

Section 27
Brieser
Construction
SH&E
Manual

January

2017

This program establishes the minimum requirements for the operation of aerial work platforms used in the course of work performed by Brieser Construction personnel. This program addresses the basic requirements for the operation of aerial work platforms to provide access to an elevated work location.

**Aerial Work
Platforms**

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AERIAL WORK PLATFORMS

Brieser Construction

I. Purpose

This program establishes the minimum requirements for the operation of aerial work platforms used in the course of work performed by Brieser Construction personnel. This program addresses the basic requirements for the operation of aerial work platforms to provide access to an elevated work location.

- ☞ An aerial work platform includes the following types of aerial devices used to elevate personnel to work locations above grade:
- ✓ Extensible boom platforms
 - ✓ Aerial ladders
 - ✓ Articulating boom platforms
 - ✓ Vertical towers
 - ✓ Scissor lifts
 - ✓ Personal Portable Lifts

II. Responsibilities

The Program Administrator: Brieser Safety Manager

This person is responsible for:

- Issuing and administering this program and making sure that it satisfies all applicable federal, state and local requirements.
- Ensuring that employees receive initial and refresher training on the use of this policy.
- Maintaining training records for all employees included in the training sessions
- Ensure that only trained and qualified personnel are authorized to operate aerial work platforms by conducting periodic field audits to check for valid training.

Equipment Manager

These people are responsible for:

- Ensure that aerial units and related equipment that is owned by Brieser Construction are properly inspected and maintained

Project Managers, Superintendents and Foremen

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These people are responsible for:

- Ensure that prior to use all personnel assigned to operate an aerial work platform are properly trained in their use, limitations, and associated hazards.
- Ensure that aerial units and related equipment for which Brieser is responsible are properly inspected prior to use and annually.
- Ensure that applicable personal protective equipment, including personal fall protection equipment, is available for use as required.
- Ensure the TSTI and Job Safety Analysis addresses the hazards associated with the unit operation.

Aerial Work Platform Operator

These people are responsible for:

- Maintain the training and competency required to properly operate the specific type of aerial lift according to the manufacturer's instructions.
- Ensure that the aerial work platform is properly inspected prior to use and documented on the Brieser Equipment Inspection Checklist.
- Use required personal fall protection equipment and other personal protective equipment necessary for the task(s) to be performed.
- Ensure that the aerial work Platform is not overloaded beyond rated load capacities.
- Ensure the TSTI and Job Safety Analysis addresses the hazards associated with the unit operation and that it has been reviewed with the appropriate personnel.

III. Definitions

Aerial Ladder -An aerial device consisting of a single- or multiple-section extensible ladder

Aerial Lift -Vehicle-mounted aerial lifts or devices used to position personnel that include the following:

- ✓ Extensible boom platforms
- ✓ Aerial ladders
- ✓ Articulating boom platforms
- ✓ Vertical towers
- ✓ These devices are made of metal, wood, fiberglass reinforced plastic

(FRP), or other material and are powered or manually operated; whether they are capable of rotating about a substantially vertical axis.

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Aerial Work Platform -A mobile or portable aerial device designed to provide personnel with a platform equipped with a power-assisted means to access an elevated work location. These devices include aerial lifts, scissor lifts, and personal portable lifts.

Articulating Boom Platform -An aerial lift with two or more hinged sections

Competent Person -One who has been trained in the operation of an aerial lift and has obtained the skill necessary to satisfactorily operate the unit. The Competent Person is also capable of identifying existing and predictable hazards in the surroundings or working conditions where the aerial lift is to be operated.

Extensible Boom Platform -An aerial lift (except ladders) with a telescopic or extensible boom.

Telescopic derricks with personnel platform attachments are considered to be extensible boom platforms when used with a personnel platform.

Full Body Harness -A design of straps which may be secured about the employee in a manner to distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with the capability of attaching to other components of a personal fall arrest system

Insulated Aerial Device -An aerial device designed for work on energized lines and apparatus.

Personal Portable Lift -A lightweight portable aerial device designed with a platform for one person to access limited heights.

Platform -Any personnel-carrying device (basket or bucket) which is a component of an aerial device.

Stock Picker -A power-driven or manually pushed vertical mast aerial device designed with a platform for one person to access elevated locations primarily to manage stock inventories.

Vertical Tower -An aerial lift designed to elevate a platform in a substantially vertical axis.

IV. General Requirements

1. Personnel must always stand firmly on the floor of the basket and must not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
2. The operator must wear a full body harness with an acceptable lanyard. A fall restraint lanyard is preferred. The fall restraint lanyard should be attached to a designated anchor point, and the length should be adjusted to prevent ejection from the basket. A self-retracting lanyard is also acceptable if attached to a designated anchor point at waist level or above.

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☞ **NOTE:** A 6-foot lanyard with a shock absorber is not to be used in an aerial work platform. Attaching the lanyard to an adjacent pole, structure, or equipment while working from an aerial work platform shall not be permitted.

☞ **EXCEPTION-** When working from an elevated scissors lift (ANSI A92.6 series), a worker need only be protected from falling by a properly designed and maintained guardrail system. However, if the guardrail system is less than adequate, or the worker leaves the safety of the work platform, an additional fall protection device would be required. Also, if the manufacturer recommends or mandates that personal fall protection be use. The operator and passengers must adhere to the manufacturers' safety policy for safe operation.

3. Provisions must be established for emergency response concerning retrieval of the operator stranded in an elevated position. An assessment of the exposures associated with the activity to be performed must be completed to ensure thorough hazard recognition. Measures necessary to facilitate emergency response and rescue need to be identified, e.g., retrieval from entanglement with overhead obstructions or contact with electrical power lines. A second person must be assigned to observe the operator while working at heights and subject to fall arrest from the unit.
4. Aerial lifts may be "field modified" for uses other than those intended by the manufacturer provided the modification has been certified in writing by the manufacturer or by any equivalent entity.

V. Unit Inspection

1. Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition. A visual inspection of the aerial lift components on the Brieser Equipment Inspection Checklist and a test of all controls and safety devices, including a full operational test, must be completed on the day used prior to operation. The results of the inspection must be documented in Brieser Equipment Inspection Checklist and filed at the Brieser office.
2. All units owned, rented, or leased by Brieser Construction, and those units used by subcontractors, must be inspected prior to use and annually thereafter. Brieser Construction units need to be inspected by a third party, e.g., unit manufacturer or distributor, qualified to complete such an inspection. Documentation certifying the inspection results and date must be provided by the inspecting party. Attachment A or equivalent documentation is designed for this inspection.

VI. Unit Operation

1. Only authorized persons shall operate an aerial lift.
2. The vehicle must have a reverse signal alarm audible above the surrounding noise level or the vehicle is backed up only when an observer signals that it is safe to do so.

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3. Boom and basket load limits specified by the manufacturer shall not be exceeded. The insulated portion of an aerial work platform shall not be altered in any manner that might reduce its insulating value. A minimum of 10 feet should be maintained from energized electrical power lines.
4. The brakes shall be set and when outriggers are used, they shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial work platform on an incline provided they can be safely installed.
5. Aerial work platforms should not be operated at wind speeds greater than 30 mph. The operator must understand and comply with the wind limitations established by the unit manufacturer. Further operating restrictions under reduced wind speeds may be necessary due to the location or activity performed with the unit.
6. An aerial work platform shall not be moved when the boom, ladder, or scissors lift is elevated in a working position with personnel in the basket or on the ladder, except for equipment which is specifically designed for this type of operation. Ensure safe clearances are maintained around the work area when operating. Check the clearances for swing radius and boom travel. A second person may be necessary to direct or spot the operator when operating in congested or obstructed areas.
7. Aerial ladders must be secured in the lower traveling position by the locking device on top of the truck cab, and the manually operated device at the base of the ladder before the truck is moved for highway travel.
8. Always set brakes and extend outriggers, if so equipped, on pads or solid surfaces. Ensure the surface area is suitable and stable to the extent necessary for proper support of the unit.
9. The Aerial Work Platform Operator Checklist in Attachment B provides a reference that identifies the skills and competencies the operator is expected to possess. Utilization of this checklist is voluntary and completion of this checklist does not represent formal certification. Attachment B is used for training during the hands-on portion as listed in the Brieser Equipment Training Manual-Aerial lifts/Man-lifts training document.
10. Aerial Lifts shall be flagged using caution tape around the work area including but not limited to the Aerial lift body. The purpose is to alert others of the potential travel hazard as well as overhead falling objects.

VII. Training Objectives

1. Brieser Construction personnel responsible for assigning work for tasks involving the use of an aerial work platform must be able to recognize and assess the hazards associated with working at heights as well as aerial work platform operation. The following training is required:
 - a. Aerial lifts/Man-lifts training found in the Brieser Equipment Training Manual. This training must be specific to the type of aerial work platform that is to be

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used. This training must include both classroom and hands-on equipment training. Brieser supervision competent in aerial lift operations may conduct this training.

b. Aerial Platform Lift Operation Awareness CBT module. (Future addition)

2. Brieser Construction personnel who operate aerial work platforms must complete additional training on fall protection. The following training is required to operate an aerial work platform:
 - a. Instructor led training on the use of fall protection equipment. The Brieser Safety Department will conduct this training.
3. Sub-Contractors who operate aerial work platforms must have equivalent training to Brieser Construction personnel. Documentation verifying contractor competency must be obtained prior to operating the aerial work platform

VIII. Refresher Training

1. Refresher training is required at least every three years. More frequent refresher training may be necessary in the event of circumstances including, but not limited to, changes in the workplace or fall protection systems/equipment that are not sufficiently addressed in the training. The apparent or demonstrated lack of knowledge or skill on the proper use of fall protection equipment also requires refresher training.

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IX. Attachments

Attachment A, Aerial Work Platform Comprehensive Inspection Checklist

Attachment B, Aerial Work Platform Operator Checklist

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X. Attachment A
Aerial Work Platform Comprehensive Inspection Checklist (Annual)

Unit No:		Make:		Model:	
Rental Company				Contractor	
	Acceptable	Unacceptable	Not Acceptable		Acceptable Unacceptable Not Acceptable
GENERAL				GROUND CONTROLS	
Cleanliness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operation	<input type="checkbox"/>
Access covers &	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Auxiliary power	<input type="checkbox"/>
Fire extinguisher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Load/control	<input type="checkbox"/>
Decals and placards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Boom	<input type="checkbox"/>
ENGINE				Chain assembly	<input type="checkbox"/>
Battery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Capacity indicator	<input type="checkbox"/>
Hoses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pivot pins	<input type="checkbox"/>
Oil level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Telescoping function	<input type="checkbox"/>
Fan Belts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PLATFORM/BASKET	
CHASSIS				Fall protection	<input type="checkbox"/>
Tires/wheels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Controls	<input type="checkbox"/>
Brakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Auxiliary power	<input type="checkbox"/>
Steering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Load capacity	<input type="checkbox"/>
Bushings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Foot switch	<input type="checkbox"/>
HYDRAULIC				Load/control	<input type="checkbox"/>
Fluid level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Horn	<input type="checkbox"/>
Hoses/piping/fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Pumps/motors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
TURNTABLE					
Lift cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Swing function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Manual controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:					
Scan to: Safety/ Aerial Work Platform Comprehensive Inspection Checklist/Date					

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XI. Attachment B

Aerial Work Platform Operator Checklist (Equipment Training Supplement)

UNIT OPERATION
Properly start and stop the engine/motor
Accelerate and decelerate engine/motor speed
Forward travel to a location designated by the evaluator
Reverse travel to a location designated by the evaluator
Steer unit left and right in forward and reverse
Apply brakes to stop the unit upon instruction from the evaluator
PLATFORM AND BOOM OPERATION
Raise and lower the basket
Extend and retract boom
Maneuver boom from side-to-side
Extend and position outriggers
Adjust platform to level position
Switch control functions to lower controls
EMERGENCY CONTROLS:
Operate emergency hydraulic pump
Extend and lower boom after power failure
Manually override controls on solenoid valves
OPERATOR KNOWLEDGE:
Properly connect fall protection lanyard to anchor point on platform
Identify unit load capacity
Explain responsibilities for pre-use inspection

**BRIESER CONSTRUCTION
SAFETY & HEALTH MANUAL
SECTION 27
AERIAL WORK PLATFORMS
SUB-SECTION
XII. TRAINING**

ATTENDANCE ROSTER

Brieser Construction

EMPLOYEE NAME (Print or Type)	EMPLOYEE SIGNATURE	TRADE	JOB TITLE
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

ROUTING	PERSONEL MANAGER	Add to Training Database
	SCAN	SAFETY/AERIAL WORK PLATFORM TRAINING/MMDDYYTRAINING CERTIFICATION

Brieser Construction
Section 27 Test

Score: _____ %

Employees Name:		Date:	
Company:		Instructor:	
		Job Title:	

Answer the following questions “True” or “False” by circling the appropriate letter.

- T** **F** 1. An Aerial work platform can be a Scissors Lift?
- T** **F** 2. Operators of Aerial Work Platforms must ensure they are documenting daily inspections on the Aerial Work Platform Inspection Checklist, Attachment A?
- T** **F** 3. Using a Full Body Harness with a 6 foot shock absorbing lanyard as a personal fall system is 100% acceptable?
- T** **F** 4. Always follow the manufacturer’s policy when determining if guard rails are acceptable as fall protection while using a Scissors lift?
- T** **F** 5. A second person must be assigned to observe the operator while working at heights and subject to fall arrest from the unit?
- T** **F** 6. A minimum of 10 feet should be maintained from energized electrical power lines?
- T** **F** 7. Aerial work platforms should not be operated at wind speeds greater than 20 mph?
- T** **F** 8. An aerial work platform shall not be moved when the boom, ladder, or scissors lift is elevated in a working position with personnel in the basket or on the ladder, except for equipment which is specifically designed for this type of operation?
- T** **F** 9. In order to operate an Aerial Work Platform, the following is required: Aerial lift/Man lifts training found in the Brieser Equipment Training manual and Fall Protection?
- T** **F** 10. Refresher training is required at least every five years?

Brieser Construction
Section 27 Test

Answers

- T** **F** 1. An example of an Aerial work platform would be a Scissors Lift?
- T** **F** 2. Operators of Aerial Work Platforms must ensure they are documenting daily inspections on the Aerial Work Platform Inspection Checklist, Attachment A?
- T** **F** 3. Using a Full Body Harness with a 6 foot shock absorbing lanyard as a personal fall system is 100% acceptable? Fall restraint (adjustable lanyard) or self-retracting lanyard if anchored above users waist line. Pg. 6
- T** **F** 4. Always follow the manufacturer's policy when determining if guard rails are acceptable as fall protection while using a Scissors lift?
- T** **F** 5. A second person must be assigned to observe the operator while working at heights and subject to fall arrest from the unit?
- T** **F** 6. A minimum of 10 feet should be maintained from energized electrical power lines?
- T** **F** 7. Aerial work platforms should not be operated at wind speeds greater than 20 mph? 30 mph Pg. 7
- T** **F** 8. An aerial work platform shall not be moved when the boom, ladder, or scissors lift is elevated in a working position with personnel in the basket or on the ladder, except for equipment which is specifically designed for this type of operation?
- T** **F** 9. In order to operate an Aerial Work Platform, the following is required: Aerial lift/Man lifts training found in the Brieser Equipment Training manual and Fall Protection?
- T** **F** 10. Refresher training is required at least every five years? Three years Pg. 8