

FREE MANUFACTURING MAINTENANCE TEMPLATE

Equipment Maintenance Checklist

Use this 60-point checklist to manage maintenance planning, hazardous-energy control, mechanical and electrical servicing, fluid systems, safeguards, testing, records, and return-to-service approval.

Facility / area

Maintenance date

Technician / reviewer

Asset / work order

Internal manufacturing maintenance template. Apply current manufacturer instructions, approved maintenance and energy-control procedures, equipment-specific risk assessments, and applicable legal requirements as controlling references.

1. Maintenance programme, asset scope, schedules, and work-order readiness

1

Confirm the asset ID, manufacturer, model, serial number, location, duty, and maintenance ownership match the asset register and work order.

MAINTENANCE

ASSET / WORK ORDER | Enter

MAINTENANCE DATE | Enter

APPROVAL | Enter

Execution tip: Start with the exact asset, maintenance strategy, manufacturer guidance, service interval, open work orders, and recent failure history before...

2

Verify a preventive or condition-based maintenance plan exists for the equipment and reflects manufacturer instructions, site risk, operating hours, duty cycle, and failure history.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
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Execution tip: Start with the exact asset, maintenance strategy, manufacturer guidance, service interval, open work orders, and recent failure history before...

3

Check required maintenance tasks, frequencies, tolerances, consumables, tools, parts, competencies, and acceptance criteria are clearly defined before work starts.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
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Execution tip: Start with the exact asset, maintenance strategy, manufacturer guidance, service interval, open work orders, and recent failure history before...

4

Review overdue preventive maintenance, deferred defects, repeat breakdowns, temporary repairs, abnormal alarms, and safety restrictions before planning the job.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
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Execution tip: Start with the exact asset, maintenance strategy, manufacturer guidance, service interval, open work orders, and recent failure history before...

5

Confirm maintenance personnel have access to current manuals, drawings, schematics, isolation information, service bulletins, approved procedures, and change history.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
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Execution tip: Start with the exact asset, maintenance strategy, manufacturer guidance, service interval, open work orders, and recent failure history before...

6

Verify critical spares, approved replacement parts, lubricants, seals, filters, fasteners, and special tools required for the task are available and suitable.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
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Execution tip: Start with the exact asset, maintenance strategy, manufacturer guidance, service interval, open work orders, and recent failure history before...

2. Safe shutdown, hazardous-energy control, permits, and work-area preparation

7

Identify all electrical, mechanical, hydraulic, pneumatic, thermal, chemical, pressure, gravitational, spring, and other hazardous-energy sources associated with the maintenance task.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
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Execution tip: Maintenance begins with energy control. Trace every hazardous energy source, isolate it, dissipate or restrain stored energy, and verify the...

8

Verify the equipment-specific energy-control procedure accurately covers shutdown, isolation, lockout or tagout, stored-energy control, verification, and safe restart.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Maintenance begins with energy control. Trace every hazardous energy source, isolate it, dissipate or restrain stored energy, and verify the...

9

Confirm authorized employees apply personal locks or tags to required energy-isolation devices before servicing or maintenance begins.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

[LIVE PHOTO | Add](#)

Execution tip: Maintenance begins with energy control. Trace every hazardous energy source, isolate it, dissipate or restrain stored energy, and verify the...

10

Verify stored or residual energy is relieved, disconnected, restrained, blocked, bled, grounded, or otherwise rendered safe before work starts.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Maintenance begins with energy control. Trace every hazardous energy source, isolate it, dissipate or restrain stored energy, and verify the...

11

Confirm zero-energy or deenergized condition is verified using the approved method before employees place any part of the body in a danger zone.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Maintenance begins with energy control. Trace every hazardous energy source, isolate it, dissipate or restrain stored energy, and verify the...

12

Check required hot-work, confined-space, electrical, line-breaking, work-at-height, lifting, or other permits and barricades are in place before the applicable maintenance activity begins.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Maintenance begins with energy control. Trace every hazardous energy source, isolate it, dissipate or restrain stored energy, and verify the...

3. Pre-maintenance inspection, defect confirmation, and job planning

13

Verify the reported defect, alarm, performance loss, leakage, abnormal noise, vibration, temperature, or operating symptom is clearly documented before disassembly.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
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Execution tip: Confirm the actual failure before replacing parts. Document symptoms, readings, contamination, wear, alarms, and operating conditions so...

14

Inspect the equipment and surrounding area for additional damage, contamination, loose parts, overheating, corrosion, unsafe access, or secondary failure before work begins.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: Confirm the actual failure before replacing parts. Document symptoms, readings, contamination, wear, alarms, and operating conditions so...

15

Record relevant pre-maintenance readings such as temperature, vibration, pressure, flow, current, voltage, speed, level, alignment, or other condition indicators where applicable.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Confirm the actual failure before replacing parts. Document symptoms, readings, contamination, wear, alarms, and operating conditions so...

16

Confirm the planned repair addresses the identified failure mode and does not rely on an unapproved temporary repair, bypass, modification, or substitution.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Confirm the actual failure before replacing parts. Document symptoms, readings, contamination, wear, alarms, and operating conditions so...

17

Verify replacement parts, materials, torque values, clearances, tolerances, settings, firmware, and configuration are approved for the exact equipment and service.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
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Execution tip: Confirm the actual failure before replacing parts. Document symptoms, readings, contamination, wear, alarms, and operating conditions so...

18

Check the work sequence accounts for lifting, component weight, sharp edges, hot surfaces, trapped pressure, contamination, access, line-of-fire, and reassembly hazards.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
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Execution tip: Confirm the actual failure before replacing parts. Document symptoms, readings, contamination, wear, alarms, and operating conditions so...

4. Mechanical maintenance, lubrication, alignment, fasteners, and wear components

19

Inspect bearings, shafts, couplings, gears, sprockets, chains, belts, rollers, pulleys, slides, guides, and other mechanical components for wear, damage, looseness, or misalignment.

MAINTENANCE

Compliant

Needs action

Critical

[LIVE PHOTO](#) | [Add](#)

Execution tip: Use specified limits rather than visual judgment alone. Compare wear, alignment, clearances, torque, lubrication, and component condition with...

20

Verify bearings, gearboxes, chains, slides, and other lubrication points receive the correct lubricant, grade, quantity, method, and service interval.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Use specified limits rather than visual judgment alone. Compare wear, alignment, clearances, torque, lubrication, and component condition with...

21

Check oil levels, grease condition, automatic lubricators, reservoirs, sight glasses, breathers, filters, seals, and lubricant contamination controls are acceptable.

MAINTENANCE

Compliant

Needs action

Critical

[LIVE PHOTO](#) | [Add](#)

Execution tip: Use specified limits rather than visual judgment alone. Compare wear, alignment, clearances, torque, lubrication, and component condition with...

22

Verify alignment, belt or chain tension, backlash, runout, clearances, end play, and other mechanical settings are within approved tolerances where applicable.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Use specified limits rather than visual judgment alone. Compare wear, alignment, clearances, torque, lubrication, and component condition with...

23

Confirm critical bolts, anchors, retaining devices, keys, locking hardware, guards, and structural fasteners are secure and torqued or retained as specified.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Use specified limits rather than visual judgment alone. Compare wear, alignment, clearances, torque, lubrication, and component condition with...

24

Inspect replaced components and removed parts for abnormal wear patterns or failure evidence that should trigger root-cause review or additional corrective action.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Use specified limits rather than visual judgment alone. Compare wear, alignment, clearances, torque, lubrication, and component condition with...

5. Electrical maintenance, controls, wiring, panels, and protective devices

25

Inspect electrical enclosures, conductors, terminals, insulation, cables, plugs, connectors, conduits, cable glands, and strain relief for damage, overheating, looseness, or contamination.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: Treat damaged electrical equipment as unsafe until corrected. Inspect both power and control circuits, and ensure doors, covers, grounding,...

26

Verify grounding and bonding connections are intact where required and no protective earth conductor, pin, lug, or connection has been removed or bypassed.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Treat damaged electrical equipment as unsafe until corrected. Inspect both power and control circuits, and ensure doors, covers, grounding,...

27

Check breakers, fuses, overloads, relays, contactors, disconnects, protective devices, and control components match approved ratings and are not bypassed or improperly substituted.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Treat damaged electrical equipment as unsafe until corrected. Inspect both power and control circuits, and ensure doors, covers, grounding,...

28

Confirm electrical cabinets, junction boxes, covers, dead fronts, doors, and barriers are correctly reinstalled, secured, identified, and free from loose tools or conductive debris.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: Treat damaged electrical equipment as unsafe until corrected. Inspect both power and control circuits, and ensure doors, covers, grounding,...

29

Verify recurring trips, blown fuses, overheating, nuisance faults, arcing evidence, or temporary wiring are investigated and the underlying cause is corrected before release.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Treat damaged electrical equipment as unsafe until corrected. Inspect both power and control circuits, and ensure doors, covers, grounding,...

30

Check required electrical working space, access, ventilation, labeling, and panel surroundings are restored and clear before the equipment is returned to service.

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: Treat damaged electrical equipment as unsafe until corrected. Inspect both power and control circuits, and ensure doors, covers, grounding,...

6. Hydraulic, pneumatic, pressure, cooling, and fluid-system maintenance

31

Inspect hydraulic and pneumatic hoses, tubes, fittings, cylinders, valves, manifolds, couplings, and connections for leakage, abrasion, blistering, cracking, damage, or insecure routing.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: Inspect pressure systems for more than leakage. Hose condition, routing, relief devices, accumulators, cleanliness, fluid quality, and...

32

Verify filters, strainers, breathers, reservoirs, coolers, heat exchangers, fans, and fluid levels are serviced or replaced at the defined interval and left clean.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Inspect pressure systems for more than leakage. Hose condition, routing, relief devices, accumulators, cleanliness, fluid quality, and...

33

Confirm hydraulic oils, coolants, compressed-air treatment fluids, and other service fluids use the approved type, cleanliness level, quantity, and contamination controls.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Inspect pressure systems for more than leakage. Hose condition, routing, relief devices, accumulators, cleanliness, fluid quality, and...

34

Check pressure gauges, regulators, relief valves, accumulators, pressure switches, alarms, and other protective devices are in serviceable condition and set as approved.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Inspect pressure systems for more than leakage. Hose condition, routing, relief devices, accumulators, cleanliness, fluid quality, and...

35

Verify hoses and lines are routed and supported to avoid crushing, sharp edges, hot surfaces, moving parts, excessive bend radius, vibration, and foreseeable mechanical damage.

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: Inspect pressure systems for more than leakage. Hose condition, routing, relief devices, accumulators, cleanliness, fluid quality, and...

36

Confirm leaks, repeated hose failures, pressure loss, temporary clamps, unauthorized repairs, or bypassed pressure protections are corrected before normal operation resumes.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Inspect pressure systems for more than leakage. Hose condition, routing, relief devices, accumulators, cleanliness, fluid quality, and...

7. Guards, interlocks, emergency stops, safety devices, and reassembly control

37

Confirm all guards, covers, shields, barriers, access panels, fasteners, and protective enclosures removed for maintenance are correctly reinstalled before release.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: A maintenance task is not complete until every removed safeguard is restored. Function-test safety devices where safe and verify no jumper,...

38

Verify point-of-operation guards, nip-point protection, rotating-part guards, and power-transmission safeguards are secure and do not create new hazards.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: A maintenance task is not complete until every removed safeguard is restored. Function-test safety devices where safe and verify no jumper,...

39

Function-test emergency stops, interlocks, guard switches, light curtains, presence-sensing devices, limit switches, two-hand controls, and other safety devices where applicable.

CRITICAL

MAINTENANCE

C

PC

NC

NA

Execution tip: A maintenance task is not complete until every removed safeguard is restored. Function-test safety devices where safe and verify no jumper,...

40

Confirm no safety device, alarm, trip, interlock, guard switch, protective relay, or software protection remains bypassed, inhibited, jumpered, overridden, or defeated after maintenance.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: A maintenance task is not complete until every removed safeguard is restored. Function-test safety devices where safe and verify no jumper,...

41

Check warning labels, control labels, capacity markings, direction indicators, machine signs, and maintenance tags are restored, legible, and accurate after the work.

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: A maintenance task is not complete until every removed safeguard is restored. Function-test safety devices where safe and verify no jumper,...

42

Verify tools, rags, loose fasteners, temporary jumpers, blocks, test leads, lifting devices, and maintenance materials are removed from the equipment before controlled restart.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: A maintenance task is not complete until every removed safeguard is restored. Function-test safety devices where safe and verify no jumper,...

8. Mobile, lifting, material-handling, and battery-powered equipment maintenance

43

Inspect brakes, steering, wheels, tires, axles, suspension, parking brakes, and travel controls on applicable mobile equipment for safe operating condition after maintenance.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: For mobile and lifting equipment, defects affecting safe operation require immediate control. Verify brakes, steering, tires, forks or attachments,...

44

Check forks, chains, masts, hooks, attachments, lifting points, load-supporting members, retainers, and capacity markings for damage, wear, deformation, or unauthorized modification where applicable.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: For mobile and lifting equipment, defects affecting safe operation require immediate control. Verify brakes, steering, tires, forks or attachments,...

45

Verify horns, lights, beacons, backup alarms, mirrors, cameras, seat restraints, interlocks, and other required warning or operator-protection devices function correctly.

CRITICAL

MAINTENANCE

C

PC

NC

NA

Execution tip: For mobile and lifting equipment, defects affecting safe operation require immediate control. Verify brakes, steering, tires, forks or attachments,...

46

Confirm battery, charging, fuel, LPG, diesel, or other energy systems are maintained without leaks, exposed connections, damaged cables, loose terminals, or unsafe temporary repairs.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: For mobile and lifting equipment, defects affecting safe operation require immediate control. Verify brakes, steering, tires, forks or attachments,...

47

Verify powered industrial trucks or other mobile equipment with conditions adversely affecting safe operation are removed from service until repaired by authorized personnel.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: For mobile and lifting equipment, defects affecting safe operation require immediate control. Verify brakes, steering, tires, forks or attachments,...

48

Check any modification, attachment, capacity change, or safety-related alteration is approved and reflected in labels, records, operating instructions, and training as required.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: For mobile and lifting equipment, defects affecting safe operation require immediate control. Verify brakes, steering, tires, forks or attachments,...

9. Preventive and predictive maintenance, calibration, spares, and reliability controls

49

Confirm preventive-maintenance tasks are completed at the defined date, operating-hour, cycle, condition, or risk-based interval and overdue tasks are formally controlled.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Use trend data to prevent repeat failures. Compare actual condition with previous readings, maintenance history, failure patterns, component...

50

Review vibration, thermography, oil analysis, ultrasound, motor-current, pressure, temperature, wear, or other predictive-condition data where used and investigate adverse trends.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Use trend data to prevent repeat failures. Compare actual condition with previous readings, maintenance history, failure patterns, component...

51

Verify instruments, sensors, torque tools, test equipment, safety-critical gauges, and maintenance measuring devices used for acceptance are within required calibration or verification status.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Use trend data to prevent repeat failures. Compare actual condition with previous readings, maintenance history, failure patterns, component...

52

Check critical spare parts and repairable components are identified, stored to prevent deterioration, traceable where necessary, and replenished after use.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Use trend data to prevent repeat failures. Compare actual condition with previous readings, maintenance history, failure patterns, component...

53

Confirm maintenance records capture parts changed, readings, settings, measurements, technician, date, duration, failure code, cause, actions, and verification evidence.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
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Execution tip: Use trend data to prevent repeat failures. Compare actual condition with previous readings, maintenance history, failure patterns, component...

54

Review repeat failures, excessive downtime, recurring component replacement, emergency work, and chronic defects for root-cause analysis and maintenance-strategy improvement.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Use trend data to prevent repeat failures. Compare actual condition with previous readings, maintenance history, failure patterns, component...

10. Post-maintenance testing, housekeeping, documentation, CAPA, and return to service

55

Confirm the equipment and work area are cleaned, spills and waste removed, tools accounted for, access restored, and no maintenance debris or contamination remains.

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: Release only after the equipment is complete, clean, guarded, tested, and documented. Keep actions open when safe function, repair quality, or...

56

Verify reassembly is complete and required fluids, covers, fasteners, guards, safety devices, connections, settings, and service points are restored before energization.

CRITICAL

MAINTENANCE

Compliant

Needs action

Critical

LIVE PHOTO | Add

Execution tip: Release only after the equipment is complete, clean, guarded, tested, and documented. Keep actions open when safe function, repair quality, or...

57

Conduct a controlled restart and functional test where safe, checking operation, alarms, safety devices, noise, vibration, temperature, leakage, direction, and performance against acceptance criteria.

CRITICAL

MAINTENANCE

C

PC

NC

NA

Execution tip: Release only after the equipment is complete, clean, guarded, tested, and documented. Keep actions open when safe function, repair quality, or...

58

Confirm affected employees are notified, lockout or tagout is removed only under the approved procedure, and the equipment is released to operations by an authorized person.

CRITICAL

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Release only after the equipment is complete, clean, guarded, tested, and documented. Keep actions open when safe function, repair quality, or...

59

Assign unresolved defects or follow-up actions to a named owner with risk level, due date, interim control, required evidence, escalation path, and equipment operating restriction where needed.

MAINTENANCE

Record / item	Current status	Owner	Evidence	Action
---------------	----------------	-------	----------	--------

Execution tip: Release only after the equipment is complete, clean, guarded, tested, and documented. Keep actions open when safe function, repair quality, or...

60

Record final maintenance status, unresolved critical risks, parts used, verification results, return-to-service approval, next maintenance date, technician, reviewer, date, and sign-off.

CRITICAL

MAINTENANCE

FINAL STATUS | Enter

REVIEWER | Enter

APPROVAL | Enter

Execution tip: Release only after the equipment is complete, clean, guarded, tested, and documented. Keep actions open when safe function, repair quality, or...