

071605T4AMEM

AGRICULTURAL MACHINERY &amp; EQUIPMENT MECHATRONICS LEVEL 5

ENG/0S/AME/CR/3/5/A

Maintain Agricultural Mechatronics Machinery and Equipment System

Nov/Dec2024



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

**PRACTICAL ASSESSMENT**

**OBSERVATION CHECKLIST**

<b>Candidate's name &amp; Registration Code</b>			
<b>Assessor's name &amp; Registration Code</b>			
<b>Venue of Assessment</b>			
<b>Date of assessment</b>			
<b>Items to be evaluated: <i>Please award marks as appropriate. Give a brief comment on your observation.</i></b>	<b>Marks available</b>	<b>Marks obtained</b>	<b>Comments</b>
<b>TASK 1: CARRY OUT GENERAL INSPECTION AND MAINTENANCE PRACTICES ON THE TRACTOR</b>			
1. Wore PPEs <ul style="list-style-type: none"> <li>• Helmet</li> <li>• Boot</li> <li>• Gloves</li> <li>• Overall</li> </ul>	4		

(award 1 mark for each worn out PPEs or zero mark)			
2. Checked tyre pressure (award 1 mark or zero)	1		
3. Checked engine oil leaks (award 1 mark or zero)	1		
4. Checked coolant (award 1 mark or zero)	1		
5. Checked engine overheating (award 1 mark or zero)	1		
6. Checked worn out parts (award 1 mark or zero)	1		
7. Tightened loose parts (award 1 mark or zero)	1		
8. Checked battery terminals (award 1 mark or zero)	1		
9. Checked hydraulic oil level and oil quality (award 1 mark or zero)	1		
10. Checked fuel level (award 1 mark or zero)	1		
11. Cranked the engine to confirmed functionality of different systems. <ul style="list-style-type: none"> <li>• Brakes.</li> <li>• Hydraulic</li> <li>• Lighting</li> </ul> (award 1 mark for each or zero)	3		
<b>Sub-Total 1</b>	<b>16</b>		
<b>TASK 2: REPLACE WORN-OUT BEARING ON A DISC PLOUGH</b>			
12. Restrained the disc plough correctly using	2		

safety stands (award 2 marks or zero marks)			
13. Inspected the disc plough <ul style="list-style-type: none"> <li>Condition of the bearing and surrounding components</li> <li>Bearing type</li> <li>Bearing size</li> <li>Visible sign of wear and damage</li> </ul> (award 1 mark for each or zero mark)	4		
14. Used appropriate tools to remove fasteners and bolts (award 2 marks or zero mark)	2		
15. Observed the right procedures of removing old bearing as per manufacturers manual (award 2 marks or zero mark)	2		
16. Cleaned the bearing hub <ul style="list-style-type: none"> <li>Suitable solvent used to clean the bearings and its components</li> <li>removed any grease, dirt or debris</li> <li>ensured no solvent residue is left on the components</li> </ul> (Award 1 mark each or zero mark)	3		
17. Inspected the bearing housing <ul style="list-style-type: none"> <li>Checked for sign of wear, corrosion or damage</li> <li>Replaced any damage component</li> </ul> (award 1 mark for each)	2		
18. Fitted new bearing <ul style="list-style-type: none"> <li>Ensured all components are dry and free of contaminants before</li> </ul>	5		

reassembling <ul style="list-style-type: none"> <li>• Applied fresh grease as per manufacturer specification</li> <li>• Aligned and fitted all parts</li> <li>• Reinstalled the bearing into its housing</li> <li>• Secured the bearing and tightened properly</li> </ul> <p><i>(award 1 mark for each or zero mark)</i></p>			
19. Carried out final checks and adjustments <ul style="list-style-type: none"> <li>• Rotated the disc manually to ensure smooth operation.</li> <li>• Checked unusual noise or resistance</li> <li>• Secured all components properly</li> </ul> <p><i>(award 1 mark for each)</i></p>	3		
<b>Sub-Total 2</b>	<b>23</b>		
<b>GRAND TOTAL</b>	<b>39</b>		
<b>ASSESSMENT OUTCOME</b>			
<p><b>The candidate was found to be:</b></p> <p style="text-align: center;">Competent <input type="checkbox"/>      Not yet competent <input type="checkbox"/></p> <p><i>(Please tick as appropriate)</i></p> <p><b><i>(The candidate is competent if the candidate obtains at least 50%)</i></b></p>			
<p><b>Feedback from candidate:</b></p>  			
<p><b>Feedback to candidate:</b></p>  			

<b>Candidate's Signature</b>	<b>Date</b>
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<b>Assessor's Signature</b>	<b>Date</b>
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