

Contestant Name: _____

Practicum Score: _____

School: _____

2026 Kansas State Agriculture Technical and Mechanical Systems Machinery and Equipment Practicum Activity – 100 points

Instructions: Place all answers on this page. Follow all instructions carefully and completely in order to obtain full points for this activity.

Section 1 – Parts Identification

Identify the part by placing the letter of the correct term for either the tool or the part identified in the blank to the left. Make sure that your letters are legible. Use pages from the owner's manual to help identify each part. (3 points each)

Parts List (not all will be used)

- | | | |
|--------------------------------|----------------------------|--------------------------------|
| A. 540 RPM PTO | I. Main drive roller chain | Q. Top front tailgate idler |
| B. Pickup drive chain | J. Gearbox | R. Warning reflector |
| C. Floor roll drive chain | K. Pickup | S. Tailgate lift cylinder |
| D. Starter roll drive chain | L. SMV emblem | T. Tailgate lockout valve |
| E. Stationary roll drive chain | M. Back wrap roll | U. Bale density control valve |
| F. Sledge roll drive chain | N. Front serpentine roll | V. Belt tension serpentine arm |
| G. Windguard | O. Stripper roll | W. Bale shape sensor |
| H. Bale-forming belts | P. 1,000 RPM PTO | X. This part is not listed |

- | | | | | | |
|----------|----------|----------|-----------|-----------|-----------|
| _____ 1. | _____ 4. | _____ 7. | _____ 10. | _____ 13. | _____ 16. |
| _____ 2. | _____ 5. | _____ 8. | _____ 11. | _____ 14. | _____ 17. |
| _____ 3. | _____ 6. | _____ 9. | _____ 12. | _____ 15. | _____ 18. |

Section 2 – Safety

Answer the following questions about round baler safety. You may use the information from the Repair manual to help. (3 points each)

- _____ 19. The baler should not be operated on any side slope that is greater than __%.
- _____ 20. When determining the amount of clearance needed for avoiding high voltage power lines, the following conditions should be met: (list all that apply)
- a. Bale chamber should be ½ of the way full
 - b. The tailgate should be raised
 - c. Baler should be equipped with the spare net roll storage box
 - d. Baler should have the twine installed
- _____ 21. How should you check for a suspected leak of hydraulic fluid under pressure?
- a. Carefully use your hand with a glove to check for a leak
 - b. Use a piece of cardboard or paper to check for the leak
 - c. Use soapy water with a spray bottle to check
 - d. Look closely, but be sure to have safety glasses on

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- _____ 22. Which of the following safety precautions should be observed before performing any lubrication or maintenance task.
- Turn off tractor engine and remove the key
 - Disengage PTO drive
 - Engage tractor parking break
 - All of the above precautions should be observed
- _____ 23. Which of the following is NOT a consideration or guideline to follow when the tailgate is raised and attempting to work inside the bale chamber?
- If the tailgate lock is engaged, the tailgate will still fall if all hydraulic pressure is lost
 - Be aware, the tailgate may close faster than you can move away
 - Stand clear of the tailgate before disengaging the lockout valve
 - A raised tailgate is a potential crush hazard for a person working on the baler

Section 3 – Maintenance & Adjustment

Answer the following questions about round baler maintenance and adjustment. Use the provided repair manual pages as needed.

24. How often should the PTO shaft be greased? How much grease? (general range) (5 pts)
25. How should the gearbox oil level be checked? (5 points)
26. An operator has decided that the bales are not heavy enough. What should they adjust to increase the density of the bales? HOW? (5 points)
27. How often should the roller chain be oiled? (5 points) _____
28. Find the labeled floor chain tensioner and inspect the tension. Is the tension correct? YES NO
If not, describe how to adjust it to make it correct. If correct, indicate no adjustment needed. (5 pts)
29. What does this symbol mean? How often should this service be performed (most common interval) (3 points)
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30. Inspect the roller wind guard. Is it set correctly for a high volume windrow? (3 pts) YES NO