

TRUSSES

Trusses are the frame formed by number of straight members connected in the form of triangles

The members are made by steel angles and they are joined by rivet or welding, these joints are called nodes

It is assumed that the external loads act at the nodes only and the members are subjected to only tension or compression

The compression members are called as struts and the tension members are called as ties

Steel roof trusses are used under the following condition

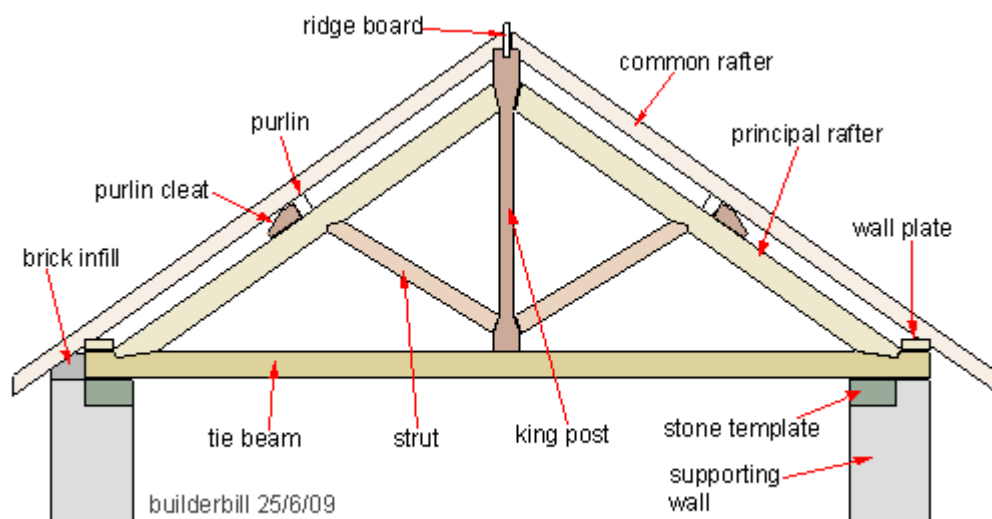
Large spans are to be covered

Intermediate columns are to be avoided to have an unobstructed working area inside

There is a heavy rain or snow fall

Types of roof trusses

King post truss



Traditional King Post Roof Truss

Here the

common rafters are supported by wooden frame work called truss under required interval

The frame work consist of a king post, two struts two principal rafters and tie beam

The truss rest on stone bed blocks at either end

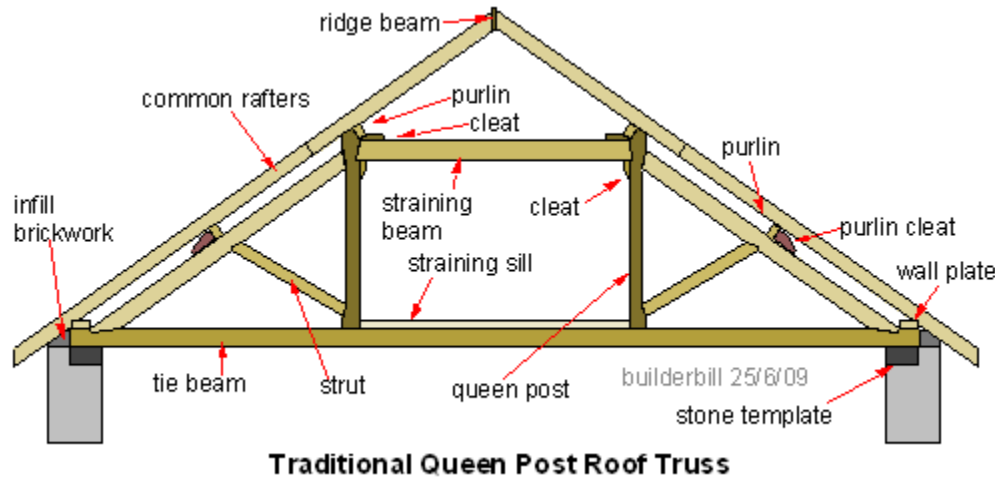
The common rafters rest on wooden purlins which in turn are fixed to the principal rafters of the truss

The king post connect the ridge post and the middle of the tie beam

The struts are connected to the king post at the bottom and the principal rafters at the top

The roofing material is fixed to the common rafters king post truss is used for spans of 5m to 9m

Queen post truss



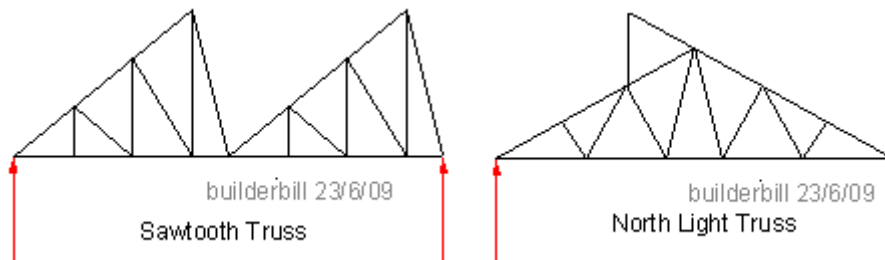
The frame work consist of two principal rafters ,two queen post one straining sill two struts one tie beam and one straining beam

The common matters rest on wooden purlins

The staining beam resist the horizontal thrust developed

The struts are connected to the queen post at the bottom and the principal rafters at the top

North light roof truss



North light or saw tooth roof truss is special type of roof trusses suitable for factories engaging in manufacturing work

North light truss is sawtooth

Actual lighting is taken an advantage during day time by using the north light roof trusses
In this type of trusses vertical drops are provided this drops are covered with glasses so as to permit light in to the interior