



Aerial Device Safety

Presented By: Phil Doud

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Minimum Approach Distance



- Unqualified vs Qualified
- Reasonably likely movement
- Safety features designed to protect against energized hazards



Insulating Boom Sections



- Secondary Protection (B, C)
- Bands of Arrows
- Inspect, Test and Maintain
- Keep Clean and Dry

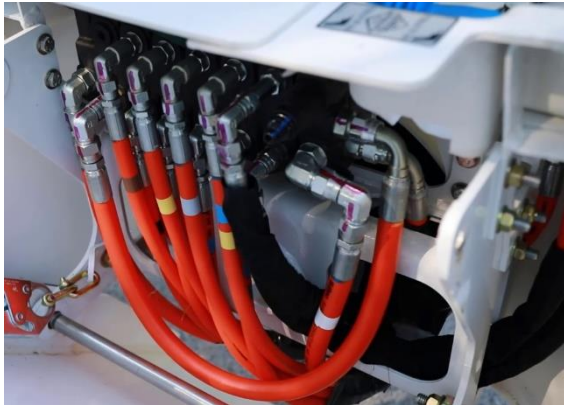
AERIAL DEVICE CONTROL SYSTEM VOLTAGE		110	V	
QUALIFICATION VOLTAGE	10	KV	CATEGORY	1
DATE OF TEST	07 14 20			
UNIT EQUIPPED WITH BOOM POSITIONING UPPER CONTROL WITH HIGH ELECTRICAL RESISTANCE	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
CONFIGURED FOR ELECTRICAL RUBBER GLOVING	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
CHASSIS INSULATING SYSTEM	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>



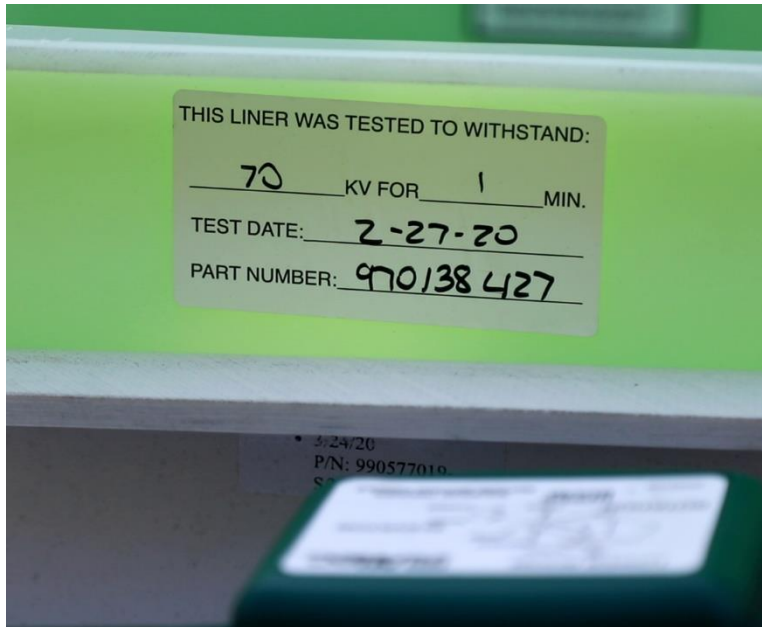
Boom Tip Continuity



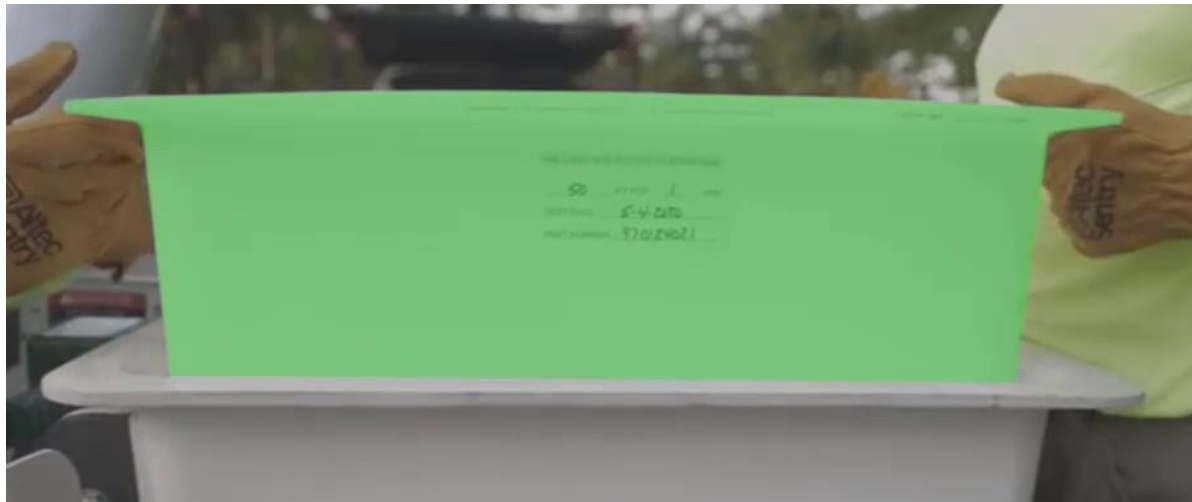
- Uppermost Band of Arrows
- Consider everything electrically connected
- Non-rated covers
- High Electrical Resistance Controls
- Material Handling Jib



Insulating Platform Liners



- Limited secondary protection
- Lower extremities of occupant
- Periodic testing requirement
- Weight is part of platform load



Altec ISO-Grip Upper Controls



- Green color indicates dielectrically tested
- Secondary protection only
- Non-metallic components
- Part of Boom Tip
- Must still use insulating personal protective equipment and safe work methods



Material Handling Jib Color Change



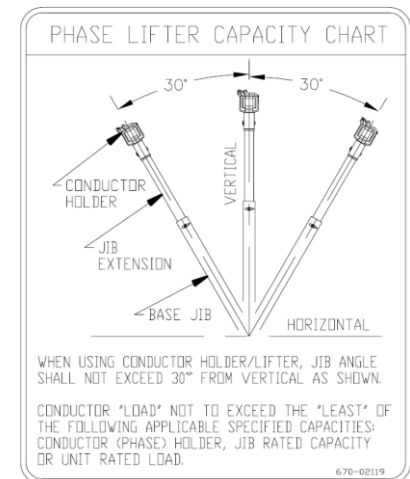
- Gray color emphasizes jib is not dielectrically tested/rated
- Orange color typically associated with tested/rated tools
- Live-line work requires an insulating tool or insert

Safe Live Line Handling with Jib



Aerial device or apparatus used to lift energized lines require use of an insulating device; rated, tested and maintained for the appropriate line voltage to prevent energizing the boom tip. ANSI A92.2 10.13 Electrical Hazard

- Keeps conductive jib outside minimum approach
- Helps protect jib/boom tip from becoming energized
- Must know span weight and limiting capacity rating
- Store properly, treat like a hot stick



Lanyard Detection Systems



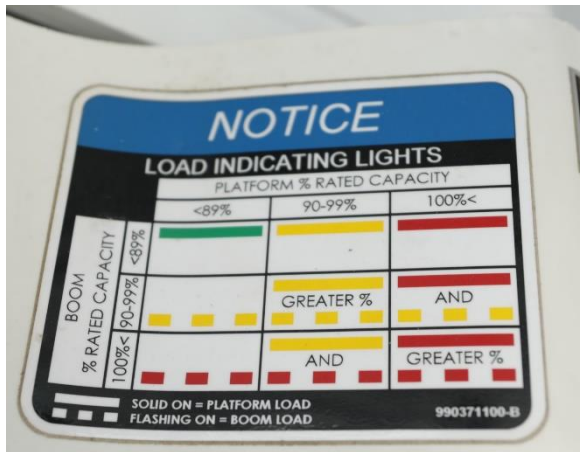
- Alert-only and Interlock options available
- Built into attachment point
- Anti-tiedown protection included



Boom and Platform Load Monitoring



- Monitors platform and jib (boom) loads
- Alerts operator when load approaches 100%
- Audible and visible indication
- Blue inspection light if overload occurs
- System records overload events



Operator Training



Frequently Heard Questions About Training

- What kind of training satisfies OSHA requirements?
- Where is it written that operators must be trained?
- I've got a brand-new employee who needs training, what do I do?
- My operators are already qualified, do we need training on a new unit?

OSHA and Aerial Device Training



What does OSHA say?

1926.21(b)(2)

“The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment...”

1910.67(c)(2)(ii)

“Only trained persons shall operate an aerial lift.”

1926.453(b)(2)(ii)

“Only authorized persons shall operate an aerial lift.”

Authorized = “... approved or assigned by the employer to perform a specific type of duty...” [1926.32\(c\)](#)

OSHA and Aerial Device Training



OSHA Interpretation Letter 10/23/1992:

“...If no training was provided...citation for violating 1926.21(b)(2)”

“...if training was provided...use **ANSI requirements** [to establish] the industry practice is...in regard to operator qualifications”

Conclusion: Employer must follow industry practice (ANSI) to properly qualify aerial device operators, or risk being cited.

Failure to **train properly** can be cited, as can not providing training.

ANSI and Aerial Device Training



ANSI A92.2 describes two main types of training

General Training

Required for ALL untrained aerial device operators

Covers numerous topics of general aerial safety importance

Familiarization

Required for operators before operating unfamiliar equipment

Not a substitute for General Training



General Training – Important Points

- Only trained persons shall operate
 - Owners, Users, Lessors, Lessees, all have requirement to ensure
- General Training is only required once, or if the user directs retraining
- Altec Sentry courses satisfy the General Training requirement
- Trainee demonstrates proficiency under direction of qualified operator

ANSI General Training



A92.2 - 8.12.1 General Training

“ Only personnel who have received general instruction...shall operate”

Major Training Items Required for General Training

- Unit inspection
- Proper aerial applications
- Aerial device **operation**
- Recognizing & **avoiding hazards**

Other Minimum Required Training Items

- Purpose and use of manuals
- Operating manuals must be stored on unit
- Pre-start **inspection**
- Responsibilities if unit malfunctions
- Factors affecting **stability**
- Purpose of placards and decals
- **Demonstrated proficiency** in unit operation
- Workplace inspection
- Applicable safety rules and regulations
- Authorization to operate
- Operator **warnings** and instructions
- Proper use of **fall protection** equipment



What does ANSI say about Familiarization?

A92.2 – 8.12.3 Familiarization

“An operator [before operating] an aerial device they are not familiar with...shall be instructed regarding the following...”

- Location of the manuals
- Purpose and function of all controls
- Safety Devices
- Operating characteristics of the unit
- Achieve proficiency in actual operation
- Can self-familiarize, if User approves

Oh, By the way...



Everything we just said about ANSI A92.2,

Applies to **digger derrick** training, too!

(see ANSI A10.31)

Frequent Questions: Answered



- What kind of operator training satisfies OSHA requirements?
 - ANSI-compliant training that fulfills General Training requirements
 - OSHA references established industry practices (ANSI standards)
- Where is it written that aerial device operators must be trained?
 - OSHA: [1910.67\(c\)\(2\)\(ii\)](#) and [1926.453\(b\)\(2\)\(ii\)](#)
 - ANSI: [A92.2 - 8.12.1 General Training](#)

Frequent Questions: Answered



- I've got a brand-new employee who needs training, what do I do?
 - Start with a General Training course, complete with hands-on evaluation
 - Go to Sentry Online for the applicable General Training course
 - Familiarize them with every unit they will operate
- My operators are already qualified, but we need training on a new unit.
 - If they have received General Training, they only need Familiarization
 - Familiarization is for already-trained operators on new equipment
 - A hands-on requirement still exists after the in-service

Thank You



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