

## National Manual for Assets and Facilities Management Volume 10, Chapter 3

### **Elevated Work Platform Procedure**

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## 3VC

#### **Elevated Work Platform Procedure**

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#### 1.0 PURPOSE

Many facilities, entities, and associated contractors throughout the Kingdom of Saudi Arabia use mobile elevating work platforms during operations and maintenance activities. Due to the hazards associated with the use of these platforms, it is necessary for Entities, and/or their contractors, to implement this procedure to provide general use requirements for safe operations, and hazards identification and controls.

#### 2.0 SCOPE

The scope of this procedure is to provide means to the user to create a custom procedure outlining and detailing the requirements and responsibilities to associated with the safe operation of mobile elevating work platforms. This procedure applies throughout the Kingdom of Saudi Arabia to Operations and Maintenance functions and activities on, in, and around government owned facilities and projects.

#### 3.0 DEFINITIONS

Definitions	Description					
Competent	A competent person is someone who has the right combination of training, skills,					
	experience and knowledge and can apply them to perform a task safely, (taking into					
	account the specific work activities and surroundings.)					
HSE	Health, Safety, and Environment					
JHA	Job Hazard Analysis					
MEWP	Mobile Elevating Work Platform, including					
	Telescoping work platforms (Knuckle, Scissor and Boom Type)					
	Vehicle-mounted elevating and rotating work platforms					
PPE	Personal Protective Equipment					

#### 4.0 REFERENCES

- EOM-KSS-PR-000006 Barricades and Signs Procedure
- EOM-KSS-PR-000005 Fall Protection Procedure
- EOM-KSS-PR-000027 Safety Watches Procedure

#### 5.0 RESPONSIBLITIES

#### 5.1 Facility / Contract Manager

- Overall responsibility for this procedure and for supporting this process and verifying entities participate.
- Providing the personnel, facilities, and other resources necessary to accomplish this procedure.

#### 5.2 Supervisor

- Providing the resources to implement the requirements of this procedure.
- Providing leadership regarding HSE requirements and expectations.

#### 5.3 HSE Representative

- Auditing this process.
- Confirming that this procedure meets the government requirements and regulations.

#### 5.4 Personnel

- Knowing, understanding, and complying with the requirements of this procedure that apply to the work they perform.
- Requesting additional information and further clarification, before starting work, if personnel receive assignments they do not understand.



#### 6.0 PROCESS

#### 6.1 Equipment Selection

The equipment must be matched to the anticipated work, taking into consideration such things as:

- What work is to be performed
- Number of personnel required for the job
- Boom length
- Method of propulsion
- Terrain

#### 6.2 Emergency Controls

 Machines shall have operational instructions and emergency instructions for lowering the basket from the lower control station.

#### 6.3 Safe Operational Guideline Requirements

- When operating any Mobile Elevating Work Platform MEWP, whether it be vertical movement or horizontal movement, personnel shall be 100% tied off to the designated anchor point in the basket by full body harness.
- Warning notices on the machines will be mandatory.
- A malfunctioning MEWP will not be operated until repaired, as per the manufacturer's instructions. The equipment will be clearly tagged "OUT OF SERVICE".
- Mobile elevating work platforms must have ground controls in addition to the upper controls.
- All controls must be plainly marked as to their function with a ground override option to be used by a trained person (only in cases of emergency).
- A pre-start inspection of the equipment will be performed and documented on the Daily Checklist (see Attachment 1 EOM-KSS-TP-000002 Daily Checklist).
  - The operator shall report any malfunctions or damage to their supervisor.
- The equipment will be used only on level ground.
- Outriggers (if equipped) must be set prior to raising basket.
- The safe working load of the basket shall be posted on the platform, and shall not be exceeded.
  - NOTE that the total weight is the combined weight of the personnel, tools, and materials.
- Material may not extend beyond the perimeter of the basket.
- Personnel that are required to operate any MEWP shall have access to the appropriate operating
  manual and have completed an accredited training course and be deemed competent to operate
  that piece of equipment.
  - o Operators should be trained and qualified for each type of MEWP they use.
- Operational panels shall be provided with a guard to protect the controls from damage or inadvertent operation whilst persons are working from the platform.
- The use of an articulating lift as, or in lieu of, a crane is prohibited.
- Operator of a MEWP must always be sure that there is sufficient clearance and must be aware of the overall dimensions of the equipment before moving under any overhead obstruction and working near electrical lines.
  - o MEWP's used for working on an electrical line is prohibited.
- No MEWP with an axle load of greater than two tons shall go within 1m of the edge of any open excavation or trench without providing approved shoring or cover plates over the excavation or trench.
- Personnel will not walk under a boom to gain access to the platform.
- Operators will always look in the direction the machine is moving.
- Personnel will not rest the boom or basket on a steel structure of any kind (piping, conduit, cable tray or similar structures)
- Access doors/gates onto the platform are to be spring loaded and self-closing.
  - o Personnel shall enter and exit the basket only when it is lowered to ground level.
  - o Personnel will only use the designated door/gate for entry/exit.



- Personnel working from an MEWP shall have Fall Protection Training and appropriate Fall PPE (full body harness).
- Access or egress from a raised platform is prohibited, except in exceptional circumstances where
  no other means of access are available or feasible and prior approval is obtained from the HSE
  Representative.
- The transport of compressed gas cylinders in a MEWP is prohibited.
- A 4.5 Kg Dry Chemical fire extinguisher shall be mounted in the platform.
- Barricades, pylons, and flag persons shall be used when operating in vehicle traffic areas and near or on roadways
- When working overhead, barricading and "Danger Men Working Overhead" signs must be posted to form an exclusion zone.
  - The barricade shall prevent access to the swing radius of the counterweight, and the area underneath the elevated boom and basket.
- Personnel in the basket must keep their hands off the handrail when raising or lowering the basket.
- IF electrical power tools are used in the platform, THEN tag lines shall be used to lift electrical cords, welding leads and air hoses to the work location after the MEWP basket is in position.
  - Cords, Leads and hoses shall be tied off to and supported by an adjacent structure.
  - The hanging of electrical cables from platform to ground is prohibited
- Electrical hazard signs shall be mounted on both upper and lower control panels outlining the dangers associated with working near electrical wires.
- When more than one person is riding in a basket, they should attempt to face one another (this will enable each to monitor physical obstructions/hazards).
- The MEWP controls shall be operated in a smooth progressive manner and momentarily returned to the neutral position before proceeding in the opposite direction. The foot pedal switch shall be activated only by the operator handling the MEWP controls
- Operators shall not leave a running MEWP unattended.
- A competent watchman (spotter), per EOM-KSS-PR-000027 Safety Watches Procedure, must be available when needed for safe operation.
- The basket of the elevating lift shall remain clean and free of unnecessary debris, trash, or materials. Bolts, fittings, and other small items shall not be placed on the control panel or left lying loosely on the floor.
- The guardrail system shall be enclosed from the toe board to the mid-rail to prevent tools, equipment, and materials from falling to lower elevations. Hand-tools and other small items such as bolts; nuts must be contained proper boxes.
  - o Tools must be tethered by rope to prevent accidental falling.
- Personnel working inside the basket shall keep both feet placed firmly on the floor. Standing or
  working from the mid-rail or top-rail of the basket is not allowed. Ladders shall not be used inside
  the basket to access upper elevations and boards shall not be placed across the mid-rails or toprail for use as a work platform.
- Tying off to an adjacent pole, structure, or equipment while working from a boom is prohibited.
- Mobile elevating work platforms should not be used when wind speed is greater than 32km/h.

#### 6.4 Movement of Equipment

- Baskets shall be lowered prior to transporting or relocating equipment.
- Brakes depend upon the engine; in some units an engine failure will result in loss of control.
- A spotter shall be utilized to assist the operator while moving or positioning the machine.
- MEWPs shall not be traveled over drain gratings, holes covers, or other surfaces that are not designed to support the weight of the machine. Additional spotters shall be used to direct the operation of MEWPs near openings or excavations.
- Baskets must never be used to free the carrier from mud or similar stuck positions. MEWPs can be severely damaged if the basket is forced down onto the ground to create leverage for freeing stuck carriers.

#### 6.5 Inspection and Maintenance

- A daily inspection is required, prior to operating the machine.
- A written monthly inspection shall be conducted by a designated Competent Person.



- Inspection records shall be maintained and kept on file and in an equipment specific log book.
- Where a MEWP is out of inspection date, it must not be used until inspected by a competent person or a third-party inspection firm.
- Equipment shall be maintained in accordance with the manufacturers' recommendations.
- Repairs shall be made by qualified personnel in accordance with the manufacturer.

#### 6.6 Vehicle-Mounted Elevating and Rotating Work Platforms

#### 6.6.1 Types of Vehicle-Mounted Equipment

MEWPs include the following types of vehicle-mounted equipment that is used to elevate personnel on the project above ground (Figure 1):

- Extendible boom platforms
- Articulating boom platforms
- Scissor lifts
- A combination of the above



Figure 1: Example of EWP

#### 6.6.2 Extendible and Articulating Boom Platforms

- A MEWP truck may not be mobilized when the boom is elevated.
- The insulated portion of a MEWP will not be altered in any manner that might reduce its insulating value.
- Before moving a MEWP for travel, the boom(s) will be in the cradled position AND the outriggers are in stowed position.



#### 7.0 TRAINING

#### 7.1 General

- Personnel who will use a MEWP must be trained and demonstrate competency in its safe operation, operators must be able to present a valid competency card issued by an approved and internationally recognized certifying body.
- Training records must be available with the HSE Department.

#### 7.2 Competency

Contractors shall conduct a competency verification test of MEWP operation prior to issuing an authority to operate. The assessment shall consist of verbal, written and practical assessments consistent with national competency assessment criteria. A copy of the assessment criteria and competency assessment shall be made available to Contractor upon request.

#### 8.0 MONITORING AND EVALUATION

Both Contractor and Subcontractor shall continuously monitor and assess compliance with this procedure. The Contractor HSE Representative shall conduct quarterly formal assessments of the compliance with this procedure.

#### 9.0 ATTACHMENTS

1. EOM-KSS-TP-000002 - Daily Checklist



#### Attachment 1 - EOM-KSS-TP-000002 - Daily Checklist

	MEWP #/	Week of	1	1	1	1	1	1	1
#	,		Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	MEWP Competent Person/third-party inspection is within date.								
2	Drive Motor and Brake Shield - Properly secured, no missing pieces/parts								
3	Body, Platform, Boom – no visible da	amage							
4	Platform and grab rails are free of rough or sharp edges								
5	Tire & Wheel Assembly - Properly secured, no loose or missing lugnuts								
6	No visible damage to tires. Tires properly inflated per manufacturer's recommendation				(	77			
7	Drive Hub - No visible damage; evidence of leakage								
8	Power Track - No loose, damaged parts	d or missing	M						
9	Electrical lines - no visible damage								
10	Control Valves and Engine Compartment No damage, no visible leaks								
11	Hose and Wire Supports – no unsupported wires or hoses								
12	Engine Oil Supply - Full mark on dipstick; filler cap secure								
13	Exhaust System - Secured; no evidence of Leaks								
14	Hydraulic Lines – no visible damage or leaks								
15	Ground Control Panel - Switches operable; no visible damage								
16	Placards secure and legible								
17	Counterweight - Secured								
	Ope	rator Initials							
			nce or Repair		Date Repaired				