

A GUIDE TO THE APPROVED CODE  
OF PRACTICE FOR

ROLL OVER  
PROTECTIVE  
STRUCTURES  
ON

TRACTORS  
IN AGRICULTURAL  
OPERATIONS



## ABOUT THIS PAMPHLET

This pamphlet is a brief guide to the requirements in the *Approved Code of Practice for Roll Over Protective Structures on Tractors in Agricultural Operations*.

Roll Over Protective Structures (ROPS) are structures designed to reduce the possibility of an operator from being injured should the machine roll over. The terms safety frame, safety cab, protective structure, roll over protective structure, and ROPS are synonymous.

## WHY DO AGRICULTURAL TRACTORS NEED ROPS PROTECTION?

Every year, deaths and serious harm accidents result from the overturning of agricultural tractors. Evidence both in New Zealand and overseas has shown that the risk of injury in a tractor overturn can be substantially reduced when the tractor is fitted with ROPS of the appropriate standard.

Roll overs of agricultural tractors can occur on any topography. It is recommended that all tractors used in agricultural operations should have a roll over protective structure, irrespective of the topography where the tractor is used.

## YOUR LEGAL RESPONSIBILITIES

The Health and Safety in Employment Act 1992



(HSE Act) promotes responsibility for the self-management of safety and health issues in industry. It requires employers, persons with control of places of work, principals and the self-employed to take “all practicable steps” to manage workplace hazards.

The fitting of ROPS on agricultural tractors has been shown to be a “practicable step” in reducing the likelihood of injury arising from tractor roll over.

## WHEN ARE ROPS REQUIRED ON AGRICULTURAL TRACTORS?

**All agricultural tractors that have been purchased new after 1 September 1970 unless excluded (as described in the following section) should be fitted with a ROPS that meets the relevant design and manufacturing standards.**

Where a tractor which is excluded from the requirement under this code to fit a ROPS is transferred to an operation requiring a ROPS to be fitted, a responsibility exists to ensure the tractor has the appropriate ROPS before the tractor is used in that operation. The responsibility extends to the manufacturer of the tractor, the person

selling the tractor, the person buying the tractor, and the person in control of the place of work where the tractor is used.



## EXCLUSIONS FROM THE REQUIREMENT TO FIT A ROPS

Agricultural tractors in the following situations are excluded from the requirement to have a ROPS fitted:

- For tractors purchased new on or before 1 September 1970, crawler tractors, and wheeled tractors weighing under 762 kg or more than 4000 kg.
- For tractors purchased new after 31 August 2001, tractors weighing under 700 kg.
- Tractors used in operations connected with any orchard, hop garden, blueberry garden or greenhouse; in operations in any vineyard carried out beneath vines supported overhead; and in operations in or adjacent to any building or structure used in the keeping of poultry for pecuniary gain.

Where the nature of the operation makes it not practical for a ROPS to be fitted to an agricultural tractor, then, under the terms of this code of practice, the General Manager, Occupational Safety & Health Service, may issue a notice excluding the tractor from the requirement to have a ROPS.



## DESIGN REQUIREMENTS OF ROPS

ROPS on agricultural tractors can be manufactured to one of two grades, depending on the method of design and its validation.

Where practicable, a Grade One protective structure should be used.

### GRADE 1:

A Roll Over Protective Structure that complies in all respects with an approved performance standard or code, including all frames approved under the provisions of the (repealed) Machinery Act 1950.

### GRADE 2:

A Roll Over Protective Structure manufactured in New Zealand and certified by a suitably qualified and experienced professional engineer.

## PERFORMANCE STANDARDS OF ROPS

A register of acceptable performance standards for ROPS will be maintained by the Occupational Safety and Health Service.



## ASSESSMENT OF EXISTING ROPS

Where a machine is already fitted with a

ROPS and concern exists as to its suitability as an acceptable protective structure because of its condition or design, the services of a suitably qualified engineer should be engaged to assess the structure.

If the structure has identification that it has been previously tested to an acceptable performance standard, and it has been well maintained, it would meet the requirements of this code of practice.

## IDENTIFICATION OF ROPS

A permanent label shall be displayed on all new tractors purchased after 31 August 2001, or for any existing tractor with a new frame after 31 August 2001, providing the information of the identification of the protective structure, the manufacturer, and the design standards.

When any repairs or modifications are carried out, there should be an additional label put on the frame stating what repairs or modifications were carried out, when, who carried them out, and who approved them.

## REPAIR AND MODIFICATION OF ROPS

Once a ROPS has been involved in a roll over, it has done its job and repair is seldom possible. If a ROPS has been damaged, it should be assessed by a qualified engineer.



## REPAIR:

Non-structural damage may be repaired. Where structural damage requires repair, this may only be carried out by replacing the damaged components with components having the design specifications of the original manufacture. If this cannot be done, the ROPS structure must be replaced.

**In no circumstances is a damaged structure to be straightened.**

## MODIFICATIONS:

Modifications to any structural component of a ROPS for an agricultural tractor are not permitted. Modifications to any non-structural component of a ROPS may be undertaken if approved and certified by a suitably qualified registered engineer.

## SEATBELTS

**Seatbelts should be fitted on all new agricultural tractors purchased after 31 August 2001.**

It is recommended that seatbelts should be provided and worn by operators of all agricultural tractors where practicable.

