

Reducing manual handling risks in carpet retail

Guidance on delivery to retailers and manual handling in retail storage areas



This is a web-friendly version of leaflet INDG439

Introduction

This leaflet gives information about the risk of manual handling injury in carpet retail. It gives guidance on delivery to retailers and manual handling in retail storage areas. It is aimed at manufacturers, delivery staff and carpet retailers. The leaflet contains examples of risk assessments which can be used to help identify and reduce the risk of manual handling injury to drivers when delivering carpets. It has been developed following research carried out by the Health and Safety Executive (HSE), the Health and Safety Laboratory (HSL), local authorities, and the Carpet Foundation, and some of its members, to try to reduce musculoskeletal injury risk to workers.

Causes of manual handling injuries

Musculoskeletal disorders (MSDs), including manual handling injuries, are the most common form of occupational ill health in the United Kingdom (UK). Self-reported data suggests that injuries to the back and neck are the most common, and can be caused or aggravated by manual handling. In 2008/09, employees reporting back or upper limb complaints took an average of 16 days off. Effective management of manual handling risks and by using appropriate lifting and handling aids can reduce manual handling risks to employees.

Manual handling problems often come from poor workplace or job design. Hazardous activities include:

- lifting heavy or awkward loads;
- using excessive force;
- repeated handling of heavy loads;
- poor posture and twisting when handling loads;
- handling loads in poor working environments.

At least some of these will be experienced by carpet delivery drivers and retail staff at some point.

The cost of manual handling injuries

Costs to the company can come from loss of production; poor product quality; sickness payments; accident injury claims and higher insurance premiums; high staff turnover and retraining. Possible costs to the individual are: pain; possible permanent disability; time off work and loss of earnings.

Legal duties

The Manual Handling Operations Regulations 1992 (as amended) identify a clear hierarchy of control measures:

- avoid hazardous manual handling so far as is reasonably practicable;
- assess any hazardous handling operations that cannot be avoided;
- reduce the risk of injury so far as is reasonably practicable.

The Regulations cover transporting or supporting a load by hand or by bodily force. Therefore, any potentially hazardous manual handling activities carried out by carpet delivery and retail employees require a suitable and sufficient risk assessment and the manual handling risks reduced as far as is reasonably practicable. This will apply to other goods that are stocked, eg underlay, vinyl, wooden and laminate flooring.

Key manual handling risks

Delivery drivers and retail employees often lift and handle heavy carpets. This leaflet identifies some of the most common manual handling risk factors and provides risk control measures for the following:

- transferring carpets from the manufacturer's premises to the delivery vehicle;
- transferring carpets from the delivery vehicle to the retailer's premises, including:
 - location and access issues;
 - the size of the retail premises;
- retail storage areas.

Movement of stock between the manufacturer's store and the delivery vehicle

Most manufacturers have a forklift or pallet truck with boom attachment, eliminating the need for employees to manually handle carpets in the warehouse and to the delivery vehicle. So, it is essential that the trucks and booms are given a periodic thorough examination, as required under the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER).



Figure 1 Boom attachment to handle carpets



Figure 2 Pedestrian-powered truck with boom attachment

Manufacturers need to consider the sequence of loading. For example, load the last carpet rolls to be delivered first, to eliminate the need for any additional handling.

Companies need a plan to deal with any last minute orders and returns. Some manufacturers have an allocated space in the vehicle where returns are placed, preventing unnecessary handling.

It is also important to allow enough space in the vehicle for the winch to be used, particularly if it is needed for one of the first deliveries.

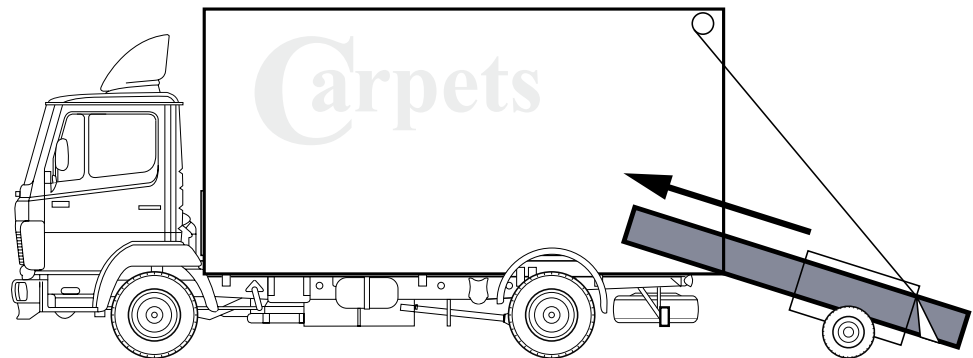


Figure 3 Winching carpet into the vehicle

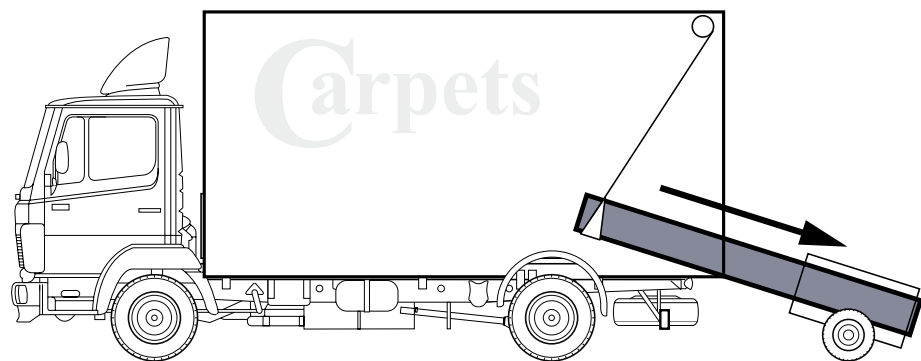


Figure 4 Winching carpet out of the vehicle

Delivery to retailers

Gaining access to premises

Manufacturers must have a system for dealing with deliveries to retailers, to prevent drivers undertaking hazardous manual handling activities, so far as is reasonably practicable. Some companies do this by involving the sales manager and/or health and safety manager. A visit to the premises will usually be needed to discuss and agree different options. For example, agreeing delivery to another facility or site. Some manufacturers also train their delivery drivers to carry out their own site-specific dynamic risk assessments (see example on page 11). Some of the problems faced by drivers when delivering to retailers involve location and access, retail storage areas and retail staff roles.

Location and access issues

Drivers can face difficulties when premises are located on the high street. These can include the following.

- Pedestrians getting in the way and being put in danger.
- Other deliveries being made at the same time, cars parked in the way or heavy traffic flow causing a collision hazard.
- Obstructions, eg skips, or other items obstructing access. Parking restrictions (eg no parking signs or double yellow lines) that may prevent delivery.
- Narrow one-way streets, as other vehicles cannot pass when the driver parks the vehicle to make a delivery. This will put pressure on the driver to unload the vehicle quickly and may increase their risk of a manual handling injury.
- If the delivery vehicle is not able to access the retailer's loading/unloading area, the driver will have to park some distance away. The driver will then have to manually handle the carpet to get it to the retailer which, combined with the pressure to unload quickly, may increase the risk of a manual handling injury.
- Some high street stores can only accept deliveries through the front entrance if there is no access to a designated delivery area. Drivers may also have to negotiate kerbs and steps and unless the store has a ramp, a trolley would be difficult to use.
- Limited space outside the premises can cause carpet rolls to protrude onto the road. This increases the risk of being struck by a vehicle. To avoid this, the driver may adopt a twisted posture when pushing the carpet into the store. Potholes, uneven surfaces and steps also add to the problems associated with manoeuvring a heavy carpet roll on a carpet trolley.



Figure 5 A narrow one-way street



Figure 6 Narrow and uneven driveway for delivery vehicles



Figure 7 Narrow street that large vehicles have difficulty accessing



Figure 8 Steps into a high street store



Figure 9 Carpet protruding onto the road

Providing drivers with traffic cones can help when they are manually handling carpets from the back of the vehicle where parking is restricted. Coning off an area will make sure other vehicles avoid parking close to the vehicle. The driver will then have enough space to remove the carpet rolls safely. When placing the cones, avoid obstructing access routes and make sure the cones are kept within the width of the vehicle.

Retail storage areas

Retailers have a duty under health and safety law to ensure the health and safety of their own employees and of people making deliveries at their premises. Retail premises vary in size, therefore the storage space available will vary. Delivery drivers will often come across storage areas that are difficult to access and badly organised (see Figures 10 and 11).



Figure 10 A badly organised storage area



Figure 11 Residential garage used to receive deliveries

Retailers should make sure access to their storage areas are free from clutter and trip hazards, so that when drivers enter the storage area they have a clear understanding of where the carpet is to be stored. Retailers should also remember that employees are required to handle carpet rolls in the storage area, so should continually make sure the area is organised and free from clutter. Having clear space within the storage area can also allow the use of manual handling lifting aids, eg sack trucks and trolleys, reducing the manual handling risk.

Retail staff roles

Some retailers may have employees who find it difficult to manually handle the carpets (eg are elderly, pregnant or suffering from health issues). Also, drivers can deliver to residential garages where there is no one available to assist with the carpet when it is delivered. This can increase the manual handling risk to the driver. Therefore, before the manufacturer makes a delivery, they should contact the retailer to check they have the appropriate handling aids to help reduce the risk of manual handling injury to the driver.

Examples of handling aids currently used in industry

The following are just a few examples of handling aids that are currently used in the industry. More information is available in the full report (see further reading).

- Carpet buggy/trolley/truck/cart.
- Carpet winch/carpet tug.
- Order picker and forklift attachments, booms/poles.
- Carpet manipulators.
- Carpet grabbers.

- Carpet lifters.
- Carpet paternosters.

Further ways of reducing risk

For smaller retailers, where the use of handling aids larger than carpet buggies may be impracticable and costly, some retailers have adopted simple risk reduction measures such as:

- arranging for their carpet fitters (usually subcontracted) to be on hand when deliveries arrive, to assist with manual handling;
- using simple books and/or photographs at the shop to reduce stock levels;
- purchasing carpets already cut to size;
- reducing the amount of stock stored in the premises.

Risk assessments

The examples under 'Key manual handling risks' show that delivery drivers come across various challenging situations when delivering carpets to retailers, which may increase their risk of manual handling injury. It is vital to eliminate all or some of these hazards, eg if access is difficult, or long carry distances are required.

Some of these situations can be overcome by adequately assessing and reducing the risks with sufficient planning. Also, it is important to involve all the drivers and safety representatives in the risk assessment process.

Most drivers deliver on the same route each week and are familiar with the premises and any problems they are likely to come across. However, new drivers or others covering deliveries are at a disadvantage as they will not be familiar with the route or the hazards at each site. Having a formal document that replacement drivers can view and/or take with them during the delivery is likely to provide valuable information.

Some members of the Carpet Foundation have developed risk assessment forms that can be used to identify the risks from injury when delivering carpets and control measures to reduce such risks. This leaflet contains two examples of these risk assessments. Further examples are available in the full report (see further reading).

A comprehensive risk assessment

This risk assessment can be **completed by retailers and/or by sales representatives** when visiting retailers. If this is not possible, it could be completed with the retailer over the phone; however, the carpet manufacturer would be relying on the retailer to provide accurate information. This risk assessment is divided into five key areas that present the most risk for manual handling. A score is recorded for each section and a colour band identifies which area presents the most risk. The colour bands are based on a traffic light system. For example, green represents a **very good** site and no action is required to reduce the risk from manual handling during deliveries; amber represents a **good** site where a more detailed review of delivery methods may be required; red represents an **average or below average** site and a prompt review of delivery methods is recommended; purple represents a **poor** site where an urgent review of delivery methods to reduce the risk from manual handling is recommended.

Delivery point safety checklist

There are a number of things to consider to ensure safe carpet delivery. Where practical, use handling aids to reduce the amount of manual handling during carpet delivery. Both delivery drivers and retailers need to consider handling aids as they will help to reduce the risk. This assessment breaks down the delivery into key areas:

- **Vehicle access to the retail delivery point:** Consider how close a delivery vehicle can park to the delivery point.
- **Access to retail storage areas:** Consider any obstacles from the vehicle to the storage area and the distance carpets need to be pushed or carried.
- **Floor surface:** Consider the quality of the floor surface from the vehicle to the storage area. Record the worst-case scenario.
- **Storage areas:** Consider the storage space (eg how easy is it to move around?).
- **Assistance:** Consider any help needed from the retailer.

Assess all premises that have carpet deliveries including a retailer's shop, or separate storage facilities. Pay particular attention to unstaffed premises to reduce the manual handling risks associated with the driver delivering the loads without assistance. Include the provision of adequate lifting and handling aids. Consider each of these points in turn and prioritise them with the most effective risk reductions listed first. Retailers should aim for the lowest score possible.

For each section, identify the statement that best fits the situation being assessed and put the appropriate score in the box provided. If the situation falls between two categories, use an intermediate score. Record the score and colour band for each section on the results table at the end of the risk assessment (ie green, amber, red, purple). The score from each section is then added together to get a total score. There is also a results interpretation table that gives suggestions for actions, depending on the total score.

Note: The purpose of the assessment is to identify and then reduce the levels of risk in the task. These assessments should be kept and reviewed to encourage continual improvement. This is an example risk assessment detailing the typical risk factors in carpet delivery but there may be other risk factors on individual sites.

Vehicle access to retail delivery point

The delivery point is separated from public access (eg the delivery vehicle can park in a specified bay and there is enough space to use a boom truck).	0
The vehicle can park off the main road, in a specified area, less than 20 m from the delivery door and a trolley is used; or, the carpet is manually carried less than 10 m.*	1
The vehicle must park more than 20 m from the premises and a trolley is used; or , the carpet is manually carried more than 10 m.*	3
Making the delivery involves crossing a busy road with the carpet.	5
*Note: Avoid manually carrying carpets wherever possible	
Score	

Access to retail storage areas

There is a clear, well-lit route wide enough to transport the carpet to the storage area using a trolley. This is kept clear at all times.	0
There is occasionally insufficient space along the route to the storage area (eg due to previous deliveries), but the retailer can clear these easily when the carpet is delivered; or , the trolley is pushed less than 20 m or the carpet is manually carried less than 10 m.*	1
There is insufficient space most of the time along the route to the storage area (eg due to previous deliveries), but the retailer can clear these with considerable effort when the carpet is delivered; or , the trolley is pushed more than 20 m or the carpet is manually carried more than 10 m.*	3
There is insufficient space all of the time along the route to the storage area (eg due to previous deliveries, doors that are not wide enough for a trolley to be used, there are sharp angles to turn through, etc).	5
*Note: Avoid manually carrying carpets wherever possible	
Score	

Floor surface

Dry and clean, in good condition, non-slipping and level.	0
Dry but slippery or visibly sloping.	1
Contaminated/wet, or steep sloping floor, or unstable footing.	2
There are changes in level that need to be negotiated (eg kerbs, steps, steep ramps or slopes, etc).	3
Score	

Storage areas

A boom truck can be used to take the carpet directly from the delivery vehicle and put it in the racking.	0
Racking is installed and there is sufficient space for the carpet to be loaded by hand; or, there is sufficient floor space for the carpet to be placed without the need to be stored on top of other deliveries.	2
The floor storage is readily accessible, but occasionally the carpet may have to be stored on top of other deliveries.	3
Storage areas have limited space that make it difficult for the delivery to be made, all the time.	5
Score	

Assistance

The premises are arranged so carpets never have to be handled manually and assistance is not required (eg there is a boom truck).	0
Assistance with the delivery is needed occasionally but there is always appropriate assistance from members of retail staff.	1
Assistance with the delivery is needed most of the time, but appropriate assistance is available if the retailer is given advance notice.	2
Assistance from the retailer is not available, but the delivery can be made if it is not taken to the storage area.	4
Assistance from the retailer is not provided and it is considered unsafe to make the delivery. The carpet has to be returned to the manufacturer, and access to the other carpet rolls is obstructed.	5
Score	

Results

Add in the scores and colour band from the five sections in the table below:

Section	Numerical Score	Colour Band (G,A,R,P)
Vehicle access to retail delivery point.		
Access to retail storage areas.		
Floor surface.		
Storage areas.		
Assistance.		
Total score.		

Interpretation of the results

Using the total score, review the table below for interpretation and action required.

Score	Result	Action required
<5	Very good	No action required
6-12	Good	Delivery methods may need to be reviewed in more detail
13-18	Average-below average	Prompt review of delivery methods recommended
19+	Poor	Urgent review of delivery methods recommended

This score should only act as a guide. If any individual section scores a 'red' or 'purple' then an urgent review of the delivery process will be required.

Dynamic risk assessments (DRAs)

The following DRA can be **completed by the driver** with sufficient training. This assessment is useful for situations where the driver arrives at the delivery point, and what they find is different from what they are expecting.

The driver must complete this risk assessment if they visit premises where there are specific hazards not covered by the generic risk assessment. The table is divided into two sections:

- **Type of hazard identified** with an initial risk rating (high, medium, or low). The driver marks an 'X' in the column next to the appropriate hazard. The level of risk associated with the hazard then needs to be assessed by the driver and circled.
- **Control measures**, where the remaining risk is assessed (high, medium, or low). Where possible, the control measures to reduce the risks should be actioned to make the delivery. The level of remaining risk then needs to be identified and circled. If the control measures to reduce the risk have been actioned, then an 'X' can be marked in the 'Complete' column.

The driver then needs to print their name, sign and date the form.

For unusual visits, the driver could also make a quick sketch of the site to help in future deliveries. For example, to provide information on how to access the loading area at the retailer's premises, if it is not straightforward.

Information on how to complete the table is at the bottom of the sheet in points 1, 2 and 3. Point 4 recommends drivers should contact their line manager in circumstances where the original risk is high and the control measures cannot be applied. Following a discussion with their line manager/supervisor the delivery could be amended or possibly abandoned depending on the severity of manual handling risk. Alternative arrangements for future deliveries would need to be considered.

Example of a DRA for delivery

DRA: Delivery

A DRA must be completed at any site that has specific hazards not covered in the delivery 'generic risk assessment'

Description of works

Work location

Job number

X	Type of hazard identified	Initial risk rating			Control measures	Remaining risk rating			Complete
		High	Med	Low		High	Med	Low	
	Site-specific hazards	H	M	L		H	M	L	X
1	Parking on busy roads with collision hazard	H	M	L	New parking area/high visibility jacket/warning lights	H	M	L	
2	No vehicle turning area with collision hazard	H	M	L	Do not enter/walk route first/use banksman if available	H	M	L	
3	Reversing required with no alternative	H	M	L	Walk route/banksman/camera/reversing sound beacon on	H	M	L	
4	Oversize kerb/obstructions/poor visibility on entry to premises unload area	H	M	L	Walk the route before entry/alternative route in/carpet trolley	H	M	L	
5	Vehicle height/weight/width limit due to road type/parking site	H	M	L	Check with base before departure	H	M	L	
6	Cleanliness/housekeeping hazard	H	M	L	Clear/alternative area/note state and report	H	M	L	
7	Kerbs/obstructions/reduced space	H	M	L	Clear/trolley/helper/alternative area/ring in	H	M	L	
	Driver-specific hazards	H	M	L		H	M	L	
8	Other forklift truck activity in unload area	H	M	L	Stay in cab/use pedestrian route/verbal warning of presence/PPE/don't enter	H	M	L	
9	Collision with FLT/boom	H	M	L	Pedestrian-vehicle segregate/high visibility PPE/awareness training	H	M	L	
10	Slip, trip or fall. Same level	H	M	L	Clear working area/move hazard/avoid area	H	M	L	
11	Slip, trip or fall from height	H	M	L	Handles/steps/boom/winch/refuse to climb	H	M	L	
12	Roll weight (hazard) too great with injury risk	H	M	L	Assistance/winch/trolley/ring in/return roll	H	M	L	
	Lone driver hazards	H	M	L		H	M	L	
13	Delivery into unmanned storage	H	M	L	Contact client/assist/ring on arrival/departure	H	M	L	
14	Inadequate lighting	H	M	L	Light required/ring for client assistance	H	M	L	
15	Climb stairway with trip/fall/slip hazard	H	M	L	Assistance/PPE/trolley/ring in/refusal	H	M	L	
16	Awkward layout causing poor manual handling position issues	H	M	L	Clear/trolley/assistance/alternative area/ring	H	M	L	
17	Set down area blocked by other rolls	H	M	L	Alternate set down area/report to base/await assistance/abort drop	H	M	L	
	Detail of hazard found				Follow-up action required as a result of your observation on site				

Risk assessment completed by:

- For hazards identified put an **X** in the left hand column. Consider if the level of risk is High, Medium or Low and circle **H**, **M** or **L**.
- Act on the control measures to reduce or negate the risks and put an **X** in the right hand box to confirm the measures have been applied. Identify new residual level of risk to either medium or low and circle **M** or **L** as appropriate.
- A DRA is flexible, so as job circumstances change carry out a new assessment to highlight changes to the risk.
- If the original risk is high and the control measures cannot be applied or are considered ineffective, work cannot proceed. In these cases, contact your line manager for advice.

Print name: _____

Signature: _____

Date: _____

Further reading

Are you making the best use of lifting and handling aids? Leaflet INDG398
HSE Books 2004 (single copy free or priced packs of 15 ISBN 978 0 7176 2900 8)
www.hse.gov.uk/pubns/indg398.pdf

Guidelines on the delivery of carpets to retailers Report ERG/09/25
(available from HSL, tel: 01298 218639)

Getting to grips with manual handling: A short guide Leaflet INDG143(rev2)
HSE Books 2004 (single copy free or priced packs of 10 ISBN 978 0 7176 2828 5)
www.hse.gov.uk/pubns/indg143.pdf

*Manual handling. Manual Handling Operations Regulations 1992 (as amended).
Guidance on Regulations L23* (Third edition) HSE Books 2004
ISBN 978 0 7176 2823 0

Manual handling assessment charts Leaflet INDG383 HSE Books 2003
(single copy free or priced packs of 10 ISBN 978 0 7176 2741 7)
www.hse.gov.uk/pubns/indg383.pdf

Manual handling: Solutions you can handle HSG115 HSE Books 1994
ISBN 978 0 7176 0693 1

*Safe use of lifting equipment. Lifting Operations and Lifting Equipment Regulations
1998. Approved Code of Practice and Guidance.* L113 HSE Books 1998
ISBN 0 7176 1628 2

*Typical manual handling activities performed in retail carpet stores:
The risks, and how to reduce them* Report HSL/2007/19 HSE 2007
www.hse.gov.uk/research/hsl/ochealth.htm

Further information

HSE priced and free publications can be viewed online or ordered from
www.hse.gov.uk or contact HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA
Tel: 01787 881165 Fax: 01787 313995. HSE priced publications are also available
from bookshops.

For information about health and safety ring HSE's Infoline Tel: 0845 345 0055
Fax: 0845 408 9566 Textphone: 0845 408 9577 e-mail: hse.infoline@natbrit.com or
write to HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG.

**This leaflet contains notes on good practice which are not compulsory but
which you may find helpful in considering what you need to do.**

This leaflet is available in priced packs of 10 from HSE Books,
ISBN 978 0 7176 6401 6. Single copies are free and a web version can be found at
www.hse.gov.uk/pubns/indg439.pdf.

© *Crown copyright* This publication may be freely reproduced, except for
advertising, endorsement or commercial purposes. First published 03/10.
Please acknowledge the source as HSE.