Progressing break test

1. Progressing break test: after the test vehicle has reached the prescribed maximum speed the vehicle is slowed down to 20 km/h by operating the brake according to either braking method A or B and then a rapid braking is applied.

   Braking A: moderate braking
   Braking B: firm braking

2. Test vehicle, mini van type vehicle

3. Seats. A CRS equipped a webbing sensor is attached to the right seat in the second row from front.
   A CRS equipped with a vehicle sensor is attached to the left seat in the second row from front.
   A CRS is attached to the central seat in the second row from front.

4. Dummy, VIP3C

Conclusions.

1. In the progressing brake test, CRS with a vehicle sensor and CRS with a webbing sensor are equivalent in safety.

2. Although the maximum displacement of CRS with a vehicle sensor reaches 18mm, this does not pose any safety problems.

<table>
<thead>
<tr>
<th>Speed test method</th>
<th>Vehicle body G (sensor on floor)</th>
<th>Sample</th>
<th>Forward displacement of dummy head position before and after testing</th>
<th>Webbing displacement from ELR mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max speed 50km</td>
<td></td>
<td></td>
<td>Braking A 0.3G Rapid braking 1.1</td>
<td>CRS with vsir 0 10 0</td>
</tr>
<tr>
<td>Max speed 40km</td>
<td></td>
<td></td>
<td>Braking A 0.22G Rapid braking 1.2</td>
<td>CRS with vsir 0 0 0</td>
</tr>
<tr>
<td>Max speed 40km</td>
<td></td>
<td></td>
<td>Braking A 0.3 Rapid braking 1.2</td>
<td>CRS with vsir 0 2 0</td>
</tr>
<tr>
<td>Max speed 40km</td>
<td></td>
<td></td>
<td>Braking B 0.35 Rapid braking 1.2</td>
<td>CRS with vsir 0 3 0</td>
</tr>
</tbody>
</table>
Graph

**Dummy head displacement of CRS with WSIR**

- 50 km A
- 50 km B
- 40 km A
- 40 km B

**Dummy head displacement of CRS with vsir**

- 50 km A
- 50 km B
- 40 km A
- 40 km B

**Dummy head displacement of without crs**

- 50 km A
- 50 km B
- 40 km A
- 40 km B