

# Combine Inspection Tips

Based on tips from Trevor Sonneveld, corporate service manager for all five Advantage Farm Equipment Ltd. dealerships in Ontario; Bruce Baldwin, general manager of Kalvesta Implement in Kalvesta, Kan.; and Tim Brannon, owner of B&G Equipment in Paris, Tenn., the following is an abbreviated list of things to check at the end of the season or before the next harvest.

## Start Up Front

- Attach each header to the combine and run the machine for several minutes to make sure everything works properly and that there aren't any unusual noises. Make sure height and contour controls work properly.
- The grain platform and/or soybean flex header experiences some of the greatest wear, so inspect sickle knives, guards, wear plates and hold-down clips for condition, and ensure they are set correctly. Replace any badly worn parts. Just as cutting with a pair of scissors, the guards must be tight to the section and sharp. Also, inspect the teeth in the auger and reel for excessive wear or play.
- On flex headers, clean out the area under the head and inspect the ball joints and parallel linkages that provide the flex for wear or slack. Also, inspect the drive areas for wear, loose bolts and cracks, as this is the highest stress area. Many flex headers have stabilizers for the wobble box or drive system. A failure of the stabilizer usually indicates this failing linkage under the head.
- On the corn head, inspect gathering chains, knives, deck plates, drive chains, sprockets, etc., and adjust width of stripper plates. Remember: Row-unit gearboxes operate as mini-transmissions and need to be checked once a year. Refill with grease or oil, depending on age and brand of corn head.
- Check feederhouse conveyor chains for proper tension and inspect for excessive wear on bearings, chains, sprockets, stripper plates, etc. Worn conveyor chains or bent slats can lead to additional problems, like plugging or uneven feeding to the rotor. Remember, Gleaner combines have two sets of feeder chains—upper and lower sets that are driven separately.

## Perform Routine Service

- Perform all service checks: engine oil, fuel filter, air cleaner and hydraulic oil.
- Grease all points per the operator's manual. If a fitting doesn't take grease, stop and find out why.

## Clean It Up

- Start by cleaning the machine of dust and dirt. This will not only ensure better performance next year, but will help you spot wear and potential problems.
- Use an air hose or compressed air to clean away any dust, grain and dirt in areas where electrical connectors are located. This helps keep mice away from the area and from chewing into wires. Avoid using water on any internal areas of the combine to keep moisture away from the wires.

## Inspect All Chains and Drives

- Check all drive belts for wear, and replace as needed. Inspect the belt sheaves to make sure they aren't contributing to the belt wear.
- After the combine has run for a short time, shut off the engine, remove the key and feel as many bearings as possible to see if any are running hot. A non-contact

infrared thermometer works even better for this process. A hot bearing will often be a precursor to bearing failure.

- Check all chains, sprockets and bearings for wear; replace chains that can't be adjusted or tensioned correctly. Also check to see if the sprocket is contributing to chain wear.

## Keep Clean Grain Moving

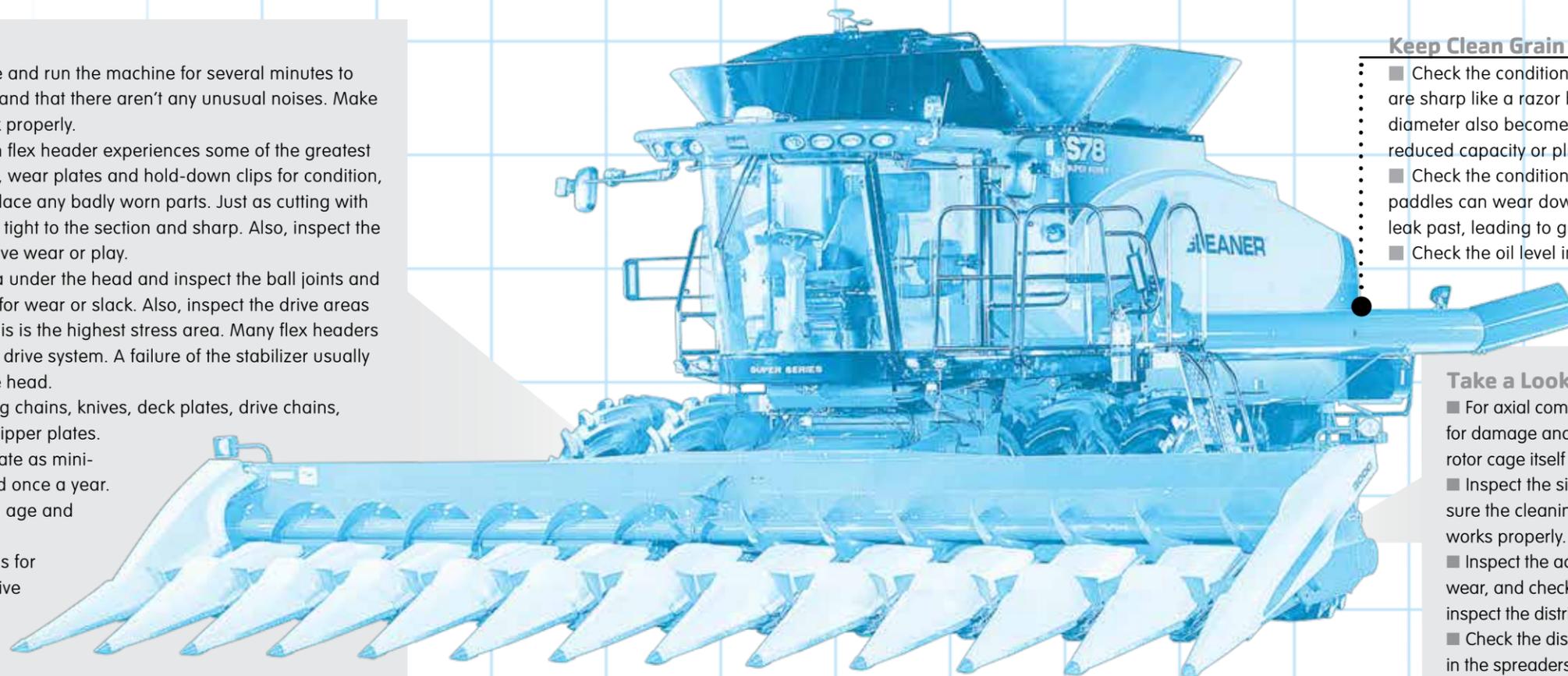
- Check the condition of any conveying or unloading augers. If edges are sharp like a razor blade, replace. As the edges wear, the auger diameter also becomes smaller, which can lead to grain damage, reduced capacity or plugging.
- Check the condition of all elevator chains and paddles. Rubber paddles can wear down, particularly on the corners, and allow grain to leak past, leading to grain loss, grain damage and/or reduced capacity.
- Check the oil level in any discharge auger gearboxes.

## Take a Look Inside

- For axial combines, inspect rotor and concave, checking wires for damage and bars for wear. Look for cracks or breaks in the rotor cage itself and remove any extra debris.
- Inspect the sieves for foreign material and damage. Make sure the cleaning fan spins freely and the speed adjustment works properly.
- Inspect the accelerator rolls on Gleaner models for excessive wear, and check the bearings and drive components. Also, inspect the distribution augers for wear and damage.
- Check the discharge area. That means checking the bearings in the spreaders, inspecting spreader fins and inspecting the blades on the chopper for loose or missing rotor knives and stationary knives.

## 5 Advantages to Post-Harvest Maintenance

- By going through a post-harvest inspection and maintenance program, and/or having your Massey Ferguson dealer perform a preventive maintenance inspection, you:
- Significantly reduce downtime in the productive seasons.
  - Can plan and budget repairs in the off-season.
  - Lower repair costs because small problems can be corrected before they become large problems.
  - Attain higher resale value.
  - Benefit from guaranteed parts and workmanship. **FL**



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