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Spring start-up checklist

Center pivots. Do it in late winter or early spring, before the crop needs water.

Field / pivot _____

Done by _____

Date _____

The idea: look, listen, grease, measure pressure and compare it with last year. A pivot that is serviced before the season rarely breaks down; one that is ignored tends to fail in July, when the crop needs water most. Pressure is the best single sign of a pivot's health.

Before the first run

- [ ] Get last year's logbook out: pressures, flow, static water level, hours and repairs
- [ ] Check drain valves and pipe for damage from water left over winter
- [ ] Order worn parts now, while they are in stock and service people are not busy

Power unit and electrical

- [ ] Engine: change oil and filter (at least every 6 months or 100 h). Check fluids, belts and batteries
- [ ] Engine: test the low oil pressure and high temperature shutdowns
- [ ] Electric: check the supply is the right voltage (480 V three phase on many pivots)
- [ ] Keep spare fuses on hand. Test the safety switches before the first run

Tires and towers

- [ ] Check tires for wear, cracks and lugs. Fill to about 20 psi (1.4 bar) or the maker's figure. Tires lose 2–3 psi (0.14–0.2 bar) a year
- [ ] Check anchor bolts, tower alignment and couplers. Look for loose or missing hardware
- [ ] Look at wheel track ruts. Deep ruts slow towers and damage drive units

Gearboxes and drivelines

- [ ] Drain winter condensation from the gearboxes. Check the oil level and use the correct oil
- [ ] Service the center drive and final drive gearboxes (every year)
- [ ] Grease the drive lines and the pivot point at the maker's intervals

Safety and controls

- [ ] Test the autostop and autoreverse
- [ ] Check the cornering arm valves, where fitted
- [ ] Make sure the stop barricades are in place

First run: pressure and flow

- [ ] Run the pivot dry through a full revolution before the first watering
- [ ] Pressure at the pump, end gun on: _____
- [ ] Pressure at the pivot point, end gun on: _____
- [ ] Flow at the meter: _____
- [ ] Static water level of the well: _____
- [ ] More than 10% away from the sprinkler chart or last year? Find out why
- [ ] End of the lateral: at least 5 psi (0.35 bar) above the pressure regulator rating

Sprinklers and end gun

- [ ] Walk the whole pivot while the crop is small: broken, plugged or missing sprinklers
- [ ] A smaller wetted pattern points to a plugged nozzle
- [ ] Look hardest at the outer 30% of the length. It waters about half the crop
- [ ] Compare nozzle sizes with the sprinkler chart. Check the end gun and its booster pump
- [ ] Run a catch-can test to check the water goes on evenly

Notes and repairs

Full guide with in-season checks:
irrigationtrends.com/knowledgebase/center-pivot-maintenance-checklist
Based on University of Georgia Extension, Michigan State University Extension and University of Nebraska-Lincoln publications.
Free calculators and the weekly newsletter: **irrigationtrends.com/tools** · **irrigationtrends.com/subscribe**