

# TECHNICAL BULLETIN MISC 24

## SEATBELT CHECKLIST

APRIL 2010

Research commissioned in the 1990's by NRMA Insurance has led to the development of this seatbelt checklist to ensure correct seatbelt replacement during the repair process.

The research examined the effects of impacts on seatbelts and was carried out by the Roads and Traffic Authority of New South Wales through its Crash Engineering Section.

The aim of the study was to formulate a straight-forward policy on seatbelt replacement following impacts.

The following checklist incorporates recommendations made by the study team. This checklist should be referenced when making assessments on extensively damaged vehicles. Note that under no circumstances are second hand seatbelts to be fitted.



Examples of damaged webbing



### TONGUE AND BUCKLE ASSEMBLY

**ENGAGEMENT:** The tongue and buckle assemblies should securely latch every time.

**EJECTION:** The tongue should eject from the buckle assembly freely when it is released.

**TONGUE AND BUCKLE:** The tongue and buckle should have no metal deformation, webbing markings or cracks on the metal or plastic sections of the assemblies.

### RETRACTOR

**TILT MECHANISM:** The retractor mechanism should lock if the front of the car is jacked to an angle of approximately 25-30 degrees.

**INERTIA:** The inertia locking mechanism on the retractor should be operable throughout its range without any sticking or binding and should lock if the webbing is pulled out suddenly.

**WEBBING:** The seatbelt webbing must be securely attached to its end fittings and the stitching must not be damaged, frayed, torn or split in any way.

The webbing should be flat throughout its entire length. Any evidence of warping is a sign that the webbing has been stretched.

The webbing should not have any plastic burn markings caused by the webbing running over the anchorage point in the vicinity of the top anchorage or tongue sections.

**ANCHORAGES:** Anchorage points should be free from corrosion & securely fastened to the vehicles structure. Lower anchorage points should not show any sign of deformation.

Top anchorage should show no signs of webbing burn marks.

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