

## DEPARTMENT OF LABOUR

Government Notice. R: 295

26 February 1988

### Driven Machinery Regulations, 1988

The Minister of Manpower has, under section 35 of the Machinery and Occupational Safety Act, 1983 (Act 6 of 1983) made the regulations contained in the Schedule hereto.

#### SCHEDULE

##### Definitions

1. In these regulations "the Act" means the Machinery and Occupational Safety Act, 1983 (Act 6 of 1983), and any expression to which a meaning has been assigned in the Act shall have the meaning so assigned, and, unless the context otherwise indicates -
  - "anti-repeat device" means a device which incorporates a control system designed to limit the press every time a single stroke even if the control that is actuating the press is held in the operating position, and which requires the actuating controls to be returned to the neutral position before another stroke can be initiated;
  - "bench saw" means a circular saw working in a bench (including a rack-bench) for the purpose of ripping, deep cutting or cross cutting but does not include a swing-saw or other saw which is moved towards the wood;
  - "block and tackle" means a lifting device consisting of one or more pulley blocks reeved with chains, wire ropes or fibre ropes used solely for the raising and lowering of a load or moving a load horizontally;
  - "builder's hoist" means an appliance used in connection with building work for the raising or lowering of material by means of a platform, skip, cage or other receptacle on a fixed guide or guides;
  - "cradle" means a platform enclosed on all sides but open at the top, designed for the purpose of raising and lowering persons by means of a lifting machine;
  - "divisional inspector" means the divisional inspector defined in regulation 1 of the regulations published by Government Notice R.2206 of 5 October 1984;
  - "explosive powered tool" means a tool that is activated by an explosive charge and that is used for driving bolts, nails and similar objects for the purpose of providing a fixing;
  - "goods hoist" means an appliance used for the transportation of goods by means of a car, cage, cradle or other receptacle in a hatchway on fixed guides and in which persons never travel;

**“hatchway” means a vertical or inclined way in which a goods hoist is operated;**

**“jib-crane” means any crane of which the load is supported by a projecting horizontal or inclined member, known as a jib;**

**“landing” means any floor or platform which is an authorised stopping place for a goods hoist or builder’s hoist;**

**“lifting machine” means a power-driven machine which is designed and constructed for the purpose of raising or lowering a load or moving it in suspension, and includes a block and tackle, hoist, crane, lift truck or jib-crane, but does not include an elevator, escalator, goods hoist or builder’s hoist;**

**“lifting tackle” means chain slings, rope slings, rings, hooks, shackles, swivels, spreaders or similar appliances;**

**“lift truck” means a mobile lifting machine, but does not include-**

**(a) a vehicle designed solely for the purpose of lifting or towing another vehicle;**

**(b) a mobile earth-moving machine; or**

**(c) a vehicle designed solely for the removal of waste;**

**“point of operation” means the place in a machine where material is positioned and where the actual work is performed;**

**“press” means a driven machine that shears, punches, forms or assembles metal or other material by means of cutting, shaping or combination dies attached to slides having a controlled reciprocating motion but does not include bending brake presses, hot bending or hot metal presses, forging hammers and riveting machines or similar types of fastener applicators;**

**“transportation plant” means apparatus used for the transportation of material by means of an elevated conveyance suspended from and travelling along a catenary rope or chain where persons may pass or work below the path of the conveyance, or any such apparatus used for the transportation of persons.**

## **Revolving machinery**

**2. Unless moving or revolving components of machinery are in such a position or of such construction that they are as safe as they would be if they were securely fenced or guarded, the user shall cause -**

**(a) every shaft, pulley, wheel, gear, sprocket, coupling, collar, clutch, friction drum or similar object to be securely fenced or guarded;**

**(b) every set screw, key or bolt on revolving shafts, couplings, collars, friction drums, clutches, wheels, pulleys, gears and the like to be countersunk, enclosed or otherwise guarded;**

**(c) every square projecting shaft or spindle end and every other shaft or spindle end which projects for more than a quarter of its diameter to be guarded by a cap or shroud;**

**(d) every driving belt, rope or chain to be guarded; and**

**(e) the underside of every overhead driving belt, rope or chain above passages or workplaces to be so guarded as to prevent a broken belt, rope or chain from falling and so injuring persons: Provided that the provisions of this paragraph shall not apply where in the opinion of an inspector no danger exists in the case of light belts due to the nature thereof and the speed of operation.**

### **Circular saws**

**3. (1) No user shall require or permit any person to operate a power-driven circular saw-**

**(a) at a speed in excess of the manufacturer's rated maximum speed for the saw blade, or**

**(b) the saw blade of which is in any way damaged or which is dull or not regular or not correctly sharpened and set.**

**(2) The user of a power-driven bench saw shall cause -**

**(a) the saw blade to be effectively guarded below the table; and**

**(b) the part of the saw blade above the table to be covered by a substantial guard which shall cover the saw at all times to at least the depth of the teeth and which shall automatically adjust itself to the thickness of and remain in contact with the material being cut: Provided that where such a guard is impracticable, the top of the saw shall be covered by a strong manually adjustable guard which shall be adjusted to extend downwards to a point as near as practicable to the cutting point of the saw: Provided further that in the case of a breakdown saw, the guard shall effectively cover the top of the saw blade.**

**(3) The user shall cause every power-driven circular saw which is used for ripping wood to be provided with a riving knife which shall -**

**(a) be placed as close as practicable to the saw blade but not more than 12 mm behind it, and in a direct line with the saw teeth at the level of the bench table;**

**(b) have the edge nearest the saw in the form of an arc of a circle which shall have a radius not exceeding the radius of the largest saw blade which can be used on the bench by more than 3 mm;**

**(c) extend to a height above the table to within 5 mm of the top of the saw blade; and**

**(d) have a smooth surface and which shall be strong, rigid and easily adjustable.**

**(4) The user shall cause every tilting saw or tilting table saw to be so arranged that the adjustment of the riving knife and the guard remains effective with any position of the saw or table.**

**(5) The user shall -**

**(a) cause a suitable push stick to be kept available at every bench saw which is fed by hand, to enable work to be carried out without danger to persons;**

(b) provide suitable mechanical means for holding rough timber which is to be slabbed on a bench saw; and

(c) provide an effective guard for the automatic feed rollers of every bench saw equipped with such rollers.

(6) The user shall cause every swing or radial saw which is moved towards the material -

(a) to be guarded so that only the cutting portion of the saw blade is exposed;

(b) to be arranged in such a manner that the saw will automatically move away from the cutting position when it is released; and

(c) to be fitted with a device which will oppose the thrust or tendency of the saw to pick up the timber or to throw the timber back at the operator when such saw is used for ripping timber.

(7) The user of a portable power-driven circular saw shall provide -

(a) a fixed guard above the slide or shoe, which shall cover the saw blade to at least the depth of the teeth; and

(b) a guard which shall automatically cover the portion of the saw blade below the slide or shoe while sawing is not actually being done.

#### **Band saws and band knives**

4. The user shall cause all moving parts, except the working portion of the blade at the point of operation, of every band saw or band knife to be effectively guarded.

#### **Wood planing machines**

5. (1) The user shall cause every wood planing machine which is used for overhand planing and which is not mechanically fed to be fitted with a cylindrical cutter block.

(2) The user shall cause every planing machine used for overhand planing to be provided with a bridge guard which is capable of covering the full length and breadth of the cutting slot in the table and which can easily be adjusted in a vertical and horizontal direction.

(3) No user shall require or permit any planing machine which is not mechanically fed to be used for the overhand planing of any piece of wood which is less than 300 mm long, unless a safe holder is used for such a piece of wood: Provided that this subregulation shall not apply to the planing of the edges of flat pieces of wood.

(4) The user shall provide an effective guard for the feed roller of every planing machine used for thickness, except in the case of the combined machine for overhand planing and thickness.

#### **Wood moulding and mortising machines**

6. (1) Having regard to the nature of the work which is performed, the user shall cause the cutter or chain of every wood moulding or mortising machine to be effectively guarded.

(2) If work cannot be performed when the cutter of a moulding machine is guarded, the user shall cause the wood being moulded to be held in a jig or holder which is so constructed that it will ensure safe working of the machine: Provided that where a jig or holder cannot be used, the user shall provide a suitable spike or pushstick and shall require persons who operate the machine to use it when necessary.

#### **Sanding machines**

7. The user shall cause every -

(a) drum sanding machine to be provided with effective guards so arranged as to completely enclose the revolving drum except such portion as is necessary for the performance of the work;

(b) disc sanding machine to be provided with suitable guards which shall completely enclose the periphery and back of the sanding disc and that portion of the working face of the disc under the table; and

(c) belt sanding machine to be provided with guards at the trap points where the sanding belt runs onto its pulleys and cause any section of the belt not used for sanding to be effectively enclosed.

#### **Grinding machines**

8. (1) The user of a power-driven grinding machine shall cause such machine to be marked in a conspicuous place with the manufacturer's rated speed or speeds of the spindle in revolutions per minute.

(2) No user shall require or permit a grinding wheel of a power-driven grinding machine to be operated at a speed exceeding that of the manufacturer of such wheel: Provided that a grinding wheel larger than 100 mm in diameter shall only be used if the recommended operating speed therefor is distinctly marked on it.

(3) The user shall cause every grinding wheel of a power-driven grinding machine to be mounted concentrically on the spindle by means of robust metal flanges with annular peripheral bearing surfaces of adequate breadth which shall bear upon the wheel, and a layer of suitable compressible material shall be fitted between the flanges and the wheel: Provided that grinding wheels for specialized application which cannot be fixed by flanges shall be so secured that displacement or rupture of the wheel in motion is eliminated as far as possible.

(4) Having regard to the nature of the work which is performed, the user shall cause every power-driven grinding machine to be provided with a substantial guard which shall enclose the grinding wheel as far as practicable and which shall be of sufficient strength to withstand the force of impact of a rupturing wheel.

(5) Having regard to the nature of the work which is performed, the user shall cause a power-driven grinding machine where the workpiece

is applied to the wheel by hand, to be provided with a substantial adjustable work rest, which shall be securely fixed in position and adjusted to within 3 mm from the grinding face of the wheel.

(6) The user shall cause every power-driven grinding machine to be provided with a strong transparent shield which shall be kept adjusted to as to protect the operator's eyes: Provided that such shield may be omitted if every operator of the machine is personally issued with suitable eye protection and is obliged to wear it.

(7) The user shall cause a notice to be posted in a conspicuous place at every power-driven grinding machine, prohibiting persons from carrying out, inspecting or observing grinding work without using suitable eye protection.

### **Shears, guillotines, presses**

9. (1) Where the opening at the point of operation of shears, a guillotine or a press is greater than 10 mm, the user shall cause such machine to be provided with-

(a) a fixed guard which prevents hands or fingers reaching through, over, under or around the guard into the point of operation; or

(b) a self-adjusting guard which automatically adjusts itself to the thickness of the material being worked and which prevents hands or fingers reaching through, over, under or around the guard into the point of operation; or

(c) a manually or automatically operated moving guard which completely encloses the point of operation of such machine and which is so arranged that the working stroke cannot be commenced unless the guard is closed and which cannot be opened unless the ram or blade is stationary; or

(d) an automatic sweep-away or push-away which pushes any part of the operator's body out of the danger zone when the working stroke commences; or

(e) an electronic presence-sensing device which prevents or arrests a working stroke if it senses that any part of a person's body or any other foreign object is in the danger zone:

Provided that the guarding provided in terms of this subregulation shall not in itself create any threat to the safety of persons.

(2) The user may use or permit the use of shears, a guillotine or a press without the guarding contemplated in subregulation (1) if the operating controls to set it in motion require the simultaneous engagement of both hands of all the operators involved in the operation of the machine, and such operating controls-

(a) are situated at such distance from the point of operation that none of the operators has enough time to reach the danger zone with any part of his body before the working stroke is completed; or

(b) are so designed that the working stroke will be arrested if any one of the operators removes one of his hands from the controls:

**Provided that the operating controls shall be so arranged that they cannot be bypassed.**

**(3) The user shall cause any full-revolution clutch shear, guillotine or press which is fed by hand to be provided with an anti-repeat device.**

### **Slitting machines**

**10. Having regard to the nature of the work which is performed, the user of a slitting machine shall cause the cutting edge of the disc cutter to be effectively guarded.**

### **Mixing, agitating and similar machines**

**11. (1) The user shall cause all dangerous moving parts of a mixing, agitating or similar machine to be placed beyond the reach of persons by means of doors, covers, guards or by other means.**

**(2) The user shall, wherever practicable, cause every mixing, agitating or similar machine to be so arranged that it cannot be set in motion unless the doors, covers, guards or other means referred to in subregulation (1) are in position and that the machine will come to a stop if any one of them is opened, unlocked or removed or if the dangerous moving parts of the machine are exposed for any reason whatsoever: Provided that the provisions of this subregulation shall not apply to doors, covers or guards which are bolted in position or to an inspection hatch which is provided for controlling a process while the machine is in operation.**

### **Rolls and calenders**

**12. The user shall, where practicable, cause every power-driven machine consisting of or incorporating two or more rolls rotating in opposite directions, which are less than 75 mm apart, to be guarded for the full length of the in-running side or nip of the rolls where such nip is within the reach of persons, with -**

**(a) a fixed guard; or**

**(b) a trip bar, a cable or an electronic sensing device not more than 300 mm from the nip, which will stop or reverse the rotation of the rolls if the bar or cable is touched or if the danger area is invaded by any foreign object:**

**Provided that where it is not practicable to install any of the specified devices an inspector may require or permit any other means of protection at the intake of the rolls.**

### **Washing machines, centrifugal extractors, etc.**

**13. The user shall, wherever practicable, cause every power-driven washing machine, centrifugal extractor or similar machine of double cylinder construction in which the inner cylinder, drum or basket rotates, to be provided with a door or lid on the outer cylinder, so interlocked that-**

**(a) the inner cylinder cannot be put into motion unless the door or lid is closed; and**

**(b) the door or lid cannot be opened unless the inner cylinder is stationary.**

#### **Air compressors**

**14. The user of a positive displacement type air compressor which is not provided with automatic means for limiting the operating temperature to a safe level shall provide a fusible plug fitted close to the outlet valves or discharge ports of every stage of compression: Provided that the provisions of this regulation shall not apply to air compressors with a free air delivery of less than 8.5 m<sup>3</sup> per minute or in which compression does not take place in the presence of lubricating oil.**

#### **Refrigeration and air conditioning installations**

**15. No user shall use or permit the use of a refrigeration or an air conditioning installation unless it complies with a safety standard with respect to its construction, installation, operation and inspection incorporated for this purpose into these regulations under section 36 of the Act.**

#### **Transportation plants**

**16.(1) No user shall use or permit the use of a transportation plant unless -**

**(a) it complies with a safety standard with respect to the design, construction, installation, operation and inspection thereof incorporated for this purpose into these regulations under section 36 of the Act; and**

**(b) he is in possession of written authorization for the use thereof from an inspector.**

**(2) Any person who wishes to use a transportation plant shall apply in writing to the divisional inspector for permission for such use and shall, together with such application, submit -**

**(a) a complete set of design calculations and drawings of the proposed installation; and**

**(b) a certificate issued by a registered professional engineer in which he certifies that he has checked the design of the installation and**

that such design will ensure the safe operation of the installation under all permitted loadings.

(3) An inspector may, if he is satisfied that the provisions of this regulation have been complied with and that the transportation plant can be safely used, grant permission in writing for the use thereof, subject to such conditions as he may determine.

(4) An inspector may withdraw the permission granted in terms of subregulation (3) if he deems this necessary in the interest of safety.

(5) The user shall cause the whole installation and all working parts of the transportation plant to be thoroughly examined and subjected to a performance test as prescribed by the standard to which the transportation plant was manufactured, by a person who has knowledge and experience of the erection and maintenance of transportation plants or similar machinery and who shall determine the serviceability of the structures, ropes, machinery and safety devices, before they are put into use following every time they are erected and thereafter at intervals not exceeding 12 months: Provided that in the absence of such prescribed performance test the whole installation of the transportation plant shall be subjected to a load of 120 % of the rated mass load, applied over the complete operation range of such plant and in such a manner that every part of the installation is stressed accordingly.

(6) Notwithstanding the provisions of subregulation (5), the user shall cause every hoisting rope and every hook or other load-attaching device which forms part of the transportation plant to be thoroughly examined by a person contemplated in subregulation (5) at intervals not exceeding six months.

(7) The user shall cause the results of the examinations and tests prescribed in subregulations (5) and (6) to be entered and signed by the person carrying out such examinations and tests, in a record book which shall be kept on the premises at all times.

## **Goods hoists**

17.(1) The user of a goods hoist shall cause -

(a) the hatchway to be enclosed by means of walls, effective bratticing or grill work to a height of at least 2 100 mm and with a space between members of the bratticing or grill work of not more than 38 mm, wherever the hatchway is accessible from adjacent stairways, platforms or floors which are not authorised landings: Provided that the space above the hatchway landing doors shall be similarly enclosed;

(b) every hatchway landing entrance to be provided with a substantial door or gate, any opening in which shall not be more than 38 mm wide and which shall be furnished with -

(i) a mechanical lock so arranged that the door or gate cannot be opened unless the conveyance is at that landing; and

(ii) a circuit breaker so arranged that the conveyance cannot be moved by power unless the door or gate is closed;

(c) every goods hoist to be provided with an automatic device which shall be so arranged that the power will be cut off before the conveyance has travelled 300 mm past the top landing or 300 mm past the bottom landing;

(d) a means to be provided which will hold the conveyance with its maximum load in any position in the hatchway when power is not being supplied to the hoisting machinery;

(e) the conveyance to be enclosed on all sides, except the access side, to a height of at least 1350 mm above the floor of the conveyance and, where the height of the conveyance is less than 1350 mm, the sides except the access side to be completely enclosed;

(f) the conveyance and counterweight to be carried by chains or steel-wire ropes of which the aggregate breaking load shall be at least six times the rated load of the hoist; and

(g) the hoist to be controllable from the landings only and no means of control shall be provided inside the conveyance, nor shall the means of control be accessible from inside the conveyance.

(2) The user of a goods hoist shall cause the hoist to be inspected at least once every three months by a person who has knowledge and experience of the erection and maintenance of goods hoists or similar machinery, in order to determine the serviceability of the entire hoist including guides, ropes and their connections, drums, sheaves or pulleys and all safety devices, and shall cause such person to enter and sign the result of each such inspection in a record book which shall be kept on the premises for that purpose.

(3) The user shall cause a notice indicating the maximum mass load which may be carried at any one time and prohibiting persons from riding on the goods hoist, to be affixed at each landing.

(4) No user shall require or permit any person to ride on a goods hoist and no person shall ride on such a goods hoist.

#### **Lifting machines and lifting tackle**

**18.(1) No user shall use or permit the use of a lifting machine unless -**

(a) it has been designed and constructed in accordance with a generally accepted technical standard;

(b) it is conspicuously and clearly marked with the maximum mass load which it is designed to carry with safety: Provided that when this mass load varies with the conditions of use a table showing the maximum mass load with respect to every variable condition shall be posted up by the user in a conspicuous place easily visible to the operator; and

(c) it has at all times at least three full turns of rope on the drum of each winch which forms part of such a machine when such winch has been run to its lowest limit.

(2) The user shall, where practicable, provide every power-driven lifting machine with-

**(a) a brake or other device capable of holding the maximum mass load should the power supply fail, or which is such that it will automatically prevent the uncontrolled downward movement of the load when the raising effort is interrupted; and**

**(b) a limiting device which will automatically arrest the driving effort when -**

**(i) the hook or load attachment point of the power-driven lifting machine reaches its highest safe position; and**

**(ii) in the case of a winch-operated lifting machine with a lifting capacity of 5000 kg or more, the load is greater than the rated mass load of such machine.**

**(3) The user shall cause every chain or rope which forms an integral part of a lifting machine to have a factor of safety as prescribed by the standard to which such machine was manufactured: Provided that in the absence of such prescribed factor of safety, chains, steel-wire ropes and fibre ropes shall have a factor of safety of at least four, five and ten, respectively, with respect to the rated carrying capacity of the lifting machine.**

**(4) The user shall cause every hook or any other load-attaching device which forms and integral part of a lifting machine to be so designed or proportioned that accidental disconnection of the load under working conditions cannot take place.**

**(5) The user shall cause the whole installation and all working parts of every lifting machine to be thoroughly examined and subjected to a performance test, as prescribed by the standard to which the lifting machine was manufactured, by a person who has knowledge and experience of the erection and maintenance of the type of lifting machine involved or similar machinery and who shall determine the serviceability of the structures, ropes, machinery and safety devices, before they are put into use following every time they are dismantled and re-erected, and thereafter at intervals not exceeding 12 months: Provided that in the absence of such prescribed performance test the whole installation of the lifting machine shall be tested with 110 % of the rated mass load, applied over the complete lifting range of such machine and in such a manner that every part of the installation is stressed accordingly.**

**(6) Notwithstanding the provisions of subregulation (5), the user shall cause all ropes, chains, hooks or other attaching devices, sheaves, brakes and safety devices forming an integral part of a lifting machine to be thoroughly examined by a person contemplated in subregulation (5) at intervals not exceeding six months.**

**(7) Every user of a lifting machine shall at all times keep on his premises a register in which he shall record or cause to be recorded full particulars of any performance test and examination prescribed by subregulation (5) and (6) and any modification or repair to the lifting machine, and shall ensure that the register is available on request for inspection by an inspector.**

**(8) No user of machinery shall require or permit any persons to be moved or supported by means of a lifting machine, unless such machine is fitted with a cradle approved for that purpose by an inspector.**

**(9) No user shall use or permit any person to use a jib-crane with a lifting capacity of 5 000 kg or more at minimum jib radius, unless it is provided with -**

**(a) a load indicator that will indicate to the operator of the jib-crane the mass of the load being lifted: Provided that such a device shall not require manual adjustment, from application of a load to the jib crane until the release of that load, using any motion or combination of motions permitted by the crane manufacturer to ensure safe lifting; or**

**(b) a limiting device which will automatically arrest the driving effort whenever the load being lifted is greater than the rated mass load of the jib-crane, at that particular radius, using any motion or combination of motions permitted by the crane manufacturer to ensure safe lifting: Provided that such a device shall not arrest the driving effort when the jib-crane is being operated into a safer condition.**

**(10) No user shall use or allow the use of any lifting tackle unless the following conditions are complied with, namely that -**

**(a) every item of lifting tackle is well constructed of sound material, is strong enough and is free from patent defects and is in general constructed in accordance with a generally accepted technical standard;**

**(b) every lifting assembly consisting of different items of lifting tackle is conspicuously and clearly marked with identification particulars and the maximum mass load which it is designed to lift with safety;**

**(c) ropes of chains have a factor of safety with respect to the maximum mass load they are designed to lift with safety of-**

**(i) ten for natural-fibre ropes;**

**(ii) six for man-made fibre ropes or woven webbing;**

**(iii) six for steel-wire ropes except for double part spliced endless**

**sling legs and double part endless grommet sling legs made from steel-wire rope, in which case the factor of safety shall be at least eight;**

**(iv) five for steel chains; and**

**(v) four for high-tensile or alloy steel chains:**

**Provided that when the load is equally shared by two or more ropes or chains the factor of safety may be calculated in accordance with the sum of the breaking strengths taking into consideration the angle of loading;**

**(d) steel-wire ropes are discarded and not used again for lifting purposes if the rope shows signs of excessive wear, too many broken wires, corrosion or other defects that have made its use in any way dangerous;**

(e) such lifting tackle is examined at intervals not exceeding three months by a person contemplated in sub-regulation (5) who shall enter and sign the result of each such inspection in a book kept for this purpose; and

(f) such lifting tackle is stored or protected so as to prevent damage or deterioration when not in use.

(11) The user shall ensure that every lifting machine is operated by an operator specifically trained for a particular type of lifting machine: Provided that in the case of a lift truck with a lifting capacity of 750 kg or more and jib-cranes with a lifting capacity of 5000 kg or more at minimum jib radius, the user shall not require or permit any person to operate such a lifting machine unless the operator is in possession of a certificate of training, issued by a person or organization approved for the purpose by the Chief Inspector.

[Date effective 10 October 1993 - G.N.R.2483 of 4 September 1992]

### **Builder's hoists**

19.(1) The user shall ensure that every builder's hoist and its tower are well constructed of sound material, are strong enough and free from patent defects and in general are constructed in accordance with generally accepted technical standards.

(2) The user shall cause the tower of every builder's hoist -

(a) to be secured to the structure or to be braced by steel wire guy ropes and to extend to such a distance above the highest landing as to allow a clear and unobstructed space of at least 900 mm for overtravel;

(b) to be enclosed on all sides at the bottom, and at all floors where persons are liable to be struck by moving parts of the hoist except on the side or sides giving access to the conveyance, with walls or other effective means to a height of at least 2 100 mm from the ground or floor level; and

(c) to be provided with a door or gate at least 1 800 mm high at each landing, and such door or gate shall be kept closed except when the conveyance is at rest at such a landing.

(3) The user shall cause -

(a) the conveyance of a builder's hoist to be carried by a steel-wire rope of which the breaking strength shall be at least six times the maximum mass load it is required to carry;

(b) every builder's hoist to be provided with an efficient brake capable of holding the conveyance with its maximum load in any position when the power is not being supplied to the hoisting machinery; and

(c) effective arrangements to be made for clear signals for the operation of the hoist to be given from each landing from which the builder's hoist is being used.

**(4) No user shall require or permit trucks, barrows or material to be conveyed on or in the conveyance of a builder's hoist and no person shall so convey trucks, barrows or material unless such articles are so secured or contained that displacement thereof cannot take place during conveyance.**

**(5) No user shall require or permit any person to ride on, and no person shall ride on, a builder's hoist.**

**(6) The user shall cause every builder's hoist to be inspected at least once every week by a person who has experience of the erection and maintenance of builder's hoists or similar machinery, who shall determine the serviceability of the entire builder's hoist including guides, ropes and their connections, drums, sheaves or pulleys and all safety devices, and who shall enter and sign the result of each such inspection in a record book which shall be kept on the premises for that purpose.**

### **Explosive powered tools**

**20. (1) No user shall use or permit any person to use an explosive powered tool unless-**

**(a) it is provided with a protective guard around the muzzle end which effectively confines any flying fragments or particles;**

**(b) the firing mechanism is so designed that the explosive powered tool will not function unless -**

**(i) it is held against the surface with a force of at least twice its weight; and**

**(ii) the angle of inclination of the barrel to the work surface is not more than 15 degrees from a right angle:**

**Provided that the provisions of this subregulation shall not apply to explosive powered tools in which the energy of the cartridge is transmitted to the bolts, nails or similar relevant objects by means of an intermediate piston which has a limited distance of travel.**

**(2) The user of an explosive powered tool shall ensure that -**

**(a) only cartridges suited to the explosive powered tool and the work to be performed are used;**

**(b) the explosive powered tool is cleaned and examined at regular intervals as may be necessary for its safe operation;**

**(c) when not in use, the explosive powered tool and the cartridges are stored in a safe place which is inaccessible to unauthorized persons;**

**(d) the explosive powered tool is not stored in a loaded condition; and**

**(e) a warning notice is posted wherever the explosive powered tool is used.**

**(3) No user shall permit or require any person to use an explosive powered tool unless such person has been-**

- (a) provided with and uses suitable eye protection; and
- (b) has been fully instructed in the operation, maintenance and use of such tool.

### **Offences and penalties**

**21. Any person who contravenes or fails to comply with a provision of regulation 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16(1), 16(2), 16(5), 16(6), 16(7), 17, 18, 19 or 20 shall be guilty of an offence and liable on conviction to a fine not exceeding R1 000 or to imprisonment for a period not exceeding six months and, in the case of a continuous offence, to an additional fine of R5 for each day on which the offence continues or to additional imprisonment of one day for each day on which the offence continues: Provided that the period of such additional imprisonment shall in no case exceed 90 days.**

### **Withdrawal of regulations**

**22. The following regulations are hereby withdrawn:**

(a) Regulations C15, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46 and C49, published by Government Notice R. 929 of 28 June 1963;

(b) regulation D15, published by Government Notice R. 1934 of 13 December 1963.

### **Schedule**

**1. Regulation 15.**

**South African Bureau of Standards, code of practice SABS 0147: Refrigeration and air-conditioning installations.**

**2. Regulation 16 (1)(a).**

**South African Bureau of Standards, code of practice SABS 0148: The installation and operation of cable cranes and aerial rope-ways.**

### **Notice of approval to issue certificates of training to lifting machine operators**

**I, Imanuel Mulder, appointed as chief inspector in terms of section 19(1) of the Machinery and Occupational Safety Act, 1983, acting in terms of the powers vested in me by regulation 18(11) of the Driven Machinery Regulations, published under Government Notice No.R.2483 of 4 September 1992, hereby withdraw Government Notice 834 of 18 September 1992 and give notice that as from the date of this notice, all applications for approval from a person or organisation who provides training to a lift truck operator or jib-crane operator, where the capacity**

of a lift truck is 750 kg or where the capacity of a jib-crane is 5 000 kg or more respectively, will henceforth only be entertained if it is accompanied by a valid certificate issued by a training board accredited by the Registrar of Manpower Training in terms of section 12D of the Manpower Training Act, 1981, or the SA Institute of Materials Handling (the National Council) which has been authorised by the Chief Inspector of Occupational Safety, Department of Manpower, to carry out such evaluations.

**I.Mulder**  
**Chief Inspector**

### **Exemption**

#### **EXEMPTION GRANTED IN TERMS OF SECTION 32 OF THE MACHINERY AND OCCUPATIONAL SAFETY ACT, 1983**

I, Imanuel Mulder, appointed as chief inspector in terms of section 19(1) of the Machinery and Occupational Safety Act, 1983, by virtue of the power delegated to me by the Minister of Manpower in terms of section 34(1) of that Act, hereby exempt all users of goods hoists fitted with picket gates at hatchway landing entrances from the requirements of regulation 17(1)(b) of the Driven Machinery Regulations, 1988, published under Government Notice No.R.295 of 26 February 1988, requiring that any opening in the hatchway landing door or gate shall not be more than 38 mm in width: Provided that -

- (a) the speed of the conveyance shall not exceed 0,25 m/second;
- (b) the conveyance is fitted with a gate at its access side in addition to hatchway landing gates; and
- (c) both the car and landing gates shall not have openings exceeding 65 mm in width.

**I.Mulder**  
**Chief Inspector**