

DAHL HYBRID SEAT™

Seat with integrated child safety seat



DAHL
ENGINEERING

HYBRID SEAT™



With a DAHL HYBRID SEAT™ fitted in a minibus, the taxicab owner can provide safe and flexible transport to schools, nurseries, residential homes and institutions, etc., irrespective of the order in which these journeys are carried out during the day. As a result, drivers do not have to spend valuable time returning to base to pick up and install child safety seats before picking up children and then have to spend more time removing and returning the seats again after use.

Stricter requirements for securing children in cars

In 2006 stricter legislation was introduced in most European countries for the securing of children in cars. The new regulations stipulate that children must be secured in a certified child safety seat that matches the weight and height of the child concerned. Non-compliance incurs both a fine and penalty points on one's driving licence.

Taxis and buses are exempted from this legislation, as it has not hitherto been practically possible to have child safety seats for, for example, 15 children in the vehicle at all times. It is too time-consuming to rearrange and fit the child seats every time they are needed. Storing the child safety seats also takes up a lot of space.

As a result, children are either not secured at all or are secured by means of a safety belt system that does not provide effective protection when being transported by bus or by taxi.

A child that is secured with a seatbelt designed for an adult is at risk of not being retained by the belt and suffering serious injuries as a consequence, or of suffering serious internal injuries if the belt, instead of exerting force on the skeletal structure, slides upwards and exerts its force on the child's stomach and chest region.



DAHL HYBRID SEAT™

with integrated child safety seat can be recognised by means of this discreet embroidery in the backrest.



The hybrid seat solves three practical problems simultaneously with regard to safety, space and time. The hybrid seat can be converted from a child seat to a seat for an adult passenger, or vice versa, within the space of just 3 seconds. Dahl Engineering is the first and only firm that is able to offer ECE 44/03 tested seats that have an integrated child safety seat and which are both removable and moveable to all seating positions in a minibus.

Patent pending seat with integrated child safety seat solves the problem

Dahl Engineering has developed a hybrid seat - DAHL HYBRID SEAT™, which can be used by children from the age of 9 months, as well as by adults.

We have patented the seat, which is built up around an ultra-compact design, which has made it possible to integrate a child seat in a bus seat designed for an adult.

With a DAHL HYBRID SEAT™ fitted in, for example, a minibus, the taxicab owner can provide safe and flexible transport to schools, nurseries, residential homes and institutions, etc., irrespective of the order in which these journeys are carried out during the day, without having to spend valuable time returning to base to pick up and return child safety seats – or having to install and remove them.

The new seat fits a newly developed, robust rail system that can be installed in the minibus so that the seat can be moved around in the vehicle or easily removed if space is needed for a wheelchair, for example.

Making exemptions unnecessary

With the new seat, we have removed the need to exempt large taxis and buses from the regulations concerning the securing of children in certified child safety seats.

The new seat solves at least three practical problems concerning the transport of children in minibuses:

1. The safety aspect related to children being incorrectly secured.
2. What to do with the child seats when they are not being used.
3. The relatively large amount of time spent fitting and removing a child safety seat.

Multi-seat - 4 in one

The hybrid seat meets the safety requirements for seats for both adults and children in three ECE 44/03 groups

The DAHL HYBRID SEAT™ satisfies the EU's strictest requirements for seats in passenger cars (M1). Furthermore, the seat also lives up to ECE regulation 44/03 for child seats in Groups 1, 2 and 3*.

In other words, the Hybrid seat can be used to secure children from an age of approximately 9 months and up to a size where they no longer need to be secured in a child safety seat whilst being transported.

The DAHL HYBRID SEAT™ has a built-in 3-point seatbelt for adults and older children, and a 5-point harness for younger children.

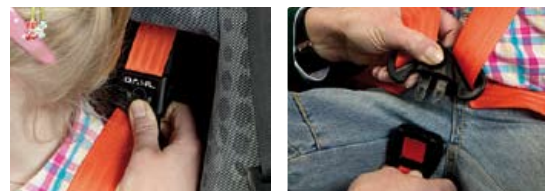
*ECE 44/03 group classification of children:

- Group 1: from 9-18 kg
- Group 2: from 15-25 kg
- Group 3: from 22-36 kg

With 5-point Harness



Children in Groups 1 & 2 are secured with the built-in 5-point Harness.



The adjustable buckle ensures that the Harness can be quickly and simply adjusted to the height of the child.

Belt lock for 5-point Harness

With 3-point belt



Children in Group 3 are secured by means of the built-in 3-point belt. The belt should pass under the red hooks on either side of the child's hips

Safety First



Before being put into production, development work has resulted in the performance of more than 130 different tests on the product in our own test laboratory in Thisted and at laboratories abroad.

In addition to the ECE 44/03 standards, the seat also satisfies the EU's strict M1 requirements for passenger cars and M2 for minibuses in accordance with the following directives: 95/28 | 74/408 – 2005/39 | 77/541 – 2005/40 | 76/115 – 2005/41



Comfort Seat™

The seat is shown with QFC system



With the Quick Fitting Console (QFC) it is no longer necessary to mount recessed floor rails in the floor of the vehicle in order to install removable seats in taxis or vehicles for the disabled. With Dahl's new QFC you can remove and fit a seat in seconds. The seat is released without the use of tools by lifting a release lever at the front edge of the console. When the seat has been removed, only the compact base plate can be seen, which is mounted directly on the original floor of the vehicle.

A variant without integrated child safety seat is also available under the name COMFORT SEAT™.

The comfort seat is the only seat on the market for minibuses with a built-in 3-point seatbelt and designed with extra lateral support and upholstery springs in both the seat cushion and back.

The comfort seat thus has the same level of comfort as passenger car seats. Normally the seat and back in minibuses are upholstered on metal or plywood sheets.

The comfort seat is also available with an air lumbar – lumbar support, adjustable armrest and slide rails.



Inflatable lumbar support (air lumbar)



Practical storage compartment in the QFC console

Base consoles/Accessories



Legs for fixed mounting, available in different heights



Legs with rail fittings for Heavy Duty air line floor rails, available in different heights



Adjustable armrest



Base plate for QFC



Quick Fitting Console (QFC), available in different heights



Quick Fitting Console shown with base plate

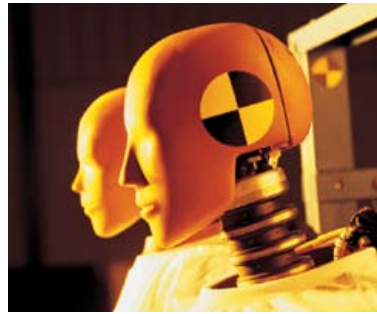
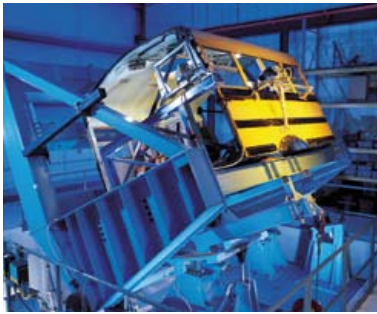


Products for special conversion

We also have a range of safety equipment for wheelchair users and a large number of products for special configuration of vehicles for the disabled, etc. Please order separate brochure material or visit our website, where product brochures can be downloaded in PDF format.



WHERE SAFETY STARTS



DAHL
ENGINEERING

Development and crash-test centre
Where safety starts

Løvevej 3 | DK-7700 Thisted | Denmark | Telefon: +45 96 18 00 77 | Fax: +45 9618 00 78
dahl@dahlengineering.dk | www.dahlengineering.dk