



**L3 Land-based Service Engineering - Task Sheet**

NAME:..................................................................................... DATE:................

**Reference: Task:**

*305/01 MANUAL METAL ARC WELDING*

**Requirements:**

Appropriate arc welder

Appropriate welding accessories

Angle grinder

Appropriate hand tools

PPE

6mm x 40 x 150mm plate samples

Letter stamps.

**Instructions:**

Prepare and setup metal items to be welded.

Produce **one** each of fillet, butt and lap joint to an acceptable standard.

Cut each end to produce finished length of 140mm.

Clean test pieces for presentation and stamp initials.

Decommission welding equipment & tidy up.

**Method:**

1. Clean & prepare metal samples to be welded using angle grinder.

2. Prepare any necessary jigs/clamps/magnets to prevent distortion.

3. Setup welder to appropriate settings.

4. Produce joints as required to an acceptable standard.

**GET SUPERVISOR FOR INSPECTION AT THIS POINT**

5. Remove spatter as necessary then drill a small hole in each sample.

6. Clean up samples to a bright finish then stamp your initials on them.

**GET SUPERVISOR FOR INSPECTION AT THIS POINT**

7. Collate samples and place on ring.

over/

Tick as necessary:

‘T’ fillet 

Single run 

Butt 

Multi-run 

Lap 

**QUESTIONS**

1. Explain the consequences of a lack of penetration.

2. Why is it important to thoroughly clean metal before welding?

3. Describe the MMA welding process. Include the function of the welding electrode, current setting and welding position.

**TASK COMPLETE**

Signed (Trainee):.......................................................... Date:...............................

Signed (Assessor):....................................................... Date:...............................