



**BUSINESS PLAN**  
**CEN/TC 149**  
**POWER-OPERATED WAREHOUSE EQUIPMENT**

**EXECUTIVE SUMMARY**

The whole industry – from raw materials through the production process to the customer – needs material handling technology. Cranes, conveyors, lifting equipment, industrial trucks, storage and retrieval machines are the means which keep the goods flowing. Racks, shelves and storage equipment are used for the storage of products during production or within the distribution channel.

In 2015, the European materials handling and storage equipment industry produced goods for a total of EURO 61,5 billion, of which EURO 27,7 billion were exported.

The most interested party in the standardisation process is the industry producing power-operated warehouse equipment causing risk to health and safety of persons working close to that kind of machinery as well as in transfer areas.

Other interested parties are all authorities who are responsible for the protection of health and safety of people in industry, trade unions, testing laboratories and certification bodies.

CEN/TC 149 has elaborated some EN standards in the field of power-operated warehouse equipment which improved the free movement of goods significantly. Some of these standards provided the basis for later elaborated ISO standards and – to a certain extent – the work of CEN/TC 149 could decrease worldwide trade barriers.

Due to the intensive dialog of experts and the systematic review of the standards, technical innovations and new developments with regard to the state of the art could be incorporated into the standards by CEN/TC 149 without considerable delay.

## **1 BUSINESS ENVIRONMENT OF THE CEN/TC**

### **1.1 Description of the Business Environment**

The following political, economic, technical, regulatory, legal, societal and/or international dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this CEN/TC, and they may significantly influence how the relevant standard's development processes are conducted and the content of the resulting standards:

#### **Interested parties**

The most interested party in the standardisation process is the industry producing power-operated warehouse equipment causing risk to health and safety of persons working close to that kind of machinery as well as in transfer areas.

This party includes all types and sizes of companies, from large international concerns to small and medium-sized enterprises. The respective products are subject to trade within the internal European as well as international market.

Other interested parties are all authorities who are responsible for the protection of health and safety of people in industry, trade unions, testing laboratories and certification bodies.

#### **Political factors**

The EU directive on machinery safety provides the basis for the activities of CEN/TC 149.

In order to assist manufacturers to prove conformity to this essential requirement and to allow inspection of conformity it is desirable to elaborate product-related harmonised European standards.

#### **Economical factors**

Standards of TC 149 contribute to the harmonisation of the legislative systems of the member states and to the elimination of trade barriers within the Community.

The design and construction of safe power-operated warehouse equipment as well as the harmonised certification system provide also an advantage on the international market.

#### **Social factors**

Power-operated warehouse equipment taking into account the state of the art of ergonomic measures which are described in the standards of TC 149 contribute to a better working environment. The number of diseases and accidents will be decreased by safe and ergonomically designed power-operated warehouse equipment. The consequence will be: Reduced social costs and support for a better economy within the Community.

#### **Technical factors**

With regard to the storage equipment technology and the great number of users, a lot of safety rules for the design, installation and assembly stages were already developed by the FEM (Fédération Européenne de la Manutention) member companies from the beginning of 1980.

This "pre-standardisation" work, in the form of FEM recommendations, served as a basis for the work in CEN/TC 149 and was also proved to be useful as "reference material" for the preparation of the first CEN draft standards.

The importance of the European materials handling equipment industry and the importance of the sector's international trade absolutely justify the standardisation of safety rules applicable to the design of these products to ensure their free movement.

In the past, different test and certification methods have been applied in the member states to control the compliance with national regulations. Now they are substituted by the harmonised standards of TC 149. Test and certification bodies as well as market surveillance authorities will be provided with unified test methods. Manufacturers will be supported with an agreed description of the state of the art regarding safety techniques.

### **Legal factors**

The presumption of conformity to the Machinery Directive granted by compliance with CEN harmonised standards guarantees a high level of safety to users, which are numerous, scattered and varied. Customers thus have an objective reference document.

All standards of TC 149 are drafted for support and specification of general legal regulations in respect to safety aspects for designed power-operated warehouse equipment.

Regulations in this respect are the New Approach Directives:

- Council Directive on the approximation of the laws of the Member States relating to machinery (Machinery Directive 2006/42/EC);
- Council Directive on the approximation of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

### **1.2 Quantitative Indicators of the Business Environment**

The whole industry – from raw materials through the production process to the customer – needs material handling technology. Cranes, conveyors, lifting equipment, industrial trucks, storage and retrieval machines are the means which keep the goods flowing. Racks, shelves and storage equipment are used for the storage of products during production or within the distribution channel.

In 2008, the European materials handling and storage equipment industry produced goods for a total of EURO 65,5 billion, of which EURO 13,5 billion were exported.

## **2 BENEFITS EXPECTED FROM THE WORK OF THE CEN/TC**

CEN/TC 149 has elaborated some EN standards in the field of power-operated warehouse equipment which improved the free movement of goods significantly. Some of these standards provided the basis for later elaborated ISO standards and – to a certain extent – the work of CEN/TC 149 could decrease worldwide trade barriers.

Due to the intensive dialog of experts and the systematic review of the standards, technical innovations and new developments with regard to the state of the art could be incorporated into the standards by CEN/TC 149 without considerable delay.

### **3 PARTICIPATION IN THE CEN/TC**

All CEN national members are entitled to nominate delegates to CEN technical committees and experts to working groups, ensuring a balance of all interested parties. Under certain conditions it is also possible to participate as observers of recognized European or international organizations. To participate in the activities of this CEN/TC, please contact the national standard organization in your country.

### **4 OBJECTIVES OF THE CEN/TC AND STRATEGIES FOR THEIR ACHIEVEMENT**

#### **4.1 Defined objectives of the CEN/TC**

Elaboration of standards on:

- Stipulation of safety categories for storage and retrieval machines -> EN 528:2009;
- Power-operated mobile racking and shelving, carousels and storage lifts – Safety requirements -> EN 15095;

For the time being it is not intended to create new working groups. It is recommended to keep the existing working groups after completion of their tasks (elaboration of standard) in order to observe the market and the accident situation, to deal with interpretation requests and to revise the standards when necessary.

#### **4.2 Identified strategies to achieve the CEN/TC's defined objectives**

In order to reduce costs and to save time, the TC and its working groups have decided to use only one appropriate language for discussion at meetings.

The last plenary meeting of CEN/TC 149 was held on 16 May 2002. Since that time all issues and queries have been resolved in writing and by voting on delegated resolutions. The CEN/TC is collecting proposed corrections and requested interpretations of existing standards. Within the 5 years systematic review it is evaluated if a standard is to be revised by the still existing working group.

CEN/TC 149 established a liaison with TC 344 which deals with steel static storage systems.

#### **4.3 Environmental aspects**

Environmental aspects have been considered and will be evaluated again during the revision of each part of EN 528. CEN Guide 4 will be used when the revisions will be prepared. However, it is the opinion of TC 149 experts that S/R machines have a low impact on environment. Some aspects, e.g. energy consumption, have been considered from the safety point of view, more than from the point of view of the impact with the environment.

## **5 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE CEN/TC WORK PROGRAMME**

The following risks have been identified during the work in CEN/TC 149:

- a) Time delay caused by work overload of the CEN Consultant;
- b) The restricted number of experts available for the work and the change of experts within a standardisation project are permanent problems causing time delay of projects. This bottleneck effect is intensified by the restrictions following economical problems in the European countries;
- c) Complex revisions of extensive standards may collide with the 3-years-time-frame.