



## IB-126B

### Vehicle Safety and Standards Information Bulletin

#### AIR BAG SUSPENSION

This Information Bulletin covers the three types of replacement Air spring systems currently available for fitment to motor vehicles.

#### 1. Air Assisted (Airbag) Kit Assemblies



**In this type of Installation the Air Bag simply assists the original spring.**

The air bag unit can be installed inside a coil spring or mounted between an existing leaf type spring and chassis.

**An inspection** by an Authorised Vehicle Examiner from the Department of Transport (DoT) for this type of conversion, installation of an air assisted (airbag) assembly is **not required** provided the installation complies with the following.

- Installation must be in accordance with the manufacturers fitting instructions.
- The air assist (airbag) assembly must only be fitted to motor vehicles as an addition to the original (unmodified) suspension assembly.
- The air assisted (airbag) suspension assembly must not alter the suspension travel in the bump or rebound mode by more than one third of that specified by the original vehicle manufacturer.

- The air assist (airbag) suspension assembly must maintain regulated ground clearance requirements.
- The original manufacturers bump stops must not be altered.

**Note:**

It is acceptable to replace the original bump stops with a suitable air assist (airbag) unit providing no less than the minimum height dimension, bump load and damping specifications. In case of an air assist (airbag) unit, these units must be of a construction to satisfy the above requirements.

- The ride height adjustment of the air assist (airbag) suspension assemblies must not be capable of being operated while the vehicle is in motion. (Note: this does not apply to OEM suspension levelling systems)
- The vehicle manufacturer's gross vehicle mass and axle limits must not be exceeded.

## **2. Air (Airbag) Coil Replacement Kit Assemblies**



**In this type of Installation the vehicle's original springs have been removed and replaced with air bag units.**

**Note:** The full air (airbag) coil replacement assemblies must only be fitted to motor vehicles where the original manufacturer's suspension arms and mounts are retained.

4 link type rear suspension systems that are not originally fitted to the vehicle by the manufacturer for that model **will require** prior approval from **Vehicle Safety and Standards (VSS)**.

Vehicles fitted with any form of electronic stability control **will require** prior approval from the **VSS**.

A vehicle that has been modified by removing the OE coil springs and replacing them with air bags is required to have an **examination** by an **Authorised Vehicle Examiner** and be issued with a **modification permit**.

Evidence must be provided to the examiner in the form of Checklists that are required under the national **“Code of Practice for Light Vehicle Modifications” (VSB14) LS section**. The document is available on the Department of Infrastructure and Regional Development website:

[http://www.infrastructure.gov.au/roads/vehicle\\_regulation/bulletin/index.aspx](http://www.infrastructure.gov.au/roads/vehicle_regulation/bulletin/index.aspx)

The **VSB14** check lists, **LS4 & LS6** are required to be filled in by a Signatory recognised by **VSS** or by a **Licensed Repairer** or a **Qualified Mechanic** holding a valid Repairers Certificate, the relevant MRB (Motor Vehicle Registration Board) approval numbers must be recorded on the checklists.

Installation must be in accordance with the manufacturers fitting instructions, if there is a failure to comply with all manufacturers' requirements, and the conditions outlined below a modification permit will **not be issued**.

- The full air (airbag) coil replacement kit assemblies must only be fitted to motor vehicles where the original manufacturer's suspension arms and mounts are retained.
- When the vehicle is in motion the manufacturers ride height must be retained.
- The full air (airbag) coil replacement suspension assemblies must not alter the suspension travel in the bump or rebound mode by more than one third of that specified by the original vehicle manufacturer.
- The full air (airbag) coil replacement suspension assembly must maintain regulated ground clearance requirements.
- The original manufacturer's bump stops must not be altered however it may be acceptable to have internal bump stops incorporated in the air bag assemblies. (Documentary evidence from the manufacturer may be required)
- The vehicle manufacturer's gross vehicle mass and axle limits must not be exceeded.
- The vehicle modifier/owner is responsible for ensuring that the safety of the vehicle is maintained and that all modifications are in accordance with relevant standards and recognised automotive practice.

### **3. Air (Airbag) Strut Replacement Suspension Assemblies to Motor Vehicles**



In this type of Installation the vehicles original suspension struts or complete suspension sub assemblies have been replaced with units fitted with air bags. The vehicle will usually have a compressor, air storage tank and be fitted with valves or switches that are able to adjust the vehicles height beyond regulated height and ground clearance requirements.

**This type of modification requires prior approval from the Vehicle Safety and Standards Section.**

An “Application to modify a production vehicle form” must be submitted.

#### **Related Links**

The following:

- Vehicle examination locations
- Forms

May be found on the DoT’s Licensing website [www.transport.wa.gov.au/dvs](http://www.transport.wa.gov.au/dvs)

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