VALE COMMENT ON IO 183 GALLOWAY EXPRESS FREMANTLE TO CHINA AUG 2019

Loading
IO SUMMARY: Overall, the vessel was not loaded to full capacity with approximately 500m2 spare pen area when compared with the *Australian Standards for the Export of Livestock 2011 (version 2.3) (*ASEL*)* minimum requirements.
VALE SUMMARY: likely breeder cattle.

Personnel
VALE COMMENT: AAV present which is unusual on voyages to China.

Ventilation
IO SUMMARY: The vessel had 5 enclosed decks....The hatches on Deck 5 were left open for the entire voyage to aid ventilation.
VALE SUMMARY: even that failed to avert heat stress

IO SUMMARY: The ventilation system functioned consistently however, high equatorial temperatures were experienced for much of the day and night, providing little or no period of respite for the cattle.
VALE SUMMARY: voyage with severe heat stress

IO SUMMARY: Temperatures were recorded at around 9:30am daily on each deck using a whirling hygrometer. The observer noted that the temperatures recorded at 9:30am were not the hottest part of the day.
VALE COMMENT: this is standard in nearly all IO reports so why does the Govt not act to get a record of representative temperatures.

IO SUMMARY: The daily deck temperatures recorded in the daily report around the equatorial region when the signs of heat stress were observed were 30 - 33°C dry bulb, 27 – 28°C wet bulb and 72 – 78% humidity.
VALE COMMENT: The WBT were obviously higher than recorded given the IO comments. Heat stress not surprising in winter acclimatised southern *Bos taurus* cattle.

Health and Welfare
IO SUMMARY: Approximately 8 cattle were treated for lameness during the voyage.
There were fourteen mortalities during the voyage. The AAV attributed 5 mortalities to heat stress, 4 mortalities were due to enterotoxaemia and pneumonia, 3 mortalities were due to undetermined causes and 2 animals were euthanased.
VALE COMMENT: heat stress deaths occurred

IO SUMMARY: On day 6, the vessel stopped for engine repairs between 11:30am and 5:48pm. Livestock services including the ventilation system were maintained. However, the walls and sundeck were being heated by direct sunlight as there was an absence of any cloud cover in the equatorial region with no cooling effect from normal travel movement. The AAV noted that heat from the engine room contributed to the hot areas on the vessel.
VALE COMMENT: mechanical breakdowns are an unavaoidable risk of live export by sea.

IO SUMMARY: There were five mortalities cause by heat stress between days 6 and 8. High temperatures negatively impacted the health and welfare of other animals on the vessel. The observer noted 25% of livestock were affected by heat stress on Deck 4, hold 3 on days 6 – 8. The

signs of heat stress included increased respiratory rate, necks extended, open mouth breathing, tongues protruding, cattle congregating usually under the best ventilated area, lethargic demeanour and suppressed appetite.
VALE COMMENT: voyage significantly affected by heat stress.

IO SUMMARY: Strategies were implemented to reduce the number of livestock affected by the heat including reducing the stocking densities of pens in hot spots of Deck 4, hold 3, ensuring ad lib access to clean cool water, washing the decks, spraying the vessel structure to reduce heat and minimise the disturbance of livestock.
VALE COMMENT: did the Dept reduce stocking density in the future in Deck 4 Hold 3 – unlikely.

Representative photographs:
Day 8 Cattle in pen – heat stress deck 4
VALE COMMENT: the reality of heat stress