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## POLE TOP RESCUE KITS

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## Document control

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## 1 Introduction

This document sets out the technical and performance requirements for Pole Top Rescue Kits used for rescue from aloft by competent and trained Electrical Workers. The kit will be used for rescue of casualties from live low voltage and persons who have become incapacitated while working aloft.

## 2 Scope and application

### 2.1 General

This Specification details the individual components, that when assembled, form the Pole Top Rescue Kit. The purchaser must specify the commercial conditions to the supplier.

This equipment is intended to be used in accordance with RailCorp's Safety Management System Instruction *SMS-06-EN-0558 – Pole Top Rescue Kits*.

## 3 References

### 3.1 Code of Practice

*Industry Safety Steering Committee publication ISSC 14 Guide to electrical workers' safety equipment October 2010*  
*WorkCover Guide 1995 - Rigging*

### 3.2 Australian standards

There is no Australian Standard which specifically covers a Pole Top Rescue Kit.

The following Australian Standards are either referenced in this document or can provide further information.

<i>AS ISO/IEC 17050.1:2005</i>	<i>Conformity assessment - Supplier's declaration of conformity - General requirements</i>
<i>AS/NZS 1891.1:2007</i>	<i>Industrial fall-arrest systems and devices - Harnesses and ancillary equipment</i>
<i>AS/NZS 1891.3:1997</i>	<i>Industrial fall-arrest systems and devices - Fall-arrest devices.</i>
<i>AS/NZS 1891.4:2009</i>	<i>Industrial fall-arrest systems and devices - Selection, use and maintenance.</i>
<i>AS 2225:1994</i>	<i>Insulating gloves for electrical purposes</i>
<i>AS 4142.2:1993</i>	<i>Fibre ropes - Three-strand hawser-laid and eight-strand plaited</i>
<i>AS 4142.3-1993</i>	<i>Fibre ropes - Man-made fibre rope for static life rescue lines</i>

### 3.3 RailCorp documents

The following RailCorp documents are either referenced in this document or can provide further information.

*SMS-06-EN-0558*                      *Pole Top Rescue Kits*

<i>SMS-06-SW-0254</i>	<i>Physical Restraint Systems (Anchorages)</i>
<i>SMS-06-SW-0255</i>	<i>Physical Restraint Systems (Fall Arrest Devices)</i>
<i>SMS-06-SW-0256</i>	<i>Physical Restraint Systems (Harnesses, Lanyards and Attachment Hardware)</i>
<i>SMS-06-SW-0257</i>	<i>Physical Restraint Systems (Industrial Rope Access)</i>
<i>SMS-06-SW-0258</i>	<i>Physical Restraint Systems (Inspection and Maintenance)</i>
<i>SMS-06-SW-0259</i>	<i>Physical Restraint Systems (Safety Lines)</i>
<i>SMS-06-SW-0260</i>	<i>Physical Restraint Systems (Pole straps)</i>

## 4 Definitions, terms and abbreviated terms

### 4.1 Definitions and terms

For the purpose of this specification the definitions specified in the referenced Australian Standards apply.

**JAS-ANZ** – Joint Accreditation System of Australian & New Zealand

**PVC** – Polyvinyl chloride

## 5 Functional characteristics / Technical requirements

### 5.1 General requirements

The Pole Top Rescue Kit comprises commercial components assembled into a kit. The supplier must deliver the Pole Top Rescue Kit as a complete kit containing all of the required components.

The Pole Top Rescue Kit must be tested as an assembly to comply with relevant standards.

Components specifically nominated shall not be replaced with similar components from alternative manufacturers.

All attachment hardware must be compatible for their associated attachment points and comply with the attachment hardware requirements of *AS/NZS 1891.1 Industrial fall-arrest systems and devices - Harnesses and ancillary equipment*.



### 5.2 Pole Top Rescue Kit Components

The Pole Top Rescue Kit consists of the following components:

- Orange weather resistant kit bag.
- List of kit components.
- Resuscitation chart for electrical shock victims.
- Yellow rescue rope with a large gate alloy hook attached.
- Rope Grab device with an orange webbing link and snap hook, with a single, double acting latch.
- Pair of electrical insulation gloves stored in a suitable non-conducting bag made out of a material which can “breathe”, such as canvas.
- Pair of protective gloves stored in a suitable non-conducting bag made out of a material which can “breathe”, such as canvas.
- Sharp knife in a suitable sheath with an elastic spiral lanyard attached to the knife and sheath.
- Orange line worker pole strap with integral webbing loop for attachment of the hook of the yellow rescue rope.

## 5.2.1 Weather resistant kit bag

The bag shall be manufactured from the following material, dimensions and incorporate the following features.

### 5.2.1.1 Material

Orange Rip Stop PVC or similar material and be of sufficient thickness to:

- Securely store the kit components and protect the kit while being transported on vehicles and in the field by staff.
- Protect the kit from contamination from water, soil, mud, dust and oil.



### 5.2.1.2 Dimensions and features

The kit bag shall be a cylindrical shape approximately 300mm diameter and 500mm high and accommodate all kit components.

The kit bag shall incorporate the following features:

- A water and dust resistant zipper top on the kit bag.
- A shoulder carry strap attached to each side of the kit bag.
- A hand carry strap attached to the top of the kit bag.
- A clear front pocket on the front of the bag approximately 350mm wide and 450mm high with a water and dust resistant flap to accommodate the kit component list and the resuscitation chart.

- A 300mm wide, 330mm high and 50mm deep pocket on the back of the bag with a dust and water resistant zipper along the top of the pocket for the storage of the electrical insulation gloves and their protective gloves.
- The kit bag shall be suitably labelled “RAILCORP - POLE TOP RESCUE KIT” in at least 12mm high black letters on the flap of the clear front pocket.

### 5.2.2 List of kit components

A complete list of kit components shall be supplied on an A4 size water-resistant sheet in at least 12mm high lettering. Laminated paper is acceptable.

The list shall be placed in the clear front pocket of the kit bag behind the resuscitation chart.

### 5.2.3 Resuscitation chart for electrical victims

A resuscitation chart for electrical victims shall be supplied on an A3 size water-resistant sheet. Laminated paper is acceptable.

The resuscitation chart shall be placed in the clear front pocket of the kit bag so that it is clearly visible without removing the chart from the clear pocket.

The chart shall be compatible with the latest version of resuscitation procedures promoted by the St John Ambulance Australia Inc.

### 5.2.4 Rescue rope and hook

The rescue rope shall be 16mm nominal diameter “Mainline” 3 strand hawser laid polypropylene film rope, yellow in colour and manufactured to *AS 4142.2 – Fibre Ropes – Three strand hawser laid and eight strand plaited* and *AS 4142.3 - Man-made fibre rope for static life rescue lines*, at least 50 metres long.

A large gate alloy rope hook with a gate opening of at least 60mm and a single, double acting latch shall be attached to an eye spliced in the end of the rescue rope. The rope hook shall comply with the attachment hardware requirements of *AS/NZS 1891.1 Industrial fall-arrest systems and devices - Harnesses and ancillary equipment*.

Each end of the rope shall be suitably heat sealed to prevent the rope from stranding.

**Note:** This rescue rope is used for lowering the rescued person safely to the ground. The Rope Grab is **not** used with this rope.



## 5.2.5 Rope Grab assembly

The assembly shall comprise a Rope Grab connected to a snap hook by a webbing link.

- The Rope Grab shall be a “PROTECTA International” “COBRA, CE 0086”, Code AC202 (“Sala P-83 COBRA”)
- The webbing link shall be orange in colour and permanently connected to the Rope Grab and a snap hook.
- The snap hook shall have a single, double acting latch suitable for attachment to webbing loops and harness hardware.

The length of the assembly measured from the centre of the rope guide of the grab to the centre of the hook on the snap hook shall not exceed 300mm overall. The dimension shall be measured when the rope guide is in a vertical plane and the webbing link and snap hook are in the horizontal plane.

The Rope Grab assembly shall comply with *AS/NZS 1891.1 Industrial fall-arrest systems and devices - Harnesses and ancillary equipment* and *AS/NZS 1891.3 Industrial fall-arrest systems and devices - Fall-arrest devices*.



## 5.2.6 Electrical insulation gloves

The electrical insulation gloves shall be of the “large size”, rated for 650V and comply with *AS 2225 Insulating gloves for electrical purposes*.

One pair of electrical insulation gloves shall be stored in a suitable protective non-conducting bag made from a material that can “breathe”, such as light canvas.

The electrical insulation gloves in the protective bag shall be placed in the back pocket of the kit bag.



## 5.2.7 Protective gloves

The protective gloves shall be of the “large size” and compatible for wearing over the insulating gloves, must be shorter than the insulating gloves and made of leather. The protective gloves shall be easy to work in and provide adequate dexterity.

One pair of protective gloves shall be stored in a suitable protective non-conducting bag made from a material that can “breathe”, such as light canvas.

The protective gloves stored in the protective bag shall be placed in the back pocket of the kit bag.

### **Warning**

**Under no circumstances shall the electrical insulation gloves be stored in the same protective bag as the protective gloves.**



## 5.2.8 Knife and sheath with lanyard

The Knife shall be sharp and have a blade at least 100mm long and have a smooth red plastic handle. The end of the blade shall be rounded to remove any sharp point. It is acceptable to modify a standard knife by removal of the sharp point.

The knife shall be stored in a suitable sheath that is attached to the out-rigger of the pole strap. The sheath or sheath attachment shall be free to rotate 180 degrees on the pole strap outrigger to allow for right or left hand use while remaining captive on the outrigger of the pole strap.

A helical type lanyard at approximately 1 metre long when extended shall permanently attach the handle of the knife to the sheath. The lanyard shall be non-conductive and durable enough to permanently connect the knife to the sheath. The lanyard shall be capable of being snapped or disconnected from the knife by a sharp, hard pulling motion of the hand.





### 5.2.9 Pole strap

In addition to the requirements of clause 5.5 the pole strap shall have the following features:

- a) Orange in colour.
- b) An elastic webbing loop suitable for attaching the rescue rope hook. The loop is to rotate 180 degrees and remain captive on the outrigger. Velcro attachments are not acceptable.
- c) The knife sheath or sheath attachment is to rotate 180 degrees to provide for right and left hand operation and remain captive on the outrigger. This may be achieved by disconnection and re-connection of the sheath to the outrigger. Velcro attachments are not acceptable.



### 5.3 Manufacturer's Instructions

The supplier shall provide manufacturer's instructions for each component, where applicable. The instructions shall be placed in the clear pocket on the kit bag behind the resuscitation chart.

### 5.4 Training

The supplier shall provide instructional training at the time of delivery for each group of user in the method of installation and use of components in accordance with the manufacturer's instructions.

## 5.5 Acceptance Inspection

Pole Top Rescue Kit components must be certified to comply with the current version of *AS/NZS 1891.1* and *AS/NZS 1891.3* where applicable and incorporate the features and options as ordered. Certification must be by a JAS-ANZ accredited certification body whom has the particular product standard included in the scope of their accreditation. For details refer: <http://www.jas-anz.com.au/>. Copies of the JAS-ANZ endorsed component certificates must be supplied.

For components not supplied with a JAS-ANZ endorsed certificate the Supplier must supply for those components a Suppliers Declaration of Conformity (DofC). For guidance on the requirements/structure of a DofC refer to the standard *AS ISO/IEC 17050.1 Conformity assessment - Supplier's declaration of conformity - General requirements*.

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