Position Paper

Safety Rules and Regulations for Agricultural Machinery and Tractors – Situation and Need for Action

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Introduction:

The agricultural machinery and tractor industry and all involved parties look back on the joint long and successful development of the safety in the agricultural machinery sector. The safety requirements were drafted according to the European legislation and implemented into international standards. The situation and need for action are described by this Position Paper.

- CEMA calls for the rearrangement of the legal certainty with regard to the tractor type approval in Europe.
- CEMA calls for the acceptance of published European and international safety standards by all involved parties.
- CEMA is ready to discuss the improvement of these safety standards and call for the joint and constructive dialogue between all interested parties.

CEMA is the European association representing the agricultural machinery industry. Since 50 years CEMA acts as a network of national associations and provides services, advice and a common European industry view on relevant topics. The industry represented by CEMA includes 4,500 manufacturers of agricultural equipment employing directly 135,000 persons and indirectly in the distribution and service network another 125,000 persons. The companies are mainly small and medium-sized manufacturers according to the EU definition and in 2007 had a total turnover of 24 bill. Euro.

1. Situation:

1.1 European Directives and Standards

The rules and regulations for agricultural machinery and tractors are divided into two groups:

- **Tractors**: EC type approval 2003/37/EC regulating all relevant aspects for tractors (road traffic, safety at work, environmental protection).

- **Agricultural machinery**: EC Machinery Directive (98/37/EC, in future: 2006/42/EC) and harmonised European standards regulating the occupational health and safety requirements for agricultural machinery. Road traffic related requirements for towed implements and trailers will also be specified by the type approval according to 2003/37/C in the future. Due to the lack of individual directives, an EC type approval is at present not yet available, and the regulations of the individual member states apply.
In the past, these rules and regulations have to a great extent been characterised by harmonised joint actions of the interested parties. Requirements relevant to safety at work were included in the tractor directive. Thus, among other requirements, also those placed on roll-over protection structures were embodied in EU legislation.

The agricultural machinery standards put the essential health and safety requirements of the EC Machinery Directive into concrete terms by defining the state-of-the-art technology using specific requirements based on a risk assessment. The standards (EN, ISO) have contributed in a decisive manner to the falling numbers of accidents in agriculture and to the smooth and proper implementation of the EC Machinery Directive. Acceptance and incorporation in national provisions on the part of non-EU members emphasize the quality of the agricultural machinery standards.

Through the partial inclusion of tractors in the new Machinery Directive 2006/42/EC, two non-compatible law-making tools (old vs. new approach) are mixed and all parties concerned suffer from legal uncertainty (licensing authorities, technical services, market surveillance authorities, manufacturers). Doubt is being cast on the type approval procedure for tractors in its current proven form.

In view of the increasing internationalisation (e.g. export/import of machinery to/from non-EU members), the elaboration of agricultural machinery safety standards is shifted to an international level with the aim of laying down internationally harmonised safety requirements, which likewise do justice to regional requirements. This process has already advanced a long way and shows that the aim can be achieved.

1.2 Technology

On the part of the agricultural machinery industry, the customer requirements are met by the high-performance technology offered. Under the term ‘high-performance’ the following is to be understood:

- High output per unit of area with optimised consumption values (e.g. large working width, automated processes), and
- Ergonomically designed work places (e.g. cabins with optimised noise and vibration levels, air-conditioning, operator-tailored man-machine interfaces), and
- Safe machinery, characterised by the ‘integration of safety’ into the development process and low susceptibility to failure as a central component of the performance profile specified by market demands.
This requirement profile leads to an increasing complexity of technology and the intelligent networking of mechanical, hydraulic and electrical systems (hardware and software). When these features are being implemented, further challenges are presented by the high number of open interfaces (tractor – machine – operations management), the agricultural environmental conditions, the seasonal use of machinery and the completely different conditions of their use on roads or fields.

This requirement profile specified by the customer leads to (or forces) a higher innovation speed, at the same time, however, it is also an important reason for the technological edge of the European agricultural machinery industry.

2. Objectives

The agricultural technical rules and regulations have been developed jointly by the parties interested in agricultural safety and have proven their worth due to the application and practice-oriented safety requirements taking into account the specific conditions existing in agriculture. For this reason, priority objectives have to be the preservation of these rules and regulations, a uniform application throughout the agricultural machinery sector and a continuing development.

✓ **Preservation of the rules and regulations**: this includes, in particular, also to exclude tractors again and completely and the preservation of the ‘harmonised European standards’ status with regard to the new Machinery Directive (2006/42/EC), and the legal certainty resulting for all parties concerned;

✓ **Uniform application**: Intensify the dialogue, ensure common understanding and reduce regional differences, insofar as they still exist;

✓ **Continuing development**: taking into account amendments to the statutory regulations and the state-of-the-art technology, as well as experience resulting from practical use, in order to ensure acceptance on the part of legislators, customers and manufacturers.

3. Action Required

With regard to the inclusion of tractors in the new Machinery Directive, a working group put in place by the European Commission and staffed by member states and industry established that the Tractor Directive (2003/37/EC), in comparison with the Machinery Directive (2006/42/EC), does not address the following facts/risks

✓ Layout and contents of the operator's manual
✓ Hot surfaces protection
✓ Falling object protective structure (FOPS)
✓ Protection against objects penetrating into the driver’s cabin (OPS)
Protection against hazardous substances
Passenger protection

The Council of the European Union and the European Parliament expressed themselves in favour of addressing these risks by amending the Tractor Directive and, as soon as this is done, take tractors completely out of the Machinery Directive again.

On the European level (Machinery Committee of the European Commission) and in the individual member states, the agricultural machinery safety standards have repeatedly been criticised for putting the basic safety requirements of the Machinery Directive (Annex 1) not completely or not in a suitable form into concrete terms.

In deciding for the ‘New Approach’, the legislator deliberately decided for the tool of ‘standardisation’ and thus also accepted the basic principles of standardisation - free access for all interested parties, democratic, consensus-oriented (majority) decisions. For harmonised European standards as defined by the Machinery Directive, additional conditions apply to the development of the safety requirements (execution of a risk assessment) and the standardisation process (mandate, positive assessment by the CEN consultant, publication in the Official Journal).

With regard to harmonised European standards, in accordance with the Machinery Directive, member states are entitled as per article 6 (1) to raise an formal objection or to simply express their criticism in the Machinery Committee (article 6, (2)).

4. Solution Approaches

4.1 Tractors / Type approval 2003/37/EC

The Council of the European Union and the European Parliament expressed themselves in favour of preserving the type approval procedure in its present form and have decided to re-exclude tractors after the Tractor Directive has been amended. The European Commission has clearly defined the need for action with regard to 2003/37/EC. The revision work has already started.

Hot surfaces protection: this point has been ticked off the list by means of the Amendment Directive 2006/26/EC.
Layout and contents of the operator’s manuals: ISO 3600 is available as reference standard for the layout; the contents can be formulated based on Annex I of the Machinery Directive.
4.2 Agricultural Machinery / Safety Standardisation

An indispensable condition for the acceptance of standardisation, i.e. the recognition of the published standards and also the willingness to contribute to their elaboration, lies in the adherence to and consistent application of the standardisation principles. The principles laid down in the CEN rules of procedure and the ISO Directives allow all interested parties free access to the standardisation committees; at the same time, efficient and democratic procedures are defined for the standardisation work and reaching a consensus is laid down as an ultimate objective. With the inclusion of the CEN consultant in the standardisation process, and with the opportunities of formal objection envisaged in the Machinery Directive for the member states, additional tools have been created, with the help of which the standardisation can be supported in the area subject to statutory regulations, on the other hand, however, if applied wrongly, standardisation can be rendered impossible and reduced to absurdity.

In order to make the standardisation process efficient and achieve results acceptable to all parties concerned, the following points, above all, have to be ensured:

- The interested parties have to participate from the very start in the discussion on standardisation projects; this applies in particular to the state occupational health and safety bodies, because they act on behalf of the legislator and thus have a special obligation.
- The machine operator (customer) should contribute to the standardisation at least in selected standard projects, because the customer is directly affected by the standardisation results.
- Standardisation depends on technical arguments contributing to a correct risk assessment; only technical arguments make a constructive, consensus-oriented discussion possible.
Interested parties and other participants in the standardisation process (e.g. CEN consultant) have to be reliable partners and must also support accepted compromises.

Rights of formal objection and veto rights have to be used in a responsible manner and a condition for their use is (usually) an active contribution to standardisation projects. Formal objections presented at the end of the standardisation process do not support the common objective to enhance safety in agriculture as they do not improve the efficiency and quality of standardisation.

ISO, CEN and the national standardization institutes as their members can only provide a platform for the joint discussion, but cannot force anybody to participate. However, the national standardization institutes can and must ensure that all participating parties are reflected in the discussion and the results, because only in this way can standardisation as a tool for laying down regulations have a right to exist.