

INVESTIGATION INTO EXCESSIVE LIVESTOCK MORTALITY

MV KALYMNIAN EXPRESS

Voyage 07/99, 6th December 1999

To 17th December 1999



Attachment 11

AQIS report on the Kalymnian Express dated January 2000

Report on cattle mortalities resulting from the voyage of the MV Kalymnian Express from Geraldton to Cilacap 6-18 December 1999.

On The 10th Jan 2000 in the company of AMSA Marine Surveyors Doug Robinson (Darwin), Mike Harding (Woolongong) and Alex Schultz-Altman (Canberra) I visited the offices of Skonis Shipping, the owners of the vessel. After some preliminary discussions with Chris Skonis and other company officials I accompanied the former 2 surveyors on an inspection visit to the vessel moored at the mouth of Hudson Creek. Based upon this inspection, my previous experience with this particular vessel (which is considerable) and an analysis of the various reports from the ship, ship's stockman, Mr Pat Davidge, and the cattle exporter Mr Sid Parker of South East Asian Livestock Services. (S.E.A.L.S.) I present the following findings:

Inspection of ship 10th Jan2000.

1. Structural damage to livestock areas; Inspection was unremarkable in so far as evidence of structural damage to pens and pen gates. The Captain had verbally informed us of this. I was quite surprised especially regarding the pen gates as their attachment to the fixed posts of the pens does appear to be not particularly strong. I had envisaged that a heavy animal flung against such gates would have damaged the hinge and gate but no evidence of this was found.
2. The ventilation system was switched on prior to inspection. It appeared to be working as normal. There are several areas within the livestock areas, particularly on decks B1, B2 and MAIN where there appears to be less than satisfactory airflow for tropical running. The vessel has in the main carried tropical origin cattle and no reports of ventilation problems during her voyages have been reported. Looking at the masters report and the summary of the heat loads recorded I would have expected that *Bos taurus* cattle ex Geraldton would have found it very stressful in any area of the ship where airflow was not available. The stockman had not mentioned cattle 'tonguing' in his report, however, considering the gravity of his other problems at the time he may have overlooked this, even if it was occurring. AMSA has requested that the ventilation system be officially tested.
3. The 'Kalymnian Express' has a fair number of pens with fixed objects within the pen boundary likely to come into contact with cattle during rough sea conditions. These fixed objects vary in potential for injury according to their surface area. There are many pens on the vessel where the hull of the vessel acts as one side of a pan and exposes cattle therein to the hull ribs which present a surface to stock about one half to a third the diameter of a standard cattle rail. The majority of affected pens are down below arid therefore cattle therein would not have been subjected to the level of movement as suffered on the upper decks. Accordingly the mortalities were largely on the upper decks and the fixed objects within pens did not seem to have much effect in the short term at least.
4. B 1 deck in the centre pens has particularly dangerous leg traps at the pen boundary where there is nothing to prevent an animals leg being trapped and broken, These areas were noted by the AMSA Surveyors and corrective action requested.

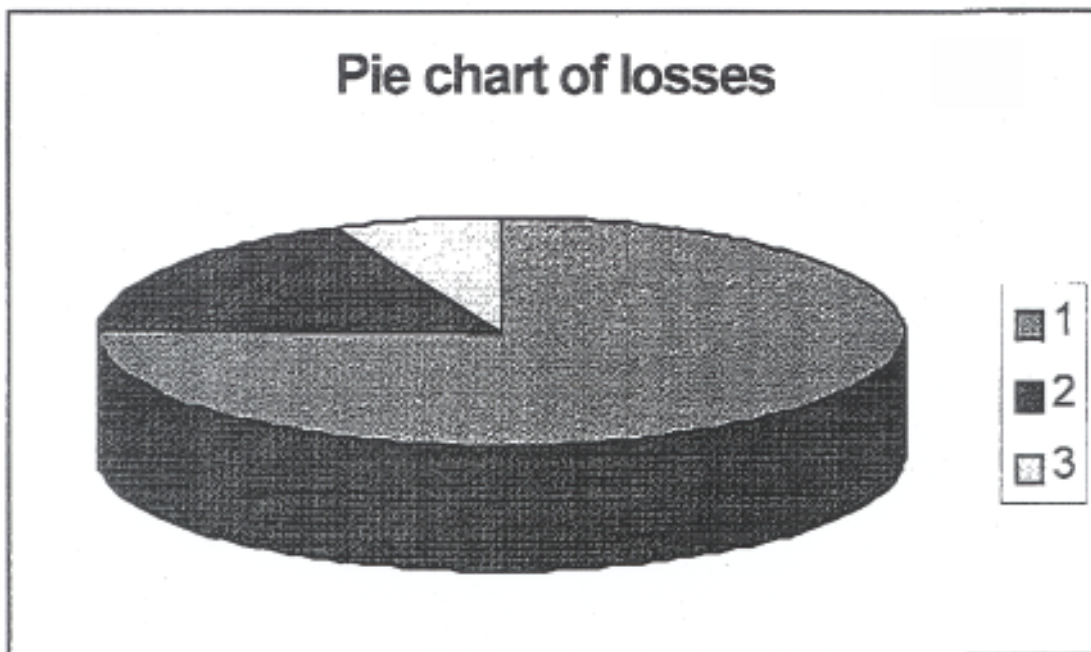
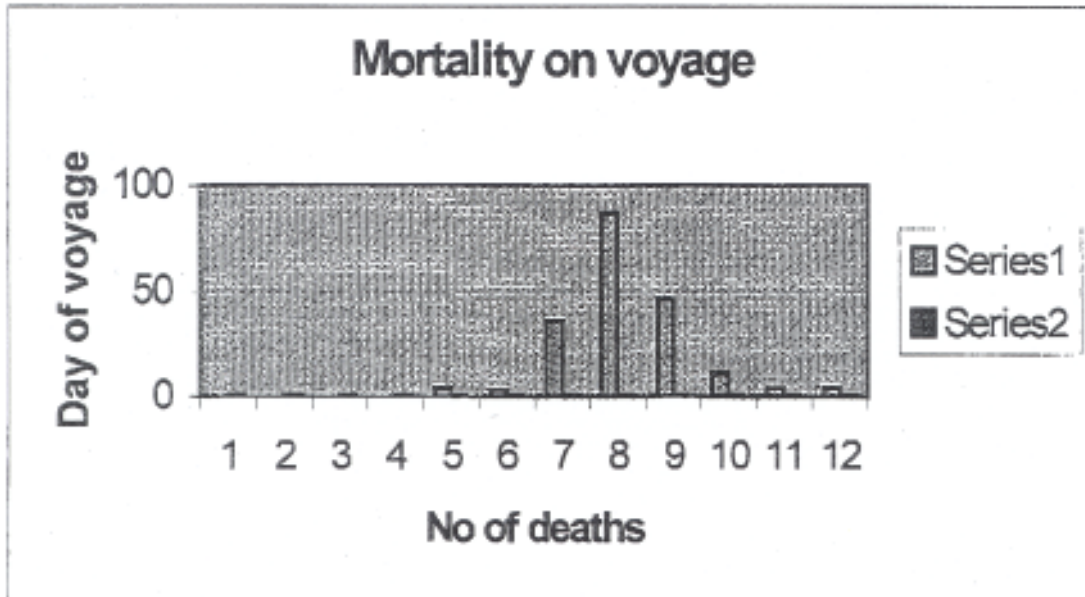
Analysis of pattern of losses.

195 head died from the 6th day of the voyage until arrival at the port of discharge. The highest losses occurring at and for 2 days after an extended engine breakdown, The engine was reported to be stopped from 2040 until 2300 7Dec and again 1543 12Dec until 1920 13/12. Ships speed was reduced after the second breakdown from av 9 knots to approx 1.5 knots. Reported ship stability conditions from the time of the first losses varies from rolling moderately to rolling heavily as reported in the masters report with entries in the ship's log suggesting pitching as well. Pat Davidge reported that when the engine was stopped the ship was rolling to 30degrees and the crew feared for their lives. Prior to the breakdown he reported that the cattle had travelled well in spite of the deterioration in the weather and with the ship pitching and, rolling considerably. One may conclude from his reports that if the engine had not broken down the losses to the livestock cargo would have been very much reduced.

The pattern of losses suggests acute trauma as the main reason for the losses at sea. The further loss of 24 head of rejects destroyed at discharge on the 13th day and 82 head of animals destroyed at the quarantine yard in Indonesia up until the 15th day would in all probability be also due to this episode of trauma on the ship combined with decompensating stress overload syndrome. This is characterised by cellulitis (grossly swollen body areas especially limbs) and consequent septicaemia from infected

Attachment 11 cont'd

wounds even of a quite trivial nature. It is caused by extended periods of stress that results in a diminished immune status. The extended deprivation from water and feed, bruising, laceration, skin abrasions, foot traumas and ischaemic necrosis due to extended periods of recumbency are the main types of stress likely to have been suffered by the stock during this voyage. It would be expected that further cattle would have died after the 15th day being the 20th December.



1. Survivors up until 20th December.
2. Mortalities on ship.
3. Mortalities on and after discharge until 20 Dec.

Attachment 11 cont'd

The deck and pen pattern of losses are again largely consistent with the trauma of a pitching and rolling vessel with the higher rates of trauma evident on the upper decks where vessel movements and consequent acceleration and deceleration forces would be greatest. Two areas where this was not consistent were:

1. Tween deck B1 port side pens
2. Main deck middle starboard side and centre pens.

Class of stock carried in each particular pen, design or configuration of pens or other factors considered could not readily explain the reasons for the increased mortality in these particular areas. The Marine Surveyors and I were not confident of the ventilation efficiency in these areas. Poor ventilation may have exacerbated losses in these two areas.

The untimely loss of the engine was certainly the main contributing factor to this tragedy. There was little the crew could do under the circumstances to alleviate the suffering of the animals that were flung back and forth with the pitching and rolling of a vessel at the mercy of wind and water.



Dennis Thomson BVSc
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Appendices: 1. Masters Report. 2. Stockman's report. 3. Exporter's report. 4. Load Plan.

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