IRRIGATION Maintenance In the south east

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2. Grease Pivot Neck.



3. Check for damaged wiring connections.



4. Make sure ground wire is in place and connected to ground rod.





- Consider leaving power on computer panels in the winter.
- 6. Add insecticide in main panel and collector ring as needed.





1. Make sure drain is not clogged causing water to stay in the pipe.



- 2. Observe the ground and back side of tires for oil leaks. Replacing or repairing a leaking gear box in the off season is much easier than in a corn field.
- 3. Check oil level in gear boxes and center drive motors by removing bottom plug and allowing any moisture present to drain. Refill center drive motor all the way to the fill plug level. Refill gear box at tire to a level that just covers the worm gear. Do not overfill.







- 4. Check to make sure the 2 tires on each span match. Mismatched tire sizes will cause the center drives to go into thermal overload and cause the pivot to go into alignment fault. Over time mismatched tire sizes will cause early drive train failure.
- Adjust tire pressures (14.9 X 24 Tires 22-24psi) (11x22.5 Recap Tires 38-42 psi). Mismatched tire pressures have been found to cause alignment faults and drive train failures as well.
- Check tire lug nuts. Lindsay suggests checking lug nuts on all new pivots after the first 3 rotations and yearly thereafter.

 Check linkage rods under the tower box. Replace any non stainless steel rods or joints. All pivots sold in the last 7 years by Gillam & Mason, Inc. have stainless steel linkages for alignment.



 Check linkage rods under the tower box. Replace any non stainless steel rods or joints. All pivots sold in the last 5 years by Gillam & Mason, Inc. have stainless steel linkages for alignment.



7. Inspect all four drive train couplers. Replace all worn or cracked hockey pucks. Replace any missing bolts.



8. Look for loose wires.



- In addition to general tower maintenance while at the last tower:
- 1. Remove and clean and replace end tower cap.
- 2. Consider flushing system in the fall to remove sand and other debris that will keep pipe wet on inside all winter causing pipe deterioration.



- 3. Check to make sure all ¼" black hoses are connected to control end gun.
- 4. Clean filter feeding ¼" black hose by removing plug on opposite side of cross from hose. Filter is very small and may be hard to detect that it is clogged.



5. Check the Auto-Reverse linkage. If deteriorated, replace with stainless steel version. All Zimmatic pivots sold in the last 2 years have stainless steel auto-reverse linkages. When replacing this part, it is very important that the stop and auto-reverse functions be tested after making repairs. Visually inspect cam during test.





6. When testing auto-reverse wait 1.5 minutes between directions or system will shutdown.



7. Listen to the booster pump the first time water is placed in the machine each year. Many times booster pump failure can be predicted by listening for bearing failure. We suggest having the bearings in 5hp booster pumps replaced if detected before bearings seize requiring the pump to be replaced.



- 1. Remove suctions from water after use. Cover end of suction to prevent entry of animals.
- 2. Inspect screen for rusted bolts or missing bottom plate.
- 3. Rebuild foot valve as needed over winter.





4. Drain pump bowl.



 Refill Grease cup used to seal packing during priming. Consider rebuilding priming valve or repacking pump over winter if priming is difficult.



6. Consider making repairs/changes to connection at pump to suction hose if leaks are present.





- 7. Grease electric motors 2 shots per year only.
- 8. Listen for bearing failure in floating pumps.



9. Consider removing floating pumps every year. Remove at least every 3 years for inspection and screen maintenance.



Pipe Line Maintenance

- 1. Drain above ground portions of pipe where possible.
- 2. If you disconnect any portion of the pipe line to drain, reclose after water has drained to prevent entry by animals.
- 3. Mark hydrants ground entries ect. well before conducting winter mowing.

Questions?