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BY EMAIL
lrlgartner@bigpond.com.au

Mr. Laurence R L. Gartner
SteelSafe Truck Immobilizer International Pty. Ltd.
15 Mourell Street
Sunshine West Vic. 3020

Dear Laurence,

Re: Bendix Patent Application: Implications for SteelSafe Truck Immobilizer International Pty. Ltd
Our Ref: 21837/GD

I refer to your email of 7 February 2013 regarding Knorr-Bremse's / Bendix patent and its potential implication on SteelSafe Truck Immobilizer International Pty. Ltd. ('SSTII'). I have obtained a copy of what I assume is the most relevant Bendix patent application which I enclose for your review. I also offer the following comments setting out my review of the Bendix patent application and the areas of differentiation that exist between that technology and the SSTII system.

International PCT Patent Publication No. WO 2013/012926

The attached patent application relates to a vehicle fleet management system and was filed in the name of Bendix Commercial Vehicle Systems LLC.

It should be noted that this application is a PCT application that was published on 24 January 2013 and has yet to be extended to any individual countries. The application claims priority from two earlier filed US applications, the earliest of which was filed on 27 July 2011.

The system described in the Bendix patent application is broadly a fleet management system whereby data is collected from individual drivers and vehicles at one or more central servers. The data is then analysed and processed to track vehicles and relevant driver behaviours as required. By analysing the data collected, variations in driver behaviour can be identified and appropriate action taken to avoid accidents and undesirable events from occurring. Fundamental to the effective operation of the system is the provision of a data collection module in each vehicle that includes a controller or

processor in communication with the engine control unit (ECU) of the vehicle. The controller is able to control the vehicle through the vehicle's ECU to perform a variety of functions, depending upon the sensed condition of operation.

As is relevant to the SSTII system, the system described in the Bendix patent application provides a means for controlling the brakes of a vehicle to bring a vehicle to a stop. This is typically achieved by the controller of the data collection module receiving a control signal, either remotely or via an in-vehicle sensor, to intervene in the operation of the vehicle. In a tractor/trailer situation the controller may send a signal to the vehicle ECU to engage the brakes on one or more of the tractor and/or trailer wheels, to bring the vehicle to a stop, The corrective action is then reported to a remote server.

Fundamental to this system is the ability of the controller to control the vehicle but only through the vehicle's ECU.

A problem with this system, as I understand it, is that a vehicle's ECU can be readily programmed to bypass appropriate tasks. This is commonly done to bypass or override a speed regulator or governor in trucks, whereby the vehicle's ECU is simply hooked up to a computer and reprogrammed where appropriate. Hence, whilst the Bendix system referred to here is able to offer a simple braking system that utilises the vehicle's ECU, by providing such a "simple programming task" the system can be simply overridden and bypassed, resulting in a system that is ineffective against vehicle theft.

SSTII System – International PCT Patent Publication No. WO 2012/097400

The SSTII system which is the basis of the above referenced patent application operates independently of the vehicle ECU and offers an antitheft system that cannot be simply bypassed in a manner that many vehicle speed regulators can. This is achieved by the SSTII system having its own control unit capable of receiving unique control signals either remotely or via a key fob arrangement. In the event of an unauthorized event, such as an incorrect start sequence or initiation of the SSTII system, even if the vehicle's ECU is able to start-up, the SSTII system will lock the brakes accordingly thereby preventing movement of the vehicle until appropriate authorization is obtained.

Such a system as disclosed in the present application offers increased fleet security and prevents tampering of the vehicles. It is clear that where a system relies upon utilization of the vehicle ECU to control the operation of the vehicle, there will always be the ability to tamper with the vehicle as the ECU is an important communication device that enables the functionality of the vehicle to be interrogated and controlled where appropriate. It is only when the control system is capable of operating independently of the ECU can a vehicle become truly tamper-proof.

Hence, we maintain that it is this feature of the present invention which provides a clear point of distinction from the Bendix system and other similar programmable systems available.

In conclusion

There are a variety of fleet management systems that are directed to collecting data from fleet vehicles and drivers to manage such aspects as driver fatigue and safety. Typically these systems utilize the ECU of the vehicle as it is the vehicle control system that senses and records various vehicle conditions. However, the vehicle ECU is a programmable device that is capable of being hooked up to a computer to diagnose problems and to vary control parameters of the vehicle. Hence, the ECU is traditionally prone to tampering and can be simply programmed to bypass security functions where desired.

Thus, the SSTII system of the pending PCT patent application is directed towards an anti-theft vehicle immobilizing system that functions independently of the vehicle ECU. The SSTII system functions to immobilize the vehicle by activating the vehicle brakes, even in the event that the vehicle ECU is operational.

We trust that the above comments provide you with our understanding of the main differences between the present application and that of the Bendix system.

Yours sincerely,

GAVIN DOHERTY
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