**Safe Operation Procedure**

Title: Electric Hand Drill – Corded/Cordless

Authorized By: Chris Vandelaar

Issue Date: May 2016
Last Reviewed: May 2016
Next Review Date: May 2018

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**DO NOT use this machine unless you have been trained in its safe use and operation.**

**Description of Work:** Using a Electric Hand Drill

<table>
<thead>
<tr>
<th>Potential Hazards:</th>
<th>Exposed moving spindle and cutter. Electrical hazard with the potential to cause harm through entanglement, cutting, impact, abrasion, exposure to noise, projectiles, sharp objects, and friction.</th>
</tr>
</thead>
</table>

**Important Notice:** This SOP is intended as a reference guide to compliment Western Engineering’s Shop Safety Training. This document by its self does not constitute shop/equipment training. Please visit OWL site: “Western Engineering Shop Training”

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**Personal Protective Equipment (PPE) Required**

(Check the box for required PPE):

- Respirator /Dust Mask/ Extraction
- Eye Protection
- Employ Entanglement Precautions
- Cutting Hazard
- Hearing Protection
- Protective Clothing

- X
- X
- X
- X
- X
- X

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**Risk and Hazards Prevention:**

- **Entanglement Hazard** – Ensure the tool is gripped firmly and operator is prepared to overpower torque. No loose Clothing, No Jewellery or accessories, Long Hair must be contained
- **Cutting** – Be cautious of moving bits/blades
- **Use dust mask to avoid inhalation of fumes and dusts**
- **Pinching from work piece shifting use proper work holding strategies during operation**

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**Safe Work Procedure Checklist:**

1. **PRE-Operation:**
   - Always begin by setting-up your work area safely to avoid the following: Trip hazard, uncomfortable working conditions, electrical hazards, crowded work spaces (other students) and other dangerous situations
     - Use only in designated area. Use screens or curtains to contain hazards
     - Ensure the appropriate bit is correctly installed and that it is appropriate for the task and material
     - Work piece - Ensure work piece is securely clamped
     - Be prepared to firmly grip the tool when in use
     - Plan your cut to ensure that your blade will not cut anything unintentionally. Ie: Work table
     - Identify ON/OFF switch
     - Inspect electrical cord if so equipped
2. Operation:
   - Leave machine unplugged/unpowered until ready for use
   - Ensure all other students are clear of immediate work area
   - Keep fingers, hands and cables free of cutters and surrounding area
   - Check that the bit runs ‘true’ and does not wobble. Excess vibration must be identified and addressed immediately
   - Do not make adjustments while machine is plugged in – un-plug to make adjustments
   - Increase working loads gradually. Never abruptly. Use smooth fluid motions. Use caution when drilling through holes
   - Be aware of flying debris, dust and particulate. Aim debris away from self and other people
   - Turn drill off when not in use
   - Ensure machines have been isolated from power sources before being cleaned, adjusted, maintained or repaired.
   - Un-plug when not in use

3. POST-Operation:
   - Remove cutters from chuck before putting tool away
   - Store cord (if equipped) in such a way that it is not in contact with the blade. Never carry any power tool by its cord
   - Remove (if equipped) battery and charge if less than 50% power

Competent Persons (The following persons are authorised to operate, supervise and test students on the equipment/process):

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris Vandelaar</td>
<td>Student Shop Manager</td>
<td>CMLP 1301 x 80281</td>
</tr>
<tr>
<td>UMS Technicians</td>
<td>UMS Technicians</td>
<td>TEB Rm. 50 x 88836</td>
</tr>
</tbody>
</table>

This SOP does not necessarily cover all possible hazards associated with the machine and should be used in conjunction with other references. It is designed to be used as an adjunct to teaching Safety Procedures and to act as a reminder to users prior to machine use.

Date of last review: Signature: