

Advice for employers on manual handling of bundles

Introduction

This leaflet has been prepared, in consultation with employer and employee representatives, by the Printing Industry Advisory Committee (PIAC) on behalf of the Health and Safety Commission.

Who is this leaflet for?

This leaflet is aimed at everyone involved in the production, distribution and sale of newspapers, periodicals and magazines: employers, safety managers, safety representatives, employees, agency and contract workers, and newsagents. It is particularly useful for those who are responsible for the workplace and for the weight of bundles that are sent up or down the distribution chain, but it will also be relevant to people who handle bundles in the course of their work, and their representatives.

A separate, shorter, leaflet has been produced for those who handle bundles in the distribution network, including newsagents and door-to-door newspaper deliverers. A training video dealing specifically with manual handling of bundles is also available.

Everyone in the distribution chain can take action to help prevent injuries from manual handling of newspaper bundles. Even corner-shop newsagents can play an important part by limiting the weight of the returns bundles they produce.

What's the problem with newspaper and magazine bundles?

Health and Safety Executive (HSE) inspectors and local authority environmental health officers have found that handling activities can cause serious musculoskeletal injuries, particularly when heavy bundles are being moved in unsuitable workplace conditions using poor working practices. Injuries cause hardship to the people affected, but also cost the industry money through increased sickness absence, reduced productivity and civil claims for damages.

Accident statistics, however, do not give the full picture about the seriousness of the risks involved. Patterns of employment including the use of 'self-employed'* or agency and contract workers means that many accidents are not reported. Also, assessment of the types of work involved shows that, though the risks to health can be high, the problems may not show up until later on in life. Back strain and upper limb problems, in particular, can build up over time as a result of repetitive heavy lifting and poor handling techniques. Many such injuries do not result from a single 'incident' and so go unreported.

It is important that standards are raised in the industry - to protect health and ensure that preventable injuries do not stop people from working or enjoying their leisure activities.

One of the most significant factors related to the risk of injury is the weight of the newspaper bundles being handled. Bundle weights are controlled by:

- the newspaper producers;
- the wholesalers when making up orders; and
- newsagents when making up returns.

In each case, those who make up the bundles may not only expose themselves to risks from handling the bundles they have created - the problem is passed along to others in the distribution chain. Everyone needs to be aware of the risks which they may create for others further down the distribution chain, and co-operate to help reduce the risk of injury.

Maximum weight agreement

After consulting with industry representatives, trade associations and trade unions, PIAC recommends the adoption, throughout the distribution network, of a maximum newspaper bundle weight of 18 kg, with the aim of reducing this to the lower weight of 17 kg as the target **maximum**.

Note that these figures do not represent bundles that can safely be handled in all circumstances. Manual handling

^{*} If a person working under your control and direction is treated as self-employed for tax and national insurance purposes, they may nevertheless be your employee for health and safety purposes. You may need therefore to take appropriate action to protect them. If you do not wish to employ workers on this basis, you should seek legal advice. Ultimately, each case can only be decided on its own merits by a court of law.

activities will still need to be assessed in each workplace, and particular local arrangements made to suit. Nor does it mean that individual firms cannot set lower limits, if their risk assessment merits it. Magazine producers work to a lower limit of a **maximum** of 15 kg, although 12 kg is the usual practice.

What's in this leaflet?

This leaflet gives advice about what to take into account in a manual handling assessment, and about measures to protect against the risk of injury, including training in handling techniques. It does not address the design of new systems but does look at some of the reasonably practicable solutions that can be used at most places where bundle handling takes place.

Prevention is better than cure, and this leaflet provides advice about modifying existing processes and/or equipment to see if some manual handling can be eliminated altogether. If this is not possible, the next step is to reduce the risk of injury by other means.

When do risks from bundle handling arise?

Although mechanisation is being introduced, manual handling of newspaper and magazine bundles is common throughout the distribution network.

Handling occurs during the:

- loading and unloading of delivery vehicles at the newspaper and magazine producers and throughout the distribution chain;
- making up of orders at the wholesalers;
- receiving of deliveries at the newsagent's shop;
- door-to-door delivery rounds; and
- processing of returns bundles made up by the newsagents.

A significant feature of the industry is the pressure to work quickly, which means that risks to handlers are likely to be greater than if they could work at a more measured pace. But tight deadlines are unavoidable and the risks need to be tackled in other ways. One aim of this leaflet is to provide guidance on some of the practical measures that can be taken to reduce risk.

Site mechanisation can in some operations facilitate the faster movement of large bundles with little or no manual handling risk, for example, the publishing rooms at the national newspaper producers. However, the ability to produce such large bundles quickly can increase the risk of injury for other people further down the distribution chain. Once bundles leave the mechanised publishing room, they have to be manually handled, either routinely or occasionally, by publishers' contract loaders and workers at the wholesalers and newsagents. Reliance on large bundles can also cause problems in the publishing room, for example in the event of equipment failure. Tackling manual handling risks needs an integrated approach to ensure that solutions are effective for all foreseeable circumstances and do not increase the risks to other people in the distribution chain.

What do I have to do?

This part of the leaflet details the legal requirements with which you need to comply. Although they refer to the legal duties of employers to their employees, employers also have duties to people who are not employed by them, but who may be affected by way the business is run. **Note: Comments in shaded boxes are legal requirements.**

General risk assessment

The Management of Health and Safety at Work Regulations 1999³ require employers to assess the risks to their employees.

It is likely that some newspaper producers, contract hauliers, wholesale distributors and newsagents will find that some of their employees are at risk from manual handling activities. Once this has been established, employers should refer to the Manual Handling Operations Regulations 1992⁴ for further specific duties.

Requirements of the Manual Handling Operations Regulations 1992

So far as is reasonably practicable, employers should avoid the need for employees to manually handle loads at work which involve a risk of being injured.

Even with existing systems, it may be possible to eliminate some manual handling tasks if the entire process is reconsidered (eg by selecting equipment that eliminates some stages of manual handling, and by making greater use of mechanical methods). Ideally, additional manual handling should not be introduced as a result of process modifications.

Where it is not reasonably practicable to avoid the need for manual handling, employers should make a suitable and sufficient assessment of any manual handling operation that might involve a risk of injury.

The assessment must consider the following:

The task: In particular, activities which involve holding or manipulating loads at a distance from a person's trunk, awkward body movement or posture (twisting or stooping), strenuous pushing or pulling, unnecessary repetitive handling, lack of time to rest or recover, or long carrying distances.

The load: In particular, size, weight, ease of handling, and whether symmetrical 'two-handed' lifting is used (where workers carry two bundles at the same time, one in each hand). A symmetrical lifting technique is preferable and creates less risk only in circumstances where you are not increasing the overall weight of the load.

Although bundles are generally compact, and the strapping provides a good handhold, remember that weight variation can mean that the ways lighter bundles are handled can be dangerous when handling heavier bundles. Remember also that strapping can cause cuts.

The working environment: For example constraints on posture (working in low-ceiling vans, uneven floor surfaces, variation in working levels), poor lighting and wet, cold or icy conditions.

The individual's capability: For example, the need for jobspecific training, individual physical characteristics such as the immaturity of delivery boys/girls, or ill health/existing injuries.

Any other factors: For example, wearing industrial gloves or overalls where vanways at the newspaper producers may not be well enclosed; low temperatures can increase the risk of injury, but thick layers of warm clothing can inhibit movement.

Further information on making an assessment is in the guidance to the Manual Handling Operations Regulations 1992.⁴

Following the risk assessment, employers are required to take appropriate steps to reduce the risks identified to the lowest level that is reasonably practicable.

This may require co-operation with other organisations, for example where an employer does not have full control over the working environment or plant and equipment provided for use by their workers. An example would be where agency or other contracted staff work at the wholesalers, or in the vanway at a newspaper producers. Such co-operation is a requirement of the Management of Health and Safety at Work Regulations 1999 (regulations 11 and 12).

The employer must also take appropriate steps to provide his employees with general indications on the weight of each load, so far as is reasonably practicable.

In the past, employers have not known the weight of bundles sent to them by others in the distribution network unless there was specific co-operation between those who produce the bundles and those who handle them. Co-operation is important because techniques and facilities for handling certain bundle weights may not be suitable for heavier bundles, and risks can increase when individuals encounter unexpectedly heavy bundles.

Employers are required to review the assessment if it is thought to be no longer valid, or if there has been a significant change in the manual handling operation.

You should monitor any steps taken to avoid manual handling, or reduce the risk of injury and review them to ensure they are adequate. If they are not, you should take alternative measures. An example might be where a wholesaler has to handle shrink-wrapped roll bundles instead of strapped bundles.

Practical solutions and tips

The following points should help you to make your manual handling assessment.

The task

General advice

- Arrange rest periods and task changes to help avoid the over-tiredness that can increase the risk of injury. Remember that moving bundles is physically demanding work.
- Ensure that the number of workers available matches the anticipated demand for their services. For example, short-notice contract labour can be brought in when high-profile news stories break and there is demand for extra copy.
- Use handling aids or mechanised handling to reduce the risk of injury.

Loading vehicles

- Move loads as near as possible to the vehicles.
- Palletise loads (particularly at the publishers) for large deliveries.
- Use boom loaders or retractable conveyors at the publishers' premises to reduce twisting and lifting during vehicle loading and palletising by hand.
- Use low-friction surfaces and rakes/pusher devices in the backs of small delivery vehicles.
- Use vehicles with both side and rear doors.

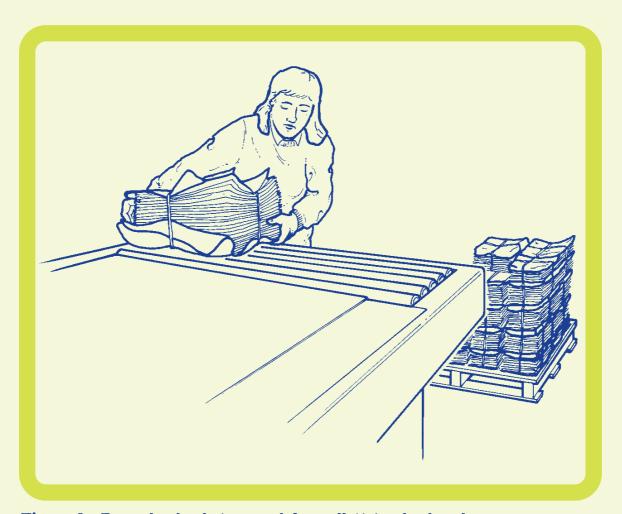


Figure 1 Boom loader being used for palletising by hand

Moving loads into and within the workplace

- Use conveyors.
- Use wheeled trolleys/cages or tables when moving bundles, but ensure they are not too big, because strain injuries have occurred when people have been moving large, fully laden roll cages, and others have been struck by cages that are too large for the person moving them to see over the top. Mark maximum load lines on large roll cages. Pushing cages is preferable to pulling them. For ease of movement, make sure that the wheels of trucks, cages etc suit the terrain of the workplace. Porters' trolleys may make the job easier for the newsagent.



Figure 2 Provide a maximum load line on larger roll cages

Making up orders and similar work

- Use handling devices such as rise and fall turntables/scissor lifts to reduce the need to lift and twist when handling bundles these devices ensure the height of a stack is kept at an acceptable working height.

 Co-operation may be needed between suppliers along the distribution chain so that pallets supplied are compatible with the type of equipment in use some pallet designs break apart when used on scissor lifts.
- Raise the load by supporting it on a table this can help to eliminate bending and twisting when making up orders in newsagents.

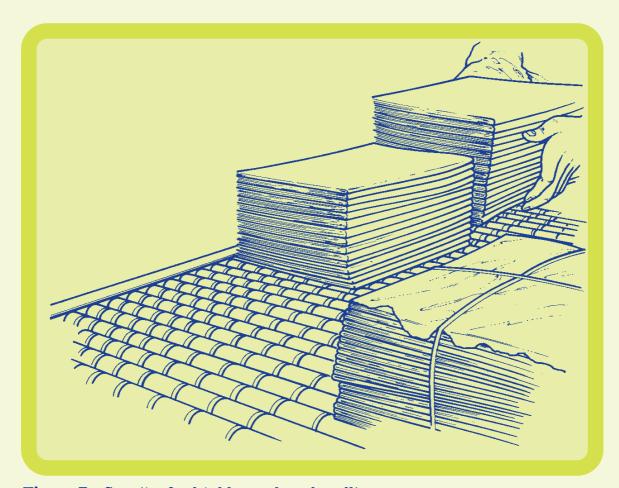


Figure 3 Gravity feed tables reduce handling

Reposition work equipment to achieve the most convenient design of the task. For example, positioning roll cages next to the strapping machines may help to avoid twisting when loading.

Delivery and collection of newspapers from newsagents

- Place a stout box or something similar in the base of the secure delivery box outside the shop this false base will raise the load and the avoid the need to stoop when lifting out the order or returns bundle. Ensure that the size of the false base takes account of the size of the next day's order.
- Send back returns every day, or several times a week to reduce the weight and number of bundles handled at any one collection.

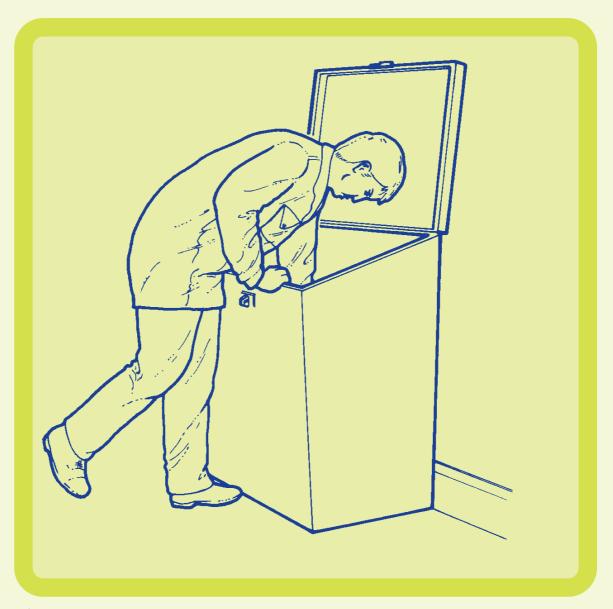


Figure 4 Avoid awkward postures by using a false base in the delivery box

The load

- Ensure your firm observes the maximum bundle weight limit recommended by PIAC (see page 3 for details).
- Consider using a system of tote boxes to make up individual newsagents' magazine orders. This ensures that individual loads do not exceed a maximum weight determined by the size of the box. These boxes also have well-designed carrying handles and can be used for returns by the newsagents.
- Mark load lines on the strapping machines or other packing equipment to keep bundles to agreed size limits.
- To avoid creating unnecessary risks from heavier or oversized bundles, newsagents should:
 - make up secure tied bundles with strong twine rather than using flimsy boxes. Provide suitable gloves to reduce the risk of burns;
 - use tote boxes where provided; and
 - limit the bundle height to no greater than those received.

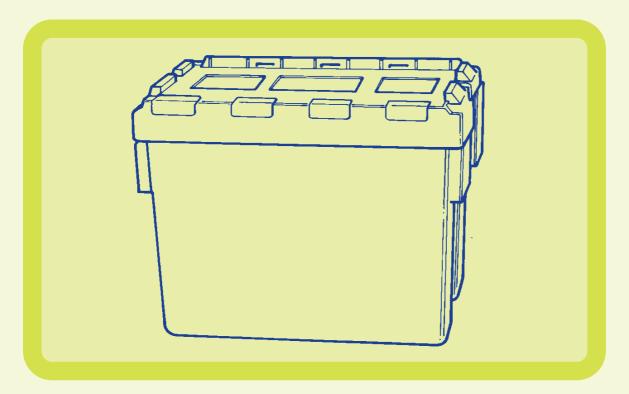


Figure 5 A suitable plastic tote box

The working environment

Provide boom loaders for loading directly into vans. These feed bundles straight into the vehicle and, as the height is adjustable, reduce the need for lifting and twisting. Retractable conveyors can also help to reduce lifting.



Figure 6 Boom loader used to feed bundles directly into a van

- Use larger delivery vans with side doors to avoid the problems of working in restricted spaces.
- If you cannot avoid using small vans, low-friction flooring (for example, steel profile flooring typically found in vans) can help to avoid the need to climb inside the vehicle and reduce the effort required to move the bundles. Avoid vans with boarded flooring.
- Always take care when loading to set up the round in the correct sequence.
- When you replace low-roofed vans, think about using high-roofed vans instead.



Figure 7 Vans with high roofs reduce risks from working in restricted spaces

- Take care to clear up strapping loops from the floor once they are removed from the bundle. These are a significant cause of trips and falls accidents, which frequently result in lost-time injuries.
- Ensure lighting is adequate so that bundles and any trip hazards may be clearly seen.
- Ensure floors and yard surfaces are even and that trolleys or roll cages are positioned as close as possible to packing tables and delivery vehicles. This will eliminate excessive reaching, and the need to carry bundles over unnecessary distances.
- Ensure loading areas are arranged so that there is ready access to the vehicles and cages, and that there is room for manoeuvring the cages manually.
- Ensure there is enough space for people to do the work, free of obstructions.
- Ensure work stations, for example where newspaper orders are made up, are at a height suitable for the worker's body size and the bundle sizes handled (this may need research for a particular location). This will avoid the need for excessive stooping.

The individual's capability

- Use the results of your risk assessment. For example there is additional risk of injury to delivery boys and girls resulting from their physical immaturity. Newsagents should provide all delivery staff with information about how injuries could occur, and make sure they all understand how to safely lift and carry their rounds, as well as when to recognise when the round needs to be split.
- Make allowance for any health problem of which you could reasonably be expected to be aware and which might have a bearing on an employee's ability to carry out manual handling operations safely. If there is good reason to suspect that an individual's state of health might significantly increase the risk of injury from manual handling operations, you should seek medical advice.
- Encourage employees to report relevant health conditions, such as hernias and lower back pain, both at recruitment and during their employment.
- Women should be advised to report when their pregnancy is confirmed. Special rules apply to ensure that work activities such as manual handling do not pose a risk to the health of pregnant women or their unborn child.^{3.4}

Other factors

Maintenance of equipment

- Ensure there is regular maintenance, defect reporting systems, and repair procedures for mechanical equipment such as roll cages, so that handlers do not have to improvise poor handling techniques.
- Lubricate wheel bearings on equipment that has to be pushed/pulled and remove any packaging material that has become entangled.
- Make sure that any powered handling equipment for moving bundles is fully functional.

Use of personal protective equipment

Ensure appropriate gloves and clothing are provided, as very low temperatures can result in an increased risk of injury. Gloves can also protect against cuts. Avoid very bulky clothing that can inhibit free movement.

Training and provision of information

- Training and provision of information will play an important part in helping workers to recognise and deal with manual handling risks, but these measures alone will not solve the problem. Employers should give priority to other control measures.
- Any training should be relevant to the type of manual handling undertaken by the employee, and the handling techniques, aids and devices they are required to use.
- Remember that although two-handed or symmetrical lifting is a safer technique in general, it will only reduce the risk of injury if the overall load is not increased.
- Heavy bundles should normally be moved using mechanical aids. Appropriate training should be given in the use of any equipment provided.
- Key points of the manual handling assessment should be passed on to employees.
- Use the training video *What the papers weigh*² which complements the advice in this leaflet.

Lumbar support belts

Be cautious when using lumbar support belts as it has not been proved how effective they are. There are many types of belt, each claiming to work differently and incorporating different design features. However, there is no evidence about which type of belt is most appropriate for which activities. Where manual handling of bundles is likely to cause injury, better protection will be gained from the use of aids or equipment to avoid the handling in the first place, or by improving the working environment and

reducing the bundle weights to an acceptable limit. The use of lumbar support belts on their own is unlikely to satisfy the requirements of the Manual Handling Operations Regulations 1992.

Supervision and monitoring the effectiveness of measures implemented

- Good practices can easily fall by the wayside, so supervisors need to check continuously that safe lifting techniques and handling aids and equipment are used.
- Monitoring statistics of injuries to employees and contractor or agency staff in such work is an important way of identifying problem areas, and preventing the increase of such difficulties.
- Investigating the records of musculoskeletal injuries may show which parts of the process are particularly prone to causing injuries.
- Revise your manual handling assessment if measures adopted to reduce risk do not appear to be successful.

References and further reading

- 1 Handling the news: Advice for newsagents and employees on safe handling of bundles IACL106 HSE Books 1999
- 2 What the papers weigh: Safe handling of bundles Video lasting approximately 18 minutes available for sale (£25 including VAT and postage) from HSE Videos, PO Box 35, Wetherby, West Yorkshire LS23 7EX. Tel: 0845 741 9411 (calls charged at local rate) Fax: 01937 541083
- 3 Management of health and safety at work. Management of Health and Safety at Work Regulations 1999. Approved Code of Practice L21 HSE Books 2000 ISBN 07176 2488 9
- 4 Manual handling. Manual Handling Operations Regulations 1992. Guidance on Regulations L23 HSE Books 1998 ISBN 0 7176 2415 3
- 5 Getting to grips with manual handling: A short guide for employers INDG143 HSE Books 1993

- 6 Manual handling: Solutions you can handle HSG115 HSE Books 1994 ISBN 0 7176 0693 7
- 7 Delivering safety Available to members of the National Federation of Retail Newsagents, Yeoman House, Sekforde Street, London EC1R OHS, Tel: 0207 253 4225
- 8 The safe delivery guide: An A to Z of helpful hints
 Available to members of The Newspaper Society,
 Bloomsbury House, 74-77 Great Russell Street, London
 WC1B 3DA, Tel: 0207 636 7014

While every effort has been made to ensure the accuracy of the references listed in this publication, their future availability cannot be guaranteed.

Further information

HSE priced and free publications are available by mail order from HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA. Tel: 01787 881165 Fax: 01787 313995.

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For other enquiries ring HSE's InfoLine Tel: 08701 545500, or write to HSE's Information Centre, Broad Lane, Sheffield S3 7HQ.

HSE home page on the World Wide Web: http://www.hse.gov.uk

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