The 'MORRIS' BATSLATE

The Morris batslate is a specially designed 'slate' that will allow bats access to a roof void.

All bats and their roosts are protected by law under the 1981 WILDLIFE AND COUNTRYSIDE ACT (as amended). A roost can be defined as… 'any place a bat uses for shelter, protection or rest'. A roost is still defined as a roost even if the bat(s) is temporarily absent. NATURAL ENGLAND or your own Statutory Nature Conservation Organisation (SNCO) must be consulted for advice *before* any work is carried out on a place known to be used by bats.

Due to the relatively low cost of materials and labour involved in the construction of a Batslate (against the cost of making one and sending it through the post), it is easier to follow these instructions.

Some species of bat, such as Pipistrelles, are quite happy living between the roofing felt and the tiles/slates - never actually entering the roof void. Other species, such as the long-eared bat prefer the openness of the attic or loft. The species of bat identified (by an expert) dictates a very important factor in fitting a Batslate. All modern and 'refurbished' properties will have roofing felt. For species of bats that use the inside of the attic, a hole will need to be established in the felt to allow bats free access into and out of the loft. The hole need not be large - 75mm x 30mm is more than ample, but it is very important to establish it immediately adjacent to a rafter or wall to allow bats to climb back out. A hole in the middle of the felt will be difficult to find, difficult to land near and unlikely to be used. Some species of bat use the cavity wall, and access to here from the loft will be required.

Fitting the slate

Please get a reputable roofer or builder to fit the slate should you be at all unsure about climbing on the roof. They can telephone our staff member, Colin Morris (an experienced roof tiler) for advice on 01258 454341. The lead used should be at the *very least* Code 6. A lower code lead will sag after a very short time, blocking the bats' access. A 300mm square of lead will be enough to construct all types of Batslate. It can be reduced as tile size/type dictates. On a refurbished building there may very well be some stripped lead lying around that can be used - from a valley, wide chimney flashing or a hip. The Batslate should take no more than a couple of minutes to make and can be fitted during the normal re-roofing process with minimal disruption to the roofer - Figs. 1 and 2.

- On a plain tile roof, the Batslate can be fitted anywhere. The 'wings' of the Batslate should go under the adjacent tiles - a welt on each wing will further reduce the likelihood of water ingression - Figs. 3 and 4.
- On a profiled tile roof, the Batslate can only be fitted under the ridge tiles. Figs. 5 and 6.
- On a slate roof the Batslate can be fitted under the ridge tiles - Fig. 7. The ridge tiles can be adapted or cut away allowing for a lower ridge tile line. For example, when secret or back-bedded mortar is specified - Fig. 8. The Batslate can also be adapted to be fitted in the middle of a slate roof but more lead is required and a great deal more labour. Also, on a steep roof, rough material may have to be applied to the surface of the slates to enable the bats to grip - Figs 9 to 12.

For more technical advice call VWT Field officer Colin Morris on 01258 454341

Lead "Bat Slate" for a Plain Tile Roof

℄. Morris.

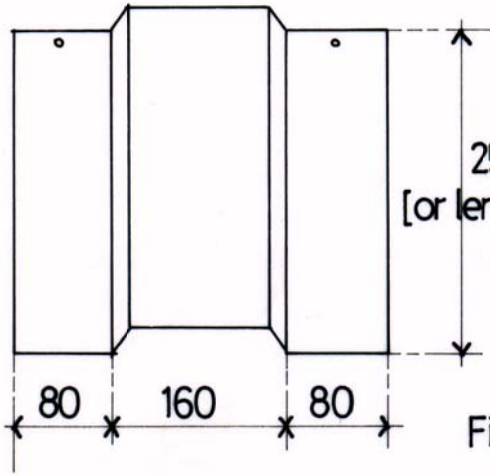


Fig. 1.

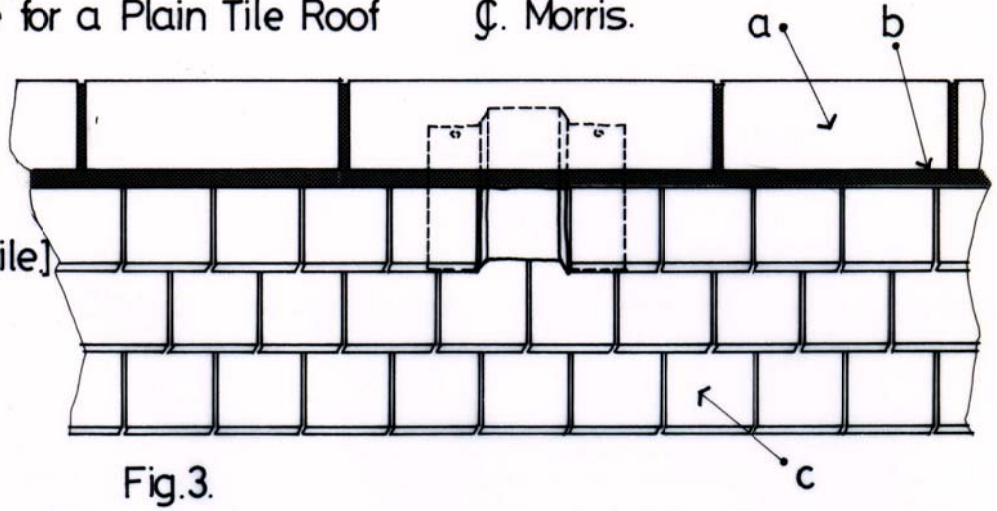


Fig. 3.

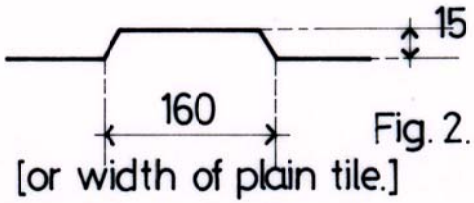


Fig. 2.

Original size of lead:
250x350mm. approx.

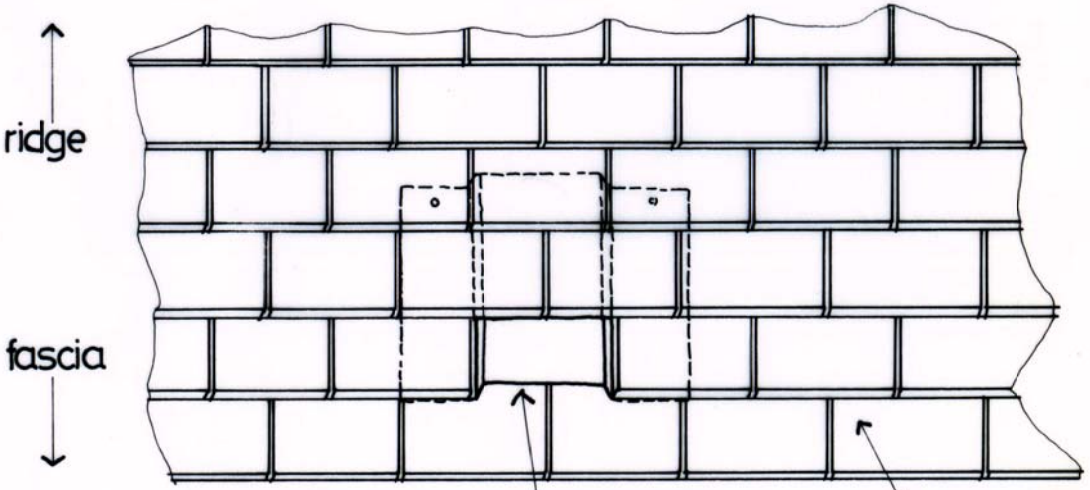


Fig. 4.

"Bat Slate" for a Profiled Tile Roof

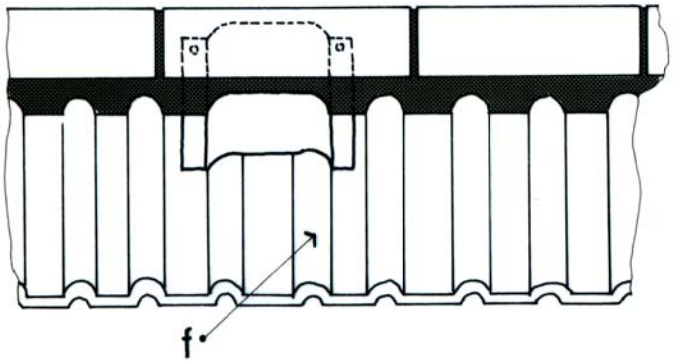


Fig. 5

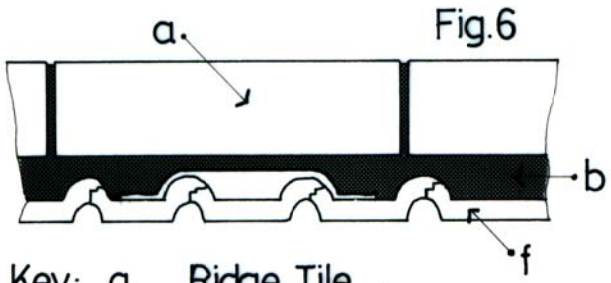


Fig. 6

Key: a Ridge Tile
b Mortar
c Plain Tile
d Slate
e Modified Ridge
f Profiled Tile

"Bat Slate" for a Slate Roof

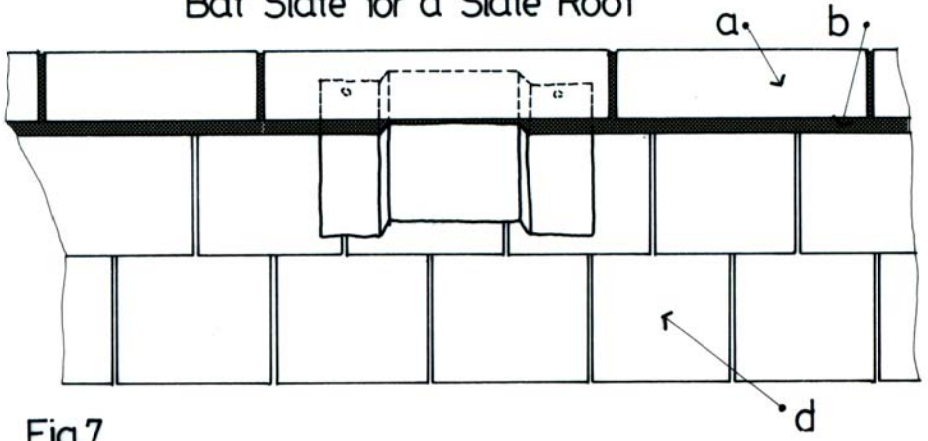
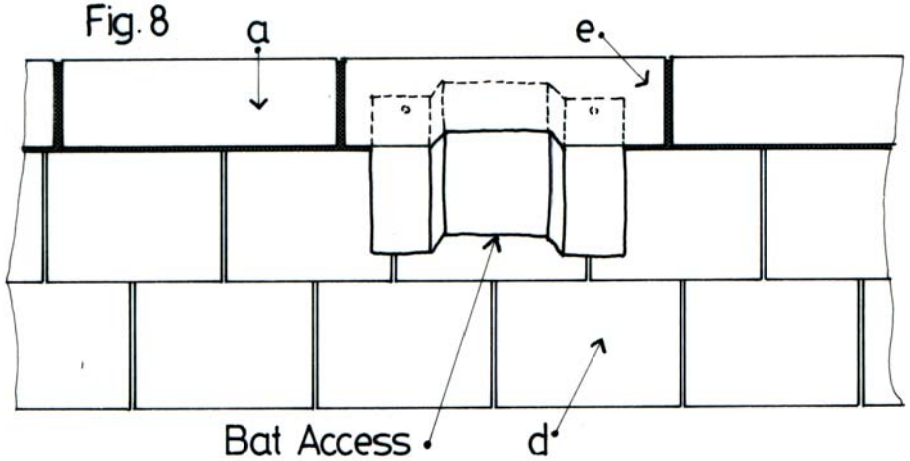


Fig. 7

Fig. 8



C. Morris.

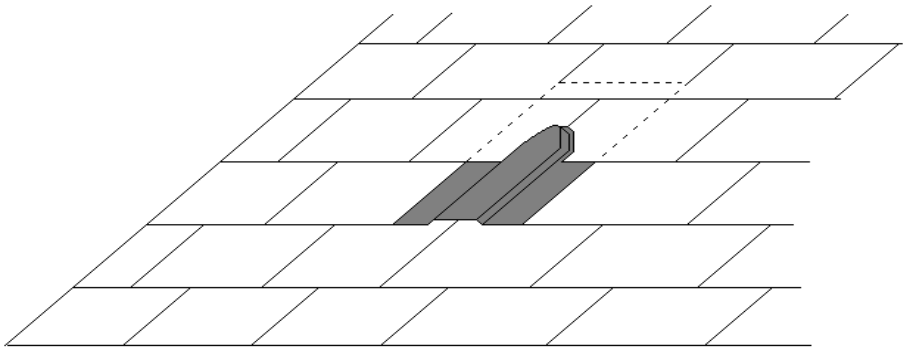


Fig 9. Batslates can be fitted in the middle of a slate roof but more lead and considerably more labour is involved.

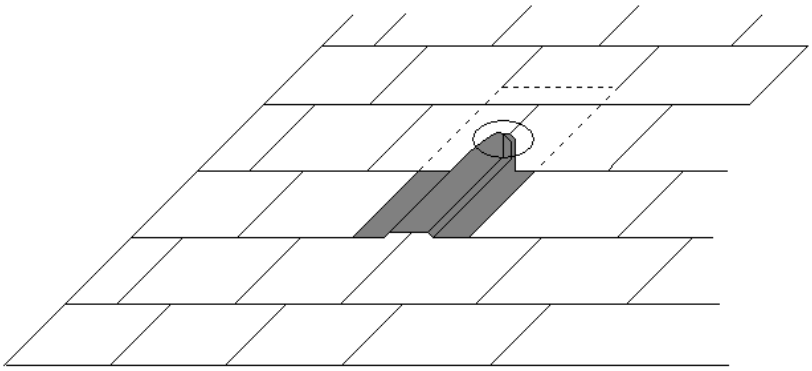


Fig 10. To allow bats into the loft, a hole may be cut in the roofing felt. The hole needs to be cut adjacent a rafter or wall to enable the bats to crawl in and out.

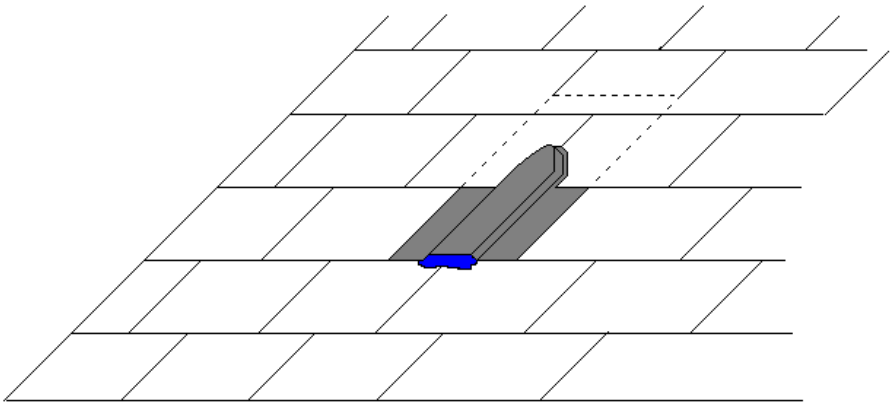


Fig 11. Steep pitched roofs

On a roof with a steep pitch, it is important to give the bats an area of grip – otherwise they would simply slide down the roof. Rough material should be applied just below and under the raised section of the batslate. It is vitally important to continue the rough surface right up to the top edge of the lower slates. An ideal material is readily available from builders merchants - 100 mm wide Scotch™ anti-slip tape or similar. P.V.A. adhesive or a weatherproof Mastic with a 'drying' surface could be used to fix a suitable material; fine gravel, rough/coarse sand are just a couple of options that might be used; it can be dyed to match the colour of the slates to make it less obvious from the ground.

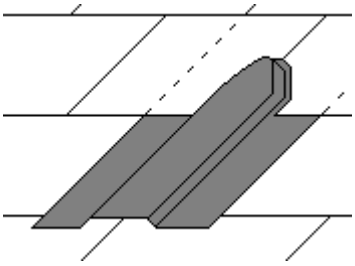


Fig 12. Shallow pitched roofs. On a lower pitched slate roof, the batslate can be extended down the roof to lessen the chance of water ingression.

Roofing felt

Many of the modern roofing felts and membranes have a smooth and slippery surface. These are generally unsuitable for bats, especially those bats that are crevice dwellers and choose to roost between the felt and roof covering. Any bats that did manage to get onto the upper surface of this type of membrane would be unable, or find it very difficult, to get out; they may very well die as a result. The traditional hessian reinforced bitumastic roofing/slater's felt (BS747) with a sand finish on its upper surface is probably the best, and it is still readily available.

Should a builder or roofer insist on one of the 'slippery' membranes, then some kind of material needs to be fitted, both on top of and below it, to enable the bats to have an area on which to get a purchase. Fine nylon 'Screening mesh' with holes of approximately 2.0mm across is available from Garden Centres and is suitable for most bat species. For example, Netlon®, product codes 74040201 (black) 74040220 (green). This micro-mesh needs to be stretched and nailed tightly across the tops of the rafters before the roofing membrane is fitted. After the fitting of the mesh it is important not to let the roll of roofing membrane sit/rest on the mesh as this will cause it to sag. There have been recorded incidents of bats crawling around and becoming trapped behind 'sagging' materials. Once the roofing membrane has been fitted, another roll of mesh will need to be fitted on the upper surface of the membrane, before the normal battening process can continue. If a hole is cut through the mesh/membrane/mesh sandwich, the three layers around the hole can be secured together using a stapler.

Inside the loft, the joins between the rolls of mesh should be covered with a batten, skew-nailed into the rafters/roof joists. This will cover any sags that will inevitably occur in the mesh, no matter how tight it is pulled by the builder/roofer.

The VWT does not advise the use of Netlon or similar products in roosts occupied by lesser horseshoe bats because of the danger of the bats becoming trapped. Please seek advice from the VWT before using any mesh to check on the suitability for the bat species in question.

Fabrication and fitting of a Batslate in a Plain tile roof

Lead used to fabricate the Batslate must be at least Code 6. Code 6 is less likely to sag and block bats access. The Batslate can be made from second hand or previously used lead: such as from a valley, hip, ridge, or wide cover flashings. Second-hand lead has the advantage of already looking 'weathered', and is often free.

Dressing the lead until it is flat.

Cut the lead to the length of one of the plain tiles you are going to use.

Dressing the lead over suitable sized timber. The depth of the finished Batslate should be 17-20mm.

Forming the second 'wing' of the Batslate and the width by using one of the tiles.

The second wing is complete.

The completed Batslate alongside two tiles, showing how it will look once fitted.

A typical place where a Batslate might be fitted; this is an old roof without felt. The Batslate is fitted alongside a rafter, allowing bats to land and crawl out. On a new or re-furbished roof, a hole will need to be established in the felt.

The Batslate shown here is fitted so that a whole tile will fit alongside it. Where this is not possible, tiles will require cutting. The Bat-slate is nailed (x2) to the batten.

Tiles are refitted around the Batslate.

The Batslate with all the surrounding tiles replaced.

Not the best picture in the World, but this is what the Batslate looks like in the middle of a plain tile roof.
From the ground it is almost invisible.

Fitting a Batslate in a Plain tile roof near the ridge tiles

A hole is cut in the roofing felt when the Batslate is fitted near the ridge tiles. This will allow bats access into the loft/attic area.

The Batslate is fitted in the same way as the previous one, being the same length and width as a plain tile and nailed twice into the top batten.

Note: The Batslate is above the hole in the felt and a rafter.

The top 'eave' tiles are fitted in the normal way.

The Batslate can also be fitted by replacing one of the shorter eave tiles. The Batslate's length should be adjusted accordingly.

This picture shows the ridge tiles being bedded on. If the mortar joint in the ridge-line is directly above the Batslate, material such as a broken tile or piece of slate should be placed on top of the Batslate and between the opposite top eave. This will ensure the mortar does not block the bats' access. This ***could*** *be done at every joint, allowing bats access to the underside of every ridge tile.*

This shows the Batslate in place of the top eave tile.