of water, and upon investigation half an hour later, hold frames Nos. 95 to 105 starboard side were found to be fractured in the locations indicated on the damage sketch attached hereto, the shell seams in way leaking considerably.

The bilge pump was at this time operating satisfactorily, and every effort to stem the leakage by the use of blankets etc were made. Efforts were also made to shore the defective frames from the centre line ~~g~~<sup>in</sup> stanchions. Soundings taken every 2 hours. At noon on November 12th it was found that another two frames had fractured, total then 14 frames, Nos. 93 to 106 inclusive, all as indicated on damage plan attached.

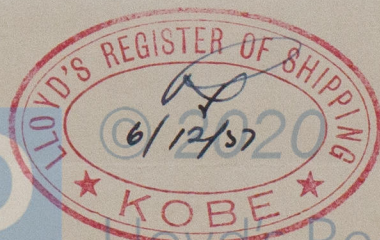
The shell plating bulged inboard and the volume of water entering the ship increased. The shell also fractured as indicated on damage plan attached. The beam ends were subsequently found fractured, also the tank side brackets all as indicated on the damage plan.

Small fractures were also noticed P & S in the Bridge Deck plating running athwartship and spanning the fore and aft girder just abaft frame No.94 and about 12" long.

On November 13th further effort was made to stay the damaged frames and shell by securing three derrick booms horizontally across the frames, and chocking off from (a) the centre line stanchions and (b) hatch boards partially buried in the iron ore cargo.

On November 14th typhoon struck the vessel.

On November 17th typhoon passed, and upon investigation frame No.107 & 108 were found to be fractured as per damage plan attached. The bilges were at this time found to contain 3'-7" of water, increasing. The bilge pump efficiency was found to be decreasing, presumably due to fouling of the strum box, ultimately becoming useless. The ship commenced to settle and on November 19th at 19.30 hours, she sank, Lat.32.9 Long.168.35. All personnel were removed prior to the vessels disappearance.



Lloyd's Register  
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W1085-0040 1/2

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NOTES

- (1) No sign of cargo shifting was apparent at anytime in any space.
- (2) Shifting boards were fitted fore and aft clear of hatch opening only.
- (3) The fractures as seen and described by the Chief Officer of both shell plating and frames were of a brittle character showing no evidence of pre-failure elongation. *begin of material?*
- (4) Loading diagram attached.
- (5) Capacity plan which incorporates the only hydrostatic information available viz:- a deadweight scale attached.
- (6) Damage plans attached.
- (7) Air and sea temperatures stated 1°C
- (8) Wind force stated 12
- (9) Sea and wind direction in relation to ship head, over starboard bow.
- (10) Position and course as per log extract to follow. List estimated at 2<sup>00</sup>P.
- (11) The frame fractures occurred in each case in way of a spar ceiling cleat bolt hole in the channel frame web. No holes in the outside flanges of the frames. No severe wastage in the frames was seen by the Chief Officer.

