Operating & Safety Guide 407

Self Propelled Low Level Platform

Ideal for working on raised access flooring or other delicate flooring due to its low overall weight and low point loading.

EQUIPMENT CARE

Never push the equipment beyond its design limits. If it will not do what you want with reasonable ease and speed, assume you have the wrong equipment for the job. Contact your local HSS Hire for advice.

Keep the equipment clean: if you clean it regularly, rather than wait until the end of the hire period. When not in use, store the equipment somewhere clean, dry and safe from thieves.

FINISHING OFF

Lower the cage and exit. Turn the unit off and as a safety precaution, press red STOP button. Collect all parts together and give them a final clean up ready for return, to your local HSS Hire.

... have you been trained

The law requires that personnel using this type of equipment in the workplace must be competent and qualified to do so. Training is available at HSS Training Solutions 0845 766 7799

... any comments?

If you have any suggestions to enable us to improve the information within this guide please e-mail your comments or write to the Safety Guide Manager at the address below e-mail: safety@hss.com

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OPERATING SPECIFICATIONS

WORKING DIMENSIONS

Maximum Working Height ........................................ 4.50m
Maximum Platform Height ........................................ 2.50m
Outreach with cantilever deck to cage edge ...................... 5.10m
Basket Dimensions ........................................... 1.00 x 0.73m
Basket Dimensions with cantilever ......................... 1.58 x 0.73m
Working Footprint ................................................... 3.19 x 0.77m
Safe Working Load ............................................ 200kg (1 person + tools)
No. Persons ......................................................... 2
Maximum Manoeuvre Force .................................. 2000N
Maximum Gradient for Operation .......................... 27
Maximum Wind Force ........................................... 12.5 m/s
Maximum weight incl payload ................................ 678kg
Drive Speed Max .................................................. 4.64m/s
Drive Speed Slo .................................................. 2.06m/s
Maximum Castor Point Load ................................ 210kg (3.10 kN)

CLOSED DIMENSIONS

Length ................................................................. 1.25m
Width ................................................................. 0.70m
Height ................................................................. 1.37m
Weights ...................................................................... 478kg

POWER SOURCE

Standard 24V DC Electric Motor
24V D.C. Motor / Gearbox Drive

BATTERY CHARGER SPECIFICATION

Input Voltage ......................................................... 90-265v A.C.
Frequency ............................................................ 45-65 Hz
Output ................................................................. 24V DC, 7A

IDENTIFIER

Main Control Cable (Curly)
Mast Wear Screws
Pothole Mechanism Plunger
Pothole Mechanism
Cantilever Deck

CONTROL ARM

Emergency Descend Button
Emergency Stop Button
Joystick Switch
Function Button
Joystick

Spiral Control

Cantilever Deck

Safety Prop
Basket Gas Strut

Batteries

Emergency Gate Latch
Emergency Descend Button
Emergency Stop Button

Joystick Switch
Function Button

Joystick

Emergency Stop/Battery Isolator

Control Arm Folded

Ground Control Station

Manual Emergency Lowering Valve

Ambert Flashing Beacon

Drivewheel

Emergency Gate Latch
Emergency Descend Button
Emergency Stop Button

Joystick Switch
Function Button

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Drivewheel
GENERAL SAFETY

For advice on the safety and suitability of this equipment contact your local HSS Hire. There is a serious risk of personal injury if you do not follow all instructions laid down in this guide.

The hirer has a responsibility to ensure that necessary risk assessments have been completed prior to the use of this equipment.

This equipment should only be used by an operator who has been deemed competent to do so by his/her employer.

This equipment should be used by an able bodied, competent adult who has read and understood these instructions. Never allow children or persons with a physical or mental disability, who seek expert advice before using it. Keep children, animals and bystanders a safe distance from the work area. Cordon off a NO GO area using cones and either barriers or tape, available for hire from your local HSS Hire.

Never use this equipment if you are ill, feeling tired, under the influence of alcohol or drugs.

Wear practical, protective clothing, gloves, footwear and a protective hard hat. Avoid loose garments that could catch in moving parts, tie back long hair.

Do not work near flammable gases or liquids, petrol or paint thinner fumes for example. Keep combustible materials at a safe distance - at least 3m.

Make sure you know how to switch this equipment OFF before you switch it ON in case you get into difficulty.

Make sure you know how to operate this equipment safely and are aware of its limitations before you use it.

Make sure that everyone is warned of what you are going to do when connecting to different electrical sources into the area.

There is a serious risk of personal injury if you do not follow all instructions laid down in this guide.

The operator must have adequate training for this type of Tower.

The battery charger is located under the truck pocket) can be used to manually lower the platform. Simply pull the emergency lowering valve 8 to lower the platform.

Never exceed horizontal forces (maximum horizontal force 200N).

Ensure that the safe working load is evenly distributed in the basket.

Never modify the Power Tower in any way without the full approval of the manufacturer.

Never attempt to enter or exit the platform unless it is fully lowered.

Only use this equipment on firm, level ground capable of supporting its weight. DO NOT use it on slopes, soft ground or where there is a risk of subsidence.

Check the emergency lowering condition before use and at regular intervals thereafter. If it shows signs of damage or excessive wear, DO NOT USE IT. Return it to your local HSS Hire.

For additional information please refer to the manufacturer's operator's manual.

ELECTRICAL SAFETY

BATTERY CHARGING

Select function by pressing blue mode button. Press and immediately release 0.1 second approximately to select drive speed right hand LED will illuminate (Green = fast, Orange = slow). Press and immediately release 1 second to select lift function centre LED light will illuminate. When drive is selected move joystick forward, backward, left and right as required. Drive speed is infinitely variable depending on how far the joystick is moved. To stop the tower release the joystick. Take particular care when driving in confined areas where the caterpillar deck is extended, quick turns may be awkward to control in confined areas.

Always select slow speed when driving in congested / confined areas.

When lift function is selected, move joystick forward (towards ground) to elevate, backwards to descend. Always check for overhead obstructions before elevating.

EMERGENCY OPERATION

This machine is fitted with two modes of emergency lowering, one from the basket and one at the ground.

From the basket:

In the event of the tilt alarm cut out or overload cut out being activated the main vertical post joystick will be immobilised and a red light on the basket control panel will illuminate. To descend, press the black button A on the basket control panel choosing either a temporary or permanent immobilised red light.

In the event of basket joystick control malfunction, the same emergency lowering procedure as described above can be followed.

From the ground:

In the event of control failure or operator incapacitation the emergency lowering valve located on the chassis (right hand side - looking from mast, below fork truck pocket) can be used to manually lower the platform. Simply pull the emergency lowering valve 8 to lower the platform.

The battery charger is located under the checkplate cover.

Stand clear of the descending structure. Release emergency valve to stop descent.

Switch on joystick controller by depressing the battery isolator switch at base of machine.

The charging system consists of a battery charger with a yellow 110V plug (or 230V plug if required) is connected to the battery terminal in the chassis area structure, pothole mechanism).

Check wheels, tyres, casters and fixings.

Check all key fixings are intact and tight.

Ensure battery charger is grounded by checking joystick LED light (green = charger, orange = plugged in).

Ensure hydraulic oil level is at correct level. Do not over fill. Check for hydraulic leaks.

Check machine functions are working correctly before normal operation.

Check lift functions at ground and in basket by lifting approx. 0.5m.

Check hydraulic oil level is at correct level. Do not over fill. Check for hydraulic leaks.

Check pottle mechanism and interlock correctly by lifting 0.5m.

Check emergency stop functions at ground and in basket by lifting approx. 0.5m.

GETTING STARTED

Never use this equipment until you have fully read and understood this User Guide and the machine has been properly set up using the information it contains.

This equipment is designed to be a simple, safe and efficient self-propelled alternative to push-around platforms or traditional scaffold tower or podium steps. It can be used for many applications including construction and maintenance work where the convenience and efficiency of using a self-propelled platform is preferred.

It is suitable for any application provided it is used within its specified operating parameters. If used for applications such as sand blasting, welding, paint spraying or with any other hazardous materials, measures must be taken to ensure this equipment does not become damaged in any way which may affect the safety or reliability. Additional protection for the operator may be required in some cases, which is the responsibility of the operator.

It is essential to be familiar with the correct operating procedures. The operator must have adequate training for this type of Tower.

Before operating machine familiarise yourself with the work area, check for possible hazards such as potholes, ramps, slopes and overhead obstructions that could affect the safe use of the equipment.

The tower is fitted with a lanyard attachment point as standard. It is recommended that if the operator chooses to wear a safety harness, an approved ‘fall restraint’ type harness should be worn.

Operating procedures should be preceded with pre-operation checks (see Electrical Safety).

The operator must understand the machines operation process which describes the way to use the equipment safely. You must familiarise yourself with the Emergency Operation in case of power failure or in the event of operator incapacity.

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Check the working area is suitable for machine.

Check the ground is capable of supporting total weight of the machine and its payload.

The ground should be free from debris and the operator should beware of holes, hitches, pits, unproctected manholes, holes etc.

Cordon off work area.

Check there are no live electrical cables or conductors that the operator could come close to or into contact with when operating.

Check there are no overhead obstructions likely to cause danger.

Carry out a thorough visual inspection of the machine. Look specifically for damage to the platform deck, caterpillar deck, lifting mast structure, chassis area structure, pothole mechanism).

Fire Warning

Batteries generate highly flammable and potentially explosive hydrogen gas when charging, so, until charging is over and the gas has dispersed...

ALWAYS stand the lift in a well-ventilated spot, preferably in the open air.

ALWAYS open the battery compartment cover.

NEVER smoke or allow naked lights and other ignition sources into the area.

This equipment is powered by 24V DC batteries. Always fully charge before use and recharge at regular intervals.

Never operate the lift when charging the battery.

After charging, switch off the power supply and disconnect the power cable lead or leads becomes damaged. Replace the unit. Do not attempt to repair anything yourself.

Keep the charger dry at all times. Using electrical equipment wet or damp conditions can be dangerous.

To reduce the risk of electric shock, always use a suitable RCD (Residual Current Device) available from your local HSS Hire.

BATTERY CHARGING

Plug in an available power supply and ensure the Green LED (top of charger) and green charger LED indicator lights can be viewed through the window in the chassis (when viewed from behind the basket) adjacent to the charging lead.

The Amber LED has three modes:

1. Rapid flash, which indicates maximum charge rate.
2. Slow pulse, indicating slower than slow dosed speed. Check machine brakes should be flashing and drive speed should be slightly slower than slow dosed speed. Check machine brakes when joystick is released.
3. Continuous illumination indicating slow dosed speed is engaged. Check automatic elevated drive speed is engaged if required.

Emergency Lowering Valve

Check there are no live electrical cables or conductors that the operator could come close to or into contact with when charging.

Ensure a person is available at ground level to assist in case of emergency.

OPERATION PROCESS

Ensure all pre-operation checks have been carried out.

Check stand clear of the descending structure. Release emergency valve to stop descent.

Check automatic elevated drive speed is engaged if required.

Stand clear of the descending structure. Release emergency valve to stop descent.

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