



2002 State Competition
FFA Agricultural Mechanics Contest
University of Missouri
50 points

Contestant # _____
Contestant Name _____
Chapter _____

Repair and Maintenance

Objective:

You have a worn 10 ft sickle bar with 40 sections. You could either replace the entire sickle bar or recondition the existing sickle bar with sections and bushings.

<u>Part Number</u>	<u>Description</u>	<u>Price</u>
AH89498	Knife Head	\$ 40.00
HO90478	Sickle Bar and Head	\$ 75.00
H090482	Sickle Bar w/ head and sections (assembled)	\$ 117.00
H130478	Knife Section (each)	\$ 0.80
Z8860H	Rivets (each)	\$ 0.10
H87043	Head Bushings (set)	\$ 4.00

- 1) Determine the cost of parts to recondition the sickle.

<u>Part Description</u>	<u>Quantity</u>	<u>Price each</u>	<u>Cost</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Total			_____

The cost of labor is \$10.00 per hour. You have two employees, who, together can replace all of the parts to recondition the sickle in 1 hour.

- 2) What is the total cost of labor to recondition the sickle? _____
- 3) What is the total cost of parts and labor to recondition the sickle? _____
- 4) How much is saved by reconditioning the sickle compared to buying a new sickle? _____

Identify the following tools from the 30 labeled, 2 points each.

Write the letter of the corresponding tool in the space provided

	<u>Tool Letter</u>	<u>Proper Working Condition?</u>	
1. Inside Caliper	_____	Yes	No
2. Outside Micrometer	_____	Yes	No
3. Bar Clamp	_____	Yes	No
4. Dividers	_____	Yes	No
5. Flat Bastard File	_____	Yes	No
6. Grinding Wheel Dresser	_____	Yes	No
7. Curved Claw Hammer	_____	Yes	No
8. Ripping Hammer	_____	Yes	No
9. Nail Set	_____	Yes	No
10. Oil Stone	_____	Yes	No
11. Pipe Die	_____	Yes	No
12. External Gear Puller	_____	Yes	No
13. Bearing Puller	_____	Yes	No
14. Scratch Awl	_____	Yes	No
15. Snips (Tinner)	_____	Yes	No

Repair and Maintenance Score Card

<u>Criteria</u>	<u>Points Possible</u>	<u>Points Earned</u>
Sickle Repair	20	_____
Tool Identification	<u>30</u>	_____
Total	50	<div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto;"></div>