# Skills Assessment: Manual Handling

**Event 2 of 2**

# Trainer & Assessor Marking Guide

## Criteria

### Unit code, name and release number

MEM11011B - Undertake manual handling (1)

This unit sits in all the qualifications below. This assessment is not to be amended

### Qualification/Course code, name and release number

MEM30305 - Certificate III in Engineering - Fabrication Trade (4)

MEM30205 - Certificate III in Engineering – Mechanical Trade (3)

Amend the qualification box before distributing to the student. The information here should only contain the qualification the student is enrolled in

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Instructions for the trainer and assessor** | This is a skill based assessment and will be assessing the student on their ability to demonstrate skills required in the unit.  This assessment is in 2 parts:   1. Practical 2. Observation Checklist   Model answers, sample responses or a criteria for each task or activity is provided below.  Use these to support your judgement when determining a satisfactory result.  The student’s response to each question must contain the information indicated in this marking guide in order for their response to be correct. However, if a student provides information other than indicated below, and in the professional opinion of the assessor it is appropriate and meets the intent of the question, it may be considered correct.  Complete the Observation Checklist for each task and activity and the Assessment Feedback to the student. Ensure you have taken a copy of the assessment prior to it being returned to the student.  The Assessment Feedback page must be signed by both the student and the assessor so the student displays that they have received, understood and accepted the feedback.  Ensure the students name appears on the bottom of each page of the submitted assessment. |
| **About this marking guide** | The student’s response to each task or activity must contain the criteria indicated in this marking guide in order for their response to be correct.  All tasks and activities must be completed correctly in order to satisfactorily complete this assessment event.  Assessors will need to make a judgement call as to whether each response meets the criteria based upon the:   * Rules of Evidence:   + Validity – does the answer address the skill required and does the evidence reflect the four dimensions of competency?   + Sufficiency – is the task or activity sufficient in terms of length and depth?   + Currency – has the work been done so recently as to be current?   + Authenticity – is this work the student’s own authentic work? * Principles of Assessment   + Fairness – individual student’s needs are considered in the assessment process   + Flexibility – assessment is flexible to the individual student   + Validity – any assessment decision is justified, based on the evidence of performance of the student   + Reliability – evidence presented for assessment is consistently interpreted and assessment results are comparable irrespective of the assessor conducting the assessment * Dimensions of competency   + Task skills   + Task Management Skills   + Contingency Planning Skills   + Job Role Environment Skills |
| **Student must provide** | Pens, PPE |
| **Assessor must provide** | * A lift object weighing approximately 15 to 25 kg’s which is cylindrical in shape. Suggested examples are:   + E size Oxygen or Acetylene Cylinder = 22kg (approximately)   + 20 Litre Drum (containing fluid which will affect weight) * Two wheeled hand trolley * Cargo strap or tie down strap. Must be long enough to wrap around the load object and the two wheeled hand trolley in order to secure the load * An explanation and demonstration in the safe use of the two-wheeled hand trolley and effective load strapping * An explanation of the weight of the lift object or provide a source from which the weight of the object can be determined by the student * An allocation of students into teams of two (2) * A workshop facility. A readily accessible source location for the object to be moved from. The location must have clear access for the trolley, two (2) students and the assessor. The location must have the lift object stored on the ground, preferably concrete or timber floor * A pathway through a workshop facility, spanning a distance of up to 20 metres * A destination location for the object to be moved to. The location must have clear access for the trolley, two (2) students and the assessor. The location must have sufficient space for the lift object to be stored safely and securely on the ground, preferably concrete or timber floor |
| **Due date/time allowed/venue** | 60 minutes |

## Part 1: Practical

To complete this part of the assessment, the student is required to participate in a practical demonstration of how to complete a task or activity.

These practicals will be observed by you, or the student can digitally record them and submit them as evidence.

The student’s responses will be used as part of the overall evidence requirements of the unit.

You should refer to the list of criteria provided in the Observation Checklist to understand what skills the student is required to demonstrate in this section of the assessment. This Checklist outlines the Performance Criteria, Performance Evidence and Assessment Conditions you will be marking the student on.

Once completed the student is required to submit this assessment and the tasks and activities required to be completed to you for marking.

**Contingency Management:**

While undertaking this task a number of unforeseen circumstances may arise. As an assessor you have the opportunity to question each learner to gather an understanding of how the student will respond to these events. Below is table 2.0 with examples of possible questions.

The assessor also has the opportunity in the observation checklist to record other relevant questions and responses in the table “Table 5.0 Additional Questions”

Table 2.0 Contingency Management

|  |  |  |
| --- | --- | --- |
| Scenario | Assessors question | Acceptable students response |
| Power failure in workshop | What is the correct action in the case of power failure? | *Power failure may or may not impact on this assessment as only involves a manual handing task.*  *Lights going out in the workshop may mean that there is a lack of light to complete activity. Would need to talk to assessor about alternative lighting or moving to another area.*  *Would need to re-schedule assessment if lights went out and another alternative could not be found* |
| Emergency evacuation | What do you do if an emergency evacuation drill happens during the assessment? | *Would be required to follow the emergency evacuation procedure that was explained duration induction. Which should include:*  *Leave work area in a safe manner*  *Follow instructions of warden*  *Assemble in emergency evacuation area*  *Return to work as directed by warden and resume assessment with time allowance adjustment* |

**Manual Handling Task Specification**

The scenario is that two (2) students will work as a team to carry out a manual handling activity involving, planning, lifting, transporting and setting down an object as specified in a) to f) below:

|  |  |
| --- | --- |
| 1. The lift object will be; stored at ground level, cylindrical in shape and weigh approximately 20 to 30kg | |
| 1. The object will be place on a two wheeled hand trolley similar to this. | SCA Hand Trolley, Pneumatic Wheels - 250kg, , scaau_hi-res |
| 1. The object needs to be secured to the two wheeled trolley with a cargo strap or tie down strap similar to these. | |
| https://images-na.ssl-images-amazon.com/images/I/61fKMuuzuZL._SL1001_.jpg | Image result for cargo straps" |
| 1. The object will be transported, ensuring the safety of the students participating in the assessment, and any students or TAFE staff in the area. The security of the object must be ensured over a designated path of approximately 20 metres to a new location. | |
| 1. The object will be set down at ground level at the destination location in a safe and secure manner | |
| 1. The two wheeled trolley and cargo/tie down strap will be returned to their storage point. | |

**Task 1 – Workplace Inspection**

The assessor will give a verbal presentation, which provides instruction on all the Tasks to be carried out.

The student is required to carry out a workplace (workshop) inspection where the details of the Manual Handling Task Specifications (from a) to f) ) will be provided by the assessor. Each student is required to:

* (PC1.2) select and wear the correct PPE before entering the workshop location for the inspection.
* (RS8) listen to the assessor or teachers explanation of the manual handling activity
* (PC1.2, RS8) listen to the instruction provided on the safe working practices involved for the use of the 2 wheel hand trolley and the cargo/tie down strap
* (PC1.1, RS1, RS2, RS7) check and clarify any task related information including; the weight of the object and the written instructions detailed in the specification.
* The student will be required to seek clarification on the details of the tasks, by asking the assessor two (2) questions in relation to the tasks. The assessor will also ask the student one (1) question to confirm the student’s understanding of the tasks. These questions and responses will be recorded in the Observation Checklist by your assessor. Sample questions are available for the assessor to use to select from.

**Task 2– Plan the Manual Handling Task**

(RS1, RS4) After the students have; read the specification for the task, attended the workplace inspection, listened to a verbal explanation and had the opportunity to ask questions they are required to plan the manual handling task.

* Complete the planning details on the template provided in Table 3.0 below.

**Task 2– Plan the Manual Handling Task**

|  |  |  |
| --- | --- | --- |
| Table 3.0 Job Plan Information | | |
| Name of Team Member 1 (TM1) | Name required | |
| Name of Team Member 2 (TM2) | Name required | |
| Description of (lift) object | Description of item selected locally | |
| Approximate weight of object | Weight of item selected locally | |
| Source location of object | Source location set locally | |
| Destination location of object | Source location set locally | |
| Approximate distance between source location and distance location | Distance set locally | |
| Method of transport | Name of 2 wheeled hand trolley | |
| Method of securing load | Cargo or Tie Strap | |
| **Delegation of Activities –** Each activity must have a delegation. | TM1  | TM2  |
| * Positioning and holding (2 wheeled) hand trolley from its source location |  |  |
| * Moving the object from the source location onto the hand trolley |  |  |
| * Strapping the object onto the hand trolley |  |  |
| * Operating the hand trolley during transport |  |  |
| * Checking transport route for hazards and acting as a guide |  |  |
| * Holding hand trolley stable during load transfer at the destination location |  |  |
| * Moving the object from the hand trolley to its source location |  |  |

**Task 3 – Carry out a Risk Assessment**

(PC1.1, PC1.2, RS1, RS4, RS5) Ensure each of the students have been paired into a team. Working as a team complete the Risk Assessment Worksheet provided in Figure 1.0 below.

The whole task, as per the Manual Handling Task Specification needs to be examined, however each step should be considered to identify all of the risk factors.

# **Figure 1.0 Risk Assessment Worksheet** (for assessment purposes only)

**Location of task: TAFE NSW Students Name: Enter Student Name Here**

**Description of hazardous manual task: Complete Manual Task as Specified**

**Date of assessment: Set Locally** **Assessor : Enter Assessor Name Here**

**Reason for identification**

**☐Existing task ☐Report of musculoskeletal disorder (MSD) ☐Change in task, object or tool**

 **☐New task ☐New information**

Step 1—**Does the task involve repetitive or sustained movements, postures or forces?**

As a guide:

* *repetitive* means the movement or force is performed more than twice a minute, and
* *sustained* means the posture or force is held for more than 30 seconds at a time.

Tick ‘yes’ each time you observe repetitive movement or sustained posture:

| **Postures and Movements** | | **Yes**  **🗸** | **This action happens when …** | | **because ... (describe why)** | **If any boxes are ticked, what are possible controls to reduce the risk?** | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **BACK** | | | | | | | |
| Bending or twisting more than 20 degrees | Forwards | ☐ | Transferring load to hand trolley | | Height of load object is waist height or below | * Place hand trolley adjacent to load * Roll or slide object onto hand trolley avoiding a direct lift * Ensure hand trolley is held stable by other team member | |
| Sideways | ☐ | Securing load with cargo strap | |  |
| Twisting | ☐ |  | |  |
| **ARMS/HANDS** | | | | | | | |
| Working with one or both hands above shoulder height | | ☐ |  |  | | |  |
| Reaching forwards or sideways more than 30 cm from the body | |  ☐ | Transferring load to hand trolley | Securing a grip on the load object will mean standing approximately 30 cm or more away | | | Roll or slide object onto hand trolley avoiding a direct lift |
| Exerting force with one hand or one side of the body | | ☐ |  |  | | |  |
| Pushing, pulling or dragging | |  | Relocating the object to its destination location on the hand trolley | This is the most efficient way to transport the load with the equipment provided | | | Ensure hand trolley is in good order if pneumatic tyres are fitted check for they are fully inflated |
| Very fast actions | |  |  |  | | |  |
| Working with the fingers close together or wide apart | | ☐ |  |  | | |  |
| Applying uneven, fast or jerky forces | | ☐ |  |  | | |  |
| Holding, supporting or restraining anything (including a person, animal or tool) | |  | Relocating the object to its destination location on the hand trolley | Cylindrical load needs to be restrained to ensure security in transport | | | Use the cargo strap provided, double wrap and confirm tightness before moving load |

Step 2—**Does the task involve high or sudden force?**

Tick ‘yes’ if the task involves any of the following high or sudden forces, even if the force is applied only once:

| **Forces** | **Yes**  **🗸** | **This action happens when …** | **because ... (describe why)** | **If any boxes are ticked, what are possible controls to reduce the risk?** |
| --- | --- | --- | --- | --- |
| Lifting, lowering or carrying heavy loads |  ☐ | The object is moved onto hand trolley, transported and unloaded at destination | Required to be completed as part of assessment | * Plan the task * Communicate clearly with team member * Work together effectively * Use the devices provided * Minimise direct lifting actions |
| Hitting or kicking or jumping | ☐ |  |  |
| Applying a sudden or unexpected force including:   * handling a live person or animal or * applying uneven, fast or jerky forces during lifting, carrying, pushing or pulling, or * pushing or pulling objects that are hard to move or stop e.g. a trolley. |  ☐ |  |  |
| Needing to use two hands to operate a tool designed for one hand | ☐ |  |  |
| Two or more people need to be assigned to handle a heavy, awkward or bulky load |  ☐ | The object is moved onto hand trolley, transported and unloaded at destination | Required to be completed as part of assessment |

**Task 4 – Select Equipment**

(PC2.1, RS3, RS4) Working in pairs the students are required to:

* Wear the correct PPE
* Follow safe work procedures
* Source the 2 wheel trolley from its storage location.
* Source the cargo/tie down strap from its storage location
* Move the trolley and cargo/tie down strap to where it is required for the first lift.

**Task 5 – Load Object at Source Location**

(PC1.2, PC2.2, RS4) Working in pairs the students are required to:

* Load the object on to the 2 wheel trolley
* Secure the object using the cargo/tie down strap.

The manual handling risks associated with the task are to be controlled as documented on the completed Risk Assessment Worksheet

The correct manual handling (lifting) practices the students need to demonstrate have been itemised in Task 5 of the Observation Checklist. The student should refer to Observation Checklist and follow the steps for each lift required.

**Task 6 – Relocate Object**

(PC2.3, RS4) Working in pairs the students are required to:

* Relocate the object, along the designated route

The manual handling risks associated with the task are to be controlled as documented on the completed Risk Assessment Worksheet

The correct manual handling (lifting) practices the students need to demonstrate have been itemised in Task 6 of the Observation Checklist. The student should refer to Observation Checklist and follow the steps for each lift required.

**Task 7 – Unload Object at Destination Location**

(PC2.4, RS4) Working in pairs the students are required to:

* remove the cargo/tie down strap from the object
* unload the object onto the ground at its destination location
* ensure the object is left safely and securely

The manual handling risks associated with the task are to be controlled as documented on the completed Risk Assessment Worksheet

The correct manual handling (lifting) practices the students need to demonstrate have been itemised in Task 7 of the Observation Checklist. The student should refer to Observation Checklist and follow the steps for each lift required.

## Part 2: Observation Checklist

The Observation Checklist will be used by you to mark the students’ performance in any of the previous three event types. Use this Checklist to understand what skills the student is required to demonstrate in this section of the assessment. This Checklist outlines the Performance Criteria, Performance Evidence and Assessment Conditions you will be marking the student on. All the criteria must be met. The student’s demonstration will be used as part of the overall evidence requirements of the unit. You may ask questions while the demonstration is taking place or if appropriate directly after the task/activity has been completed.

Table 4.0 Observation Checklist

| Task # | Task/Activity Performed | S | U/S | Assessor Comments (Describe the student’s ability in demonstrating the required skills and knowledge) |
| --- | --- | --- | --- | --- |
| 1 | **Workplace Inspection**   * Select and wear the correct PPE for workshop environment |  |  | **Date of Observation:**   * *Selects and wears the correct PPE for workshop environment*   *Min Requirements:*   * *Steel capped boots* * *Drill pants, drill shirt or overalls,* * *Safety glasses* |
| * Listen to the assessor or teachers explanation of the manual handling activity using the opportunity to check and clarify any of the task related information * Listen to the instruction provided on the safe working practices involved for the 2 wheel trolley use * Check and clarify and task related information, including the weight of the object and any written instructions that may be unclear |  |  | * *Listens to explanation of the manual handling activity using the opportunity to check and clarify any of the task related information. Assessor is to ask the student one (1) question from the following:*   **Question**  *What is the weight of the object to be lifted?*  **Response**  *Approximately 20 to 30 kg*  **Question**  *Does the load need to be secured to the trolley?*  **Response**  *Yes – the load must be secured with a cargo/tie down strap*  **Question**  *What checks should be carried out before using the trolley*  **Response**  *Tyres, Capacity, Frame, wheel bearing/rotation*  **Question**  *Does the trolley have the capacity to move the object*  **Response**  *Yes*  *(A list of verbal questions and responses can be noted in Table 5.0 Additional Questions following the Observation Checklist)*  **Question**  *Are all students clear on the manual handling task details?*  **Response**  *Students should be taking the opportunity to check any details of the written information or verbal explanation they have been provided.* |
| 2 | **Plan the Manual Handling Task**  Complete the Manual Handling Task Plan on the Template in Table 3.0 |  |  | * *Refer to the completed sample benchmark Manual Handling Task Plan in Table 3.0 supplied* * *Ensure delegation of activities is evenly shared.* |
| 3 | **Carry out a Risk Assessment**  Complete the Risk Assessment Worksheet on the Template in Figure 1.0 |  |  | * *Refer to the completed sample benchmark Risk Assessment Worksheet supplied* |
| 4 | **Select Equipment**   * Wear the correct PPE * Follow safe work practices * Source the 2 wheel trolley from its storage location * Source the cargo/tie down strap from its storage location * Move the trolley and cargo/tied down strap to where it is required for the first lift. |  |  | * *Follow safe work practices* * *Wears PPE correctly* * *Walks in designated walkways where possible* * *Stays away from operating machinery* * *Does not disturb other students* * *Move the trolley and cargo/tied down strap to where it is required for the first lift.* * *Trolley is kept under control with 2 wheels on the ground,* * *Trolley is steered using 2 hands to control direction* * *Trolley is kept to a walking pace speed* * *Cargo/tie down strap is carried and not dragged across the ground* |
| 5 | **Load Object as Source Location**   * Trolley is positioned adjacent to the object as close as possible * Trolley is held steady by delegated team member * Object is tilted slightly off perpendicular by delegated team member to check weight * Object is tilted and rolled in a slow and controlled manner onto the carrying platform of the trolley * Trolley is propped stationery with foot on wheel or bottom bar of trolley while load transfer is in progress * Object is positioned on centre of carrying platform of trolley * Object is held in position for strapping process * Object is strapped to trolley with cargo/tied down strap. * Object is checked for security. Strap must be tight, not slipping and positioned on the top half of the object |  |  | **Date of Observation:**   * *Team members are communication effectively and executing the task as delegated on the plan* * *Trolley positioned as close to the object as possible* * *Object is tilted prior to moving, to check weight* * *Object is tilted and rolled carefully and in a controlled manner onto the trolley carrying platform* * *Trolley is held securely and is stationery during load transfer* * *Object is positioned on the centre of the carrying platform* * *Object is held in position during strapping process* * *Strapping is tight and secures object in position* * *Strapping is positioned on top half of the object* |
| 6 | **Relocate Object**   * Tilt back trolley towards body and balance load * Turn trolley to travel direction using feet and keeping arms straight and close to hips * Transport route is monitored for approaching foot, or mobile traffic * Potential hazards are managed as documented on Risk Assessment * Transport load along planned and designated route in a controlled manner at a steady walking pace * Set load to ground by tilting slowly forward |  |  | **Date of Observation:**   * *Team members are communication effectively and executing the task as delegated on the plan* * *Trolley is held in a balanced position* * *Transport route is being monitored for foot and mobile traffic* * *Hazards are being managed as documented on Risk Assessment* * *Designated transport route is adhered to* * *Trolley is transporting load in a controlled manner ensuring security of load, and safety of all mobile and foot traffic in the area* * *Load is set to ground in a controlled manner with dropping or launching the load beyond vertical* |
| 7 | **Unload Object at Destination Location**   * Trolley is positioned as close to the unloading point as possible * Trolley is held steady by delegated team member * Object is unstrapped from trolley * Object is tilted and rolled in a slow and controlled manner from the carrying platform of the trolley and onto the ground * Trolley is propped stationery with foot on wheel or bottom bar of trolley while load transfer is in progress * Object is positioned in a safe and secure manner at the destination location * Trolley and cargo/tie down strap are stored as directed |  |  | **Date of Observation:**   * *Team members are communication effectively and executing the task as delegated on the plan* * *Trolley positioned as close to the unloading point as possible* * *Trolley is held steady and in position during unstrapping process* * *Trolley is propped in position and does not roll during load transfer* * *Object is positioned in the destination located safely and securely* * *Trolley and cargo/tie down strap are stored as directed* |

|  |
| --- |
| Table 5.0 Additional Questions |
| Assessors may ask additional questions to clarify student understanding. List here any additional questions that were asked during this assessment event.  *Record all additional questions that were asked of the student during the assessment event.* |
| **Student Reponses to Additional Questions** |
| List here the student responses to any additional questions that were asked during this assessment event.  *Record the student responses to any additional questions that were asked during this assessment event.* |