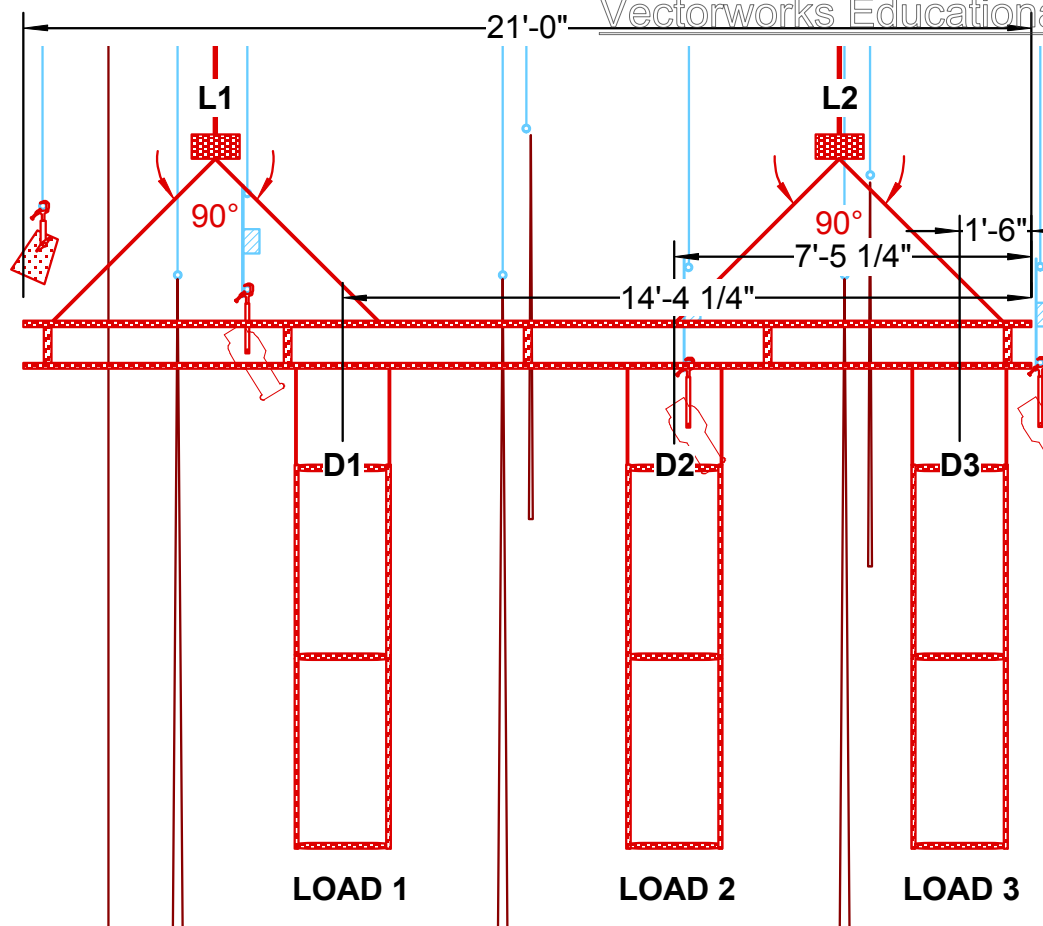




TOTAL WEIGHT OF RIG

382.1586 LBS x 3 =
1146.4758 LBS **LIGHT LADDER**
+190.274 LBS **LADDER TRUSS**
16.53 LBS x 3 =
49.59 LBS **TRUSS CONNECTIONS**
25.8537 LBS x 2 =
51.7074 LBS **MOTOR & CONNECTIONS**

= 1438.0472 LBS

LOAD 1, 2, 3:

382.1586 LBS **LIGHT LADDER**
+190.274 LBS **LADDER TRUSS**
16.53 LBS **CONNECTIONS**

= 588.9626 LBS

D1 = 14.354'
D2 = 7.4375'
D3 = 1.5'

LOAD DISTRIBUTION CALCULATIONS

L1:

$$\begin{aligned} \text{TENSION ON L1} &= [(LOAD1 \times D1) + (LOAD2 \times D2) + (LOAD3 \times D3)] / SPAN \\ \text{TENSION ON L1} &= [(588.9626 \times 14.354') + (588.9626 \times 7.4375) + (588.9626 \times 1.5')]/21' \\ \text{TENSION ON L1} &= [(8453.96916) + (596.4001) + (883.4439)]/21 \\ \text{TENSION ON L1} &= [(9933.81316)]/21 \\ \text{TENSION ON L1} &= \mathbf{473.039 \text{ LBS}} \end{aligned}$$

L2:

$TENSION\ ON\ L2 = (LOAD1 + LOAD2 + LOAD3) - TENSION\ ON\ L1$
 $TENSION\ ON\ L2 = (588.9626 + 588.9626 + 588.9626) - 473.039$
 $TENSION\ ON\ L2 = (1766.8878) - 473.039$
TENSION ON L2 = 1293.8488 LBS