amount of action in trusses 8 and 9, thus: Max. weight on end braces, \(2w \times \text{length} \sqrt{\frac{h^2}{v^2} + v^2} \) — stress = \(2w \sqrt{\frac{h^2}{v^2} + v^2}\).

Hence, action upon material for the two = \(\frac{4h^2}{v} + 4v\) M.

Max. weight on 2 verticals = \(\frac{3}{5}w \times \) length of the two ( = 2v), gives......

Max. stress of upper chord = \(3w \frac{h}{v}\)

\(\times\) length ( = 3h), gives amount of action = \(\frac{9h^2}{v}\) M.

Making total amount of action on thrust material = \(\frac{13h^2}{v} + 5\frac{h}{2}v\) M

Aggregate max. weight on 6 tension diagonals = \(\frac{2}{5}w = 4w\). This by the length ( = \(\sqrt{\frac{h^2}{v^2} + v^2}\)), gives stress = \(4w \sqrt{\frac{h^2}{v^2} + v^2}\); whence amount of action on material, equals ...... 2 tension verticals sustain each, 1w, with length = v, giving amount of action for the two = \(2v\) M.

Stress of middle section, lower chord

\(= 3w \frac{h}{v}\), \(\times\) length ( = h), gives action \(\frac{3h^2}{v}\) M.

4 remaining sections, with stress = \(2w \frac{h}{v} \times \) length ( = 4h), give .........

Making whole amount of action on tension material = \(\frac{15h^2}{v} + 6v\) M.