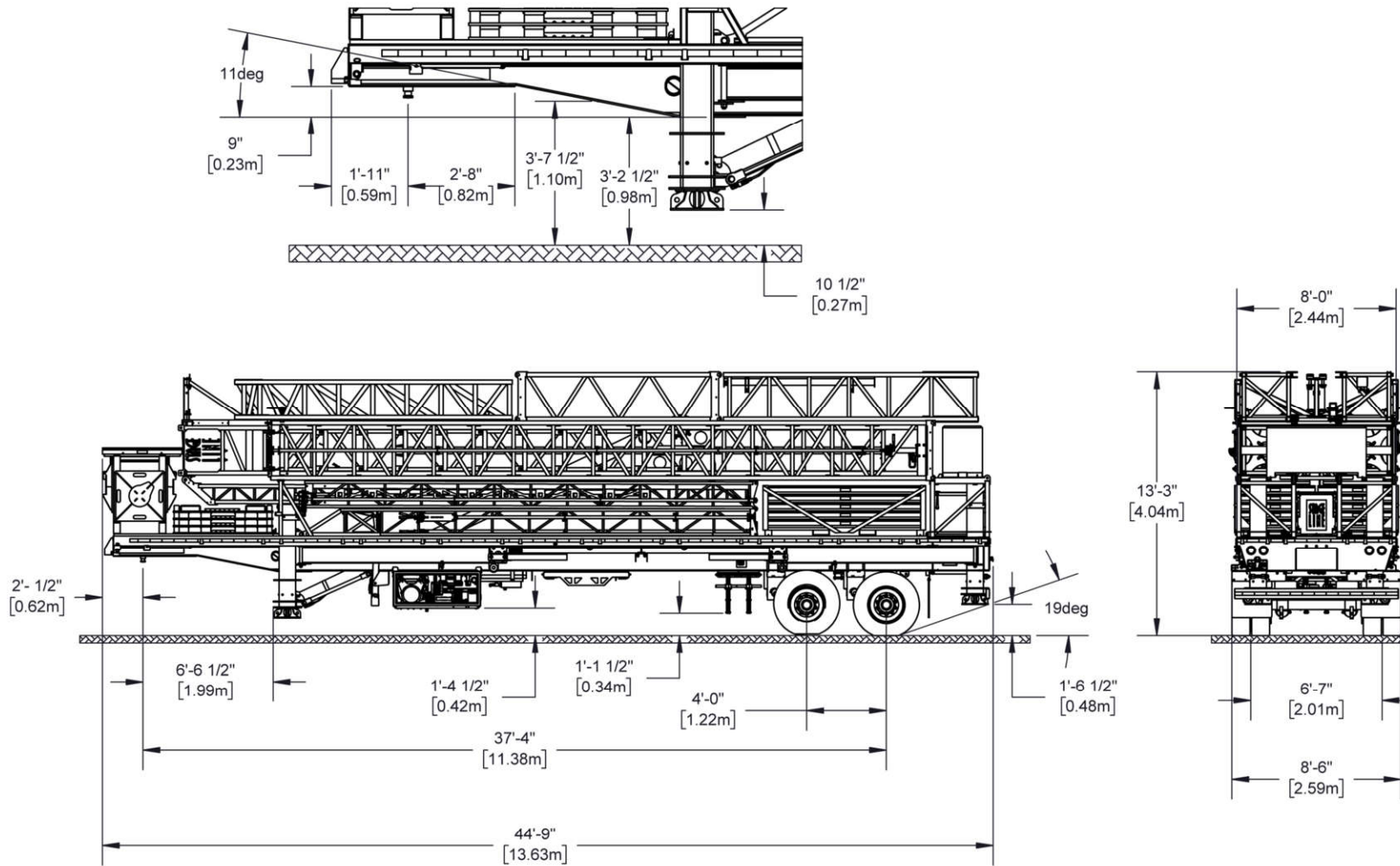


HYRIG

**HYRIG
TECHNICAL DRAWINGS**

**STAGE
LINE**®

MASS & DIMENSIONS



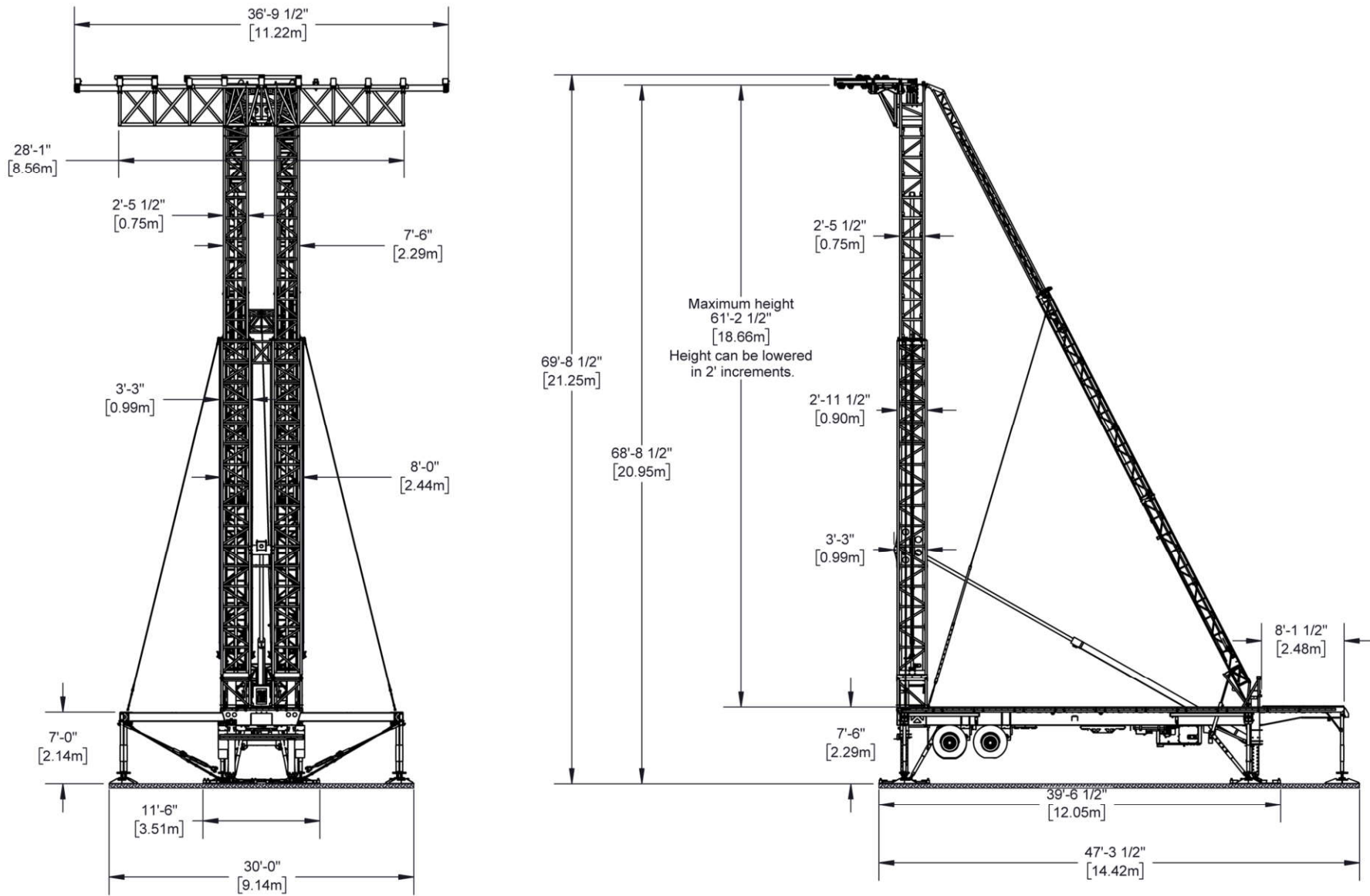
i Contact Stageline to get the weights of the trailer with the equipment.

HYRIG WITH PA RIGGING STRUCTURE



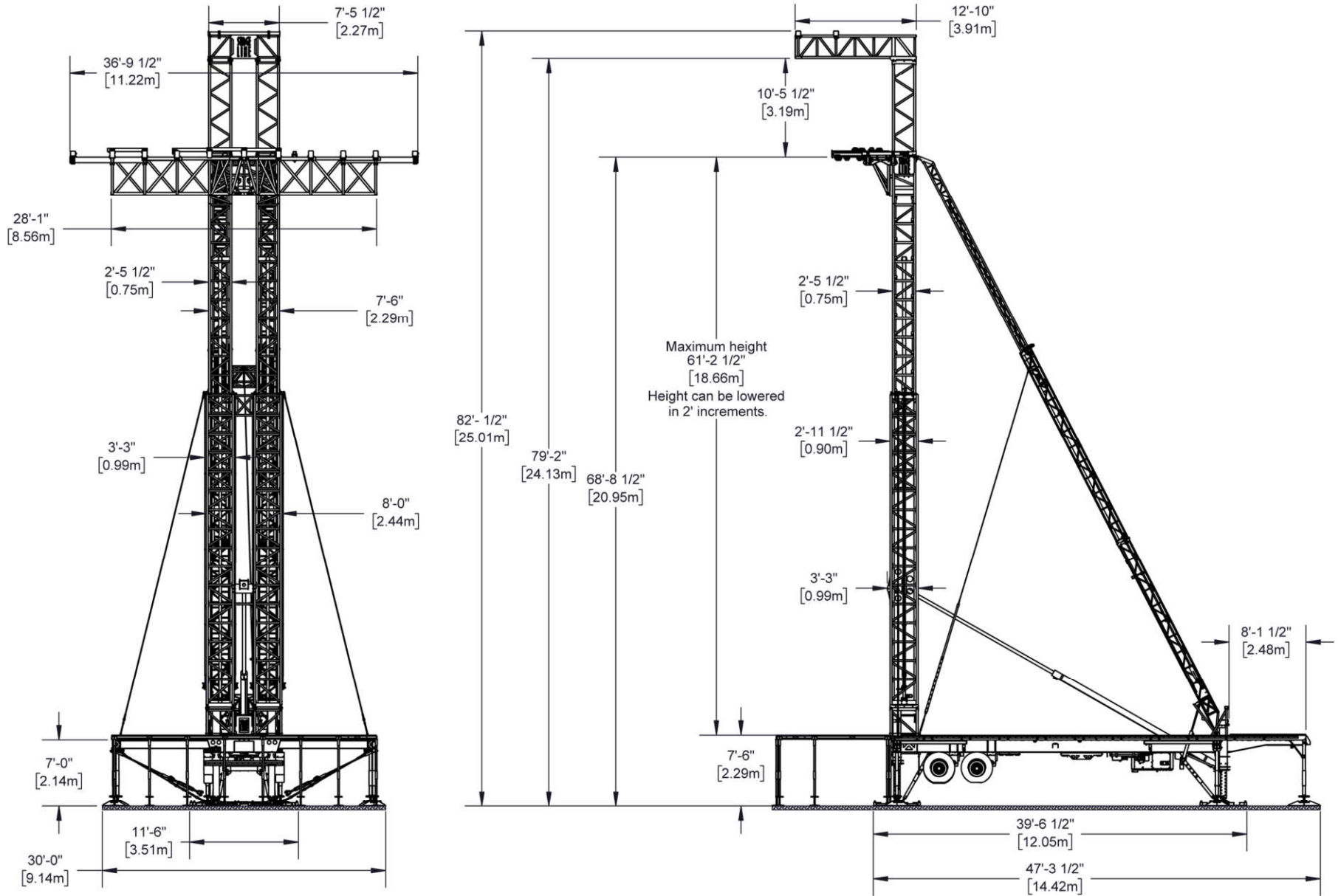
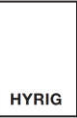
FRONT VIEW AND SIDE VIEW

MAXIMUM HEIGHT CONFIGURATION WITHOUT PA RIGGING STRUCTURE AND DOWNSTAGE FLOOR



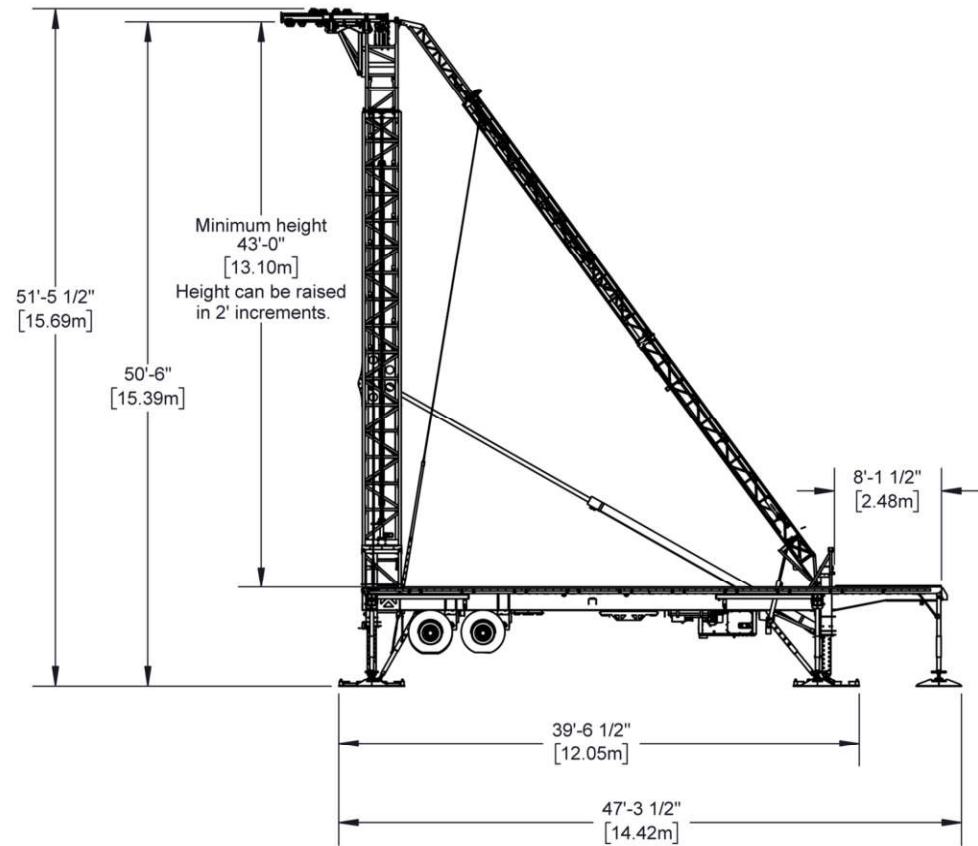
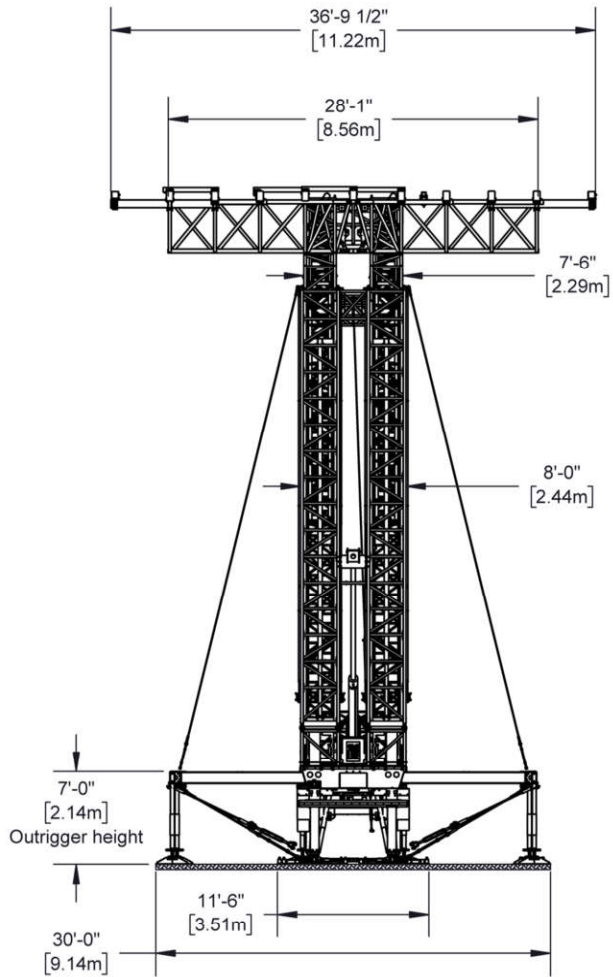
FRONT VIEW AND SIDE VIEW

MAXIMUM HEIGHT CONFIGURATION WITH PA RIGGING STRUCTURE AND DOWNSTAGE FLOOR



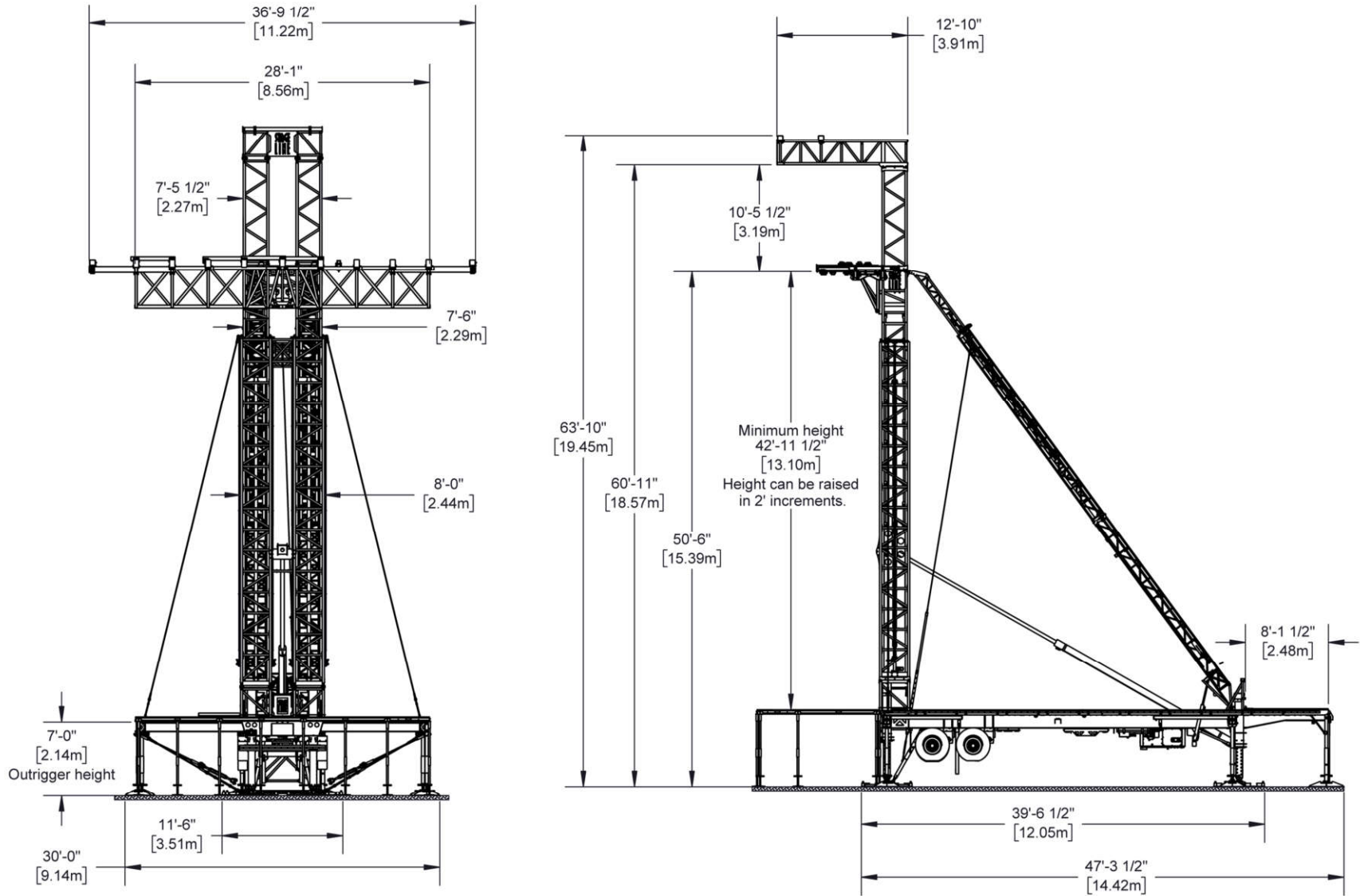
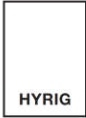
FRONT VIEW AND SIDE VIEW

MINIMUM HEIGHT CONFIGURATION WITHOUT PA RIGGING STRUCTURE AND DOWNSTAGE FLOOR



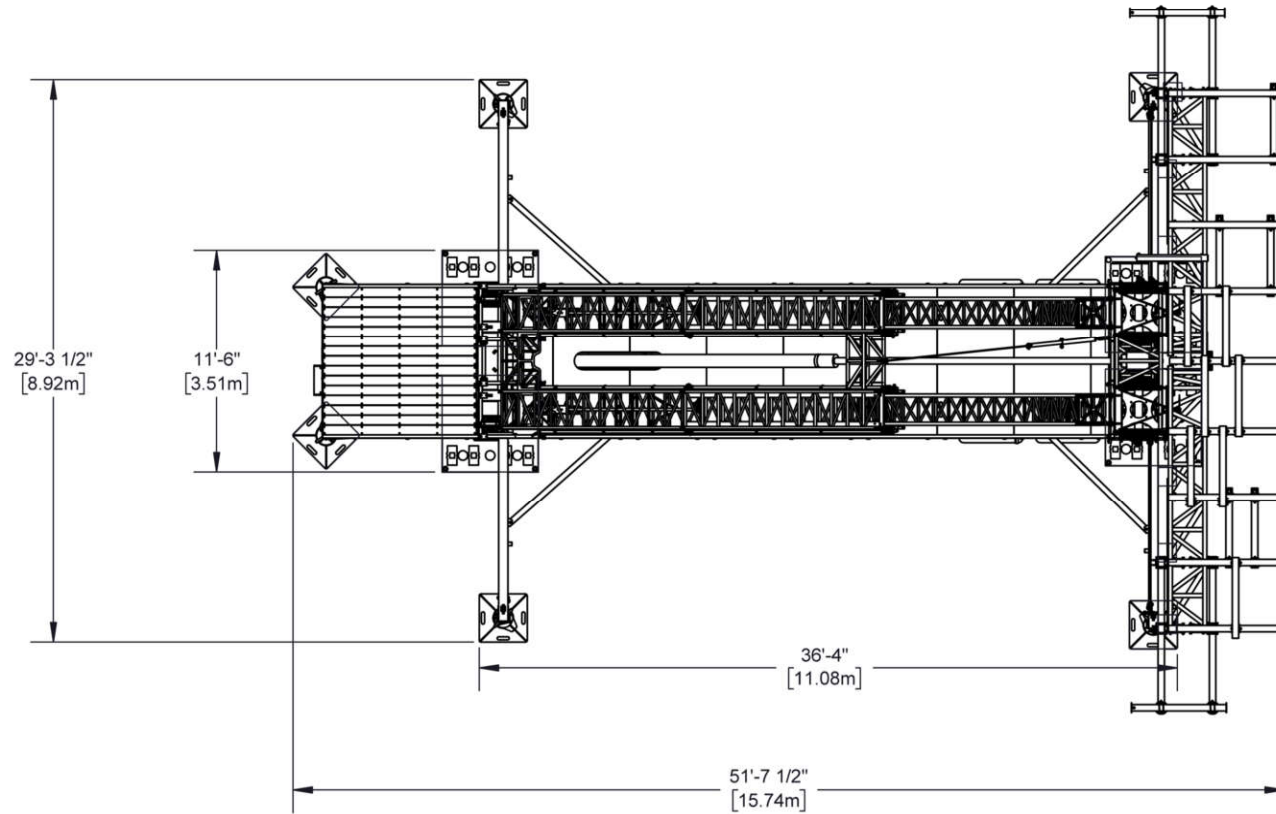
FRONT VIEW AND SIDE VIEW

MINIMUM HEIGHT CONFIGURATION WITH PA RIGGING STRUCTURE AND DOWNSTAGE FLOOR



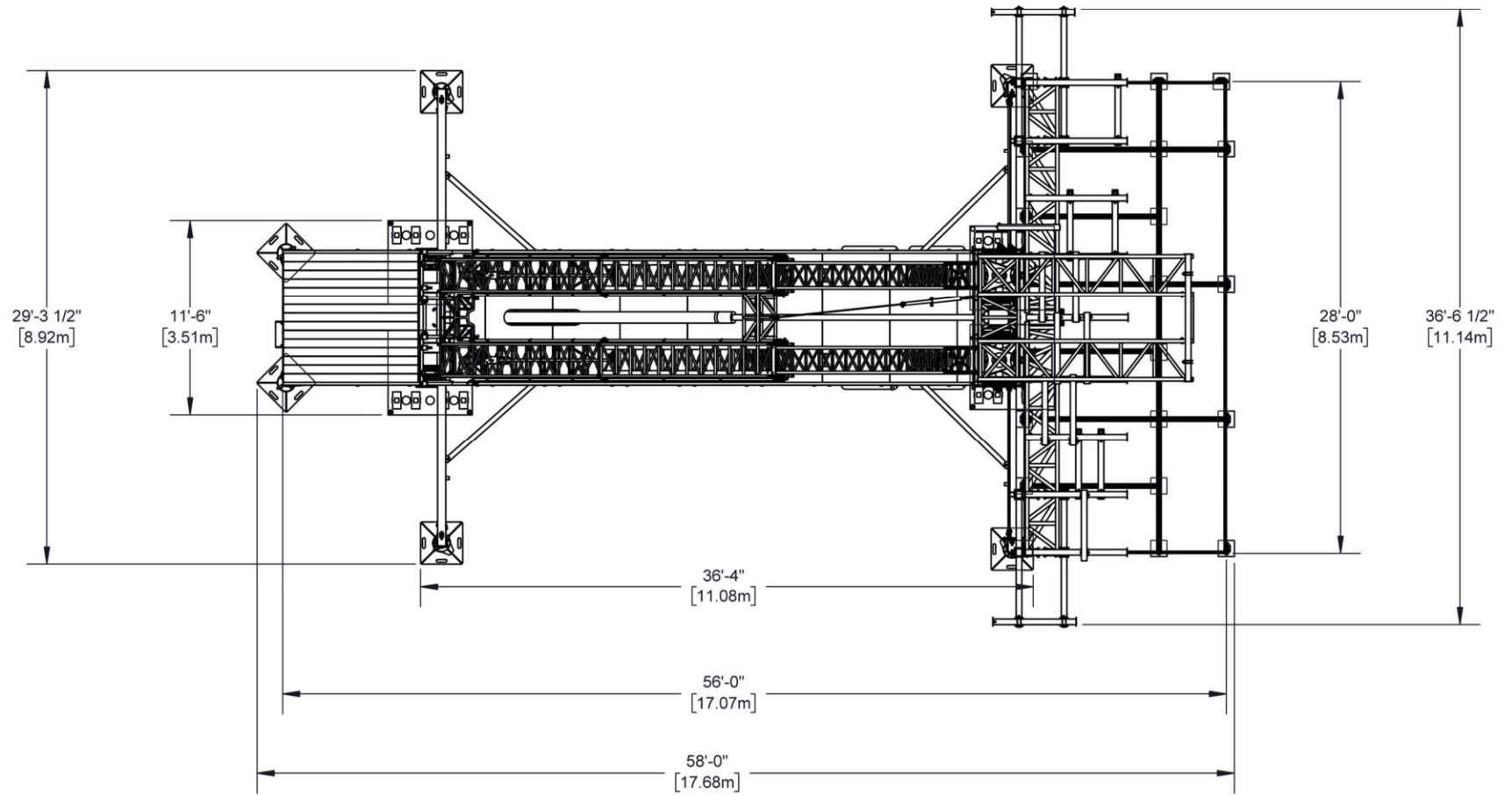
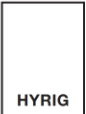
TOP VIEW

CONFIGURATION WITHOUT PA RIGGING STRUCTURE AND DOWNSTAGE FLOOR



TOP VIEW

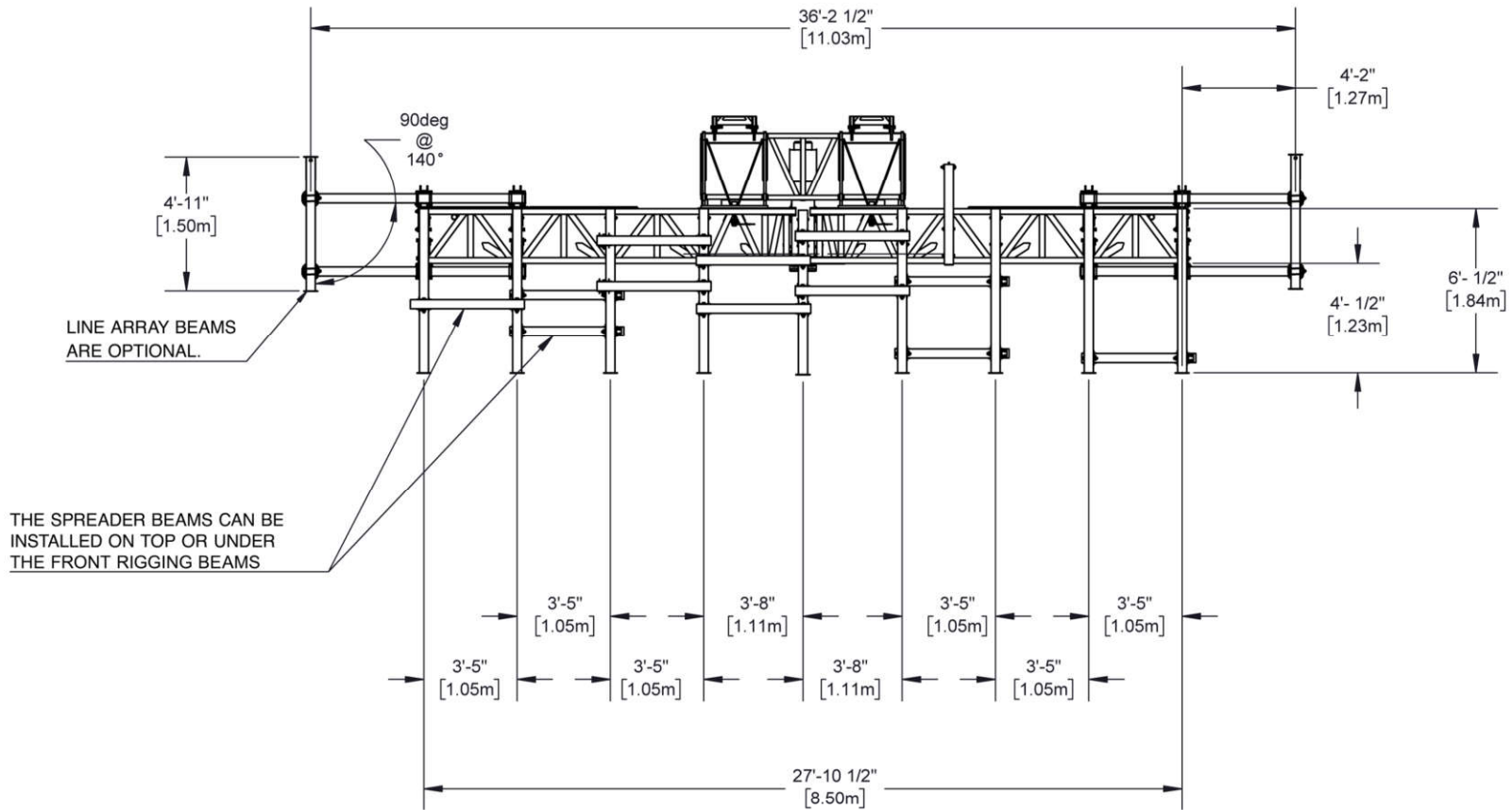
CONFIGURATION WITH PA RIGGING STRUCTURE AND DOWNSTAGE FLOOR



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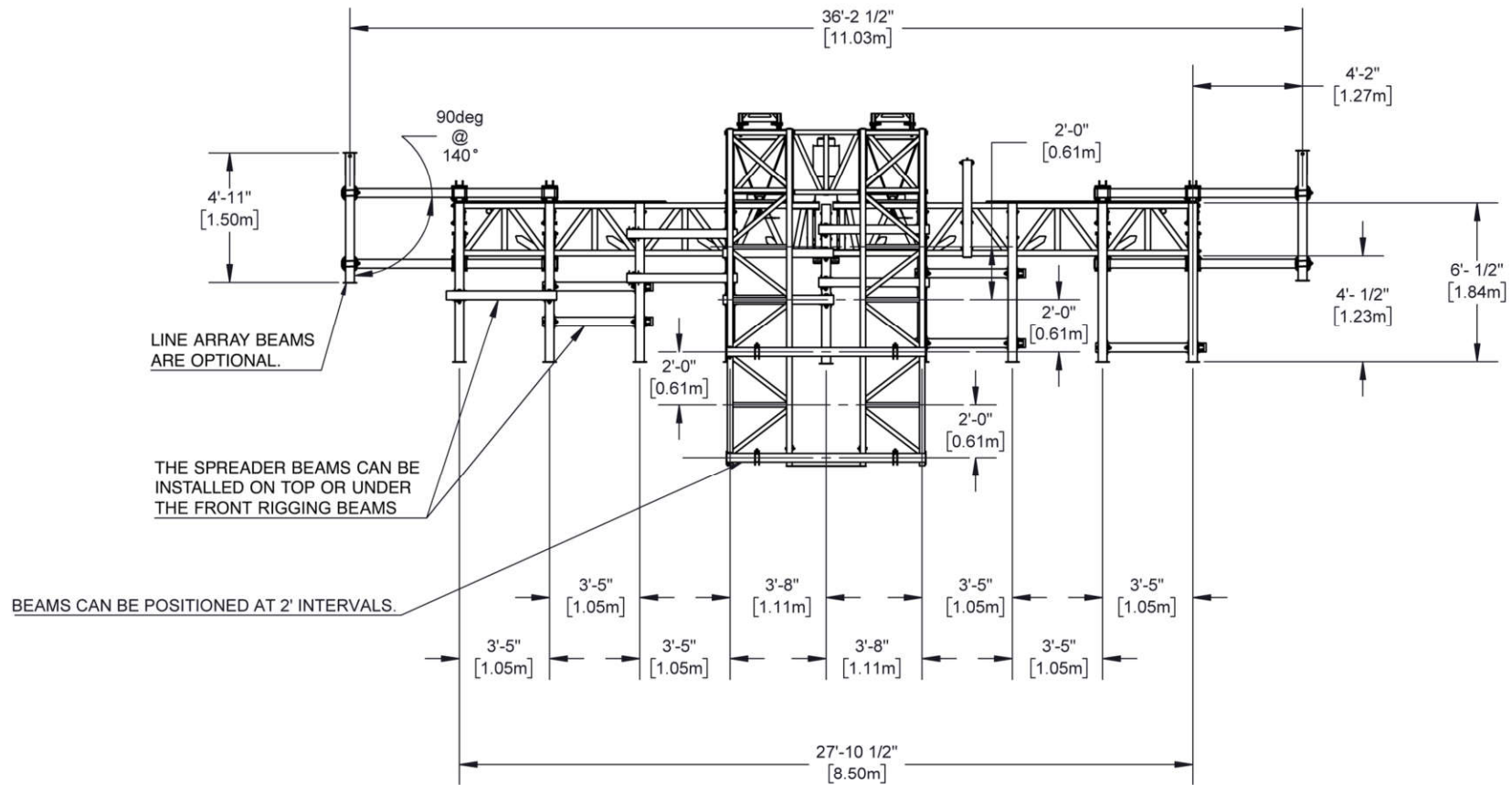
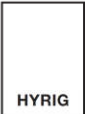
TOP VIEW

RIGGING TRUSS AND BEAMS DIMENSIONS | CONFIGURATION WITHOUT PA RIGGING STRUCTURE



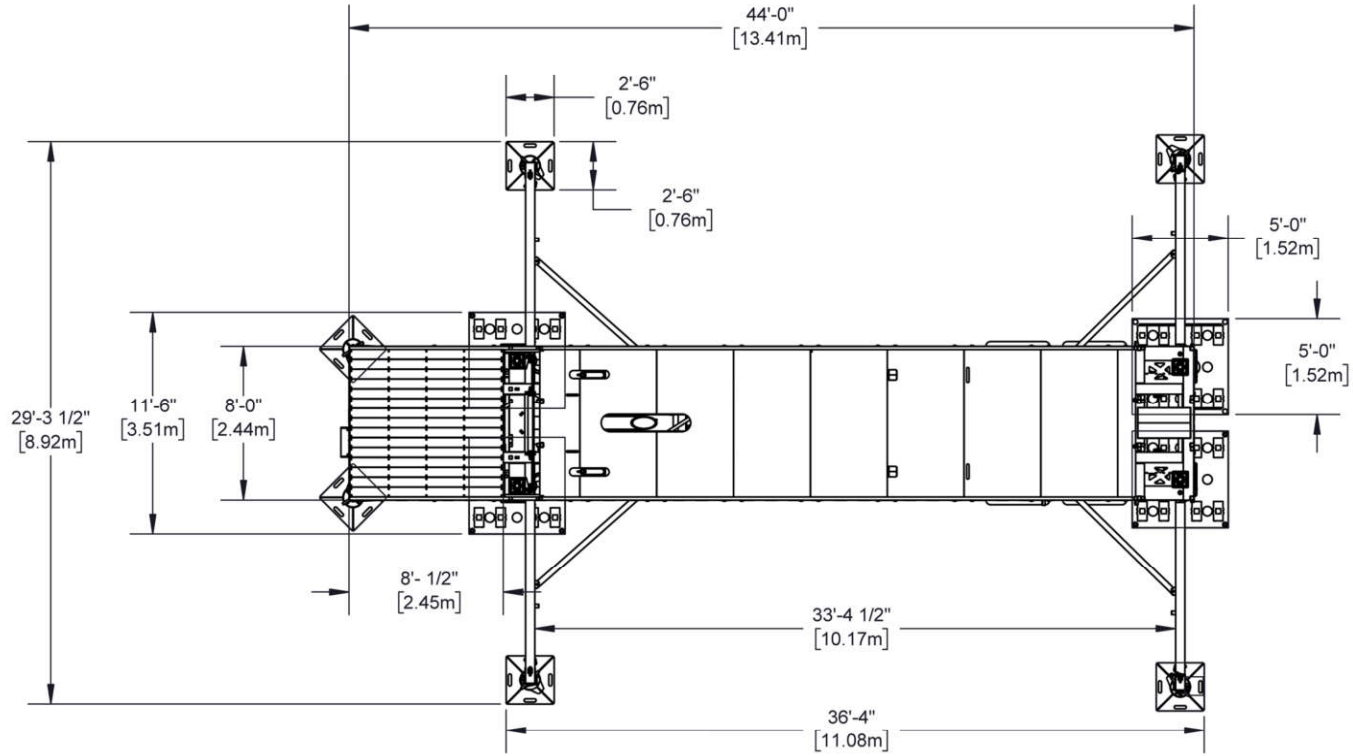
TOP VIEW

RIGGING TRUSS AND BEAMS DIMENSIONS | CONFIGURATION WITH PA RIGGING STRUCTURE

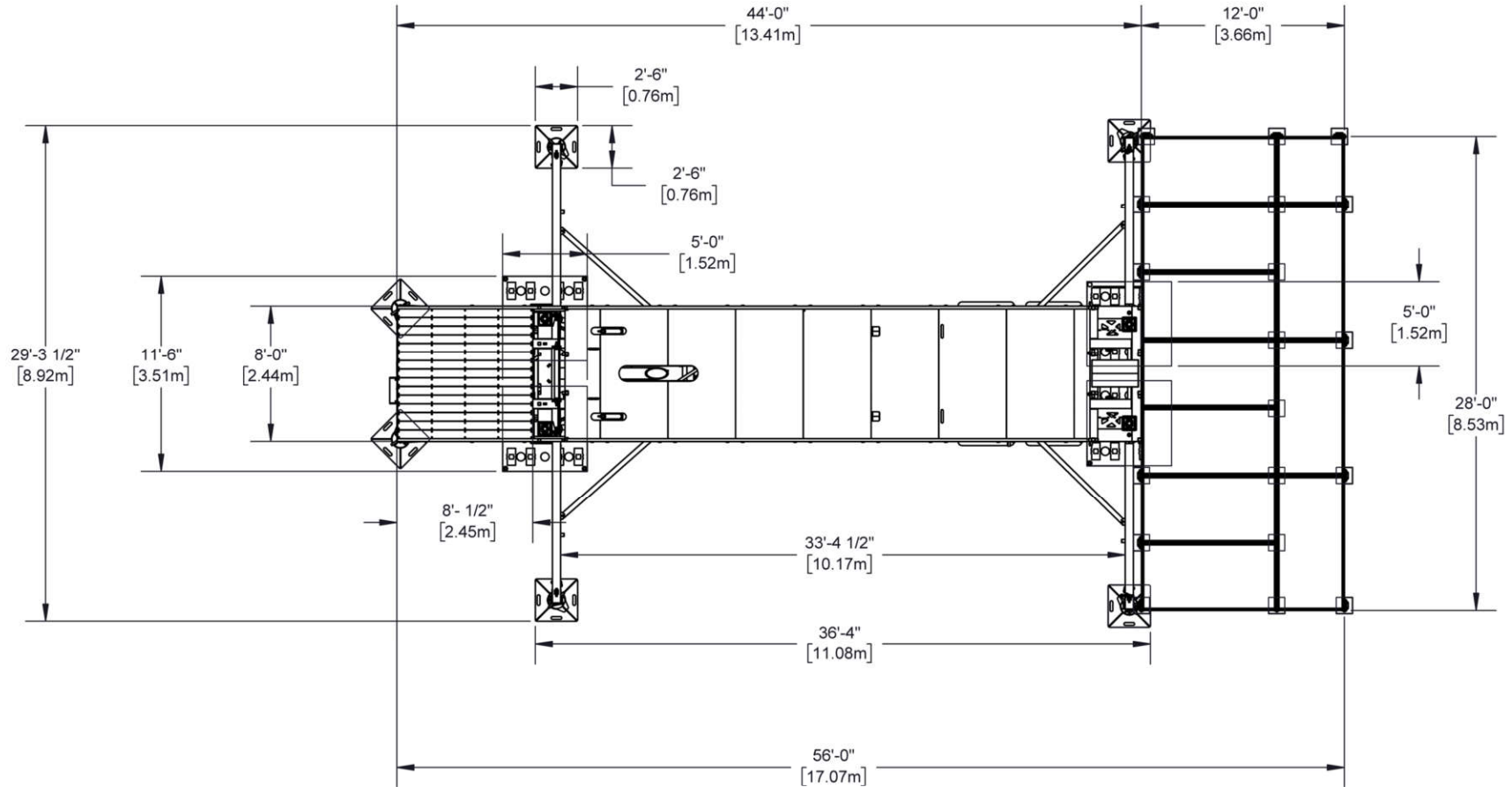


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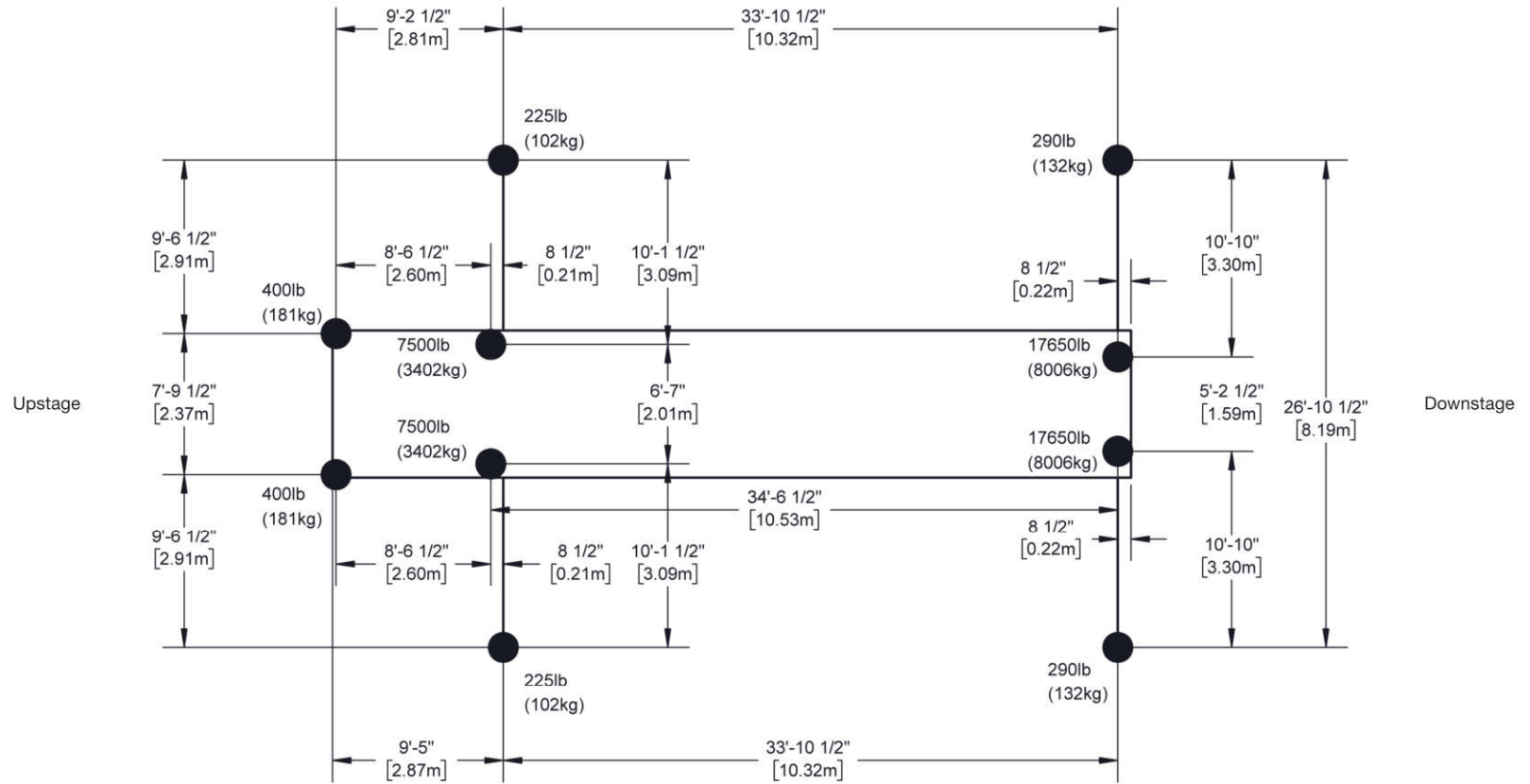
FLOOR VIEW WITHOUT DOWNSTAGE FLOOR



FLOOR VIEW WITH DOWNSTAGE FLOOR

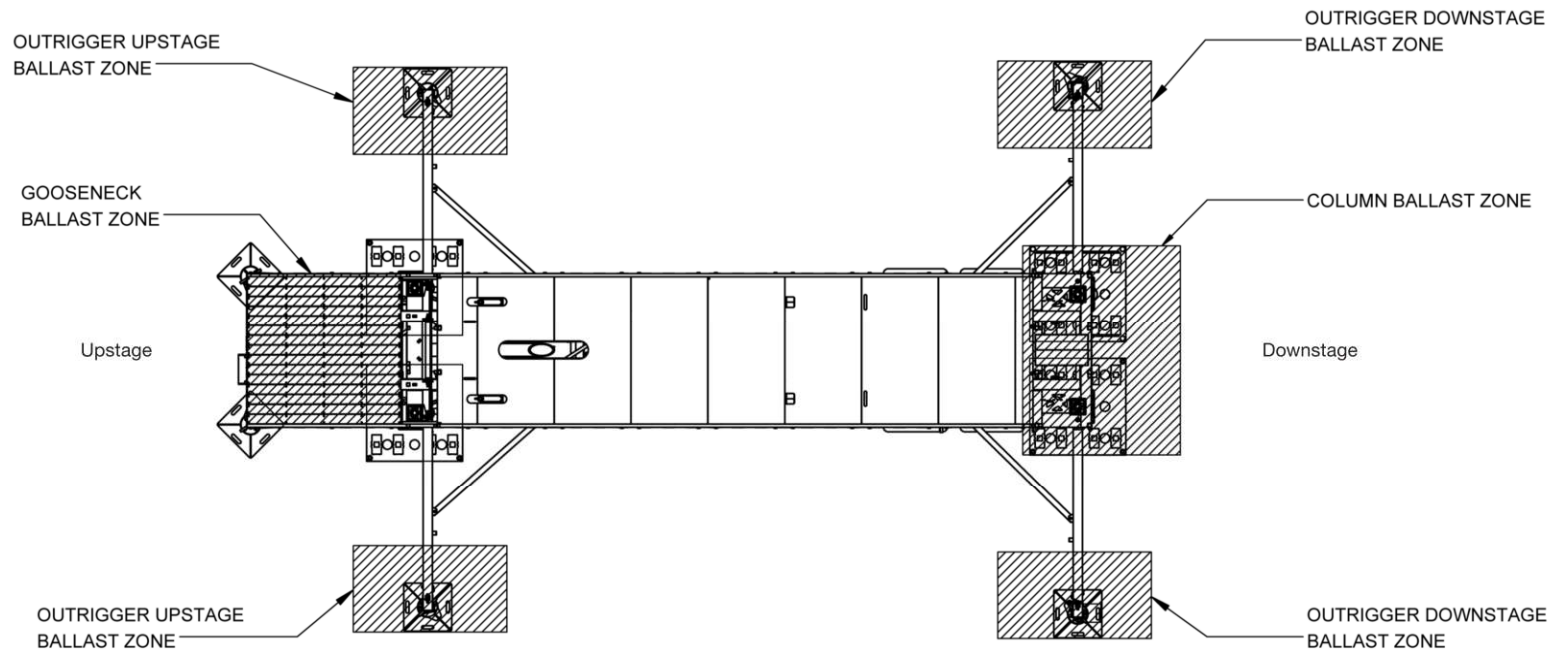


DISTRIBUTION OF DEAD LOAD ON THE SUPPORTS



The values presented here include exclusively the weight of the product. They do not include live loads: no rigging load, surfacic live load, wind load, ballast weight or other.

BALLAST ZONES



The ratchet straps WLL (Working Load Limit) must be greater than the weight of the ballasts retained while taking into account the angle and attachment configuration.

The ratchet straps used for the ballasts must have closed hooks.

Please refer to Stageline to determine which zone requires ballast and the weight needed for each zone. Rigging plan and screen dimensions must be provided for proper evaluation.



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RIGGING PLAN

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A THOROUGH UNDERSTANDING OF THE INTERRELATED LOADINGS SHOWN IN THIS RIGGING PLAN IS NEEDED IN ORDER TO SAFELY USE THE HYRIG AND TAKE FULL ADVANTAGE OF THE RIGGING OPPORTUNITIES IT OFFERS.

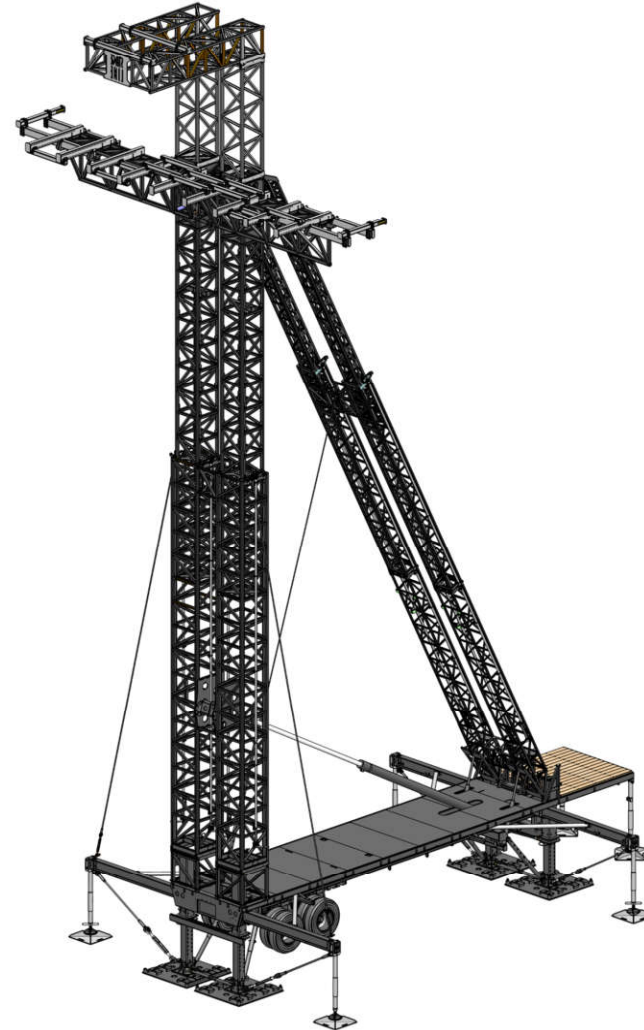
The Hyrig offers a variety of rigging options with regard to load capacity, placement and type.

There are rigging points and line array rigging beams. This rigging plan locates and defines these rigging features, includes load capacity for each and describes maximum combinations of loads amongst features.

Take note of maximum sub-totals in a group, load balance requirements and maximum rigging load on the Hyrig.

The maximum load on the Hyrig is less than the sum of the maximum load on each rigging feature.

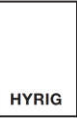
Refer to *Operator's Manual* for procedures in regard to proper setup and setup methods of the Hyrig and its options.



The information contained in the current document is final and must be considered as such. They are derived from design briefs and summarized to help the user plan rigging configurations safely. It is therefore mandatory that the user follows and respects the capabilities and limitations described herein. Overloading of the Hyrig components above their specified capacity may result in structural failure, equipment damage, injury or death. Stageline cannot be held responsible if the user, himself or subcontractors under his supervision, derogate from this document and/or the approved rigging plan. If a desired configuration cannot meet these requirements, the user must contact Stageline to analyse the case and obtain further instructions. Special restrictions and limitations may apply. Certain authorities may require that a rig configuration plan, signed and sealed by a recognized member of a professional body, be available to allow the Hyrig to be setup on their territory. This document was not intended to and cannot be used or considered as an official document or certificate to serve this purpose. Contact responsible authorities or Stageline for details.

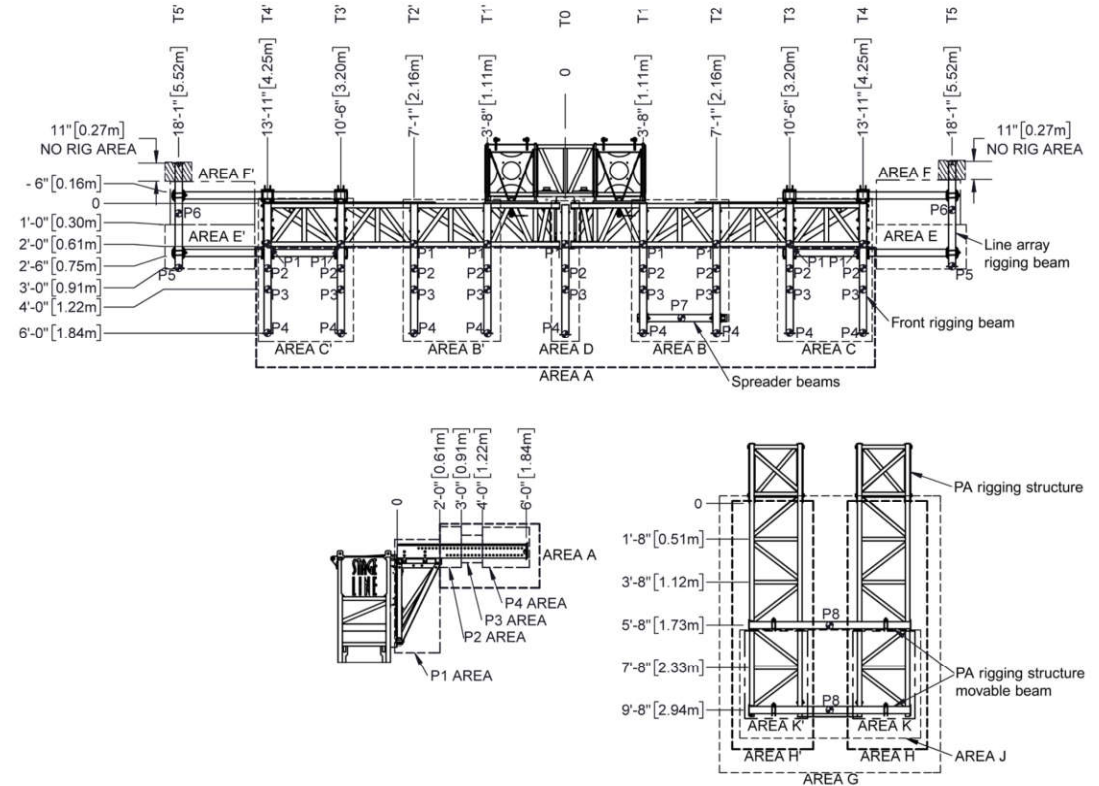


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RIGGING RESTRICTIONS

- MAXIMUM LOAD BEARING CAPACITY: 30,000 lb (13,608 kg).
- Maximum asymmetric load difference between left and right side of the columns is 3,300 lb (1,497 kg).
- Maximum asymmetric loads must not create a torque from the center of the Hyrig greater than 59,763 lb-ft (8263 kg-m). See page 4 for asymmetric torque formulas.
- Loads on P1, P2, P3 and P4 must be installed in their respective P1, P2, P3 and P4 area.
- When rigging directly on the steel truss, P1 must be located only in "T" positions and on truss nodes.
- Loads on P7 (spreader beams) must be considered as a load on their respective front rigging beam "T" (on P2, P3 and P4).
- If the PA rigging structure is used:
 - Loads on PA rigging structure can only be rigged on PA rigging structure movable beams (P8).
 - Rigging capacity in area "G", "H", "J" and "K" must take into account load on P8.
 - Rigging capacity in area "A" is reduced to 8,000 lb (3,629 kg).
 - Rigging on P4 and P5 is not allowed.
 - Asymmetry in area "G" is allowed.
 - Asymmetric torque formulas must equal 0.



LIFTING RESTRICTIONS

- Maximum lifting capacity is 3,000 lb.
- Load must be symmetrically distributed between right and left side of Hyrig.

NOTES

- The screen surface must be symmetrical on both left and right side of the Hyrig.
- Minimum of 4 connection points between the screen structure and each column (8 points total on the 2 columns).
- Maximum total screen dimensions :
 - 30 ft (9.14 m) wide by 57 ft (17.37 m) high
 - Screen must be parallel to the triangular rigging truss.
- During Hyrig setup, loads must be installed symmetrically on the Hyrig to respect the maximum load difference and maximum asymmetric torque restrictions.
 - For example, it is not allowed to install a 30 ft x 40 ft screen by starting with a 15 ft x 40 ft section on the left side before doing the same on the right side.



RIGGING PLAN

3/5



ASYMMETRIC TORQUE FORMULAS

Torque equation (lb and ft) :

Left Side Torque: $(T5 \times 18.1) + (T4 \times 13.9) + (T3 \times 10.5) + (T2 \times 7.1) + (T1 \times 3.6) = LST$

Right Side Torque: $(T5' \times 18.1) + (T4' \times 13.9) + (T3' \times 10.5) + (T2' \times 7.1) + (T1' \times 3.6) = RST$

Torque Difference: $TD = LST - RST$

If TD is a negative value, ignore the negative sign. For example, if $TD = -8,000$, use 8,000.

$TD / 59,763 < 1.0$

Torque equation (kg and m) :

Left Side Torque: $(T5 \times 5.5) + (T4 \times 4.3) + (T3 \times 3.2) + (T2 \times 2.2) + (T1 \times 1.1) = LST$

Right Side Torque: $(T5' \times 5.5) + (T4' \times 4.3) + (T3' \times 3.2) + (T2' \times 2.2) + (T1' \times 1.1) = RST$

Torque Difference : $TD = LST - RST$

If TD is a negative value, ignore the negative sign. For example, if $TD = -8,000$, use 8,000.

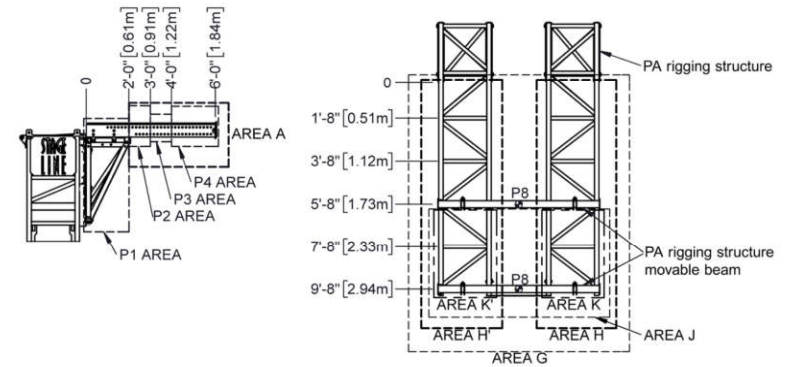
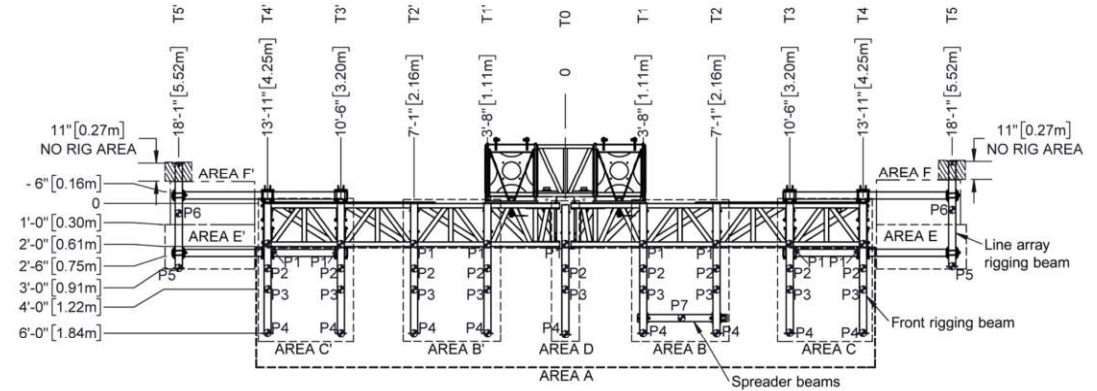
$TD / 8,263 < 1.0$

FRONG RIGGING BEAM FORMULA (T POSITIONS)

$$T \text{ front rigging beam : } \frac{\text{Load P2}}{\text{Capacity P2}} + \frac{\text{Load P3}}{\text{Capacity P3}} + \frac{\text{Load P4}}{\text{Capacity P4}} \leq 1.00$$

MAXIMUM LOAD CAPACITY					
Area	Lb	Kg	Point No.	Lb	Kg
A	11,000	4,990	P1	4,400	1,996
B	6,600	2,994	P2	4,400	1,996
C	6,600	2,994	P3	3,300	1,497
D	6,600	2,994	P4	2,200	998
E	1,900	862	P5	1,900	862
F	1,400	635	P6	1,400	635
G	6,600	2,994	P7	4,400	1,996
H	3,300	1,497	P8	4,400	1,996
J	4,400	1,996			
K	2,200	998			

Note: T1 to T5 and T1' to T5' are the sum of all rigging load on their respective "T" line.





CALCULATION EXAMPLES - ASYMMETRIC LOADS

CALCULATION EXAMPLE #1

3,000 lb on lines T5', T4', T2', T0, T2 and T4.

Asymmetric load difference :

Sum of load on left side :

- $T2 + T4 = 3,000 + 3,000 = 6,000$ lb

Sum of load on the right side :

- $T2' + T4' + T5' = 3,000 + 3,000 + 3,000 = 9,000$ lb
 $9,000 - 6,000 = 3,000$ lb
 $3,000 / 3,300 = 0.91$

**So the asymmetric load difference is at 91% of the maximum value.
 (T0 isn't considered in the calculation since it's at the center of the Hyrig.)**

Asymmetric torque (lb and ft) :

Left Side Torque : $(T5 \times 18.1) + (T4 \times 13.9) + (T3 \times 10.5) + (T2 \times 7.1) + (T1 \times 3.6) = LST$

LST : $(0 \times 18.1) + (3,000 \times 13.9) + (0 \times 10.5) + (3,000 \times 7.1) + (0 \times 3.6) = 63,000$

Right Side Torque : $(T5' \times 18.1) + (T4' \times 13.9) + (T3' \times 10.5) + (T2' \times 7.1) + (T1' \times 3.6) = RST$

RST : $(3,000 \times 18.1) + (3,000 \times 13.9) + (0 \times 10.5) + (3,000 \times 7.1) + (0 \times 3.6) = 117,300$

Torque Difference :

TD = LST - RST = $63,000 - 117,300 = -54,300 \rightarrow 54,300$ (Do not keep negative sign)

TD / 59,763 < 1.0

54,300 / 59,763 = 0.91 < 1.0 **OK**

**So the asymmetric torque is 91% of the maximum value.
 (T0 isn't considered in the calculation since it's at the center of the Hyrig.)**

CALCULATION EXAMPLE #2

3,000 lb on lines T5', T4', T3', T1 and T2.

Asymmetric load difference :

Sum of load on left side :

- $T1 + T2 = 3,000 + 3,000 = 6,000$ lb

Sum of load on the right side :

- $T3' + T4' + T5' = 3,000 + 3,000 + 3,000 = 9,000$ lb
 $9,000 - 6,000 = 3,000$ lb
 $3,000 / 3,300 = 0.91$

So the asymmetric load difference is at 91% of the maximum value.

Asymmetric torque (lb and ft) :

Left Side Torque : $(T5 \times 18.1) + (T4 \times 13.9) + (T3 \times 10.5) + (T2 \times 7.1) + (T1 \times 3.6) = LST$

LST : $(0 \times 18.1) + (0 \times 13.9) + (0 \times 10.5) + (3,000 \times 7.1) + (3,000 \times 3.6) = 32,100$

Right Side Torque : $(T5' \times 18.1) + (T4' \times 13.9) + (T3' \times 10.5) + (T2' \times 7.1) + (T1' \times 3.6) = RST$

RST : $(3,000 \times 18.1) + (3,000 \times 13.9) + (3,000 \times 10.5) + (0 \times 7.1) + (0 \times 3.6) = 127,500$

Torque Difference :

TD = LST - RST = $32,100 - 127,500 = -95,400 \rightarrow 95,400$ (Do not keep negative sign)

TD / 59,763 < 1.0

95,400 / 59,763 = 1.60 > 1.0 **NOT OK**

So the asymmetric torque is 160% of the maximum value.

CALCULATION EXAMPLE - FRONT RIGGING BEAM WITH SPREADER BEAM

CALCULATION EXAMPLE #3

1,800 lb on P7 at 2'-9" with 70% of the load on the left side and 30% on the right side.
1,400 lb on P4 at 5'-0".

- **P7 is installed on P2 (2'-9")**
 $1,800 * 0.7 = 1,260$ lb
 $1,260 / 4,400 = 0.29$, so this point will use 29% of the front rigging beam capacity
- **P4**
 $1,400 / 2,200 = 0.64$, so this point will use 64% of the front rigging beam capacity

Now that we have the loads for both points, we add them together to determine the total load on the front rigging beam.

$$0.29 + 0.64 = 0.93 < 1 \text{ OK}$$

So the front rigging beam is 93% of its total capacity.

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