VALE COMMENT ON IO 109 Rahmeh (Gulf Livestock 1) Portland to China April 2019.

IO SUMMARY: The name of the vessel was changed en route, from MV Rahmeh to MV Gulf Livestock 1.

Loading

IO SUMMARY: The vessel was not was loaded to full capacity

Personnel

IO SUMMARY: AAV present.

Feed and water

IO SUMMARY: The feed and water systems worked without fault, water troughs were cleaned out twice daily and the round-lipped feed bins stayed on the square rails with the addition of a simple bolt and washer.

Ventilation

IO SUMMARY: Throughout the voyage, the environmental conditions varied widely from cool conditions on departure from Portland (around 17° C dry bulb), to warm and humid conditions around the equator $(30^{\circ}\text{C} - 33^{\circ}\text{C})$ dry bulb with 80 - 85% humidity), to very cold conditions $(10^{\circ}\text{C} - 14^{\circ}\text{C})$ dry bulb) on arrival in China.

VALE COMMENT: extreme temperature not uncommon on these voyages from Portland to China

IO SUMMARY: Daily temperatures were recorded with wet and dry bulb thermometers on each deck. The observer found a number of wet bulb thermometers had not been aligned correctly giving inaccurate readings. A thermometer was replaced following a request from the observer. VALE COMMENT: and if there had not been an IO on board we would never have known – but now they are scrapping them.

IO SUMMARY: The hottest areas on the vessel were adjacent to the engine room on Deck 2 and all of Deck 4. The below deck ventilation (supply and exhaust fans) on Decks 1, 2 and 3 functioned well except for two pens adjacent to the engine room on Deck 2.

IO SUMMARY: Livestock on Deck 4 were observed with increased respiratory rates during the warmer periods of the voyage. A number of measures were implemented to reduce the adverse impact of the warmer conditions on Deck 4 including installing additional fans, placing three additional air ducts directing airflow to specific pens, reducing livestock numbers, implementing a different feeding regime on this deck and moving bulky feed and bedding stores from passageways to increase air flow. The observer noted these processes assisted to resolve the increased respiratory rate. VALE COMMENT: some heat stress present.

IO SUMMARY: Open Decks 5 - 8 had temperatures around 3°C cooler than enclosed deck temperatures during the warmer part of the voyage.

VALE COMMENT: as expected – no doubt cooler when the cold temps hit in China

IO SUMMARY: The vessel encountered higher winds than expected off the coast of North Queensland and the New Hebrides which assisted in keeping the temperature milder than normal. VALE COMMENT: lucky to avoid worse heat stress.

Pen conditions

IO SUMMARY: When the pad condition of some pens near the engine room on Deck 2 was found to deteriorate, the stockperson responded by manually cleaning out these pens and applying additional sawdust. Deck 4 had a liquid pad observed on a number of occasions. Deck 4 received three washes during the voyage on the 19, 22 and 25 April 2019 and had additional sawdust applied to the pens. These measures improved the pad condition and there were no impacts on animal welfare. VALE COMMENT: Deck 4 was the hottest pens and the pad likely reflected heat stress or sea water inundation.

IO SUMMARY: Sea water inundation occurred affecting Deck 4 and 5 during rough weather. Crew responded by removing the water and an application of sawdust to manage the pen conditions. VALE COMMENT: unavoidable on sea voyages.

Representative photographs of the voyage

VALE COMMENT: Numerous Friesians in very light body condition