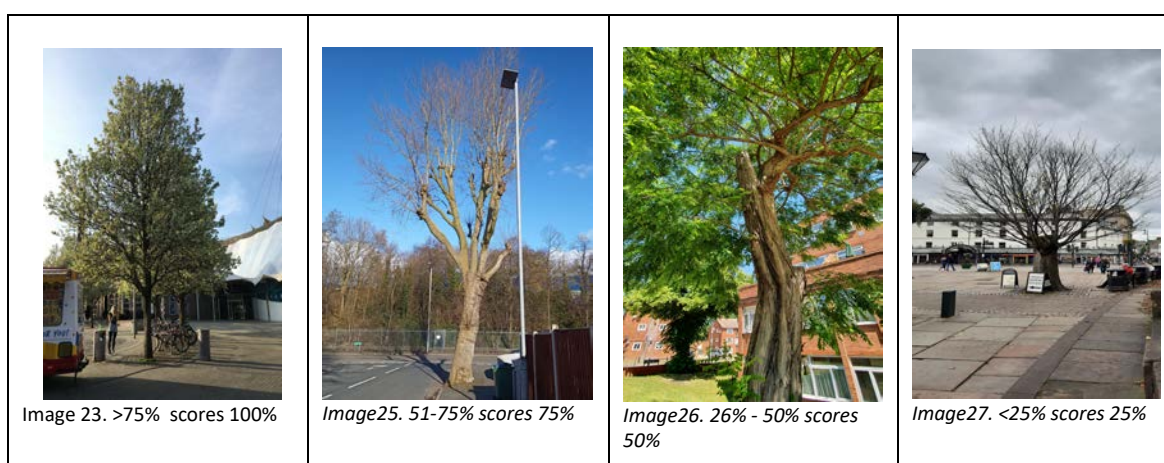


A Guide to Steps 5-9

Step 5: Primary structure - completeness (this is a quantitative assessment)

Assess the trunk and scaffold limbs (*trunk and weight bearing stems, and branches to the point where they begin to divide*). The tree is scored according to the extent of loss, irrespective of the cause of loss - e.g., crown reduction or lost structure due to storms or natural failure.

- More than 75% complete (Image 23)
- Between 51% and 75% complete (Image 25)
- Between 26% and 50% complete (Image 26)
- Between 1% and 25% complete (Image 27)



Step 6: Primary structure - quality (this is a qualitative assessment)

Assess the tree to take account of loss in quality in the tree's primary structure. Scoring 100%, an "excellent" primary structure is without flaw and has an uncompromised ability to support a full and healthy crown. Where the primary structure is flawed the score will be adjusted accordingly, irrespective of the cause of loss of quality.

- Excellent (100% of value is retained) (Image 31)
- Good (75% of value is retained) (Image: from worked examples)
- Fair (50% of value is retained) (Image 32)
- Poor (25% of value is retained) (Image 38)



Step 7: Crown completeness (this is a quantitative assessment)

Assess the tree with a view to obtaining the crown volume. The assessment considers any loss of height and spread.

All four cardinal points need to be measured and along with height entered in the Calculator.

Notes:

- 'Expected' refers to that of an optimum specimen of the same species and stem diameter.
- Crown lifting should be accounted for by entering the actual and expected crown base heights into the calculator.
- Additional voids not accounted for by radial reductions are added to the result. Round to the nearest 10% and apply in the spreadsheet.



Step 7. Using the crown structure tab in the Calculator for Worked example: Quercus robur, East Hants

Step 7: Crown completeness

[Link to Crown completeness calculator](#)

Crown completeness factor

20%

Within the worksheet

MEASUREMENTS	DATA INPUT	CALCULATED CROWN COMPLETENESS								
Actual tree height (m)	11.80									
Expected tree height (m)	11.80									
Actual crown shape	Sphere (globular, rounded)									
Expected crown shape	Sphere (globular, rounded)									
Actual height to crown base (m)	2.50									
Expected height to crown base (m)	2.50									
Actual crown radius (m)	<table> <tr> <th>N</th><th>E</th><th>S</th><th>W</th></tr> <tr> <td>8.0</td><td>6.0</td><td>5.0</td><td>6.0</td></tr> </table>	N	E	S	W	8.0	6.0	5.0	6.0	
N	E	S	W							
8.0	6.0	5.0	6.0							
Expected crown radius (m)	<table> <tr> <th>N</th><th>E</th><th>S</th><th>W</th></tr> <tr> <td>7.0</td><td>7.0</td><td>7.0</td><td>7.0</td></tr> </table>	N	E	S	W	7.0	7.0	7.0	7.0	
N	E	S	W							
7.0	7.0	7.0	7.0							
Additional voids in the crown (%)	60%									
CROWN COMPLETENESS (%)		20%								

Step 8: Canopy completeness (this is a quantitative assessment)

Assess the canopy: based on the quantity of foliage present at the time of the assessment. The range of adjustment is from 100% to 0%, in 20% increments.



Step 9: Crown and canopy quality (this is a qualitative assessment)

Assess the condition of the crown and canopy. Are there any issues with the leaves? Is the vigour of the shoots, buds, and the crown's woody/leaf-bearing structure good? For example, any discolouration, leaf miner, mildew, dieback, squirrel, or insect damage. Adjustments are in increments of 25%.

