



ENGINEERED
— LLC —



LITE GIN POLE SETUP MANUAL

Preparation:

Fall Zone Protection- Ensure that area below lift is identified and all personnel that have potential of entering fall zone are notified of the lift prior to procedure initiation. Ensure that caution is exercised in the determination of the fall zone to ensure damage to equipment is limited to as low as reasonably practicable.

Rigging Equipment Preparation- Ensure that all equipment in the entire rigging system using the Lite Gin Pole meets ASME B30 standards for rigging.

Only competent riggers, with proper training according to the ANSI 10.48, operate the Lite Gin pole.

The Lite Gin Pole is only approved for use in a lifting system when a Class IV rigging plan has been developed and approved by a qualified engineer. The rigging plan shall always be followed exactly as specified by the Class IV rigging plan and any deviations from this plan must be approved by the qualified engineer of record. The rigging plan, in hard copy, must always be on site and available during lifting procedures to include preparation and tear down.

This product is only approved for use in systems that have defined force application on the Lite Gin Pole. Systems that use manual or mechanical friction for tagging are not approved. If tagging is required then the trolley, also known as self-tagging, is the only approved method.

Lite Gin Pole Inspection- The Lite Gin Pole shall be inspected prior to every lifting operation. The following inspection criteria must be used and approved prior to its use:

All welds require visible inspection. Any cracks require Engineered, LLC. Inspection. If cracks in welds are observed the Lite Gin Pole shall be removed from operation immediately.

Any cracks in the steel to include rotating head, pole insert, or any other portion of the Lite Gin Pole require its immediate removal from service.

Surface rust does not require immediate removal of the Lite Gin Pole. Rust that has caused pitting, scaling or noticeable visual changes in the steel require the Lite Gin Pole to immediately be removed from service.

Cracks or any other stress indications in the bolt, nuts, sheaves, eye bolt, or any steel components of the Lite Gin Pole require immediate removal from service.

Only authorized replacement components from Engineered, LLC. are authorized for use with the Lite Gin Pole. If replacement eye bolt, nuts, or bolts are required they may be purchased through an authorized Lite Gin Pole retailer.

The Lite Gin Pole load chart shall always be in good condition and readable during lifting operation. A hard copy of the load chart is required to be on site by relevant industry standards during lifting operations. The load chart specifies maximum load line tag angle and maximum weight tolerances, these shall not be deviated from under any circumstances.

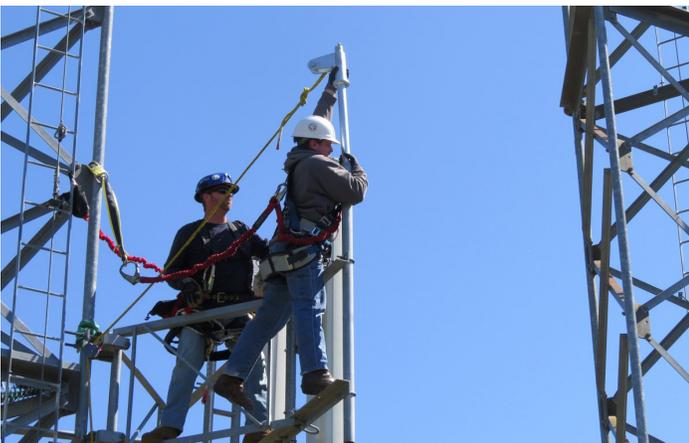
Additionally the Lite Gin Pole shall be inspected in accordance with the ANSI TIA 322 and ANSI/ASSE A10.48 at intervals prescribed within these standards.



Installation:



Antenna mast pipe, attachment points to the boom, and boom attachments must be inspected prior to installation of the Lite Gin Pole to ensure all connectins are up to relevant standards.

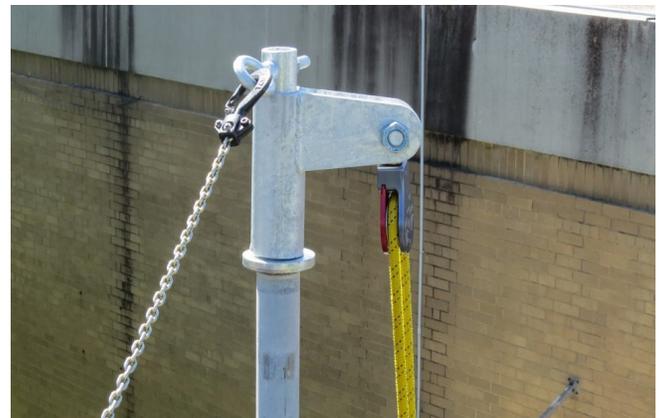
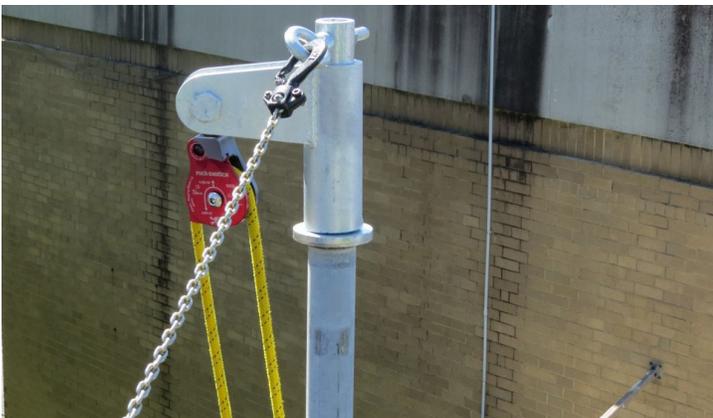


During structural analysis physical inspection of the boom may not have occurred. Ensure that all boom and antenna mast pipe attachment hardware is properly installed and compressed per the latest edition of the AISC steel code and manufacturers requirements.



Ensure that all boom components, to include mast pipe and attachment components, are free of damage due to stress, rust, or other potential damage types.

Mast pipe position availability shall be dictated by the rigging plan and deviation from these specified installation locations are not authorized without the approval of a qualified engineer. Only self-trolley, commonly known as "self tag", rigging systems are approved for use with the Lite Gin Pole.

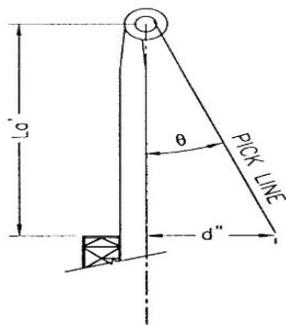


Steps to installation:

1. Locate appropriate mast pipe location.
2. Install receiving pole into mast pipe.
3. Install rotating head and eye bolt.
4. Attach load rope to block.
5. Ensure that load line location is straight without obstruction or deviations to hoisting device.
6. Ensure all rigging equipment, personnel, and load are prepared for lift according to relevant standards.
7. Ensure that all pinch points, impact locations, or other potential damage situations to personnel or equipment are eliminated or reduced according to appropriate hazard mitigation techniques.
8. Ensure that all loads are secured prior to removal from load line.



TAG ANGLE DISTANCES

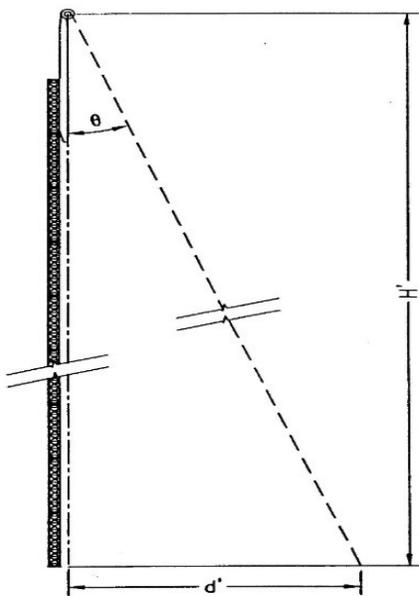


$$d'' = La' \tan \theta$$

La' IN FEET

d IN INCHES

La'	θ		θ		θ	
	3'	d''	5'	d''	7'	d''
20'	3'	12"	5'	21"	7'	29"
25'	3'	16"	5'	26"	7'	36"
30'	3'	19"	5'	31"	7'	44"
35'	3'	22"	5'	37"	7'	51"
40'	3'	25"	5'	42"	7'	59"
44'	3'	27"	5'	46"	7'	64"



$$d' = H' \tan \theta$$

H & d IN FEET

H'	θ		θ		θ	
	3'	d'	5'	d'	7'	d'
1000'	3'	52'	5'	87'	7'	122'
900'	3'	47'	5'	79'	7'	110'
800'	3'	42'	5'	70'	7'	98'
700'	3'	37'	5'	61'	7'	86'
600'	3'	31'	5'	52'	7'	73'
500'	3'	26'	5'	44'	7'	61'
400'	3'	21'	5'	35'	7'	49'
300'	3'	15.7'	5'	26'	7'	37'
200'	3'	10.5'	5'	17.5'	7'	24'
100'	3'	5.2'	5'	8.7'	7'	12.3'