THE NATIONAL FEDERATION OF ROOFING CONTRACTORS LIMITED

guidance sheet e

February 2008

Slater's heel

Introduction

This information sheet is aimed at users of slater's heels (known as roof scaffold or roof irons). It should also help those who are involved in the management or control of situations where they are used.

During traditional slated roof construction in Scotland, slates are fixed directly to timber sarking. Unlike the typical construction methods used in other parts of the UK there are no timber battens.

In order to protect against falls from the roof during installation of the slates a lightweight, adjustable platform must be created. These platforms provide both a safe working platform and a means of access to higher parts of the roof. They also provide limited storage for materials in use.

Slater's heels and boards are used to create the safe working platform.

Before deciding to use slater's heels consideration should be given to the roof pitch and its length. The information contained within this guidance may not be suitable for pitches greater than 50°. For pitches greater than this additional protection from falls may be required.

Installation

The system consists of metal 'heels' (see fig 1), sized to accommodate one scaffold board (a typical standard 13 ft board). The heels are manufactured to suit differing roof pitches. The correct heel should therefore be selected.

The heels are fitted from the eaves upwards with a new row of heels being added as the slating process progresses up the roof towards the ridge. A perimeter scaffold is used to install the first few rows of slates and the first line of slaters heels. This scaffold provides protection against falls from the roof. The platform on the perimeter scaffold should be positioned to provide easy access up onto the roof once the first row of heels and scaffold boards is fitted.

The first row of heels and boards should be fitted approximately 300mm from the eaves. Slating can then progress up the roof using the first row of heels and boards as a working platform. The slater then installs further rows of slates and then fits another row of heels and boards repeating the process until he reaches the ridge. The heels are used as both a means to access up towards the ridge and as a safe working platform for installation of the slates. The distance

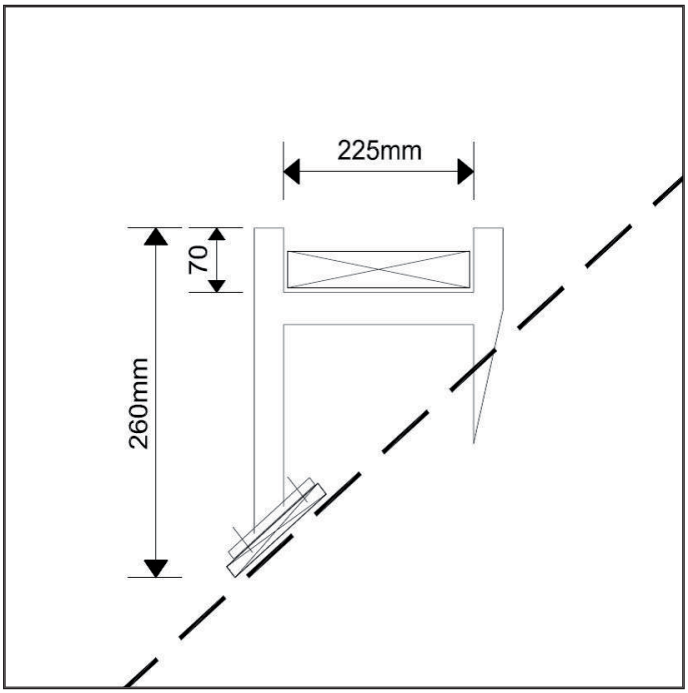

Figure 1. A typical heel with dimensions

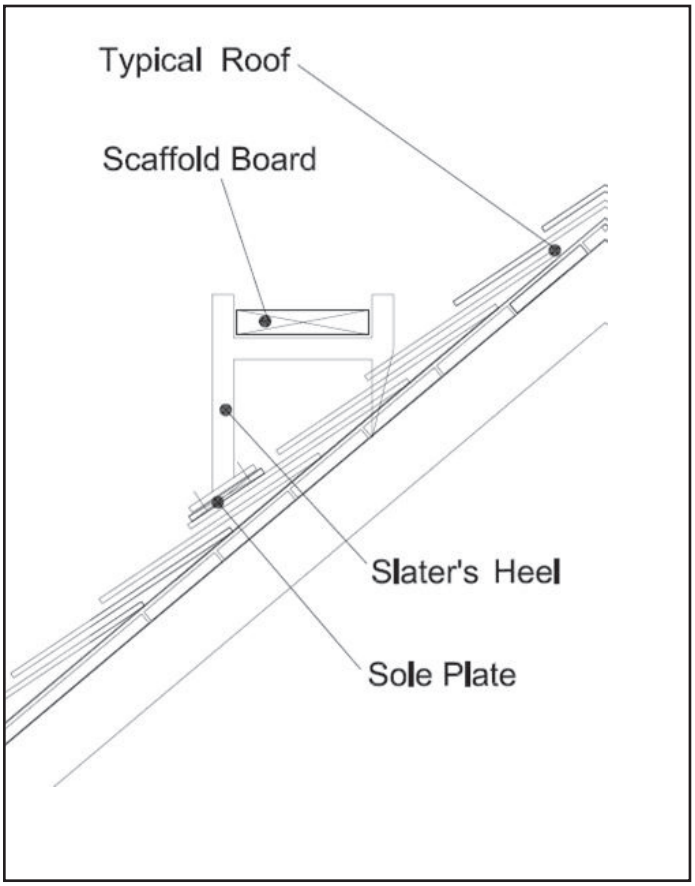

Figure 2. A typical heel with roof build up

between rows of heels should not exceed 1800mm. This will make it easy for the slater to step from one board up to the next without over stretching. This will also act to break a fall from a higher row of heels and boards. To prevent falls over the ridge line of the roof the top row of heels should be at least 1100mm below the ridge line.

Fitting of Heels

The upper point of the heel is driven into the sarking with the lower foot being nailed to a supporting board that rests on the lower courses of slate. The scaffold board is then placed horizontally on the heels. The board rests in the gap created between the tops of the front and rear legs of the heels. The heels should be placed across the full width of the roof being worked on. The boards placed on top of the heels should be continuous.

There should be at least 4 heels per 13ft board. The maximum distance between heels should be 1200mm.

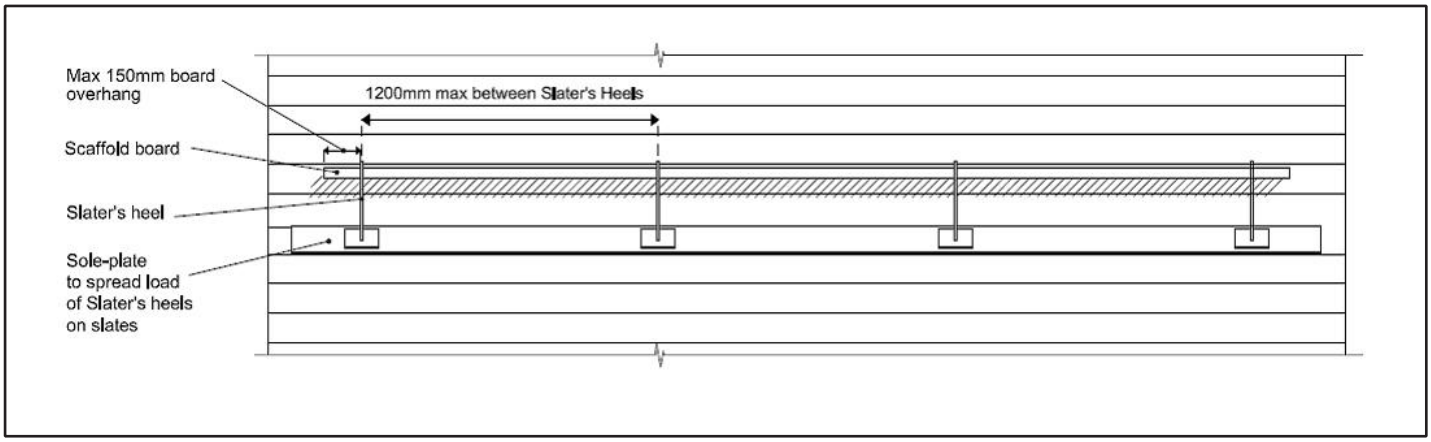

Figure 3.A typical elevation

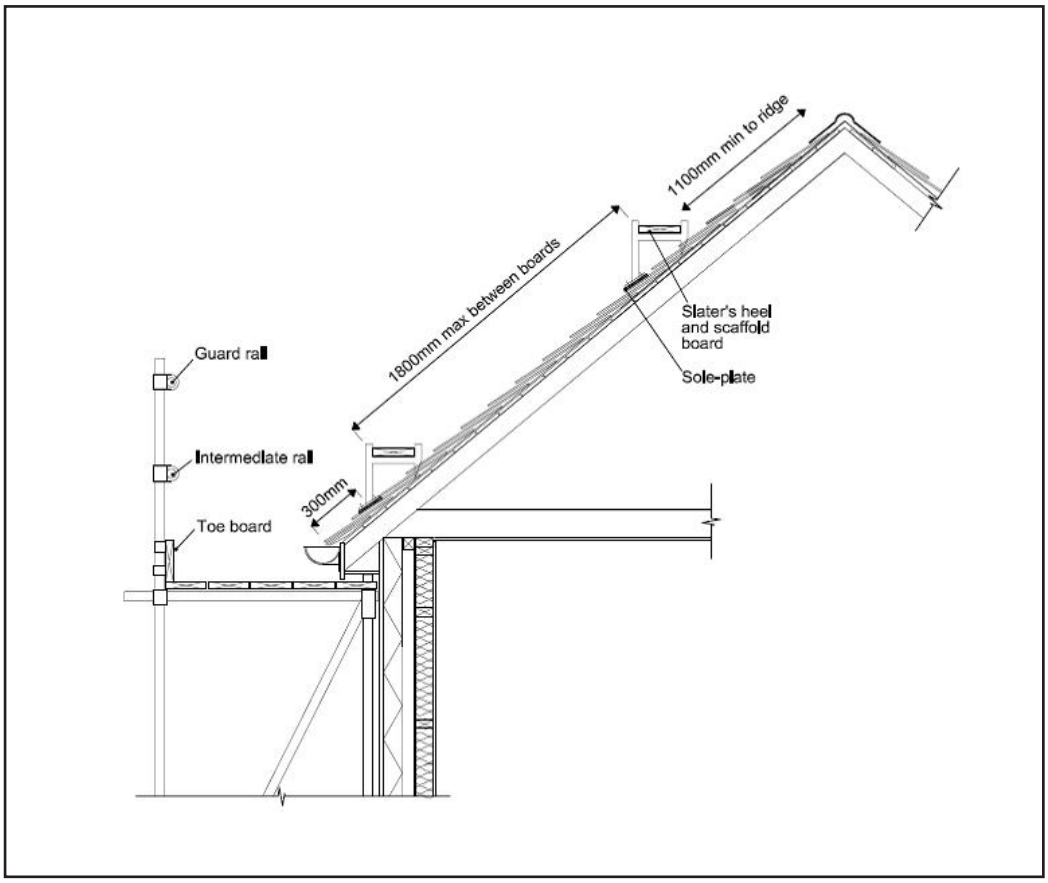

Figure 4. A typical roof section

Key Dimensions

• Typical distance from eaves to lower foot of first heel	300mm
• Maximum distance between each level of heels	1800mm
• Minimum distance between top level of heels and ridge line	1100mm
• Minimum number of heels per 13ft board	4
• Maximum distance between heels	1200mm
• Minimum overlap of boards	300mm
• Maximum unsupported overhang from last supporting heel to end of board	150mm

Where an unprotected edge exists for example the partial slating across a roof area, both the perimeter edge protection and slater's heels and boards should extend 2000mm beyond the working area.

Photo 1. Slater's heels in use

Photo 2. Elevation view

Dismantling

The system should only be removed on completion of all slating, ridge capping and any additional works including snagging.

The platforms should be removed in reverse order,
i.e. from the top down using the lower platforms as stepping stones down the roof. Turned slates should be repositioned as the heels are removed.

Additional Considerations

- Roof pitch and complex roof designs can limit the effective use of the heels.
- Weather conditions can increase the risk of slipping when moving from one board to the next.
- Boards should be tied to the roof heels in exposed areas or during windy conditions.
- Operatives should receive sufficient training to ensure that they can competently install the heels and boards. Their fitness to move freely between the levels of boards should also be considered.
- The use of heels does not reduce the requirement for a full working scaffold with edge protection, access and loading facilities.
- Where work is to be carried out on only a small area of roof the heels and boards should be fitted to ensure that they extend at least 2000mm beyond the area of roof being worked on.

Further information

This guidance is not intended to be exhaustive but to contain the main criteria that should be followed to ensure the health safety and welfare of operatives and others involved in working at height.

This Guidance Sheet is supported by the HSE and was produced by the Scottish House Builders Health & Safety Forum in conjunction with NFRC Member - Forster Roofing Services Ltd and CALA Homes East (Scotland) Ltd.

Further Information

SHB Scottish House Builders Health & Safety Forum

FORSTER roofing specialists

CALA HOMES

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