

**REPORT**  
**On the ad-hoc expert meeting, held in Madrid, on 22.02.2005**

Transmitted by the experts from Spain and Hungary

1. On the last meeting of GRSG (October 2005) Hungary and Spain offered a survey about the questions belonging to the possible extension of the scope of Regulation No. 66 to all categories of buses. Spain offered to host a one-day expert meeting and Hungary undertook the organization.
2. The meeting was held in Madrid, hosted by INSIA, chaired by Prof. Aparicio. The participants were:

Mátyás Matolcsy	GTE	Hungary
Alan Davis	IRISBUS	France
Pascale Reyntjens	Van Hool NV	Belgium
J.W. Kownacki	ITS	Poland
Backer Michael	EVOBUS	Germany
Allan McKenzie	SMMT	UK
Gregor Steinmetz	EVOBUS	Germany
Vladimir Satochin	UVMV	Czech Republic
Ignacio Lafuente	IDIADA	Spain
Francisco Aparicio	INSIA	Spain
Andreas Garcia	INSIA	Spain
Vincente Martinez	INSIA	Spain

Ms. Louise Turner from the Department For Transport (UK) apologised for not being able to attend the meeting and send a fax saying that she considers essential to establish and identify where and how Regulation No. 66 should be amended, if necessary.

Mr. Mendogni (IVECO, Italy) also apologized by e-mail that he cannot attend the meeting, he thanked for the working document, he found it very interesting and useful. in principle he can support this approach.

3. To start the work, the Hungarian expert made a power-point presentation to give some technical background for the technical discussion:
  - The distribution of the different bus categories was shown in a bus rollover statistics containing 222 bus rollover accidents;
  - The rollover accidents were categorized and the concept of the "Protected rollover accident" was introduced (accidents, in which the bus occupants should have certain protection against the collapse of the superstructure);
  - Typical superstructure deformations were shown for different bus categories (small bus, traditional large bus, HD and DD coaches) The general way of deformations were similar. (plastic hinge mechanisms)

- Survey was given about the national and international regulations and standards dealing with the roof strength of vehicles transporting other persons than the driver.
4. In the discussion many interesting views and opinions were expressed:
- The Polish expert supported to start a study on that field, he underlined that they are interested mainly in certain regulation of the roof strength of the small buses.
  - The Spanish expert said that they have only a few DD coaches among their national bus fleet, mainly foreigner DD tourist coaches are on the Spanish roads, so their interest is also to do certain steps on the field of the small buses.
  - The French expert expressed their interest in both directions: small buses and double deckers should be studied as well.
  - The Czech expert supported the general study and approach of the problem.
  - The German experts emphasized the importance of further analysis of accident statistics and the behaviour of bus categories in rollover accidents.
  - The UK expert had similar opinion to the German experts and he pointed out that a well-based definition for the "Protected rollover accidents" could help in finding solutions.
  - The Hungarian expert said that there are two major technical questions to be studied and solved if accepting the extension of the scope of Regulation No. 66:
    - i. how to apply the specification of the residual space for small buses and
    - ii. what kind of mechanical parameters should be standardized for the lateral rollover approval test.
5. As the final conclusion of the meeting, the experts formulated and accepted the following message to GRSG:

The group composed by the participants listed above decided unanimously to recommend to GRSG to set up an official informal group to study the possible interest in extending the scope of Regulation No. 66 to midibuses and double-deck buses.

In the case the group were created, it would carry out the following work:

- a) Collect all available statistical data and in depth studies of bus accidents in different countries and conclusions about the protection level of the passengers of midibuses and double-deck buses involved in rollover accidents.
- b) Taking into account the results of the work, formulate conclusions about the possibility of extending the scope of Regulation No. 66 and, if necessary, about the technical research needed to produce a new amendment to Regulation No. 66.

At first glance a period of 2 years seems to be necessary for this work, depending on the number of meetings, the activity of the participants, etc.

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