

**Translation from Finnish****Legally binding only in Finnish and Swedish****Ministry of Social Affairs and Health, Finland****Government Decree on the Safe Use and Inspection of Work Equipment***(403/2008, amendments up to 1095/2019 included)*

By decision of the Government, acting on a proposal presented by the Ministry of Social Affairs and Health, the following is enacted under the Occupational Safety and Health Act (738/2002):

**Chapter 1****General provisions****Section 1****Scope of application**

This Decree applies to the use and inspection of machinery, equipment and other technical devices and their installations (*work equipment*) in work referred to in the Occupational Safety and Health Act (738/2002).

In addition, chapter 4 lays down provisions on safety requirements for protective structures, scaffolds, ladders and ropes used when carrying out work at height.

If another statute on occupational safety contains provisions on structure, safe use or inspection of work equipment that deviate from those in this Decree, the provisions of the other statute shall prevail over those of this Decree.

The Act on the Conformity of Certain Technical Devices to Relevant Requirements (1016/2004) lays down provisions on the placing on the market and putting into service of technical devices used at work.

**Section 2****Selecting and placing work equipment**

Employers shall select safe work equipment for the employees' use that is suitable for the work and the working conditions. The dimensions and strength of work equipment shall correspond to the demands of the work. Work equipment may not be burdened or stressed in a way that creates any hazard.

While using work equipment, the place and work posture of employees using the equipment, as well as ergonomic principles, shall be taken into account. Work equipment shall be placed in such a way that it can be used safely. Special attention shall be paid to ensuring that there is enough space to use work equipment, and that the energy or substance used or produced by work equipment can be moved in a safe manner. Hazardous overturning, fall or movement of work equipment shall be prevented by securing it or by some other means.

### **Section 3**

#### **Instructions for use of work equipment**

Employers shall ensure that the manufacturer's instructions are observed when installing, using, maintaining or inspecting work equipment, and when carrying out other activities in connection with those operations.

When the manufacturer's instructions are not sufficient, or when there are no manufacturer's instructions available, the instructions shall be supplemented, or new instructions shall be drawn up where necessary. Where necessary, an outside expert shall be used when drawing up the instructions. The instructions shall be kept up to date.

The instructions shall be available and comprehensible to all employees concerned. Before new work or a work phase is started, the employees' ability to follow the instructions shall be ensured.

### **Section 4**

#### **Assessment and elimination of hazards**

Employers shall systematically analyse and assess the safety of work equipment. This shall be done especially in connection with changes in production or working methods. The assessment shall pay attention to the hazards and risks caused by the work equipment and its moving parts,

external structure, physical and chemical properties, automatic functions, electricity, and other hazards and risks caused by the work and working conditions.

If the use of work equipment causes any hazard or risk, employers shall immediately take any necessary measures to eliminate the hazard or risk. Primarily, hazards shall be eliminated through technical measures relating to the structure or environment of work equipment, such as devices preventing access to the danger zone, or devices stopping the movement of hazardous parts before the danger zone. When hazards cannot be eliminated through technical measures, safe use of work equipment shall be ensured by using guidance, warning devices, safety signs and personal protective equipment.

## **Section 5**

### **Ensuring the working order of work equipment**

Any work equipment shall be kept safe throughout its useful life by regular service and maintenance. Any hazard or risk caused by failure, damage or wear shall be eliminated. The control system and safety devices shall function faultlessly. If work equipment has a maintenance log, it shall be kept up to date.

Before work equipment is put into service, and after any alterations affecting its safety, it shall be particularly ensured that the work equipment has been installed correctly and that it is in safe working order.

Employers shall continuously monitor the working order of work equipment by carrying out inspections, tests, measurements, and by using other suitable ways. A qualified person who is familiar with the structure and use of the work equipment may carry out the inspection and testing necessary to ensure the working order of the work equipment. Where necessary, an outside expert shall be used.

Chapter 5 lays down provisions on initial and periodic inspections carried out by approved competent persons and competent bodies and on a condition monitoring system.

## **Section 6**

### **Properties of guards and safety devices**

Any guards and safety devices of work equipment shall protect, in a reliable and appropriate way, against the hazard or hazards against which they have been installed.

Guards and safety devices shall:

- 1) be of solid construction;
- 2) not give rise to any additional hazard;
- 3) not be easily removed or rendered inoperative;
- 4) be situated at a sufficient distance from the danger zone;
- 5) not restrict more than necessary the view of the operating area of the work equipment; and
- 6) allow the measures referred to in section 12.

## **Section 7**

### **Warning devices and markings**

Work equipment shall bear the warning devices and warnings and markings essential for ensuring the safety of employees. Warnings and markings on work equipment shall be unambiguous and easy to perceive and understand.

## **Section 8**

### **Control devices and control systems**

Control devices shall be located outside danger zones, except for certain control devices that necessarily have to be used inside a danger zone. In that case, other measures shall be used to ensure that the use of the control devices does not cause any hazard. Control devices shall be protected in a way that prevents their unintended use.

Control devices of work equipment that affect safety shall be clearly visible and identifiable, and appropriately marked.

Control systems shall be reliable and they shall be secured, if possible, in such a way that their failure or a change in their energy level does not cause any hazard. Control systems shall be selected taking account of the failures, faults and constraints to be expected in their planned circumstances of use.

## **Section 9**

### **Starting work equipment**

It shall not be possible to start work equipment by any other means than by deliberate action on a control device provided for the purpose.

The provisions of subsection 1 do not apply to such a restart or a change in operating conditions that result from the normal operating cycle of an automatic machine.

Before starting work equipment, operators shall be able to ensure, from the main control position, that no person is present in the danger zones. If this is not possible, the system shall automatically give a reliable audible or visible or otherwise noticeable warning signal whenever the work equipment is about to start. The signal shall be given in a way that has been made known in advance. An exposed employee shall have enough time to leave the danger zone or a means to avoid hazards caused by the starting or stopping of the work equipment.

## **Section 10**

### **Stopping work equipment and emergency stop**

Work equipment shall be fitted with a control to stop it completely and safely.

Each workstation shall be fitted with a control to stop some or all of the work equipment so that the equipment is in a safe state. Stop controls shall have priority over start controls. When work equipment or its hazardous parts have stopped, the energy supply to those devices shall stop.

Where appropriate and depending on the hazards the equipment presents and on its normal stopping time, work equipment shall be fitted with an emergency stop device.

## **Section 11**

### **Isolation from energy sources**

Work equipment shall be fitted with clearly identifiable and, where necessary, lockable devices to isolate it from all its energy sources. When the energy supply has been switched off, it shall be possible to remove the energy stored in the work equipment in a way that does not cause any hazard.

## **Section 12**

### **Safety of maintenance work**

In connection with installation, service, repair and other maintenance work, employers shall ensure that

- 1) employees have received enough information, training and guidance concerning special circumstances;
- 2) where necessary, the employer's representatives who are in charge of the work have approved the work to be carried out and given their permission to begin the work;
- 3) any arrangements and measurements necessary for safety and health at work have been carried out in the workplace;
- 4) any hazardous pressure and flow of gas and fluids have been switched off;
- 5) electric tension has been switched off;
- 6) any loads on lifting machinery have been secured in such a way that a failure of the machinery cannot cause any hazard;

- 7) the starting of work equipment under repair has been prevented in a reliable way during the repair work, if employees are in the danger zone;
- 8) any work equipment in use is in order and suitable for the intended purpose;
- 9) it has been made certain that no hazard is caused by hazardous substances or lack of oxygen during work in tanks or enclosed spaces;
- 10) appropriate personal protective equipment, instruments and other devices are used;
- 11) sufficient arrangements have been made to ensure the stability and carrying capacity of scaffolds, work platforms and ladders; and
- 12) any unnecessary access to the danger zone has been prevented.

If it is necessary to carry out work referred to in subsection 1 when the work equipment is running, written instructions shall be drawn up for the work. The instructions shall include appropriate guarding measures or present a way to carry out the work outside the danger zone. The work shall be carried out, if possible, without removing the guard or safety device.

### **Section 13**

#### **Weather conditions**

Employers shall arrange any work at height and any use of work equipment exposed to weather conditions in such a way that wind conditions, frozen work equipment, rain or snowfall, lightning or other weather conditions do not endanger the safety and health of the employees.

Work referred to in subsection 1 shall be halted when weather conditions deteriorate to the point of endangering the safety of the employees.

### **Section 14 (1095/2019)**

#### **Special qualification requirements**

Drivers shall have a relevant further vocational qualification or have completed a relevant unit of the qualification to operate:

- 1) mobile cranes with a lifting capacity exceeding 5 tons;
- 2) tower cranes with a loading moment exceeding 25 metric tons;
- 3) loader cranes with a loading moment exceeding 25 metric tons that are primarily intended for other use than loading or unloading vehicles.

Occupational safety and health authorities may, on special grounds grant, a workplace-specific permission to use an employee who does not have the qualifications referred to in subsection 1 for operating a certain crane, if his or her ability and skills to operate the crane has been demonstrated in some other way and the safety of the employees has been ensured.

### **Section 14a (1095/2019)**

#### **Written authorisation from the employer**

Employees shall have a written authorisation from the employer for:

- 1) operating forklift trucks;
- 2) operating devices for lifting persons;
- 3) attaching loads to cranes intended for installation work.

Before granting the authorisation referred to in subsection 1, employers shall ensure that the employees have sufficient ability and skills to operate the work equipment safely or to attach loads.

The provisions of subsection 1 concerning the employer's written authorisation also apply to operating tower cranes with a loading moment exceeding 25 metric tons. Before granting the authorisation, employers shall ensure that the employees have, based on the training they have received, sufficient ability and skills to operate the work equipment safely.

## **Chapter 2**

### **Supplementary requirements for mobile work equipment**

#### **Section 15 (1095/2019)**

##### **Safety of mobile work equipment**

Mobile work equipment shall be such that hazard to employees is minimised when the equipment is in motion. Such hazards include risk of contact with the wheels or tracks of the work equipment. If work must be carried out during the journey, speeds shall be adjusted as necessary.

Mobile work equipment that may endanger employees when in motion shall have:

- 1) facilities for preventing unauthorised start-up;
- 2) facilities reducing the consequences of a potential collision of the work equipment;
- 3) a device for braking and stopping the equipment. Where safety constraints so require, emergency facilities operated by easily accessible controls or automatic systems shall be available for braking and stopping the equipment in the event of failure of the main facility;
- 4) camera equipment or other comparable accessories to improve visibility, if the driver's direct field of vision is inadequate to ensure safety;
- 5) lighting equipment suitable for the work, if the work equipment is used in dark spaces;
- 6) fire-fighting appliances, if the work equipment, its use or load constitutes a fire hazard, and such appliances are not available in sufficient proximity to the place of use.

Where remote-controlled work equipment may collide in normal use with an employee, or an employee may be crushed, the work equipment shall have facilities to guard against these hazards, unless other appropriate devices are present to control the hazards. Remote-controlled work equipment shall be fitted with a device that stops the equipment automatically if it escapes the control range.

**Section 16****Protection against risk of overturning and falling objects**

Any hazard caused by the overturning of work equipment with ride-on employees shall be prevented by a safety cab, safety structure, or other similar device that:

- 1) prevents the work equipment from tilting further than onto its side; or
- 2) ensures sufficient clearance around the ride-on employees if the work equipment overturns or rolls over.

Forklift trucks shall be fitted with a safety belt or other similar structure that holds the driver on the seat in case the forklift truck overturns.

If any goods to be transported or other objects can fall down and hurt the driver or some other ride-on person, the equipment shall, if feasible, be fitted with a safety structure ensuring a safe space that is large enough.

**Section 17****Cab requirements**

Ride-on excavators, diggers, tractors and forest machines shall have a safety cab that protects the driver against weather conditions.

When work equipment referred to in subsection 1, or other work equipment fitted with a closed cab, is driven on ice, boggy soil or similar surface into which the equipment could sink, the cab shall be fitted with an emergency exit taking to another direction than the normal exit.

The seat of a tractor used for loading shall be turnable in the direction of the loading controls and the working area.

The provisions of subsection 1 do not apply to tractors with engine power up to 30 kilowatt.

Section 23, subsection 1, paragraph 3, lays down provisions on crane cabs.

## **Section 18**

### **Safety of power transmission equipment**

Where an inadvertent locking of the power transmission equipment between an item of mobile work equipment and its accessories or anything towed might create a specific hazard, such work equipment shall be fitted or adapted to prevent blockages of the power transmission equipment. Where such locking cannot be avoided, the hazard shall be prevented by some other reliable means.

Power transmission equipment on mobile work equipment shall be attached in a way that prevents them from trailing on the ground.

## **Section 19**

### **Protection against exhaust gas**

Mobile work equipment with a combustion engine may not be used unless sufficient supply of air presenting no hazard to health and safety can be guaranteed in working areas.

## **Chapter 3**

### **Supplementary requirements for lifting machinery**

## **Section 20**

### **Planning of lifting operations and selection of lifting machinery**

The planning of a lifting operation and the selection of lifting machinery shall:

- 1) ensure that any lifting operation is carefully planned in order to be able to carry out the operation without endangering the safety of employees. Special care shall be taken to ensure that no one is unnecessarily present under suspended loads or in danger zones during lifting operations;

- 2) select lifting machinery suitable for the purpose and with sufficient capacity for the lifting operation;
- 3) ensure that there is enough room to carry out the lifting operation;
- 4) ensure that the lifting machinery is placed on a firm and even surface for driving and lifting in a way that prevents the lifting machinery from tilting, overturning or moving unintentionally;
- 5) select, where necessary, suitable lifting accessories for lifting the load;
- 6) ensure that the field of vision from the place of using the lifting machinery is adequate. Where the driver's field of vision in any direction is restricted, the employer shall ensure that the lifting machinery is fitted with a signalling system to warn of movements in that direction, if no other measures have been taken to ensure safe working;
- 7) draw up a plan for the lifting operation to ensure proper coordination of functions if two or more lifting machinery units are used to lift a load simultaneously; and
- 8) take appropriate measures to avoid collision between loads or lifting machinery parts when two or more lifting machinery units are installed or erected on a site in such a way that their working radii overlap.

Where it is necessary to carry out work under loads or in the danger zone when a lifting operation is going on, the safety of employees shall be ensured in a reliable way.

The provisions in subsections 1 and 2 on lifting operations also apply to lifting persons and to moving and transport operations carried out using lifting machinery. (1101/2010)

## **Section 21**

### **Use of lifting machinery**

Particular care and attention shall be taken when using lifting machinery. It shall be ensured that lifting operations are carried out as planned and in a safe way.

The use and operating conditions of lifting machinery shall correspond to the basis of design communicated by the manufacturer. The maximum permissible load of the lifting machinery may not be exceeded.

Lifting machinery with a maximum load of at least 1,000 kg and a turnover moment of at least 40,000 Nm shall be fitted with a device that prevents overloading.

The strength and stability of lifting machinery shall be ensured having regard, in particular, to the loads to be lifted and the stress induced at the mounting or fixing points of the structures.

In the beginning of a work shift, it shall be ensured that the lifting machinery has been sufficiently supported, and the lifting machinery shall be tested to ensure that its controls and safety equipment operate as planned.

When lifting packages, the markings on the package shall be taken into account. Where such markings do not exist, the safety of the lifting operation shall be ensured by other means before lifting is begun.

## **Section 22**

### **Markings on lifting machinery and lifting accessories**

Lifting machinery shall be clearly marked to indicate their maximum load, where appropriate with a load plate giving the maximum load for each configuration of the machinery.

Lifting accessories shall bear markings that are necessary for safe use.

Lifting machinery that are not intended for lifting persons but that might in error be used for that purpose shall be appropriately and clearly marked to forbid lifting of persons.

## **Section 23**

### **Additional requirements for cranes**

Besides the provisions of sections 21 and 22, the following shall be observed:

- 1) Loads for cranes shall be made with care to prevent the loads from falling or disintegrating. Work shall be organised in such a way that when an employee is attaching or detaching a load by hand, he or she retains direct or indirect control of the crane. The hazard to employees of the load swaying dangerously or falling freely or being released unintentionally shall be minimised;
- 2) Crane location and the visibility at the working area shall meet the requirements of safe use;
- 3) Cranes shall have an appropriate control cab when the structure or the use of the crane or conditions at the workplace are such that the crane cannot otherwise be operated without endangering safety and health;
- 4) Access to the control positions of a crane shall be through safe, fixed and appropriate means of access. It shall be possible easily and without ambiguity to control the functions of the crane and, if necessary, the loading location, from the control position of the crane. When the operator does not have a sufficiently good view of the load during lifting, appropriate accessories or a signaller shall be used;
- 5) Safe means of access shall exist to those parts of a crane that require regular maintenance, and appropriate maintenance platforms and spaces shall exist for the maintenance of these parts.

A maintenance platform placed next to a crane may only be used when the size, structure or position of the lifting machinery is such that fixed means of access or a platform cannot be reasonably required, and when special measures have been taken to ensure safety. The maintenance platform shall be present at the workplace or it shall be possible to move it there quickly if necessary.

If a crane cannot support the load in the event of power failure, access to the danger zone shall be prevented.

## **Section 24**

### **Lifting accessories**

The condition and markings of lifting accessories shall be checked before use.

Lifting accessories without a marking showing their maximum permissible load may not be used.

Lifting accessories shall be stored in a way that ensures that they will not be damaged or degraded.

Damaged lifting accessories may not be used.

Lifting accessories shall be attached to the load by lifting points designed for that purpose, or safe lifting of the load shall be ensured in some other way.

## **Section 25 (1101/2010)**

### **Lifting persons**

With the exceptions provided in chapter 3a, lifting persons is only permitted using lifting machinery manufactured for the purpose.

Employees in elevating cars of telescopic cranes or slewing cranes shall use personal protective equipment against falls.

Before starting work on suspended scaffolding, the possibilities and ways of attaching anchor ropes and the placing of the ropes shall be examined. Reliable proof shall be given to show that the attachment of the suspended scaffolding to the building or other structure is acceptable.

## **Chapter 3a (1101/2010)**

### **Use of cranes and forklift trucks for lifting persons**

#### **Section 25a (1101/2010)**

##### **Exception from the use of equipment for lifting persons**

When the use of a device or a corresponding working method for lifting persons is not appropriate or safe in the work planned, a crane manufactured for lifting goods or a forklift truck moving with the help of its own power source may exceptionally be used for lifting persons under the additional conditions laid down in this chapter.

**Section 25b (1101/2010)****Requirements for cranes and forklift trucks used for lifting persons**

The stability and lifting capacity of cranes and forklift trucks used for lifting persons shall be such that they are safe to use. The maximum permitted load capacity of cranes shall be at least twice as high, and the maximum permitted loading capacity of forklift trucks at least five times as high as the load imposed by the lifting of persons.

The speed of the lifting and descending movement of cranes may not exceed 0.5 m/s, and the speed of the lifting and descending movement of forklift trucks may not exceed 0.3 m/s.

Supporting crane cylinders shall be fitted with a safety device to stop the uncontrolled movement of the boom or the hazardous descent of the boom in the event that the hydraulic-system pressure hose or pipes should fail. Forklift trucks shall be fitted with a safety device that will arrest the fall of the elevating car or restrict the speed at which the elevating car descends to a sufficiently low level in the event of a hydraulics malfunction or failure.

**Section 25c (1101/2010)****Requirements for elevating cars**

Elevating cars shall be designed and manufactured for lifting persons.

Elevating cars shall be safely attached to the crane or forklift truck to be used. When a loader crane is used, the elevating car shall be attached to the crane boom. The supports of an elevating car that is solely supported by the lifting rope of the crane shall be secured either by a separate lifting mechanism or a safety device, unless the large weight of the hook block of the crane or some other reason relating to the crane's structure makes it impossible to attach a separate lifting mechanism or a safety device to the crane. In this case, the lifting of persons requires that the lifting and rope mechanisms of the crane be otherwise assessed to be so reliable that no risk of falling is involved in using the elevating car. (1091/2012)

There shall be a safe access route to the elevating car. Where necessary, steps and handles shall be provided for getting in and out of the car. The car shall have marked points of attachment for

attaching personal fall protection equipment. Separate provisions are issued on the selection and use of fall protection equipment.

Elevating cars attached to a crane boom or a forklift truck with a lifting height exceeding 6 metres shall be fitted with an emergency stop device.

Elevating cars shall bear a clear marking of the maximum permitted load capacity and number of persons in the elevating car.

### **Section 25d (1101/2010)**

#### **Requirements for lifting work**

If the driver and the person working in the elevating car do not have a continuous visual contact, their communication shall be ensured using communication equipment. In this case, the control cab of the tower crane shall be fitted with crane camera equipment. The channels of the radio telephones used when guiding lifting work shall be inaccessible to other radio traffic.

Cranes and forklift trucks may not be used for lifting other loads when they are used for lifting persons. However, employees lifted on elevating cars may carry with them their personal tools and accessories that do not endanger the safety of the lifting operation.

The supporting feet of mobile cranes and loader cranes shall be placed in a supporting position during lifting operations.

If there is someone in the elevating car, forklift trucks may be moved on their platform only when the elevating car is at its lower position. However, insofar as the appropriate or safe performance of the work requires, forklift trucks may be moved to a small extent even when the elevating car is at its higher position, if it can be ensured that the person present in the car cannot fall or be crushed or run risk of other accident. No one is permitted to enter or exit the elevating car when the car is at its higher position, unless it is necessary for the safe performance of the work.

### **Section 25e (1101/2010)**

#### **Requirements for drivers**

Drivers shall check on a daily basis that the elevating car is safely attached and that the lifting machinery is in safe working order before starting lifting work.

During lifting, drivers shall be in the cab of the crane or the forklift truck or in the immediate vicinity of the control devices. They shall continuously monitor the movements of the elevating car.

Insofar as drivers are not required to have the special qualifications referred to in section 14, they shall have a separate written authorisation from the employer to operate a crane referred to in this chapter.

### **Section 25f (1101/2010)**

#### **Ensuring the working order of lifting machinery and elevating cars**

Employers shall inspect and ensure the stability and safety of forklift trucks used for lifting persons before they are put into service for the first time and following any changes affecting safety. The inspection shall be renewed within at least one year of the previous inspection.

Employers shall inspect elevating cars and ensure that they are safely attached before they are put into service for the first time and following any changes affecting safety. The inspection shall be renewed within at least one year of the previous inspection.

## **Chapter 4**

### **Safety requirements for work at height**

#### **Section 26**

##### **Guard structures and equipment preventing falls**

Guard structures and equipment preventing falls shall have such strength that they, as effectively as possible, prevent persons from falling or stop their falling. Rails and other general safety structures against falls shall be continuous, except for any access leading to ladders or stairways.

When the work requires that a guard structure or a device providing protection against falls be temporarily removed, other effective protective measures shall be used instead. The work may not be carried out before these protective measures have been put into use. The guard structure or

the device providing protection against falls shall be replaced immediately after the work in question has been finished or suspended.

## **Section 27**

### **Instructions, calculations and plans for scaffolding**

When the instructions for use and dismantling of scaffolding deviate from the manufacturer's instructions, or when the instructions are not based on strength and stability calculations, employers shall ensure to that any necessary calculations are made, except for situations where scaffolding is erected in compliance with an established and safe method of erecting.

A plan for erecting, using and dismantling scaffolding shall be drawn up in an appropriate way regarding the structural demands of the scaffolding chosen and the work to be carried out. The person drawing up the plan shall have the necessary qualifications. The plan can be a general plan, complemented by data on the special properties of the scaffolding.

## **Section 28**

### **Properties of the scaffolding**

When using and transferring scaffolding, and in all stages of their erecting and dismantling, the scaffolding and their platforms and means of access shall remain strong, rigid and stable enough with regard to safety.

The risk of scaffolding supports sliding shall be prevented by fixing a device against sliding onto the support surface, or by some other means similarly effective, and the bearing surface shall be sufficiently durable. The stability of the scaffolding shall be ensured. Appropriate devices shall be used for preventing scaffolding on wheels from moving while work is carried out on the scaffolding.

Scaffolding platforms shall have such dimensions, form and assembly that they are suitable for the nature of the work and will sustain the loads that need to be used, and that working and moving on them is safe. Scaffolding platforms shall be installed in such a way that the parts of the scaffolding cannot move during regular use. No unguarded gaps may be left between the platform parts and the vertical safety structures or equipment preventing falls.

**Section 29****Erecting, dismantling and altering scaffolding**

Scaffolding may be erected, dismantled and altered only by employees who have been given special instructions and guidance relating to the following issues:

- 1) erecting, dismantling and altering scaffolding according to plan;
- 2) safety when scaffolding is erected, dismantled and altered;
- 3) measures to prevent the risk of falls of persons or objects;
- 4) safety measures relating to weather conditions weakening the safety of the scaffolding;
- 5) maximum permissible loads; and
- 6) other potential hazards related to erecting, dismantling or altering scaffolding.

The person in charge of the work and the employees concerned shall have on hand the manufacturer's instructions, or a plan for erecting and dismantling the scaffolding.

When scaffolding or a part of it is erected, dismantled or altered, it shall be labelled with prohibition and warning signs, as separately provided, and appropriate barriers shall be used to prevent access to the danger zone.

**Section 30****Use and placing of ladders**

Ladders shall be used in such a way that the employees concerned can all the time hold onto them safely and get a safe support. Manual carrying of loads may not prevent maintaining a safe hold onto the ladder. Leaning ladders may not be used as work platforms.

Ladders shall be placed in such a way that they stand steadily during use. Movable ladders shall stand on a stable, durable and immobile surface of appropriate size, so that the rungs remain in horizontal position. Suspended ladders shall be attached safely and, except for rope ladders, in such a way that they cannot move or swing.

The risk of movable ladders falling or their legs sliding shall be prevented by fastening their upper or lower end, using a device against sliding, or by some other means similarly effective. The ladders shall be so tall that they extend far enough above the level to be reached, if a safe hold cannot be guaranteed by any other measures. Lockable multi-element combined ladders and extendable ladders shall be used in such a way that the steps, limiters, joints and locking hooks remain strong and durable in the working conditions, and that the parts cannot move in relation to each other. Ladders on wheels shall be placed in an immobile position before stepping on them.

### **Section 31**

#### **Moving and working with the help of rope access**

Moving and working with the help of rope access and positioning techniques is allowed only in circumstances where an analysis and assessment of the hazards of the work shows that the work can be carried out safely, and where the use of other, safer work equipment is not justified. When required by the analysis and assessment of the hazards of the work, or by the duration and ergonomic demands of the work, a seat with appropriate accessories shall be used.

When using rope access and positioning techniques for moving and working, the following requirements shall be observed:

- 1) The system shall comprise at least two separately anchored ropes, one used as a means of ascent, descent and support (*work rope*), and the other used as backup (*security rope*);
- 2) Employees shall be provided with and they shall use an appropriate safety harness, and their harness shall be coupled to the security rope;
- 3) The work ropes shall be fitted with safe means of ascent and descent and have a self-locking system to prevent employees from falling should they lose control of their movements. The

security rope shall be fitted with a mobile fall prevention system that follows the movements of the employees;

4) The tools and accessories to be used by an employee shall be coupled to the employee's safety harness or seat, or they shall be secured by some other appropriate means;

5) The work shall be properly planned and supervised, so that an employee can be immediately rescued in an emergency; and

6) The employees concerned shall receive training and instructions specific to the operations in question, in particular rescue procedures.

The use of a single rope may be permitted only in exceptional circumstances where, in view of the analysis and assessment of hazards, the use of a second rope would make the work more hazardous. In such a case, safety at work shall be ensured with appropriate measures.

## **Chapter 5**

### **Initial and periodic inspections and a condition monitoring system**

#### **Section 32**

##### **General provisions concerning initial and periodic inspections**

Besides the provisions in section 5, employers shall ensure that an approved competent person or competent body carries out an initial inspection or a periodic inspection in order to ensure that the work equipment referred to in the annex has been correctly installed and that it is in safe working order.

The extent of the inspection and the inspection methods depend on the work equipment and its use and on the system used for monitoring the condition of the equipment.

Work equipment referred to in the annex may not be used at work if it has not been appropriately inspected.

#### **Section 33 (1095/2019)**

## **Initial inspection**

An initial inspection shall be carried out before putting work equipment into service for the first time or after a significant alteration or after installing it in a new place, or when work equipment is put into service after being out of service for a long time.

The initial inspection shall ensure that the work equipment has been installed in the correct way in accordance with the directions laid down in section 3, taking account of the intended use of the work equipment, the suitability of its means of access and maintenance platforms, and the correct operation of its control and safety devices.

Where necessary, lifting machinery shall also be test loaded to ensure that its structure is strong and stable.

## **Section 34**

### **Periodic inspection**

Periodic inspections shall be carried out at one-year intervals after the first initial inspection. However, when no initial inspection of the equipment is required, periodic inspections shall be carried out at one-year intervals from the date when the employer put the work equipment into service. However, the inspection interval for tower cranes is two years.

The inspection interval may be extended if the use of the work equipment is minor and if the circumstances put particularly slight strain on the equipment. Similarly, the inspection interval shall be shortened if the use of the work equipment or the conditions of the use put special strain on the working order of the equipment, or if there is some other particularly important reason to ensure that the equipment is safe to use.

Work equipment shall also be inspected to a necessary extent when an accident or a serious hazardous incident has occurred during its use that affects the safety of its structure, or when the equipment has been exposed to exceptional circumstances weakening its safety.

Periodic inspections shall ensure that the work equipment is in working order by especially checking that no hazard is caused by ageing, fatigue, wear, corrosion or damage. Where necessary, non-destructive inspection methods shall be used.

Lifting machinery shall be given a necessary test run once every year in connection with an inspection, including a testing with the permissible maximum load every four years. However, the testing with the maximum permissible load shall always be carried out in connection with a periodic inspection if overloading of the lifting machinery involves a risk of overturning.

### **Section 35 (1095/2019)**

#### **Thorough periodic inspection**

Besides the periodic inspection referred to in section 34, work equipment shall be subject to a thorough periodic inspection when the designed limits defined for the useful life of the equipment by the manufacturer are drawing close. If those limits are not known, a thorough periodic inspection shall be carried out within 10 years after the work equipment was put into service for the first time.

An assessment of the timing of a thorough periodic inspection shall consider the level of strain the use of the work equipment puts on the equipment, the damage observed in periodic inspections and the repairs carried out, and any design flaws of the work equipment.

During a thorough inspection, such assembly parts shall be disassembled which are important for safety and which cannot otherwise be inspected in a reliable way. The inspection shall use non-destructive testing methods.

### **Section 36**

#### **Periodic inspections as part of a condition monitoring system**

Employers may replace periodic inspections by a condition monitoring system approved by a competent body, if the effects of the system correspond to the effects of periodic inspections. The competent body shall assess the functioning of the condition monitoring system at least every five years.

The condition monitoring system shall be described in writing, and the document shall be available for inspection at the workplace. The document shall include information on the monitoring methods and equipment as described in section 5, maintenance measures for each piece of equipment within the scope of the system, and the tasks, responsibilities and qualification requirements of the persons participating in the operation of the system. The document shall show all measures carried out. The number, content and frequency of measures shall take into account any information concerning the risks, use and inspections of the inspection target.

### **Section 37 (1095/2019)**

#### **Performers of initial and periodic inspections**

Those carrying out initial and periodic inspections of work equipment referred to in the annex shall be bodies that are verified competent by an accreditation body referred to in section 4, paragraph 3, of the Act on Verifying the Competence of Conformity Assessment Services (920/2005), or independent competent persons approved by a certification body that is verified competent by an accreditation body. Where necessary, the competent bodies or the competent persons shall present a certificate of their competence, as well as written descriptions of their inspection methods.

Those carrying out the initial or periodic inspection shall be familiar with the structure and use of the equipment as well as the inspection requirements and the manufacturer's instructions concerning the equipment, and they shall be able to notice any defects and deficiencies of the equipment. Those carrying out the inspection shall be able to assess independently, on the basis of safety technology matters, what effects the defects and deficiencies observed in the work equipment have on safety at work. Where necessary, those carrying out the inspection shall make use of expert help especially when applying non-destructive testing methods and when assessing hazards caused by electricity.

An occupational safety and health representative and the primary user of the work equipment, or other user when there is no primary user, shall be given the opportunity to participate in the inspection where possible.

Vessels used in shipping between third countries that do not have a planned journey to Finland before the deadline for the inspection of their lifting machinery may, by way of derogation from

the provisions in subsection 1, have a lifting-machinery inspector, authorised by the harbour country, carry out the inspection.

## **Section 38**

### **Inspection records and inspection markings**

A record shall be kept of each inspection, describing the course of the inspection. The record shall include any observations on the defects and deficiencies found affecting the safety of the work equipment, as well as any necessary instructions given to correct and eliminate them. The record shall also include the inspector's assessment of the timing of the next periodic inspection or thorough periodic inspection and of the matters to be investigated in the next inspection. The date of the latest thorough inspection shall be included in the record.

The records shall be stored throughout the useful life of the equipment. The latest record shall be available at the workplace.

An inspection marking or a marking indicating the condition monitoring system shall be made on the work equipment.

## **Chapter 6**

### **Entry into force**

## **Section 39**

### **Transitional provisions and entry into force**

This Decree enters into force on 1 January 2009.

This Decree repeals:

1) sections 6–13 of the Government Decision of 17 December 1980 on building hoists used for transporting persons (982/1980), such as they stand partly in section 8 and in section 9 of the Government Decision 919/1988;

2) Government Decision of 21 October 1982 on the application of the Occupational Safety and Health Act on suspended scaffoldings and their inspection (769/1982), as amended;

3) sections 5–7 and 8 of the Government Decision of 4 September 1997 on bolt driving guns and their inspections (862/1997); and

4) Government Decision of 25 November 1998 concerning the acquisition, safe use and inspection of machinery used at work and other work equipment (856/71998), as amended.

Section 21, subsection 3 shall not apply to lifting machinery put into service before 1 September 1990.

Anyone who, upon the entry into force of the Decree, is competent to carry out initial inspections and periodic inspections referred to in section 32, subsection 1, shall have the right to carry out such inspections until 31 December 2013, if the inspections fall within the scope of application of the Government Decree on Occupational Safety in Loading and Unloading of Vessels (633/2004), and, in other cases, until 31 December 2011. (1051/2011)

Notwithstanding the provisions of this Decree, the exemption orders and other decisions made under the repealed Government Decision remain in force.

### **Annex (1095/2019)**

#### Inspections by machinery groups

	Initial inspection	Periodic inspection	Thorough periodic inspections
Mobile cranes	Competent body*	Competent body	Competent body
Vehicle lifts, where the lifting height exceeds 0.5 m and where work is carried out under a load	Competent person	Competent person	Competent person

placed on the lifting machinery			
Machinery for lifting persons	Competent person*	Competent person	Competent person
Machinery requiring installation for lifting persons	Competent person	Competent person	Competent person
Loader cranes	Competent person	Competent person	Competent person
Loader cranes, where the loading moment exceeds 25 metric tons, and where the manufacturer has intended them for other use than primarily loading vehicles	Competent body	Competent body	Competent body
Cranes and their tracks – lifting more than 500 kg	Competent person	Competent person	Competent person
Builders hoists intended for lifting persons	Competent body	Competent body	Competent body
Tower cranes	Competent body	Competent body	Competent body

Vessel lifting machinery	Competent body	Competent person	Competent person
Concrete pump trucks	Competent person*	Competent person	Competent person
Wind turbine service lifts	Competent person	Competent person	Competent person
Storage and retrieval machines	Competent body	Competent body	–

\* = after significant alterations referred to in section 33, subsection 1

For the purposes of this annex, the following definitions shall apply:

- 1) *crane* means any power-driven or mobile lifting machinery intended for lifting, moving or lowering different kinds of burdens or loads, and where the burden is supported and controlled by means of the structure, ropes, chains or boom structure of the crane:
  
- 2) *tower crane* means any crane whose supporting structure is a tower which has a projecting boom at its top end, attached either to the top end of the tower or to the foot of the tower with ropes that go through the top of the tower;
  
- 3) *mobile crane* means any crane with wheels or tracks that has a fully rotating superstructure and that can be moved from one location to another either using its own power source or by attaching it to another vehicle;
  
- 4) *loader crane* means any crane with a column rotating on its base and a set of booms attached to its top that is usually installed on a truck, other vehicle, trailer, machine or a fixed base and that is primarily intended for loading and unloading vehicles, excluding loader cranes mounted on forestry tractors and intended for forestry work;
  
- 5) *machinery for lifting persons* means any power-driven device which is fixed or mounted on a vehicle or a mobile platform and which is intended for lifting persons to perform work on the work platform of the machinery;

6) *vehicle lift* means any power-driven device which is intended for lifting or tilting cars or other vehicles to facilitate servicing, oiling, repairs or other operations carried out under the vehicle;

7) *builders hoist* means any temporarily mounted lifting machinery used for construction work or equivalent work that includes a cage moving along a travel way guided by fixed equipment, and that is intended for carrying persons or goods between two or more landing levels within the limits of the machinery's maximum permissible load;

8) *vessel lifting machinery* means any power-driven lifting machinery intended for moving cargo;

9) *concrete pump truck* means any vehicle-mounted, power-driven work equipment that moves concrete by pumping it into position through a pipe work attached to its boom structure;

10) *wind turbine service lift* means any lifting machinery installed on a wind turbine intended for lifting persons from one level to another;

11) *storage and retrieval machine* means any lifting machinery that moves between shelf levels in storage facilities and is operated by a person moving with the machinery.

The lifting machinery mentioned above also means any equivalent lifting machinery whose structure and operating characteristics correspond to those of the machinery mentioned above.