The background of the slide is a photograph of a worker in an orange shirt and yellow hard hat operating a green boom lift. The worker is positioned on the lift, which is extended towards a large, white, cylindrical industrial structure. The lift's arm is green and has a yellow section. The worker is holding onto a white safety net or barrier. The background is a clear blue sky. The slide is decorated with diagonal green and yellow stripes on the right side.

# Boom Lifts, Scissor Lifts MEWPs Mobile Elevating Work Platforms Safety Past, Present and Future

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# SAFETY, Past, Present & Future

## Introductions

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AWP-Forklift-Earthmoving Trainer

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Regional SH&E Manager





## JEFF STACHOWIAK

- National Safety Training Director Sunbelt Rentals since 2000
- Equipment rentals since 1986
- Safety and Risk Manager since 1992 for BET Plant Services BPS Equipment Rentals and Sales
- Member of ANSI/SAIA A92 AWP's - MEWPs, ANSI/ITSDF B56.6 Rough Terrain Fork Trucks
- ISO TC214 MEWP Controls, ISO TC110 Rough Terrain Fork Trucks Training
- Past Vice President Scaffold Access & Industry Association, [www.SAIAonline.org](http://www.SAIAonline.org)



## WHO, WHAT, WHERE

- American National Standards Institute ANSI/SAIA A92
- [www.saiaonline.org/a92](http://www.saiaonline.org/a92) for updates
- ANSI A92 has worked the last 6 years to align with International Standards ISO, Canadian Standards CSA and others
- **Three standards currently**
  - A92.3 Manually Propelled Elevating Aerial Platforms
  - A92.5 Boom-Supported Elevating Work Platforms
  - A92.6 Self-Propelled Elevating Work Platforms



## WHO, WHAT, WHERE

- **Is now. . .**
- MEWPs - Mobile Elevating Work Platforms
  - A92.20 Design
    - Not retro active, OEMs have 12 months to comply after release date
  - A92.22 Safe Use
    - Applies to all that utilize MEWPs Mobile Elevating Work Platforms
  - A92.24 Training
    - Applies to all that utilize MEWPs
  - Manual of Responsibilities A92.22 and A92.24 (on each MEWP)
    - [www.saiaonline.org](http://www.saiaonline.org) \$9.95 each





# DESIGN CHANGES

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ANSI/SAIA A92 Design

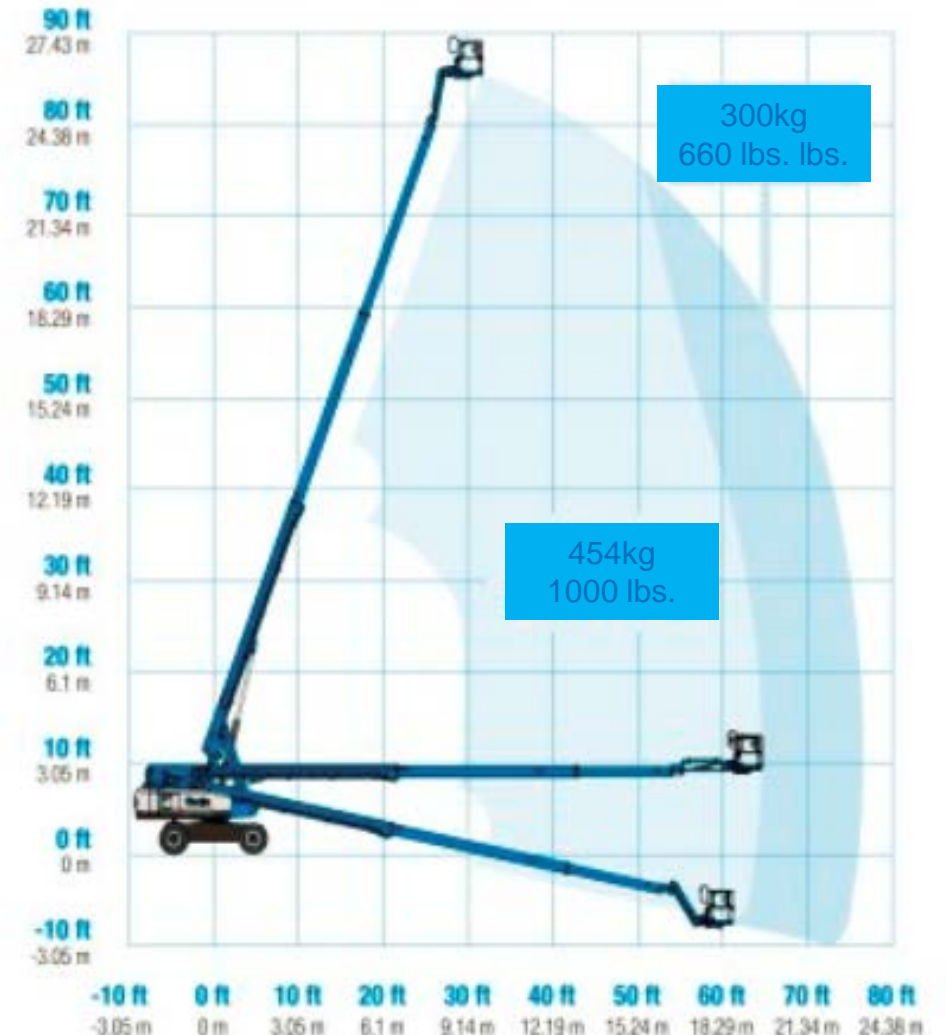


# DESIGN CHANGES

- Load Sensing
  - MEWPs will measure the weight in the platform
  - Many booms will have dual capacities
    - Will stay inside the appropriate load envelope
    - Based on weight in the platform
  - Will stop elevating if overloaded

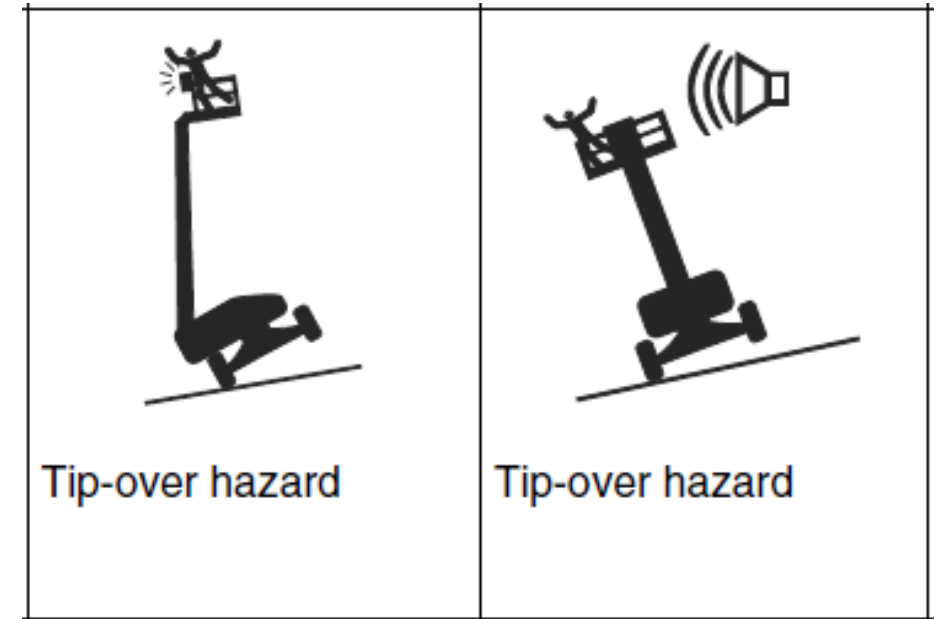


Range Of Motion S-85 XC



## DESIGN CHANGES

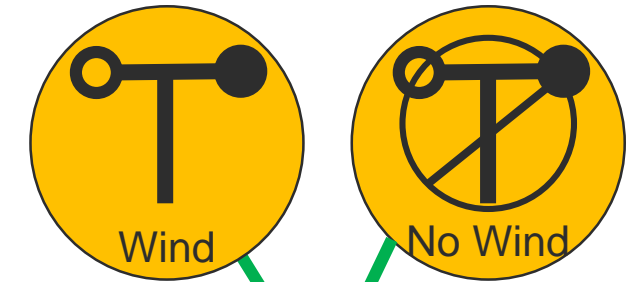
- Tilt Sensing, Out of Level
  - MEWPs will measure how level the lift is
  - MEWPs will shut down lift and telescope as well as drive if out of level (when elevated)
  - Alarm and Warning light will sound
  - Out of level will vary depending on make, model
  - Example: some scissor lifts may measure 5 degrees front to back and only 2 degrees side to side
  - Example: Some booms may measure 5 degrees up to a certain height and then 2 degrees over that certain height





# DESIGN CHANGES

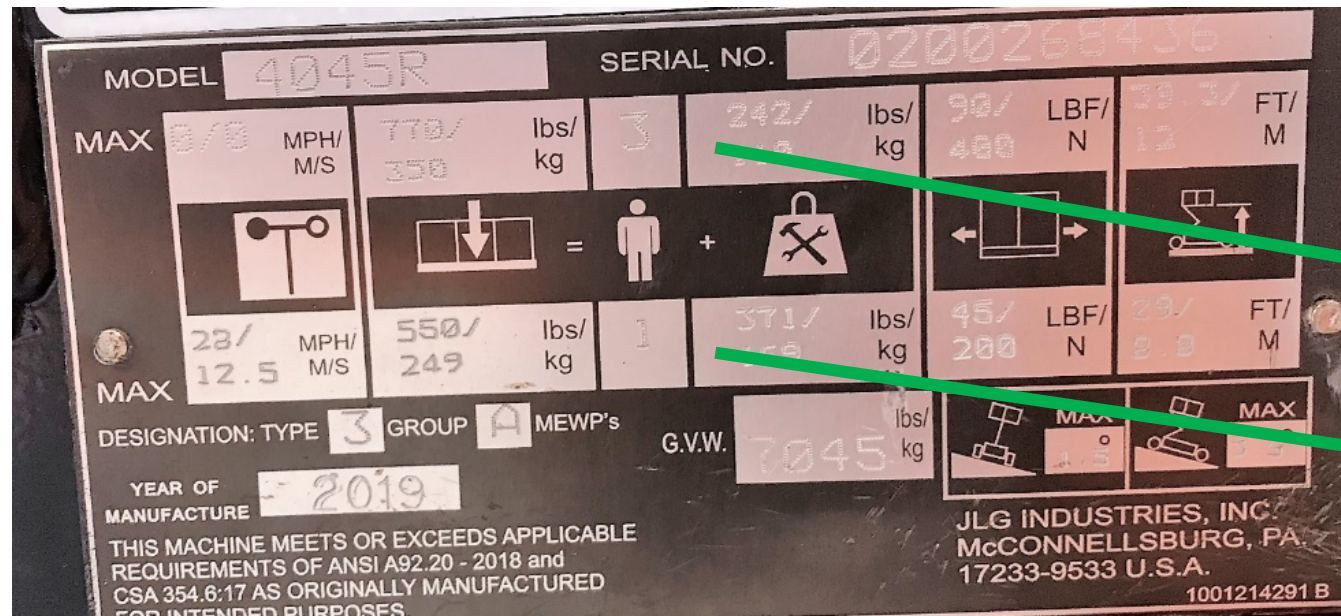
- Wind Exposure
  - New wind stability testing and ID
  - If outdoor or exposed to wind must sustain 28 mph
  - Exposed to wind, may limit occupants and height (outdoor)
  - Not exposed to wind (Indoor)
  - Some lifts may work in both environments depending on how many workers are on the lift
  - See the ID plate for the rating



Operator selects Wind or No Wind button

This JLG 4045R 2019 ANSI compliant scissor lift is rated for 0 MPH wind speed exposure allows 3 persons 770 lbs., max height of 40'

Outdoor use max wind 28 MPH with one person 550 lbs. and maximum height of 29'.



## DESIGN CHANGES

- Guardrail Heights
  - Currently 39.5 inches (1 meter)
  - New standard will require 43.5 inch height (1.1 meter)
- Gates with Toeboard
  - No chains or flexible gates allowed
- Stability Testing
  - Foam or Solid Tires
  - If air filled tires, lift will have to remain stable if tire goes flat
    - Or have air monitoring system
    - Probably NOT feasible





# How to Become Compliant

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Safe Use and Training





## HOW TO BECOME COMPLIANT

# Only qualified personnel shall operate MEWPs

- Trained
- Authorized
- Familiarized



### Each machine is different

- Read the operator's manual and Jobsite Policies
- Give yourself time to get familiar with the controls

## HOW TO BECOME COMPLIANT

- Perform a Site Risk Assessment to
  - identify hazards,
  - evaluate risk,
  - develop control measures and
  - communicate with affected persons
- Select a suitable MEWP and work equipment associated
  - access, preparation and maintenance of the site
  - maintenance including inspection(s), Annual, Frequent
- Only trained and authorized personnel are allowed to operate and/or occupy



Secondary Guarding,  
protection from possible  
entrapment

# HOW TO BECOME COMPLIANT

## Recognize the Six most serious & common lift accidents

### 1 Getting On and Off the Lift

- 3 & 4 points of contact, facing the lift

### 2 Tip-Over

- Un-level surface or surface gives way
- Something hits the lift or drags it over

### 3 Caught Between

- Entrapped
- Driven or operated the wrong way

### 4 Ejection or Fall

- Guardrails are your fall protection
- Harness and lanyards are Fall Restraint

### 5 Electrocutation

- Lifts are not insulated

### 6 Struck by Falling Objects/Machine

- Pedestrian or Spotter gets run over
- Barricading under the lift



**Tip over and fatal fall, no PPE**



# HOW TO BECOME COMPLIANT

## ■ Supervisor Training

- Proper selection of the MEWP for the work to be performed
- The rules, regulations and standards that apply to MEWPs, including the provisions for safe use as defined in ANSI A92.22, training and familiarization, and the work being performed
- Potential hazards associated with use of MEWPs and the means to protect against identified hazards
- Knowledge that the manufacturer's operating manual(s) are an integral part of the equipment and need to be stored properly in the weather resistant compartment on the MEWPs.



# HOW TO BECOME COMPLIANT

## ■ Occupant(s) Training

- Requirement to use personal fall protection
- Factors including how their actions could affect stability
- Safe use of MEWPs accessories they are assigned to use
- Site specific work procedures
- Hazards related to the task
- General knowledge of the intended purpose and function of MEWPs controls
- Manufacturer's warnings and instructions



# HOW TO BECOME COMPLIANT

## ■ Technician Maintenance Training

- In the case where a MEWP is being rented, arrangements must be made by the owner to identify the entity that will be responsible for the inspections and maintenance activities

## ■ Annual Inspections

- The owner shall maintain on the MEWP a means, as provided by the manufacturer, to identify the date the last annual inspection was performed and the interval at which annual inspections are required.
- Frequent and annual inspections: written records of inspections performed to include the date of inspection, any deficiencies found, corrective action accomplished, and identification of the person(s) performing the inspections and repairs.



**Note: First Delivery 5-8-13, Annual due 6-8-14, within 13 months.**





# Questions

- How will I be able to tell a new A92.20 MEWP from a A92.5 or A92.6 MEWP?

Unless the OEMs come up with an ID or specific model number you'll need to look at the actual ID plate.





# Thank you.



Toolbox safety talk, this is not a formal training presentation.