Standard 2.3 Work on mobile platforms

Use LG Energy Solution Wrocław Sp. z o.o.

1. General information about mobile platforms

A Mobile Elevating Work Platform (MEWP) is a mobile machine that allows safe work at height, equipped with protective barriers, classified as collective protection. Devices of this type are not intended for transporting materials and cannot be used for this purpose (e.g. transport of ventilation ducts to a certain height).

Due to the diversity of the working environment in the LG ESWA, the following mobile platforms may be used:

- a) articulated (basket),
- b) scissors,
- c) others with similar properties and purpose (e.g. Manitou with a basket <u>URGENT! The basket is an</u> accessory equipment and requires a separate UDT regulatory acceptance approval).



These devices can be powered by electric or internal combustion engines. The use of devices with combustion engines inside halls and rooms is possible only after using exhaust gas neutralizing filters and obtaining the approval of the LG Health and Safety Department.

2. Requirements for mobile platforms

- 1. All the above-mentioned types of devices are subject to the Technical Inspection and may be operated only by employees with appropriate authorizations granted by the Technical Inspection office. The device is approved for use when it has a UDT certificate confirming that it is allowed to operate.
- 2. An employee (operator) servicing a specific type of a mobile platform should have appropriate qualifications at the place of work with the use of the device (available for inspection) in situation of an inspection by employees of the LG Health and Safety Department. In a situation where the device does not have a valid certificate and / or the operator does not have valid authorizations work with the device is immediately suspended until clarification.
- 3. Equipment baskets or platforms must comply with the regulations and be in good technical condition. Any damage, i.e. bends, cracks, crushing, disqualifies the equipment from further use.
- 4. The platform barriers may have entrances in the form of an opening gate, which have protection against accidental opening during the operation of the device. It is forbidden to remove any elements serving to ensure safety.
- 5. In the baskets / platforms, there should be obligatory fixed, factory-installed anchoring points, allowing for attaching the safety lines by employees. Clipping at points other than those designated by the manufacturer is prohibited.

REMEMBER!

When operating the mobile platform, it is required that operator and other people working in the basket have appropriate personal protective equipment:

- a) harness for working at height with a safety rope attached to the basket's construction point.
- b) safety shoes and proper work clothes,
- a) a warning vest,
- d) depending on the type of work
 other adequate PPE.



Telescopic loader with a dedicated basket or the transport of people is subject to Technical Inspection. Basket and any other gripping accessories dedicated e.g. charger are also subject to supervision.



The UDT certificate in the form of a sticker should be placed on the housing of the device in a visible place. (next periodical inspection up to 12.2019)

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3. Before starting work

1. Control of working conditions:

- a) the device should have valid acceptance protocol and UDT approval decision for operation validity period 1 year; maintenance log every 30 days or as required with the manufacturer's recommendations,
- b) employees working at height from mobile platforms should be familiarized with the IBWR (if required), as well as with the technical and operational documentation of the device, prepared by the manufacturer, with a written confirmation,
- c) before starting work, check the psychophysical condition of the employee, the compliance of the mobile platform operator's qualifications with the type of device the work is to be performed with. Additionally safety inspection decision and maintenance book must be placed in the mobile platform,
- d) use of a safety harness plugged into the anchor point dedicated by the manufacturer, use of other PPE (depending on the type / method of work).

Unfastening from the anchoring points and moving without securing it is forbidden.

- 2. The inspection of the technical condition of the device by the operator of the platform includes:
- a) visual assessment of the legibility of information and warning labels,
- b) for possible damage, improper assembly and unauthorized alterations, the following should be checked each time:
 - electric components and cables, battery pack and connections, driving motors,
 - hydraulic booster module, tank, hydraulic lines, couplings, cylinders,
 - tires and wheels, brake release elements,
 - limit switches and tilt sound signal, reverse sound signal,
 - nuts, bolts, boom pins, pins, cotter pins and other mounting elements,
 - safety arm, platform control rod,
 - condition of handrails and entrance gates in the baskets of the mobile platform,
 - occurrence of cracks in welds and structural components, dents, corrosion.
- 3. Based on the Operation and Maintenance Documentation (DTR), determine the method of stabilizing the movable platform on the ground during operation, and a rules, including the cradle height level during driving process.
- 4. The equipment and materials necessary for the work should be placed where possible in the central point of the mobile platform's.
- 5. The place where the work is performed or the mobile platform is located must be equipped with a hand held powder extinguisher with the mass of the extinguishing remedy at least 4 kg, used to extinguish fires of ABC groups.
- 6. When working at mobile platform each time an appropriate fencing of the work area should be ensured and an observer should be appointed, which will ensure the safety of work, especially if work with the use of a mobile platform is performed in an area with a high risk of unauthorized access or in the adjacent of a busy road.
- 7. If, as a result of the inspection of the technical condition, the operator spot technical defects, which exclude the platform from use must report this fact to the supervisor and stop using the device.

REMEMBER!

The contractor's obligation is to keep records of the operated mobile platforms and people authorized to operate them.

On a movable landing a notice should be placed in a visible place about the permissible load of its basket or platform. The load limits indicated by the manufacturer must be strictly adhered to.

The operator of the platform is not authorized to perform any repairs or modifications to the device. These activities are performed by a specialized, authorized technical service. Performing repairs on one's own is forbidden.

The mobile platform should have 'in a visible place' information about the name and surname of the user, foreman, name of the company that uses the platform and the machine's UDT number should be placed

Until the authorized service arrives and eliminating the fault - the device should be left parked in a safe place, properly marked and disconnected from electricity.

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4. Activities during and after work

- 1. The maximum number of people working inside the MEWP's cradle cannot exceed the number permitted by the manufacturer, bearing in mind about maximum platform load, which also includes the necessary materials and tools. At least one employee must have the necessary authorizations to operate the platform by Polish law (UDT certificate to operating), others should be familiarized with the machines controls and emergency lowering procedures.
- 2. Each time before starting to lift the platform, provide at least 1 m of free space above the edge of the cradle barriers (protection against crushing).
- 3. Before driving into the ceilings and floors, verify the ceiling load-bearing capacity and the weight of the machine. It is forbidden to drive in to ceilings with low load capacity.
- 4. Ascending and descending the basket by employees during work is allowed if the basket is in the lowest possible position for entering and is equipped with safeguards in accordance with the manufacturer's instructions.

4. When working with a mobile platform, it is strictly forbidden to:

- a) placing the platform on an unstable ground, e.g. sand (note: entry allowed only after the ground stabilizing and the appropriate foundation ensured, e.g., concrete pads, boards,
- b) moving in and out from the basket when the machine is in working position at height, climbing and descending the structural elements of the machine and climbing on cradle barriers,
- c) leaning out and installing or attaching additional elements to the cradle (e.g. ladders) in order to increase the reach or height of the platform,
- d) transporting materials in the basket that may increase wind pressure (boards, plywood, etc.), it is permissible to install a fire blanket and other necessary materials only in justified cases and taking into account the wind pressure.
- e) moving on public roads open to vehicle traffic, going downhill from curbs without using appropriate ramps,
- f) switching off or blocking limiter switches, disconnecting acoustic signalization.

5. After completing the work, you should:

- a) choose a safe place for parking the mobile platform a hard, horizontal surface, free from obstacles, without the movement of pedestrians and vehicles.
- b) lower the work basket to the minimum position, empty the basket of any materials, tools and turn off the device and remove the key from the ignition switch so that no for unauthorized use of the machine.

6. Charging the battery of the mobile platform:

- a) activities related to charging the batteries of the mobile platforms are performed by an authorized employee strictly following the manufacturer's instructions,
- b) for charging the batteries, charging systems designed for a specific type of platform are used, the cables supplying the platform's charging system should meet the requirements specified in Standard 5.3 Work with electric devices and installations.
- c) the landing site for the platform left for loading on the premises of the LG ESWA must be located in an area where possible supervision of third parties (e.g. production workers), who can react appropriately in the case of a failure of platform,
- d) the mobile platform, as well as during work with its use, must be equipped with a fire extinguisher with a mass of at least 4 kg extinguishing agent during loading, intended for to extinguish fires of ABC groups, placed in a visible place (e.g. in the platform basket).
- e) in case of an emergency while charging the battery is getting fire or any substance are leak from machine appropriate measures should be taken immediately to neutralize the threat and notify the Plant Fire Department, the Company Medical Service (if there are any injured persons) and the LG Health and Safety Department.

REMEMBER!

Work and parking of the platform are prohibited on unstable ground and at an inclination exceeding the permissible norms specified in the technical and operational documentation of the device.

Work on the mobile platform outdoors during a storm and when the wind exceeds 10 m/s is unacceptable.

If it happens during work to leakage of hydraulic oil, air or fuel — operator is obliged to stop work and mark the damaged device so that it cannot be use by other workers. Contamination resulting from the leakage of operating fluids should be removed on your own, if this is not possible - notify the Plant Fire Department, stay at the site until their arrival.

driven by an internal combustion engine should take place in a safe place, away from flammable materials and materials, sources of open flames, etc. The ground should then be adequately protected against possible fuel leakage (e.g. with foil).

5. Good and bad practices in working with mobile platforms



The work area should be properly enclosed and workers should use the required personal protective equipment when operating mobile platforms and have the necessary fire extinguishing agents in the workplace.





Lifting any materials using platforms (except the necessary tools) is prohibited. Mobile platforms are not transport devices and it is forbidden to use them for this purpose.



When working with mobile platform it is forbidden to stand on the platform barriers and going beyond them.



Placing the platform on unstable ground will cause it to tip over. While moving to the workplace or parking place, pay attention to potential obstacles, e.g. sewage wells, unsecured openings or drain gratings and other elements.

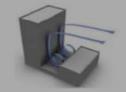
REMEMBER

Infrastructure of all kinds changes the speed, strength and direction of the wind:

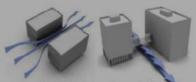
 the large face of the building causes the wind to flow around its edges



 low buildings placed against the wind increase its flow



 narrow spaces between buildings increase wind flow between them



A particular risk of aerial work platforms tipping over may arise as a result of:

- ridding of the lift between buildings (air ducts)
- ejecting the basket above the roof surface of the building.
- setting the machine at the corners of buildings (windshields).

