Background

- The ISO 13216-3 volumetric devices generate a condition that effectively reduces the head excursion space available
- A proposal for revision to the rear surface has been accepted by ISO WG1 (as an additional device)
- GRSP requested that data be supplied on vehicle fit of proposed device
- Installation checking in hand 97% completed
Reason for revision

Comparison ISOFIX CRS F3 with Standard CRS Forward Facing and new Proposal

Left hand figure shows head position spaced from cushion surface by required energy absorption material giving 547 mm of excursion space. Centre figure shows forward head position generated by current rear surface including EA material reducing excursion space to 515 mm. Right hand view shows the CLEPA proposal that regains head excursion space.

Method

- Data used German sales by manufacturer and model (KBA – December 2002)
- ISOFIX capable vehicle models identified
- Volumetric device checked for fit & photographed
- Analysis of results
Findings

- As at end 2002 approximately 66% (by volume) of vehicles sold in Germany were ISOFIX capable – either initial fit/optional/retrofit
- Of ISOFIX capable vehicles so far checked the CLEPA proposed device fits approximately 94% of market volume

Findings

- Of 63 models checked
  - B1 fits 36 without adjustment to head restraint
  - B1 fits 23 with adjustment to or removal of the head restraint (similar to requirement for good fit of non ISOFIX CRS)
  - B1 does not fit 4 models
- Still to be checked approximately 3% of the ISOFIX equipped vehicles
GRSP-Data envelope reduced height 2nd version

Audi A2 model 2003

- Headrest must be removed: X
does not fit:
fits: X

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Audi A3 model 2003

- Headrest must be removed: No
does not fit:
fits: X
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Audi A4 model 2003

- Headrest must be removed: X
- Does not fit: X
- Fits: 

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Audi A6 model 2003

- Headrest must be removed: No
- Does not fit: X
- Fits: 

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Audi A8 model 2003

headrest must be removed: No

does not fit: X

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BMW 5 Series Touring 2003 (530i se)

headrest must be removed: No

does not fit: X
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BMW X5 2003

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Chrysler Jeep Cherokee model 2003
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**Chrysler PT Cruiser model 2003**

[Image: Chrysler PT Cruiser headrest removal]

- **does not fit:**
- **headrest must be removed:** No

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**GRSP-Data envelope reduced height 2nd version**

**Chrysler Voyager model 2003**

[Image: Chrysler Voyager headrest removal]

- **does not fit:**
- **headrest must be removed:** No
### GRSP-Data envelope reduced height 2nd version

#### Ford Fiesta model 2003

<table>
<thead>
<tr>
<th></th>
<th>does not fit</th>
<th>headrest must be removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td>No</td>
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### GRSP-Data envelope reduced height 2nd version

#### Honda Jazz model 2003

<table>
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GRSP-Data envelope reduced height 2nd version

Honda CRV model 2003

![Image of Honda CRV headrest]

<table>
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<tr>
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<tr>
<td>CRV</td>
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GRSP-Data envelope reduced height 2nd version

Honda Stream model 2003

![Image of Honda Stream headrest]

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<tr>
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</table>
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Honda Civic model 2003

headrest must be removed: No

fit: X

does not fit: 

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Lexus LS430

headrest must be removed: No

does not fit: X

fit: 

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Lexus GS300/430

| Fits: X | Does not fit: No | Headrest must be removed: Yes |

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Mazda 6 model 2003

| Fits: X | Does not fit: No | Headrest must be removed: Yes |

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Mazda 323F model 2003

The flat area of the backrest of the car seat is too narrow.

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Mazda MX 5 model 2003

The headrest must be removed.

The flat area of the backrest of the car seat is too narrow.
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**Mazda Premacy model 2003**

![Image of Mazda Premacy seat with markings indicating fit and non-fit requirements.]

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**Mazda Tribute model 2003**

![Image of Mazda Tribute seat with markings indicating fit and non-fit requirements.]

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Mercedes A-Klasse model 2003

Headrest must be removed: No

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Mercedes C-Klasse model 2003

Headrest must be removed: No
Mercedes C-Klasse Coupe model 2003

![Image of headrest](image1)

<table>
<thead>
<tr>
<th>Fits</th>
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Mercedes CLK model 2003

![Image of headrest](image2)

<table>
<thead>
<tr>
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Mercedes E-Klasse (W211) model 2003

![Image of Mercedes E-Klasse](image1)

| X | does not fit: | headrest must be removed: No |

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Nissan Micra model 2002

![Image of Nissan Micra](image2)

| X | does not fit: | headrest must be removed: No |
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Nissan Micra model 2003

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Nissan Almera Tino model 2003

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Nissan Primera model 2003

Headrest must be removed: No

Nissan X Trail model 2003

Headrest must be removed: No
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Opel Vectra model 2003

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Peugeot 206 SW model 2003
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Peugeot 307 model 2003

headrest must be removed: X

does not fit: X

Peugeot 807 model 2003

headrest must be removed: X

does not fit: X
GRSP-Data envelope reduced height 2nd version
Peugeot Partner model 2003

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Renault Espace model 2003

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GRSP-Data envelope reduced height 2nd version

Renault Clio model 2003

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Renault Vel Satis model 2003

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**GRSP-Data envelope reduced height 2nd version**

**Renault Scenic model 2003**

头枕必须移除：

- X

头枕不适用：

- X

头枕适用：

- X

---

**GRSP-Data envelope reduced height 2nd version**

**Renault Twingo model 2003**

头枕必须移除：

- X

头枕不适用：

- X

头枕适用：

- X
GRSP-Data envelope reduced height 2nd version

Renault Kangoo model 2003

<table>
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Renault Laguna model 2003

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Renault Megane 2 model 2003

Seat Leon model 2003
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Seat Ibiza model 2003

<table>
<thead>
<tr>
<th>Item</th>
<th>Note</th>
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<tbody>
<tr>
<td>Headrest</td>
<td>X</td>
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<tr>
<td>Isofix</td>
<td>Cannot be engaged</td>
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GRSP-Data envelope reduced height 2nd version

Seat Cordoba model 2003

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GRSP-Data envelope reduced height 2nd version

Skoda Superb model 2003

Headrest must be removed: X
does not fit: X
fits: X

GRSP-Data envelope reduced height 2nd version

Skoda Oktavia model 2003

Headrest must be removed: X
does not fit: X
fits: X
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Skoda Fabia model 2003

Subaru Impreza GX Sport

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headrest must be removed: X

headrest cannot be engaged

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Subaru Forrester X AWD

Subaru Legacy GX AWD Saloon
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Toyota Yaris Verso model 2003

- Headrest must be removed: No
- Fits: X

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Toyota Avensis model 2002

- Headrest must be removed: No
- Fits: X

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VW Tuareg model 2003

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VW Polo model 2003
GRSP-Data envelope reduced height 2nd version

VW Lupo model 2003

- does not fit: X
- headrest must be removed: X

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VW Sharan model 2002

- does not fit: X
- headrest must be removed: No
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VW Touran model 2003

headrest must be removed: No

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VW Tuareg model 2003

headrest must be removed: No
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VW Passat Variant model 2003

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