

# Reinke IRRIGATION SYSTEM PREVENTATIVE MAINTENANCE

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**B**efore planting season begins, it is important to take a look at your current irrigation systems to see what preventative maintenance can be done to prevent down-time. You need your pivot to run at peak performance later in the season. Reinke Manufacturing suggests focusing on system maintenance instead of repairing when failure occurs.

In order to thoroughly inspect your irrigation system, we have put together a check list of steps to go through in order to achieve peak performance of your system. First, verify safe operating conditions of your pivot in the preseason. Second, prevent system downtime during critical irrigation periods with minimal maintenance. Finally, extend the longevity of the system through postseason maintenance and winterization to protect your investment. By taking these preventative steps, you will have confidence and peace of mind regarding the system's reliability.

#### **Preseason Checklist**

The Preseason checklist is generally conducted in early spring and includes a thorough system inspection and required corrective actions to ensure the system is in "ready-to-operate-condition." External conditions such as potential damage from grazing livestock, or wind and storm damage should be inspected.

#### **Checklist for Spring Inspection**

- 1. Verify the system electrical ground.
- 2. Look for any structural or electrical hazards.
  - a. System conditions.
- 3. Check the pivot center.
  - a. Inspect the pivot pad and anchor bolts.

- b. Grease the pivot bearing.
- 4. Check gear boxes (center drive and wheel).
  - a. Remove any water condensation that has accumulated.
  - b. Fill oil level to proper level with lubricant specified in the owner's manual.
- 5. Check wheels and tires.
  - a. Make sure tires are inflated to the specification in the owner's manual.
  - b. Make sure all wheel lug nuts are tight.
- 6. Check the drive train.
  - a. Check high torque couplers (if installed)-coupler pucks have a manufacturer's recommended five-year service life, date of manufacture is color coded.
  - b. Grease steel u-joints (if installed).
- 7. Check the alignment of the system.
  - a. System alignment may need to be adjusted.
  - b. Check the alignment mechanism condition.
  - c. Micro switches used in both the alignment and

Reinke Irrigation system maintenance recommendations and instructions can be found in the system owner's manual. The general recommendations below are for a basic pivot. Additional actions may be required for SAC or lateral systems as well as some pivot options.

- safety circuits have a recommended 10-year service life.
- 8. Check the condition of the water carrying conduit.
  - a. Inspect the boots, clamps and gaskets.
  - b. Inspect the low pressure drains.
  - c. Inspect all components associated with the sprinklers.
    - i. Goosenecks.
    - ii. Drops.
    - iii. Regulators.
    - iv. Sprinkler devices.
- 9. Remove the sand trap and thoroughly flush the system with water.



## **Checklist for Irrigation Season Inspection**

- 1. Minimal general maintenance actions, generally based on system run time.
  - a. Check tire pressures.
  - b. Check system alignment.
  - c. Check gear box lube levels.
  - e. Grease all grease fittings.
  - Verify all sprinklers are working correctly.
- Most needed during the season are diagnosis and required actions to correct an "out of service situation." This should always be directed to the dealership service department for a remedy. There are safety considerations for non-qualified persons. Dealership service personnel are factory trained and certified to diagnose and repair issues with genuine Reinke parts.
- 3. Information to provide to your Reinke dealer when requesting a service repair.
  - a. Your name.
  - b. System serial number or identifier.
  - c. System location.
  - d. How does the problem affect the system?
  - e. What was the system doing before the problem occurred?
  - f. Is it an intermittent problem? If so, are there any commonalities (time of day, location in the field, high or low temperature, function settings, etc)?
  - g. What actions have been taken to try to remedy the problem?
  - h. What is the level of urgency?
  - i. How do you want the system left after the successful repair (stopped or running?



Park your pivot parallel with the winter winds and close all wheel tracks. Avoid parking next to the road to discourage cable theft.

## **Checklist for Postseason and Winterization**

- Check the function of the low pressure drains on each span by pushing each one upward in a rotating motion. Low pressure drains are located on the bottom side of each hook joint, the last tower top and end boom pipe. Additionally, there are drain plugs on the U-pipe on wrap spans, SAC hinge towers, and drop spans.
- 2. Drain and clean out the sand trap.
- Drain underground pipelines, especially if a check valve is present.
- 4. Drain water condensation from the gearboxes and add recommended lube to the proper level to help prevent

- additional condensation over the winter.
- 5. Drain tubing to low pressure switch.
- 6. Grease all fittings.
- 7. Fill in the wheel ruts and pack if possible.
- Park the system on a smooth surface out of the wheel ruts and parallel to prevailing winds to avoid the effects of damaging winds.
- Protect the drive train components and electrical wiring from damage if livestock will be pastured during the off season.
- 10. Generator power cords, plugs and receptacles should be protected with waterproof covers and hung up off of the ground.







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