

# SEAT BELT, ANCHORAGE POINTS AND RESTRAINT SYSTEMS

## APPLICATION

This inspection applies to all motor vehicles exceeding 3500kgs GVW.

## PROCEDURE AND STANDARDS

### MOTOR VEHICLES (FIRST USED FROM 1 OCTOBER 1990)

These vehicles are required to be equipped with two belt anchorage's designed to hold securely in position on the vehicle, lap belts for the driver's seat and each forward-facing seat.

### MOTOR VEHICLES (FIRST USED FROM 1 SEPTEMBER 2002)

**These vehicles are required to be equipped with a three-point belt or a lap belt for the driver's seat and with respect to every other forward facing front seat with a three-point belt, lap belt or a disabled persons seat.**

Date of first use	Seat position	Type of belt
From 1 October 1990 to 31 August 2002	Driver's seat and each forward facing seat	No seat belts required. Inspection restricted to anchorage points
From 1 September 2002	Driver's seat	Three point belt or a lap belt
From 1 September 2002	Each other forward facing front seat	Three point belt, a lap belt or a disabled person's seat belt.

#### **Note:**

As far as is practicable without dismantling, check the condition of the vehicle structure around the seat belt anchorage points (ie, within 300mm of a seat belt anchorage). Floor-mounted anchorage points might need to be inspected from underneath the vehicle.

**Note:**

A harness belt may be used as an alternative to a three point or lap belt. The requirement for a buckle to lock with a single action does not apply to harness belts.

**CONDITION INSPECTION OF ALL SEAT BELTS FITTED**

As far as it is practicable without dismantling, check the condition of the vehicle structure around the seat anchorage point (i.e. within 300mm (12") of the anchorage). Where a seat belt is mounted to a seat frame this will apply to all seat mounting points. The floor-mounted anchorage points might need to be inspected from underneath the vehicle.

Pull each seat belt webbing against its anchorage to see that it is properly secured to the vehicle structure.

**Note:** For seats with integral seat belts, it might not be possible to examine the fixing of the seat belt to the seat.

Fasten each belt locking mechanism and then try to pull the locked section apart. On retracting seat belts, check that with the mechanism fastened and the seat unoccupied, excess webbing is wound into the retracting unit.

**Note:** Some types of retracting belts might need manual help before they retract. Operate the release mechanism while pulling on the belt to check that the mechanism releases as required.

Examine flexible buckle stalks for:

- a) Signs of corrosion or weakness. Pull the sheaths aside, if this can be done without damage.
- b) 'waggle' flexible buckles and listen for a clicking noise indicating broken strands of cable.

Examine the condition of all seat belts webbing for cleanliness, cuts or obvious signs of deterioration. Pay particular attention to webbing around anchorages, buckles and loops.

Examine the condition of the attachment fittings and adjusting on each belt.

Check the seats to which seat belts are attached for security and for cracks or fracture of the leg and frame.

**Note:** Some vehicles have seat belts which will not release the inertia aspect of the seat belt unless the ignition is switched on. Ensure the park brake is applied and the gears are in the neutral position before switching on the ignition. Owing to the height of cabs on many commercial vehicles this inspection should be performed with the inspector sat in the appropriate seat.

**Note:** Floor mounted anchorages may need to be inspected from underneath the vehicle.

## SUPPLEMENTAL RESTRAINT SYSTEMS

**This inspection applies to** Supplementary Restraint Systems (SRS) such as airbags, seat belt pretensioners and seat belt load limiters fitted as original equipment.

The SRS malfunction indicator lamp (MIL) may display a symbol similar to that shown below, or one depicting a person wearing a seat belt. Alternatively, the letters SRS or another symbol may be displayed.



**Note:** A passenger air bag which has been switched off is not a reason for failure

**Seat belt load limiters** are used on some vehicles to minimise seat belt inflicted injury in particularly violent collisions.

This is generally achieved by releasing a little more excess belt webbing when a great deal of force is applied to the belt.

The simplest type of load limiter is a fold sewn into the belt webbing. The stitches holding the fold in place are designed to come apart when a high amount of force is applied to the belt, thereby releasing an extra bit of webbing.

More advanced load limiters rely on a torsion bar in the retractor mechanism, which cannot usually be readily seen or tested.

**Seat belt pre-tensioners** may be fitted to some seat belts. Once activated a warning device may display.

1. As far as practicable, check that all driver and passenger airbags fitted as original equipment, are present and not obviously defective.
2. Check any Supplementary Restraint System (SRS) malfunction indicator lamp(s) (MIL) indicating a fault.
3. Check the presence and condition of any seat belt load limiters and/or pretensioners fitted as original equipment.

## REASONS FOR FAILURE

	Deficiency Category
1. Obligatory Seat Belt (see Table)	
a. Missing;	MAJOR
b. Of an incorrect type;	MAJOR
c. Is not a lap or lap and diagonal belt fixed at 3 points (vehicle first used from 1 April 1981);	MAJOR
d. Does not restrain the upper part of the body (vehicle first used before 1 April 1981).	MAJOR
2. Anchorages:	
a. With excessive corrosion, serious deterioration or a fracture in a load bearing member of the vehicle structure within 300 mm (12") of the anchorage. (Where a seat belt is attached to a seat frame this will apply to all seat mounting points);	MAJOR
b. With excessive corrosion, serious deterioration or a fracture in a load bearing member of the vehicle structure within 300 mm (12") of the anchorage. (Where a seat belt is attached to a seat frame this will apply to all seat mounting points) and is likely to detach	DANGEROUS
c. A seat belt not securely fixed to the seat or the vehicle structure;	MAJOR
d. Missing.	MAJOR
3. Locking Mechanism, Stalks, Retracting Mechanism and Fittings:	
a. Locking mechanism of a seat belt does not secure or release as intended;	MAJOR
b. An attachment or adjustment fitting fractured, badly deteriorated or not operating effectively;	MAJOR

- |   |   |           |
|---|---|-----------|
| c.  | Corrosion or deterioration of a flexible stalk likely to lead to failure under load;  | MAJOR     |
| d.  | Broken flexible stalk strands;  | MAJOR     |
| e.  | A retracting mechanism that does not retract the webbing sufficiently to remove all of the slack from the belt with the locking mechanism fastened and the seat unoccupied. | MAJOR     |
| <br>  |   |           |
| 4.  | Condition of Webbing:   |           |
| a.  | A cut which causes the fibres to separate;  | MAJOR     |
| b.  | Fluffing or fraying not sufficient to obstruct correct operation of the belt or which has not weakened the webbing;   | MINOR     |
| c.  | A cut or damage or fluffing or fraying sufficient to obstruct correct operation of the belt or which has clearly weakened the webbing;                                      | MAJOR     |
| d.  | Stitching badly frayed, insecure, incomplete or repaired.   | MAJOR     |
| <br>  |   |           |
| 5.  | Seat Belt Fittings:   |           |
| a.  | Any guide, stalk or pivot with obvious signs of structural weakness such that failure is likely.  | MAJOR     |
| <br>  |   |           |
| 6.  | Seat or seats to which seat belts are attached:   |           |
| a.  | Insecure;   | DANGEROUS |
| b.  | With a cracked or fractured leg or frame.   | MAJOR     |
| 7.  | An airbag obviously missing or defective.   | MAJOR     |
| <br>  |   |           |
| <b>Note:</b> A passenger airbag that has been turned off is not a Reason for Rejection. |   |           |
| 8.  | A Supplementary Restraint Systems (SRS) malfunction indicator lamp indicating a system malfunction.   | MAJOR     |
| <br>  |   |           |
| 9.  | a. A seat belt load limiter or pretensioner obviously missing where fitted as original equipment  | MAJOR     |

b. a seat belt pretensioner or a 'folded webbing' type load limiter obviously deployed.

MAJOR

