

**Submission  
No 1**

## **INQUIRY INTO HEAVY VEHICLE SAFETY AND USE OF TECHNOLOGY TO IMPROVE ROAD SAFETY**

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I have previously contacted the Stay Safe Committee via email with my views on the involvement of heavy vehicles in serious and fatal collisions. I did not receive a response or notification that my views were received. As I previously stated, I am a member of the New South Wales Police Force. My role is to conduct mechanical examinations on all types of vehicles involved in fatal and serious incidents/collisions. I have examined in excess of 450 vehicles including light and heavy vehicles. There are very few contributing mechanical faults or defects identified on vehicles involved in these collisions. However, I think there certain matters that can be improved to reduce potential mechanical failures and create safer roads. All comments expressed are my own and are in no way of a discriminating nature towards any person/s.

**Education:**

Drivers of heavy vehicles, (especially new drivers and drivers from other countries where driving conditions and rules are less stringent than in Australia) need to have a basic understanding of how service brakes; in particular air brakes operate on heavy vehicles.

For example, The Ontario Ministry of Transport requires all drivers of a vehicle fitted with an air brake system or an air-over-hydraulic brake system to have a Z endorsement on their driver's licence. To obtain this endorsement the driver must complete and pass an Air brake knowledge test.

Also, as part of the Ministry of Transportation air brake endorsement practical examination, the drivers of heavy vehicles are required to demonstrate an applied pushrod stroke measurement method for inspecting brake adjustment.

Pre-departure checks are conducted by drivers. How well are pre-departure inspections performed? The Heavy Vehicle Driver Handbook states the importance of a pre-departure check and an overview of a properly adjusted and maintained air brake system. However, the handbook does not go into detail on how a thorough brake inspection should be performed. It also states that it is both the responsibility of the driver and the owner/operator to ensure the vehicle is safe. So, how many truck drivers (and owner operators) actually know what they are checking and should other checks be performed? I believe the service brake stroke on the brake chambers should be inspected prior to departure and at various steep descents that have been identified by the authorities as high risk areas.

**Environment:**

Many of the heavy vehicle truck collisions occur on steep descents (Mona Vale Road, Warringah Road). I believe in America there are dedicated heavy vehicle stopping bays located prior to steep descents in high collision areas. The drivers are required to check the adjustment of the trucks brakes before entering the descent. The inspection is a visual inspection that can quickly be completed when the appropriate visual brake stroke indicators have been fitted. These indicators can be retro fitted to all eligible trucks. This has been suggested and recommended by the North American Brake Safety Conference. Simply put, the drivers stop the vehicles at dedicated stopping bays and check the vehicle's brakes before entering a steep decline. The inspection is also to be documented.

**Vehicles:**

All heavy vehicles should have an Anti-lock Braking System (ABS) and Electronic Brake System (EBS). All truck and trailer braking systems should be compatible. European countries identified the importance of heavy vehicle braking systems and acted on it. We need to follow their lead and implement changes. There are numerous incompatible truck and trailer combinations driving on our roads which can be unpredictable in an emergency. Australia has the capability to implement changes for the future as well as retro fitting older vehicles with advanced braking systems.

Regards,  
Peter Kleinig