

Leseprobe

Christiani

est.1931

Operational training · Metal working

Machine-based material processing

Section: Turning

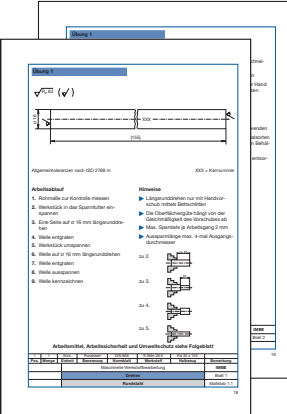


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Time (h)	Goals – Content – Schedule – Notes	Media
0.5	<p>The course begins</p> <ul style="list-style-type: none"> ▶ Welcome and introductions (from each trainee in turn) ▶ Course schedule and organisation 	Flip chart
0.5	<ul style="list-style-type: none"> ▶ Know your workplace (workshop tour) 	
0.5	<p>Course content:</p> <ul style="list-style-type: none"> ▶ Machining ▶ Machine lathes ▶ Lathe tools/turning processes ▶ Clamps and chucks ▶ Turning parameters/materials ▶ Cooling lubricants ▶ Working techniques for machine lathes ▶ Reading, using and preparing technical documents ▶ Work planning ▶ Checking, assessing and presenting the results ▶ Maintaining the equipment ▶ Health and safety, environmental protection and energy efficiency 	Flip chart
	Trainer manual	Metal working
	Turning	

Time (h)	Goals – Content – Schedule – Notes	Media
0.5	<p>Objectives - Day One</p> <ul style="list-style-type: none"> ▶ Short presentation on lathe turning ▶ Layout and operation of the lead shaft feed screw feed screw ▶ Preparing the lathe for operation ▶ Identifying workpiece clamping devices and clamping workpieces in a three-jaw chuck ▶ Identifying workpiece clamping devices and clamping lathe tools ▶ Identifying and selecting lathe tools ▶ Setting the rotational speed, feed and depth ▶ Measuring clamped workpieces ▶ Explaining and using health and safety regulations, and environmental protection measures ▶ Exercise 1: Preparing round bar steel 	Flip chart
4.0	<p>Instruction/Discussion (exercise 1)</p> <ul style="list-style-type: none"> ▶ Machining skill: Turning Manufacturing processes/cutting processes Material removal processes/turning processes ▶ Layout of the machine lathe (demonstration) Machine frame Headstock Feed gear mechanism Lathe bed Carriage, longitudinal slide, cross slide and top slide Tailstock Lead screw Feed shaft 	Library Slide 1 Slide 2 Slides 3 to 5
	Trainer manual	Metal working
	Turning	

Time (h)	Goals – Content – Schedule – Notes	Media
	<p>▶ Machine lathe functions (demonstration)</p> <ul style="list-style-type: none">Power supplySwitching onSwitching offManual feedSlide movements	Slide 3
	<p>▶ Preparing the lathe for operation (demonstration)</p> <ul style="list-style-type: none">Lubrication/coolingFeed to limit switchChuck keyEmergency stop switchChip protectionWorkplace lightingPotential hazards when switching on	Flip chart
	<p>▶ Workpiece clamping devices</p> <ul style="list-style-type: none">Three-jaw chuckFour-jaw chuckFace plateDraw-in collet	Slide 6
	<p>▶ Workpiece clamping devices</p> <ul style="list-style-type: none">Clamping jawFour-way tool postQuick-change tool post	Slide 7
	<p>▶ Clamping workpieces (demonstration)</p> <ul style="list-style-type: none">Clamping workpiecesIncorrect clampingGeneral advice on work safety	
	Trainer manual	Metal working
	Turning	

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<p>1.0</p> <p>0.5</p> <p>0.5</p>	<p>▶ Environmental protection measures</p> <p>Disposal of lubricants, chips and cleaning materials</p> <p>Location of waste disposal bins</p> <p>▶ Exercise 1: Round bar steel</p> <p>Assignment</p> <p>The trainees are to machine round bar steel in accordance with the given specifications (longitudinal straight turning)</p>  <p>▶ Summary of Day One (technical discussion)</p> <p>▶ Tidy up workplace</p>	<p>Engineering data</p>
	<p>Trainer manual</p> <p>Turning</p>	<p>Metal working</p>