b) Job - Mild steel Bracket Date: 25/10/10

Tools:
- Hacksaw
- Tapping bit (with lubricant)
- Tapping handle
- Scribe
- Ruler
- ~~Drill~~
- Permanent marker
- Approx 10mm diameter drill bit
- ~~Guillotine~~
- Point punch and hammer
- Tin Snips
- ~~Grinder~~
- File
- Compass (to mark radii)
- Sand paper

Equipment:
- Drill press ~~Water~~
- Vice
- Guillotine
- Grinder
- Punch press
- Pencil and paper and ruler
- PPE (glasses, boots (steel cap), high visibility clothes)

Process:
1. Write down the job process using pencil and paper.
2. Locate mild steel sheet (300x55x6)
3. Measure ~~the~~ 100mm along sheet and mark ~~it~~ the point on both sides of sheet using a permanent marker, then a scribe.
4. Use tin snips to make neat cuts on the edge of either side of the sheet.
5. Use guillotine to cut of 100mm length.
6. mark ~~300~~ 20mm in from the left of the sheet, at top and bottom
7. Rule a line (linex) (with ~~perm.~~ permanent marker first then with scribe) joining 20mm marks
8. Mark centre of the hole to be be measuring 20mm down either side of the piece and drawing a line perpendicularly accross ~~the~~ linex. Then use a ~~punch~~ point punch and a hammer to mark the point

Additional writing space on back page.

where the two lines cross.

9. ~~Mark~~ Use shrinker process to mark centre of the two radii ~~for the L section that is made~~ (R5).

10. Use drill press to drill through piece, using an ÷10mm drill bit and a vice to secure the article.

11. ~~We~~ Then use a lubricated 12mm tap on the article (whilst it's still in the vice). Make sure that the shavings from the tapping process are removed regularly.

12. Use a punching press with appropriately sized ~~cutter~~ bit attached (~~40mm~~ 50 mm long with two 5m radii at either end) on article in the area marked previously. The article must still be in ~~the~~ vice.

13. The article can be then removed from the vice and then held by hand on the grinder to ~~be~~ make the R10 radii.

14. The article must be regularly dipped in water so it doesn't overheat.

15. A file can then be used to clean up and rough or inaccurate edges.

16. Sandpaper can then be used to smooth the surface of the article and provide a more rust resistant finish.

You may ask for an extra Writing Booklet if you need more space.