# Skills Assessment

## Criteria

### Unit code, name and release number

MEM09002B - Interpret technical drawing (1)

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

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

## Student details

### Student number

### Student name

## Assessment Declaration

* This assessment is my original work and no part of it has been copied from any other source except where due acknowledgement is made.
* No part of this assessment has been written for me by any other person except where such collaboration has been authorised by the assessor concerned.
* I understand that plagiarism is the presentation of the work, idea or creation of another person as though it is your own. Plagiarism occurs when the origin of the material used is not appropriately cited. No part of this assessment is plagiarised.

### Student signature and Date

Version: *1.0*

Date created: *3 July 2018*

Date modified: *17/04/2019*

For queries, please contact:

*SkillsPoint – IMRS*

*Location – Block B Level 1 Hamilton TAFE Newcastle*

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This assessment can be found in the: [Learning Bank](https://share.tafensw.edu.au/share/access/searching.do?doc=%3Cxml%2F%3E&in=P7ac4831b-430a-4b8d-8b56-f7b32ed5b9cf&q=&type=standard&sort=rank&dr=AFTER)

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Assessment overview** | The objective of this assessment is to assess your skills as would be required to interpret technical drawings. |
| **Assessment Event number** | 2 of 2 |
| **Instructions for this assessment** | This is a skill based assessment and will be assessing you on your ability to demonstrate skills required in the unit.  This assessment is in 2 parts:  1. Practical Assessment  2. Assessment Feedback |
| **Submission instructions** | On completion of this assessment, you are required to hand it to your assessor for marking.  Ensure you have written your name at the bottom of each page of this assessment. |
| **What do I need to do to achieve a satisfactory result?** | To successfully complete this assessment the student will be available at the arranged time to complete all the assessment criteria as outlined in the assessment instructions.  All parts of the observable task must be performed to a satisfactory level as indicated in the criteria section of the Observation Checklist.  All oral questions must be answered correctly to be deemed satisfactory in this assessment task; however, Assessors may ask questions to clarify understanding. |
| **What do I need to provide?** | Calculator, pens, pencil, eraser, PPE. |
| **Due date/time allowed/venue** | 1 Hour Duration  Venues can be either, TAFE classroom, TAFE workshop facility, or an agreed workplace. |
| **Assessment feedback, review or appeals** | Appeals are addressed in accordance with Every Students Guide to Assessment. |

## Specific task instructions

The instructions and the criteria in the tasks and activities below will be used by the assessor to determine whether the tasks and activities have been satisfactorily completed. Use these instructions and criteria to ensure you demonstrate the required skills and knowledge.

This assessment requires you to complete checklists, answer questions, and perform calculations within 4 (four) tasks summarised below:

* Task 1 - Check and validate drawings
* Task 2 – Read Standard Operating Procedures (SOP)
* Task 3 – Confirm drawing version/issue
* Task 4 – Refer to specifications, charts, catalogues

**Contingency Management:**

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

The assessor also has the opportunity in the assessor observation checklist to record other relevant questions and responses.

**Table 2.0 Unforeseen Circumstances**

|  |  |  |
| --- | --- | --- |
| Scenario | Assessors question | Acceptable students response |
| Power failure in workshop | What is the correct action in the case of power failure? |  |
| Emergency evacuation | What do you do if an emergency evacuation drill happens during the assessment? |  |

## Part 1: Practical

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

These practicals will be observed by your assessor, or can be digitally recorded and submitted as evidence.

Your responses will be used as part of the overall evidence requirements of the unit.

You should refer to the list of criteria in the Observation Checklist to understand what you need to demonstrate in this section of the assessment. This Checklist outlines the assessment criteria used to assess your performance.

Once completed you will need to submit this assessment and the tasks and activities you are required to complete to your assessor for marking.

**Task 1: Check and validate drawings**

You have been given access to a set of drawings and a Standard Operating Procedure. The document, types, title and issue number required for this assessment are listed in Table 3.0 Document validation checklist below.

You are required to:

1. Source the documents from their location
2. Check and validate the document title and issue
3. Confirm this information is correct by responding Yes or No in the “Received/Validated” column of the Table 3.0 Documents validation checklist below.

**Table 3.0: Document validation checklist**

|  |  |  |  |
| --- | --- | --- | --- |
| *Document Type* | *Document Title* | *Issue* | *Received/Validated* |
| Standard Operating Procedure (SOP) | Engineering Technical Drawing Issue and Interpretation | 1.0 |  |
| Drawing | STAIR ASSY ISO ARRG’T  09204-T5-1 | B |  |
| Drawing | STAIR ASSY ORTHOGONAL ARRG’T  09204-T5-2 | B |  |
| Drawing | STAIRS ASSY FRAME DETAILS  09204-T5-3 | B |  |
| Drawing | STAIRS ASSY FRAME DETAILS  09204-T5-3 | C |  |
| Drawing | STAIRS ASSY HANDRAIL DETAILS  09204-T5-4 | B |  |

**Task 2: Read Standard Operating Procedure (SOP) .**

**Refer to the Document: SOP Issue 1.0 Section 5.0**

a) In table 4.0 below list three (3) potential safety hazards associated with drawing interpretation in a workshop area:

**Table 4.0 Hazard Identification**

|  |  |
| --- | --- |
| *#* | Potential Hazards |
| *1* |  |
| *2* |  |
| *3* |  |

**Refer to Refer to the Document: SOP Issue 1.0 Section 1.0**

*b)* In table 5.0 below list three (3) requirements that must be checked when a drawing is issued:

**Table 5.0 Drawing Issue**

|  |  |
| --- | --- |
| *#* | Drawing Issue Requirements |
| *(a)* |  |
| *(b)* |  |
| *(c)* |  |

**Refer to Refer to the Document: SOP Issue 1.0 Section 2.0**

c) In table 6.0 below list two (2) safe work practices to follow when interpreting drawings

**Table 6.0 Safe work practices**

|  |  |
| --- | --- |
| *#* | Drawing Interpretation Safe Work Practices |
| *1* |  |
| *2* |  |

d) Now that you have checked the document pack contents and read the SOP for Technical Drawing Issue and Interpretation select from the two (2) options below.

**Table 7.0 Task Clarification**

|  |  |
| --- | --- |
| *Circle your Response* | |
| ***Yes*** *I understand what is required of me to complete the assessment task* | ***No*** *I don’t understand what is required for me to complete the assessment task and I will clarify with my assessor.* |

**Task 3: Confirm Drawing Version/Issue**

**Refer to the Drawings checked and validated in Task 1**

a) Go to Table 8.0 Revisions and Amendments and complete the following:

|  |  |
| --- | --- |
| * Drawing Issue * Revision Date | * Revision Description * Reviser (Initials) |

**Table 8.0: Revisions and Amendments.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Drawing Number* | *Drawing Issue* | *Revision Date* | *Revision Description* | *Reviser (initials)* |
| 09204-T5-1 |  |  |  |  |
| 09204-T5-2 |  |  |  |  |
| 09204-T5-3 | B |  |  |  |
| 09204-T5-3 | C |  |  |  |
| 09204-T5-4 |  |  |  |  |

b) The document pack contains two (2) drawings numbered 09204-T5-3. Which of these drawings would be considered current and why?

|  |
| --- |
|  |

c) Refer to the drawing you answered as current above and in the space below write the:

1. hole size and
2. number of holes

to be drilled in the top flange of the staircase stringers.

|  |  |
| --- | --- |
| (i) | Holes size = |
| (ii) | Number of holes = |

**Task 4 Refer to Specifications, Charts, Catalogues.**

**Refer to Drawing 09204-T5-4 and the WEBFORGE STANCHION SPECIFICATONS below.**

Drawing 09204-T5-4 details the top Stanchion on the Stairs Assembly as WEBORGE (P) PLATFORM type.

a) Using the WEBFORGE STANCHIONS SPECIFICATIONS (extract) below right complete the following details in Table 9.0 for a Mild Steel Stanchion – Std:

* NB
* OD
* Wall Thickness

**Table 9.0: WEBFORGE Stanchion Details.**

|  |  |
| --- | --- |
| Refer to Catalogue | |
| NB = |  |
| OD = |
| Wall Thickness = |

**Refer to Drawing 09204-T5-1 and the Parallel Flange Channels Catalogue below.**

4b) The mass for the Wall Plate – Item 5 has been provided in the Parts List on Drawing 09204-T5-1.

You are required to confirm the mass given is correct. Refer to Table 10.0 below and in the space provided complete the details for:

1. The mass for Item 5 as detailed Drawing 09204-T5-1
2. The length of Item 5 as detailed Drawing 09204-T5-3
3. The designation (size) of the Item 5 PFC as detailed Drawing 09204-T5-3
4. Mass per Metre of PFC for Item 5 as shown Parallel Flange Channel Table
5. The total calculated mass of Item 5 where Mass = Length x Mass per metre
6. Mass detailed on Drawing and Calculated Mass are equal

**Table 10.0: Parallel Flange Channels.**

|  |  |  |  |
| --- | --- | --- | --- |
| *Refer to* | *Question* | *Answer* | *Parallel Flange Catalogue* |
| Drawing 09204-T5-1 | (i) Mass Item 5 = |  |  |
| Drawing 09204-T5-3 | (ii) Length Item 5 = |  |
| Drawing 09204-T5-3 | (iii) Designation (size) of Item 5 = |  |
| Parallel Flange Channels (table shown right) | (iv) Mass per Metre 200 PFC = |  |
| Mass Item 5 = Length x Mass per Meter | (v) Mass Item 5 = |  |
| (vi) Calculated Mass = Mass detailed on Drawing 09204-T5-3 (circle Yes or No) | | *Yes - they are the same*  *No – Drafting Error* | |

## Observation Checklist

The Observation Checklist will be used by your assessor to mark your performance in any of the previous three event types. Use this Checklist to understand what skills you need to demonstrate in the practical demonstration. The Checklist lists the assessment criteria used to determine whether you have successfully completed this assessment event. All the criteria must be met. Your demonstration will be used as part of the overall evidence requirements of the unit. The assessor may ask questions while the demonstration is taking place or if appropriate directly after the task/activity has been completed.

Table 2 Observation Checklist

| Task # | Task/Activity Performed | S | U/S | Assessor Comments (Describe the student’s ability in demonstrating the required skills and knowledge) |
| --- | --- | --- | --- | --- |
| 1 | **Check and Validate Drawings**  Complete:   * Table 3.0 Document validation checklist   + Received/Validated requires a Yes or No response |  |  |  |
| 2 | **Read the Standard Operating Procedure (SOP)**  Complete:   * Table 4.0 Hazard Identification   + Requires 3 (three) responses * Table 5.0 Drawing Issue   + Requires 3 (three) responses * Table 6.0 Safe Work Practices   + Requires 2 (two) responses * Table 7.0 Task Clarification   + Task clarification requires a Yes or No response |  |  |  |
| 3 | **Confirm drawing version/issue**  Complete:   * Table 8.0 Revisions and Amendments   + Requires eighteen (18) responses * Task 3B   + Requires two (2) responses * Task 3C   + Requires two (2) responses |  |  |  |
| 4 | **Refer to Specifications, Charts, Catalogues**  Complete:   * Table 9.0 Webforge Stanchion Details   + Requires three (3) responses * Table 10.0. Parallel Flange Channels   + Requires six (6) responses |  |  |  |

## Part 2: Assessment Feedback

### Assessment outcome

Satisfactory

Unsatisfactory

### Assessor Feedback

Was the assessment event successfully completed?

If no, was the resubmission/re-assessment successfully completed?

Was reasonable adjustment in place for this assessment event?  
*If yes, ensure it is detailed on the assessment document.*

Comments:

### Assessor name, signature and date:

### Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

### Student name, signature and date

***NOTE: Make sure you have written your name at the bottom of each page of your submission before attaching the cover sheet and submitting to your assessor for marking.***