

28 Aug 60

Vertical members a, b, c give drilling distances between hole centers all $\frac{3}{16}$ " longer than computed ordinates

Vertical members m, n, o, p, q, r, s, t, u give drilling distances between hole centers all $1\frac{1}{16}$ " longer than computed ordinates.

Vertical members e, f, g, h, i, j, k, l give drilling distances between hole centers all $1\frac{3}{16}$ " longer than computed ordinates

Sample Calculation of 1937

Point a = 2.5152' above reference plane which is top of platform $2' 6\frac{3}{16}"$

Top hole in rib support, below point a $- 1\frac{1}{2}"$

Top hole in rib support above reference plane $2' 4\frac{11}{16}"$

Center of bottom hole below reference plane ($\frac{1}{2}$ of $3\frac{3}{8}"$) $+ 1\frac{11}{16}"$

Distance between top + bottom holes in rib support $2' 6\frac{3}{8}"$

→ Note: The $3\frac{3}{8}"$ should be $3\frac{5}{8}"$, making final answer $\frac{1}{8}"$ longer. Or, for fixed support rod dimensions, the hole in rib should be $\frac{1}{8}"$ lower

Point m = 1.3800' above reference plane $= 1' 4\frac{9}{16}"$

Top hole in rib support rod, below point m $- \frac{3}{4}"$

" " " " " " above reference plane $1' 3\frac{13}{16}"$

Center of bottom hole below reference plane ($\frac{1}{2}$ of $3\frac{5}{8}"$) $+ 1\frac{13}{16}"$

Distance between top + bottom holes in rib support $1' 5\frac{5}{8}"$

$\log \cos 230' = 9.99959-10$, $\log \cos 37'30'' = 9.89947-10$
 $" \quad 7'30'' = 9.99627-10$, $" \quad 42'30'' = 9.86763-10$
 $" \quad 12'30'' = 9.98958-10$, $" \quad 13.8489 = 1.14142$
 $" \quad 17'30'' = 9.97942-10$, $" \quad 10.0208 = 1.00090$
 $" \quad 22'30'' = 9.96562-10$, $" \quad 9.6770 = .98574$
 $" \quad 27'30'' = 9.94793-10$, $" \quad 3.7605 = .57524$
 $" \quad 32'30'' = 9.92603-10$,

ordinates

$a = \log^{-1}(1.14142 - 9.98958 + 10) = 14.1753' \quad 2.5152'$
 $b = \log^{-1}(1.14142 - 9.99627 + 10) = 13.9684' \quad 2.4390'$
 $c = \log^{-1}(1.14142 - 9.99959 + 10) = 13.8622' \quad 2.4020'$
 $d = \log^{-1}(.57524 - 9.94793 + 10) = 4.2297' \quad .2236'$
 $e = \log^{-1}(.57524 - 9.99627 + 10) = 3.7842' \quad .1790'$
 $f = \log^{-1}(.57524 - 9.98958 + 10) = 3.8429' \quad .1846'$
 $g = \log^{-1}(.57524 - 9.92603 + 10) = 4.4587' \quad .2485'$
 $h = \log^{-1}(.57524 - 9.89947 + 10) = 4.7399' \quad .2808'$
 $i = \log^{-1}(.57524 - 9.97942 + 10) = 3.9329' \quad .1934'$
 $j = \log^{-1}(.57524 - 9.99959 + 10) = 3.7640' \quad .1771'$
 $k = \log^{-1}(.57524 - 9.96562 + 10) = 4.0609' \quad .2061'$
 $l = \log^{-1}(.57524 - 9.86763 + 10) = 5.1004' \quad .3252'$
 $m = \log^{-1}(1.00090 - 9.97942 + 10) = 10.5066' \quad 1.3800'$
 $n = \log^{-1}(1.00090 - 9.98958 + 10) = 10.2640' \quad 1.3166'$
 $o = \log^{-1}(1.00090 - 9.99627 + 10) = 10.1072' \quad 1.2770'$
 $p = \log^{-1}(1.00090 - 9.99959 + 10) = 10.0302' \quad 1.2575'$
 $q = \log^{-1}(.98574 - 9.96562 + 10) = 10.4741' \quad 1.3714'$
 $r = \log^{-1}(.98574 - 9.97942 + 10) = 10.1465' \quad 1.2869'$
 $s = \log^{-1}(.98574 - 9.98958 + 10) = 9.9120' \quad 1.2281'$
 $t = \log^{-1}(.98574 - 9.99627 + 10) = 9.7605' \quad 1.1908'$
 $u = \log^{-1}(.98574 - 9.99959 + 10) = 9.6862' \quad 1.1728'$