

# National 5 Practical Metalworking: practical activity

## Candidate log book

Centre: A. High School

Candidate name: A. Candidate

Area	Total marks for each area	Total mark for log book
Machine and power tool care and maintenance	3/5	9/15
Tool care and maintenance	3/5	
Safe working procedures	3/5	

Candidate signature: *A. Candidate*

Date: 27/03/2018

Assessor signature: *AN. Assessor*

Date: 27/03/2018

## Machine and power tool care and maintenance

Procedure and date carried out	Before using, I checked...	After using, I checked...	Candidate signature	Assessor signature	1 mark or 0 marks and comments
<p><b>Procedure 1</b> Using the pedestal drill to drill clearance holes for screws.</p> <p>23<sup>rd</sup> October 2017</p>	<p>All the guards were in place. The table was secure. The work piece was secured. The switches were not damaged.</p> <p>I noticed a guard was loose and reported it to my teacher.</p>	<p>The power was off at the isolator. The drill was removed from chuck. The chuck key removed and stored. The machine was cleaned.</p>	<i>A. Candidate</i>	<i>AN. Assessor</i>	<p><b>1 mark</b> 1 mark awarded, as the candidate has given 4 or 5 pre-use checks, has indicated a fault and what action they took. The candidate has indicated 4 or 5 post-use checks.</p>
<p><b>Procedure 2</b> Using the centre lathe to turn the handle for my screwdriver.</p> <p>15<sup>th</sup> November 2017</p>	<p>I had permission to use the centre lathe. The 3-jaw chuck was on tight and the cutting tool was not chipped. All the levers and switches were in the correct place. I had all the tools I needed; chuck key, micrometer, steel rule and spanner. The guards were in place and not damaged.</p>	<p>I had switched all levers and switches to the off position. I had switched off at the isolator. I had removed my handle from the chuck and removed the chuck key. I had swept down the machine for the next person to use. I thought the cutting tool was maybe getting a wee bit blunt, so I told the teacher.</p>	<i>A. Candidate</i>	<i>AN. Assessor</i>	<p><b>1 mark</b> 1 mark awarded, as the candidate has given 4 or 5 pre-use checks. They have indicated 4 or 5 post-use checks and indicated that cutting tool may be blunt.</p>
<p><b>Procedure 3</b> Spot welder.</p> <p>11<sup>th</sup> January 2018</p>	<p>Everything was ok with the spot welder before I used it.</p>	<p>When I finished, I made sure it was ok and fitted in the box it came in.</p>	<i>A. Candidate</i>	<i>AN. Assessor</i>	<p><b>0 marks</b> Zero marks awarded, as the candidate has not specified any pre-use checks on the spot welder. No post-use checks are listed</p>

## Machine and power tool care and maintenance (continued)

Procedure and date carried out	Before using, I checked...	After using, I checked...	Candidate signature	Assessor signature	1 mark or 0 marks and comments
<p><b>Procedure 4</b> Arc welder used to join two bits of steel together.</p> <p>10<sup>th</sup> February 2018</p>	<p>I had my metal and I could use the welder properly.</p> <p>I made the stick spark and welded the two bits of metal.</p> <p>I was very happy with what I had done.</p>		<i>A. Candidate</i>	<i>AN. Assessor</i>	<p><i>0 marks</i></p> <p>Zero marks awarded, as the entry is incomplete. The candidate has given no detail of what they checked after using.</p>
<p><b>Procedure 5</b> Setting up the forge to allow me to form my screwdriver blade.</p> <p>21<sup>st</sup> February 2018</p>	<p>I checked with my teacher that it was ok to use the forge.</p> <p>I checked that the chips were loose and not all joined together.</p> <p>I used safety clothes and equipment.</p> <p>I made sure that there was nothing I could trip over lying about.</p> <p>I checked that all gas taps were in the correct position and made sure that the extractor fan was working.</p> <p>There was a funny noise coming from the extractor, so I told the teacher.</p>	<p>I had switched off all of the gas taps and I had switched the power off on the machine and at the isolator.</p> <p>I marked on the sign that the forge was hot, and marked the date and the time so nobody would get burned.</p> <p>I tidied up the mess, and put all safety equipment and tools back where they are kept.</p>	<i>A. Candidate</i>	<i>AN. Assessor</i>	<p><i>1 mark</i></p> <p>1 mark awarded, as the candidate has given 4 or 5 pre-use checks.</p> <p>They have indicated an issue and how they resolved it.</p> <p>They have indicated 4 or 5 post-use checks.</p>

- ◆ You must complete the relevant boxes for each machine/power tool procedure check you carry out.
- ◆ The checks must be relevant to the machine/power tools you are using and not general care and maintenance procedures.
- ◆ Your assessor should discuss your mark with you before signing off.

<b>Machine and power tool care and maintenance</b>	<b>Total marks awarded</b>	<b>3/5</b>
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## Tool care and maintenance

Procedure and date carried out	What I did to fix it....	What I checked...	Candidate signature	Assessor signature	1 mark or 0 marks and comments
<p><b>Procedure 1</b></p> <p>The hacksaw was not cutting through the metal.</p> <p>23<sup>rd</sup> November 2017</p>	<p>The hacksaw blade was chipped and worn, so it needed to be changed. I loosened the wing nut at the front of the hacksaw and took out the old blade, which I put in the recycle bin. I got a new blade and, making sure the teeth were facing forward, I tightened it in the frame with the wing nut.</p>	<p>Before I started to use it, I let my teacher check that it was in properly, and was nice and tight, which it was.</p>	<p><i>A. Candidate</i></p>	<p><i>AN. Assessor</i></p>	<p><b>1 mark</b></p> <p>1 mark awarded, as there is a full description of the problem and remedial action taken.</p> <p>Check procedures are explained.</p>
<p><b>Procedure 2</b></p> <p>Setting a scribing block to mark a height of 50mm.</p> <p>8<sup>th</sup> December 2017</p>	<p>I put the scribing block on top of the surface table, along with the angle block. I held a rule vertical against the angle block and loosened the scriber on the scribing block. I then put the point of the scriber level with 50mm mark on the rule and tightened it up.</p>	<p>I double checked the height of the scriber against the rule and I then let my teacher check it.</p>	<p><i>A. Candidate</i></p>	<p><i>AN. Assessor</i></p>	<p><b>1 mark</b></p> <p>1 mark awarded, as there is a full description of problem and remedial action taken.</p> <p>Check procedures are explained.</p>
<p><b>Procedure 3</b></p> <p>My file wasn't filing properly.</p> <p>13<sup>th</sup> January 2018</p>	<p>I unclogged it.</p>	<p>I made sure it worked.</p>	<p><i>A. Candidate</i></p>	<p><i>AN. Assessor</i></p>	<p><b>0 marks</b></p> <p>Zero marks awarded, as the candidate has not noted how they addressed the issue and there is no reference to any checks being carried out.</p>

## Tool care and maintenance (continued)

Procedure and date carried out	What I did to fix it...	What I checked...	Candidate signature	Assessor signature	1 mark or 0 marks and comments
<p><b>Procedure 4</b> Set up 8mm split die to make the first cut.</p> <p>24<sup>th</sup> February 2018</p>	<p>I got the die stock and loosened the three screws – the 2 side ones and the centre screw. I placed the 8mm die in the die stock, with the split in the die lined up with the centre screw. I then tightened the centre screw, as this expanded the die so it would cut the biggest thread.</p>	<p>I checked that the die was secure and got my teacher to check it before I started the cut.</p>	<p><i>A. Candidate</i></p>	<p><i>AN. Assessor</i></p>	<p><i>1 mark</i> 1 mark awarded, as the candidate has given a full description of what is required and the procedures involved in setting up the die for the first cut.</p> <p>Checks are in place.</p>
<p><b>Procedure 5</b> Checking the gap between electrodes on the spot welder is set properly.</p> <p>4<sup>th</sup> March 2018</p>	<p>The gap looked about right, as it was ok when the last person used it.</p>	<p>I tried it and it worked quite good.</p>	<p><i>A. Candidate</i></p>	<p><i>AN. Assessor</i></p>	<p><i>0 marks</i> Zero marks awarded as, although the candidate has written a full answer, there is no reference to the process of checking the gap and there is no reference to any checks being carried out.</p>

- ◆ You must complete the relevant boxes for each issue you identify and procedure you carry out.
- ◆ You will be presented with tools that require attention, need repaired or set.
- ◆ You should identify the issue, report it to your assessor and then rectify it.
- ◆ Your assessor should discuss your mark with you before signing off.

<b>Tool care and maintenance</b>	<b>Total marks awarded</b>	<b>3/5</b>
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## Safe working procedures

An important part of the course is your ability to work in a safe manner. You must adhere to all health and safety procedures associated with the use of various power, machine and hand tools, and processes that you encounter during the course.

You must always behave in a manner expected within a workshop environment.

Your assessor will observe you throughout the practical activity and will award you a mark between 0-5. This mark forms part of your final assessment.

Marks are awarded as follows:

Safe working procedures	Mark
<del>Candidate has adhered to safe working procedures, with no need for reminders or interventions</del>	5
<del>Candidate has adhered to safe working procedures, with one reminder or intervention</del>	4
Candidate has adhered to safe working procedures, with two reminders or interventions	3
Candidate has adhered to safe working procedures, with three or four reminders or interventions	2
Candidate has adhered to safe working procedures, with regular reminders or interventions	1
Candidate has adhered to safe working procedures, with constant reminders or interventions	0

Safe working procedures	Total marks awarded	3/5
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*Note to assessors:*

*You may find it helpful to indicate any interventions during the practical activity as they happen, by striking through in grid as shown here. This lets the candidate know how their working practices is affecting their mark.*