

# PHILIPPINE NATIONAL STANDARD

PNS/BAFS 395:2024  
ICS 65.060.01

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## Agricultural Mobile Elevating Work Platform — Methods of Test



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PNS/BAFS 395:2024  
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## Foreword

In 2023, the Department of Agriculture (DA)-Philippine Center for Postharvest Development and Mechanization (PHilMech) proposed the development of Philippine National Standards (PNS) on Agricultural Mobile Elevating Work Platform — Specifications and Methods of Test. The proposal was submitted to and reviewed by the Philippine Council for Agricultural and Fisheries (PCAF)-National Sectoral Committee on Agricultural and Fisheries Mechanization (CAFMech).

In the same year, the Committee issued Resolution No. 18, series of 2023 (Recommending to the Bureau of Agriculture and Fisheries Standards [BAFS] to Include in their Priority List of the Philippine National Standards [PNS]/Philippine Agricultural and Biosystems Engineering Standards [PABES] for Development of the Standards for Mobile Elevating Work Platforms for Agricultural Purposes) for the development of this Standard to the DA-BAFS. The development aims to facilitate the use of Mobile Elevating Work Platform (MEWP) in agriculture, potentially addressing labor shortages during peak harvest periods and enabling safer manual operations on farms with fruit-bearing trees. Additionally, it intends to ensure and improve the quality of the machine by setting various performance parameters to be included as a requirement for the manufacturing of the MEWP.

In response, the DA-BAFS officially created a Technical Working Group (TWG) to develop the PNS under the following Special Orders (SO):

1. SO No. 305, series of 2024 (Creation of TWG and Project Management Team [PMT] for the Development of PNS for Agricultural and Fishery Products and Machinery);
2. SO No. 905, series of 2024 (Addendum to SO No. 305, series of 2024 entitled, “Creation of TWG and Project Management Team [PMT] for the Development of PNS for Agricultural and Fishery Products and Machinery”); and
3. SO No. 29, series of 2024 (Authority to Conduct and Attend the DA-BAFS Standards Development Division [SDD] Activities for the 2<sup>nd</sup> Semester CY 2024).

The TWG was composed of relevant stakeholders from the government sector, academe/research institutions, private sector organizations, and Civil Society Organizations (CSO). The draft PNS underwent an extensive series of TWG meetings and stakeholder consultations, facilitated through physical and online platforms, from January to September 2024 prior to its endorsement to the DA Secretary for approval.

This document was written in accordance with the formatting and editorial rules of the Standardization Guide No. 1 (Writing the PNS) developed by the Standards Development Division (SDD) of the DA-BAFS.

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## **1 Scope**

This Standard specifies the methods of test and inspection for mobile elevating work platforms used specifically for agricultural and fishery purposes such as, but not limited to, orchard operations and servicing agricultural and biosystems infrastructures. Specifically, it shall be used to:

- a) Verify the mechanism, dimensions, materials, accessories of MEWP, and the list of specifications submitted by the test applicant;
- b) Determine the performance of the MEWP;
- c) Describe the handling and safety features; and
- d) Prepare the report for the test.

## **2 Normative References**

The following documents are referred to in the text in such a way that some or all their contents constitute the requirements of this document. The latest edition of the referenced document (including any amendments) applies.

Bureau of Agriculture and Fisheries Standards (BAFS)-Department of Agriculture (DA). (2024). Agricultural mobile elevating work platform — Specifications (PNS/BAFS 394:2024).

## **3 Terms and Definitions**

For this Standard, the definitions given in PNS/BAFS 394:2024 (Agricultural mobile elevating work platform — Specifications) and the following shall apply:

### **3.1**

#### **beaufort wind scale**

method that relates wind speed to observed conditions (WorkSafe New Zealand, 2014)

### **3.2**

#### **overall height**

distance between the horizontal supporting plane surface and the horizontal plane touching the uppermost part of the MEWP, expressed in meters, m (BAFS-DA, 2022, *modified*)

### **3.3**

#### **overall length**

distance between the vertical planes at the right angles to the median plane of the MEWP and touching its front and rear extremities, expressed in meters, m (BAFS-DA, 2022, *modified*)

**3.4****overall width**

distance between the vertical planes parallel to the median plane of the machine, each plane touching the outermost point of the MEWP on its respective side, expressed in meters, m (BAFS-DA, 2022, *modified*)

**3.5****radius of turning area**

radius of the smallest circle described by the outermost point of the MEWP, expressed in millimeters, mm (BAFS-DA, 2020, *modified*)

**4 Principle of the Test**

The test shall be carried out to assess the actual specification of MEWP. Its specifications shall be validated with PNS/BAFS 394:2024 (Agricultural mobile elevating work platform — Specifications).

**5 Test Instruments and Materials**

The suggested list of minimum field and laboratory test equipment and materials needed to carry out the machine test is shown in Annex A (Minimum list of test equipment and materials). The instruments to be used shall be calibrated regularly and physically checked before and after each test.

**6 General Considerations****6.1 Test site condition**

**6.1.1** For indoor testing, the test site shall have an area greater than the peak height of the MEWP as specified in the operator's manual.

**6.1.2** In case of limited indoor spaces, the machine test shall be conducted in an environment with wind force not exceeding the Beaufort Scale 6 (i.e., equivalent to 12.5 m/s) as shown in Annex B (Recommended beaufort scale 6 for the operation of MEWP), unless otherwise specified.

**6.1.3** The following site conditions shall be considered for reference:

- a) Type of ground surface; and
- b) Wind speed.

## **6.2 Conditions of specific components**

### **6.2.1 Lubricants and hydraulic liquids**

The lubricants and hydraulic liquids shall be selected from the range of equivalent products commercially available in the country as recommended by the manufacturer.

### **6.2.2 Battery**

For battery operated MEWP, the battery shall be brand new, fully charged, correct rating, and in good condition prior to the test operation.

## **6.3 Pre-test activities**

### **6.3.1 Running-in and preliminary adjustments**

The MEWP shall have undergone a running-in period and various adjustments shall be made by the test applicant according to the manufacturer's recommendation prior to the conduct of testing to ensure the readiness of the machine.

### **6.3.2 Verification of specifications**

The specifications claimed by the manufacturer and other physical details given in Annex C (Specifications of MEWP) shall be verified. A stable and level surface shall be used as a reference plane for verification of dimensional machine specifications when fully assembled and ready for testing.

### **6.3.3 Preparation of the MEWP for testing**

The MEWP shall be checked to ensure that the machine has been assembled and installed in conformance with the instruction of the manufacturer. Also, the operator's manual shall be provided before the conduct of testing.

## **6.4 Suspension/termination of test**

**6.4.1** During the test run, if the MEWP stops (due to minor breakdown or malfunction), the test shall be suspended. The test applicant shall be given an opportunity to make minor repairs or adjustments within a reasonable time.

**6.4.2** The test shall be terminated if the machine is unable to continue operation after three (3) attempts and all efforts have been exerted without replacing any parts that can affect the performance of the machine. The test applicant has the option to terminate the test voluntarily at any stage of the testing process. In cases of terminated test, a test report shall be prepared.

## **7 Performance Test and Procedures**

### **7.1 Operation of the machine**

The MEWP shall be operated at the manufacturer's recommended settings for all of its components. The same settings shall be used for all succeeding test trials. The testing agency shall make all measurements and observations.

For totally manually operated MEWP, it shall be exempted from all requirements that cannot be met without power supply.

### **7.2 Test trials**

A minimum of three (3) test trials shall be conducted per category of test.

### **7.3 Test and measurements**

#### **7.3.1 Dynamic fall arrest anchorage test**

MEWP designed with a fall arrest system shall withstand and shall not overturn when subjected to a force of a free-falling 136 kg test load. Deflection of any part is acceptable, provided that the test load is not released during the test.

##### **7.3.1.1 Conditions**

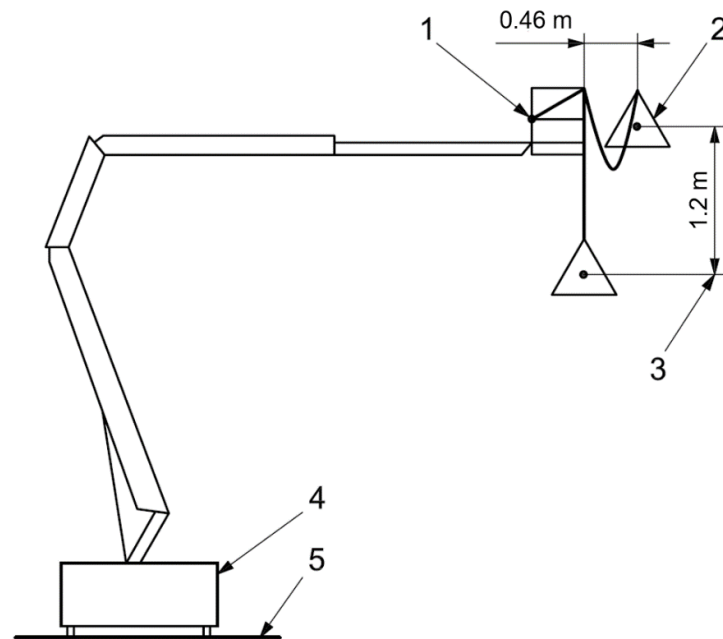
The MEWP shall be positioned on a level surface with the work platform at its peak height at the maximum horizontal reach. The platform shall be subjected to a load that creates the most adverse stability condition, unless this condition is met with no platform load. The load shall be evenly distributed on the platform.

The 136 kg test load shall be attached to a non-shock absorbing lanyard to a lanyard anchorage point nearest the test mass origin, the lanyard having been passed over the top rail of the work platform such that the overturning force is applied to the rail.

##### **7.3.1.2 Procedure**

The 136 kg weight shall be dropped 0.46 m away from the top guard rail and shall fall a minimum of 1.2 m, without interference or obstruction and without hitting the ground, as illustrated in Figure 1.



**Key**

- |   |                   |   |               |
|---|-------------------|---|---------------|
| 1 | Anchorage         | 4 | MEWP          |
| 2 | Test load, 136 kg | 5 | Level surface |
| 3 | Free-fall         |   |               |

**Figure 1.** Fall arrest anchorage test setup (adapted from PHilMech-DA, 2023)

### 7.3.2 Stability tests

#### 7.3.2.1 Static test

##### a) Conditions

The MEWP shall be set up at maximum allowable inclination angle based on the manufacturer's specifications plus an additional inclination of  $0.5^\circ$ . Stabilizers, if provided, shall be used as specified by the manufacturer. If the MEWP is supported in the working position by pneumatic tires and is not protected by a low-tire-pressure operator warning system, the MEWP shall be set up with the inclination taking into account a deflated tire. The work platform shall be extended at its peak height at the maximum horizontal reach. The test shall be repeated in all the least favorable extended and/or retracted positions.

##### b) Procedure

Test loads representing all the least favorable load and force combinations, such as forces created by structural masses and rated load,

wind forces, manual forces, and special loads and forces, shall be applied on the MEWP as shown in Figure 2. The test load(s) may be applied at any suitable strong point, if necessary, to avoid overstressing any part of the MEWP. The rated load shall be computed as follows:

$$m = m_{p.work} + m_{e.ext}$$

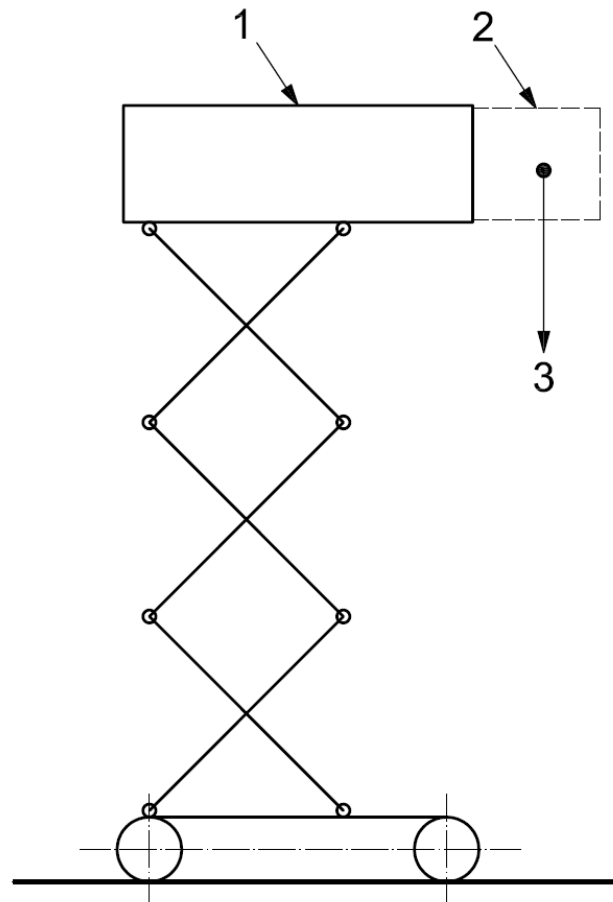
$$m_{p.work} = n_{p.work} \times m_p$$

where:

$m$	is the rated load, kg
$m_{e.ext}$	is the mass of tools and materials permitted on the extension platform, kg
$m_{p.work}$	is the total mass of the permitted persons on the main work platform, kg
$n_{p.work}$	is the permitted number of persons on the main work platform
$m_p$	is the estimated mass of a person, 80 kg

For MEWP that have platform extension(s) with rated load(s) different from the main work platform rated load, and which do not have specific load control of the extension(s), the rated load,  $m$  shall be placed on the extended platform. The test loads shall be distributed on the extension platform and, if necessary, on the main platform.

The test may be carried out on level ground if the test loads are re-calculated to include the effects of the maximum allowable chassis inclination defined by the responsible entity, plus 0.5°.



**Key**

- |   |                                     |   |                |
|---|-------------------------------------|---|----------------|
| 1 | Main platform                       | 3 | Rated load, kg |
| 2 | Extension platform (fully extended) |   |                |

**Figure 2.** Static test setup (adapted from PHilMech-DA, 2023)

### 7.3.2.2 Dynamic tests

#### a) Curb test

##### 1. Conditions

The test shall be conducted for Type 2 or 3 MEWP, excluding rail-mounted MEWP. A platform large enough to accommodate the MEWP shall be prepared. The platform shall have a curb with a height of 0.1 m at an angle of 30° from perpendicular.

The tests shall be repeated, driving in both the forward and reverse directions, in each extended position of the MEWP and, if different travel

speeds are allowed for different heights, at each of those heights, at the maximum permitted speed for each height based on the recommendations of the manufacturer. In all cases, the steering wheels shall be parallel to the length of the machine.

## **2. Procedure**

The MEWP shall be driven on level ground at maximum speed until the MEWP comes to a stop or both leading wheels/tracks successfully climb the curb. Each leading wheels/track shall simultaneously come into contact with the same curb.

### **b) Depression test**

#### **1. Conditions**

The test shall be conducted for Type 2 and 3 MEWP, excluding rail-mounted MEWP. A platform large enough to accommodate the MEWP shall be prepared. The platform shall have a depression with a height of 0.1 m at an angle of 30° from perpendicular.

For Types 2 and 3 MEWP intended for paved/slab use only, excluding rail-mounted MEWP, another platform large enough to accommodate the MEWP shall be prepared. The platform shall have a depression 600 mm<sup>2</sup> with a vertical drop of 100 mm.

The tests shall be repeated, driving in both the forward and reverse directions, in each extended position of the MEWP and, if different travel speeds are allowed for different heights, at each of those heights, at the maximum permitted speed for each height. In all cases, the steering wheels shall be parallel to the length of the machine.

## **2. Procedure**

The MEWP shall be driven on level ground at maximum speed until both leading wheels/tracks of the MEWP are driven off the edge of the depression. Each leading wheels/track shall simultaneously be driven into the same depression.

### **c) Braking test**

#### **1. Conditions**

The test shall be conducted for Types 2 and 3 MEWP on level ground. The test shall be conducted for each MEWP position, in each combination of chassis inclination, loads, and forces that will together create conditions of minimum stability.

## 2. Procedure

The MEWP shall be driven at maximum allowable speed at each height and stopped rapidly as their controls allow. The stopping distance shall be measured starting from the point brakes are applied until the point the MEWP stops.

### 7.3.3 Overload and stability test for non-vehicle mounted MEWP

#### 7.3.3.1 Conditions

The test shall be conducted on level ground and the extending structure put into each position which creates maximum stress in any load-bearing part of the MEWP.

For non vehicle-mounted MEWP, the test load shall be 125% of the rated load for power-operated MEWP and 150% of the rated load for manually operated MEWP.

During the stability test, the lifting of one or more tires or outriggers on the opposite side of the load does not necessarily indicate a condition of instability. The vehicle-mounted MEWP is considered to be stable if it can come to a stationary condition without turning over while supporting the test load(s).

#### 7.3.3.2 Procedure

For MEWP that have platform extension(s) with rated loads different from the main work platform rated load, and that do not have specific load control of the extension(s), the test load shall be as defined in Figure 3. The rated load shall be computed as follows:

$$m = (m_{p.ext} + m_{e.ext}) \times 1.25 + (m_{p.work} - m_{p.ext})$$

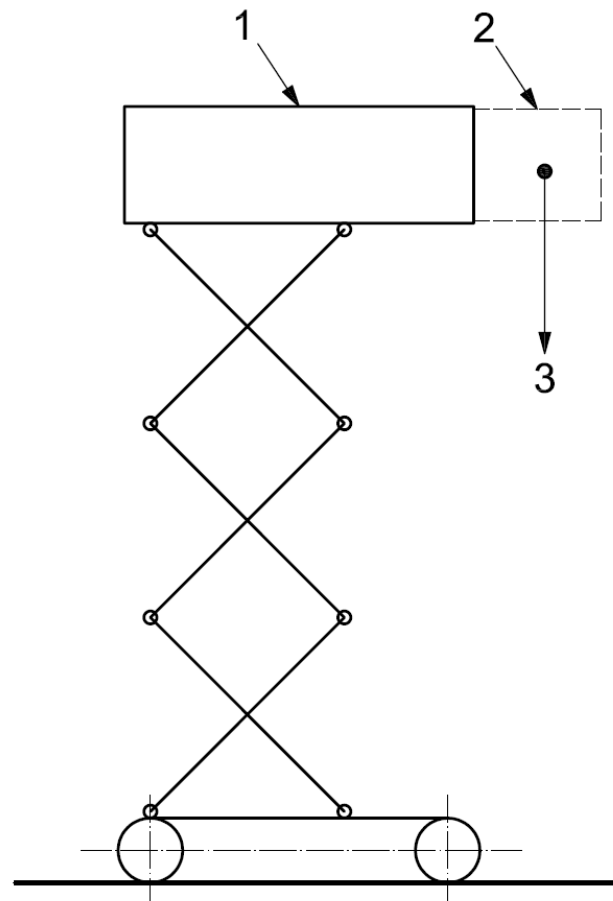
$$m_{p.work} = n_{p.work} \times m_p$$

$$m_{p.ext} = n_{p.ext} \times m_p$$

where:

- $m$  is the rated load, kg
- $m_{p.work}$  is the total mass of the permitted persons on the main work platform, kg
- $m_{p.ext}$  is the total mass of the permitted persons on the extension work platform, kg
- $n_{p.work}$  is the permitted number of persons on the main work platform

- $n_{p.ext}$  is the permitted number of persons on the extension work platform
- $m_{e.ext}$  is the mass of tools and materials permitted on the extension platform, kg
- $m_p$  is the estimated mass of a person, 80 kg

**Key**

- |   |                                     |   |                |
|---|-------------------------------------|---|----------------|
| 1 | Main platform                       | 3 | Rated load, kg |
| 2 | Extension platform (fully extended) |   |                |

**Figure 3.** Overload test setup (adapted from PHilMech-DA, 2023)

All movements with the test loads shall be carried out at accelerations and decelerations appropriate to safe control of the load. If several movements with the test load have to be carried out (i.e., lifting, lowering, slewing, travelling), the intended movements shall be carried out separately, when vibrations associated with preceding movements have subsided, and with care, considering the least favorable positions.

### 7.3.4 Overload and stability test for vehicle-mounted MEWP

#### 7.3.4.1 Conditions

For vehicle-mounted MEWP on level ground, the test load shall be 150% of the platform rated load plus 150% of lifting attachment capacity (when so equipped).

For vehicle-mounted MEWP on a slope, the machine shall be tested on a slope of 5° in the direction of least stability and shall sustain a static load 133% of the platform rated load plus 133% of lifting attachment capacity (when so equipped).

Simultaneous application of platform capacity and lifting attachment capacity shall be done only on vehicle-mounted MEWP that are designed to be used in service with both types of load applied simultaneously.

If utilizing the stabilizing components is part of the configuration definition, these shall be utilized according to the responsible entity's instructions, for purposes of determining whether the vehicle-mounted MEWP meets the stability requirements.

#### 7.3.4.1 Procedure

For vehicle-mounted MEWP on level ground, the platform load shall be applied at the center of the work platform simultaneously with the lifting attachment load in the position of maximum overturning moment.

For vehicle-mounted MEWP on a slope, the load shall be placed in the position of maximum overturning moment.

### 7.3.5 Extension and retraction test

The extension and retraction speed of the MEWP shall be obtained by measuring the time required to fully extend and retract the work platform with its rated load from its lowered position to its peak height, and vice versa. The speed shall be computed as follows:

$$S = \frac{d}{t}$$

where:

<i>S</i>	is the speed of the extending structure, m/s
<i>d</i>	is the distance travelled by the work platform, m
<i>t</i>	is the time required to fully extend or retract the work platform, s

### **7.3.6 Noise level measurement**

The noise level, expressed in decibels [dB(A)], shall be measured 0.5 m away from the machine (from the main source of noise) at a height of 167 cm  $\pm$ 15 for standing position by using a sound level meter. For each data on the location to be taken, there shall be a minimum of five (5) observations. Before collecting data, it should be ensured that the operations and other functional characteristics of the machine have stabilized. The time of recording shall be properly spaced during the whole duration of the test trial.

### **7.4 Data recording and observations**

Record sheet for all data and information during the test is given in Annex D (Performance test data sheet). Necessary observations and other parameters to be taken during the performance test should be recorded in this sheet.

### **7.5 Presentation of results**

Machine specifications and the results of the test shall be presented in tabular form in which data shall be taken from Annexes C (Specifications of MEWP) and D (Performance test data sheet). A photo of the machine with labeled parts shall also be included. Observations made on the machine while in operation shall be supported with photographs.

## **8 Test report**

The test report shall include the following information in the order given:

- a) Name of testing agency;
- b) Test report number;
- c) Title;
- d) Summary of results;
- e) Purpose and scope of test;
- f) Methods of test;
- g) Description of the machine;
- h) Specifications;
- i) Results;
- j) Observations (include pictures); and
- k) Names, signatures, and designation of test engineers.



**Annex A**  
(Informative)

**Minimum list of test equipment and materials**

Item		Quantity
<b>A.1</b>	<b>Test equipment</b>	
<b>A.1.1</b>	Timers Minimum resolution: 0.1 s	2
<b>A.1.2</b>	Air velocity meter	1
<b>A.1.3</b>	Steel tape (at least 5 m)	1
<b>A.1.4</b>	Weighing scale	1
<b>A.1.5</b>	Measuring tape (at least 50 m)	1
<b>A.1.6</b>	Digital camera	1
<b>A.1.7</b>	Graduated cylinder	1
<b>A.1.8</b>	Sound level meter, dB(A) Minimum resolution: 0.1 dB(A)	1
<b>A.1.9</b>	Curb and depression test platform	1
<b>A.1.10</b>	Clamp multimeter	1
<b>A.1.11</b>	Pressure Gauge	1
<b>A.1.12</b>	Tilt angle platform	1
<b>A.2</b>	<b>Test materials</b>	
<b>A.2.1</b>	Test load	
<b>A.2.2</b>	Non-shock absorbing lanyard	

## Annex B (Informative)

### Recommended Beaufort Scale 6 for the operation of MEWP

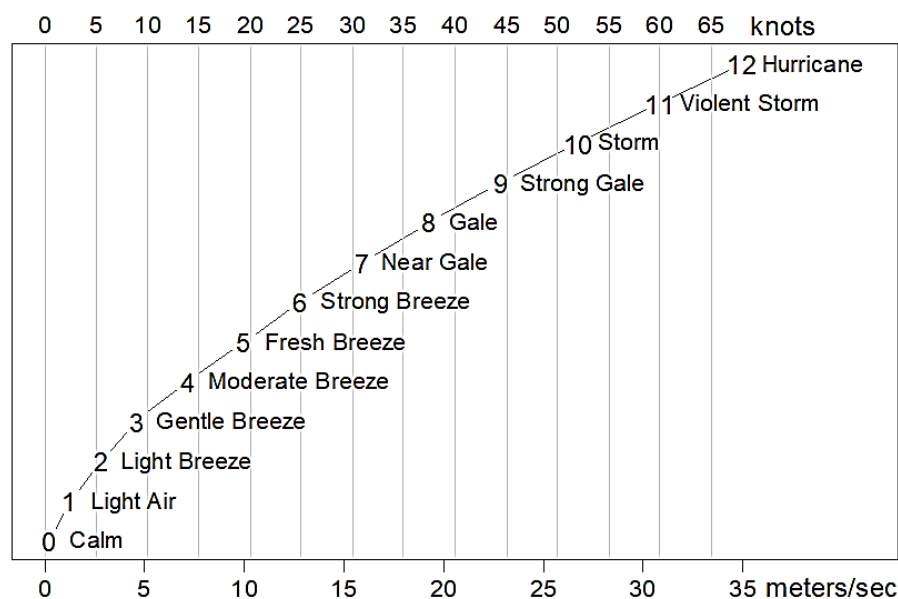
As per ISO 16368:2010, the Beaufort Scale 6 was adopted for the International Standard after examination of a number of previously existing standards and the experience of users of MEWPs. A significant reaction from users was that Beaufort Scale 6 represented a natural limit at which operators became aware of the effects of wind speed and were reluctant to use the machines.

The occasional, or locally regular, occurrence of higher wind speeds was recognized, but it was considered unreasonable to expect all MEWPs to be designed for exceptional circumstances which were readily recognizable by operators. This took into account the fact that wind forces increase by the square of the wind speed.

Higher wind speeds could be dealt with if either:

- a) the manufacturer's specification indicate that higher wind speeds are acceptable, or
- b) measures are taken such as a reduction in the number of persons allowed on the work platform under such conditions.

Most responsible entities use procedure b), giving appropriate details in their operating instruction manuals. Figure B.1 shows the relation of the Beaufort scale, wind speed, and the corresponding wind speed category.



**Figure B.1.** Beaufort scale (adapted from ISO, 2010)

**Annex C**  
(Informative)

**Specifications of MEWP**

Name of Applicant : \_\_\_\_\_  
 Address : \_\_\_\_\_  
 Tel. No. : \_\_\_\_\_

Name of Manufacturer : \_\_\_\_\_  
 Address : \_\_\_\_\_  
 Tel. No. : \_\_\_\_\_

**GENERAL INFORMATION**

Make : \_\_\_\_\_ Type : \_\_\_\_\_  
 Serial No. : \_\_\_\_\_ Brand/Model : \_\_\_\_\_  
 Date of Unit Manufacture : \_\_\_\_\_  
 Testing Agency : \_\_\_\_\_ Test Engineer : \_\_\_\_\_  
 Location of Test : \_\_\_\_\_ Date of Test : \_\_\_\_\_

	<b>Item</b>	<b>Manufacturer's Specifications</b>	<b>Verification by the testing agency</b>
<b>1</b>	Type of grouping		
<b>2</b>	Type based on transport position and controller location		
<b>3</b>	Type based on movement		
<b>4</b>	Type of lift operation		
<b>4.1</b>	For hydraulic or pneumatic lift:		
<b>4.1.1</b>	Operating pressure		
<b>4.1.2</b>	Maximum pressure		
<b>5</b>	Prime mover		
<b>5.1</b>	Type		
<b>5.2</b>	Model		
<b>5.3</b>	Make		
<b>5.4</b>	Rated power, kW		
<b>5.5</b>	Rated speed, rpm		
<b>5.6</b>	For motor driven MEWP:		
<b>5.6.1</b>	Line Voltage, V		
<b>5.6.2</b>	Maximum load current, A		
<b>5.6.3</b>	Frequency, Hz		

	Item	Manufacturer's Specifications	Verification by the testing agency
<b>6</b>	Power source components		
<b>6.1</b>	Type		
<b>6.2</b>	Brand		
<b>6.3</b>	Model		
<b>6.4</b>	Voltage, DCV		
<b>6.5</b>	Number of units		
<b>6.6</b>	Total Voltage Output, DCV		
<b>6.7</b>	Maximum current, DCA		
<b>6.8</b>	Charging time, h		
<b>6.9</b>	Battery charger		
<b>6.9.1</b>	Input voltage, ACV		
<b>6.9.2</b>	Output voltage, DCV		
<b>7</b>	Overall dimensions, m		
<b>7.1</b>	Length		
<b>7.2</b>	Width		
<b>7.3</b>	Height		
<b>7.3.1</b>	At stowed position		
<b>7.3.2</b>	At peak height		
<b>8</b>	Weight, kg		
<b>9</b>	Work platform		
<b>9.1</b>	Rated load, kg		
<b>9.2</b>	Dimensions, L x W, m		
<b>9.3</b>	Minimum height from access position, m		
<b>9.4</b>	Maximum horizontal reach, m		
<b>9.5</b>	Maximum vertical reach, m		
<b>9.6</b>	Material		
<b>10</b>	Railings		
<b>10.1</b>	Dimensions, L x W x H, m		
<b>10.2</b>	Material		
<b>10.3</b>	Basket rack		
<b>10.3.1</b>	Dimensions, L x W, m		
<b>10.3.2</b>	Number		
<b>10.3.3</b>	Material		
<b>11</b>	Radius of turning area (with brakes), as applicable		
<b>11.1</b>	Right turn, mm		
<b>11.2</b>	Left turn, mm		
<b>12</b>	Rotary movement of the work platform, °		
<b>12.1</b>	Right		
<b>12.2</b>	Left		

	<b>Item</b>	<b>Manufacturer's Specifications</b>	<b>Verification by the testing agency</b>
<b>13</b>	Special features		
<b>14</b>	Safety features		

**Annex D**  
(Informative)

**Performance test data sheet**

Test Trial No. : \_\_\_\_\_ Date : \_\_\_\_\_  
 Test Engineers : \_\_\_\_\_ Location : \_\_\_\_\_  
 Assistants : \_\_\_\_\_ Machine : \_\_\_\_\_  
 Test Applicant : \_\_\_\_\_ Manufacturer : \_\_\_\_\_

**1 Test condition**

Item		Data
<b>1</b>	Test site	
<b>1.1</b>	Type of ground surface	
<b>1.2</b>	Indoor or Outdoor	
<b>2</b>	Wind condition	
<b>2.1</b>	Speed, m/s	
<b>2.2</b>	Beaufort scale	
<b>2.3</b>	Windspeed category	
<b>3</b>	Specific components conditions	
<b>3.1</b>	Lubricant and hydraulic liquid used	
<b>3.2</b>	Battery percentage	

**2 Travelling speed test**

Speed setting	Without load				With rated load			
	Speed, kph	Voltage, V	Current, A	Power, kW	Speed, kph	Voltage, V	Current, A	Power, kW
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
<b>Ave</b>								

**3 Tilt angle test (without load)**

Tilt	Maximum allowable inclination angle, °
Front	
Back	
Left	
Right	

**4 Dynamic fall arrest anchorage test**

Test condition:	Load, kg			
	Distance of load from top guard rail (horizontal), mm			
<b>Test results:</b>				
Load distance of fall (vertical), mm				
Observations	Trial 1	Trial 2	Trial 3	

**5 Stability test****5.1 Static test**

Load on platform, kg	Platform condition	Side of inclination	Recommended working inclination angle, °
	Maximum vertical reach, lifting arm not extended	Front	
		Back	
		Left	
		Right	
	Maximum vertical reach, lifting arm fully extended	Front	
		Back	
		Left	
		Right	
	Maximum vertical reach, lifting arm extended to 90° Angle	Front	
		Back	
		Left	
		Right	

## 5.2 Dynamic test

## a) Curb test

<b>Test condition:</b>	Curb height, m							
	Angle, °							
<b>Test results:</b>								
<b>Height, m</b>	<b>Speed, kph</b>							
	<b>Forward</b>				<b>Reverse</b>			
	Trial 1	Trial 2	Trial 3	Ave	Trial 1	Trial 2	Trial 3	Ave
<b>Observations:</b>								

## b) Depression test

<b>Test condition:</b>	Depression height, m							
	Angle, °							
<b>Test results:</b>								
<b>Height, m</b>	<b>Speed, kph</b>							
	<b>Forward</b>				<b>Reverse</b>			
	Trial 1	Trial 2	Trial 3	Ave	Trial 1	Trial 2	Trial 3	Ave
<b>Observations:</b>								

## c) Braking test

<b>Height or inclination, m</b>	<b>Load, kg</b>	<b>Braking distance, m</b>		
		Trial 1	Trial 2	Trial 3



**6 Overload and stability test (for non-vehicle mounted MEWP)**

<b>Rated Load, kg</b>			
<b>Test Load, kg</b> (125% or 150% of Rated Load)			
<b>Height, m</b>			
<b>Distance from end of extended part with load to the center of the main platform, m</b>			
Movement during application of test load	Trial 1	Trial 2	Trial 3
<b>Observations<sup>a</sup></b>			
<sup>a</sup> stable or not stable			

**7 Overload and stability test (vehicle mounted MEWP)**

**a) on level ground**

<b>Rated Load, kg</b>			
<b>Lifting attachment capacity, kg</b>			
<b>Test Load, kg</b> (150% of Rated Load + 150% of Lifting Attachment Capacity)			
Movement during application of test load	Trial 1	Trial 2	Trial 3
<b>Observations<sup>a</sup></b>			
<sup>a</sup> stable or not stable			

**b) on a slope**

<b>Slope, °</b>			
<b>Rated Load, kg</b>			
<b>Lifting attachment capacity, kg</b>			
<b>Test Load, kg</b> (133% of Rated Load + 133% of Lifting Attachment Capacity)			
<b>Movement during application of test load</b>	<b>Trial 1</b>	<b>Trial 2</b>	<b>Trial 3</b>
<b>Observations<sup>a</sup></b>			
<sup>a</sup> stable or not stable			

**8 Extension and retraction test**

<b>Distance, m</b>	<b>Item</b>	<b>Trials</b>	<b>Time, s</b>	<b>Speed, m/s</b>
	Extension	i		
		ii		
		iii		
		Ave		
	Retraction	i		
		ii		
		iii		
		Ave		

**9 Noise level test**

<b>Location</b>	<b>Noise level, dB(A)</b>					
	<b>i</b>	<b>ii</b>	<b>iii</b>	<b>iv</b>	<b>v</b>	<b>Ave</b>

**10 General observations:**

**10.1** Number of operators on the work platform

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**10.2** Warning and safety stickers

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**10.3** Failures or abnormalities of the MEWP or its component parts during and after the operation

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**10.4** Maximum wind resistance recommended by the manufacturer (based on operator's manual)

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**10.5** Other remarks

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