



Manual Handling of Loads in Europe 2007

SLIC WORKING GROUP, SUB-WORKING GROUP 1

A proposal for inspection in the Care and Transport sector

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1. Background and the purpose of the Exploration Document

Following the SLIC meeting on the theme of the manual handling of loads in Maastricht, November 2004, the SLIC has decided to appoint a working group that will design a European information and inspection campaign in an internationally oriented sector, relating to the supervision of EU Directive 90/269/EEC. The working group shall link this information and inspection campaign to the European Week of Health and Safety at work in the second half of 2007.

The purpose of this sub-project is to design an exploration document leading to a proposal for the (European/internationally-oriented or socially relevant) sectors where there is a problem relating to MHL. It contains a description of the facts, the possible problems on manual handling of loads, differentiated by sub sector and function but also describes the solutions for the problems. The exploration document must:

- Define a proposal for the inspection in the Transport and Care sector where there is a problem relating to the manual handling;
- Define where the problem of MHL is high (in which activities);
- Define the target population (workers exposed to these risk) and
- Propose the solutions for preventing or minimising MHL health risk.

Therefore the final goals of project is:

- To reach Better compliance in the EU with EU Directive 90/269/EEC "Manual Handling of Loads" in order to reduce musculo-skeletal disorders;
- To improve the inspection and communication methods of the national labour inspectorates by learning from existing methods and
- To reach greater harmony in the enforcement of the manual handling of loads throughout the EU i.e. EU Directive on the manual handling of loads to be implemented in a uniform and transparent way in the entire member states.



2. Exploration document

Both the transport and care sectors were identified as targets for this campaign because in most EU member states they present or likely to present significant manual handling ill health. EU experience indicates that inspectors find manual handling more difficult to address than most other topics. If we maintain a wider view we can potentially impact a larger population at risk and thus increase any multiplier effect from the pan European project. It also enables greater flexibility in any member state where there may already have been improvements made in a specific area and effort needs to be applied elsewhere.

Care

In the EU member states care sector much effort has been applied to handling of people. Initial emphasis was mainly on provision of handling aids. In some member states this resulted in a decrease in reported injuries. General experience of SLIC member states supports the need to address a range of manual handling tasks in the care sector details of these are given in the table below.

The suggested targets for the SLIC work are:

- Work activities involving people handling/assistance - nurses/carers, other professionals but excluding ambulance workers and emergency assistance (i.e. life threatening emergencies in the care sector) and
- Those handling loads in "services" activities in the care sector such as maintenance, cleaning, catering, portering, laundry etc.

Transport

General experience of SLIC member states supports the need to address a range of manual handling tasks in the transport sector details of these are given in the table below.

The suggested targets for the SLIC work are:

- airports - primarily work activities involving baggage handling and people handling/assistance but could also cover "services" cleaning, maintenance, catering and
- road – all road haulage, warehousing and goods delivery involving manual handling.



3. Controls Table

Task	Activities/Groups of workers exposed to MHL	The solutions for preventing or minimising MHL health risk
General		
Load weight	Raw materials and products packaged or designed in heavy unit weights.	<ul style="list-style-type: none"> - Bulk storage and transfer e.g. in big bags to prevent manual handling - Reduce unit weights e.g. use of smaller sacks. - Weight marking system
Pushing/pulling	Moving material on wheels	<ul style="list-style-type: none"> - Trolleys, roll cages etc. design for floor conditions e.g. consider larger wheels or pneumatic tyres for rough ground, improved bearings reduced friction guides, maintenance; - Stair climbing or star wheeled trolleys where stairs need to be negotiated; - Maintain flooring to remove bumps, potholes, provide gently sloped ramps at steps and design door thresholds with sloped surface to remove any "step" small ramp etc. and - Properly designed handles to, cages, containers etc. at height between waist and shoulder, giving good grip, protection for hands.
Training staff		Train staff: <ul style="list-style-type: none"> - in use of handling aids; - in safer handling techniques <ul style="list-style-type: none"> a) handling at waist height b) hold load close to body c) avoid reaching up, bending down and twisting - Training should reflect the environment in which lifting takes place (e.g. the confined conditions of an aircraft hold)
Office activities	Printing consumables, office moves and drinking water	<ul style="list-style-type: none"> - store consumables near point of use, use trolleys etc.; - Plan handling aspects of office moves or furniture changes, use trolleys, furniture skids etc.; - Consider handling aspects of office work during office design and - Water bottles avoid by using piped supply to cooling point, or use smaller sized containers, use of trolleys.



Task	Activities/Groups of workers exposed to MHL	The solutions for preventing or minimising MHL health risk
General		
Maintenance and cleaning tasks	Tools, spare parts, consumables, disinfectants. Cleaners' equipment.	<ul style="list-style-type: none"> - Store tools, spares and consumables near point of use; - Consider cleaning needs during design e.g. provide fixed access to reduce need for carrying access equipment; - Handling/carrying aids and trolleys for cleaners and - Mop buckets on wheels.
Catering	Storerooms in all premises, kitchens, larders	<ul style="list-style-type: none"> - Storage designed to enable use of handling aids; - Take account of handling requirements in the design of workplace; - Storage of item at appropriate height; - Break down of heavy loads into smaller units for manual handling; - Use of handling aids: <ul style="list-style-type: none"> a) dumb waiter hoists to reduce lifting and carrying b) trays on folding legs for table service - Training for waiters and waitresses



Task	Activities/Groups of workers exposed to MHL	The solutions for preventing or minimising MHL health risk
Transport		
Transport storage and warehousing	Order picking. Manual picking of mixed loads or single items.	<ul style="list-style-type: none"> - Automation instead of manual picking; - Use of mobile platforms and order pickers; - Storage takes account of manual handling needs e.g. allow enough space for use of mechanical aids; - Gravity feed racking to avoid unnecessary reaching to back of shelves or use a tool to move packages to front of shelf; - Arrange items given their size and weight to allow easy reaching and sensible postures; - Manual picking heavier loads from waist height, only light goods above head height; - Shelf stacking and stock taking using adjustable height handling aids; - Turntables to rotate pallets etc, tilting and variable height tables and - Packages have handles
Road transport	Road haulage industry deliveries	<ul style="list-style-type: none"> - Provision of hand straps on lorries; - Manual operation of trailer legs on HGVs (non-manual systems are available for trailer legs); - Maintenance of equipment and - Proper training.
	Security industry handling bulk coins	<ul style="list-style-type: none"> - Use of wheeled trolleys and - Minimisation of height through which bags are raised/lowered.
	Barrel and crate handling Public Houses cafes/leisure facilities	<ul style="list-style-type: none"> - Use of delivery vehicle hoists, ramps, cellar hoists and ramps and trolleys.
	Glass	<ul style="list-style-type: none"> - Glass handled using vacuum lifting frames, trolleys and hand tool suction devices and - Appropriate protective clothing.



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Transport		
	White goods and TVs.	<ul style="list-style-type: none"> - In store design storage to enable use of lifting aids. e.g. demonstration platforms in retail sector ramped or flat to floor; - Wheeled trolleys and two person lifting used where practicable; - Carrying handles provided on loads; - Heavy end of load marked and - Use of vehicle tail hoists and ramps, trolleys, star wheel trolleys for stairs and TV handling trolleys where appropriate.
	Mattresses	<ul style="list-style-type: none"> - Mattresses handled using trolleys, conveyors, trailer with loading hoist, team lifting. Delivery still problem area where vehicles are single person operated.
	Carpets	<ul style="list-style-type: none"> - Carpets handled using fork trucks with carpet boom, trolleys, carpet hoists in retail and warehouse premises. Delivery still a problem area
	Furniture removals/relocation	<ul style="list-style-type: none"> - Use of wheeled trolleys, slings and team lifting. Ramps from vehicles. Minimisation of slope of inclines. Delivery still a problem area.
	Steel stockholding	<ul style="list-style-type: none"> - Written delivery plans, and use of hoists, cranes and trucks



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Transport			
<p>Transport Airports</p> <p>Baggage/cargo handling</p>	<p>Loading/unloading of aircraft on airport aprons and in baggage handling halls, including security and screening staff</p>		<p>Handling and sorting:</p> <ul style="list-style-type: none"> - Reduce unit weight of baggage/items (IATA have agreed a maximum bag weight of 32 kg) - Mark / segregate heavy items eg luggage at check in; - Mechanise activity and avoid rehandling wherever possible eg use ULDs; - Handling equipment properly positioned / aligned eg conveyors, roller beds etc; - Use baggage dollies & Unit Load Devices (containerised bins) on the ramp; - Use adjustable height conveyor unless ULDs are provided or aircraft design makes it impractical; <ul style="list-style-type: none"> a) set at height to minimise bending during transfer of items between dollies and belt b) when loading set belt top inside aircraft body to drop bags onto floor of hold c) when unloading set at hold floor height - Consider use of conveyor which extends inside aircraft hold (e.g. rampsnake or similar system); - When not using conveyor belt park dolly close to the hold door; - Maintain of lifting aids/control measures and <p>Train staff in correct use of equipment and handling techniques</p>
<p>Assisting or moving people</p>	<p>People handling, casualty and disabled passenger handling</p>	<p>Workers handling, casualty and disabled passenger handling</p>	<p>Plan and arrange for "probable events."</p> <p>Ask the disabled person and/or their carer for advice on the best way to assist them. Use of properly designed and maintained equipment for handling persons, relevant to situation and environment.</p> <ul style="list-style-type: none"> - Hoists and lifting/handling aids at airports where practicable to assist disabled and incapacitated passengers into and off aircraft; - Scissor lifts and air bridges giving wheelchair / narrow wheelchair access to aircraft and <p>Carry-chairs</p>



Task	Activities/Groups of workers exposed to MHL	The solutions for preventing or minimising MHL health risk
Transport		
Catering maintenance cleaning service and storage	Tools, spare parts, consumable, disinfectants Cleaners' equipment.	<ul style="list-style-type: none"> - Store tools, spares and consumables near point of use; - Consider cleaning needs during design eg provide fixed access to reduce need for carrying access equipment; - Handling/carrying aids and trolleys for cleaners and - Mop buckets on wheels.
Catering	Storerooms in all premises, kitchens, larders and table service	<ul style="list-style-type: none"> - Storage designed to enable use of handling aids; - Take account of handling requirements in the design of workplace; - Storage of items at appropriate height; - Break down of heavy loads into smaller units for manual handling - Use of handling aids: - dumb waiter hoists to reduce lifting and carrying - trays on folding legs for table service - Training for waiters and waitresses.
Stevedoring in the harbours		<ul style="list-style-type: none"> - Avoid handling by using cranes hoists, tugs etc; - Use handling aids where possible; - Break down of heavy loads into smaller units for manual handling and - Take account of handling requirements in the design of workplace;



Task	Activities/Groups of workers exposed to MHL	The solutions for preventing or minimising MHL health risk
Care		
Assisting/ Handling people in hospitals, residential homes, home care, day centres and other locations which cater for persons with mobility needs who can assist themselves	Many incidents occur when care staff and others are assisting/handling people as part of: <ul style="list-style-type: none"> - transfer to and from bed - from bed to wheelchair - in bed and - during toilet visits etc. Assisting people who can also assist themselves	Below are some examples of reasonably practicable controls which can be used to protect the persons requiring mobility assistance and the assisters – health and social care professionals, carers, family etc who should be trained in correct use of the handling aid/technique. Care should be taken to take account of the persons current capabilities and mobility assistance needs. The selection of handling aids should also take into account the persons rights to autonomy, privacy and dignity. <p>Basic consideration:</p> <ul style="list-style-type: none"> - space, equipment and access needs considered in building design; - appropriate floor surface for wheelchairs; - chair, bed, bathroom etc. design taking account of mobility needs and - stair lift or conventional lift between floors <p>The assistance:</p> <ul style="list-style-type: none"> - Individual mobility needs are assessed and reviewed as part of the personal care plan; - The subject carries out a technique unassisted e.g. to sit up from lying position; - Use by trained persons of assistance techniques and or properly designed and maintained assistive devices/equipment, relevant to the individual, task and environment as: <ol style="list-style-type: none"> a) grab rails, hand ladders, and hand pads for movement in bed b) slide sheets, slide boards, rotating turntables, pivoting car seats, bath seats for transfer movements c) walking sticks, stand aids, zimmer frames, walking harness and hoist d) handling belt e) stair hoist and lifts
	Handling people unable to assist sufficiently with that movement	<ul style="list-style-type: none"> - Basic consideration as above; - Powered and non powered hoists overhead tracking and similar devices; - Inflatable cushion and - Wheelchair



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Care		
	Dealing with falls. Excludes life threatening emergencies	Plan to allow persons to fall in a controlled manner rather trying to catch them. Plan to recover people from the floor and include interim action in plan to check their status and to maintain their well-being: <ul style="list-style-type: none"> - Instruct person to get up e.g. using a chair and - Use by trained persons of assistance techniques and/or properly designed and maintained assistive devices/equipment, relevant to the individual, task and environment such as: <ul style="list-style-type: none"> a) inflatable cushion b) use of slides and slide sheets c) hoists and slings
Care sector support facilities	Storage, catering, maintenance and cleaning services	Basic consideration as above mentioned in generic section