Jack Singer Concert Hall – Rigging Technical Specifications

Introduction:

Note: All overhead rigging must be approved by the JSCH Head of Stage.

"House gear" refers to truss, hardware and machinery that belong to the Jack Singer Concert Hall. "Rental gear" refers to truss, hardware and machinery provided by the renter.

There are 20 rigging points located in the roof structure of the hall, accessed through holes in the concrete ceiling and acoustic canopy (a large wood and steel structure suspended above the stage). Many of the rigging points have chain hoists that are part of the permanent house installation. Also, because rigging must pass through the canopy and ceiling, bridles are not possible. All house chain hoists are "motor up" and available for use in lieu of (or in addition to) incoming production gear.

All house machines are controlled by a Niscon Raynok Mini Console at stage level. Rental rigging gear cannot be added to the Raynok system. It is the responsibility of the renter to provide control for rental rigging gear.

The concert hall is equipped with the chain hoists, truss and rigging specified in this document. Please refer to the ground plan at the end of this document for rigging point locations.

House Chain Hoists and Locations:

There are 12 Single-Speed LiftKet SB9 Chain Hoists with a WLL of 1250 Kg (2750 lbs.) at a 10:1 WLL. These hoists comply with North American regulations ANSI B30.16 and CSA/UL, as well at European regulation BGV C1. These hoists are equipped with encoders and load cells. The hoists are configured into four "linesets", with one hoist 5.5m (18'left of centre, and one hoist 5.5m (18'2") right of centre:

Lineset 1: 0.5m (1'6") DS of the permanent stage lip
Lineset 2: 3.9m (13'1") US of the permanent stage lip
Lineset 3: 7.6m (24'11") US of the permanent stage lip
Lineset 3.5: 8.7m (28'7") US of the permanent stage lip
Lineset 4: 9.9m (32'7") US of the permanent stage lip **(note: the hoists for LS 4 are located in slightly different positions than the other linesets. The centre hoist is actually .45m (1'6") SR of centre and the SL/SR point are 5.5m (17') off center.**

On linesets 1, 2 and 3, there is also a center rigging point with a working load limit of 1250 Kg. If a centre hanging point on a truss is required, a house 1.25T chain hoists may be moved on to that point. Please contact the Technical Director for any additional questions.

There are also 2 LiftKet SB9 Double-reeved chain hoists (BVG D8) with a WLL of 2000 Kg (4400 lbs.) at a 10:1 WLL. These hoists are located .5m (1'-8") downstage of the permanent stage lip (in line with LS 1) and 7.8m (25'-7") off centre. These hoists are mainly used to hang line array or flown speaker stacks and are equipped with encoders and load cells. These hoists may not be removed.

1/2T rigging points and 1/2T chain hoists:

There are 9 rigging points with a working load limit of 500 Kg in the following locations:

Lineset 0: 5 points, 14'-8" DS of the permanent stage lip. One point at centre, two points 2.75m (9'-1") SL/SR off centre, and two points 5.5m (18'-2") SL/SR off centre.
Lineset 1: 2 points,5.5m (9'1") SL/SR off centre
Lineset 2: 2 points,5.5m (9'1") SL/SR off centre
Lineset 3: 2 points,5.5m (9'1") SL/SR off centre

There are 4 1/2T Show Distribution TourRig hoists that can be moved to any of these locations. The hoists comply with North American regulations ANSI B30.16 and CSA/UL, as well at European regulation BGV D8. They are equipped with encoders and load cells.

Lineset 5:

In addition to the previously-mentioned linesets, there is also a 16.76m (55') long truss hung in line with the upstage wall that is suspended from a 4000lb winch. This truss is used exclusively for hanging soft goods and permanent house stage lighting for orchestra setups.

Truss Inventory:

The JSCH has an inventory of Prolyte H52V 20.5" aluminum box truss. Truss 4 is permanently rigged and cabled for cyc lights. There are also 3 pre-built lengths of truss that are 54' (16.4m) long. In addition to this, there are several extra lengths of truss that can be used to extend the pre-built truss or to create other truss structures such as a supergrid.

When rigged by two points on the 1.25T hoists, trusses 1, 2 3 and 3.5 have the following **Maximum Allowable Loads**:

Uniformly Distributed Load: 243.7 kg/m or 136.2 lbs/ft
Centre Point Load:1340 kg or 2957 lbs
Third Points Load Per Point: 1005.1 kg or 2218.3 lbs
Quarter Points Load Per Point: 670.1 kg or 1478 lbs
Fifth Points Load Per Point: 556.2 kg or 1227.4 lbs

When rigged by 3 points, trusses 1, 2, 3, 3.5 and 4 have the following **Maximum Allowable Loads:**

Uniformly Distributed Load: 119 kg/m or 80 lbs/ft
Centre Point Load: 1250 kg or 2750 lbs
Third Points Per Point: 2078 kg or 4583 lbs
Quarter Points Per Point: 1685 kg or 3716 lbs

On the offstage side of the rigging point (cantilevered side), Trusses 1, 2, 3 and 3.5 have the following **Maximum Allowable Loads, with the following required ballast at the centre of the truss**:

Point Load at End of Cantilever: 641 kg or 1410 lbs; 279.7 kg or 615.3 lbs of ballast
Uniformly Distributed Load: 411 kg/m or 904.2 lbs/ft; 215.2 kg or 473.5 lbs of ballast

Inventory of extra truss lengths:

4@ 2.4m (7'11")

3@ 2m (6'6")

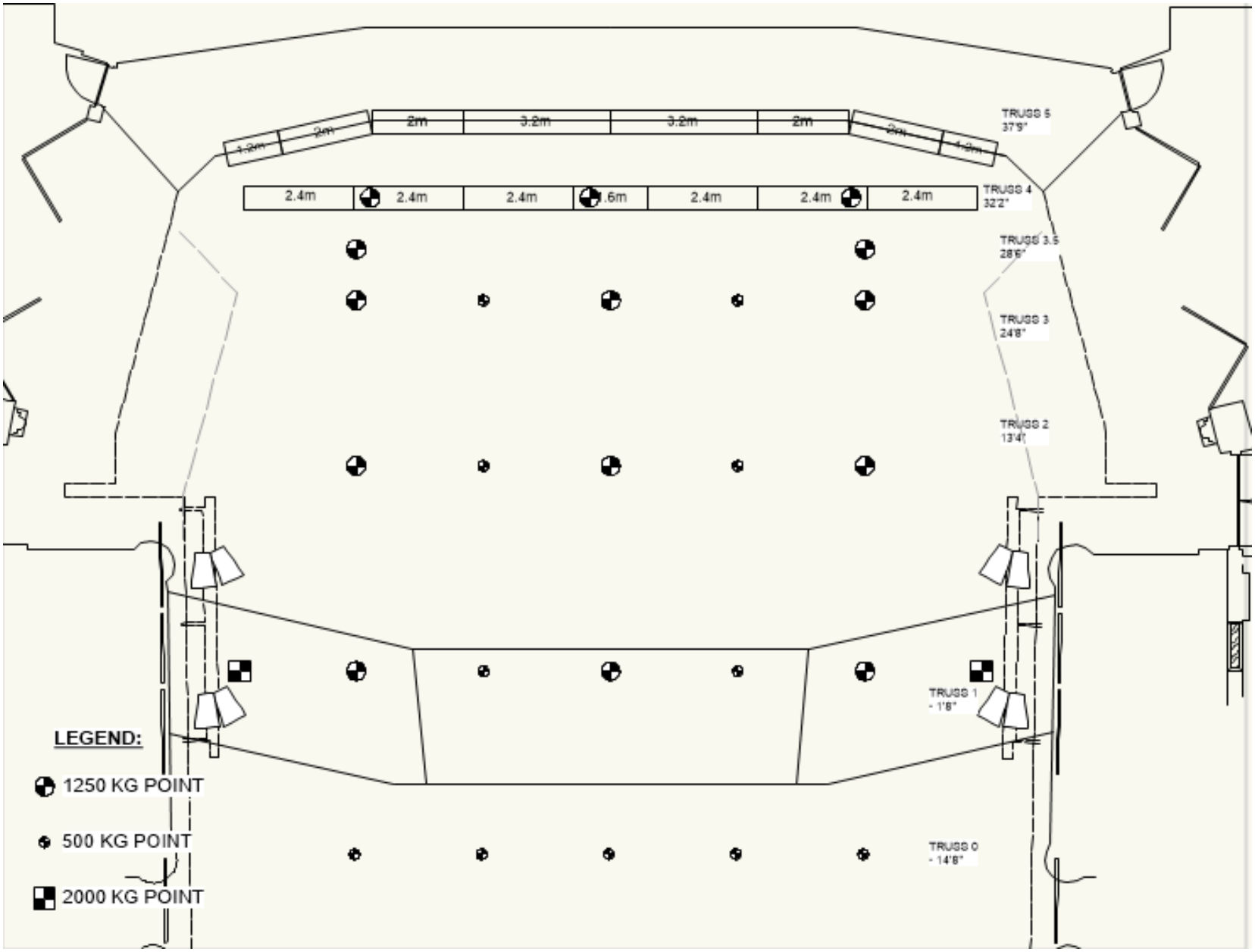
5@ 1.6m (5'3")

2@ 1.2m (4'-0")

3@ .5m (20.5"). These are corner blocks that can accept truss lengths at both 180 degrees and 90 degrees.

Rigging Hardware:

The JSCH has a wide assortment of shackles (3/16" – 5/8"), spansets (4', 5' &6'), cable slings (3/8"x5', 10' &20') and other rigging hardware. However, it is the lessee's responsibility to provide appropriately sized, traceable and rated rigging hardware for their production.


TRUSS 5
37'9"
2m
3.2m
3.2m
2m
TRUSS 4
32'2"
2.4m
2.4m
2.4m
2.4m
2.4m
2.4m
TRUSS 3.5
28'6"
TRUSS 3
24'8"
TRUSS 2
13'4"
TRUSS 1
- 1'8"
TRUSS 0
- 14'8"
LEGEND:
1250 KG POINT
500 KG POINT
2000 KG POINT