



IB-113B

Vehicle Safety and Standards Information Bulletin

Seat Belt Replacement



Seat belts save lives..... but only when they work properly.

Occasionally seat belts do fail.

Will your seat belt fail when you need it?

You should replace a seat belt if there is evidence:

- Of nicks on the webbing or other webbing damage
- Of excessive wear and tear which comes with age
- Of a malfunctioning buckle, retractor or fittings
- That a particular seat belt was in use during a crash.

If your vehicle is involved in a serious crash, you should consult with your car repairer as to whether to replace all seat belts that were occupied at the time.

Seat belts are essential for safety

Don't wait for an accident to occur before finding out that your seat belt needed replacing.

You should always replace the driver's seat belt vehicle after it has been involved in a serious crash. You should also replace any other occupied seat belt in the crashed vehicle. It should be appreciated that damage to webbing and mechanism is often invisible to the eye.

Vehicle owner's obligations

Vehicle owners have an obligation to ensure that all seat belts in their vehicle meet the requirements of the Australian Design Rules and other pertinent standards.

Malfunctioning and deteriorated seat belts do not meet these standards.

You should use the *Seat belt Safety Checklist* (below) on the back page of this publication to assist you in determining whether the seat belts in your vehicle are still fit for purpose.

A defective seat belt is contrary to the regulations and the vehicle may be issued with a compliance notice (yellow sticker) and the owner, with a fine.

Seat belts wear out

Seat belts should be checked at least annually as a matter of course.

In some cases, maintenance or replacement may be required.

A cut as small as 5 millimetres can reduce the performance of a seat belt significantly.

Besides the normal aging process, other causal factors can result in more rapid seat belt deterioration:

- Exposure to fine dust as found in the regional areas of the state or off-road environments
- Excessive exposure to solar radiation (particularly open top vehicles)
- Abnormal tensioning of seat belts continuously for long periods (such as when used for securing child restraints)
- Frequent fastening and unfastening of the seat belt (such as may occur in some delivery vehicles)
- Tampering or damage to the mechanisms by young children.

Seat belt replacement following vehicle a crash

Seat belts are important safety devices that are designed to work effectively only once. Therefore seat belts that were occupied in a significant crash must be replaced.

The webbing is designed to stretch without breaking in order to absorb deceleration forces in a crash. Once the webbing has been subjected to the forces resulting from a crash it is usually stretched permanently and loses its vital elasticity.

If used in a subsequent crash the webbing may not stretch as originally designed and thereby can cause serious injury by increasing the risk of chest, neck and back injuries to the occupant.

Besides the webbing, the retractor and buckle assemblies should not be relied upon to function correctly again after crash forces have been applied to them.

Some vehicles are fitted with “pretensioners” or Pyrotechnical Buckle Pretensioners. These pyrotechnic devices, which pull the seat belt tight at the time of a crash, can only function once and must then be replaced.

If a pyrotechnic device has fired then the seat belt stalk cover will be deformed and the buckle will sit low on the seat. The entire seat belt assembly must be replaced.

The depreciation factor

Obviously the main reason to replace a seat belt is so you can be assured it will protect you from harm in an accident. However, it can also make good sense to replace seat belts for cosmetic reasons.

Worn and damaged seat belts can decrease the value of your car. It is worth noting that seat belts can now be supplied in different webbing colours, and these can improve the aesthetic appeal of a vehicle to a potential purchaser.

Second hand seat belts

For many cars replacement seat belts are not overly expensive to purchase new and are readily available.

However for some vehicles and in some circumstances the correct seat belt may be difficult to source new, or the original manufacturer’s seat belt assembly may be very expensive. It is not illegal to use second hand seat belts in good condition to replace worn and damaged belts.

A seat belt that has been worn during a crash is not deemed to be in ‘good condition’ and must not be re-used.

Vehicle owners and car repairers should be aware that there can be disadvantages in using second hand seat belts:

- They may have missing essential parts
- They have no recognized warranty in relation to their safety performance

- They lack installation instructions, hence a correct installation may be difficult to achieve.

Motor vehicle auto parts recyclers

When you source a secondhand seat belt assembly from a Motor Vehicle Auto Parts Recycler, or anyone else wishing to sell a secondhand seat belt assembly, you should ask if they have checked the assembly and the associated components prior to the sale.

The business should be aware that any defective or faulty seat belt sold could involve it in litigation and therefore reasonable precautions should have been taken to reduce the risk to the business.

The Department of Transport (DoT) recommends that:

- The supplier should be aware of the seat belt's history (in relation to vehicle crashes)
- The assembly should comply with all items on the checklist over-page.

If a supplier finds that the seat belt fails any criteria, then the seat belt webbing should be cut through prior to discarding the whole assembly.

If a purchaser finds that the seat belt fails any criteria do not use it, please advise the DoT.

Related documents and links

- Seat belt repairers –organisations accepted to repair seat belts (Information Bulletin IB-110)
- Child restraint fitting stations (Information Bulletin IB-118)
- Seat belt repairers (Circular to Industry CI-109)

The above documents are available on the DoT's Licensing website www.transport.wa.gov.au/dvs

- Australian Design Rules are available on the Department of Infrastructure and Regional Development website (www.infrastructure.gov.au)

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Seat Belt Safety Checklist

Tongue and Buckle Assembly Pass/Fail

Check the engagement of tongue and buckle. The buckle and tongue assembly should securely latch together with no free play.



➤ The tongue should eject actively when released. (It should spring out.)



➤ There should be no visible cracks on the buckle and the buckle cover must be intact.



➤ The tongue should have no metal deformation, webbing marks, or visible cracks on metal or plastic sections.



Retractor Pass/Fail

Pull the belt out as far as it will go, and then release it. The belt should return all the way into the retractor without sticking, gripping or stalling.



The retractor should lock when the webbing is pulled out suddenly.

Webbing Pass/Fail

The webbing should be securely attached to its end fittings display no sign of stretching or pulled stitching.



The webbing should be flat throughout its entire length, with no fraying, nicks or tears.



There should be no burn marks, frayed stitching or any signs of rippling.



There should be no excessive fading of the webbing – over time exposure to harsh sunlight can considerably reduce the webbing strength.



Anchorage Pass/Fail

All anchorages should be free from corrosion and securely fastened to the vehicle structure.



There should be no signs of any deformation at the anchorage points.



If there are any failed criteria,
if there is any evidence that the seat belt was in use at the time of a substantial crash,
or if there is any doubt,
then the seat belt should be destroyed.

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