

[54] **LIFT TRUCK CONTROL SYSTEMS**

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[57] **ABSTRACT**

A travel speed limiting control system for lift trucks, particularly of the "orderpicker" type, having an extendible mast, is disclosed. The truck travel speed which the operator can command is limited by factors including load weight, load elevation, heading angle and direction of truck travel (forward or reverse). Optionally, other factors may be involved, such as lateral tilt and load moment. An algorithm including the desired input factors is continually processed by an on-board microcomputer to provide an instantaneous speed limit signal. In addition to its normal operating mode, the microcomputer is also arranged to operate in a "learn" mode, whereby it runs through the ranges of various input signals and develops a set of stored values which indicate the allowable ranges of the inputs, as well as offset or bias values which compensate for manufacturing tolerances occurring in the components of the system.

**22 Claims, 9 Drawing Sheets**

