

Truss Terminology

Technical terms used in the truss industry may not be familiar. Some of the more common are listed below and are illustrated on pages 3 & 4.

Apex:

The highest point on a truss.

Barge:

Trim along the edge of roofing at a gable end. Slopes at roof pitch. It is fixed to ends of battens, purlins or verge rafters.

Batten:

Roofing battens or ceiling battens. Usually timber members fixed at right angles to the truss chords to support roof tiles or ceiling material. Also provides lateral restraint to the truss.

Bearing/Support point:

Point at which the truss is supported. A truss must have two or more supports located at truss panel points.

Bottom chord:

Truss member forming bottom edge of truss.

Butt joint Splice:

End-to-end joint between two pieces of timber.

Camber:

Vertical displacement built into a truss to compensate for the downward movement expected when truss is fully loaded.

Cantilever:

That part of a truss that projects beyond an external main support, not including top chord extensions or overhangs.

Chord:

The truss members forming the top and bottom edges of the truss.

Clear span:

Horizontal distance between inner edges of supports.

Concentrated load:

A load applied at a specific position. e.g. load applied by an intersecting truss.

Connector:

Light gauge steel plates with teeth projecting from one face. When pressed into intersecting timber members the plate connects the members in a rigid joint.

Creep:

Movement resulting from long-term application of load to a timber member.

Cut-off:

Description of a truss based on standard shape but which is cut-off short of its full span.

Dead Load:

Permanent loads due to the weight of materials and truss self-weight.

Deflection:

Vertical and horizontal movement in a truss due to the applied load.

Design Loads:

The various loads that a truss is designed to support.

Distributed Load:

Loads spread evenly along truss member.

Fascia:

Trim along the edge of the eaves.

Gable Truss:

Standard triangular shaped truss.

Girder Truss:

Truss designed to support one or more trusses.

Heel Joint:

The joint on a truss where the top and bottom chords meet.

Heel Point:

The position on a truss where the bottom edge of the bottom chord meets the top chord. Used for setting up production jigs.

Hip:

Intersection of two roof surfaces over an external corner of a building.

Hip Roof:

Roof constructed with rafters or trusses pitched over all perimeter walls.

Joint Strength Group:

Classification of timber according to its ability to perform with fasteners such as bolts, nails and Gang-Nail connectors. The grouping depends on timber species and moisture content.

King Post:

Vertical web at the centre of a gable truss, or the vertical web at the end of a half gable truss.

Lateral Brace:

Bracing restraint applied at right angles to web or chord to prevent buckling.

Longitudinal Tie:

Bracing restraint applied at right angles to web or chord to prevent buckling.

Live Load:

Temporary load due to traffic, construction, maintenance etc.

Overall Length:

Length of truss excluding overhangs.

Overhang:

Extension of top chord beyond support. Provision of eaves on gable trusses.

Nominal Span:

The horizontal distance between supports of a truss.

Panel-point:

The point where several truss members meet to form a joint.

Panel-point Splice:

Splice joint in a chord coinciding with web intersection.

Pitch:

Angular slope of truss chord measured in degrees.

Purlin:

Roofing purlins. Usually timber members fixed at right angles to the truss chords to support roof sheeting. Also provides lateral restraint to truss. Similar to battens except more widely spaced.

Rafter:

A roof member supporting roofing battens or roofing purlins in conventional construction. Rafters employ only the bending strength of the timber. A roof truss may also be called a trussed rafter.

Ridge:

The highest point on a gable roof.

Span:

The horizontal distance between the outer edges of the truss supports.

Span Carried:

The span of standard trusses that are supported by a girder truss.

Stress Grade:

Strength classification of timber. Based on species, seasoning and frequency of defects such as knots and sloping grain. Alternatively based on actual mechanical testing of each piece.

Station:

The position of a truss measured from the outside face of the end wall. Usually used to describe the position of truncated Girder and Standard trusses in a Hip End.

Strut:

Structural member subject to axial compression. In the context of truss, this term is used for compression webs.

Symmetrical Truss:

Truss with symmetrical configuration and design loading.

Top Chord:

Truss member forming top edge of truss.

Truss:

Trussed rafter. Triangulated, self-supporting framework of chords and webs that supports applied loads by a combination of the bending strength of the chords and the axial compressive and tensile strength of the chords and webs.

Valley:

Intersection of two roof surfaces over an internal corner of a building.

Verge:

Roof overhang at a gable-end.

Verge Rafter:

Rafter projecting from gable end to support verge.

Waling Plate:

Timber member bolted to the face of a truss to support intersecting rafters or trusses. May also be used to support intersecting battens or purlins.

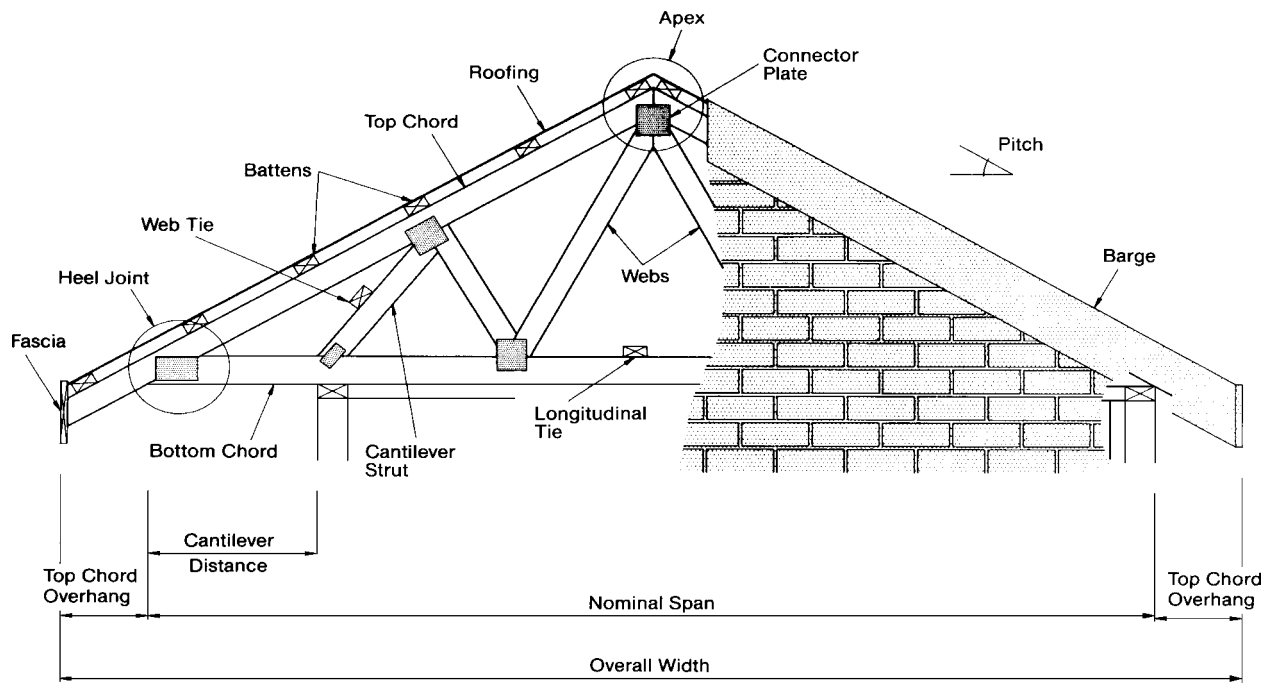
Web:

The internal members of a truss. Usually only subject to axial loads due to truss action.

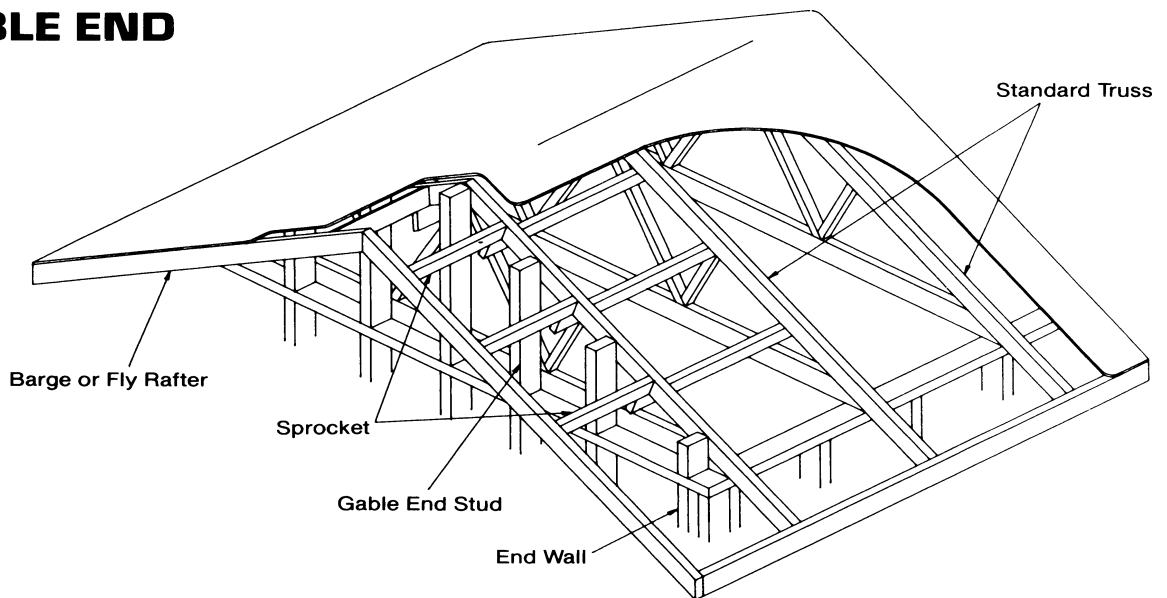
Wind Load:

Load applied to the roof by the wind.

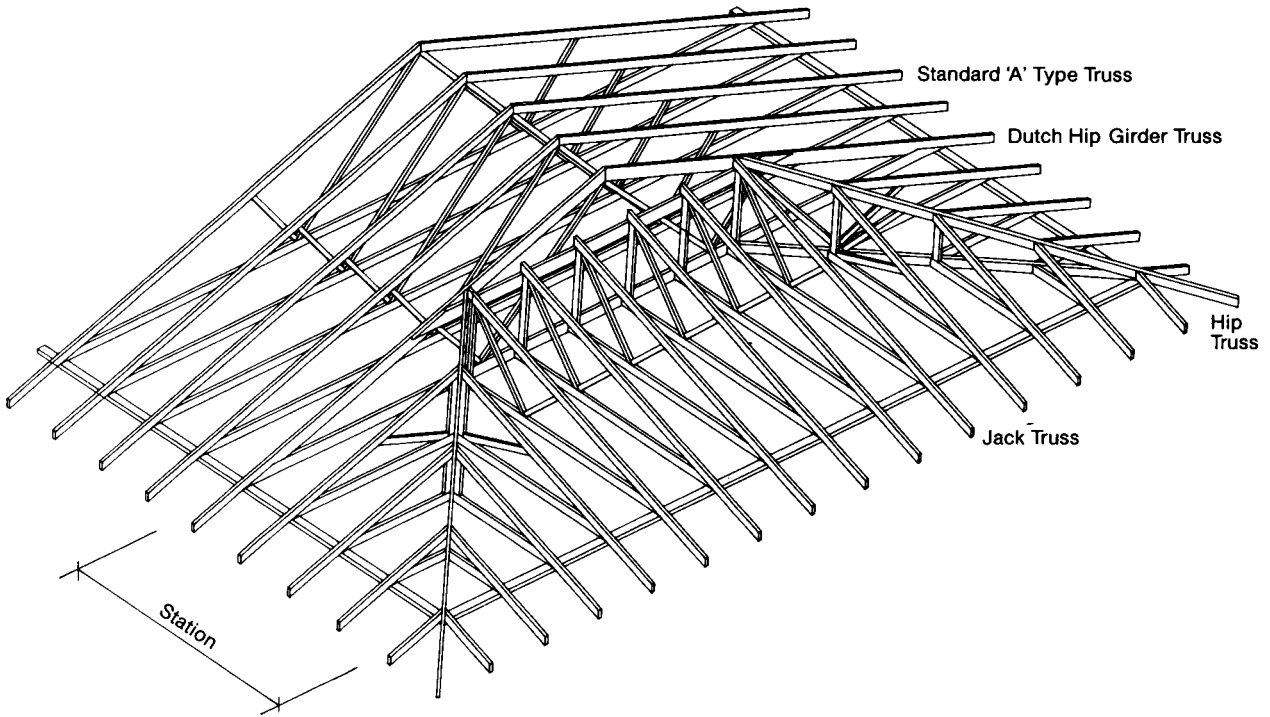
Gang-Nail Truss System



GABLE END



DUTCH HIP END



HIP END

