READY TO INSPECT — FIELD CHECKLIST

Air compressor annual maintenance checklist

The annual air compressor service is the deep pass: the measurements, cleanings and tests a quarterly round doesn't reach. This checklist keeps the full service on record with the photos that make it defensible later. Work is commonly verified against manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The compressor service tech on the annual service. When: Once a year. The oil change and the relief-valve lift are the two things the quarterly glance never actually does.

Notice, lockout and bleed-down

- [ ] Owner and air users told the outage window
  Owner and the shops on plant air told when air goes down, and pneumatic controls or valves that depend on it put on their backup supply or made safe first.
  No photo required

- [ ] Lock and tag applied before the annual teardown
  Every feed locked and tagged by each worker, tried dead. Air or power checks use the temporary release: guards on, people clear, receiver repressurized, run, then re-locked and bled.
  1 photo required

- [ ] Receiver isolated from the plant and bled to zero
  Discharge valve closed to the distribution, receiver bled through its drain until the gauge reads zero and left vented while the drain and crankcase are worked on.
  1 photo required

Oil service

- [ ] Oil changed and crankcase checked
  Old oil drained warm and volume noted, refilled to the sight-glass mark with the manufacturer's grade, no metal or sludge in the drained oil.
  No photo required

- [ ] Oil sample drawn for analysis on lubricated units
  Where the site runs oil analysis, a sample drawn warm before the drain, labeled with the unit and run hours, results compared with last year's. Oil-free units noted as such.
  No photo required

Safeties and controls

- [ ] Safety relief valve manually lifted and reseated
  Valve pulled by its ring against tank pressure, blows freely and reseats without weeping, and is replaced rather than left in service if it drips or won't lift.
  2 photos required

- [ ] Pressure switch cut-in/cut-out and unloader verified
  Cut-in and cut-out read at the gauge against the switch setting, unloader bleeds head pressure at shutdown so the motor restarts unloaded.
  1 photo required

- [ ] Receiver gauge compared against a calibrated test gauge
  Both gauges read at the same pressure, the unit gauge replaced if it is off by more than the manufacturer allows, so the switch setting is judged on a true reading.
  1 photo required

Receiver and downstream

- [ ] Receiver tank and automatic drain serviced
  Tank exterior checked for rust, pitting or bulging at the bottom seam and welds, automatic drain disassembled and cleared, drain valve reseated.
  2 photos required

- [ ] Aftercooler or air dryer serviced where fitted
  Aftercooler fins cleaned and the coalescing or dryer element checked, dryer holding dewpoint and draining, no water carrying downstream to the shop drops.
  No photo required

- [ ] Receiver nameplate rating matched to relief and cutout
  Nameplate legible, relief valve set pressure and switch cutout both no higher than the receiver's rated working pressure, mismatches reported to the owner.
  1 photo required

- [ ] Receiver inspection certificate current where required
  Where the jurisdiction or insurer requires a pressure vessel inspection, the inspector's certificate posted at the receiver is in date. Expired or missing ones reported to the owner.
  No photo required

Return to service and records

- [ ] Guards on, valves reset and locks removed by their owner
  Belt guard fastened, drain closed and discharge valve reopened to the plant, tools cleared, lock and tag removed by the person who hung them.
  1 photo required

- [ ] Motor current read loaded at cut-out against the nameplate
  Amps read as the unit nears cut-out under the site's energized-work procedure and its PPE, within the nameplate rating and compared with last year's reading.
  1 photo required

- [ ] Pump-up time timed on restart and the annual baseline filed
  Fill timed with plant demand steady, a slow fill pointing to worn valves or rings; fill time, amps, gauge check, relief result and oil analysis filed as next year's baseline.
  No photo required