# Your Company Ltd

MANUAL HANDLING ASSESSMENT

# Warehouse Order Picking and Packing

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|---|---|
| **Reference** | EX0015 |
| **Issue** | 1 |
| **Assessment Date** | 14/11/2026 |
| **Review Date** | 14/11/2027 |
| **Client** | Your Client Ltd |
| **Site Location** | Distribution warehouse |
| **Assessor** | Your Name, Health & Safety Manager |


**Executive Summary**

This manual handling risk assessment covers the warehouse order picking and packing operations, involving 15 operatives. The assessment evaluates the extraction of items ranging from 0.5 kg to 30 kg from racking (up to 2 metres in height), manipulation at packing stations, and the loading of delivery vehicles. Due to the high volume (200+ picks per shift) and the maximum load weight of 30 kg exceeding HSE guideline figures for individual lifting, robust control measures including mechanical aids, team lifting protocols, and ergonomic workstation design are mandatory to mitigate the risk of musculoskeletal disorders (MSDs).


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## 1. Assessment Details

| | | | |
|---|---|---|---|
| **Client:** | Your Client Ltd | **Site Location:** | Distribution warehouse |
| **Review Date:** | 14/11/2027 | **Assessor:** | Your Name, Health & Safety Manager |

## 2. Manual Handling Tasks

### 1. Low and Waist-Height Order Picking

9 MEDIUM , 3 LOW

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|---|---|
| **Task Description** | Manual order picking of small to medium goods from racking shelves located between floor level and 1.5 metres, placing items onto picking trolleys. |

**T - Task Factors**
Highly repetitive lifting (up to 150 picks per shift for this zone). Involves stooping for bottom shelves and carrying loads short distances to the trolley. Continuous pushing and pulling of the picking trolley along aisles.

**I - Individual Capability**
Requires good general fitness and stamina due to high daily step count. Operatives must be free from pre-existing lower back conditions. Manual handling awareness training is essential.

**L - Load Characteristics**
Loads vary between 0.5 kg and 15 kg. Mostly cardboard boxes or plastic totes with reasonable grip. Weight distribution is generally stable and predictable.

**E - Environment**
Warehouse environment with level, painted concrete floors. Aisles are 1.5 metres wide, providing adequate turning space. Artificial lighting is sufficient at 200 lux. Temperature is controlled.

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| **Load Weight** | 15 kg | **Frequency** | Approximately 150 picks per shift |
| **Duration** | Intermittent throughout an 8-hour shift | **Posture Requirements** | Frequent bending at the knees and waist, stooping to reach ground-level stock, holding items away from the trunk temporarily before placing in trolleys. |

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| **Mechanical Aids** | • Four-wheeled picking trolley<br>• Spring-loaded trolley base |
| **Control Measures** | • Reorganise warehouse layout to ensure fast-moving goods are stored in the 'golden strike zone' (between knee and shoulder height)<br>• Provide spring-loaded or height-adjustable picking trolleys to minimise bending when placing items<br>• Implement mandatory task rotation every 2 hours to prevent repetitive strain fatigue<br>• Ensure picking aisles are kept clear of empty pallets, shrink-wrap, and trip hazards<br>• Instruct staff to keep the load close to the body and avoid twisting while transitioning from rack to trolley |

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|---|---|---|---|
| **Initial Risk (Pre-Control)** | Likelihood **3** | Severity **3** | Score **9** (Medium) |
| **Residual Risk (Post-Control)** | Likelihood **1** | Severity **3** | Score **3** (Low) |

## 2. High-Level Order Picking (up to 2 metres)

16 HIGH | 12 MEDIUM

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| **Task Description** | Extracting lightweight to medium items from upper racking shelves up to 2 metres in height. |

**T - Task Factors**
Reaching above shoulder height. Extending arms to grasp loads, looking upwards (neck extension), and lowering items to waist height for placement onto trolleys.

**I - Individual Capability**
Requires adequate shoulder strength and mobility. Taller operatives may find this easier, whereas shorter operatives are at higher risk of overreaching. Not suitable for individuals with shoulder or neck impairments.

**L - Load Characteristics**
Weights range from 0.5 kg to 10 kg for high-level storage. Shapes vary, but grip may be compromised when reaching from below.

**E - Environment**
Adequate overhead clearance. Requires the use of mobile safety steps. Smooth flooring is necessary for safe positioning of access equipment.

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| **Load Weight** | 10 kg | **Frequency** | Approximately 30-40 picks per shift |
| **Duration** | Short durations, spread across the shift | **Posture Requirements** | Reaching above shoulder height, neck extension, backward leaning if access equipment is not positioned correctly. |

**Mechanical Aids**

- Mobile safety steps
- Kick stool

**Control Measures**

- Restrict high-level storage to lightweight items only (maximum 10 kg)
- Provide mobile, lockable safety steps with handrails to ensure operatives can lift from waist height rather than reaching overhead
- Ensure safety steps are inspected weekly under PUWER guidelines
- Train operatives never to stand on racking beams or lower shelves
- Use a hook stick or retrieval tool to slide items to the edge of the shelf before lifting

| | Likelihood | Severity | Score |
|---|---|---|---|
| **Initial Risk (Pre-Control)** | 4 | 4 | 16 (High) |
| **Residual Risk (Post-Control)** | 3 | 4 | 12 (Medium) |

## 3. Handling Heavy Items (15 kg to 30 kg)

16 HIGH → 4 LOW

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| **Task Description** | Picking heavy and bulky items from designated heavy-goods racking and transferring them to transport trolleys or pallets. |

**T - Task Factors**
Lifting weights that exceed HSE guideline limits for individual lifting. Requires significant physical effort, squatting, and precise coordination when lifting and lowering.

**I - Individual Capability**
Requires high physical capacity and core strength. Operatives must be specifically trained in team lifting techniques. Pregnant workers and young workers must be excluded from this specific task.

**L - Load Characteristics**
Loads are heavy (up to 30 kg) and may be bulky, shifting the centre of gravity away from the body. Lack of dedicated handles on large boxes increases grip difficulty.

**E - Environment**
Requires sufficient aisle space for two operatives to stand side-by-side or opposite each other. Floor must be completely free of slip/trip hazards.

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| **Load Weight** | 30 kg | **Frequency** | 10-20 picks per shift |
| **Duration** | 2-3 minutes per lift, spread across the shift | **Posture Requirements** | Deep squatting, grasping at floor or knee level, braced lifting, keeping the back straight and load close to the body. |

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| **Mechanical Aids** | • Hydraulic scissor-lift trolley<br>• Pallet truck |
| **Team Lifting** | Team Lifting Required — Team Size: 2 |
| **Control Measures** | • Mandatory two-person team lift for any single item exceeding 20 kg<br>• Store all items over 15 kg strictly at waist height to eliminate lifting from floor level<br>• Utilise hydraulic scissor-lift tables to match the height of the racking and eliminate lifting entirely where possible<br>• Mark all heavy items clearly with weight labels on the packaging and on the warehouse management system (WMS) pick list<br>• Ensure a designated lifting coordinator is appointed for each team lift to count down and synchronise movements |

| | | | |
|---|---|---|---|
| **Initial Risk (Pre-Control)** | Likelihood **4** | Severity **4** | Score **16** (High) |
| **Residual Risk (Post-Control)** | Likelihood **1** | Severity **4** | Score **4** (Low) |

## 4. Packing at Workstations

9 MEDIUM | 3 LOW

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|---|---|
| **Task Description** | Transferring picked items from trolleys to packing benches, scanning, securing in delivery packaging, and moving sealed parcels to the dispatch conveyor. |

**T - Task Factors**
Continuous, highly repetitive upper body movements. Reaching across packing benches for void fill and tape. Lifting sealed boxes and twisting to place them on dispatch conveyors.

**I - Individual Capability**
Requires sustained concentration and tolerance for static standing postures. Vulnerable to upper limb disorders (ULDs) from repetitive scanning and taping.

**L - Load Characteristics**
Varies by order; cumulative weight of sealed boxes can range from 1 kg to 30 kg. Centre of gravity may shift as loose items are placed inside boxes before void fill is added.

**E - Environment**
Fixed packing benches. Limited floor space around the bench due to incoming trolleys and outgoing conveyors. Constant ambient temperature.

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| **Load Weight** | 30 kg | **Frequency** | 200+ items packed per shift |
| **Duration** | Continuous 2-hour blocks between breaks | **Posture Requirements** | Prolonged standing, forward leaning over benches, reaching overhead for packing materials, twisting at the waist to place boxes on conveyors. |
| **Mechanical Aids** | • Gravity roller conveyor<br>• Tape dispensers | | |
| **Team Lifting** | Team Lifting Required — Team Size: 2 | | |
| **Control Measures** | • Provide height-adjustable packing benches to accommodate operatives of different statures<br>• Install anti-fatigue matting at all packing stations to reduce lower limb stress from prolonged standing<br>• Position dispatch conveyors immediately adjacent to the packing bench to eliminate carrying and minimise twisting<br>• Store void fill, tape, and frequently used box sizes within easy reach (zone of convenient reach) to prevent overstretching<br>• Implement a buddy system for packing and moving any sealed boxes exceeding 20 kg to the dispatch area | | |

| | Likelihood | Severity | |
|---|---|---|---|
| **Initial Risk (Pre-Control)** | 3 | 3 | Score **9** (Medium) |
| **Residual Risk (Post-Control)** | 1 | 3 | Score **3** (Low) |

## 5. Loading Delivery Vehicles

16 HIGH | 12 MEDIUM

| | |
|---|---|
| **Task Description** | Transferring packed parcels from the dispatch staging area into delivery vans or lorries, stacking boxes efficiently within the vehicle cargo area. |

**T - Task Factors**
Lifting from conveyors/cages to the vehicle bed. Pushing roll cages over dock levellers. Stacking items above shoulder height inside the vehicle. High cardiovascular demand.

**I - Individual Capability**
Physically demanding task requiring high stamina. Workers must be competent in assessing load stability and vehicle capacity. Enhanced risk for those with previous back injuries.

**L - Load Characteristics**
Parcels up to 30 kg. Potential for unstable loads if roll cages are poorly packed. Rain or cold weather may make outer cardboard packaging slippery.

**E - Environment**
Loading bay involves exposure to outdoor weather conditions (wind, rain, temperature fluctuations). Transition over dock levellers poses a pushing/pulling risk. Poor lighting inside trailer extremities.

| | | | |
|---|---|---|---|
| **Load Weight** | 30 kg | **Frequency** | Loading 2-3 vehicles per shift |
| **Duration** | 45-60 minutes per vehicle | **Posture Requirements** | Bending below knee height to lift from cage bases, twisting to place items, reaching overhead to stack boxes, forcefully pushing roll cages. |

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| **Mechanical Aids** | • Telescopic roller conveyor<br>• Roll cages<br>• Pallet truck<br>• Dock leveller |
| **Team Lifting** | Team Lifting Required — Team Size: 2 |
| **Control Measures** | • Extend telescopic roller conveyors directly into the vehicle cargo area to eliminate walking and carrying parcels<br>• Deploy a minimum of two operatives per vehicle to share the loading workload and facilitate team lifting for heavy parcels<br>• Limit the weight loaded onto individual roll cages to ensure pushing/pulling forces remain below HSE guidelines (20 kg starting force)<br>• Provide task lighting (e.g., dock lights) to illuminate the interior of delivery vehicles<br>• Ensure dock levellers are maintained properly to prevent jarring when moving cages from the warehouse floor to the vehicle |

| | Likelihood | Severity | |
|---|---|---|---|
| **Initial Risk (Pre-Control)** | 4 | 4 | Score **16** (High) |
| **Residual Risk (Post-Control)** | 3 | 4 | Score **12** (Medium) |

## 3. General Principles

- Avoid manual handling operations wherever reasonably practicable by utilising conveyors, pallet trucks, and trolleys
- Where manual handling cannot be avoided, assess the risk using the TILE framework and implement suitable controls
- Always plan the lift: assess the load, check the route for obstacles, and secure a safe destination point
- Keep loads close to the body, as holding a load at arm's length significantly increases the stress on the lower back
- Adopt a stable base, bend at the knees, and use the strong muscles of the legs to lift, keeping the back straight
- Avoid twisting the trunk, stooping, or reaching over obstacles while handling loads; move the feet to turn instead
- Break large or heavy loads into smaller, lighter units where practicable
- Do not attempt to catch falling loads
- Ensure all operatives are empowered to request assistance or team lifting for loads they feel are beyond their individual capacity

## 4. PPE Requirements


Hi-vis clothing


Protective clothing


Gloves


Safety footwear

- Safety footwear with protective toe caps and slip-resistant soles (EN ISO 20345 S3)
- Nitrile coated or rubber grip safety gloves to enhance grip and prevent cuts from cardboard/banding (EN 388:2016)
- High-visibility clothing when working in the loading bay and vehicle movement areas (EN ISO 20471)
- Thermal clothing and waterproof jackets for operatives working in loading bays exposed to the elements (EN 342 / EN 343)

## 6. Risk Matrix Reference

| | Negligible (1) | Minor (2) | Moderate (3) | Major (4) | Catastrophic (5) |
|---|---|---|---|---|---|
| **Almost Certain (5)** | 5 | 10 | 15 | 20 | 25 |
| **Likely (4)** | 4 | 8 | 12 | 16 | 20 |
| **Possible (3)** | 3 | 6 | 9 | 12 | 15 |
| **Unlikely (2)** | 2 | 4 | 6 | 8 | 10 |
| **Rare (1)** | 1 | 2 | 3 | 4 | 5 |

1-5 Low  6-12 Medium  15-25 High

## 7. Competency Requirements

| Qualification | Description | Required For | Verification |
|---|---|---|---|
| **Manual Handling Awareness and Practical Training** | Understanding of the Manual Handling Operations Regulations 1992, application of the TILE framework, practical lifting posture, and early recognition of musculoskeletal symptoms. | All warehouse operatives, packers, and loaders | Review of training certificates and practical competency sign-off during induction |
| **Manual Handling Risk Assessor (e.g., IOSH Managing Safely or specific assessor course)** | Competence to draft, review, and update manual handling risk assessments, and investigate musculoskeletal incident reports. | Site Health and Safety Coordinator / Warehouse Manager | Validation of external training certificates (e.g., IOSH, NEBOSH) |

| Qualification | Description | Required For | Verification |
|---|---|---|---|
| **PUWER Equipment Operator Training** | Safe operation of manual and powered pallet trucks, hydraulic scissor lifts, and dock levellers. | All operatives using mechanical aids | In-house competency checklist and authorisation to operate records |

## 8. Regulatory Compliance

| Regulation / Standard | Section | Relevance to This Assessment |
|---|---|---|
| **Health and Safety at Work etc Act 1974** | Section 2(1) and 2(2) | General duty of the employer to ensure, so far as is reasonably practicable, the health, safety and welfare of all warehouse staff, including a safe system of work for order picking. |
| **Manual Handling Operations Regulations 1992 (as amended 2002)** | Regulation 4(1)(a) | Duty to avoid manual handling where reasonably practicable by deploying conveyors and pallet trucks. |
| **Manual Handling Operations Regulations 1992 (as amended 2002)** | Regulation 4(1)(b)(i) | Requirement to formally assess the risks for warehouse picking and loading operations that cannot be avoided. |
| **Provision and Use of Work Equipment Regulations 1998** | Regulations 4, 5 and 9 | Ensuring all picking trolleys, pallet trucks, mobile steps, and dock levellers are suitable for the task, maintained in safe working order, and operatives are trained in their use. |
| **Workplace (Health, Safety and Welfare) Regulations 1992** | Regulations 8, 11 and 12 | Ensuring warehouse lighting is adequate, workstations are suitably arranged, and floor surfaces in aisles and loading bays are sound, level, and free from slipping/tripping hazards. |

## 9. Inspection & Monitoring

### Supervision Arrangements

Warehouse supervisors are to conduct daily floor walks to monitor manual handling practices, correct unsafe lifting postures immediately, and ensure mechanical aids are being utilised.

### Inspection Schedule

Pre-use checks on pallet trucks and trolleys daily by operatives. Weekly formal visual inspection of all mechanical aids and mobile steps by supervisors. Monthly review of picking weights and WMS data.

### Responsible Person

Warehouse Shift Manager / Health and Safety Coordinator

### Review Triggers

- Any report of a musculoskeletal injury, ache, or discomfort by an operative
- Changes to the warehouse layout, racking height, or introduction of new packaging sizes
- Introduction of goods weighing more than the current 30 kg maximum
- Changes in workforce personnel, including the onboarding of new starters or return-to-work following sickness/injury
- Routinely at intervals not exceeding 12 months (Next Review Date: 28/10/2024)

## 10. Applicable Legislation

- Manual Handling Operations Regulations 1992 (as amended 2002)
- Health and Safety at Work etc Act 1974
- Management of Health and Safety at Work Regulations 1999
- Provision and Use of Work Equipment Regulations 1998
- Personal Protective Equipment at Work Regulations 1992 (as amended 2022)
- Workplace (Health, Safety and Welfare) Regulations 1992

## 11. Emergency Procedures

**Nearest Hospital / A&E:** To be confirmed before work starts
**Emergency Services:** 999. Stop work, make the area safe, administer first aid, report to the site manager.

### 12. Staff Acknowledgment

I confirm that I have been inducted, understand the manual handling risks identified, and agree to follow the control measures outlined in this assessment.

| Name | Position | Date Signed | Verification |
|---|---|---|---|
| *No staff acknowledgments recorded yet.* | | | |

### Assessor Declaration & Client Acceptance

I confirm that this assessment has been prepared by a competent person and represents a suitable and sufficient assessment of the risks associated with the described work activity, in accordance with the Management of Health and Safety at Work Regulations 1999.

**Prepared By (Assessor)**

Your Name, Health & Safety Manager
Name & Position

Signature

Date

**Accepted By (Client / Principal Contractor)**

Name & Position

Signature

Date