# Project Assessment

**Event: 2 of 2**

## Criteria

### Unit code, name and release number

MEM09002B - Interpret technical drawing (1)

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

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

## 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: 19/09/2019

Date modified: 16/10/2019

For queries, please contact:

*IMRS SkillsPoint*

*Block B Level 1*

*Hamilton Campus Newcastle*

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RTO Provider Number 90003 | CRICOS Provider Code: 00591E

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 knowledge and skill as required to interpret technical drawings |
| **Assessment Event number** | 2 of 2 |
| **Instructions for this assessment** | This is a project based assessment and will be assessing you on your knowledge and performance of the unit.  This assessment is in 6 parts and includes an Assessment Feedback form:   1. Validation Report 2. Standard operating procedures 3. Print reading and interpretation 4. Assessment Checklist 5. Assessment feedback 6. Appendix containing Standard Operating Procedure (SOP) and reference drawings (**Remove appendix if required**) |
| **Submission instructions** | On completion of this assessment, you are required to upload it or hand it to your assessor for marking.  Ensure you have written your name at the bottom of each page of this assessment.  It is important that you keep a copy of all electronic and hardcopy assessments submitted to TAFE and complete the assessment declaration when submitting the assessment. |
| **What do I need to do to achieve a satisfactory result?** | To achieve a satisfactory result for this assessment all questions must be answered correctly. |
| **What do I need to provide?** | Calculator, pens, pencil, eraser, PPE. |
| **What the assessor will provide?** | Assessment task  Drawings: 09204-T5-1 -Stair Assembly ISO Arrangement (Issue B)  09204-T5-2 - Stair Assembly Orthogonal Arrangement (Issue B)  09204-T5-3 - Stair Assembly Frame Details (Issue B and Issue C)  5210 – 1A - Components Hydraulic Punch Details (Issue B)  SOP Issue 1.0 - Engineering Technical Drawing Issue and Interpretation |
| **Due date/time allowed** | TBA / One hour |
| **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 if you have satisfactorily completed this assessment event. Use these instructions as a guide to ensure you demonstrate the required skills and knowledge.

This assessment requires you to complete checklists, answer questions, and demonstrate print reading and interpretation within the 3 parts summarised below:

* Part 1 – Validation report
* Part 2 – Read Standard Operating Procedures (SOP)
* Part 3 – Print reading

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

**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 the student will respond to these events. Below is table with examples of possible questions.

Table 2 Possible questions

|  |  |  |
| --- | --- | --- |
| 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: Validation Report

**To complete this part of the assessment, you will be required to check and validate drawings**

Referring to attached drawings, 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 date
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: Document validation checklist**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Document Type* | *Document Title* | *Issue* | *Date Issued* | *Received/Validated* |
| Drawing | STAIR ASSY ISO ARRANGEMENT  09204-T5-1 | B |  |  |
| Drawing | STAIR ASSY ORTHOGONAL ARRANGEMENT  09204-T5-2 | B |  |  |
| Drawing | STAIRS ASSY FRAME DETAILS  09204-T5-3 | C |  |  |
| Drawing | COMPONENTS HYDRAULIC PUNCH  DETAILS  5210 – 1A | B |  |  |

## Part 2: Standard Operating Procedures

To complete this part of the assessment, you will be required to interpret a Standard Operating Procedures (SOP)

**Refer to the attached document: Standard Operating Procedure – Engineering Technical Drawing Interpretation**

a) List three (3) potential safety hazards associated with drawing interpretation in a workshop area:

Table 4 Hazard Identification

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

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

*b)* List three (3) requirements that must be checked when a drawing is issued:

Table 5 Drawing Issue

|  |  |
| --- | --- |
| *#* | Drawing Issue Requirements |
| *1* |  |
| *2* |  |
| *3* |  |

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

c) List two (2) safe work practices to follow when interpreting drawings

Table 6 Safe work practices

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

1. 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 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.* |

## Part 3: Print Reading and Interpretation

To complete this part of the assessment, you will be required to interpret Workshop drawings

**Refer to ‘Drawing No. 5210 – 1A’ in the Appendix and answer the following questions**

1. What is the latest issue of this drawing, and what date was it issued?



1. Who owns this drawing?



1. What is the scale of the drawing?



1. What material is item 9 made from?



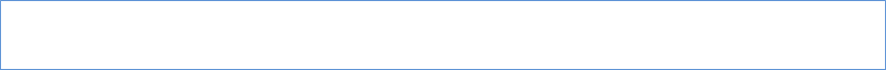
1. What is the first issue date of the drawing?



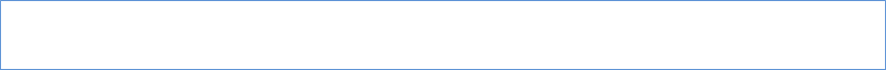
1. What is the Australian standard is followed for this drawing?



1. What is the name of the component at zone A6?



1. Is the drawing first angle or third angle projection?



1. Refer to the piston in zone 3/4; the major diameter of the piston has a tolerance. Complete table 1 below.

Table 1 Short answer

|  |  |
| --- | --- |
| Size | Measurement |
| Upper limit |  |
| Lower limit |  |
| Tolerance |  |

## Part 4: Assessment Checklist

The following checklist will be used by your assessor to mark your performance against the assessment criteria of your submitted/presented project. Use this checklist to understand what skills and/or knowledge you need to demonstrate in your submission/presentation. All the criteria described in the Assessment Checklist must be met. The assessor may ask questions while the submission/presentation is taking place or if appropriate directly after the task/activity has been submitted/completed.

| TASK # | Instructions | S | U/S | Assessor Comments |
| --- | --- | --- | --- | --- |
| **1** | **Check and Validate Drawings**  The  Student Completes:   * Table 3.0 Document validation checklist |  |  | *Date of Observation:*     * Students located and checked contents of document pack supplied * Student validated drawings * Student completed; Table 3: Document Validation Checklist |
| **2** | **Read the Standard Operating Procedure (SOP)**  The  Student Completes:   * Table 4.0 Hazard Identification * Table 5.0 Drawing Issue * Table 6.0 Safe Work Practices * Table 7.0 Task Clarification |  |  | * Student completed three (3) responses in Table 4.0 * Student completed three (3) responses in Table 5.0 * Student completed two (2) responses in Table 6.0 * Student recorded selection in Table 7.0 of  “Yes and proceeds with assessment (or) No and discussed problems and issues with assessor |
| **3** | **Print reading & interpretation**  The  Student Correctly:   * Answers Q1 –Q8 * Identifies the piston tolerances |  |  | * Student completed eight (8) responses in Task 3 * Student answered question 39 |

## Table 6 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.* |

## Part 5: Assessment Feedback

*NOTE: This section* ***must*** *have the assessor signature and student signature to complete the 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:

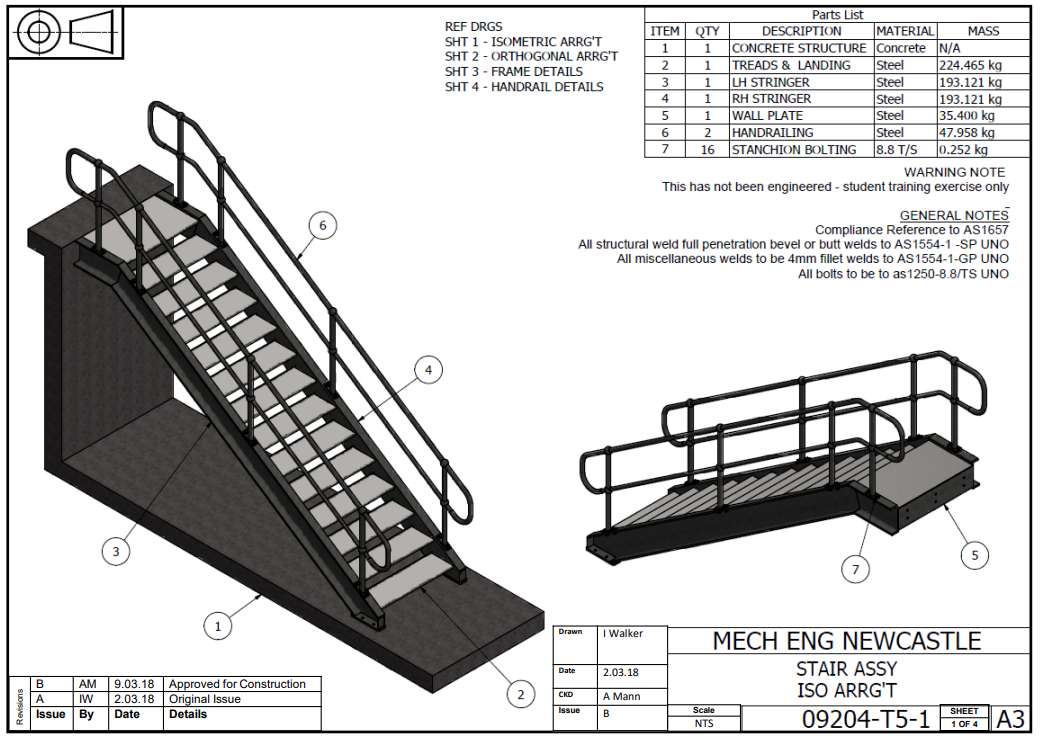
### Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

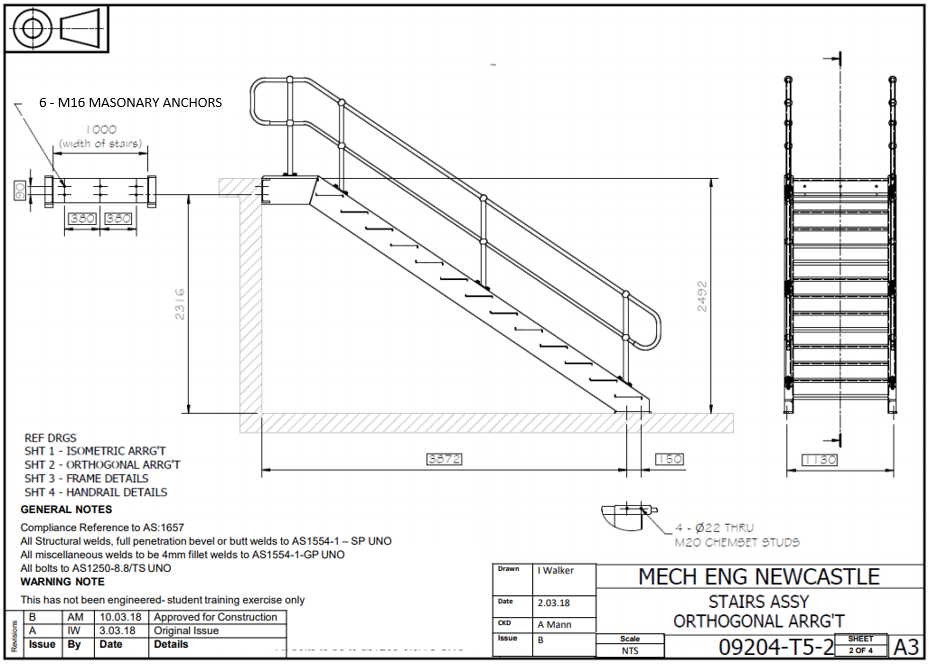
### Student name, signature and date

***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.***

**APPENDIX**

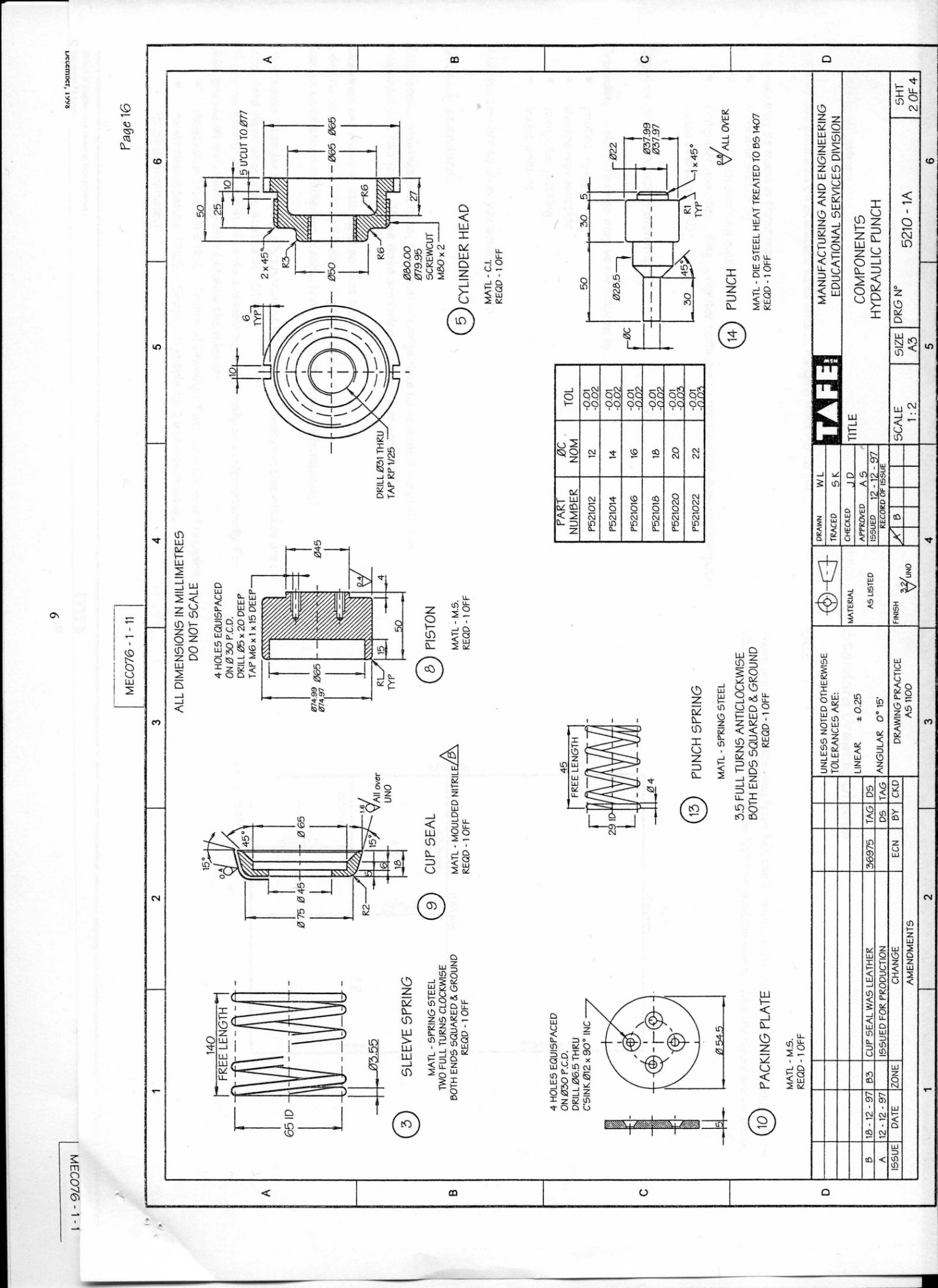


**APPENDIX**



**APPENDIX**

## 

**APPENDIX**

**Standard Operating Procedure**

**Engineering Technical Drawing Interpretation**



1. **Drawing Issue**
   1. Check the drawing issued matches the job sheet instructions
   2. Check the drawing has printed properly and ensure all information can be clearly read.
   3. Check the borders on the drawing are visible
   4. Ensure dimensions and text is printed large enough to be clearly understood.
   5. Ensure the date and issue of the drawing are the current version
   6. Confirm drawings issued in part contain all the relevant details required for item manufacture
2. **Drawing Interpretation**
   1. Ensure the work area is clean and clear of grease, oil, and any ignition sources
   2. Access well lit areas of the workshop away from hazards to interpret drawings
   3. Identify material types and quantities and match to job sheet instructions
   4. Confirm quantity of finished items required are detailed on the drawing
   5. Ensure all dimensions are taken directly from the drawing or are calculated   
      from given dimensions. DO NOT SCALE from drawing.
3. **Drawing Revisions**
   1. Clearly mark up any drawing errors and report to the person that issued the drawing
   2. Ensure revisions made to drawings that are hand written have been approved by the person issuing the drawing
4. **Drawing Storage**
   1. Store all drawings in clean, dry locations away from ignition sources
   2. Return all drawing to drawing issuer at job completion
   3. Ensure any mark ups are clearly shown and easily understood.
5. **POTENTIAL SAFETY HAZARDS**

Ensure drawing interpretation is taking place where exposure to workshop hazards are eliminated or reduced.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Potential Safety Hazards/Risks in Workshop Area** | | |
| • | Electric shock | • | Rotating machinery/equipment |
| • | Burns | • | Hot work pieces |
| • | Fumes | • | Sharp edges and burrs |
| • | Sparks & spatter | • | Hot shavings |

1. **PERSONAL PROTECTIVE EQUIPMENT**

If drawing interpretation needs to occur in the workshop then the following personal protective equipment must be worn.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Eye protection must be worn in workshop |  | Long and loose hair must be contained. |
|  | Covered footwear with rubber soles must be worn. |  | Close fitting/protective clothing to cover arms and legs must be worn |