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Seay et al.

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[54] CUSHIONING UNIT FAULT DETECTOR

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[57] ABSTRACT

A railcar cushioning device for absorbing impact between railcars is provided having a hydraulic cylinder containing hydraulic fluid. A piston locates within the cylinder and is movable relative to the cylinder between an extended position and a contracted position in response to draft and buff forces. First and second sensors are provided with the piston and cylinder for detecting movement of the piston and cylinder substantially between the contracted and extended positions. By means of a suitable logic circuit or microprocessor, the period of time that it takes for the piston and cylinder to move between the contracted and extended positions can be monitored to determine if the period of time is less than a preselected amount thus indicating that the cushioning unit has failed. A counter may also be provided to count the number of times that the cushioning unit has failed. After the number of failures reaches a selected number, an output may be provided by means or a readout display or transponder indicating that the cushioning unit has failed.

20 Claims, 8 Drawing Sheets

