

ANOTHER MITEK ADVANTAGE

TRUSS INSPECTION CHECKLIST

There have been many articles written on the causes of unsatisfactory roof and ceiling lines and quite often trusses are unjustifiably blamed for these problems.

However the true cause of the problem is only discovered once an experienced person has been called in to inspect the problem job.

Having conducted many site inspections over the years I have developed a checklist that I go

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through on site when asked to address this problem.

This Guideline provides a summary of that checklist with an appropriate action plan.

The scenario is that after the roof has been loaded the ceiling line has developed unacceptable deviations.

This checklist can also be applied in general terms for most problems

on site where it is suspected roof trusses have deflected excessively.

As always, if there is evidence that trusses need attention then ensure they are securely propped from underneath and contact the truss manufacturer immediately.

Never perform unauthorized modifications to trusses.

Taking the initiative, and following a checklist such as this, may save you time and money by negating the need for an on site inspection and subsequent report by a third party.

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	Check	Action required if the answer is No
1	Where ceiling is direct fixed to framing:- Check that the ceiling is correctly fixed to the underside of the timber framing or battens.	Fit ceiling tight to supporting members.
2	Where ceiling battens are fitted:- Check that the battens are tight to the underside of timber framing.	Connect direct fixed battens tight to the underside of timber framing.
3	Where ceiling is fitted using furring channels:- Check that the furring channels are level.	Level furring channels.
4	Are the trusses in the region concerned straight from heel to heel? In other words is there a measurable deflection downwards or even a residual camber upwards? This can be measured using a string line from heel to heel or a laser level.	If there is a residual camber there is no strength problem with the truss. If there is a significant downward deflection (ie more than a few mm) then further inspection of the truss is needed, see Points 6, 7 and 9 below.
5	Are the supports of adjacent or connected trusses at the same level? This can be checked with a laser level.	- Raise lower supports (eg packing) to achieve the same level. - OR lower high supports (eg notch wall frame) to achieve the same level. - OR correct any deficient supports – for example undersized beams.
5a	In the case of a truss being too close to the top of an internal non-load bearing wall – is the floor level? This can be checked with a laser level, or when the plasterboard is not installed simply use a string line.	If the floor under the internal wall is high either - notch out the top of the internal wall and give a min of 10mm clearance to the underside of the truss - OR pack up the edges to raise the supports of the truss to the appropriate level
6	Are there any broken or split timbers or damaged nailplated joints?	- Prop the truss at a chord/web joint - Contact the truss manufacturer with details of the truss concerned and details of damaged elements. - Rectify according to their approved recommendations.
7	Are the trusses straight and plumb in accordance with AS4440?	- Prop the truss from below - Release chord bracing (eg tile battens or purlins) - Straighten truss - Refit chord restraints - Remove props
8	Are brackets fitted correctly in a horizontal position with required anti-rotation fixing of bolts or screws?	- Prop supported trusses - Release anti-rotation fixing if in place - Straighten girder truss bottom chord - If anti-rotation fittings were not previously used then fit now. - If anti-rotation is provided by screws and new positions are more than 20mm from previous holes – fit screws. - If anti-rotation bolts were used or screw positions are too close to existing holes contact the truss manufacturer for alternate fixing.
9	Is the truss concerned supported correctly at the nominated support points?	- Prop the truss at a chord/web joint - Contact the truss manufacturer with details of the truss concerned and current support locations. - Rectify according to their approved recommendations.
10	Did none of the above queries address the issue?	- Contact the truss manufacturer to arrange for an expert inspection.