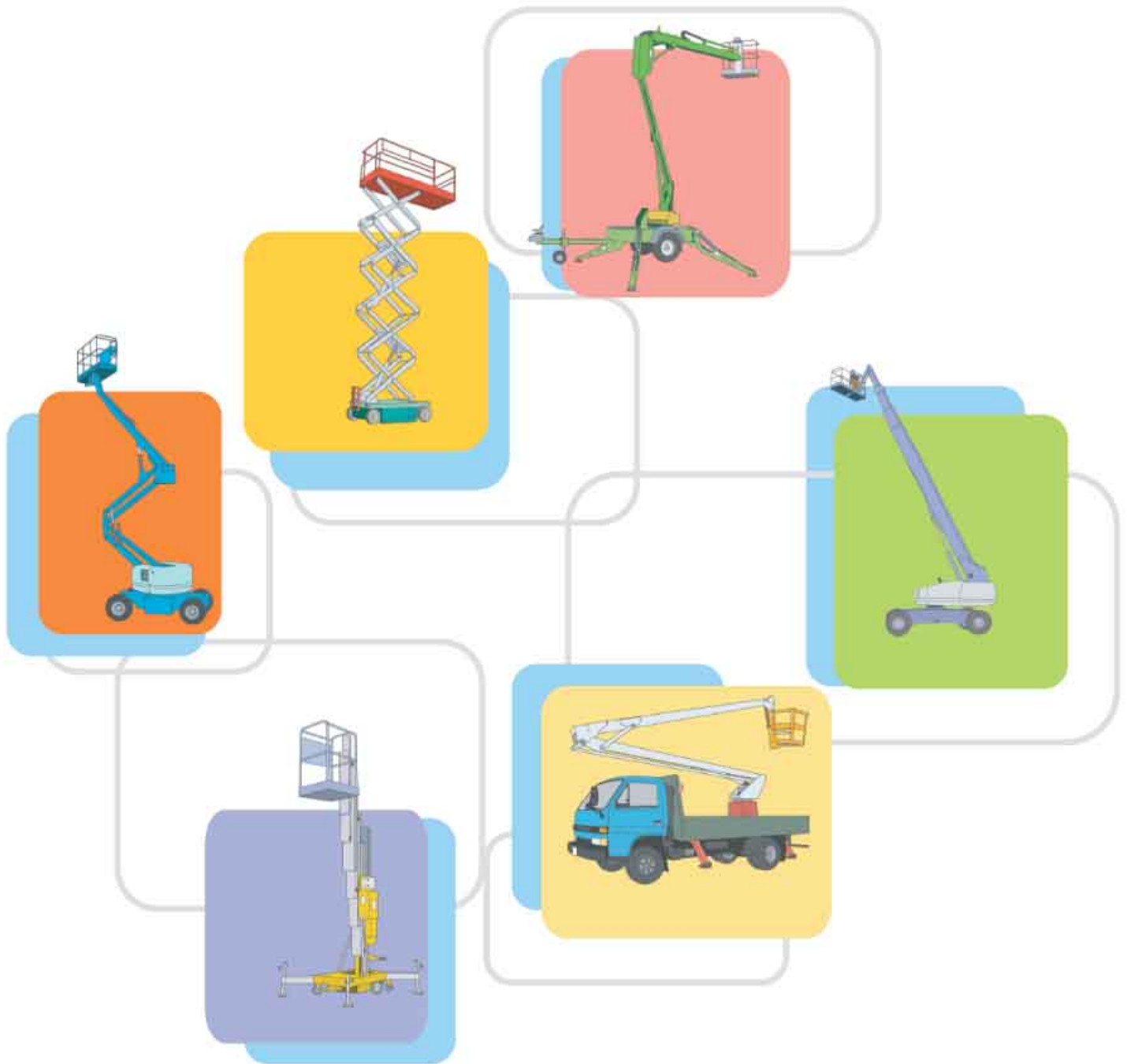


Guidance Notes on Safe Use of Power-operated Elevating Work Platforms



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Labour Department

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1. INTRODUCTION

- 1.1 In recent years, power-operated elevating work platforms have been widely used for work at height. Some accidents involving these machines have resulted in injuries to workers and property damage.
- 1.2 Power-operated elevating work platforms have many different names including cherry pickers or aerial platforms. They can be vehicle-mounted, self-propelled, towed or manually-moved. They have become popular in workplaces such as construction sites, shopping centres and many others where workers are required to perform work at height.
- 1.3 The purpose of this booklet is to provide essential guidelines for safe operation of power-operated elevating work platforms. Apart from these guidelines, the instructions contained in the manufacturer's specifications and operation and maintenance manuals should also be followed.
- 1.4 This booklet provides practical guidance on how power-operated elevating work platforms can be used safely and properly with a view to assisting the duty holders of workplaces in preventing accidents.
- 1.5 These guidance notes do not apply to the following installations: -
 - (a) builder's lift or tower working platform that has the same meaning as in the Builder's Lifts and Tower Working Platforms (Safety) Ordinance;
 - (b) fork-lift truck with working platform;
 - (c) cargo or platform attached to crane hook;
 - (d) personnel bucket temporarily attached to a mobile crane;
 - (e) suspended scaffold; and
 - (f) suspended working platform.

- 1.6 If the power-operated elevating work platform is to be driven on a public road or private road, its owner has to apply for vehicle registration or a movement permit from the Transport Department. The Transport Department could be consulted for further information about the application for vehicle registration or movement permit.
- 1.7 It should be noted that the guidance notes in this booklet should not be regarded as exhausting those matters which need to be covered by the relevant safety legislations, nor are they intended to relieve persons undertaking the work of their statutory responsibilities.

2. LEGAL REQUIREMENTS AND PROVISIONS

- 2.1 The legal obligations on employers and contractors in relation to the safe operation of power-operated elevating work platforms at workplaces and in industrial undertakings including construction sites are laid down under the provisions of the Occupational Safety and Health Ordinance (OSHO) and the Factories and Industrial Undertakings Ordinance (FIUO) and its subsidiary regulation respectively.
- 2.2 Regulation 45 of the Construction Sites (Safety) Regulations requires that only a trained and competent workman over 18 years of age is allowed to operate a mechanical equipment inside a construction site. No person under 18 years of age is allowed to give signals to the operator of the equipment.
- 2.3 The OSHO and the FIUO also impose general duties on employer and contractor with regard to the health and safety at work of their employees at a workplace or in industrial undertakings which cover construction sites. These include the legal requirements to provide their employees with plant and system of work that are, so far as reasonably practicable, safe and without risk to health. The general duties extend to include that the employer and the contractor should provide all necessary information, instruction, training and supervision for operators and workers of power-operated elevating work platforms.
- 2.4 Section 8 of the OSHO and Section 6B of the FIUO also impose legal obligations on an employee, including an operator of a power-operated elevating work platform, to take reasonable care for the health and safety of himself and of other persons who may be affected by his acts or omissions at work.

3. SAFE SYSTEM OF WORK

3.1 Prior to any operation involving the use of a power-operated elevating work platform, the person responsible for the machine operation including the employer and the contractor responsible for the construction site and the person having the management or control of the machine operation should provide a safe system of work for the operation.

3.2 To establish a safe system of work, the person responsible for the machine operation should take the following steps: -

(a) **Risk assessment**

A risk assessment should be carried out to identify all potential hazards associated with the operation of a power-operated elevating work platform. The working environment, the ground condition and the limitations of the type of power-operated elevating work platform should be considered. Other hazards including unauthorized operation of power-operated elevating work platforms, the width and the gradients of the slope, ineffective maintenance, overloading or misuse of power-operated elevating work platforms should also be properly assessed and documented. Such hazards should be understood and observed by all parties concerned.

(b) **Planning the operation**

The person responsible for the machine operation should ensure that the operation is carried out safely and all foreseeable risks have been taken into account. This includes identification and description of working locations, scale and duration of the operation, use of access road and possible route of travelling or moving within an industrial undertaking or a workplace.

If the machine with an internal combustion engine has to enter and work in confined areas, the Factories and Industrial Undertakings (Confined Spaces) Regulation should be followed. Moreover, the weather condition should be taken into consideration to ensure that the operation is not affected by rain, storm or sudden change of weather.

(c) **Safety working procedure**

The safe system of work should lay down safe work methods and procedures for the required operation.

(d) **Implementation**

To ensure the effective implementation of the safe system of work, the person responsible for the machine operation has the duties to provide the information, instruction, training and supervision to the workers and operators. An effective communication arrangement at the workplace should be established so that all managers, supervisors, workers and operators are fully aware of the potential hazards and precautions to be adopted and their roles to play. The operators are also responsible for following the in-house safety rules, safety practices and procedures. Their performance should be monitored and recorded by the responsible person so as to improve the effectiveness of the system.

(e) **Reviewing**

A reviewing process should be taken periodically or when there has been a significant change in the machine or in the work environment to see how good the safe system of work is performing and whether adjustment or improvement is required. Particular attention should be paid to the feedback from operators and workers regarding the selection of power-operated

elevating work platforms because it can improve the effectiveness of the system and workers' acceptance.

(f) **Auditing**

An auditing plan should be prepared to ensure long-term adequacy and reliability of the safe system of work. The auditing process should review new or revised standards regarding protection, accident statistics, workers' acceptance, changes in processes and the availability of alternative control measures.

4. SELECTION OF MACHINE

- 4.1 For any work involving the use of a power-operated elevating work platform, a suitable machine designed in accordance with sound and accepted engineering practices should be selected.
- 4.2 There are many different designs of power-operated elevating work platforms. Therefore, for every job involving the use of a power-operated elevating work platform, it is essential that a suitable machine should be selected depending on the nature and location of work. Points to be considered in making the selection include: -
- (a) the working height and horizontal reach required;
 - (b) the weight to be carried by the machine, including weight of persons, materials and equipment;
 - (c) working conditions such as unrestricted open grounds or congested areas with narrow operating paths;
 - (d) working environment such as indoor, outdoor and ventilation of workplace; and
 - (e) whether warning and safety devices including reversing alarm and CCTV device, flashing lights and horns are provided.

Classification of power-operated elevating work platforms

- 4.3 A power-operated elevating work platform comprises a work platform which height can be adjusted to provide access for work above or below ground level. Figure 1 illustrates power-operated elevating work platforms commonly used in Hong Kong. They are classified as follows according to their modes of operation:-
- (a) the articulating boom type
 - (b) the telescopic boom type
 - (c) the scissor type
 - (d) the vertical mast type

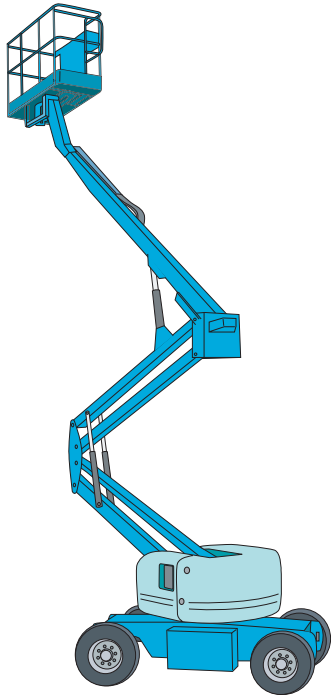
Driving modes for power-operated elevating work platforms

4.4 The power-operated elevating work platform is a frequently used equipment due to its mobility and convenience in use. It can be mounted on wheeled or crawler-tracked chassis. The machine can also travel under its own power. Figure 2 illustrates the driving modes for the machines commonly used in Hong Kong, which include the following: -

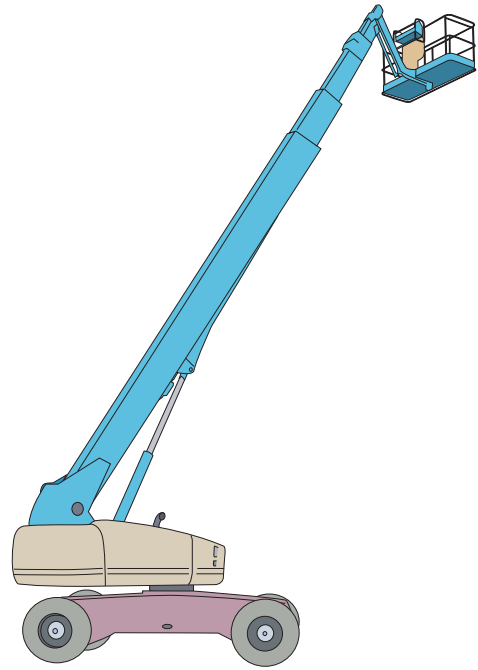
- (a) chassis-mounted type
- (b) self-propelled type
- (c) non self-propelled type

Modifications

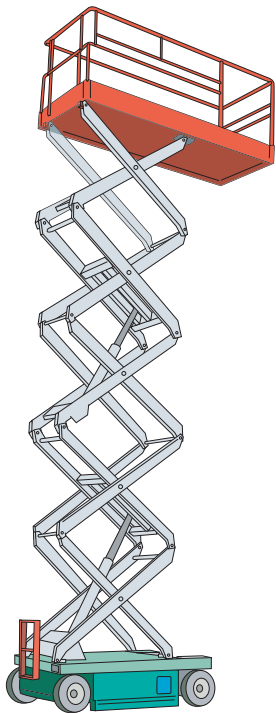
4.5 A power-operated elevating work platform should be used for the purpose it is designed for. The person responsible for the machine operation should consult the machine manufacturer on any attempt to modify the machine or its attachments, or use an attachment of a different make to suit a specific work purpose.



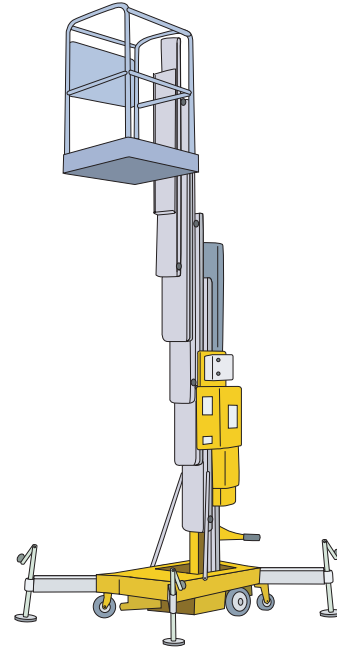
The articulating boom type



The telescopic boom type

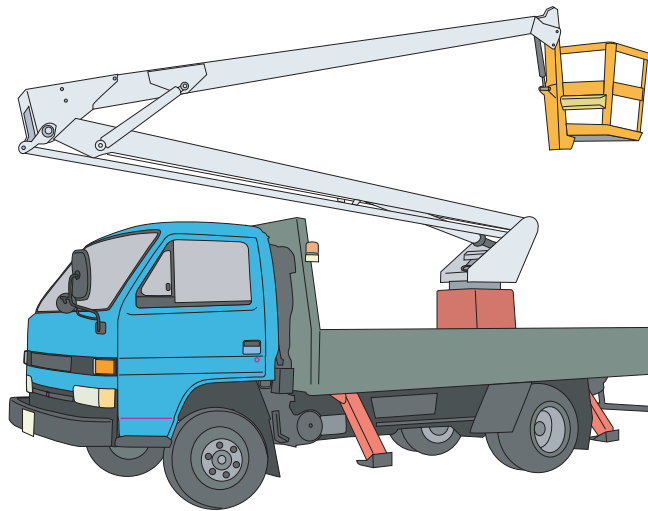


The scissor type

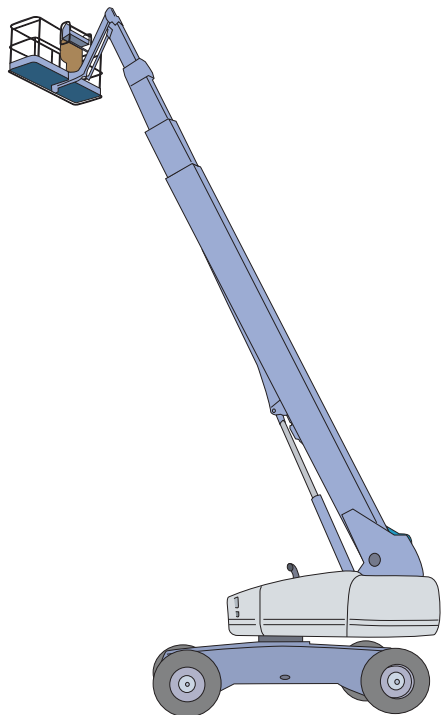


The vertical mast type

Figure 1 Classification of Power-operated Elevating Work Platforms



Chassis-mounted type



Self-propelled type



Non self-propelled type

Figure 2 Driving modes for Power-operated Elevating Work Platforms

5. MARKINGS AND DOCUMENTATION

- 5.1 A power-operated elevating work platform must have visible permanent markings or notices to indicate the following information: -
- (a) manufacturer's name;
 - (b) machine model;
 - (c) serial number;
 - (d) year of manufacture;
 - (e) safe working load;
 - (f) number of persons that can be carried by it; and
 - (g) maximum reaching height and radius.
- 5.2 Specific warning signs affixed to a power-operated elevating work platform by its manufacturer to give warnings about specific hazards at various locations of the machine should be maintained in legible condition.

Manufacturer's manuals and logbooks

- 5.3 For safe use of any power-operated elevating work platform, manufacturer's manuals such as operation manual and maintenance manual should be available for reference by the relevant personnel.
- 5.4 If the power-operated elevating work platform is not supplied with a logbook, then one should be provided, maintained and kept on the work site for regular, periodic recording of all inspections, tests, repairs, maintenance and hours of service related to the machine. All entries should be dated and signed by the operator, maintenance staff or supervisor. The person responsible for the machine operation should ensure that the log book remains with the power-operated elevating work platform and is kept up-to-date.

6. WORKPLACE CONDITIONS

- 6.1 Good workplace conditions can assist the management to enhance workplace safety standards. It is therefore important for them to lay out the premises properly during the planning stage of the machine operation.

Protecting pedestrians

- 6.2 When a power-operated elevating work platform is used in a public area, suitable walkways for pedestrian, physically segregated from the operating areas, should be provided to prevent hazards arising from traffic or pedestrians. Suitable direction and warning signs should be clearly marked or posted at these crossing points.

Work areas

- 6.3 Restricted or prohibited areas including operating areas and traffic routes should be set up or fenced off. Warning notices on prevention of unauthorized entry should also be posted.
- 6.4 The operator should ensure that the area surrounding the machine is clear of persons and equipment before lowering the machine.

Maximum gradient

- 6.5 The power-operated elevating work platform should not be used on grades, slopes, ramps or cambers with gradient exceeding the recommended limit in the manufacturer's manual.

Parking areas

- 6.6 A power-operated elevating work platform should be parked in a designated area where is out of traffic and on level ground. The machine should be located at supervised areas to prevent easy access by unauthorized persons.

Surfaces or floors

- 6.7 The surfaces or floors where a power-operated elevating work platform is operating should be: -
- (a) of adequate load-bearing capacity;
 - (b) firm, flat, smooth and level;
 - (c) free from debris, bumps or objects; and
 - (d) free from potholes or loose materials.

Public utilities

- 6.8 Where a power-operated elevating work platform is required to work in the vicinity of any public utilities including overhead electricity lines, gas pipes or other public utilities, the person responsible for the machine operation should take precautions to prevent any operator or worker from being endangered by it.
- 6.9 Common precautions include rendering dead the electricity supply line or placing of barriers. All electricity supply lines should be treated as live unless they are certified dead and safe by the relevant authority.

Lighting

- 6.10 Adequate lighting should be provided at all areas where the power-operated elevating work platform comes across. Where practicable, lighting should be arranged to avoid glare. Extremes of light and dark between adjacent areas, to which the eyes cannot be adapted so quickly for sudden change, should be avoided.

Ventilation

- 6.11 Adequate ventilation should be provided and maintained in all workplaces where power-operated elevating work platforms work. When a machine with an internal combustion engine is used in a confined area, the Factories and Industrial

Undertakings (Confined Spaces) Regulation should be followed. The level of oxygen and carbon monoxide in the air should be checked and monitored to prevent asphyxiation or gas poisoning due to engine exhaust or other gases.

Wind and weather conditions

- 6.12 A power-operated elevating work platform should not be operated when weather condition is likely to endanger its stability or cause danger to the person carried thereon. Attention should be paid to the thunderstorm warning, rainstorm warning, typhoon signal, flooding signal, strong monsoon signal or other weather warnings announced by the Hong Kong Observatory.

Hazardous location operation

- 6.13 Operation of the machine at locations marked as hazardous, such as one having potentially flammable or explosive gases or particles, should be prohibited.

7. CONSTRUCTION AND SAFETY FEATURES

7.1 Every power-operated elevating work platform should be of good construction and adequate strength. It should be made of sound material and be free from patent defect. It should also be suitable for the purpose for which it is used.

Control

7.2 A power-operated elevating work platform should have two sets of controls. One set of controls should be on the platform and the other set at ground or chassis level. The set at ground/chassis level should be able to override the set on the platform. A clearly marked overriding lowering control shall be fitted to enable a worker at ground level to lower the platform in an emergency.

7.3 Every control of a power-operated elevating work platform should be of the "deadman" type that it automatically returns to neutral or off position when released. The controls should be positioned or protected against accidental operation or damage.

7.4 The function of each control device should be clearly indicated and marked on or beside the device.

Power systems

7.5 Electrically-driven elevating work platform for use in open space should be provided with weatherproof electrical fittings.

7.6 Fuel lines of internal combustion engines must be protected from engine and exhaust heat.

7.7 A power-operated elevating work platform should have an emergency stop at prominent position to enable power to all systems to be cut off.

7.8 The engine, if applicable, should be shut down while fuel tanks are being filled. The fuelling areas should be well ventilated, free of flame, sparks or other hazards that may cause fire or explosion.

7.9 Batteries should be charged in a well-ventilated area free of flame, sparks or other hazards that may cause fire or explosion.

Warning signal

7.10 An alarm or other audible warning devices should be fitted on the power-operated elevating work platform to warn the operator when the machine's base is out of level. The operator should be allowed to restore the machine to a safe condition when the drive and lift functions are disabled.

7.11 The power-operated elevating work platform should be equipped with an audible warning device that can be used by the operator to give warnings to nearby persons when moving the machine.

Safety features

7.12 All dangerous parts including rotating shafts, gears and sprockets should be guarded so that the persons operating the machine will not be endangered by the operation of the machine.

7.13 The machine should be fitted with an effective lock-on brake or other means to hold the unit on the maximum slope it is designed for while loaded with its safe working load.

7.14 For the scissor type power-operated elevating work platform, suitable safety device such as captive chock within the scissor mechanism should be used to prevent trapping of persons during maintenance.

7.15 Where stability is dependent on the correct use of outriggers, the lifting mechanisms must be interlocked to the outriggers.

7.16 A power-operated elevating work platform with tilting mast should have means to secure the mast in both the transport and working positions. It should not be possible to move the work platform in its working position until the mast is in its working position.

7.17 Trapping and shearing points between parts of the extending structure, the chassis and the work platform should be avoided by providing guarding or safe clearances. Such points need only be considered at those areas within reach of persons on the work platform or standing adjacent to the machine at ground level, or at other points of access. Where neither safe clearance nor guarding is possible, warning notices should be displayed.

Attachment

7.18 Before using attachments at the power-operated elevating work platform, the person responsible for the operation of the machine should follow the manufacturer's instructions for each attachment.

Hydraulic equipment

7.19 Hydraulic systems are to be built for fail-safe condition and must be so designed that free descent will not occur in case of a hose or fitting failure. In the event of hydraulic line failure, hydraulically-positioned outriggers or stabilizers must not retract.

Working platform

7.20 A power-operated elevating work platform should be provided with safe means of access to and egress from the platform.

7.21 The platform of a power-operated elevating work platform should be slip-resistant and have effective means to drain off water.

7.22 The platform of a power-operated elevating work platform should be properly maintained and fitted with:-

- (a) suitable guardrails of adequate strength and toe-boards at every side. The height of a top guardrail should be not less than 900 millimetres and not more than 1 150 millimetres. The height of an intermediate guardrail should be not less than 450 millimetres and not more than 600 millimetres;

- (b) a toe-board with height not less than 200 millimetres; and
- (c) a marking showing its safe working load and the maximum number of persons it permits.

Braking system

- 7.23 A braking system should be provided on all drives. For raising movements, this system should be an automatic lock or self-sustaining device. The braking system should be automatically applied when the drive is no longer energized.
- 7.24 The braking system should ensure that the work platform can be stopped and held at any position under all possible conditions of operation. Unintentional releases of these devices should not be possible.

8. SAFE OPERATION

8.1 A power-operated elevating work platform should be used in accordance with the instructions given in the manufacturer's manuals. The machine should not be used outside the specifications.

Before operation

8.2 Before operating a power-operated elevating work platform, the operator should ensure that: -

- (a) the machine is inspected and all deficiencies are reported. It should not be operated until deficiencies are fixed and all systems are in good operating condition;
- (b) the low reservoirs of all fluids in the brake, transmission, power steering, engine coolant and hydraulic system are filled up to proper level;
- (c) all controls such as forward and reverse, steering, and all operating and shutdown controls are checked;
- (d) the machine is set up with its outriggers fully extended and levelled within the manufacturer's tolerances. Where necessary, suitable support materials should be placed under the outriggers to provide a firm base;
- (e) the machine cannot be hit by other vehicles and is protected by barricades and warning signs when the working area is in a public place;
- (f) pedestrians do not have to walk under or near the platform;
- (g) if the machine is to be working at night time or in a dark area, lights must be used to adequately illuminate the workplace and also to warn the travelling public;
- (h) all protective and safety devices are in place and in proper working order. For example, guards, railings, covers and safety signs should be installed on the power-operated elevating work platform as required by the manufacturer;

- (i) every person working on the power-operated elevating work platform should wear a suitable safety harness with its lanyard anchored to a specified anchorage point of the work platform designed by the manufacturer to prevent falling from the platform;
- (j) when a machine with an internal combustion engine is used in a confined area, effective measures should be taken according to the the Factories and Industrial Undertakings (Confined Spaces) Regulation ; and
- (k) at locations where the visibility of the workers on the platform will affect the safety of the operation, the workers should wear reflective vests accordingly.

During operation

8.3 While operating a power-operated elevating work platform, the operator should ensure the following: -

- (a) never exceed the safe working load;
- (b) never position the machine over persons or allow workers to go under the platform. Don't start moving the machine until the way is clear and will remain clear;
- (c) safety devices should not be overridden;
- (d) never move the machine close to overhead electric lines unless the electricity distributor has permitted a closer approach in writing. Reference should also be made to the Electricity Supply Lines (Protection) Regulation and the Code of Practice on Working near Electricity Supply Lines issued by the Electrical and Mechanical Services Department;
- (e) service brakes should be checked in both forward and reverse operation on level ground according to the manufacturer's instructions;
- (f) the machine should be operated slowly to avoid sudden stops, starts, turns or changes in direction;

- (g) there is sufficient ventilation in the building or other enclosed area for effective dispersion of the engine exhaust;
- (h) the machine is operated on a firm and level ground. If the ground is too slippery for the machine under wet or rainy condition, the operation of the machine should be stopped;
- (i) never operate the machine too close to an overhang, deep ditch or hole and be alert to potential caving edges, falling rocks and slides, rough terrain and any obstacles;
- (j) never leave the machine unattended while the engine is running and ignition key is on the machine;
- (k) never use the machine for any purpose other than those it is designed for;
- (l) only properly secured tools and materials which are evenly distributed and can be safely handled by the person(s) working on the machine are moved. Such operations should be performed according to the manufacturer's instructions; and
- (m) never carry materials outside the work platform except such operations are performed according to the manufacturer's instructions.

Travel

- 8.4 Before operating a non self-propelled or chassis-mounted power-operated elevating work platform, the operator should ensure that: -
- (a) the machine should not be moved or transported with workers on it; and
 - (b) the work platform should be lowered to the cradle position before it is moved.
- 8.5 Before operating a self-propelled power-operated elevating work platform, the operator should ensure that: -

- (a) the route chosen is firm and level; and
- (b) workers should not push off or pull toward any object outside of the platform.

8.6 While the machine is travelling, the operator should ensure that: -

- (a) he always has a clear view of the ground;
- (b) a safe distance is kept from overhead cable, obstacles, debris, holes, depressions, ramps and other hazards; and
- (c) slewing of the work platform should not be carried out at the same time.

Parking

8.7 After work, the power-operated elevating work platform should be parked in a designated area and on level ground with its boom lowered or retracted. The engine should be switched off, and the parking brake should be applied and the wheels blocked, if necessary.

8.8 Before leaving the power-operated elevating work platform, all controls should be placed in a neutral position. The ignition key should be removed from the platform and handed back to the relevant personnel for safe custody so as to prevent unauthorized operation of the work platform.

9 MAINTENANCE AND INSPECTION

- 9.1 A power-operated elevating work platform should be regularly inspected, tested, and properly maintained in accordance with the manufacturer's instructions in order to ensure that it is in safe working condition at all times.
- 9.2 Any person assigned to perform inspection, test, maintenance and repair of a power-operated elevating work platform should be suitably trained and competent for such work.

Pre-operation inspection

- 9.3 The operator should carry out a pre-operation inspection to ensure that the power-operated elevating work platform is in a serviceable state and should check the following items: -
- (a) all items specified in the manufacturer's manual;
 - (b) tyre pressure, if pneumatic tyres are fitted, and that tyres are not damaged;
 - (c) that all brakes are working efficiently and the brake fluid level is correct;
 - (d) that the fuel, water and oil levels of the machine are adequate;
 - (e) that the batteries, if in battery-operated units, are charged;
 - (f) hydraulic lines for leaks and damage and the hydraulic fluid level to ensure its adequacy;
 - (g) that the supporting structure is sound and free from distortion or cracking;
 - (h) that the powered mechanism for operating the machine is working properly;
 - (i) that the communication system between the platform and the ground functions correctly;
 - (j) that emergency controls function correctly and any safety equipment is in good condition;

- (k) that if electrically insulated, the insulated section is not bridged by any residue; and
- (l) signaling/warning lights or devices to ensure that they function effectively.

Weekly inspection

9.4 A competent mechanic or the operator, if authorized and competent, should check the following items: -

- (a) all items of the pre-operation inspection in sub-section 9.3;
- (b) the steering function to observe any abnormalities;
- (c) the hydraulic controls to ensure that they function properly;
- (d) the hydraulic cylinders and valves to detect any leakage; and
- (e) the lifting chains/rollers and the limit switches, if fitted, to ensure proper functioning of raising and lowering.

Periodic servicing/inspection

9.5 Periodic servicing/inspection should be carried out on certain components or mechanisms according to the manufacturer's operation and maintenance manuals. The purpose of periodic servicing/inspection is to determine the need for repairs or replacement of parts as required to ensure the safety and reliability of the machine. The procedures should include:-

- (a) a check of all items in sub-sections 9.3 and 9.4;
- (b) an operational check of the machine;
- (c) a check of the condition of the chassis, support structure, powered mechanism and the platform;

- (d) lubrication; and
- (e) any faults discovered must be corrected or the machine withdrawn from service.

Examination and testing

- 9.6 The power-operated elevating work platform should be thoroughly examined and tested by a competent examiner before use or after undergoing substantial repair. It should be further examined thoroughly by a competent examiner on a regular basis as recommended by the manufacturer but not less than once per year;
- 9.7 All electrical components and earthing facilities should be checked and tested in accordance with manufacturer's specifications by a qualified electrician.
- 9.8 Where the machine is designed as electrically insulated, electrical insulation tests should be carried out periodically. If the test is not satisfactory, the work platform must not be used as an insulating machine and work must not be carried out from the platform on conductors that are live or that can become live during the period that an employee is on the platform. A record of all tests should be kept and be available for inspection.

Records Keeping

- 9.9 The person responsible for the machine operation should ensure that all records of examinations, tests, inspections, maintenance and repairs of the power-operated elevating work platform are documented and properly kept.
- 9.10 The maintenance logbooks and records should be readily available for reference and examination by the relevant personnel.

10. EMPLOYER, CONTRACTOR AND OWNER

10.1 The person responsible for the machine operation including the employer and the contractor responsible for the construction site and the person having the management or control of the machine operation should ensure that the power-operated elevating work platform is of good mechanical construction and free from patent defects before use.

10.2 The person responsible for the machine operation should:-

- (a) assess the risks associated with the operation;
- (b) provide and maintain a system of work for the operation that is safe and without risk to the health of any worker;
- (c) provide adequate information, instruction, training and supervision to ensure the safety and health at work of workers;
- (d) provide and maintain a safe working environment;
- (e) provide a suitable machine with a suitable attachment in terms of design, type and capacity for the work involved;
- (f) ensure that the machine is in safe working condition before use;
- (g) ensure that the machine is maintained to its efficient state by his service engineer and mechanic;
- (h) ensure that the machine is operated by a suitable operator who has been authorized to operate it;
- (i) ensure that personnel assigned to the work team for the operation are competent in their respective work;

- (i) provide adequate procedures to deal with emergency situations;
- (k) provide for use of workers adequate supply of personal protective equipment as required, and take measures to ensure that workers use them;
- (l) establish a preventive maintenance program in accordance with the manufacturer's recommendations;
- (m) ensure that the machine is inspected regularly, repaired and maintained by those competent to carry out such work;
- (n) ensure that appropriate documentation and records are maintained and readily available for reference;
- (o) ensure that all safety features are in good and sound condition, and that all operating instructions are clearly legible so that it is difficult to misinterpret the requirements; and
- (p) ensure that interlocks cannot be readily overridden.

11. COMPETENCE OF OPERATOR

11.1 A power-operated elevating work platform should only be operated by persons who have received suitable training and are competent to operate the machine.

11.2 The operator of a power-operated elevating work platform should:

- (a) be at least 18 years of age;
- (b) have reasonable degree of both physical and mental fitness;
- (c) have undergone training for the relevant model of power-operated elevating work platform;
- (d) have adequate authorization to operate the power-operated elevating work platform by the person responsible for the operation of the machine.

11.3 After the completion of the training referred to in paragraph 11.2 (c), the operator should be able to understand and appreciate the following:-

- (a) detailed construction, performance, maintenance and operation of the type of power-operated elevating work platform;
- (b) potential hazards associated with the operation of power-operated elevating work platform;
- (c) possible causes of and prevention strategies for common accidents associated with the operation of power-operated elevating work platform;
- (d) basic operating skills for the particular type of power-operated elevating work platform including:-

- conduct routine checks;
 - plan work;
 - check controls and equipment;
 - shut down machine; and
 - ensure that the site is secure.
- (e) the basic operating skills of the particular type of power-operated elevating work platform with reference to the manufacturer's specifications and operation/maintenance manuals; and
- (f) safety attitude to safeguard themselves as operators of power-operated elevating work platforms and other workers while operating the machine.

LIST OF REFERENCE

1. Safe System of Work - Occupational Safety and Health Branch, Labour Department
2. BS EN 280:2001 Mobile Elevating Work Platforms - Design Calculations - Stability Criteria - Construction - Safety - Examinations and Tests, British Standard Institution
3. BS ISO 18893:2004 Mobile Elevating Work Platforms - Safety Principles, Inspection, Maintenance and Operation, British Standard Institution
4. BS 8460 : 2005 Safe use of MEWPs - Code of practice
5. Approved Code of Practice for Power-Operated Elevating Work Platforms, 1995, Occupational Safety and Health Service, Department of Labour, New Zealand

ENQUIRIES

If you wish to obtain further information about this booklet or require advice on occupational safety and health, please contact the Occupational Safety and Health Branch by:

Telephone : 2559 2297 (auto-recording after office hours)

Fax : 2915 1410

E-mail : enquiry@labour.gov.hk

Information on the services offered by the Labour Department and on major labour legislation can also be found by visiting our Home Page at <http://www.labour.gov.hk>.

You can also obtain information on the various services provided by the Occupational Safety and Health Council through its telephone hotline at 2739 9000.

COMPLAINTS

If you have any complaints about unsafe workplaces and practices, please call the Labour Department's occupational safety and health complaint hotline at 2542 2172.

