

071505T4MTP

MECHANICAL PRODUCTION TECHNOLOGY LEVEL 5

ENG/OS/ME/CR/01/5/A

FABRICATE SHEET METAL PARTS

Nov/Dec 2024



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND
CERTIFICATION COUNCIL (TVET CDACC)**

ASSES LIST

INSTRUCTIONS TO THE ASSESS

1. You are required to mark the practical as the candidate performs the tasks.
2. You may take video clips and photos at critical points.
3. Ensure the candidate has an identification tag pinned at the back and front near the shoulders showing Candidate's name and registration code.

Note: assessor is required to plan for hold points/stoppage points at check, observe or verify items in a manner that do not interfere with the candidate's progress during practice session

OBSERVATION CHECKLIST

Candidate's name			
Candidates' registration code			
Assessor's name			
Assessors' registration Number			
Venue of assessment			
Date of assessment			
Items to be evaluated: <i>please award marks as appropriate. give a brief comment on your observation</i>	Marks available	Marks obtained	comments
1. Adhered to prescribe safety as per workplace procedure and OSHA a). Wore PPE i. Safety boots ii. Dust coat/overall iii. Hand groves (Award 1 mark or zero)			
2. Prepared Operation procedure sheet. (Steps as in attached appendix 2.) (Award ½ mark for each operation and ½ for correct tool.)	10		
3. Inspected the fabricated component (As per the attached candidate inspection checklist appendix 1) (Award 1 mark for every correct inspected dimension or zero)	7		
4. Performed housekeeping: i. Cleaned benches and floor ii. Returned all tools to the designated areas. iii. Segregated and disposed waste in the	1 1		

correct bins.	1		
SUB - TOTAL:	23		

PRODUCT CHECKLIST

Items to be evaluated: <i>Please award marks as appropriate. Give a brief comment on your observation.</i> <i>Note</i> All dimensions are in mm Tolerance : ± 0.5	Max-marks	Actual-marks	Comment
5. MATERIAL PREPARATION			
PART 1: BODY			
a. Linear Dimensions i. 215 (2 × 2)	4		
b. Diameter i. Ø 210 ii. Ø 160 <i>(Award full marks or zero)</i>			
c. Quality of pattern developed • Smooth curve • Equal length along its circumference <i>(Award marks as indicated)</i>	2 2		
d. Quality of rolled part • Smooth rolled part • Smooth circular profile on both top and bottom <i>(Award marks as indicated)</i>	2 2		
e. Quality of drilled/punched holes • Evenly spaced holes • Burrs removed	1 1		
Sub-total:	20		
PART 2: BASE			

a. Diameter Ø 169 (Award full marks or zero)	4		
b. Quality of part - Smooth edges - Good circular profile (Award marks as indicated)	2 2		
Sub-total:	8		
PART 3: HANDLE BRACKET (2 0FF)			
a. Linear dimensions 30 (2 × 2) 20 (2 × 2) (Award marks as indicated)	4 4		
b. Quality of part Drilled holes (6 × ½) Evenly spaced holes (2 × 1) Squareness (2 × 2) (Award marks as indicated)			
Sub-total	17		
PART 4: HANDLE			
a. Linear dimensions 234 (Award marks as indicated)	2		
b. Quality of part Smooth curve (Award marks as indicated)	2		
Sub total	4		
6. ASSEMBLY			
a. Gas welded the body seam	4		
b. Brazed the base to the body	4		
c. Riveted the handle brackets to the body	4		

d. Fitted the handle to the handle brackets (Award marks as indicated)	2		
e. Quality of gas weld - Uniform weld profile - No spatters (Award marks as indicated)	2 2		
f. Quality of brazing - Uniform brazed profile - No spatters (Award marks as indicated)	2 2		
g. Quality of riveting - Firm riveted joint - Proper formed head	2 2		
h. Functionality (leak proof test) No leaks (water)			
Sub-total			
Product Total			
GRAND TOTAL			
Candidate Overall Score =			

ASSESSMENT OUTCOME
The candidate was found to be: Competent ☐ Not yet competent ☐ (Please tick as appropriate) (The candidate is competent if the candidate obtains at least 50%)
Feedback from candidate:
Feedback to candidate:

Candidate's Signature	Date
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Assessor's Signature	Date
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Appendix 2: Operation procedure sheet

No	PROCEDURE	TOOL AND EQUIPMENTS
1.	Measuring	Meter rule, vernie5 caliper
2.	Marking out	Scriber, try square
3.	Cutting	, snips, hacksaw
4.	Centre punching	punch, hammer
5.	Drilling /hole punching	g machine, bench punch
6.	Hemming	, anvil
7.	Bending	Bending machine, hammer
8.	Riveting	Rivet set, hammer
9.	Gas welding	Oxy-acetylene equipment
10.	Brazing	oxy-acetylene equipment

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