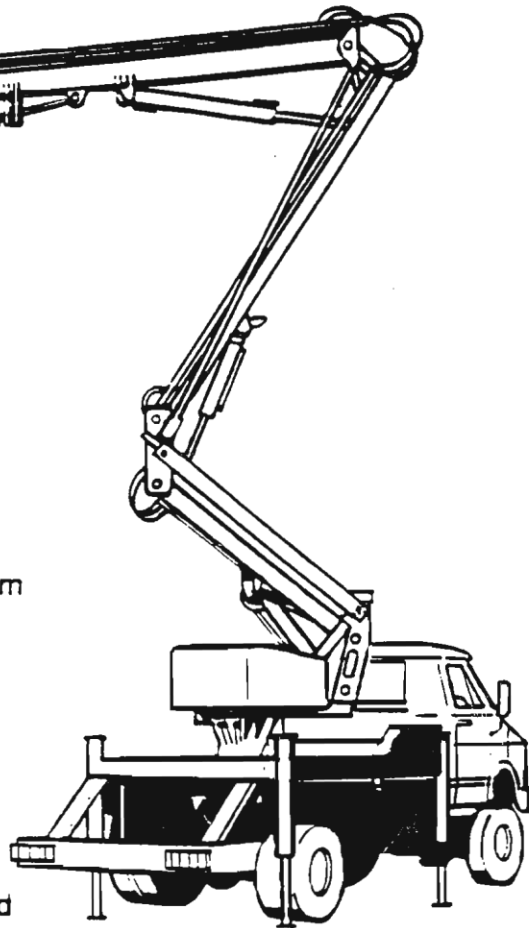
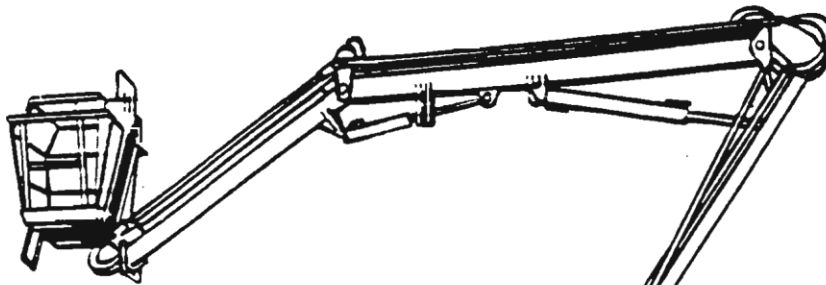


# Mobile Elevating Work Platforms



## Safety Checklist

- ★ Daily inspection completed
  - ★ Safety harnesses and helmets worn
  - ★ Wind speed not excessive
  - ★ Signs and barriers erected
  - ★ Authorised operative – fully fit
  - ★ Safe working load not exceeded
  - ★ All clear overhead
  - ★ Ground conditions satisfactory
- 
- ★ Outriggers and stabilisers deployed
  - ★ Machine level
  - ★ No cellars or drains beneath
  - ★ Tools and materials secure
  - ★ Platform not slippery or obstructed
  - ★ Work within specified reach of unit
  - ★ If movement planned route clear and safe
  - ★ No restricted or confined space hazards

# **USE OF SAFETY HARNESSES**

**To be worn by everybody  
working on a MEWP**

**Harness to be attached  
to secure anchorage point  
within the platform**

**Never attach safety harness  
to anything outside  
the platform**

**CIN 074 - 13/5**

# **CAUSES OF OVERTURNING**

- **Collapse of standing area**
- **Overloading of platform (observe safe working load)**
- **Operating on slopes (keep unit level and stable)**
- **Travelling on unsuitable ground**
- **Attempting to travel with outriggers deployed**
- **Collisions with other vehicles or obstructions**

**CIN 074 - 13/13**

# **MAIN DUTIES OF OPERATOR**

**Operate machine safely  
and without risk**

**Operate machine in compliance  
with manufacturers instruction**

**Ensure machine remains stable  
and safe when in use**

**Not to abuse, ignore or  
override any safety devices**

**CIN 074 - 13/12**

# **BASIC TYPES OF MOBILE ELEVATING WORK PLATFORMS**

**Scissor Lifts**

**Telescopic Boom or Jib**

**Articulated and Telescopic Boom**

**May be either:-**

**Towable units**

**Vehicle-mounted**

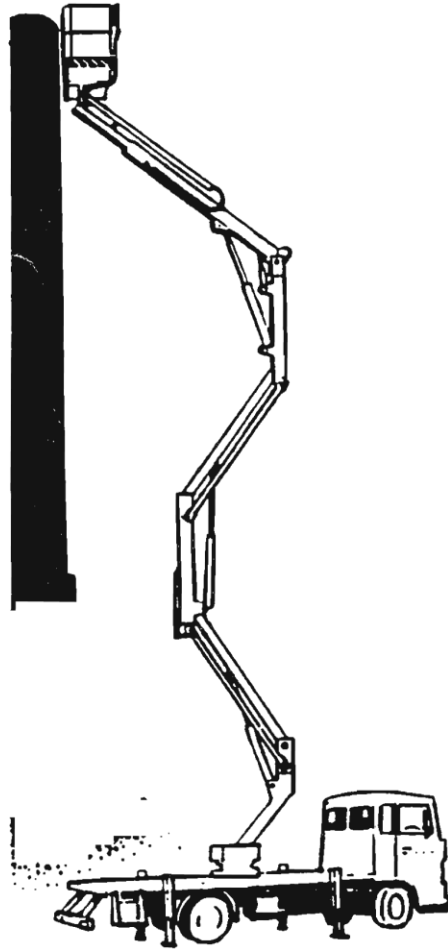
**Self-propelled**

**Pedestrian-controlled**

**CIN 074 - 13/1**

# Articulating and Telescopic Boom

Usually vehicle mounted. Gives a wide range of reach and height, with platform mobility. Nearly always equipped with outriggers. There are specialist types giving, for instance, access to the underside of bridges from above.



CIN 074 - 13/4

# **HEIGHT AND REACH STEPS, LADDERS ETC.**

**Steps**

**Ladders**

**Hop-ups**

**or Boxes**

**must NEVER be used**

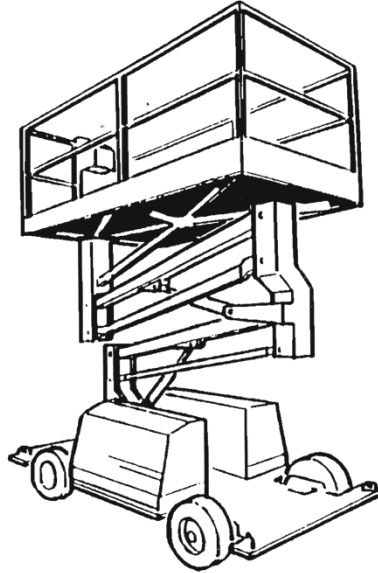
**on the platform**

**to gain extra reach or height**

**CIN 074 - 13/7**

# Scissor Lifts

Vertical lift only. May be fitted with outriggers, depending on size and height to which it extends

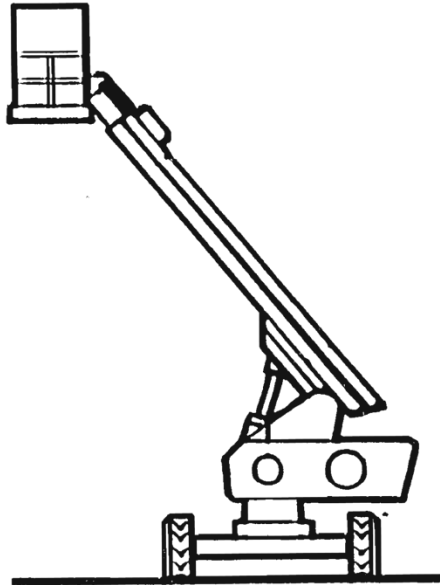


CIN 074 - 13/2



# Telescopic Boom

Gives vertical height and outreach. Platform may also be manoeuvrable



# **SAFE WORKING LOAD**

**Specified by manufacturer**

**Must not be exceeded**

**Allow 80 or 85 kg of safe  
working load per person**

**Do not allow accumulation  
of work materials**

**Avoid 'shock' loading**

**CIN 074 - 13/6**

# **DEPLOYING OUTRIGGERS OR STABILISERS**

**Outriggers or stabilisers must be  
deployed when fitted to machine**

**Before deploying check:-**

**machine level**

**ground will support loading**

**no sewer, drain, manhole  
or anything else that may  
collapse is under machine**

**CIN 074 - 13/8**

# **WIND AND WIND SPEEDS**

**Commonly specified maximum wind speed for operation of MEWP**

**30 mph**

**(Beaufort Scale 6 - Strong Breeze)**

**High wind speeds may be created at the corners of large buildings**

**Wind speed may be 50% greater at 20 m above ground**

**CIN 074 - 13/10**

# **TRAVELLING IN OPERATIONAL MODE**

**Only within machines specified  
capabilities**

## **Before travelling - Check**

- **No ramps, trenches, holes etc.  
in path**
- **No overhead hazards**
- **Adequate warning given to  
others**
- **Signaller used if necessary**
- **Everything secure**
- **No trailing hazards**

**CIN 074 - 13/9**

---

# **PROHIBITED USES**

**Mobile elevating work platforms  
must not be used as:-**

**jacks, props, ties or supports**

**primarily for the transfer  
of goods or materials**

**as a crane or  
lifting appliance**

**CIN 074 - 13/11**

## MODULE FIVE – STARTING UP

### Checks Before Starting

(as applicable)

- ⇒ Engine oil
- ⇒ Hydraulic oil
- ⇒ Coolant
- ⇒ Fuel - (Petrol, Diesel, Gas)
- ⇒ Battery terminals secure and clean
- ⇒ Battery electrolyte level
- ⇒ Tyre pressures
- ⇒ Wheel nut security
- ⇒ Security of platform/cage locking bar etc.
- ⇒ Usual inspection of machine - lights, horn, warning devices and communication
- ⇒ All decals clean and legible

**Note:** LPG powered vehicles should not be refuelled in a confined space. Any spillage of fuel will quickly and dramatically expand into a large gas cloud. The gas will accumulate at the lowest point and create an explosive hazard.

#### Operational checks

- ⇒ Function of all controls
- ⇒ Limit switches
- ⇒ Emergency lowering devices
- ⇒ Emergency stop buttons

The above checklist is not exhaustive and reference should always be made to the manufacturers operating and maintenance manuals for each machine.

## MODULE SIX – OPERATION

### Saf : Working Load

The safe working load (SWL) specified by the manufacturer, must never be exceeded. The SWL is marked on a plate or decal at the entrance to the basket or platform. The plate or decal should be clean and legible.

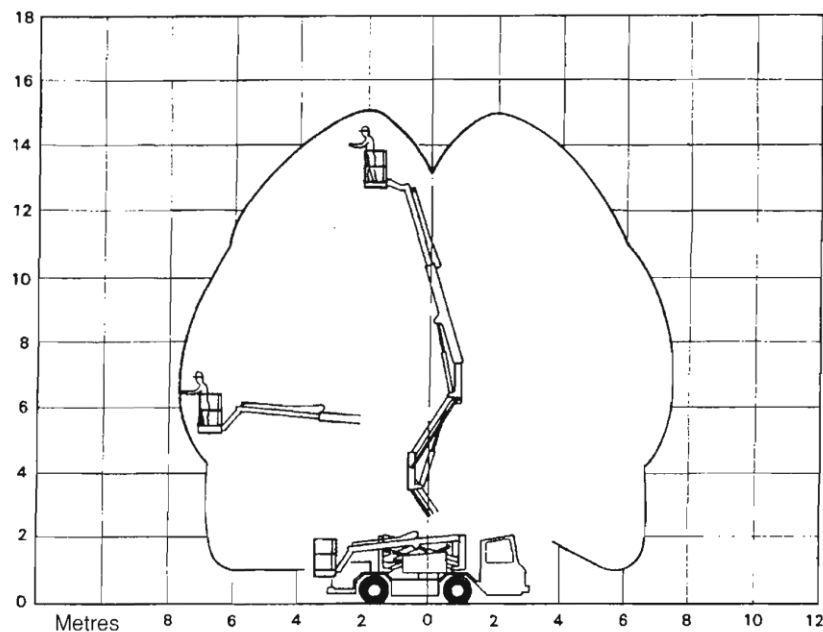
The plate or decal may state the maximum number of persons as well, if it does not, 80-85 kg of the SWL should be allowed for each person.

Care must be taken not to exceed the SWL with tools and equipment or by an accumulation of debris (cement plaster etc.) or the removal and lowering of pipework, window frames etc.

Any tools or equipment should be evenly distributed on the platform.

### Operating Envelope

All configurations of mobile elevating work platforms have an operating area or envelope. With scissor lifts, the operating envelope may be just straight up for the width of the platform; with articulated booms, it is a more complex shape. As maximum height and maximum reach are not usually available at the same time, care is needed to ensure that the intended work area is within the machines' operating envelope.





extra height or reach. Do not lean out of the basket and keep your hands clear if operating close to walls etc.

The platform must never be used as a crane or hoist, no loads should ever be suspended from it and it should never be tied into any structure.

It should not be used primarily for the transfer of goods or materials.

The operators safety harness should only be secured to the platform and never to any outside source. If tools or equipment can be dropped from the platform then the area beneath should be cordoned off

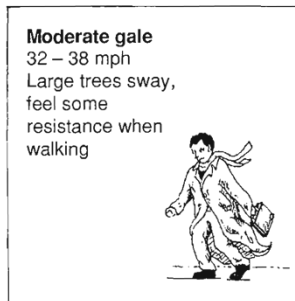
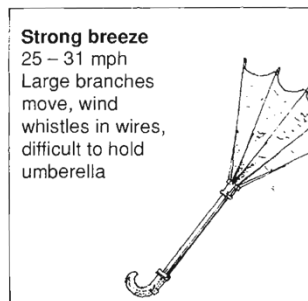
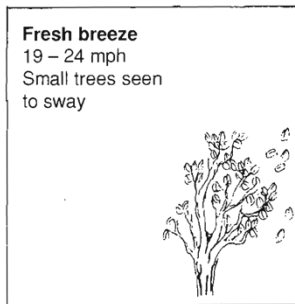
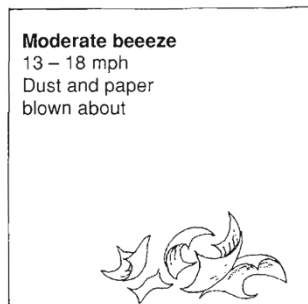
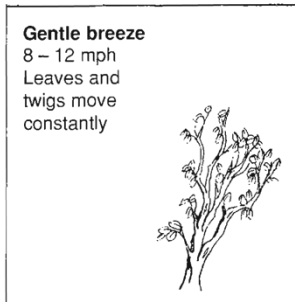
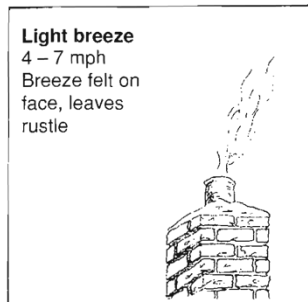
Remember. The MEWP is a temporary means of access.

## Wind and Wind Speeds

A MEWP must not be used in wind speeds exceeding those specified by the manufacturer. One commonly specified wind speed is that of 30 m.p.h. Beaufort Scale 6 - Strong breeze

Wind force number	Description of wind	Wind effect locally	Speed (mph)	Speed (m/sec)
0	Calm	Calm, smoke rises vertically	1	0-1
1	Light air	Direction of wind shown by smoke drift, but not by wind or weather vanes	1-3	1-2
2	Light breeze	Wind felt on face, leave rustle. Wind or weather vane move	4-7	2-3
3	Gentle breeze	Leaves or small twigs in constant motion. Wind extends light flags	8-12	3-5
4	Moderate breeze	Wind raises dust and loose paper. Small branches move	13-18	5-8
5	Fresh breeze	Small trees in leaf begin to sway. Little crested wavelets form on inland waters	19-24	8-11
6	Strong breeze	Large branches in motion umbrellas used with some difficulty	25-31	11-14
7	Near gale	Whole trees in motion. Becoming difficult to walk	32-38	14-17
8	Gale	Twigs break of trees. Progress in generally impeded	39-46	17-21
9	Strong gale	Chimney pots, slates and tiles may be blown off. Other slight structural damage may be caused	47-57	21-24

**Beaufort wind scale for use on land (numbers 1-9)**



Wind chill factor. On a calm day 10°C is cool but not unpleasant, but with a wind of 20 mph the temperature experienced on the face and hands is 0°C. If the day is very cold, about freezing, the temperature experienced on the skin will be down to - 15°C, making it very difficult for the operator to work safely unless properly clothed and equipped.

Care should be taken when using MEWP's between buildings or on the corners of large flat buildings where the funnelling effect or eddy currents can double the force of wind compared with that measured in open spaces.

The height at which the platform is being used will have an effect on the wind speed.

## Travelling in Operational Mode

Travelling with the platform occupied or boom extended should only be undertaken when this mode of operation is within the machine's specified capabilities. Travel must never take place with outrigger or stabilisers extended, unless the machine is designed to function in this way.

Before travelling, a check should be made to ensure:

- ⇒ no ramps, trenches, holes or other ground obstructions lie in the path of travel.
- ⇒ no overhead electrical cables, building projections or other overhead hazards will be encountered.
- ⇒ adequate warning has been given to persons on the ground
- ⇒ a signaller or other responsible person is employed, if necessary
- ⇒ nothing has been left unsecured and liable to fall off
- ⇒ no trailing hoses, cables, wires on the unit or other snagging hazards are in the path of travel

Travelling up and down includes and traversing slopes should only be undertaken within the limits laid down by the manufacturers.

Specially designed units, designated as 'rough terrain' can operate (usually without any stabilisers or outriggers) on construction and other sites where ground conditions may not permit a standard type vehicle to be used.

## Tandem Use

No two platforms should be linked together or bridged, unless the requirements specified for this type of use in HS(G)19 are met. Manufacturers can advise on the interlocking of platforms and controls so that one set of controls operates both platforms, allowing directional stability to be maintained at all times.

If a unit is being used in conjunction with a crane or some other appliance, a safe system of work must be planned and implemented; it should clearly define individual responsibilities and set out precise arrangements for communication.

## Work on or Near a Highway

Care should be taken with articulated booms that the elbow does not encroach traffic lanes. Cones and barriers should be set out as defined in the New Roads and Streetworks Act 1991 Sections 65 and 124.

If the work platform is to be used on the road for work over the footway or pedestrian area. The area must be laid out to conform with the Act and the

# How to Work Safely at Height Using MEWPs

**What is a MEWP? MEWP is an acronym for Mobile Elevator Working Platforms; a piece of machinery that is used for completing work at height.**

Working at height poses many dangers and risks to workers. In the past four years it was reported within the construction industry that [49% of fatalities](#) were due to falls from a height. MEWPs are not only used in the construction industry. They are also used within warehouses, film and television and mechanics for heavy goods vehicles. If proper safety measures are not put in place for workers on MEWPs, then the consequences can be disastrous.

In January of this year, a 67 year old man was operating a MEWP to replace signs at the entrance of his Heavy Goods Vehicles (HGV) repair business. A lorry struck the MEWP and he fell to the ground. Sadly, he died of his injuries 2 days later. The HSE ruled that this incident could have been avoided if the proper planning and safety procedures had been put in place before carrying out work. The company was fined £120,000.

**Before operating a MEWP, a risk assessment must be completed to highlight safety procedures to protect the workers using them. Below is a list of the HSE recommendations to help mitigate the hazards involved in working on a MEWP:**

1. Make sure that you choose a MEWP that has been designed to avoid accidental button pushes, especially if working in confined areas where machinery may come in to contact with overhead structures.
2. Keep the MEWP tidy and uncluttered to avoid tripping whilst on the platform.
3. Ensure that the ground is suitable for MEWP operation. It should be in good condition, flat and able to withstand the applied pressure of the platform.
4. Any outriggers being used must be extended and grounded before work commences.
5. Effective guardrails must be fitted to the platform.
6. A harness must be worn by the worker if there is still a risk of falling. This should be attached to a suitable anchor point within the basket so that the wearer cannot fall from the platform.
7. Ensure that before any work is completed that the area around the MEWP has been cordoned off. This avoids potential falling objects causing injury to passersby.
8. Avoid working in high winds as these can tilt platforms and make them unstable. Severe weather conditions such as storms and snowfall can also cause damage to the MEWP. Inspections should be carried out following use in these conditions.
9. If the MEWP is being used to install materials, then the weight allowance needs to be checked and additional lifting equipment may need to be used.
10. Nearby potential hazards must be assessed before any work takes place. Avoid working near overhead cables or any dangerous machinery. Ensure that the platform does not protrude over any traffic routes.

It is important that workers are educated on how to safely operate a MEWP. As many use these platforms alone, it is essential that they are fully trained and have the correct protective equipment.

### Here are a few safety tips for workers using MEWPs:

1. **Selecting the right MEWP for the job:** What is the task at hand? Is the work indoors or outdoors? What height outreach is required? What are the ground conditions like? Are there any obstacles at height or at ground level? Most of these questions will be answered in the risk assessment which must be completed before choosing the appropriate equipment.
2. **Pre-Use Inspection:** A walk around inspection should be carried out by a certified professional before using the MEWP. This is to ensure that the machine is in good, working condition since its last use. General wear of equipment and parts can result in the MEWP being unsafe to use and so an inspection beforehand is imperative.
3. **Appropriate PPE:** As well as the MEWP being safe to operate, it is important that the worker looks after their own safety. Ensure they have the correct personal protective equipment. A harness should be worn with an adjustable restraint to avoid falling from the platform.
4. **Training:** As with any job, training is important. Ensure that workers have full training on all aspects of the MEWP's operation.
5. **Personal Safety Device:** As many workers operating MEWPs are doing so alone, there may be times where help could be hard to obtain. Having a personal safety device ensures that if a worker was to fall, then an alarm would be raised automatically due to the responsive Man Down feature on our lone worker alarms.

### Always remember to trust your instincts. If you are operating one of these machines ask yourself these questions beforehand:

1. Is it safe to use the MEWP?
2. Is the working environment safe around the area where the MEWP will be used?
3. Are my tools and PPE in good condition?
4. Do I know how to raise the alarm if anything happens?
5. What are the escape routes in case of emergency?
6. Do I know the location of the nearest first aid kit and fire extinguisher?

**Working at Height is described as any place at, above or below ground level, with a risk of injury if you fall from that place.**

**The WAHR 2005 regs explain the need for a risk assessment when working at height. When is this required at all working at heights**

**BS 1004:2004 states the spacing between guardrails on a mobile tower shall be no more than 470mm**

**The main guardrail of a mobile tower that conforms to BS 1004:2004 will be no more than 950mm from the platform**

**BS 8460:2005 gives guidance on the safe distance from power cables on steel towers. This distance is 15m with the boom to full extension**

**BS 8460:2005 recommends operators inspect their machines by following the appropriate manual, but how often prior to use**

**LOLER 1998 requires a MEWP to be thoroughly inspected every Six weekly**

**The HSE recommends two methods to construct a mobile scaffold tower safely they are AGR system + 3T System**

**Leaning ladders should be erected at an angle of 75 degrees**

**A guardrail provides protection Collective**

**Ladders and steps are for short durational use, how long should they be used in one position for 5-30 minutes**

**The European Standard of EN365 recommends a harness should be inspected every 12 months as a legal requirement**

**The HSE recommend the use of a harness in what type of MEWP Boom type**

**LOLER 1998 requires 4 things to be marked on a MEWP they are SWL, wind speed, max people in cage and LOLER certificate**

**A harness is required to display 2 things Manufacturers name and serial number**