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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* VICTOR A. PLATH

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Appeal 2019-000154  
Application 14/731,073  
Technology Center 3600

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Before ROBERT E. NAPPI, ERIC S. FRAHM, and  
JOHN A. EVANS, *Administrative Patent Judges*.

EVANS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant<sup>1</sup> seeks our review under 35 U.S.C. § 134(a) of the Examiner’s final rejection of Claims 1, 3–16, 19, 23, and 24. Appeal Br. 2. Claims 2, 5, 17, and 24 are cancelled. Claims App.. We have jurisdiction under 35 U.S.C. § 6(b). We REVERSE.<sup>2</sup>

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Haldex Brake Products Corporation. Appeal Br. 2.

<sup>2</sup> Rather than reiterate the arguments of Appellant and the Examiner, we refer to the Appeal Brief (filed May 29, 2018, “Appeal Br.”), the Reply Brief (filed October 8, 2018, “Reply. Br.”), the Examiner’s Answer (mailed August 8, 2018, “Ans.”), the Final Action (mailed December 29, 2017, “Final Act.”), and the Specification (filed September 19, 2017, “Spec.”) for their respective details.

STATEMENT OF THE CASE

*Invention.*

The claims relate to a “control system for controlling the ride height of a vehicle.” *See* Abstract.

*Claims.*

Claims 1 and 15 are independent. Appeal Br. 2. An understanding of the invention can be derived from a reading of illustrative Claim 1 which is reproduced below:

1. An electronic suspension system for a vehicle comprising:

a sensor that senses a distance between a vehicle axle and a vehicle frame and generates a sensor signal indicating a vehicle ride height relative to a reference ride height;

a valve having an inlet port coupled to a source of pressurized fluid, an operating port coupled to a fluid bag positioned between the vehicle axle and the vehicle frame, and an exhaust port coupled to atmosphere;

a motor coupled to said valve for selectively actuating the valve between a fill position where the inlet port is fluidly coupled to the operating port, an exhaust position where the operating port is fluidly coupled to the exhaust port, and a neutral position where the respective ports are fluidly isolated from each other;

a suspension controller coupled to said sensor and receiving the sensor signal, said suspension controller coupled to said motor;

a master controller coupled to said suspension controller;

a plurality of inputs provided to said master controller, said plurality of inputs comprising:

a brake system signal generated by a brake system coupled to said master controller, said brake system signal selected from the group consisting of:

an Automatic Braking System (ABS) signal, an Electronic Braking System (EBS) signal and combinations thereof; and

a remotely entered ride-height setpoint;

said master controller processing each of the plurality of inputs for data to control the suspension system and transmitting a function/mode signal to said suspension controller based upon at least one of the plurality of inputs;

said suspension controller generating a control signal, the control signal generated based on the received sensor signal and function/mode signal transmitted from said master controller, wherein said control signal is sent to said motor to actuate the valve between the fill position, the exhaust position, and the neutral position.

#### REFERENCES AND REJECTIONS

*References.*

<b>Name</b>	<b>Publication Number</b>	<b>Date</b>
Daum	US 5,161,817	Nov. 10, 1992
Haviland	US 6,089,551	July 18, 2000
Bolt (“Bolt ’625”)	US 6,935,625 B2	Aug. 30, 2005
Rotz	US 2006/0170168 A1	Aug. 3, 2006
Bolt (“Bolt ’683”)	WO 02/096683 A1	May 23, 2002

*Rejections.*<sup>3</sup>

1. Claims 1, 3–16, and 19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bolt '683 and Bolt '625. Final Act. 2–7.
2. Claims 23 and 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bolt '683, Bolt '625, Haviland, and Rotz. Final Act. 7–9.
3. Claims 23 and 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bolt '683, Bolt '625, Daum, and Rotz.<sup>4</sup> Final Act. 14–9.

ANALYSIS

We have reviewed the rejections of Claims 1, 3–16, 19, 23, and 24 in light of Appellant's arguments that the Examiner erred. We are persuaded that Appellant identifies reversible error. We consider Appellant's arguments *seriatim*, as they are presented in the Appeal Brief, pages 5–11; and in the Reply Brief, pages 2–4.

CLAIMS 1, 3–16, 19, 23, AND 24:

OBVIOUSNESS OVER BOLT '683, BOLT '625, HAVILAND, ROTZ AND DAUM.

Appellant contends Bolt '683 fails to teach a brake system signal controlling a suspension system, and fails to teach a master controller which processes a plurality of data inputs to control the suspension system. Appeal Br. 7. Appellant argues Bolt '683 fails to teach a master controller using a brake system signal and a remotely entered ride-height setpoint signal to control the suspension system. *Id.* Appellant further argues Bolt '683 fails

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<sup>3</sup> The Application is being examined under the AIA first inventor to file provisions. Final Act. 2.

<sup>4</sup> This ground was not renewed in the Answer. *See* Ans. 3.

to teach the master controller sends a signal to the suspension controller to control a valve between the claimed fill, exhaust, and neutral positions. *Id.*

Appellant contends, contrary to the Examiner's findings, that Bolt '625 fails to complete the required teachings. *Id.* Appellant argues Bolt '625, in contrast to Bolt '683 and the claimed invention, is not an electronic system. Appeal Br. 7. Appellant argues Bolt '625 also fails to teach a master controller that accepts a plurality of data inputs to control a suspension system. *Id.* Appellant argues Bolt '625 merely teaches a restriction valve that restricts or severs fluid communication between a height control valve and an air spring. *Id.*

The Examiner finds:

base reference Bolt '683 clearly states that the 'master controller controls the operation of many of the vehicle operation features ... [it] is connected to multiple discrete controllers that control the operation of a particular operation feature, such as the suspension controller.' Bolt '683 further outputs 'a user selected function/mode data signal from the master controller 300 to the suspension controller 240, which the suspension controller 240 uses to determine its mode of operation.'

Ans. 3.

The Examiner finds base reference Bolt '638 includes electronics, a remotely-entered user ride-height set-point, and teaches the master controller transmits signals to the suspension controller. Ans. 5. The Examiner finds Bolt '638 teaches a master controller connected to multiple discrete sub-control systems (i.e., the master controller does not, itself, have to actuate the valves). *Id.* The Examiner finds Bolt '625 teaches various vehicle systems, including braking systems, may generate signals which may be evaluated to selectively actuate valves. Ans. 4. The Examiner finds these

signals, including braking signals, “could affect the ride/vehicle stability.”

Ans. 5. The Examiner further finds:

Bolt '683 clearly discloses the master controller as a hub connected to multiple discrete controllers, which the ABS system is and the traction control system clearly would be, as such the master controller of Bolt '683 would be the hub that relays the pertinent signals at the appropriate times to the suspension controller, thusly reducing bus overhead in the system by having the master controller relay pertinent signals rather than having the suspension controller read all other subsystem controllers for signals that may or may not be pertinent.

Ans. 5.

The Examiner’s findings re-design each Bolt reference. Appellant argues Bolt '683 fails to teach a master controller using a brake system signal and a remotely entered ride-height set-point signal to control the suspension system. Appeal Br. 7. The Examiner finds Bolt '683 discloses “a master controller (300) coupled to the suspension controller” and “a plurality of inputs provided to the master controller, said plurality of inputs comprising: a fluid signal [] via 314” Final Act. 3 (citing Bolt '683, Fig. 14, ¶ 75). Contrary to the Examiner’s findings, Bolt '683 discloses: “input connection 314 preferably provides the master controller 300 with height data, mode data, and/or air data from the suspension controller 240.” Bolt '683, ¶ 75. We fail to find where Bolt '683 teaches an input from a braking system to a master controller. Similarly, the Examiner finds Bolt '625 teaches a brake system signal. Final Act. 6 (citing Bolt '625, referring to Fig. 2, numeral 21). Contrary to the Examiner’s findings, brake system signal 21 is sent from a braking subsystem to an air restriction valve, but there is no indication that the signal is input to a master controller. *See* Bolt '625. Contrary to the Examiner’s findings, we find the prior art fails to

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teach “a plurality of inputs provided to said master controller, said plurality of inputs comprising: a brake system signal generated by a brake system,” as recited in independent Claim 1 and as commensurately recited in independent Claim 15.

The Examiner applies Bolt ’683 and Bolt ’625, but not the remaining art, to teach this disputed limitation. *See* Ans. 3–7. In view of the foregoing, we decline to sustain the rejection of Claims 1, 3–16, 19, 23, and 24 under 35 U.S.C. § 103.

#### CONCLUSION<sup>5</sup>

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 3–16, 19, 23, 24	103	Bolt ’683, Bolt ’625		1, 3–16, 19, 23, 24

REVERSED

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<sup>5</sup> Because we do not sustain the Examiner’s rejection for the reasons discussed herein, we need not address Appellant’s further arguments. *See Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) (finding an administrative agency is at liberty to reach a decision based on “a single dispositive issue”).