



# Automotive Safety Engineering Pty Ltd

ABN 88 066 476 051

Postal Address: PO Box 113, LONSDALE, SA, 5160.

Test Facility: 28 Donegal Road, LONSDALE, SA, 5160.

Mobile: 0417 845 711

Email: ase@intemode.on.net  
Web: www.autosafety.com.au



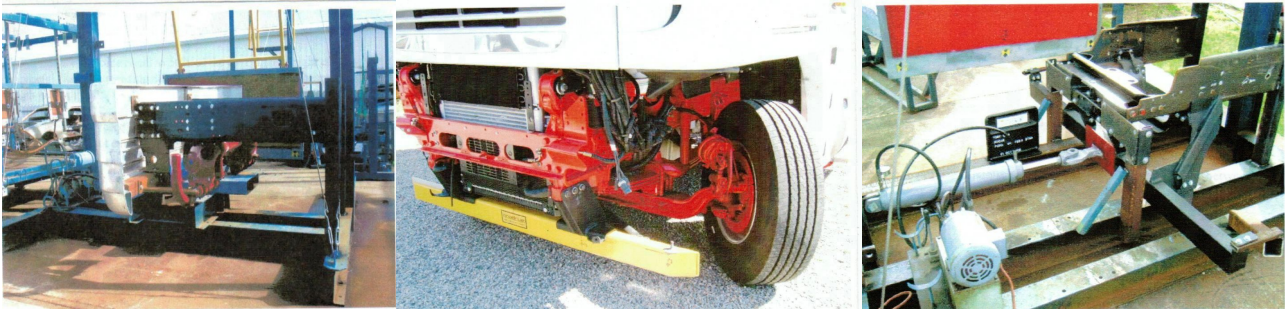
Phone: 08 8384 7863

Fax: 08 8384 3447

## TEST TO FRONT UNDERRUN PROTECTIVE SYSTEMS

Front underrun protective systems and devices are used on heavy vehicles. Their problem of compatibility with other road users is a serious issue. Trucks are stiff, heavy and high and pose a serious threat to occupants of other vehicles in the event of an impact. Frontal car-to-truck collisions are the most common impact type in crashes where trucks are involved.

All FUPD have to offer adequate resistance to forces applied parallel to the longitudinal axis of the vehicle and also satisfy certain dimensional requirements. It is okay for an FUPD to be designed so that its position on the car can be varied. If this is the case it is important that the system has secure methods so the systems position on the vehicle is not changed.



If a heavy vehicle have an energy-absorbing front, rear and side under-run protection it could reduce deaths in car by about 12%. In EU it is mandatory for vehicles over 3.5 tonnes to have a rigid front underrun protection system.

Studies have also shown that passenger cars can 'survive' a frontal truck collision with a speed of 75 km/h if the truck is equipped with an energy absorbing underrun protective system.

In order for a Front Underrun Protective System to be approved laboratory testing has to be carried out in accordance with the procedures described in UN ECE Regulation No. 93.

Tests also have to be carried out in by a test facility approved by the road agency (transport department).



***When the FUPD is tested ASE have the authority to certify it and clear it for further manufacturing. ASE will provide reports with data showing how the testing is done and information about the result.***