### EQUIPMENT

# Preseason Hay Equipment Maintenance

## Joshua Harmon, University of Wisconsin-Madison

This year, an early arriving yet long-winded spring has kept temperatures cool and mixes of snow and rain falling. While waiting on warmer weather, remember to perform proper inspections of hay tools. Preseason maintenance is essential to keep your equipment operating at the expected performance level. A little work now can pay off in the long run by minimizing downtime, saving both time and headaches. The following comprehensive checklist should give you a good indication of what to look for when maintaining your equipment.

Be sure to check the General Maintenance guidelines for your hay tools and follow these steps:

- Clean your equipment. Use a pressure washer or compressed air and a prying tool or steel brush on compacted crop residue.
- Perform an inspection of the machine, paying close attention to normal wear on all parts as well as rotating or moving components.
- Take time to grease and lubricate rollers, bearings, gearboxes, universal joints, and all other moving parts.
- Pay close attention to driveline components check belts and chains for proper tension and inspect for wear, replacing if needed.
- Inspect shielding and protection components. Safety is critical if damaged or missing, be sure to repair/replace them.
- Refill hydraulic and oil reservoirs check if fluids are dirty or have condensation.
- Carefully trace hoses and fittings for damage or leaks small leaks under high pressure can cut skin.
- Inflate tires properly, check for weathering, excessive wear, or damage.
- Check lights, reflectors, and safety equipment such as fire extinguishers.
- Consult your service manual or local dealer for recommendations on replacing worn or damaged parts and hardware.

For more specific instructions on how to get mowers, balers, and harvesters ready for a season of hard work, consider the instructions below.

#### Mower/Mower-Conditioner Maintenance

Carefully inspect your knives, lifters, and discs for missing, damaged, or loose components. Properly functioning cutting heads ensure you will get the highest hay quality. When checking discs, be observant of timing. Each disc should be 90° from each other. If discs are out of time, it could be an indication of cutter bar damage. Rock each disc up and down. A small amount of movement is ok, but excessive movement could mean the disc hub is loose or bearings are worn. If your mower has conditioning components, consult your owner's manual for proper adjustment. Roll conditioners will require proper adjustment of clearance and pressure (spring tension). Impeller conditioners should be adjusted for speed and clearance. Neglecting to adjust your conditioning components will have a significant impact on the quality of your crop.



#### Round, Small, & Large Square Baler Maintenance

Check the baler pickup for missing, loose, or damaged tines. Be sure to replace any tines looking like they will not make it through the season. Adjust the pickup to float properly just above ground level. Too low and you may pick up too much dirt during baling; too high and you are likely to leave crop in the field. If you have knives in your baler, check them for damage and sharpen if needed with a powered grinder. Serrated blades can be sharpened by grinding on the back side of the serration. For variable chamber round balers, check belts and lacing pins for wear and adjust or replace if needed. Adjust the belt tension to prevent slip. Check rollers for crop plugging at the belt. For square balers, make sure the twine mechanism is operating properly. Clean and lubricate the knotters.

#### Forage Harvester Maintenance

When cleaning your harvester, spend some extra time on the feeder housing. There are a lot of parts in this component that tend to get packed with debris by the end of the season. Crop residue should not be interfering with the knife sharpener. Within the feed roller, there are a lot of areas for residue to lodge. Using a knife, screwdriver, or scraper to clean areas between rollers is effective. Inspect knives and shear bar for excessive wear as an indicator for replacement. If you are installing new knives, be sure to clean the knife bed first. This area needs to be clean in order to properly clamp knives down and ensure proper alignment. Remove shielding at the crop accelerator and check for wear. Wear plates in this area should be replaced to prevent plugging issues. Finally, clean the spout of compacted crop trash from last season.

Performing proper preseason maintenance on your hay equipment ensures proper operation and hopefully improves harvest efficiency by reducing repair downtime. Spending a little time before the season starts will save you time and headaches during harvest.