



# Bailey Develops Next Generation Explosion-Proof Aerial Work Platforms

## OUR HISTORY

As developers of the original EX Series Explosion-Proof lifts back in 2002, many things have changed including ANSI Standards and better Intrinsically Safe Technology.

The original EX technology was developed under Man Lift Engineering, Bailey's first company which was sold in 2010. Every major aircraft manufacturer in North America utilized these lifts as well as many ship and general industrial painting operations.



**Aircraft Painting  
Industrial Painting  
Class I, Div 1, Group D**

## OUR FUTURE

While the original technology served its purpose, advances in EX technology have made earlier systems obsolete. Complicated hydraulic systems resulted in extensive use of hydraulic hoses which caused many leak points and a maintenance nightmare. Better motor switching technology results in longer life and reduced maintenance.



## SAFETY

The original ANSI standard in 2002 was A92.5 and A92.6. Currently the ANSI standard is A92.20. The most significant change is platform load sensing. The ability to sense the load in the platform and stop functions for safety. Our new systems incorporate this load sensing technology compliant with EX explosion-proof standards.

**CONTACT US TODAY, FOR YOUR EX LIFTING NEEDS!**



# Why Bailey?

Not just experts on EX technology, Bailey has a long history of building custom Aerial Work Platforms for a variety of industries. The backbone of our expertise is extensive Standards involvement including past committee members on the following:

- **ANSI A92.5** Boom Supported Elevating Work Platform
- **ANSI A92.6** Self-Propelled Aerial Work Platforms
- **NFPA 505** Fire Safety Standards (Explosion-proof) for Industrial Trucks
- **UL 583** Safety Standards - Battery Powered Industrial Trucks
- **UL 588** Safety Standards - Internal Combustion Engine Industrial Trucks



When building or modifying Aerial Work Platforms there are strict, well defined safety requirements that can not be overlooked including stability analysis, stress analysis and control system functional safety. Bailey is expert on all of these. Others in the industry appear to have experience in EX technology but not Aerial Work Platform experts. Do their modifications affect machine stability? Do their control system modifications meet the ANSI requirements? Raising personnel 80 feet in the air has significantly more **Safety Risk** as compared to modification of a forklift. The **Safety Risk** is great. Another competitor was recently sold to a fabrication house thinking that building off a set of drawings is good enough. Not having extensive EX experience is a **Safety Risk**.

**The Engineers at Bailey have been involved in the development of the following products:**

- Clean Room lifts at Cape Canaveral preparing satellites for launch up to 135' sold to United Launch Alliance.
- Aircraft painting EX lifts sold to Boeing, Lockheed Martin, Northrop Grumman, Bombardier and Gulfstream.
- Specialized lifts building aircraft for Boeing and Spirit Aerospace.
- Rocket Launch Platform, Up Aerospace – The first commercial launch company located at Spaceport America.

# New EX Boom Technology



**OLD**  
Competition's Platform Control Box



**NEW**  
Bailey's Platform Control Box



The competition still uses hydraulic joysticks requiring many hoses to route through cable tracks to the platform. Hydraulic joysticks have been replaced by electric over 20 years ago due to the maintenance and leakage nightmare. The competition has 27 hoses and 38 fittings at the platform. A high pressure hydraulic leak or blown hose could ruin a paint job!

Factory Mutual Certification now requires Anti-spark wheel covers. Our products include these new requirements.

**Competitors Design:** Does not provide and not compliant with latest FM requirements.

Platform Battery Condition Indicator
Green = High
Green/Yellow = Medium High
Yellow = Medium
Yellow/Red Medium Low
Red = Low ( Charge Batteries)



**Competitors Design:** Battery Condition Indicator located at ground only. Away from operator. What would happen if machine stopped in the middle of a painting operation?



NFPA/NEC 70 Electrical Requirement changes. Our latest certifications include the new requirements of special metal shielded cabling.

**Competitors Design:** Still using SOOW rubber shielded cables which is "Non-Approved" by the latest changes. If an incident occurs, everyone is liable from noncompliance.

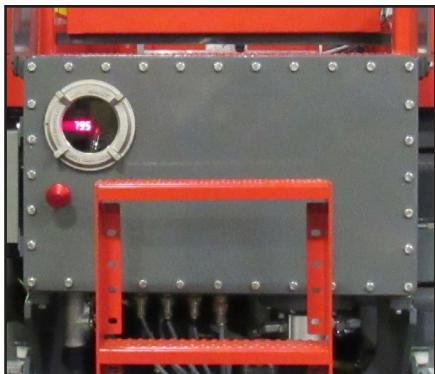


## Enhanced Motor Management System

Provides improved control of motor operation. Motor contactors are controlled with a more stable signal resulting in improved life and better machine operation.

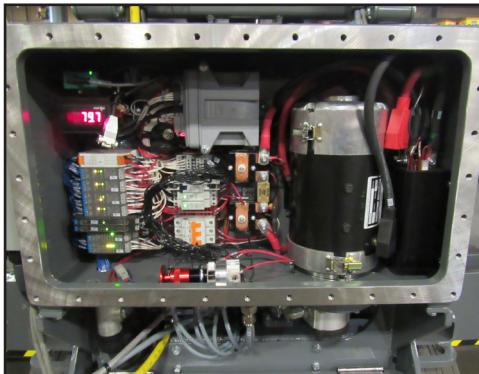
**Competitors Design:** Contactors powered by 24V battery pull-off resulting in uneven battery charge condition and contactor flutter at low battery conditions.

# New EX Scissor Technology



NFPA/NEC 70 Electrical Requirement changes. Our latest certifications include the new requirements of special shielded cabling.

**Competitors Design:** Still using SOOW rubber shielded cables which is "Non-Approved" by the latest changes. If an incident occurs, everyone is liable from noncompliance.

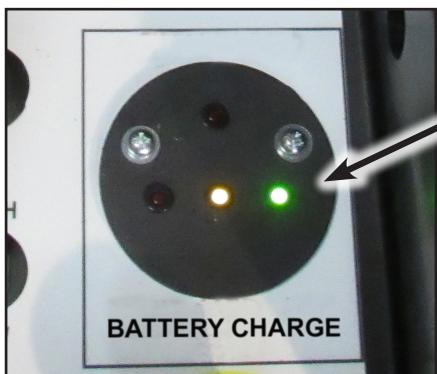


**Enhanced Motor Management System**  
Provides improved control of motor operation. Motor contactors are controlled with a more stable signal resulting in improved life and better machine operation.



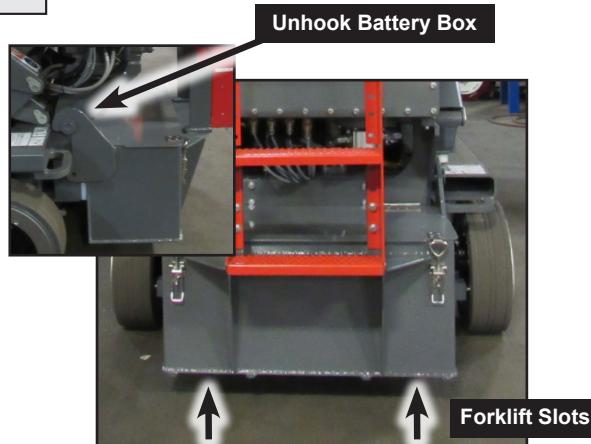
Factory Mutual Certification now requires Anti-spark wheel covers. Our products include these new requirements.

**Competitors Design:** Does not provide and not compliant with latest FM requirements.



## Platform Battery Condition Indicator

Green = High  
Green/Yellow = Medium High  
Yellow = Medium  
Yellow/Red = Medium Low  
Red = Low ( Charge Batteries)



Battery can be quickly removed with forklift for continued multi shift operations.



Control system accessible in 5 minutes for ease of service.

**Competitors Design:** Competitive product requires crane for removal of canister and disassembly on bench.



The control system includes circuit breakers in place of glass fuses. The circuit breakers can be easily reset if a problem occurs.

**Competitors Design:** Competitors design uses glass fuses that require replacement.



# Explosion-Proof Models

## EX Articulating Booms:

Model	Working Height	Lift Capacity
A30JEX	36 ft [10.97 m]	500 lbs [227 kg]
A30JEX	36 ft [10.97 m]	500 lbs [227 kg]
A45JEX	51 ft [15.5 m]	500 lbs [227 kg]
A60EX	66 ft [20.11 m]	500 lbs [227 kg]
A60JEX	66 ft [20.11 m]	500 lbs [277 kg]
A80EX	86 ft [26.21 m]	500 lbs [227 kg]

## EX Telescopic Booms:

Model	Working Height	Lift Capacity
T40EX	46 ft 4 in [14.12 m]	500 lbs [227 kg]
T46JEX	52 ft [15.85 m]	500 lbs [227 kg]
T60EX	66 ft 5 in [20.26 m]	500 lbs [227 kg]
T66JEX	72 ft [21.94 m]	500 lbs [227 kg]
T80EX	86 ft [26.21 m]	500 lbs [277 kg]

## EX Vertical Booms:

Model	Working Height	Lift Capacity
MVL15EX	20 ft [6.1 m]	500 lbs [227 kg]
MVL20EX	25 ft [7.62 m]	500 lbs [227 kg]

## EX Scissors:

Model	Working Height	Lift Capacity
1532EX	21 ft [6.4 m]	600 lbs [272 kg]
1932EX	25 ft [7.6 m]	550 lbs [250 kg]
2032EX	26 ft [7.9 m]	900 lbs [408.3 kg]
2047EX	26 ft [7.9 m]	1,300 lbs [591 kg]
2632EX	32 ft [9.8 m]	500 lbs [227 kg]
2647EX	32 ft [9.75 m]	1,000 lbs [454 kg]
2668EX	32 ft [9.8 m]	1,200 lbs [545 kg]
3247EX	38 ft [11.6 m]	700 lbs [318 kg]
3268EX	38 ft [11.6 m]	1,000 lbs [454 kg]
5092EX	56 ft [17.1 m]	2,000 lbs [909 kg]

We can service competitors equipment. Being that our team of Engineers and technicians designed and built there machines starting back in 2004, we have the experience and know-how to service and maintain your existing equipment.

