STANDARD OPERATING PROCEDURE

Spare Parts Inventory SOP

Document no.	SOP-MNT-005
Revision	1.0
Owner	Maintenance Manager
Effective date	September 15, 2026
Review cycle	Every 12 months

1. Purpose

To make sure spare parts are available when needed for maintenance work, inventory records stay accurate, and storeroom stock is kept at a level that balances uptime against carrying cost.

2. Scope

Applies to maintenance repair and operations (MRO) spare parts held in the maintenance storeroom. Van stock for field service technicians and finished goods inventory are covered by separate procedures.

Definitions

Min/max level	The minimum quantity that triggers a reorder and the maximum quantity to order up to for a given part.
Critical spare	A part for a critical asset kept in stock specifically to avoid extended downtime if that asset fails, even if it is rarely used.
Cycle count	A partial inventory count of a subset of parts done on a rotating schedule instead of counting the entire storeroom at once.
Bin location	The specific shelf or bin where a part is stored, recorded in the CMMS so it can be found quickly.

3. Responsibilities

Storeroom Clerk	Receives, stocks and issues parts, maintains bin locations, and performs cycle counts.
Maintenance Technician	Requests parts against a work order and returns unused or core parts to the storeroom.
Maintenance Planner	Sets min/max levels for critical spares and reviews reorder points with purchasing.
Maintenance Manager	Reviews storeroom KPIs, approves the critical spares list, and investigates significant discrepancies.

RACI matrix

Activity	Storeroom Clerk	Maintenance Technician	Maintenance Planner	Maintenance Manager
Set min/max levels for a part	C	I	R/A	I
Receive and put away incoming parts	R/A	I	I	-

Activity	Storeroom Clerk	Maintenance Technician	Maintenance Planner	Maintenance Manager
Issue parts against a work order	R/A	R	I	-
Perform cycle counts	R/A	C	I	I
Investigate stock discrepancies	R	C	C	A

R = Responsible, A = Accountable, C = Consulted, I = Informed

4. Materials and PPE

Materials, tools and systems

- CMMS or inventory management system with bin locations
- Critical spares list
- Barcode scanner or handheld inventory device
- Receiving forms and purchase orders
- Cycle count schedule
- Core return tags

Personal protective equipment

- Gloves for handling parts
- Back support belt for lifting heavy items
- Safety glasses when opening packaging with tools

5. Procedure

Step	Task	Owner	Done
5.1	**Set min and max stock levels** Maintenance planner sets the minimum and maximum stock level for each part based on usage history, lead time and whether the asset it supports is a critical spare.	Maintenance Planner	☐
5.2	**Receive incoming parts against the purchase order** Storeroom clerk checks the delivery against the purchase order and packing slip, inspecting for damage before accepting the shipment.	Storeroom Clerk	☐
5.3	**Put away parts to bin locations** Clerk stores received parts in their assigned bin location and updates the quantity and location in the CMMS. **Checkpoint:** System quantity and bin location match the physical parts before the receipt is closed.	Storeroom Clerk	☐
5.4	**Issue parts against a work order** Technician requests parts by work order number, and the clerk issues the part in the CMMS, deducting it from stock and linking it to the asset.	Storeroom Clerk	☐
5.5	**Return unused or core parts** Technician returns any unused part or a defective core to the storeroom promptly, and the clerk logs the return and restocks or tags it for core credit.	Maintenance Technician	☐
5.6	**Perform scheduled cycle counts** Clerk counts a rotating subset of parts each week per the cycle count schedule and compares the count to the system quantity.	Storeroom Clerk	☐

Step	Task	Owner	Done
5.7	**Investigate and reconcile discrepancies** Maintenance manager reviews any cycle count discrepancy above the tolerance, checks recent issue and receipt transactions, and approves a system adjustment with a documented reason. **Checkpoint:** Every inventory adjustment above tolerance has a documented reason before it is approved.	Maintenance Manager	☐
5.8	**Reorder parts at the reorder point** Clerk or planner generates a purchase requisition when a part's stock reaches its minimum level, following the standard reorder quantity.	Maintenance Planner	☐
5.9	**Maintain the critical spares list** Planner reviews the critical spares list quarterly against the current critical asset list, adding or removing parts as equipment changes.	Maintenance Planner	☐
5.10	**Review slow-moving and obsolete stock** Manager reviews parts with no usage in the past year, deciding whether to keep them as insurance spares, return them, or scrap them.	Maintenance Manager	☐
5.11	**Audit storeroom security and access** Manager periodically reviews who has access to the storeroom and confirms high-value or controlled parts are stored in a locked area.	Maintenance Manager	☐
5.12	**Report storeroom KPIs** Clerk compiles fill rate, cycle count accuracy and stockout data for the maintenance manager's monthly review.	Storeroom Clerk	☐

6. Quality checks

- Cycle count accuracy stays above the target set by the maintenance manager.
- Critical spares never fall below their minimum stock level without an active purchase order in progress.
- Every inventory adjustment has a documented reason and manager approval.
- Parts issued against a work order are recorded on the same day they leave the storeroom.

7. Records

- Receiving records and purchase orders
- Parts issue log by work order
- Cycle count results and adjustment log
- Critical spares list
- Slow-moving and obsolete stock review

8. KPIs

- Cycle count accuracy
- Fill rate (requests met from stock on hand)
- Stockouts on critical spares
- Inventory carrying value against target

9. Common mistakes

- Issuing a part without linking it to a work order, breaking the audit trail.
- Letting a critical spare run out because usage wasn't tracked closely.
- Adjusting inventory counts without investigating why the discrepancy occurred.
- Storing parts outside their assigned bin location, making them hard to find.
- Never reviewing the critical spares list after equipment changes.

10. Revision history

Revision	Date	Description	Reviewed by
1.0	September 15, 2026	Initial release	Ilia Pirozhenko

Approval

Prepared by	Approved by	Date

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