

In this issue we focus on the issue of Airbags

What are airbags?

Airbags are not a substitute for seat belts. Seat belts are still the most important protective measure for vehicle occupants. Together they work in conjunction with the vehicle structures as a safety-system to improve the chances of occupants surviving a high-speed crash. Vehicle occupants in airbag-equipped vehicles however should not fall into a false sense of security. It only takes a small increase in vehicle speed to reduce the benefits of airbags. For example it doesn't take much of a 'hit' to result in serious head and brain injury, the long term effects of which can involve mental and physical disabilities to the victims and emotional and financial trauma to their families.

In Australia - because of the high rate of seat belt usage compared to some other countries such as the US - airbags are designed as Supplementary Restraint Systems (SRS) *to be used in conjunction with seatbelts*. **Front airbags** protect the chest and head of the vehicle driver and front seat passenger. **Side (torso) airbags** protect the torso of the driver and front seat passenger from side impact. **Curtain airbags** protect the head of the driver and front and rear passengers from side impacts and intrusions into the vehicle.

Why airbags?

Front airbags: A five year evaluation undertaken by the Monash University Accident Research Centre (MUARC) for the Australian Transport Safety Bureau (ATSB) and released in 2001 - has shown that driver (front) airbags have significantly reduced the number of serious injuries (serious head, face neck and chest injuries) to motorists when combined with properly fastened seat belts. In economic terms, average injury costs were cut by nearly 40% among driver's in front airbag-equipped vehicles

Side airbags: Initial analyses of the efficacy of side airbags by American Insurance Institute of Highway Safety (IIHS) the suggest they have reduced deaths among passenger car drivers involved in driver-side collisions by about 45% when the side airbag included head protection (such as a **curtain style airbag** which also protects rear seat passengers), and by 11% when the side airbag was designed to protect only the chest.

Curtain Airbags are designed to protect the heads of front and rear occupants from intrusive side impacts
Some 30% of driver fatalities in Australia are a result of side impact crashes, of which 40% are impacts with poles

or trees. This analysis from Victorian police crash data shows that head protecting air bags such as curtain airbags have the potential to reduce fatalities and serious injuries by at least 10%. The reason side impacts into trees or poles are so dangerous is that there is virtually no crush-space in a cars structure to absorb the impact.

Australasian New Car Assessment Program (ANCAP) tests undertaken on pole crashes of 4WDs showed unequivocally, that an effective head protecting airbag is necessary to provide head protection in a sideways crash. ANCAP reported that similar tests in Europe and Japan supported the Australian results. These results also align with research conducted by the American Insurance Institute of Highway Safety (IIHS). The IIHS points out that the increasing number of high-riding vehicles such as 4WDs on the road (which is also a feature of Australian roads) increase this risk, making it more likely that the front end of a striking vehicle in a side impact will hit the heads of occupants in the struck vehicle.

ANCAP acknowledges that safety levels in new vehicles *has* significantly increased since ANCAP testing has been underway and Australia's large family cars are now mainly '4-star' vehicles. Yet curtain or head protecting air bags are normally only available on upper specification vehicles. Some manufacturers have made 'safety packs', which include front, side and head airbags, available across their full range including base models -as an optional extra. This is a commendable approach and should be adopted by all manufacturers.

SaferRoads would like to see "4-stars" as the minimum acceptable level of safety and ALL models of new cars sold in Australia regardless of country of manufacture include side and curtain airbags as a standard. *SaferRoads* strongly urges all fleet vehicle buyers to include these basic safety features in their vehicle purchasing policy or guidelines.

A comprehensive series of tests on all volume 4WDs available in Australia will shortly occur and the results released and posted on the ANCAP website www.aaa.asn.au/ancap by June 2005.

Coming Events

22-23 March Australian Road Federation
Australian Road Summit 2005 BRISBANE
ARF website is www.roads.org.au or ph (02) 8920 2547