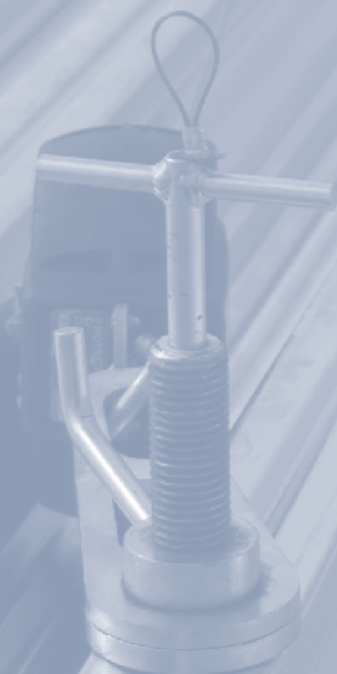


Instructions for use

Load-bearing sheets Safety anchor SA 113-153



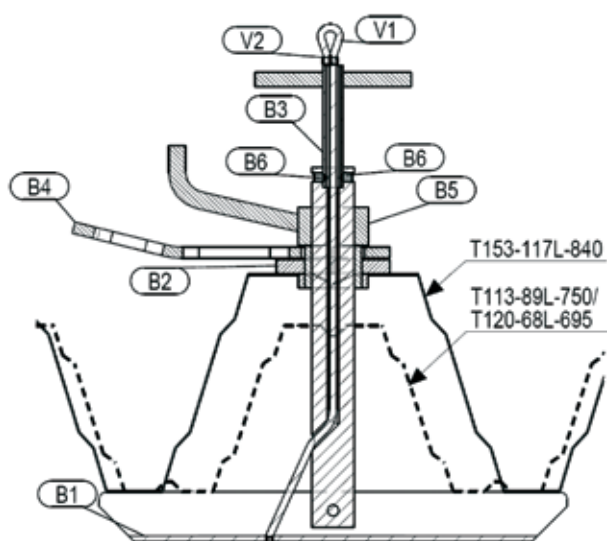


Figure 1 Cross-section of the safety anchor

● Manufacturer of the safety anchor

Ruukki Construction Oy
P.O. Box 138 (Suolakivenkatu 1)
FI-00811 Helsinki, Finland

● Description, purpose of use and operating principle of the equipment

Safety anchor SA113-153 to be attached to a load-bearing profiled sheet Compliant with Directive 89/686/EEC

Safety anchor SA113-153 is an auxiliary device for working on a roof, designed and tested by Rautaruukki Oyj. The device is compatible only with load-bearing profiled sheets manufactured by Rautaruukki Oyj, taking into account the restrictions placed in these instructions.

● Parts list:

B1	U-steel in which an axle Ø30 mm with M30 thread
B2	Retaining plate
B3	Turning handle
B4	Attachment point of the harness
B5	Tightening crank with M30 internal thread
B6	Hexagon socket set screw with dog point
V1	Wire Ø 2 mm–4 mm
V2	Wire head

● Safe use of the device

The device may only be used by persons who have received adequate training for it and are thus qualified to use the device safely. Using the device for any purpose other than described in these instructions is forbidden. It is absolutely forbidden to make any alterations or additions in the device without the manufacturer's prior written consent. Any maintenance and repair measures shall be taken in accordance with the service instructions of the device. Only approved ropes/clutches and safety harnesses are allowed to be used with the device. It has to be observed that a full-body harness is the only acceptable holding device to be used in the fall arrest system. The clutch of the safety harness is allowed to be attached only to the fastening loop B4.

● Inspection of the device before use

Before use the user shall check the following things:

- a) The annual inspection of the device has been carried out
- b) The fastening loop (part B4) may rotate freely around its axle
- c) The U-steel of part B1 rotates freely around its axle and remains in a horizontal position when released
- d) There are no impurities in the thread of part B1 and the clamping screw rotates easily in the threading tap
- e) The wire and the wire head (parts V1 and V2) are undamaged and at their place

If there are any defects in the device, the defects shall be corrected before use. The corrective measures required by the items; b, c, d and e may be taken by the user in accordance with the maintenance instructions.

The following things shall be checked in the fastening base sheets before use:

- f) The fastening base sheet is compatible with section 7. This has to be checked from the form attached to the bundle of profiled sheets or from the way-bill.
- g) The load-bearing profiled sheet has been attached at both ends to load-bearing structures.
- h) There are at least two waves of the load-bearing sheet between the edge of the sheet and the safety anchor.

● Removal from service

The device shall be removed from service immediately if

- a) The annual inspection has not been carried out.
- b) There is a structural defect or damage in the device.
- c) The device has been used to arrest a fall.
- d) There are any doubts about an unsafe or defective service condition.

The device shall not be taken into use again until the service condition has been verified by a qualified person in writing.

● Rescue plan

When using the device it shall be ensured that there is a rescue plan for emergencies at the work site. It has to be taken into consideration that a person suspended in the harness shall be rescued e.g. by a crane man basket as quickly as possible. There shall be both a sufficient number of trained personnel and adequate rescue equipment available and a free access of the rescue equipment to any place where a fall may occur.

● Compatible profiled roofing sheets

The safety anchor may be used with the following roofing sheet profiles:

Profile sheet	Thickness	Steel grade
T130-75L-930	0.7mm–1.5mm	S320GD+Z, S350GD+Z
T153-41L-840	0.7mm–1.5mm	S320GD+Z, S350GD+Z
T153-40L-840	0.7mm–1.5mm	S320GD+Z, S350GD+Z

• Choosing the attachment point

The attachment point shall always be chosen so that a free fall distance is minimized. It is also important to see that in case of a fall there shall be no collision with the ground or other solid obstacle. The profiled sheets can be pre-punched at factory (applicable for load-bearing sheets manufactured in Finland) when being delivered to the installation. A hole may be drilled by a Ø 50 mm hole bit on the work site as well. The hole is drilled in the middlemost flange of the profiled sheet and the hole must be located at least one (1) meter away from the free end of the sheet. Only one person may be attached to the safety anchor at a time.

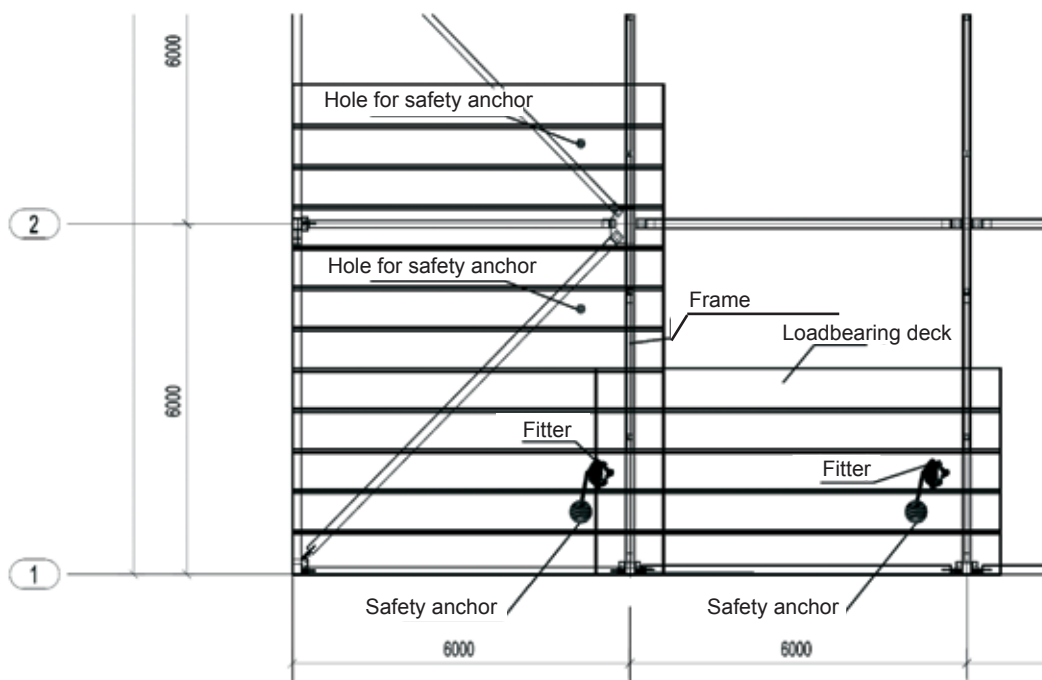
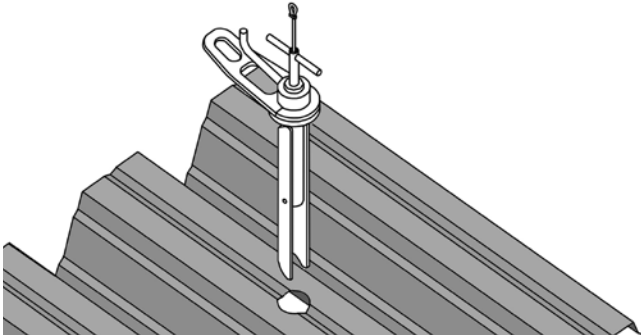
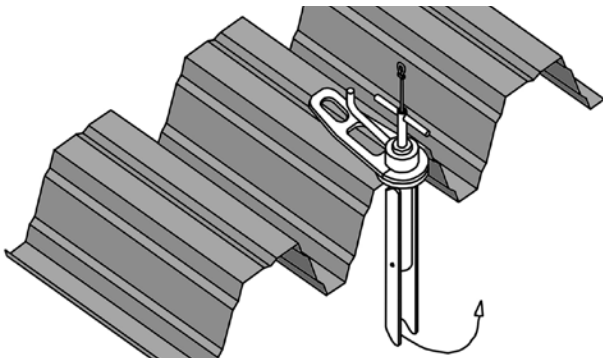


Figure 2 Example of the placing of the safety anchors

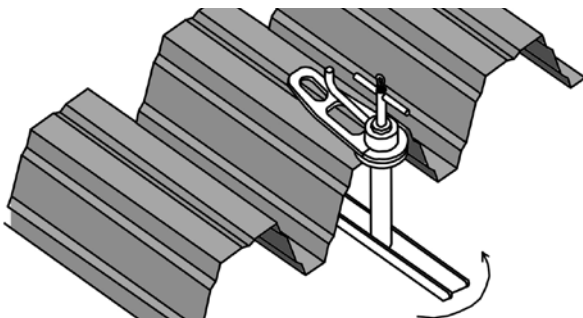


● **Installation instructions**

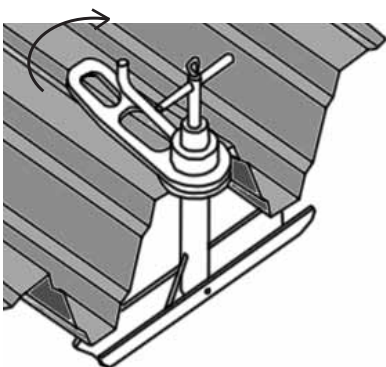
A safety anchor is installed into a Ø50 mm hole in the top flange of the profiled sheet. The U-steel of part B1 is turned to an upright position by pulling at the wire (V1) so that the safety anchor goes into the hole.



The safety anchor is inserted into the hole when the turning handle (B3) is parallel with the profiled sheet.



When the U-steel is in a horizontal position the safety anchor is rotated 90 degrees by the turning handle to get the U-steel below the bottom flange of the profiled sheet.



After this it shall be checked by lifting the handle that the U-steel is against the bottom flange of the profiled sheet. Then the safety anchor is attached to the profiled sheet by turning the tightening crank clockwise until the safety anchor stays tightly and firmly against the profiled sheet.

To detach the anchor the above operations are carried out in reverse order. First the safety anchor is loosened by rotating the tightening crank counterclockwise. After this the turning handle is rotated 90 degrees. The U-steel is then lifted to an upright position by pulling the wire, after which the safety anchor may be detached.

- **EC type-examination body**

The type-examination carried out by the notified body:
Finnish Institute of Occupation Health
Topeliuksenkatu 41
FI-00250 Helsinki, Finland
(Type-examination certificate No. 28223KSS01,
notified body No. 0403)

- **Body controlling the uniform quality of the production**

Finnish Institute of Occupation Health
Topeliuksenkatu 41
FI-00250 Helsinki, Finland

- **Instructions for maintenance and storage**

The surfaces of the device can be cleaned with a damp cloth. If necessary, non-corrosive detergents may be used. The thread may be cleaned with a steel brush or with compressed air. The thread and the hinge pin are lightly greased with appropriate oil. The product shall be stored and transported in its own transport case to protect it from dirt and moisture. If the product has got wet it has to be carefully dried before putting it into the transport case.

- **Periodic inspection**

The product must have a periodic inspection carried out every 12 months. The inspection is only to be conducted by a competent person/company authorized by the manufacturer or Institute of Occupational Health, in accordance with the separate instructions for periodic inspection.

- **Instructions for repair**

If the product is damaged it shall be removed from service immediately. If the wire (V1) and the wire head (V2) are damaged they may be replaced with new ones by the user. The wire is replaced by threading it through the hole in the U-steel into the hole in the vertical axle. A loop is made at the end of the wire and the wire head is tightened. The length of the wire shall be adjusted so that it allows the horizontal position of the U-steel.

Any other repairs shall only be carried out by a person/company authorized by the manufacturer. If any part is damaged, it shall be replaced with a new one. After the repair an extraordinary inspection has to be conducted to the product and the replacement of the parts shall be stated in the inspection report.

● **Use outside Finland / Resale**

The product is intended use in Finland only. If the product is used or resold outside the country of destination it is essential for the user's safety that the instructions for use, maintenance, periodic inspection and repair are provided by the reseller in the language of the new recipient country. Furthermore to be ensured that the CE-marking mentioned in this document is valid and approved in the country. Please note that some countries might require additional approval for health and safety equipment use than mentioned in this document.

● **Contact information**

Technical support (for more information)
Installation service

tel. +358 20 59 127	fax +358 20 592 7700
tel. +358 20 59 127	fax +358 20 592 7878

Rautaruukki Corporation

www.ruukki.com

Ruukki is a metal expert you can rely on from start to finish, when you need materials, components, systems or total solutions. We continuously develop our operating model and product range to meet your needs.



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