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To  
All HSE Inspectors

## TRANSPORT PLATFORMS

This two-part OC introduces a new machine, the transport platform, and gives advice to inspectors on the required safeguards agreed with the suppliers, together with guidance on enforcement. The attached [Information Document \(ID\)](#) may be copied to appropriate persons outside HSE.

### INTRODUCTION

- 1 A transport platform is a machine used on construction sites to convey persons and materials to different landing levels on a structure. The machine comprises a platform having an integral rack and pinion drive unit that engages with a vertical mast that is normally tied to the building. Vertical motion is accomplished by means of a hold to run control sited inside the platform and travel speed is limited to 0.2 m/s (12 m/min). Typically, the rated load tends to be in the range 500-1750 kg. The platform is not fully enclosed; fencing being provided up to waist height. [Figure 1](#) illustrates one of the larger twin mast machines.
- 2 In engineering terms, the transport platform is similar to a mast climbing work platform but it fulfils the function of a construction site hoist for persons and goods.
- 3 Commercially, transport platforms are attractive as they offer a versatile method of transporting bulky or sheet materials at modest cost, ie less than that of conventional construction site hoist for persons and goods. The slow speed of travel tends to limit their economic application to heights below 30 metres.
- 4 Approximately 40 machines have been supplied in the UK to date with nearly all being sold to plant hire companies. Six suppliers have been identified:

Alimak Ltd,  
De Jong Hoists (UK) Ltd,  
Haki Ltd (suppliers of Geda machines),  
Hek Manufacturing,  
Imer Direct (GB) Ltd (suppliers of Maber machines), and  
Steinweg UK Ltd.

### RATED LOAD

- 5 The rated load of the transport platform is expressed in terms of the number of persons carried (each assumed to weigh 100 kg) and the weight of the goods. The number of

persons that may be carried in the transport platform depends upon the size of the platform and the rated load, but in no case should that number exceed seven.

6 For example, a typical larger machine with a rated load of 1500 kg total; would be marked with the safe working load as:

Transport Platform (Rated load 1500 kg total)	
Persons	Payload
1	1400 kg
2	1300 kg
3	1200 kg
4	1100 kg
5	1000 kg
6	900 kg
7	800 kg

#### DUAL MODE MACHINES

7 Some transport platforms, but not all, have a dual mode facility to allow the machine to be configured for use as either a transport platform or as a construction site hoist for goods only. The changeover process between modes differs between manufacturers but as a minimum:

- - 1) a key switch is used to change mode;
  - 2) controls in the platform are disabled (except for emergency stop);
  - 3) the platform can only be operated from controls situated at ground level; and
- - 4) warning signs are displayed to indicate whether the platform is configured as a goods hoist or as a transport platform and whether passengers are allowed to ride in the platform.

8 When operating in goods hoist mode, the travel speed is greater, typically 24 m/min. Some machines, when configured as goods hoists, permit the platform to be called from a landing.



Figure 1 Twin mast transport platform

### LEGAL CONSIDERATIONS

9 Discussions with suppliers and users of transport platforms have confirmed that the intended use of these machines is the conveyance of passengers and goods between levels. HSE takes the view that a transport platform is a construction site hoist and should be safeguarded as such.

10 Construction site hoists for the conveyance of persons are excluded machinery under the Supply of Machinery (Safety) Regulations 1992 (SMSR) Schedule 5 as amended, Article 1 (3) of the Machinery Directive 98/37/EC, and are also exempt from the Lifts Directive under Article 2.

11 Even though the UK considers that transport platforms are not subject to SMSR, all of the transport platforms seen to date have been CE marked in accordance with the Machinery Directive and have been subject to an Annex IV CE type examination by a notified body.

12 In the interests of free movement of safe machinery, HSE engaged in extensive consultation with the manufacturers to deal with the foreseeable risks that had not until now been addressed by new products supplied in the UK.

13 For information, the Swedish enforcement authorities have taken similar action to the HSE.

#### SAFEGUARDS REQUIRED

14 When transport platforms are used to carry passengers they must be fitted with a list of safeguards as detailed in the Information document [HSE 408/4](#) attached to this OC:

#### ACTION BY SUPPLIERS

15 All six suppliers agreed to implement the above safeguards and to make upgrade kits available to users by 30 November 2001.

#### GUIDANCE ON SAFE USE

16 HSE is currently working with the Construction Hoist Interest Group (CHIG) of the Construction Plant-hire Association (CPA) in drafting a 'Best practice guide' covering the 'Installation, Use, Maintenance, Inspection, Examination and Testing of Transport Platforms'.

#### ACTION BY INSPECTORS

17 Inspectors finding transport platforms in use without the appropriate safeguards should consider issuing prohibition notices until the safeguards are provided. If the transport platform has been supplied without the appropriate safeguards then inspectors should also consider taking enforcement action against the supplier. Enforcement action should be considered in line with the Enforcement Management Model. Please note that transport platforms used for goods only do not need falling object protection, but they will still need all the other safeguards detailed in the attached [Information Document \(ID\)](#).

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## **SAFEGUARDS REQUIRED ON TRANSPORT PLATFORMS USED FOR CARRYING PASSENGERS**

- 1 This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance as illustrating good practice.
- 2 When transport platforms are used to carry passengers they must be fitted with the following:
  - 1) a full height base enclosure with gates which are electrically interlocked;
  - 2) falling object protection, ie a roof;
  - 3) platform gates that cannot open outwards inadvertently; and
  - 4) landing gates that comply with the provisions of BS EN 12159.

(Note: transport platforms used for goods only do not require falling object protection, but they will require the remaining safeguards.)

### **Base enclosure**

- 3 To reduce the risk of persons at ground level being crushed and/or trapped by the descending platform, the following safeguards are required:
  - 1) the base of the machine shall be surrounded with 2 metre high fencing.
  - 2) the base enclosure access gate(s) shall be electrically interlocked. It shall not be possible under operating conditions to start and keep in motion the platform unless all base enclosure gates are in the closed position. The gate interlocking device, together with any associated actuating mechanism and electrical contacts, shall be so situated or protected as to be inaccessible to unauthorised persons;
  - 3) as the platform is not fully enclosed, measures must be adopted to prevent the possibility of a shear trap between the descending platform and the base enclosure; and
  - 4) it shall be possible to open the base enclosure gate(s) from the inside.

### **Falling object protection**

- 4 To alleviate the risk of persons inside the platform being struck by falling objects and of striking items that protrude into the hoist way, then
  - 1) the platform shall be fitted with a roof (the minimum interior free height shall be 2 metres); and
  - 2) if the rated speed of the platform exceeds 12m/min (0.2 m/s) then the platform shall be fully enclosed.

## Platform gates

5 The platform is provided with gates on the outboard side to facilitate loading at ground level and gates on the inboard side to permit transfer of persons and goods to a landing. The doors open outwards, as on a builders hoist for goods, to achieve maximum capacity and convenience when loading and unloading materials. Inadvertent opening of an outward opening door leads to the risk of persons falling from the platform. The following safeguards are required: **either** (A + B) **or** (A + C).

<b>A</b>	Electrically interlocked platform gates. It shall not be possible under operating conditions to start and keep in motion the platform unless all platform gates are in the closed position. The gate interlocking device, together with any associated actuating mechanism and electrical contacts, shall be so situated or protected as to be inaccessible to unauthorised persons from within the platform.
<b>B</b>	Outward opening platform gates shall be mechanically locked in such a way that two separate and distinct manual actions are required to open the gate.
<b>C</b>	Platform gate(s) on the building side shall be fitted with a mechanical lock such that, under operating conditions it shall not be possible to open that gate unless the platform floor is within 0.25 m of a landing. Platform gate(s) on the outboard side shall be fitted with a mechanical lock such that, under operating conditions it shall not be possible to open that gate unless the platform floor is at ground level.

## Landing gates

6 Persons stood at landing levels are at risk of falling down the hoistway and of being struck by the moving platform. All landing gates shall comply with the requirements of clause 5.5 of BS EN 12159: 2000 *Builders hoists for persons and materials with vertically guided cages*.

7 BS EN 12159 permits two types of landing gates; full height and reduced height. The former is based on UK custom and practice and the latter on continental practice. For a full explanation consult BS EN 12159.

8 All of the manufacturers provide reduced height (1100 mm) landing gates as standard. The gates are electrically interlocked to prevent the platform moving when the gate is open and are mechanically interlocked / latched to keep the gate closed and to prevent it opening inadvertently. To reduce the risk of persons stood at a landing being struck by the moving platform, the platform is installed such that there is at least a 500 mm gap between the landing gate and the platform. To safely bridge the gap between platform and landing, the inboard platform gates incorporate an integral drawbridge with side fencing.

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