

PREVENTING LOW BACK PAIN IN BRICKLAYING LEGISLATION AND SOCIAL PARTNERS AGREEMENT IN THE CONSTRUCTION SECTOR (DENMARK)

Type of initiative: Legislation and social partners agreement in the construction sector

Timeframe: 1992-present

1 Description of the initiative

1.1 Introduction

Bricklaying is considered to be a high-risk job in the construction sector. Numerous improvement notices on heavy loads and unhealthy working positions were first issued by the Danish Work Environment Authority (WEA) in the 1990s. In 1992, an agreement was reached between the Danish Construction Association and the relevant trade unions on the organisation and performance of bricklaying work. This agreement targeted a major reduction of bricklaying work in harmful high or low positions that were considered to cause low back pain.

Prompted by the general aim of this agreement, to reduce the extent of working in harmful postures, an initiative was undertaken in relation to the heights at which bricklaying was carried out. From inception, it took almost 10 years for the new guideline to take effect, as a number of changes were required in the industry: the size of brick pallets had to be adapted, new transport trollies and wheelbarrows were necessary, and scaffolding companies had to introduce new types of scaffolding. Builders, architects and project engineers were also required to familiarise themselves with the new standards and include these in their designs and building plans.

1.2 Aim of the initiative

The initiative aimed to prevent low back pain caused by heavy workloads and awkward postures, and consequently reduce sickness absence and healthcare costs.

1.3 Organisations involved

The initiative involved the Work Environment Council (WEC) for Construction (*Branchefællesskabet for arbejdsmiljø i Bygge & Anlæg*), composed of representatives of employers' organisations and trade unions in the construction sector; the Work Environment Authority (WEA), the Danish Construction Association (*Dansk Byggeri*, a trade and employers' organisation for approximately 5,700 contractors and manufacturing companies in the Danish building and construction sector); and *Fagligt Fælles Forbund* (3F), which is Denmark's largest trade union, with about 280,000 members in industry, construction, transport, public and private services, agriculture and other sectors.

1.4 What was done and how

A specification of the Executive Order (*Arbejdstilsynet*) of 1992, which includes the transposition of Directive No 90/269/EEC on manual handling of loads, led to an agreement between the Danish Construction Association and the relevant trade unions on a change in the way bricklaying work was to be organised and performed. Specifically, it aimed to reduce the span of work during bricklaying. Before the new guideline, a scaffold would traditionally be raised for each 1.5 metres of work. After the change, the span was reduced to 1 metre.

From the time of this agreement in 1992 it took 10 years before the labour inspectorate was able to notify construction companies to follow this guideline, as the industry needed to adjust to the new working processes. The pallet size had to be adjusted so that bricks could be delivered on pallets that would suit bricklaying over 1 metre span. Construction companies had to invest in new trollies and wheelbarrows. Scaffolding companies needed to adjust their scaffolds and introduce new types of scaffolding. Builders, architects and project engineers had to acquaint themselves with the new regulation so that they could include the requirements in building plans.

In 2002, the ergonomic loads associated with scaffolds raised every 1 metre and every 1.5 metres were compared, at the request of the WEC for Construction (6). The results showed that a high level of low back pain and fatigue among bricklayers was due to very low or very high work postures during bricklaying tasks. Reducing the height span of work from 1.5 metres to 1 metre led to a significant reduction in such work and thus helped to prevent lower back pain and other musculoskeletal disorder (MSDs). The survey highlighted that, as well as improving load handling for masons and bricklayers, raising scaffolding every 1 metre resulted in improvements in the quality of the walls.

On the basis of the 1992 Executive Order, and prompted by the findings of this survey, the WEC for Construction, together with the social partners, issued a recommendation to operators in the construction industry to apply the 1-metre span. This was accepted by the social partners in 2008, and work began on developing this into a practical solution (for which funding was made available). The WEC developed guidelines, proposed practical solutions (including new or modified equipment) and provided support to companies to change working practices.

A preliminary evaluation of the implementation in 2010 sought information on masons' and bricklayers' views of their working environments. A total of 15 construction sites were visited and interviews held with masons, workers and supervisors. Interviews were also conducted with managers and work environment managers in 10 masonry companies. The results showed that, for change to be widely accepted and adopted, it is not enough simply to issue new guidelines and expect the industry to follow. If changes are to be effective and lasting, individual workers need to be educated to understand the new ways of working and the benefits of the changes. This knowledge, and consequent measures to ensure that suitable training and information material was developed and widely disseminated, was clearly an important part of the initiative.

The social partners had an important role in the implementation of the agreement, as well as in the dissemination of information through the WEC for Construction and the sector councils and at company level.

The increased efforts of the WEA to encourage the introduction of ergonomic solutions, together with the preparation of guidance by the bricklaying industry and the social partners, have been a driving force in raising awareness about the introduction of the 1-metre span and its impact on the prevention of MSDs. Special attention was paid to the dissemination of this information to small and medium-sized enterprises (SMEs). An extensive toolbox of methods, tools and outreach programmes helped to engage this target group with the initiative.

1.5 What was achieved

All policy programmes in the area of safety and health at work, including the agreement, will be evaluated in 2020, with the following elements to be measured: accident rates, sick leave, turnover, costs of healthcare and key OSH indicators. As noted above, after the social partners' agreement in 2008, an intermediate evaluation was carried out in 2010, which showed that, on a practical level, the agreement had raised awareness of the benefits of the 1-metre span in the industry. However, the survey also highlighted frustrations within the sector, as not all of the necessary technical aids (e.g. an elevated pallet) had been rolled out in the industry. The preparation of the industry guidance itself necessitated many other initiatives and developments. By 2012, practical equipment such as correctly sized pallets and brick trollies had become more readily available on the market. By 2016, the new standard and system of work was regarded as broadly accepted within the industry.

1.6 Success factors and challenges

The 'orchestration' approach, which is a strategy where different stakeholders and activities are integrated into a unified programme, was an important success factor for the initiative. In practice, this required close collaboration and coordination between the WEA, the social partners and various other stakeholders in the industry. The idea is that, by providing a consistent, coherent message through a variety of channels, the orchestration approach helps to optimise the impact on individual bodies adopting separate initiatives.

Orchestration can be particularly effective in reaching target groups that are resistant to improvements, such as SMEs and the construction sector. The result should be that all stakeholders develop programmes in a more transparent manner, and that various policy instruments are combined to harness synergies between them. Currently, the Danish work environment policy is focusing on improving coordination between the many different actors in the Danish occupational safety and health (OSH) system.

1.7 Transferability

The bricklaying initiative can be seen as an example of the implementation of EU legislation through an orchestrated network, created in response to a national executive order and the subsequent agreement of the social partners. The orchestration strategy applied here could be used for other initiatives in any Member State where there is a strong social dialogue.

2 Background

Data from the Eurostat Labour Force Survey ad hoc modules show that, in the 5 years from 2007 to 2013, the percentage of workers in Denmark reporting some form of MSD remained essentially unchanged, falling from 59.0 % to 57.9 %, compared with an overall EU increase from 54.2 % to 60.1 % in the same period.

National legislation in Denmark implementing the provisions of the Manual Handling Directive and the Display Screen Equipment (DSE) Directive is complex, as the regulation of OSH is shared among four ministries, with separate legal acts for offshore work in relation to mineral extraction industries, shipping and fishing, and civil aviation, as well as provisions for general industry. The national provisions on manual handling generally mirror those in the directive, although their scope is broader (e.g. they encompass work in employers' private dwellings). There are no additional requirements in relation to the implementation of the DSE Directive.

Psychosocial risks are increasingly recognised as a contributory factor in respect of work-related MSDs. In Denmark, psychosocial risks are covered by the employer's general duty to ensure that working conditions are safe and do not present a risk to health. There are legal provisions in the Danish Working Environment Act, specifically in Executive Order No 559 of 17 June 2004 on the Performance of Work, that refer to psychosocial working conditions; mental health; bullying, including sexual harassment; and the employer's obligation to ensure that work does not involve a risk of harm to mental health. The psychosocial work environment has also been identified as one of the priority areas in the Danish strategy for the working environment, alongside MSDs and accidents at work.

3 References and resources

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