

PART 22

POWERED MOBILE EQUIPMENT

GENERAL

Application

22.1 This Part applies to every workplace where powered mobile equipment is used.

Safe work procedures

22.2 An employer with a workplace that is subject to this Part must

- (a) develop and implement safe work procedures for the use of powered mobile equipment in the workplace;
- (b) train workers in those safe work procedures; and
- (c) ensure that workers comply with those safe work procedures.

Inspection and maintenance

22.3(1) An employer must ensure that powered mobile equipment is inspected by a competent person for defects and unsafe conditions

- (a) as often as is necessary to ensure that the equipment is in safe operating condition; and
- (b) without limiting clause (a), in accordance with the manufacturer's specifications.

22.3(2) If an inspection of powered mobile equipment identifies a defect or unsafe condition that is hazardous or may create a risk to the safety or health of a worker, an employer must ensure that the powered mobile equipment is not operated until the defect is repaired or the unsafe condition is corrected.

22.3(3) An employer must ensure that a written record of the inspections, repairs and maintenance carried out on the powered mobile equipment is kept at the workplace and made readily available to the operator of the equipment.

Operator's manual

22.4 An employer must ensure the operator's manual for powered mobile equipment is readily available to a worker who operates the equipment.

SAFETY REQUIREMENTS FOR EQUIPMENT

Guarding moving parts

22.5(1) An employer must ensure that the exposed moving parts of powered mobile equipment, including gears, pulleys, belts, chains and shafts, are effectively shielded, enclosed or guarded in a manner that prevents a worker from coming in contact with the moving parts.

22.5(2) Where it is not reasonably practicable to provide a shield, enclosure or guard, an employer must ensure that an alternative mechanism, system or change in work procedure that offers protection to a worker that is equal to or greater than the protection from a shield, enclosure or guard is put into place to protect the safety and health of a worker.

Exhaust and other hot equipment surfaces

22.6(1) An employer must ensure that every surface of powered mobile equipment, including exhaust systems and hydraulic lines, that may burn a worker who comes in contact with it is shielded or guarded in a manner that provides effective protection from burns.

22.6(2) An employer must ensure that powered mobile equipment which has an enclosed compartment that is used to transport workers has the exhaust outlet of the engine located so that exhaust gases cannot enter the compartment.

Safety requirements

22.7(1) An employer and a supplier must ensure that powered mobile equipment is equipped with

- (a) a horn or other audible warning device;
- (b) a portable fire extinguisher that meets the applicable requirements for extinguishers contained in the *Manitoba Fire Code*;
- (c) an effective braking system; and
- (d) an effective parking device.

22.7(2) An employer and a supplier must ensure that powered mobile equipment that is used to drive ancillary equipment, including a power take-off, crane or auger or any digging, lifting or cutting equipment, is equipped with a device, within easy reach of the operator, that allows the operator to immediately stop the ancillary equipment.

Seats, seatbelts and restraining devices

22.8 If, at the time it was manufactured or subsequently, powered mobile equipment is equipped with a seat with a seatbelt or another type of restraining device, an employer must ensure that

- (a) the seat and seatbelt or restraining device are not removed; and

(b) when the powered mobile equipment is in use, the operator and any other worker required or permitted to be in or on the equipment use the seats and seatbelts or other restraining devices.

Lights

22.9(1) An employer must ensure that powered mobile equipment which is operated during hours of darkness or in an area that is not adequately illuminated is equipped with suitable headlights and back-up lights that clearly illuminate the path of travel.

22.9(2) A supplier must ensure that powered mobile equipment that is intended to be operated during hours of darkness is equipped with suitable headlights and back-up lights that clearly illuminate the path of travel.

Windshield and other transparent materials

22.10(1) An employer and a supplier must ensure that powered mobile equipment which is equipped with a windshield is also equipped with suitable windshield wipers and washers.

22.10(2) An employer and a supplier must ensure that any transparent material used as part of the enclosure for a cab or canopy on powered mobile equipment is made of safety glass or another material that gives at least the equivalent protection against shattering.

Falling objects protective structures

22.11(1) An employer must ensure that, when there is a risk to the safety or health of the operator of powered mobile equipment or any other worker who is required or permitted to be in or on the equipment from a falling object, the equipment is equipped with a falling objects protective structure that

(a) complies with the applicable requirements of

(i) SAE Standard J167 (2002), *Overhead Protection for Agricultural Tractors - Test Procedures and Performance Requirements*,

(ii) SAE Standard J/ISO 3449 (1998), *Earthmoving Machinery - Falling-Object Protective Structures - Laboratory Test and Performance Requirements*, or

(iii) SAE Standard J1042 (2003), *Operator Protection for General-Purpose Industrial Machines*; or

(b) is certified by a professional engineer as providing the equivalent or better protection than that of a structure that complies with the requirements of clause (a).

22.11(2) An employer must ensure that any addition, modification or structural

repair of a falling objects protective structure is done in accordance with the instructions of, and is recertified as restored to its original performance requirements by, the equipment manufacturer or a professional engineer.

Protection against shifting equipment

22.12(1) An employer must ensure that powered mobile equipment used to transport tools, equipment or materials that may shift during a stop is equipped with a bulkhead or a restraining device that effectively protects the operator and any other worker who is required or permitted to be in or on powered mobile equipment.

22.12(2) An employer must ensure that no worker places equipment or material in the cab of powered mobile equipment in which the operator or any other worker is being transported unless they are positioned or secured to restrict their movement and prevent injury to the operator or other worker.

Hazardous materials not be placed in enclosed part

22.13 An employer must ensure that no flammable liquids, hazardous chemicals or any other potentially harmful materials are transported in an enclosed part of powered mobile equipment where a worker is present.

Fuel tanks not to be in enclosed cabs

22.14 If an enclosed cab is provided, the employer and supplier must ensure that the fuel tank of the powered mobile equipment is not located in its enclosed cab.

WHEN POWERED MOBILE EQUIPMENT IS USED

Visual inspection

22.15 An employer must ensure that before powered mobile equipment is operated, its operator completes a visual inspection of the equipment and the surrounding area to ensure that it is in safe operating condition and that no one, including the operator, will be endangered when the powered mobile equipment is started.

Dangerous movement

22.16(1) An employer must ensure that, if the movement of a load or the cab, counterweight or any other part of the powered mobile equipment creates a risk to the safety or health of a person,

(a) the person does not remain within the range of the moving load or part;
and

(b) the operator of the equipment does not move the load or the equipment if a person is at risk.

22.16(2) An employer must ensure that, if a person could be caught between a moving part of the powered mobile equipment and another object,

(a) entry to the area is restricted; and

(b) the operator of the equipment maintains an appropriate clearance distance between the powered mobile equipment and the object.

22.16(3) An employer must ensure that no person is in the immediate path of travel of powered mobile equipment or under any material or equipment that is being loaded or unloaded from it.

Barrier if used above grade height

22.17 An employer must ensure that, when powered mobile equipment is used above grade height in or on a building or other structure, an appropriate barrier is installed to prevent the equipment from falling.

Requirements re transporting workers

22.18(1) An employer must ensure that no worker is transported by powered mobile equipment or any attachment unless

(a) the equipment or attachment is designed for that purpose; and

(b) if there is a separation between the operator and the passenger or passengers, there is a suitable means of communication between the operator and the passenger or passengers.

22.18(2) Without limiting subsection (1), an employer must ensure that no worker is transported on top of a load that is being moved by powered mobile equipment.

Unattended equipment

22.19 An employer must ensure that the operator does not leave the controls of powered mobile equipment unattended unless

(a) the equipment is secured against unintentional movement by an effective method of immobilizing the equipment; and

(b) all suspended or elevated parts, if any, are fully lowered.

Extending boom

22.20 An employer must ensure that no worker operates powered mobile equipment equipped with an extending boom unless the equipment is stable under all operating conditions.

Ladders attached to extending boom

22.21(1) An employer must ensure that

(a) if a ladder is a permanent part of an extending boom on powered mobile equipment, no worker is on the ladder when the equipment is being moved or the boom is being articulated, extended or retracted; and

(b) if outriggers or stabilizers are incorporated into powered mobile equipment, no worker climbs a ladder attached to an extending boom unless the outriggers or stabilizers are deployed and used in accordance with the manufacturer's specifications.

22.21(2) An employer must ensure that a worker who works from a ladder attached to an extending boom on power mobile equipment complies with Part 14 (Fall Protection).

22.21(3) Clause (1)(a) does not apply to firefighters working on firefighting equipment.

MAINTENANCE

Maintenance on elevated parts

22.22 An employer must ensure that if an elevated part of powered mobile equipment is being maintained or repaired by a worker, the part and the powered mobile equipment are securely blocked in place and cannot move.

Tire servicing

22.23(1) An employer must ensure that

(a) a competent person services, inspects, disassembles and reassembles a tire or tire and wheel assembly of powered mobile equipment in accordance with the specifications of both the tire manufacturer and the manufacturer of the powered mobile equipment; and

(b) the manufacturer's service manuals for the tires and wheels are readily available to the competent person.

22.23(2) An employer must ensure that a competent person

(a) uses a clamp-on type of connector to inflate split-rim and locking ring wheels; and

(b) only inflates a tire mounted on a split-rim or locking ring wheel if

(i) the wheel assembly is in a tire cage or is similarly restrained, and

(ii) potential flying parts from split-rim or locking ring failure or tire rupture are contained.

22.23(3) An employer must ensure that, where a clamp-on type of connector is used to inflate a tire, the person doing so

(a) uses

(i) an in-line pressure gauge, and

(ii) positive pressure control; and

(b) inflates the tire from a position that is safe and that is not within the potential trajectory of the tire.

ROLLOVER PROTECTIVE STRUCTURES

Definition: "Rollover protective structure"

22.24 In sections 22.25 and 22.26, "rollover protective structure" means a structure designed to reduce the possibility of injury to an operator of powered mobile equipment in the event of a rollover or upset of the equipment.

Requirement for ROPS

22.25(1) Unless equipped with a rollover protective structure that meets the requirements of this section, no person may operate, and no employer may authorize or permit a worker to operate,

(a) the following types of powered mobile equipment with a machine mass of 700 kg or more:

(i) a tractor,

(ii) a motor grader,

(iii) a prime mover,

(iv) a skidder,

(v) a tracked dozer or loader,

(vi) a wheeled dozer or loader;

(b) the following types of powered mobile equipment with a machine mass of 2,700 kg or more:

(i) a compactor,

(ii) a roller; or

(c) powered mobile equipment that is an agricultural tractor with engine power greater than 15 kW.

22.25(2) Where a rollover protective structure is required to be provided under subsection (1), the employer and the supplier of powered mobile equipment must ensure that the equipment is equipped with a rollover protective structure that

(a) if commercially manufactured, complies with the applicable requirements of

(i) CSA Standard B352.0-95 (R2006), *Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines - Part 1: General Requirements*, and

(A) CSA Standard B352.1X95 (R2006), *Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial, and Mining Machines - Part 2: Testing Requirements for ROPS on Agricultural Tractors*, or

(B) CSA Standard B352.2-95 (R2004), *Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial, and Mining Machines - Part 3: Testing Requirements for ROPS on Construction, Earthmoving, Forestry, Industrial, and Mining Machines*,

(ii) SAE Standard J1042 (2003), *Operator Protection for General-Purpose Industrial Machines*,

(iii) SAE Standard J1194 (1999), *Rollover Protective Structures (ROPS) for Wheeled Agricultural Tractors*,

(iv) ISO Standard 3471:1994, *Earth-moving machinery - Roll-over protective structures - Laboratory tests and performance requirements*, or

(v) a predecessor of a standard described in this clause that was in effect when the powered mobile equipment was manufactured; or

(b) if not commercially manufactured, is designed by a professional engineer and constructed and maintained so that when the equipment on which it is installed is travelling at a forward speed of 16 km/h, engages a 30° slope and rolls 360° about the longitudinal axis on a hard clay surface,

(i) the rollover protective structure will withstand the impact forces,

(ii) upon impact, no part of the rollover protective structure will enter

the space of the equipment that is normally used by the operator, and

(iii) the rollover protective structure will support the equipment when the equipment is upside down.

22.25(3) A rollover protective structure is not required to conform with the requirements of subsection (2) if

(a) it was manufactured before May 1, 1991;

(b) it was manufactured in accordance with

(i) a standard approved by an agency of the Government of Canada or of a province or territory of Canada, or

(ii) the design specifications certified by a professional engineer; and

(c) it is maintained in accordance with the standard or specifications applicable under clause (b).

22.25(4) When a rollover protective structure is required to be provided under subsection (1), the employer and the supplier must ensure that

(a) the rollover protective structure is securely fastened to the frame of the mobile equipment;

(b) the rollover protective structure has a permanently attached legible identification marker containing the following information:

(i) if commercially manufactured,

(A) the name of the commercial manufacturer,

(B) its model and serial number,

(C) the title and clause of the standard to which it was designed, manufactured and installed, and

(D) the equipment make and model for which it is designed to be used, or

(ii) if designed by a professional engineer, the name and registration number of the professional engineer who designed it; and

(c) the powered mobile equipment is equipped with a seat with a seat belt for the operator and any other worker required or permitted to be in or on the powered mobile equipment.

22.25(5) A rollover protective structure manufactured before May 1, 1991 is not required to have an identification marker as described in clause (4)(b), but the employer using it or its owner must, on the request of a safety and health officer, provide evidence that the rollover protective structure meets the requirements of clauses (3)(b) and (c).

Structural integrity of ROPS

22.26(1) Where the structural integrity of a rollover protective structure required under section 22.25 is compromised, no person may operate the powered mobile equipment, and no employer may permit the powered mobile equipment to be operated, unless

(a) the rollover protective structure is replaced; or

(b) a professional engineer certifies that it has not been compromised in such a manner that it no longer complies with the requirements of subsection 22.25(2).

22.26(2) An employer and a supplier must ensure that any addition, modification or structural repair of a rollover protective structure is done in accordance with the instructions of, and is recertified as restored to its original performance requirements by, the equipment manufacturer or a professional engineer.

Exceptions

22.27 Sections 22.25 and 22.26 do not apply to

(a) a farm tractor, as defined in *The Highway Traffic Act*, manufactured before January 1, 2001 and used exclusively for agricultural work;

(b) a compactor or roller manufactured before January 1, 1979;

(c) powered mobile equipment described in subsection 22.25(1), other than a compactor or roller to which clause (b) applies, that was manufactured before January 1, 1974;

(d) powered mobile equipment in use on ice, as "ice" is defined in section 22.33; or

(e) powered mobile equipment in use in a building or structure built before May 1, 1991 that does not have sufficient overhead clearance for the safe operation of equipment equipped with a rollover protective structure.

POWERED LIFT TRUCKS

Definition: "powered lift truck"

22.28 In sections 22.29 and 22.30, "**powered lift truck**" means powered mobile equipment that is

- (a) designed to allow the operator to lift, carry and unload a load; and
- (b) within a class of trucks to which the code of practice referred to in subsection 22.29(2) applies.

Powered lift truck operating certificate

22.29(1) No employer shall require or permit a worker to operate a powered lift truck unless the employer has issued a certificate to the worker under this section.

22.29(2) No employer shall issue a certificate to a worker to operate a powered lift truck unless the employer has first ensured that the worker

- (a) has received instruction, training and testing in the operation of the powered lift truck in accordance with a code of practice approved and issued under the Act;
- (b) is familiar with the operating procedures of the truck that the worker will be operating; and
- (c) has demonstrated competency in the operation of the truck that the worker will be operating in accordance with the code of practice referred to in clause (a).

22.29(3) An employer who issues a certificate to a worker must

- (a) establish and implement an evaluation system to ensure that the worker maintains competency in the operation of the powered lift truck;
- (b) maintain a record of the training the worker receives in the operation of the truck; and
- (c) produce a copy of the certificate and record on the request of a safety and health officer.

Load rating chart

22.30 An employer and a supplier must ensure that a powered lift truck is provided with a clearly visible and legible load rating chart that is affixed to the truck.

Concrete pump trucks

22.31(1) In this section, "**concrete pump truck**" means powered mobile equipment that is comprised of a concrete pump, a distribution boom or mast, delivery pipes and the equipment on which they are mounted.

22.31(2) An employer must ensure that the operator of a concrete pump truck inspects the concrete distribution boom or mast and the boom or mast's safety and control devices before each use.

22.31(3) Before using a concrete pump truck at a workplace, an employer must ensure that the outriggers of the equipment are extended in accordance with the manufacturer's specifications.

22.31(4) While a concrete pump truck is in use at a workplace, an employer must ensure that

(a) no worker or other person is positioned under a distribution boom or mast connected to the concrete pump truck; and

(b) except for a worker placing the concrete, no worker or other person is in the work area of the distribution boom or mast when it is being used.

22.31(5) An employer must ensure that a concrete pump truck is not moved when its distribution boom or mast is partially or fully extended, unless the truck is designed to be moved with its distribution boom or mast partially or fully extended.

22.31(6) An employer must ensure that a worker who is assisting the operator of a concrete pump truck does not

(a) straighten a kinked end hose by increasing the pressure in the hose; or

(b) clear a blockage of the end of the hose with any part of his or her body.

DUMP TRUCKS

Dump trucks

22.32(1) When a dump truck is used at a workplace, the safe work procedures developed and implemented under section 22.2 must include procedures respecting the use of other powered mobile equipment to free a load trapped in the dump box of the truck.

22.32(2) When more than one dump truck is being operated at a workplace at the same time, an employer must ensure that the trucks maintain a sufficient distance between them to avoid contact if one of the trucks tips over.

22.32(3) Before a dump truck dumps a load, an employer must ensure that the ground on which the load is to be dumped is stable and capable of withstanding the weight of both the truck and the load.

WORKING ON ICE

Definition: "ice"

22.33 In sections 22.34 to 22.37, "ice" means ice that is

- (a) over water, where the water is more than one metre deep; or
- (b) over any other material into which a worker could sink more than one metre.

Safe work procedures on ice

22.34(1) Without limiting section 22.2, where a worker is required or permitted to use powered mobile equipment on ice, an employer must

- (a) develop and implement safe work procedures for the use of powered mobile equipment on ice;
- (b) train workers in those safe work procedures; and
- (c) ensure that workers comply with those safe work procedures.

22.34(2) The safe work procedures under clause (1)(a) must include

- (a) procedures for testing the thickness of the ice to ensure that it will support the load to be placed on it
 - (i) before any work begins, and
 - (ii) as often during the work as necessary to ensure that there is no risk to the safety of the workers; and
- (b) a plan for dealing with an emergency arising from powered mobile equipment breaking through the surface of the ice.

22.34(3) For certainty, the safe work procedures under clauses (1)(b) and (c) include the protection from drowning procedures prescribed in subsections 6.17(3) and (4).

Gross vehicle weight to be legibly marked

22.35(1) An employer must ensure that powered mobile equipment used on ice has its weight, when fully fuelled, legibly marked on it.

22.35(2) An employer must ensure that the weight of an attachment that is attached to powered mobile equipment used on ice is legibly marked on the attachment.

Refuelling on ice prohibited

22.36 An employer must ensure that powered mobile equipment is not refuelled while it is on ice.

Pilot vehicle required

22.37(1) When building a winter road on ice, an employer must ensure that a worker in a pilot vehicle accompanies workers operating powered mobile equipment on the ice.

22.37(2) The pilot vehicle must be equipped with a means of communication that enables the operator to communicate with

(a) the workers who will implement the plan for dealing with an emergency arising from powered mobile equipment breaking through the ice; or

(b) the applicable emergency response services.