

The On-Board Rescue Sheet

Helping the rescuers



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Masthead

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last revised: April 2010

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Every second counts

Every second counts when human lives are at stake. Too often, valuable time is lost in the process of rescuing crash victims entrapped in their vehicles, especially after severe road accidents. The increasingly safe design of vehicles presents rescuers with a serious challenge. In particular, removing car roofs is becoming more and more problematic. Faced with high-strength steels and body reinforcements, even the most powerful cutters reach their limits. Safety components, such as gas generators for curtain airbags, can be a safety risk for emergency response teams. Another problem is how to find and disconnect the battery in modern cars.

In situations where every second counts, unnecessary delays may be caused by uncertainty as to the right cutting and purchase points for rescue tools. Therefore, incident commanders require information on the technical features and components installed, directly in the vehicle. Some vehicle manufacturers have already posted rescue guidelines on the Internet, but these guidelines are rather lengthy and heterogeneous. We need a system that makes technical information quickly and reliably available to firefighters and rescuers in a standard format. As tests have shown, such information helps to save valuable minutes.

Therefore, a standardised A4 “rescue sheet” containing information on the location of cabin reinforcements, the tank, the battery, airbags, gas generators, control units etc. – and indicating adequate cutting points must be used throughout Europe. We are pleased to see that manufacturers and importers have made such on-board rescue sheets available on the Internet. This information must be provided throughout Europe. To be readily accessible by rescuers, a rescue sheet must be placed behind the driver’s sun visor of each car.

Hopefully, in a few years, the new eCall emergency call system will be in place everywhere in Europe. The system will transmit the relevant vehicle-specific data directly to the rescuers on-site. Until then, we need a simple and effective solution that saves lives.

Problems in rescue ops

Cars are getting safer and safer

Stable cabin structures make our cars safer, airbag and belt pretensioner technology is increasingly complex. Over the past 20 years, this progress in engineering has helped reduce the number of road fatalities by more than 50% from 9,862 in 1988 to 4,477 in 2008.



Year of manufacture 1987



Year of manufacture 2007

Occupant protection: one man's blessing – the other man's burden

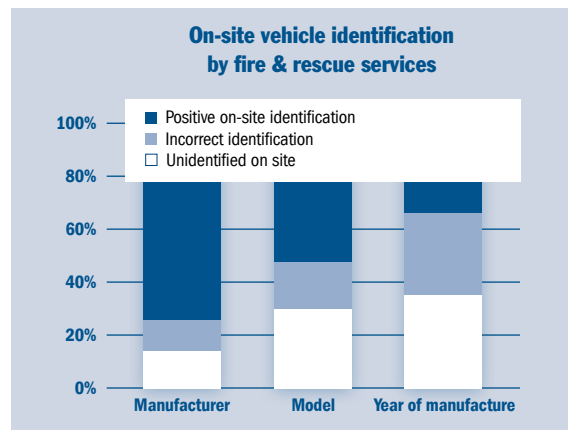
The technology that protects the lives of occupants in a crash has become a serious challenge for rescuers. This is particularly true when the rescuers have to use heavy equipment to extricate the injured from a vehicle. High-strength steels often defeat even the most powerful cutters.



Reinforced A pillar (top) leaves a cutter in pieces

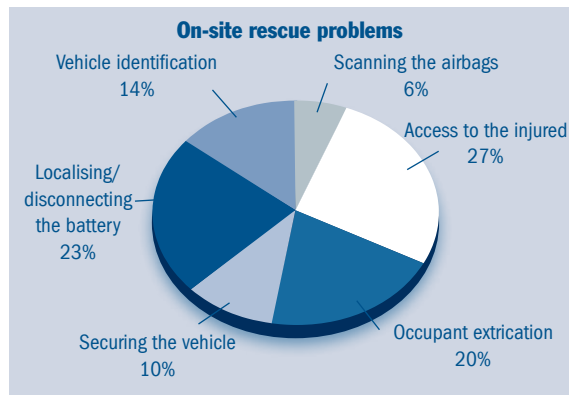
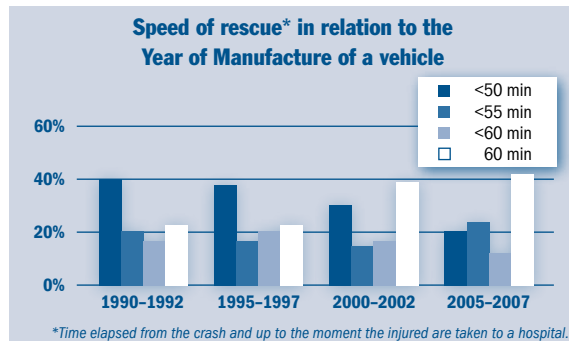
Helpers need quick access to information

It is essential to get the injured into hospitals as soon as possible after receiving primary care on-site. Every minute counts. But emergency responders do not always know where precisely to apply their hydraulic cutters and spreaders or how to avoid airbag deployment during extrication. Quite often, in what little time they have, they are unable to positively identify the type or year of manufacture of the smashed vehicle. An ADAC survey has shown that rescuers incorrectly identify or fail to identify 64% of all crash vehicles.



Rescue gets more and more complicated

Studies conducted by the ADAC air rescue service and ADAC accident researchers have proved that the rescue of injured persons from a vehicle takes longer, the more recent the vehicle is. In crashes involving vehicles made between 1990 and 1992, rescue time was under 50 minutes in 40% of cases. For cars made between 2005 and 2007, only 20% of the rescue missions could be completed in under 50 minutes. This is a serious threat to the “golden hour” that is essential for a successful rescue of injured persons: 20 minutes to alarm rescuers and get them on-site, 20 minutes for on-site rescue/extrication and 20 minutes for administering primary medical care and getting the patients to a hospital. If all this can be achieved within an hour, the chances of saving the life of a severely injured person are very good.



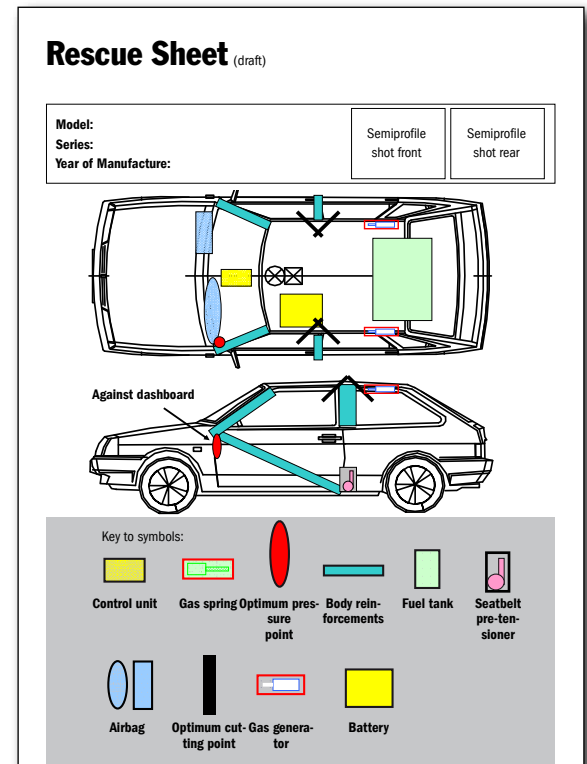
Source: ADAC accident research

Our solution

The model-specific OB rescue sheet

As of now, the rescue sheet developed by ADAC and VDA (German Association of the Automotive Industry) is available to keep rescue time to a minimum. ADAC estimates that by using the rescue sheet on a large scale, up to 2,500 lives could be saved in road accidents across Europe each year. The document contains all the vehicle-specific information relevant for extrication and should be placed behind the driver's sun visor where it is handy for rescuers to find.

ADAC rescue sheet: essential information includes model, model series, and model year, braces and reinforcements, airbags, battery/ies and cutting/purchase points for the rescuers' cutters and spreaders.



The initiative is successful

Many manufacturers have started providing rescue sheets in some countries, e.g. Austria and Germany. Whereas some manufacturers publish their rescue sheets with an explanatory key in English and other European languages, most of the rescue sheets are now available only in German. The other countries and the EU Commission must undertake their own efforts to get the rescue sheets published at least in English to ensure that rescuers can respond quickly and effectively.

The OB rescue sheet download

ADAC counts on the manufacturers to make the rescue sheets available quickly and free of charge. Car owners and/or response teams should be able to download them from a central Internet portal or receive them through the network of authorised dealers.

At www.rescuesheet.info

ADAC has provided links to the participating manufacturers. The information is being updated on a regular basis. Here, motorists can get “their” rescue sheet quickly.

In new vehicles, the rescue sheet should be placed behind the driver’s sun visor before delivery where it is handy for rescuers to find. To make the various components easier to identify, the rescue sheets should be printed in colour.



The OB rescue sheet – keep it handy!

The future: electronic data transmission – eCall

Across Europe, the national rescue system structures vary. The use of helicopter emergency medical services in some countries has put rescue systems in Europe on a very high level in terms of effectiveness and quality. But when it comes to saving lives in Europe, there is always room for improvement. The future belongs to electronic data transmission. The automated “eCall” emergency call system will enable the direct identification of a crash vehicle. Technical instructions for rescuers ensuring quick and focused extrication could be integrated into eCall.

The roll-out of eCall in new vehicles is scheduled for 2010, but full market penetration will take until 2018. However, we must now start implementing the IT framework to ensure that rescue control centres and fire brigades are equipped with the adequate information technology. After all, reducing on-site rescue time in order to save lives is an important public task.

Here, a central, non-commercial database such as it is available at www.rescuesheet.info could be the solution for rescue control centres. The EU Commission should call on manufacturers to make the data relating to each of their vehicles centrally available on separate data sheets. In an emergency, such a central database would allow rescue control centres from all over Europe to download the specific rescue sheets for any type of vehicle and to send them to the rescuers on-site.



Co-ordinated ground and air rescue

What needs to be done

What car manufacturers can do

- provide relevant rescue information for each airbag-equipped vehicle model at least in English on a standardised A4 rescue sheet (following the German template);
- on this rescue sheet, indicate the recommended cutting points to facilitate cutting high-strength steel structures and prevent cutting into airbag gas generators;
- indicate the purchase points in which to place hydraulic rams etc. for spreading footwells;
- make the model-specific rescue sheet available on the Internet and/or through their authorised dealers;
- deliver new vehicles with the rescue sheet in place behind the driver's sun visor;

What the political decision-makers can do

- define harmonised standards for rescue technology and rescue tactics;
- require car manufacturers to make model-specific rescue sheets available in a central database where, in an emergency, rescue control centres from all over Europe can download the specific sheets for any type of vehicle and send them to the rescuers on-site;
- require fire and rescue services to check their technical equipment and upgrade their hardware if it does not comply with the state of the art;
- require rescue control centres to have an IT infrastructure adequate for electronic data transmission.

OB rescue sheet FAQs

Is the sun visor the right place to keep the OB rescue sheet?

Our experience so far has shown that in 90% of cases the driver's side sun visor is a good place. The simple reason is that there will be a driver to be rescued in any event. The sun visor is already being used to keep accident reports and other documents behind a strap. If there is no strap on the visor, the rescue sheet can be affixed with a Velcro strap. Putting the sheet at the rescuers' fingertips there



saves valuable time which may be essential in giving severely injured motorists a chance at survival. As a matter of fact, 30 crash tests with the rescue sheet behind the sun visor have demonstrated that the sheet always stays in place.

How can we prevent the OB rescue sheet from being removed or kept in another part of the vehicle?

Of course, we cannot prevent motorists from keeping their rescue sheets elsewhere in their cars. But a sustained communication campaign should help to keep their numbers reasonably small.

How can we ensure that the OB rescue sheet will be updated as necessary (e.g. after vehicle modifications/refits)?

Basically, the only modifications affecting rescue are refits with liquefied petroleum gas (LPG). The number of such refits is still relatively small but not a factor easily to be discounted. The appropriate updates could be ensured by the refitting dealer or garage, who should have to confirm the modification.

Where can we find out more about the ADAC OB rescue sheet?

ADAC has assembled the information currently available on its website at www.rescuesheet.info. We update the website permanently.

The chronology of rescue

ADAC demonstration with an Audi Q7



Removing the driver's door and cutting through the A pillar



Cutting through the C pillar



Cutting the B and C pillars



Lifting off the cabin roof

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