**BTEC Assignment Brief**

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| **Qualification** | | Pearson BTEC Level 3 National Extended Diploma in Engineering |
| **Unit number and title** | | Unit 41: Manufacturing Secondary Machining Processes |
| **Learning aim(s)** (For NQF only) | | B: Set up traditional secondary processing machines to manufacture a component safely  C Carry out traditional secondary machining processes to manufacture a component safely |
| **Assignment title** | | 2. Making products and components using secondary machining processes |
| **Assessor** | | J Kupper |
| **Issue date** | | 23/09/19 |
| **Hand in deadline** | | 07/10/19 |
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| **Vocational Scenario or Context** | | You are working as a final year apprentice in the machine shop of a medium sized engineering company. You should now demonstrate your ability to operate machinery to carry out secondary machining processes, safely and accurately  You will need show how to set secondary machines and then use these to make components on the following machines   * Centre lathe * Milling machine * Pillar drill * Bench grinder |
| **Task 1** | | You have been asked to produce three products/components using different traditional secondary machining processes.  You need to produce three products:-   1. Scribe tool 2. Screwdriver 3. Scribing V block |
| **Task 2** | | Produce a report/logbook that:  a) shows how set up each machine  b) use of the machine  c) parameters used e.g. speeds  Your report should also include:   * risk assessments for each machine used * the finished components/products * annotated photographs and drawings * complete quality control documents |
| **Checklist of evidence required** | | A report/logbook focusing on three different traditional processes |
| **Criteria covered by this task:** | | |
| Unit/Criteria reference | To achieve the criteria you must show that you are able to: | |
| 41/B.P2 | Explain what health and safety requirements apply when machining a component and conduct a risk assessment of the work environment. | |
| 41/ B.P3 | Set up safely at least two traditional secondary processing machines | |
| 41/B.M2 | Use the correct tooling, work-holding devices and speeds and feeds to set up safely at least two traditional secondary processing machines | |
| 41/C.P4 | Manufacture the component safely using at least two different traditional secondary machining processes and containing at least six features. | |
| 41/C.M3 | Manufacture accurately the component containing at least six features. | |
| 41/BC.D2 | Refine during the process the safe set up and parameters of the traditional secondary processing machines to effectively and efficiently manufacture a component. | |
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| **Sources of information to support you with this Assignment** | | Websites  www.hse.gov.uk/work-equipment-machinery/standard.htm |
| **Other assessment materials attached to this Assignment Brief** | |  |