



Fig 17:

Roof 5; showing a general view of upper common rafters 1 and 2. Note that common rafter 2 had a poor connection at the top joint to the ridge board and the bottom birdsmouth joint was separated from the purlin



Fig 18:

Roof 5; showing the feet of upper common rafters 3 and 4 which had been poorly scribed to the purlin. The positioning and condition of mechanical fixings securing these joints was also deemed to be inadequate



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Fig 19:

Roof 5; showing the separated splay scarf connecting two lengths of ridge board between upper common rafters 8 and 9 showing a focussed view of the birdsmouth joint of upper common rafter 13. Note that this joint was deemed to be inadequate due to multiple splits and the poor condition and positioning of mechanical fixings



Fig 20:

Roof 5; showing a focused view of the foot of an upper common rafter that had degraded due to superficial decay, excessive splitting and corrosion of mechanical fixings



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Fig 21:

Roof 5; showing a focussed view of the top of the upper common rafter 16. Note that a localised incidence of mechanical damage had resulted in significant section loss at this location resulting in the common rafter being deemed as inadequate



Fig 22:

Roof 5; showing a series of joints connecting the lower common rafters to the purlin. Note that these had wedges inserted to improve joint connection. However, these may be considered inappropriate by modern standards. Structural Engineer to comment



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Fig 23:

Roof 5; showing the top birdsmouth joint connecting the lower common rafter 16 to the purlin. This had become separated by approximately 25mm. Joint was deemed to be inadequate



Fig 24:

Roof 5; showing a general view of the upper common rafter 23 which had been subjected to significant section loss due to the historic infestation of woodboring beetle consuming the sapwood. Also note that the joint connecting the top end to the ridge board was deemed to be highly inadequate due to the section loss and the poor quality of fixings as well as significant splitting



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Fig 25:

Roof 5; showing a general view of upper common rafter 33. Note that the rafter had slipped from its original position resulting in a poor connection at the top interface with the ridge board. Additionally, the bottom birdsmouth joint connecting the rafter to the purlin was deemed to be inadequate due to significant splitting



Fig 26:

Roof 5; showing a general view of lower common rafters 33, 34 and 35. Note that 33 had been subjected to significant mechanical damage at its upper end resulting in large section loss and poor connection to the purlin. Common rafters 34 and 35 appear to have slipped from their original positions before being re-fixed. Upper birdsmouth joints were therefore deemed to be inadequate and further strengthening or additional replacements or repairs would be necessary



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Fig 27:

Roof 6, south pitch; showing a general view towards west end



Fig 28:

Roof 6, south pitch; showing boarded over area at east end for previous rooflight location



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Fig 29:

Roof 6; showing general degradation of ridge board at east end



Fig 30:

Roof 6, south pitch; showing occasional replacement of historic rafters with new softwood timber



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Fig 31:

Roof 6, south pitch; showing slight damage to head of lower common rafter at east end



Fig 32:

Roof 6, south pitch; showing long split to head of upper rafter