

Instruction Sheet for the Candidate

Qualification	Agricultural Machinery Mechanic (Level 5)
Competency Standard	Maintain Hydraulic System
Purpose of Assessment	Formative Assessment
Candidate Details	Name_____
	Registration/Roll Number_____
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within 05 Hrs. time frame (for practical demonstration & assessment):</p> <ul style="list-style-type: none"> • Service the Hydraulic pump • Service the Hydraulic top cover • Adjust the Draft control • Adjustment of Position control lever
Time: 05 Hrs.	During a practical assessment, under observation by an assessor, you are required to
Minimum Evidence Required	<p>Service the Hydraulic pump</p> <ol style="list-style-type: none"> 1. Park the Prime Mover on level surface 2. Place the line jacks 3. Split the Prime Mover from gear box and central hosing 4. Remove the stand pipe 5. Remove both mounting Dowels 6. Remove the Hydraulic pump 7. Remove Hydraulic strainer 8. Remove the suction manifold 9. Remove the drive end plate 10. Remove the drive shaft 11. Clean the Hydraulic pump with kerosene oil 12. Replace the chamber valve kit & piston rings 13. Place the rubber O-rings 14. Assemble the Hydraulic Pump 15. Check the pump pressure with appropriate tools and gauges <p>Service the Hydraulic top cover</p> <ol style="list-style-type: none"> 1. Remove the linkages 2. Open the bolts of hydraulic top cover 3. Disassemble the ram cylinder nuts 4. Remove the vertical lever 5. Remove the lift arms 6. Disconnect the draft control linkages 7. Disconnect the Position control linkages 8. Remove the arm shaft 9. Clean the assemble with kerosene oil 10. Assemble the Hydraulic Top cover <p>Adjust the Draft control</p>

	<ol style="list-style-type: none"> 1. Adjust the Quadrant 2. Adjust the control lever position on quadrant 3. Adjust the position control lever on transport position 4. Adjust the Draft control lever on sector mark 5. Adjust vertical lever on right angle 6. Tight the nut and lock <p>Adjustment of Position control lever</p> <ol style="list-style-type: none"> 1. Place the control lever on position control 2. Place the draft control lever on up position 3. Tight the Allen screw until vertical lever places on right angle 4. Check nut or lock 5. Check the adjustment during field operation
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Self-Assessment Checklist

Candidate Name	
Registration No.	
Qualification	Agricultural Machinery Mechanic (Level 5)
Competency Standard	Maintain Hydraulic System
Purpose of Assessment	Formative Assessment
Assessment Task	<ul style="list-style-type: none"> Service the Hydraulic pump Service the Hydraulic top cover Adjust the Draft control Adjustment of Position control lever

I can.....

Performance Criteria	Yes	No
1. Park the Prime Mover on level surface	<input type="checkbox"/>	<input type="checkbox"/>
2. Place the line jacks	<input type="checkbox"/>	<input type="checkbox"/>
3. Split the Prime Mover from gear box and central hosing	<input type="checkbox"/>	<input type="checkbox"/>
4. Remove the stand pipe	<input type="checkbox"/>	<input type="checkbox"/>
5. Remove both mounting Dowels	<input type="checkbox"/>	<input type="checkbox"/>
6. Remove the Hydraulic pump	<input type="checkbox"/>	<input type="checkbox"/>
7. Remove Hydraulic strainer	<input type="checkbox"/>	<input type="checkbox"/>
8. Remove the suction manifold	<input type="checkbox"/>	<input type="checkbox"/>
9. Remove the drive end plate	<input type="checkbox"/>	<input type="checkbox"/>
10. Remove the drive shaft	<input type="checkbox"/>	<input type="checkbox"/>
11. Clean the Hydraulic pump with kerosene oil	<input type="checkbox"/>	<input type="checkbox"/>
12. Replace the chamber valve kit & piston rings	<input type="checkbox"/>	<input type="checkbox"/>
13. Place the rubber O-rings	<input type="checkbox"/>	<input type="checkbox"/>
14. Assemble the Hydraulic Pump	<input type="checkbox"/>	<input type="checkbox"/>

15. Check the pump pressure with appropriate tools and gauges	<input type="checkbox"/>	<input type="checkbox"/>
16. Remove the linkages	<input type="checkbox"/>	<input type="checkbox"/>
17. Open the bolts of hydraulic top cover	<input type="checkbox"/>	<input type="checkbox"/>
18. Disassemble the ram cylinder nuts	<input type="checkbox"/>	<input type="checkbox"/>
19. Remove the vertical lever	<input type="checkbox"/>	<input type="checkbox"/>
20. Remove the lift arms	<input type="checkbox"/>	<input type="checkbox"/>
21. Disconnect the draft control linkages	<input type="checkbox"/>	<input type="checkbox"/>
22. Disconnect the Position control linkages	<input type="checkbox"/>	<input type="checkbox"/>
23. Remove the arm shaft	<input type="checkbox"/>	<input type="checkbox"/>
24. Clean the assemble with kerosene oil	<input type="checkbox"/>	<input type="checkbox"/>
25. Assemble the Hydraulic Top cover	<input type="checkbox"/>	<input type="checkbox"/>
26. Adjust the Quadrant	<input type="checkbox"/>	<input type="checkbox"/>
27. Adjust the control lever position on quadrant	<input type="checkbox"/>	<input type="checkbox"/>
28. Adjust the position control lever on transport position	<input type="checkbox"/>	<input type="checkbox"/>
29. Adjust the Draft control lever on sector mark	<input type="checkbox"/>	<input type="checkbox"/>
30. Adjust vertical lever on right angle	<input type="checkbox"/>	<input type="checkbox"/>
31. Tight the nut and lock	<input type="checkbox"/>	<input type="checkbox"/>
32. Place the control lever on position control	<input type="checkbox"/>	<input type="checkbox"/>
33. Place the draft control lever on up position	<input type="checkbox"/>	<input type="checkbox"/>
34. Tight the Allen screw until vertical lever places on right angle	<input type="checkbox"/>	<input type="checkbox"/>
35. Check nut or lock	<input type="checkbox"/>	<input type="checkbox"/>

Candidate's Signature_____ Assessor's Signature_____

Date: _____

Assessors Judgment Guide

Qualification	Agricultural Machinery Mechanic (Level 5)
Competency Standard	Maintain Hydraulic System
Purpose of Assessment	Formative Assessment
Candidate Details	Name: _____ Registration/Roll Number: _____ Signature: _____
Assessment Outcome	<div style="display: flex; justify-content: space-around; align-items: center;"> COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> </div> Name of the Assessor: _____ Assessor's code: _____ Signature: _____

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration							
Knowledge Assessment							
Other Requirement							

Observation Checklist

Assessment Task		<ul style="list-style-type: none"> • Service the Hydraulic pump • Service the Hydraulic top cover • Adjust the Draft control • Adjustment of Position control lever 		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Park the Prime Mover on level surface			
2.	Place the line jacks			
3.	Split the Prime Mover from gear box and central hosing			
4.	Remove the stand pipe			
5.	Remove both mounting Dowels			
6.	Remove the Hydraulic pump			
7.	Remove Hydraulic strainer			
8.	Remove the suction manifold			
9.	Remove the drive end plate			
10.	Remove the drive shaft			
11.	Clean the Hydraulic pump with kerosene oil			
12.	Replace the chamber valve kit & piston rings			
13.	Place the rubber O-rings			
14.	Assemble the Hydraulic Pump			
15.	Check the pump pressure with appropriate tools and gauges			
16.	Remove the linkages			
17.	Open the bolts of hydraulic top cover			
18.	Disassemble the ram cylinder nuts			

19.	Remove the vertical lever			
20.	Remove the lift arms			
21.	Disconnect the draft control linkages			
22.	Disconnect the Position control linkages			
23.	Remove the arm shaft			
24.	Clean the assemble with kerosene oil			
25.	Assemble the Hydraulic Top cover			
26.	Adjust the Quadrant			
27.	Adjust the control lever position on quadrant			
28.	Adjust the position control lever on transport position			
29.	Adjust the Draft control lever on sector mark			
30.	Adjust vertical lever on right angle			
31.	Tight the nut and lock			
32.	Place the control lever on position control			
33.	Place the draft control lever on up position			
34.	Tight the Allen screw until vertical lever places on right angle			
35.	Check nut or lock			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Knowledge Assessment

Qualification	Agricultural Machinery Mechanic (Level 5)
Competency Standard	Maintain Hydraulic System
Purpose of Assessment	Formative Assessment
Candidate Details	Name: _____ Registration/Roll Number: _____ Candidate Signature: _____
Assessment Outcome	<div style="display: flex; justify-content: space-around;"> COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> </div> Name of the Assessor: _____ Assessor's code: _____ Signature of the Assessor: _____

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)		Satisfactory	Not Satisfactory
1.	What is Pascal's law?		
2.	What is difference between draft control and position control?		

3.	What is pressure range of hydraulic system?		

Feedback to the Candidate	
Candidate's Signature _____	Assessor's Signature _____