

# Trade of Metal Fabrication

Module 3:	Plate Fabrication
Unit 5:	Saddle Support
	Phase 2



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## **Document Release History**

<b>Date</b>	<b>Version</b>	<b>Comments</b>
14/12/06	First draft	
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## Module 3 – Plate Fabrication

### Unit 5 – Saddle Support

Duration – 7 Hours

#### Learning Outcome:

By the end of this unit each apprentice will be able to:

- Read and interpret drawing
- Mark out, flame cut, roll, bend, assemble and weld components of a saddle support

#### Key Learning Points:

<b>Sk</b>	Marking out material and setting out.
<b>Sk</b>	Oxy-fuel gas cutting.
<b>Sk Rk</b>	Drilling – Work Holding. <i>(Also see Module 1 Unit 3).</i>
<b>Sk</b>	Template making.
<b>Sk</b>	Rolling.
<b>Sk Rk</b>	Bending – V Block ratio. <i>(Also see Module 3 Unit 1).</i>
<b>Sk Rk</b>	M.A.G.s welding process. <i>(Also see Module 2 Unit 3).</i>
<b>M</b>	Chord length. <i>(Instructor explains this in classroom).</i>
<b>H</b>	Safety procedures when cutting, drilling, bending and welding. <i>(Also see Module 1 Unit 3, Module 2 Unit 10 and Module 3 Unit 1).</i>
<b>M</b>	Basic costing – material and job costing.
<b>Sk</b>	Behaviour of materials – allowance for springback.
<b>P</b>	Ability, initiative, standard of work.

**Training Resources:**

- Fabrication workshop
- Pyramid rolls press brake
- Pedestal drill
- Drill bits oxy/fuel cutting equipment
- M.A.G.s welding plant and equipment
- 100 x 6mm flat bar
- 6mm mild steel plate
- Safety clothing and equipment

**Key Learning Points Code:**

**M**= Maths      **D**= Drawing      **RK**= Related Knowledge      **Sc**= Science  
**P**= Personal Skills      **Sk**= Skill      **H**= Hazards

## Basic Costing

	Contractor		
Stage 1	Check ownership solvency, others involved etc.		
Stage 2	a) Examines the drawings and documents.	b) Prepares a list of questions to be answered.	c) Quotations for materials.
Stage 3	a) Agrees a time frame.	b) Checks availability of material involved.	c) Checks his own money situation insurance etc.
Stage 4	a) Finish on job/galvanising/paint etc.	b) Travel/distance etc.	c) Gets the answers to the list of questions.
Stage 5	a) Considers labour and plant.	b) Plans work schedules.	c) Price the quantities.
Stage 6	a) A budget is set for the project.	b) Calculates profits.	c) Final check.

Now the job can get under way.

**Note:** Working drawings, tender documents, specifications and bills of quantities have to be precise. Anything unclear, sloppy or incomplete will be a sure source of future troubles and claims.

## **Self Assessment**

Questions on Background Notes – Module 3.Unit 5

**No Suggested Questions and Answers.**

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