## **LESSON PLAN**

LESSON PLAN NUMBER: 9 Department: AMA Phase 2 Core Mechanical

**Aim:** To gain knowledge and understanding of Machine Shop Appreciation CME29

Topic: Phase 2 ROA Core Mechanical – Machine Shop Appreciation CME29

**Previous Knowledge**: Phase 1

| Target   | Record of<br>Achievement<br>Reference  | Objectives/Content   | Tutor Activity   | Learner Activity  | Resources                                  |  |                        |
|--|--|--|--|---|--|--|------------------------|
| Time   |  |  |  |   | Handouts                                   | Equipment                                | Assessment             |
| Session 1<br>1.40 hrs<br>(Subject to<br>TTE Lunch &<br>Break Rota) | CME29 Machineshop Appreciation Machining a Pipe flange & fitting a Taper-Loc bush Turning, Surface Finish, Specific Tolerances | Practical Session  Objective 1- ( <i>Pipe-Flange</i> )  Introduction  H&S, the various hand and machine tools used, measure, mark, prepare piece for manufacture | Set out the days objectives Re-cap planning Tool-Box Talk Explain the risks Explain the various tools used, measuring instruments Demonstration/ explanation Technical support | Check the machine Select recycled Flange Check allowances Re-cap plan safe operation of the lathe | <u>Drawing</u><br>Taper-Lock Data<br>Sheet | Workshop tools Precision measuring tools | Observation<br>Product |
| Session 2<br>1.40 hrs<br>(Subject to<br>TTE Lunch &<br>Break Rota) | CME29 Machineshop Appreciation Machining a Pipe flange & fitting a Taper-Loc bush Cont'd                                       | Practical Session Objective 3 ( <i>Pipe-Flange</i> ) Turning Facing Chamfers   | Recap/ Bridge last session,<br>intro this session<br>Demonstration/<br>explanation<br>Technical support  | safe operation of the<br>lathe<br>turning operations<br>Interim inspection                        | <u>Drawing</u>                             | Workshop tools Precision measuring tools | Observation<br>Product |
| Session 3<br>1.40 hrs<br>(Subject to<br>TTE Lunch &<br>Break Rota) | CME29 Machineshop Appreciation Machining a Pipe flange & fitting a Taper-Loc bush Cont'd                                       | Practical Session Objective 2 - ( <i>Pipe-Flange</i> ) Boring Turning Internal Tapered diameters finishing   | Recap/ Bridge last session,<br>intro this session<br>Demonstration/<br>explanation<br>Technical support  | safe operation of the<br>lathe<br>turning operations<br>Interim inspection                        | Drawing                                    | Workshop tools Precision measuring tools | Observation<br>Product |
| Session 4 1.40 hrs  (Subject to TTE Lunch & Break Rota)            | CME29 Machineshop Appreciation Machining a Pipe flange & fitting a Taper-Loc bush Cont'd                                       | Practical Session Objective 3 - ( <i>Pipe-Flange</i> ) Turning Facing Chamfers Surface Finish  | Recap/ Bridge last session,<br>intro this session<br>Demonstration/<br>explanation<br>Technical support<br>Examination of product<br>feedback                                  | safe operation of the<br>lathe<br>turning operations<br>Final inspection                          | <u>Drawing</u>                             | Workshop tools Precision measuring tools | Observation<br>Product |

| Equality & Diversity  | Differentiated Learning Activities (Highlight or tick where applicable)   |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|
| Challenge stereotypes by:                                     | • Mix of individual, paired and group work. □   |  |  |  |  |  |  |  |
| • Using non discriminatory language.                          | ■ Variety of activities for different learning styles. □  |  |  |  |  |  |  |  |
| • Using diverse images, names & scenarios.                    | • Learner support. □  |  |  |  |  |  |  |  |
| Promote a positive learning environment by:                   | • Targeted differentiated questioning to check learning with prompts/leads to support less able learners.   Specific Differentiation activities:  |  |  |  |  |  |  |  |
| • Being a positive role model.                                | By Extension □  (For example additional practical tasks after completion of ROA content for the most able)  |  |  |  |  |  |  |  |
| • Encouraging collaborative work.                             |   |  |  |  |  |  |  |  |
| • Valuing individual characteristics and experiences.         | <ul> <li>By Group Work □</li> <li>(For example grouping learners of mixed ability y to support each other within the peer group)</li> <li>By Content. □</li> </ul>  |  |  |  |  |  |  |  |
| • Encouraging learners to participate.                        |   |  |  |  |  |  |  |  |
| • Nurturing mutual respect.                                   | (For example study different materials within the same topic area)  |  |  |  |  |  |  |  |
| • Promoting positive behaviour.                               | By Activities. □  |  |  |  |  |  |  |  |
| <b>Promote inclusion by:</b>                                  | <ul> <li>(For example study the same content but do different activities)</li> <li>• By Gradation □</li> <li>(for example the same information and activities are given as the activity becomes progressively more difficult</li> </ul> |  |  |  |  |  |  |  |
| • Anticipating and addressing potential barriers to learning. |   |  |  |  |  |  |  |  |
| • Using accessible resources.                                 | only the more able complete the difficult tasks)  |  |  |  |  |  |  |  |
| Individual Learner / Group Targeted Needs / Strategies        |   |  |  |  |  |  |  |  |
| (List details where applicable)                               |   |  |  |  |  |  |  |  |
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