

GRRF AEBS/LDWS Informal Working Group

AEBS “Target” proposal 09-12-2010

- Proposed amendments to support the discussion 08-12-2010 with regard to paragraph 6.5.1. highlighted in yellow.
 - Use of the word “target” shown in blue text to allow easy identification.
- 2.5. “~~Target vehicle~~” or “**Target**” means a high volume series production passenger car of category M1 AA saloon^{1/} or **in the case of a soft target** an object representative of such a vehicle in terms of its detection characteristics applicable to the sensor system of the AEBS under test.
- 2.6. “**Moving target**” means a **target** travelling at a constant speed in the same direction and in the centre of the same lane of travel as the subject vehicle.
- 2.7. “**Stationary target**” means a **target** on the centre of the test lane at standstill throughout the test.
- 2.8. “**Soft target**” means a **target** that will suffer minimum damage and cause minimum damage to the subject vehicle in the event of a collision.
- ~~2.9. “**Radar Cross Section**” means a measure of how detectable an object is with a radar.~~
- 6.1.3. The horizontal visibility range shall allow observing the **target** at the test course during all states of the test.
- 6.3. Test course
- The course shall be a segment of straight road of sufficient length in order to maintain the subject vehicle speeds required below and to allow detecting a **target vehicle** and braking the subject vehicle up to collision mitigation.
- 6.5. Test **targets**
- 6.5.1. The **target** used for the tests shall be a regular high volume series production passenger car of category M1 AA saloon, or alternatively a “**soft target**” representative of such a vehicle in terms of its identification characteristics applicable to the sensor system of the AEBS under test.
- The actual target(s) used for the tests shall be agreed between the vehicle manufacturer and the Technical Service, with a description of the target(s) being recorded in the test report.**

6.5.3. Moving target

The **moving target** shall be moving on the axis centre of the test course at a constant speed of $[30^{+4}/_{-0}$ km/h for the vehicles of categories M3 and N3 and $XXX^{+4}/_{-0}$ km/h for the vehicles of categories M2 and N2].

~~6.5.4. The details that enable the **target(s)** to be specifically identified shall be recorded in the vehicle type approval documentation.~~

6.5.2. Stationary target

The stationary **target** shall be positioned such that its component nearest to the subject vehicle is positioned at the expected collision point on the axis of the test course.

6.6. AEBS-M test with a **stationary target**

[6.6.1. The subject vehicle shall approach the **stationary target vehicle** in a straight line for at least 2 seconds prior to the functional phase of the test with a vehicle/**target** centreline offset of not more than 0.5m. ~~The **target** shall be representative of a M1 AA saloon category vehicle and may be a “soft target”.~~

The functional phase shall start when subject vehicle is travelling at a speed of 80 km/h and is a distance of at least 120 m from the **target vehicle**.

From the start of the functional phase until the point of collision there shall be no adjustment to any subject vehicle control by the driver.] /

[6.6.1. The subject vehicle shall travel at a speed of 80 ± 2 km/h in a straight line for a minimum distance of 120m towards the **stationary target** with a vehicle/**target** centreline offset of not more than 0.5m.]

[6.6.3. The speed reduction of the subject vehicle at the time of the impact with the **stationary target** shall be^{*/}:

6.7. AEBS-M test with a **moving target**

[6.7.1. The subject vehicle shall travel at a speed of 80 ± 2 km/h in a straight line for a distance of 120m towards the **moving target** travelling in the same direction, with a vehicle/**target** centreline offset of not more than 0.5m.] /

[6.7.1. The subject vehicle and the **moving target** shall travel in a straight line, in the same direction, for at least 2 seconds prior to the functional part of the test, with a vehicle/**target** centreline offset of not more than 0.5m.

The functional part of the test shall start with the subject vehicle travelling at a speed of 80 ± 2 km/h, the **moving target** at a speed of 15 ± 1 km/h and a separation distance of at least 120 m between them.

From the start of the functional part of the test until the subject vehicle comes to a speed equal to that of the **target vehicle/soft target** or a standstill there shall be no adjustment to any subject vehicle control by the driver.]

[6.7.3. the speed reduction of the subject vehicle for the **moving target** shall be^{*/}:

Annex 1

15. Annexed to this communication are the following documents, bearing the approval number indicated above:

- List of the positive actions enabling the driver to interrupt the braking phase
- Description of the AEBS-M warning strategy
- ~~..... Details which enable the **targets** to be specifically identified~~

Justification:

The basis requirement should be for the target to be an actual vehicle. As an alternative to prevent or minimise damage to the subject vehicle or the target, an equivalent object can be used.

No reference is made to “radar cross section”, therefore a radar cross section definition is no longer required.

As a description of the target is contained within the test report, it is no longer necessary to require a specific document to be annexed to the approval document.