



HEALTH, SAFETY &
ENVIRONMENTAL MANUAL

3.3 Preventative Maintenance

Revision Number: **R0**

Number of Pages: **5**

Revision Date:

Approval Date:
10/01/2024

Effective Date:
10/01/2024

SIGNATURE:

PREVENTATIVE MAINTENANCE PROCEDURE

PURPOSE

Preventative maintenance programs are enacted to ensure that all equipment used at J-AAR worksites is in a safe, useable condition. This is achieved by ensuring that equipment is maintained as per the manufacturer's instructions and all legislative requirements.

DEFINITIONS

Preventative Maintenance:

Planned actions undertaken to retain an item at a specified level of performance by providing repetitive scheduled tasks that prolong system operation and useful life: inspection, cleaning, lubrication, and parts replacement.

SCOPE

All equipment, vehicles, tools, and devices owned by, rented, or leased to J-AAR falls under this policy and procedure.

A good preventative maintenance (PM) program reduces downtime, saves costs of otherwise preventable repairs, increases the life span of the equipment, and increases the safety of employees.

J-AAR' PM procedure is broken into three main components:

1. Inventory
2. Preventative Maintenance Schedule
3. Preventative Maintenance Activities

See the **Vehicle and Equipment Maintenance Policy** as **Appendix A** at the end of this section.

Inventory:

A preventative maintenance schedule cannot be created without first having a comprehensive list of all equipment which needs to be maintained. J-AAR's inventory list is created for all tools, equipment, vehicles, and devices which are over 10 horsepower.

The inventory will be logged, and respective service schedules will be adhered to.

Required Information:

For each piece of equipment on the inventory list, the following information is required (where applicable):

- Make and model.
- Unit number if owned.
- Serial number or VIN.
- Required maintenance activities.
- Required frequencies of the maintenance activities.
- Date/hours in/hours out (or kilometers) of last service.



HEALTH, SAFETY &
ENVIRONMENTAL MANUAL

3.3 Preventative Maintenance

Revision Number: **R0**

Number of Pages: **5**

Revision Date:

Approval Date:

Effective Date:

SIGNATURE:

10/01/2024

10/01/2024

PREVENTATIVE MAINTENANCE PROCEDURE

The required maintenance activities will be determined through a review of the manufacturer's instructions, applicable legislation, industry standards and reviews by equipment managers. The inventory list – as well as all required maintenance activities – will be updated as required with the acquisition of new equipment to ensure accuracy and completeness.

Preventative Maintenance Schedule

Using the inventory list, a preventative maintenance schedule will be generated for each piece of equipment. This will be implemented to ensure that all required PM activities are planned, scheduled, and performed at the required intervals.

All preventative maintenance or unscheduled repairs of owned equipment is managed by J-AAR's Assets and Logistics group, which employs licensed, qualified technicians. An exception to this would be daily cleaning and minor maintenance activities (i.e., checking fluids, greasing etc.) performed by field staff, who are instructed by a competent individual. No J-AAR employee should ever carry out work for which they are not qualified and/or designated to do.

The schedule will take into consideration the manufacturer's instructions/intervals, any applicable legislation, as well as input from the equipment managers at J-AAR. Each piece of equipment may have varying schedules.

Preventative Maintenance Activities:

All preventative maintenance activities will be carried out by qualified staff at J-AAR or by rental house staff if the equipment is rented or leased.

Company-provided vehicles should only be maintained by licensed 310 or 310T technicians as required.

All service schedules and work orders are stored on HCSS E360 or J-AAR servers.

Documentation:

All preventative maintenance activities must be documented. This documentation will include any remarks noted by the technician that may result in a safety concern/failed part.

Documentation should include:

- Make and model.
- Unit number if owned.
- Serial number or VIN.
- Required maintenance activities.
- Required frequencies of the maintenance activities.
- Date/hours in/hours out (or kilometers) of last service.



HEALTH, SAFETY &
ENVIRONMENTAL MANUAL

3.3 Preventative Maintenance

Revision Number: **R0**

Number of Pages: **5**

Revision Date:

Approval Date:
10/01/2024

Effective Date:
10/01/2024

SIGNATURE:

PREVENTATIVE MAINTENANCE PROCEDURE

PREVENTATIVE MAINTENANCE PROCEDURE

Input:

- Newly purchased equipment will be added to the inventory list.
- All the required information for that unit will be documented and kept on the list.

Schedule Created:

- A PM schedule will be created for each unit on the inventory list.
- This schedule will be created by taking all relevant information into consideration, including: the manufacturer's instructions/intervals; any applicable legislation; as well as input from the equipment managers at J-AAR. Each piece of equipment may therefore have a varied schedule.

Monitoring:

- The hours or kilometers, since last PM, and the operating conditions of each unit will be monitored to ensure the PM schedule is being followed.

PM Activities:

- As the schedule dictates, PM activities will be carried out and documented by qualified workers.

Review:

- The PM schedule will be reviewed as needed to ensure it is compliant with all relevant legislation as well as current manufacturer's instructions and the company's goals.

Defective Equipment:

J-AAR employees are required to perform a daily/pre-use inspection of all mobile equipment on site. If during the inspection, a major defect or significant hazard compromising the safe operation is detected, the operator must contact J-AAR for instructions, which may include lock and tag, and removal from service immediately. The operator's supervisor must also be notified. J-AAR will conduct appropriate repairs before it is used again.

DEFECTIVE EQUIPMENT PROCEDURE

Inspect:

All mobile equipment must be inspected daily/pre-use.

Defective Equipment found:

Record all defects on the inspection form.

Tag out/Lock out if applicable:

The piece of equipment must be locked out and tagged, if required. Equipment managers will provide instructions.

Notify supervision:

Supervisors must be made aware of the situation as soon as possible.



HEALTH, SAFETY &
ENVIRONMENTAL MANUAL

3.3 Preventative Maintenance

Revision Number: **R0**

Number of Pages: **5**

Revision Date:

Approval Date:
10/01/2024

Effective Date:
10/01/2024

SIGNATURE:

PREVENTATIVE MAINTENANCE PROCEDURE

Repair or Replacement:

The defective piece of equipment will be out of service until it is repaired. This can either happen on site, or a replacement piece of equipment will be arranged for use. The defective equipment will be repaired as per the direction of the equipment managers.

Appendix A: Vehicle and Equipment Maintenance Policy

The employee understands and agrees to ensure the following maintenance policy is followed during their employment at J-AAR.

The driver/operator will:

Circle Check

1. Perform and document a daily circle check prior to operating a vehicle or machine to inspect for leaks, cracks or other issues which could be detrimental to the operation and/or the safety of themselves or co-workers. All deficiencies will be documented in the inspection books or app provided. Any deficiency that affects the safety or durability of the vehicle or machine will be reported immediately to J-AAR. Submit a hard copy or digitally on the HCSS app.

Idling Policy

2. Vehicle and equipment idling policy requires the responsibility of the operator to perform an engine shut down if it's expected that engine idle time will exceed 3 minutes. This positive action will reduce emissions and noise pollution, reduce maintenance and fuel costs, prolong warranty coverage, avoid negative perception of idling company vehicles and is beneficial for our environment.

In extreme conditions or for health and safety reasons, a supervisor may choose to temporarily override certain conditions of this policy, however the idle policy will remain as stated unless otherwise directed by a supervisor.

Cab Cleanliness Policy

3. Please ensure windows are cleaned every morning, garbage is removed every evening, and the cab floor swept every night.

Lube & Grease

4. Lube and grease all fittings (not connected to an auto-lube system) during the workday and no later than at the end of their workday.
5. Monitor that the auto-lube system has an adequate supply of grease and that all grease points are receiving grease.
6. Ensure that all vital fluid levels are within operating range while operating a machine.
7. Ensure that all applicable guards are in place at the end of the shift.



HEALTH, SAFETY &
ENVIRONMENTAL MANUAL

3.3 Preventative Maintenance

Revision Number: **R0**

Number of Pages: **5**

Revision Date:

Approval Date:
10/01/2024

Effective Date:
10/01/2024

SIGNATURE:

PREVENTATIVE MAINTENANCE PROCEDURE

Vandalism protection/ organization / serviceability safety

8. Ensure that vehicles/machinery are parked in a well-lit location, if available.
9. Ensure that the vehicle/machinery is parked near the site access, beside the other machinery on the worksite. They should be parked perpendicular to the road when feasible.
10. Ensure vehicles/machinery is parked in such a way as to relieve any sources of potential energy or potential safety hazards.
11. The operator will ensure that all padlocks are installed and secured and that all doors are closed and locked.

If the employee is not completely sure or aware of the correct procedures to accomplish the above tasks, they agree to refer to the operator's manual located with the vehicle or machine and/or contact the equipment maintenance staff for clarification.