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Trombley et al.

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(54) **TRAILER TARGET MONITORING SYSTEM AND METHOD**

(58) **Field of Classification Search**
CPC B62D 15/027; B62D 13/06; B62D 15/025; B60D 1/36

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See application file for complete search history.

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Lee, Young Jin et al., "A Development of Auto Alignment System Between Trailer and Freight Wagon Using Electronic Sensors for Intermodal Transportation," 978-1-4244-5226-2, copyrighted 2010 IEEE, pp. 1211-1215.

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(57) **ABSTRACT**

A vehicle trailer backup assist system and method includes a hitch angle detection apparatus and a target alignment controller. The target monitor controller processes images acquired of the trailer towed by a towing vehicle to assist with placement of a target on the trailer. The target monitor controller also monitors the target and provides feedback to the user as to proper positioning of the target on the trailer. A target move detection routine detects movement of a target by processing the pixels of the image to determine if a new trailer has been connected. Further, a trailer connection monitoring routine monitors for a changed trailer based on loss of the hitch angle or target for a predetermined time period.

(52) **U.S. Cl.**
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20 Claims, 19 Drawing Sheets

