

Critical Lift Planning and Control Form

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URL: <https://www-group.slac.stanford.edu/esh/eshmanual/references/hoistingFormLiftPlanCritical.pdf> | [docx](#)

ENVIRONMENT, SAFETY & HEALTH DIVISION

This form is used to document the lift plan required for *critical* lifts. The hoisting and rigging program manager approves the plan following review by a SLAC structural or mechanical engineer. Deviations from the approved plan must be reviewed by the original approver. A copy of the plan must be kept at the work site (see [Hoisting and Rigging: Lift Requirements](#) [SLAC-I-730-0A21S-060]).

Job / project name:	Begin date:	End date:
Location (bldg, floor, grid):		
Description:		

Plan Preparer(s)		
Name:	Signature:	Date:
Name:	Signature:	Date:
Name:	Signature:	Date:

Critical Lift Confirmation <i>(The supervisor responsible for workers confirms lift is critical.)</i>		
Supervisor:	Signature:	Date:

Approval <i>(The hoisting and rigging program manager approves the plan following review by a SLAC structural or mechanical engineer.)</i>		
SLAC mechanical / structural engineer:	Signature:	Date:
Hoisting and rigging program manager:	Signature:	Date:

Person-in-Charge <i>(The supervisor must assign a person-in-charge (PIC), who must be someone other than the operator.)</i>		
Name:	Signature:	Date:

Authorized Workers <i>(The person-in-charge must ensure that all personnel fully understand the requirements of the lift plan and their role in the operation. Workers signatures below attest to this.)</i>		
Name:	Signature:	Date:
Name:	Signature:	Date:
Name:	Signature:	Date:
Name:	Signature:	Date:
Name:	Signature:	Date:
Name:	Signature:	Date:

Characterize the Load(s)				
Length:	Width:	Height:	Diameter:	Load weight:
Weight determination <i>(choose one)</i>				
<input type="checkbox"/> Marked on load <input type="checkbox"/> Weighed <input type="checkbox"/> Estimated <input type="checkbox"/> Other: _____ <i>(describe)</i>				
<input type="checkbox"/> Weight calculated by _____ <i>(name, attach calculations)</i> <input type="checkbox"/> Drawing number: _____				

Characterize the Task *(include directions for lifting, rotation, flipping, speeds, and travel)*

Evaluate the Hazards *(define specific controls)*

Plan the Rigging *(define specific controls)*

On a sketch or photo (see sketch grid on next page), show how the item will be rigged and the type of gear to be used:

1. Show location of shackles, hoist rings, spreader beams, slings, etc
2. Show attachment points (how rigging gear will be attached to load)
3. Show where padding of sharp edges is necessary
4. Provide the weight of heavy equipment such as a lifter or spreader beam, or fork beam (forklift attachment)
5. Show proper orientation of eyebolts
6. Indicate the center of gravity (horizontal and vertical)

Rigging Sketch or Photo of Rigged Item *(Include all information required to determine that the load is properly rigged and that appropriate rigging gear is selected. Include, as applicable, sling angles, eye bolt orientation, padding points, center of gravity, type of sling hitch, and any other pertinent information.)*

Characterize the Attachment Points <i>(attach photos to illustrate, as necessary)</i>		
<input type="checkbox"/> Manufacturer-provided lift point <input type="checkbox"/> Sling in choker hitch <input type="checkbox"/> Sling in basket hitch <input type="checkbox"/> Sling in vertical hitch <input type="checkbox"/> Threaded hole <i>(eyebolt or hoist ring)</i> Hole diameter: _____ Material type: _____ <input type="checkbox"/> Other: _____		
Confirm attachment points or hitch methods <i>(load owner completes if plan preparer in doubt)</i> <input type="checkbox"/> The lift points or attachment methods described in this lift plan can withstand the forces created by the rigging gear.		
Load owner:	Signature:	Date:

Define Rigging Gear Requirements				
1. List each piece of rigging gear shown on the rigging sketch or photo in the table below (such as: load hook, shackles, slings, eye bolts). If a component weighs more than 10 pounds, include the weight in the weight column. 2. Label the sketch or photo using the corresponding letter for the gear. 3. Draw sling angles and the resulting load reduction factors for slings and eyebolts. 4. Calculate the force on each piece of rigging gear. Show that angles are accounted for in determining forces. 5. Determine the required rigging gear capacity and size. Indicate if this is an exact specification or a minimum. 6. Provide certification for the rigging gear that will be used (proof that the rigging equipment has been verified compliant and proof load tested). 7. Specify the softeners to be used, including dimensions, materials of construction, location, and any special retaining mechanisms. 8. Label the sketch or photo using the corresponding letter for the softeners. 9. Draw softener placement location, note use of special retaining mechanisms and supplemental sling protection (cut-resistant sleeves). 10. Demonstrate that the specified softeners and rigging configuration provide an adequate factor of safety (as determined by the structural/mechanical engineer reviewing the plan) for preventing the slings from slipping off the softeners during the lift. Attach analysis.				
Type	Weight	Force on gear	Capacity / rating / working load limit	Size specifications
A				
B				
C				
D				
E				
F				
G				
H				
I				
J				
K				
L				