Strategies for inherently safer heavy vehicles

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Abstract only

Previously identified and discussed key heavy vehicle (HV) accident signatures will first be briefly reviewed [1,2]. The statistical technique to identify these signatures will then be briefly outlined as will the fundamental system dynamic behaviour of air suspensions used on heavy vehicles (on both powered and un-powered axles). The congruence of these two vastly different approaches confirms the existence of the postulated air suspended heavy vehicle accident signatures. Unfortunately, recent ongoing investigations have identified further accident signature which are occurring with increasing frequency. Inversion of these accident signatures and understanding of the suspension behaviour allows identification of simple relatively low cost confident strategies to eliminate at least 7 out of 10 HV accidents. Such improvements will render the Australian road transport system the safest and most productive internationally and significantly reduce road trauma caused by the 7 out of 10 unnecessary and easy avoidable heavy vehicle road accidents. In summary this presentation will report findings from ongoing investigations to the initial findings presented at the ACRS Perth 2009 [2].

References

1] McLean, A.G., (2009), 'Suggested Heavy Vehicle Air Suspension Contribution to Fatal Accident Statistics and Signatures, 32nd ATRF, Auckland, NZ, 2009

2] McLean, A.G., (2009), 'Highway and Urban Speed Air Suspended Heavy Vehicle Accident Signatures', Proceedings Australian College of Road Safety Conference, Perth, November.