

## Workplace Health and Safety Queensland

Information guide – Rural industry

## 5. Wheeled tractors – rollover protective structures (ROPS)

Part 19 – Rollover protective structures for wheeled tractors of the *Workplace Health and Safety Regulation 2008* prescribes ways of preventing or minimising risk of death or injury to an operator from the tractor rolling over. Listed below is a summary of the requirements for fitting Rollover Protective Structures (ROPS).

### Relevant person

A relevant person (e.g. an employer or self-employed person) who operates a wheeled tractor must ensure it is fitted with a ROPS, unless it is only used as an 'exempt tractor' or was manufactured before 1 January 1981 (see below for the definition of an exempt tractor).

This condition applied immediately for new tractors purchased after 1 July 2003. For existing tractors, the relevant person had until 30 June 2007 to fit a ROPS.

### Workers

Employers must ensure that wheeled tractors operated by workers are fitted with ROPS, unless they are used as an 'exempt tractor'.

### Hired, leased or borrowed tractors

Employers or self-employed persons who hire, lease or borrow a wheeled tractor, for use in a business or undertaking, must ensure it is fitted with a ROPS, unless the tractor is only used as an 'exempt tractor'.

### Suppliers

Suppliers must fit ROPS to wheeled tractors weighing between 560kg and 15 000kg, unless they are satisfied the tractor will only be used by the purchaser as an 'exempt tractor'. However, if the supplier has reason to believe the tractor may be used other than as an 'exempt tractor', the supplier must supply the tractor with a ROPS. This condition applies to both new and second hand tractors sold or offered for sale.

A farmer who sells a tractor privately is classed as a supplier and must meet the same regulatory requirements as other suppliers.

### 'Exempt tractors'

An 'exempt tractor' is one that weighs less than 560 kg or more than 15 000 kg and is:

- used in, or driven to or from an orchard where the operation of the tractor would be impeded if the ROPS was fitted
- used in or near a building or other structure where the operation of the tractor would be impeded if the ROPS was fitted
- used in a stationary position or is being driven to or from a place where the tractor is to be or was used in a stationary position
- maintained, modified, serviced or repaired where it is necessary to remove the ROPS to carry out that work
- used for historical purposes, or
- being sold for scrap or spare parts.

## General information

If the ROPS is first fitted to the tractor after 1 July 2003, it must comply with AS 1636, Tractors - Rollover protective structures - Criteria and tests. Other standards which are acceptable include:

- AS 2294, Earth-moving machinery - protective structures
- ISO 3463, Tractors for agriculture and forestry-Rollover protective structures (ROPS) -Dynamic test method and acceptance conditions
- ISO 3471-1, Earth-moving machinery - Rollover protective structures-laboratory tests and performance requirements
- ISO 5700, Tractors for agriculture and forestry - Rollover protective structures (ROPS) - Static test method and acceptance conditions
- OECD Code 3, Standard code for the official testing of protective structures on agricultural and forestry tractors (dynamic test)
- OECD Code 4, Standard code for the official testing of protective structures on agricultural and forestry tractors (static test)
- OECD Code 6, Standard code for the official testing of front mounted rollover protective structures on narrow-track wheeled agricultural and forestry tractors
- OECD Code 7, Standard code for the official testing of rear mounted rollover protective structures on narrow-track wheeled agricultural and forestry tractors
- OECD Code 8, Standard code for the official testing of protective structures on agricultural and forestry tracklaying tractors
- SAE J 1040, Performance criteria for rollover protective structures (ROPS) for construction, earthmoving, forestry and mining machines
- SAE J 1194, Rollover protective structures (ROPS) for wheeled agricultural tractors, and
- SAE J 2194, Rollover protective structures (ROPS) for wheeled agricultural tractors.

This information will be evident on the compliance plate affixed to the ROPS by the manufacturer:

- while a ROPS is not prescribed for track mounted tractors and earth moving machinery, it is strongly advised that a ROPS be fitted, and
- the operator should wear a seat belt where a ROPS is fitted.

If a tractor is used under trees (in an orchard) or in a place too low (within a building), it may not be practicable to work with an approved ROPS fitted. In such a situation, the ROPS may be lowered or removed. In this case, the employer or self-employed person should ensure that the tractor is operated with due care and the ROPS returned to its normal operating position immediately after work is completed.

## ROPS supply

Information regarding the fitting of a ROPS is available from your local tractor dealer, ROPS supplier or manufacturer. ROPS range in price from approximately \$500 upwards. A catalogue of 'off the shelf' ROPS is also available (see the Further information section of this fact sheet).

## Frequently asked questions

### **I have a very old tractor which I rarely use. Do I need to have a ROPS manufactured to fit the tractor?**

You may decide that it is not practicable to fit a ROPS to the tractor, on the basis that the manufacture of the ROPS would be cost prohibitive. However, only the owner may operate the tractor. Other persons may only use the tractor in an exempt category.

A tractor built before 1981 does not need ROPS fitted if operated only by the owner. In this case, the tractor should be operated using extreme care.

### **I am using a tractor as a trade-in to a dealer. Do I need to fit a ROPS before sale?**

No. The dealer should have an approved ROPS fitted before re-selling.

**Do I need to take any special precautions if I only wish to sell a tractor or other plant for parts at a ‘clearing sale’?**

You should ensure all items are rendered non-operational and that they are clearly labelled ‘non-operational - parts only’. Removing a fan belt, spark plug, battery or other non-structural component does not constitute a non-functional tractor or item of plant.

**I am thinking of selling a tractor at either a ‘clearing sale’ or on consignment. Do I have to fit a ROPS to the tractor?**

Any operational tractor sold at auction or on consignment must be fitted with ROPS, unless it can be clearly established by the owner that the tractor is only going to be used by the new owner in an exempt category under the *Workplace Health and Safety Regulation 2008*.

**I am using my tractor for horticulture. Do I need to fit a ROPS?**

Tractors used for horticultural purposes are now covered by the *Workplace Health and Safety Regulation 2008*. Every tractor should have a ROPS fitted unless it is used in an exempt category such as in an orchard, where the presence of the ROPS impedes the tractor’s operation, or is being driven to or from an orchard.

If it is not practicable to operate the tractor with an approved ROPS, the employer should ensure the tractor is operated with due care.

Fold-down and single post ROPS are designed to use in horticulture and sheds. The ROPS must be returned to its normal operating position immediately after this particular work situation is completed.

**Can I copy the ROPS frame/design of my neighbour’s tractor, which is the same model as mine?**

Only approved ROPS should be fitted to tractors. Approved ROPS frames have undergone a destruction test, which ensures they will protect the operator in the event of a rollover. A home-made frame, while being strong enough to withstand the rollover, may break the mounting bolts on the tractor or fail in some other way, and not protect the operator.

© *The State of Queensland (Department of Justice and Attorney-General) 2010*

Copyright protects this document. The State of Queensland has no objection to this material being reproduced, but asserts its right to be recognised as author of the original material and the right to have the material unaltered.

The material presented in this publication is distributed by the Queensland Government as an information source only. The State of Queensland makes no statements, representations, or warranties about the accuracy or completeness of the information contained in this publication, and the reader should not rely on it. The Queensland Government disclaims all responsibility and all liability (including, without limitation, liability in negligence) for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason.

**Can I lower the height of the ROPS so I can fit the tractor in my shed?**

You should not interfere with an approved ROPS construction, as it will affect the performance of the ROPS in the event of a rollover. Likewise, you should not weld attachments to a ROPS. If the ROPS is of the fold-down type, it must be returned to its normal operating position immediately after it is removed from the shed.

**I am a hobby farmer - do I need to fit a ROPS to my tractor?**

A hobby farmer is regarded as a relevant person if he or she has been assessed by the Australian Tax Office as a primary producer. However, a hobby farmer may still meet the test of a relevant person without ATO association if they are conducting a business or undertaking.

In either case, you will be subject to the requirements of the *Workplace Health and Safety Act 1995 and Workplace Health and Safety Regulation 2008* and must comply with the ROPS regulation.

If you are not deemed to be a primary producer but you engage someone to assist you, the legislation says that you are the person in control of the undertaking and the ROPS regulation would still apply.

**Can I get a ROPS built to comply with AS 1636?**

Yes. The frame must be designed and constructed under the supervision of a suitably qualified engineer and stamped to comply with *AS 1636* or *AS 2294*. The design engineer must attest compliance of the ROPS to the standard.

**More information**

Further information is available from [www.worksafe.qld.gov.au](http://www.worksafe.qld.gov.au) or by calling the WHS Infoline on 1300 369 915.