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This guidance document has been developed to provide general information on the principles of service, maintenance and inspections of all types of powered access equipment, including Mobile Elevating Work Platforms (MEWPs), Mast Climbing Work Platforms (MCWPs) and Construction Hoists (CHs). It is intended for a global audience and therefore does not refer to specific legislation but rather provides generic guidance based on best practice.

Owners of powered access equipment should always ensure that their equipment complies with the specific legislation and safety standard requirements of the countries or region(s) in which they operate. Equipment owners have a moral and legal duty to ensure equipment they use, or supply for use, is safe to use.



Statement by IPAF

NOTE: While every care has been taken to ensure the accuracy of the material contained within this guidance, no liability is accepted by the authors in respect of the information given. Compliance with this guidance does not give automatic assurance of compliance with legislative requirements. It is the duty holder's responsibility to ensure they comply with the legal requirements relevant to safe work equipment.

ACCIDENT DATA

IPAF monitors and analyses accident data that is entered into its **Accident Reporting Portal**. This analysis enables IPAF to identify specific trends.

Between 2020 and 2024, there were 432 reports from 27 countries involving powered access mechanical or

technical failures. There were 490 people involved and 44 fatalities. Over 50% of the reports originated from the UK, followed by the United Arab Emirates and the USA. Most incidents occurred in the construction or rental industries.

2020 ————— 2024



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INTRODUCTION

Regular servicing, maintenance and inspection can prolong the lifespan of powered access equipment. In doing so, it ensures the equipment is safe, reliable, and remains compliant with global legislation and safety standards.

If powered access equipment is used when the correct servicing, maintenance and inspection has not been carried out, machine behaviour may be unpredictable and fundamentally unsafe. Operators may be exposed to risks such as:

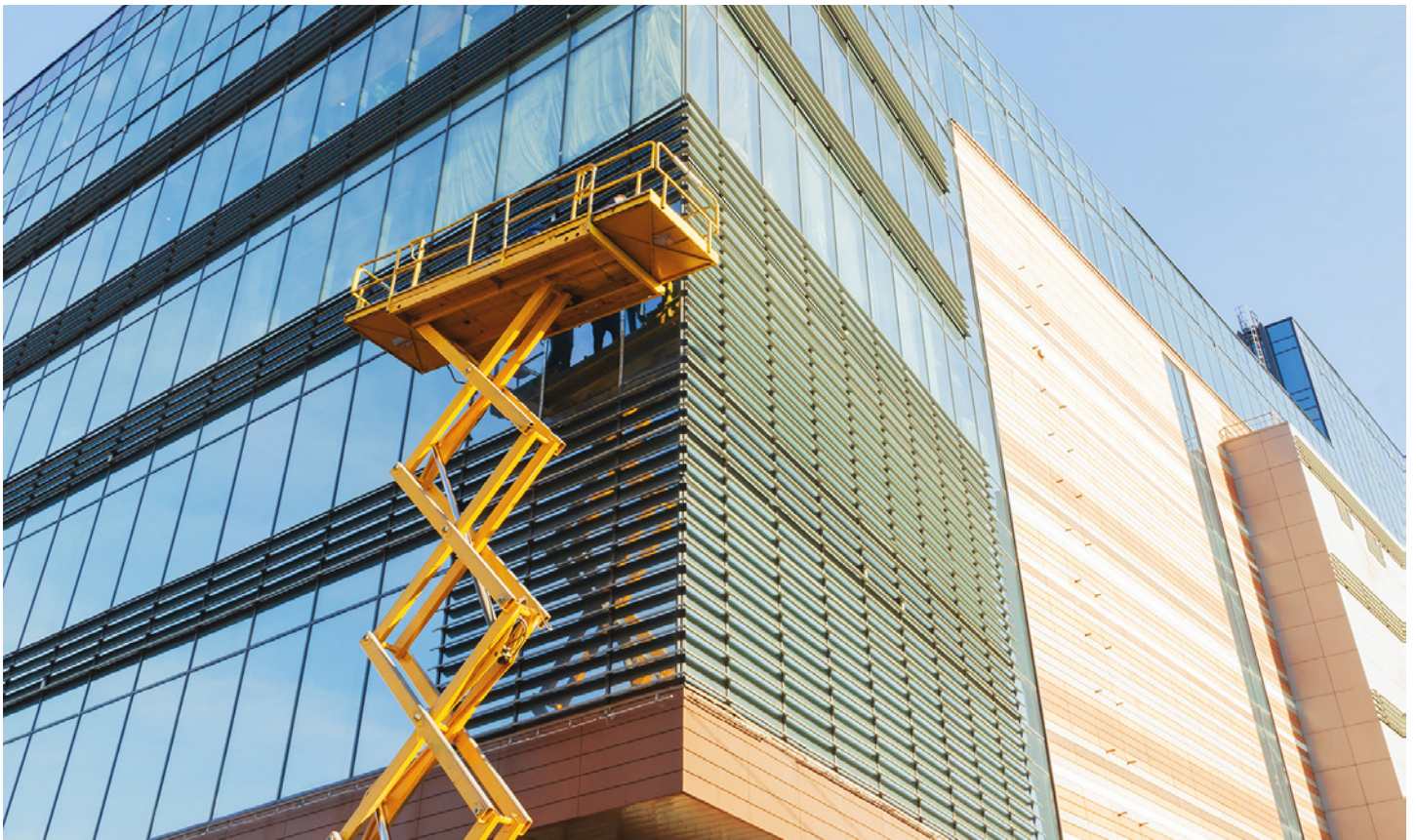
- Overturn due to structural failures.
- Fire or explosion due to incompatible equipment such as batteries and chargers.
- Falls from height due to catastrophic failure or missing critical safety components.
- Crushing or entrapment to platform occupants due to control system technical failures, e.g., the failure of a lockout system on a joystick controller.
- Mechanical or technical failures, e.g., the uncontrolled descent of a platform due to braking system failures (MCWPs and CHs).

- Reduced operating lifespan, which could have a serious financial impact.
- Environmental damage caused by hazardous substances such as leaking fuel, oil or battery acid.

Equipment owners are responsible for ensuring the correct maintenance, servicing and inspections are carried out, while equipment users are responsible for conducting pre-use inspections before operating the machinery.

Failing to fulfil these responsibilities may be considered serious breaches of health and safety legislation or standards and can result in serious consequences such as fatalities, serious injuries, property damage, and, in some cases, large fines or imprisonment for the responsible parties.

Throughout this document we refer to the term “competent person”. A competent person is someone who is suitably qualified, and has the appropriate knowledge, training, experience and authority to carry out a specific task safely and efficiently, taking into account local legislation and standards.



SERVICE AND MAINTENANCE

The Original Equipment Manufacturer (OEM) sets the required service intervals for the equipment. These intervals are usually determined by either the number of hours the equipment has operated for, or a fixed period, for example 6 or 12 months or 250 hours, whichever comes first.

Service intervals may need to be more frequent if:

- The equipment has been working in harsh or abrasive environments, as this can cause early excessive wear or damage to safety critical components such as hydraulic cylinder rods, chains, ropes and electrical componentry.
- The equipment has been in use for longer periods of time and has exceeded (or is about to exceed) the recommended hours of servicing.

The decision to provide more frequent servicing and maintenance should be made by personnel who have control of the service, maintenance and inspection regime of the powered access equipment.



OEMs also recommend that components with a defined lifespan, such as ropes, chains or load-bearing parts, be replaced as necessary. Following these OEM instructions is often referred to as Planned Preventative Maintenance (PPM).

Failing to adopt a PPM regime may lead to early component failure or unnecessary breakdowns. This approach is often called reactive maintenance and can lead to unnecessary expensive repairs and equipment downtime, resulting in a loss of revenue for the equipment owner.

Powered access equipment that has been in low use or non-hazardous environments may only require basic servicing, such as lubrication, oil changes, tests and measurements. As the equipment ages, more in-depth servicing may be required – for example, the replacement of hydraulic or gearbox oils.

Only competent service personnel should carry out servicing and maintenance on powered access equipment. The employer should decide which service personnel should carry out this work. Failing to ensure that competent and qualified personnel perform the service work can result in:

- Failure to correctly identify immediate or foreseeable faults
- Equipment operating outside of the OEM's specified safety limits
- Undetected mechanical or technical failures, leading to unnecessary downtime
- Reliability issues during use, such as frequent breakdowns causing loss of revenue for rental companies
- Equipment being out of compliance with relevant legislation and safety standards

All powered access equipment is accompanied by guidance on maintenance and servicing provided by the OEM, usually in the form of a service and/or maintenance manual. This manual is different to the operator manual, so it is unlikely to be present when it is on hire.

The service and maintenance manual should be made available to competent service personnel and regularly updated with any new information from the OEM. It is critically important that service personnel follow the requirements contained in the manual when performing servicing, maintenance and inspections of powered access equipment.

INSPECTIONS

Owners of equipment should always check the country or regional requirements for the frequency of inspections for the powered access equipment they own. Failure to carry out these inspections may result in death or major injuries to platform occupants and/or personnel at ground level, as well as damage to the equipment, property, and the environment.

There are several different types of inspections:

Pre-delivery inspections (PDIs)

PDIs are carried out by competent, qualified service personnel, typically within equipment rental or hire companies. The purpose of a PDI is to confirm that the equipment is in a safe, serviceable condition and operating in accordance with the original equipment manufacturer (OEM) requirements. When equipment is returned from hire, additional inspections should be conducted to identify any damage or defects that may have occurred during use. All PDIs should be properly recorded, either digitally or in paper format, to ensure traceability and accountability.

Pre-use inspections

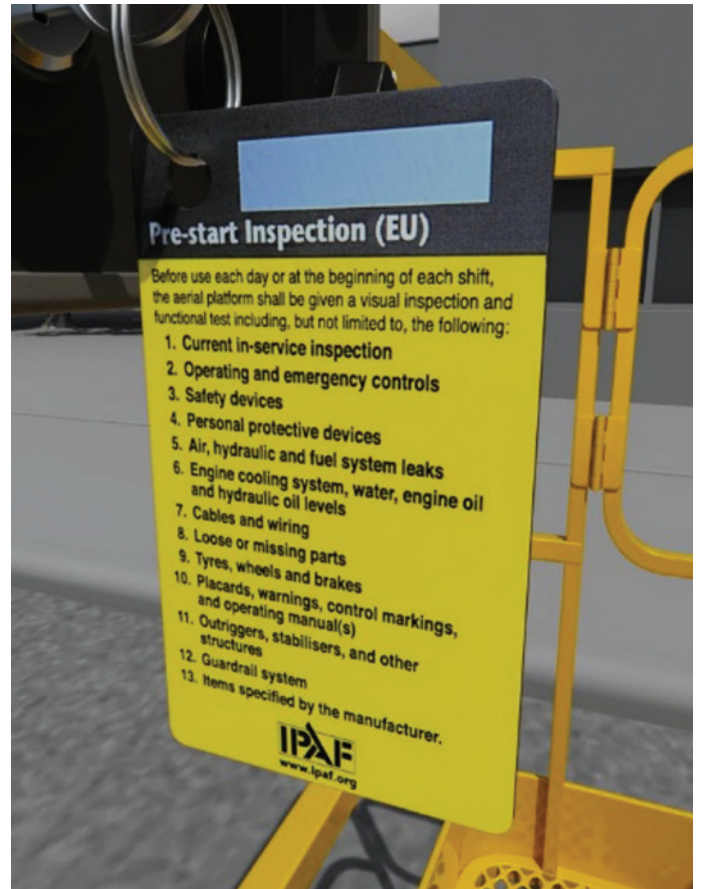
Pre-use inspections are performed by the equipment operator prior to use to make sure the equipment is safe to use. Although there is no obligation to officially record an inspection, IPAF highly recommends that inspections are recorded on the ePAL app or as a paper copy.

Routine inspections

Routine inspections are performed by competent/qualified service personnel. These inspections are normally performed at longer intervals; for example, every 90 days.

Thorough examinations (UK only)

Under the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998, equipment that lifts people must undergo a thorough examination by a competent person at least every six months. This is a detailed examination of components and systems, carried out through visual inspection and testing, and where necessary, dismantling, paint stripping, measurement, and non-destructive testing (NDT). After the examination has been carried out, a report must be issued and the equipment must be accompanied by evidence of the examination.



Periodical or annual inspections

Periodical or annual inspections are performed by competent/qualified service personnel. These are similar to thorough examinations and may require the same processes to confirm the equipment continues to be in a serviceable condition.

Major inspections

Major inspections are performed by a competent person and may be required by some manufacturers or some regions. They are usually required once equipment reaches 10 years of age and may require special or structural inspections that are more intrusive than standard inspections. As such, a deeper level of competency may be required. Major inspections should follow the local regulatory or standard requirements and use OEM instructions and recognised practices, where possible. The interval between major inspections may reduce after the first major inspection has been completed (e.g., from 10 years to five years).

SUMMARY

Owners need to ensure their equipment is well maintained, in efficient working order and in good repair, so that it is safe to use. They must also ensure that any service personnel working on the equipment are competent. By conforming to legislation and safety standards, owners can prolong the life of their equipment, protect people and the environment, and safeguard their investment.

Operators should always perform a pre-use inspection of the equipment before use and record the inspection either digitally or on paper. If any faults are found, the operator should:



ISOLATE

Turn-off the machine, remove the key, and lock-out controls, where possible.



TAG

Warn others that the MEWP is not safe to use.



REPORT

Inform a supervisor of the issue.

FURTHER READING

Technical Guidance

- ➔ Guidance on Major Inspections of MEWPs
- ➔ Service, Inspection and Maintenance of MEWPs
- ➔ Managing the Safe Condition of MEWPs
- ➔ Guidance on Buying a Pre-Owned MEWP
- ➔ Developing a MEWP Safe Use Program Guide (North America)

Toolbox Talks and AA Posters

- ➔ MEWP Pre-Use Inspection
- ➔ Safe On-Site Servicing of MEWPs
- ➔ Safe Workshop Servicing & Repairs of MEWPs
- ➔ The Importance of Safety Systems Fitted to MEWPs

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- ➔ Pre-Use Inspection





*Promote and enable the safe, effective
use of powered access worldwide*