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OOSC, Part II, Section 1. a. Defective Brakes, (7) Hydraulic and Electric Brakes

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Closed

Vehicle Committee

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SUMMARY OF ISSUE

Currently when conducting a Level one inspection on power units towing a trailer with electric brakes it is assumed that the braking system works on the trailer. This is more apparent for vehicles that are equipped with brake controllers. The following is an article that was written concerning brake controllers.

Trailer brake controllers are an essential piece of safety equipment, and as the name implies, they control a trailer's electric brakes. Without one, the towing vehicle's brakes must stop all of the weight and momentum of both vehicle and trailer. That can result in far longer stopping distances and heat-damaged brakes at best, or a collision at worst.

A good trailer brake controller not only activates the trailer's brakes smoothly when the driver steps on the brake pedal up front, but it also keeps the wheels rolling smoothly when it's time to back the rig into a campsite or parking space. It can also alert the driver to any failures in the electronic chain that links the trailer to the towing vehicle or the trailer brakes themselves.

https://www.forbes.com/wheels/accessories/best-trailer-brake-controllers/

JUSTIFICATION OR NEED

Without vehicles equipped with a brake controller on a trailer equipped with an electrically braking system, there is no way for the trailer brakes to work as intended from the manufacturers because it does not receive an electrical signal in order to operate the brakes.

REQUEST FOR ACTION

If trailers are manufactured with electric brakes an electric brake controller is needed in order to send the signal to the trailer. One simply way to test to make sure the controller is working is by placing the vehicle in drive and stopping the vehicle with the manual portion of the brake controller whereby the trailer receives 100% braking power.

If it does not stop the vehicle then its apparent that the trailer does not have any brakes and therefore would fall above the 20% braking requirement to be placed out of service.

ACTION TAKEN BY COMMITTEE

The discussion in the committee was that if they were to do anything with it, the absence of a controller would need to be under 396.3a1 and placed OOS. However, while the committee was in agreement that it’s recommended to have an external brake controller in place to test the brakes, the regulations do not require a brake controller.

If the absence of the brake controller results in inoperative brakes, that is already covered in the regulation and OOSC. Brake industry experts in the meeting indicated that you cannot simply apply trailer brakes without a controller, the brakes on the trailer won't work.

However, if they did get them hooked up somehow (internal or built in controller) you would know because the trailer brakes would be on as soon as service brake was applied. There should be an indication of the brakes apply regardless of the application (eg. magnets energizing and contacting the drum, etc.)

The inspector would need to be able to articulate they were not working with our without a controller.