# **Project Assessment – Report**

**Event 2 of 2**

# Trainer & Assessor Marking Guide

## Criteria

### Unit code, name and release number

MEM16006A - Organise and communicate information (1)

\*\*\*This unit sits in the qualifications below – This assessment is not to be amended\*\*

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

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

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

\*\*\* 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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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 |
| --- | --- |
| **Instructions for the trainer and assessor** | This is a project based assessment and will be assessing the student on their knowledge and performance of the unit.  This assessment is in 3 parts and includes an Observation Checklist:   1. Report 2. Assessment Checklist 3. Appendices   **Pre assessment**  The student must have successfully completed the knowledge assessment for MEM16006A prior to attempting the project assessment task |
|  | Model answers, sample responses or a criteria for each question are provided below.  Use these to support your judgement when determining a satisfactory result.  The student’s project/product must contain the information indicated in this marking guide in order to deem it satisfactory. 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 criteria, it may be considered correct.  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.  Complete the assessment feedback to the student and ensure you have taken a copy of the assessment prior to it being returned to the student. |
| **About this marking guide** | All tasks and activities must responded to correctly in order to satisfactorily complete this assessment event.  Assessors will need to make a judgement call as to whether each answer/response meets the criteria based upon the:   * Rules of Evidence:   + Validity – does the answer address the assessment question and does the evidence reflect the four dimensions of competency?   + Sufficiency – is the answer 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 |
| **Assessor must provide** | Computers, any required reference text |
| **Due date and time allowed** | The estimated time for a student to complete this assessment is 4 hours. However, there is no time limit for students to complete this assessment. Students may complete the assessment outside of the classroom and submit to their teacher for marking. Assessment is due by week 14 |

## 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 knowledge.

**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 a table with examples of possible questions and acceptable responses

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? | Determine the cause of the failure and rectify if possible. If not call in the appropriately qualified to rectify the problem |
| Emergency evacuation | What do you do if an emergency evacuation drill happens during the assessment? | Turn of any equipment and make the workplace safe. Exit to the nearest emergency evacuation point. |

## Part 1: Report

You have been provided with a range of documentation (attached) that you will need to read and analyse. You will be required to communicate your findings into a report (Appendix 1).

**Scenario**

In the workplace, you were provided with information for the manufacture and installation of an Inspection plate. The plate was manufactured and installed on-site. Once the machine was put into operation, the inspection plate was found to be defective. A maintenance log was completed by the operator on-site to indicate the defect.

Review all the documents provided to identify the problem with the inspection plate, as you will be required to make recommendations on how to rectify this problem.

**Documents Provided for Review:**

|  |  |
| --- | --- |
| Document | Detail |
| Drawing IMRS - 0003 | Provide filtering tank inspection plate details |
| Filtering tank equipment maintenance log | Installation and maintenance log |
| Inspection plate planning sheet | Planning of the job **manufacture** |
| Inspection plate installation instructions | Planning of the job **installation** |
| Safe Operating Procedure (SOP) | Steps to be followed when drilling holes |

Once you have identified the problem from the *Filtering tank* *Equipment Maintenance Log*, you will need to come up with a solution to rectify the issue.

Once you have decided on your solution, you will need to:

1. Mark any modifications needed on the Drawing IMRS-0003 - Inspection plate
2. Make changes to the *Inspection Plate* ***Planning*** *Sheet*.
3. Make changes to the *Inspection plate* ***Installation*** *Instructions*.
4. Answer the Question below:

Based on the problem you have identified and the solution you are presenting, would there need to be any changes made to the SOP?

|  |
| --- |
| Please indicate YES or NO, and give reasons for your choice  No – there is no need to change the SOP as the steps for the safe use of the drill did not cause the problem |

1. Use the report template provided (Appendix 6) to create a report for your supervisor outlining the issue and your suggestions to fix the problem. Please use workplace language.

Once completed you will need to submit all amended documents, including your report to your assessor for marking.

## Part 2: Assessment Checklist

The student’s copy of the Assessment Checklist will be used by you to capture evidence of their performance in any type of project. This checklist outlines all the required criteria you will be marking the student on. All criteria must be met. The following checklist contains benchmark responses for you to use when assessing to ensure reliability of judgement. You may ask questions during the demonstration or if appropriate directly after the assessment has been completed noting that both the question and student response needs to be captured on the checklist.

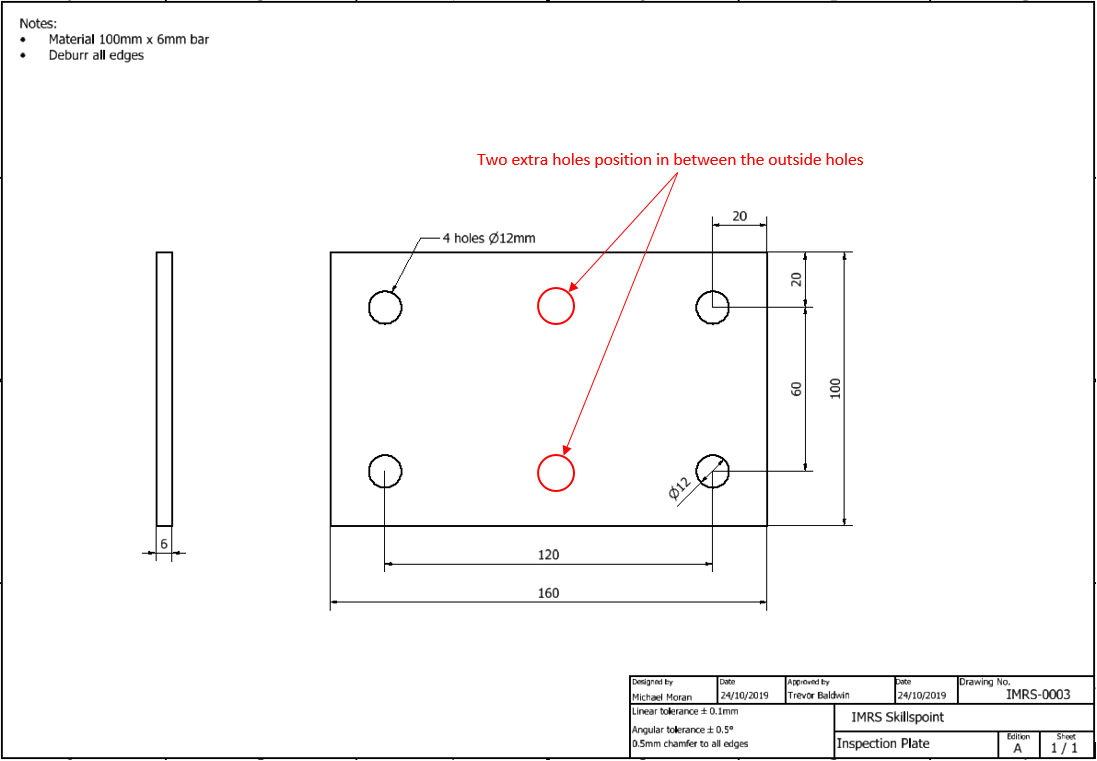
Table 3 Assessment Checklist

| Task # | Task/Activity Performed | S | U/S | Assessor Comments (Describe the student’s ability in demonstrating the required skills and knowledge) |
| --- | --- | --- | --- | --- |
| 1 | Undertake review of all documentation and create a Report, recommending fixes for the problem in a professional manner.   * Review information from multiple sources to correctly identify the problem identified in the Maintenance Log. * Mark up drawing IMRS-0003 showing extra hole detail * Modify Inspection Plate planning sheet * Modify Inspection Plate installation sheet * Make recommendations for fixing the problem in Report   Student answers Question 4 of the Task |  |  | *Please note:*  *Benchmark responses provided are a sample for one solution that may be applied. The student may come up with options to fix the problem, outside of the suggested benchmark response eg 4 extra holes instead of 2. Assessor is to use professional judgement when reviewing the solution suggested by the student.*  *The student:*   * *Correctly identify the problem identified in the Maintenance Log.* * *Mark up drawing IMRS-0003 showing extra hole detail (up to 4 in total)* * *Modified Inspection Plate planning sheet as per suggested benchmark response* * *Modified Inspection Plate installation sheet as per suggested benchmark response* * *Made recommendations for fixing the problem in Report (as per sample benchmark response Report provided) Report was informative and Terminology was appropriate* * *Student answered Q4 as per benchmark response provided* |

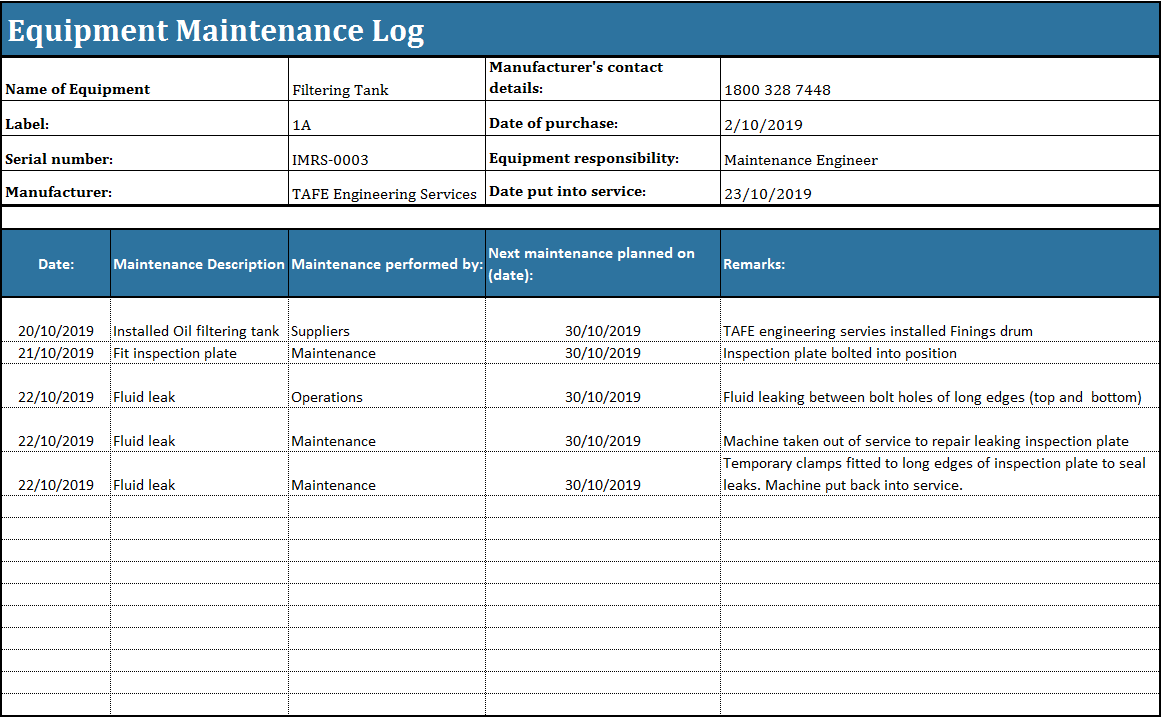
Table 4 Additional questions

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

**Appendix 1 - Drawing IMRS – 0003 – Filtering tank** **Inspection plate details**



**Appendix 2 – Filtering tank** **Equipment Maintenance Log**

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**Appendix 3 - Planning sheet to manufacture Inspection plates**

|  |  |  |  |
| --- | --- | --- | --- |
| Planning sheet - Drawing No. IMRS-0003 | | | |
| **Operation Number** | **Operation** | **Tooling** | **Other Information** |
| 1 | Cut | Saw | Cut material to 160mm length |
| 2 | Square ends | File | File ends square and to length |
| 3 | Mark out | Marking out kit | Mark out and centre punch 4 holes |
| 4 | Drilling | 12mm Drill | Drill ***six (6)*** holes |
| 5 | Deburr | file | Deburr work |
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**Appendix 4 - Installation instructions for Inspection plate**

|  |  |  |  |
| --- | --- | --- | --- |
| Installation instructions for blanking plate - Drawing No. IMRS-0003 | | | |
| **Operation Number** | **Operation** | **Tooling** | **Other Information** |
| 1 | Prep surfaces | Scraper | Ensure mating surfaces are clean and free of burs |
| 2 | Position plate | Clamps | Fit gasket and plate over housing and clamp in place |
| 3 | Holes | Drill and 12mm drill bit | Drill ***six (6)*** holes in housing using the inspection plate as a guide |
| 4 | Cut | Grinder | Cut inspection hole in drum 100mm long by 50mm wide |
| 5 | Bolt | Spanners | Fit gaskets, 12mm bolts to the holes and tighten |
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**Appendix 5**

**SAFE OPERATING PROCEDURE (SOP)**

**PEDESTAL DRILL**

**PERSONAL PROTECTIVE EQUIPMENT**

|  |  |
| --- | --- |
| Safety glasses must be worn at all times in work areas. | Hair Protection circleLong and loose hair must be contained. |
| Foot Protection circleSturdy footwear must be worn at all times in work areas. | ApronClose fitting/protective clothing must be worn. |
| Prohibition circleProhibition circleRings and jewellery must not be worn. | GlovesGloves must not be worn when using this machine. |
| Mandatory Sign " Do Not Use Mobile Phones " Safe OHSDo not use Mobile Phones or Musical devices when operating this machine | C:\Documents and Settings\gtaylor1\Local Settings\Temp\SolidDocuments\SolidCapture\captureclip233.pngC:\Documents and Settings\gtaylor1\Local Settings\Temp\SolidDocuments\SolidCapture\captureclip234.png |

POTENTIAL SAFETY HAZARDS / RISKS

|  |  |
| --- | --- |
| * **SWARF AND FLYING CHIPS** * **FLYING OBJECTS – CHUCK KEY LEFT IN CHUCK** * **PINCH POINTS** * **EYE INJURIES** * **JOB MOVING VICE NOT SECURE** | * **SHARP EDGES AND BURRS** * **ROTATING MACHINE PARTS - ENTANGLEMENT OF TORN OR LOOSE CLOTHING OR UNRESTRAINED HAIR** * **CUTTING TOOL INJURY** * **MANUAL HANDLING** |

**WARNING**

**DO NOT ATTEMPT TO USE THIS EQUIPMENT WITHOUT FORMAL INSTRUCTION/TRAINING**

### PRE-OPERATIONAL SAFETY CHECKS

1. Check workspaces and walkways to ensure no slip/trip hazards are present.
2. Locate and ensure you are familiar with the operation of the ON/OFF starter and Emergency Stop Button Location.
3. Ensure all guards and safety shields are in place before starting the drill
4. Faulty equipment must not be used
5. Immediately report suspect machinery.
6. Follow correct clamping procedures- check work piece and vice are secure.
7. Use correct lifting procedures
8. Faulty equipment must not be used
9. Immediately report suspect machinery

**OPERATIONAL SAFETY CHECKS**

1. Eye, foot and clothing protection MUST be worn.
2. **Gloves must NOT be worn** when operating this equipment.
3. **Hair MUST be covered or restrained.**
4. Use clamps to hold material/vice never hold with hands
5. Be aware of other people in immediate vicinity.
6. Never leave the drill running unattended.
7. Calculate/Check drill speed, stop and adjust if necessary.
8. If machine sounds abnormal, hit the stop button
9. Keep hands clear while operating machinery.
10. Do not attempt to slow/stop the drill chuck by hand.
11. Avoid letting swarf build up on the drill.

* No long swarf (alter feed rate or see Teacher if it does not break correctly).
* Stop the machine to remove swarf.
* Remove swarf with a hook or brush.
* Do not touch rotating drill
* Do not touch hot work piece/drill.
* Keep swarf away from under foot.

1. Always remove the chuck key from the chuck.

## *HOUSEKEEPING*

1. Leave the machine in a safe, clean and tidy state.
2. Turn Off and isolate power supply immediately when finished

**APPENDIX 6 – Report Template**

1. Introduction *(approx. 50 words)*

This is a report into the fitting and subsequent failure of the inspection plate, fitted to the filtering tank on the 20/10/2019. The report will analyse the manufacturing and installation process to come up with a recommendation to repair the fault with the inspection plate.

1. Body *(approx. 100 words)*

*Your body should include:*

* *The problem identified – use workplace language and information such as the drawing number, maintenance log entries etc. To support or back up your finding*

The problem identified in the maintenance log, by the operator, is a leak that occurred from the inspection plate when the filtering tank went back into operation. Maintenance made temporary repairs to seal the leak by fitting clamps to the long edge of the inspection plate.

* *Recommendations for fixing, including the changes that need to be made to the drawing, the Inspection Plate Planning Sheet and Inspection plate Installation Instructions.*

The recommended changes have been marked up on

* Drawing IMRS – 003
* The planning sheet to manufacture the inspection plate
* The installation instruction sheet for the inspection plate

Recommendations are to drill an extra bolthole along the long edge of the inspection plate to provide better clamping and sealing of the inspection plate

1. Conclusion *(approx. 50 words)*

The temporary clamps fitted to the inspection plate provided an effective seal that allowed the filtering tank to go back into operation. Therefore, the installation of another bolt along the long edges of the inspection plate will provide a permanent solution to the leak identified in the maintenance log.