



Operator's Manual Supplement

Fall Arrest Guidance Booms

**Original Instructions
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These machines comply with

 - EC Directive 2006/42/EC

 - Supply of Machinery (Safety) Regulations 2008

ANSI/SAIA A92.20
CAN/CSA B.354.6
AS1418:10



Introduction

Genie Self-propelled Boom Products and Fall Arrest Guidance

Background

Booms are designed to carry personnel to elevated work locations at height. A personal fall protection system in addition to the platform guard rails is required by regulatory agencies in many parts of the world. Personal fall protection can consist of a fall restraint and/or fall arrest system. Depending on the work being performed either a fall restraint system or a fall arrest system should be selected while in the platform. Sometimes work must be performed by stepping out of the platform onto an adjacent structure. If the adjacent structure is not equipped to provide appropriate fall protection, the Genie boom may be used as a fall arrest anchor in a fall arrest system*.

This section provides guidance for the use of Genie Booms to serve as fall arrest anchorages.

*Applicable only in some countries/regions: check governmental, provincial, local and work site regulations or compliance rules in the market of operation.

Definitions

Fall Restraint Systems

Restraint systems prevent a worker from being exposed to a fall. If the employee is protected by a restraint system, either a body belt or a harness may be used. When a restraint system is used for fall protection in a boom supported aerial work platform, the employer/user/operator must ensure that the lanyard and anchor are arranged so that the operator is not exposed to falling any distance outside the platform.

Fall Arrest Systems

A system that permits an arrested fall is considered a fall arrest system. A body belt is prohibited in a fall arrest system and instead a full body harness and lanyard that limits the fall distance and arresting force on the person is required. Fall arresting lanyards typically have a shock absorbing section or are a self-retracting lifeline/lanyard.

Self-retracting lifeline/lanyard

A deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which after onset of a fall, automatically locks the drum and arrests the fall. The use of the self-retracting lifeline/ lanyard as a fall arrest lanyard is allowed on boom-supported aerial work platforms. If a self-retracting lifeline/lanyard is used while exiting the platform it shall not allow a free fall greater than 6 ft/1.8m, some global regions this could be 6.6ft/2m.

Fall Arrest Guidance

When designing a work space/condition the order of preference for fall protection is:

- 1 Fall restraint - Prevent the occurrence of a fall
- 2 Fall arrest - Reduce injuries occurring during the fall

Genie Self-propelled Booms may be used as a fall arrest anchor including working outside of the platform and remaining connected to the platform under the following guidelines:*

*Applicable only in some countries/regions: check governmental, provincial, local and work site regulations or compliance rules in the market of operation.

- 1 The owner/employer/user/operator of the boom is responsible for providing fall protection for boom operator.
- 2 A "qualified person" with knowledge of fall protection regulations and systems must design the work space and the fall arrest system to insure worker safety.
- 3 Genie Booms have been stability tested on level ground for a 300 lb / 136 kg person experiencing fall arrest with the remaining rated load in the platform. Therefore the weight of the worker, including tools and equipment, exiting the platform while attached to one of the platform's lanyard anchorages must not exceed 300 lbs / 136 kg.
- 4 Permanent welded lanyard anchorage points on Genie self-propelled Booms have been tested to withstand a static force of 16 kN / 3600 lbs.
- 5 The anchor point is used as part of a fall arrest system, the user shall be equipped with a means of limiting to a maximum arresting force of 1,349 lbs / 6 kN, in some global regions the maximum could be 1,798 lbs / 8 kN. Obey all local and governmental regulations.
- 6 The fall arrest system must not allow a potential free fall greater than 6ft /1.8m, in some global regions this could be 6.6ft/2m. Obey all local and governmental regulations.
- 7 Only one person may exit or work outside the platform while attached to an approved lanyard attachment point.
- 8 The weight of a person working outside the platform while attached to an approved lanyard attachment point must be included in the platform load calculation.
- 9 Employers and operators must be aware of and plan for potential vertical and horizontal platform movement while exiting or entering an elevated boom platform.
- 10 The boom must be on firm level ground to be considered usable as a fall arrest anchorage.
- 11 A person trained in the operation of the Genie boom shall remain on the ground near the machine base controls, or at the controls in the platform to prevent unauthorized use and to prevent the machine from being operated while used as a fall arrest anchor.

Fall Arrest Guidance

- 12 The fall protection system must comply with all applicable local, provincial, federal, job site, and manufacturer's requirements for the use of personal fall protection equipment.
- 13 Do not operate the boom once the operator has tied off and exited the platform.
- 14 A rescue plan shall be in place to deal with any emergencies that may arise during the work at height.
- 15 For equipment intended for use in fall arrest system it is essential for safety that the anchor point shall always be positioned, and the work carried out in such a way considering the following:
 - Maximum allowable deceleration distance
 - Maximum lock-up length (for the self retracting lifeline/lanyard only)
 - Any stretch in the lifeline or lanyard outside of the deceleration distance.
 - The height of the operator
 - Any harness effects including self retracting lanyards
 - Safety factor (a suitable amount to ensure that the required clearance between the operator and the lower surface is met)
 - Any movement of the platform due to dynamic loading
 - Any obstructions under the platform
 - Any other traffic or distractions that could affect safety
- 16 The anchor device shall only be used for personal fall protection equipment and not used in any way for lifting/lowering equipment.

In consideration for Genie's guidance herein, the equipment owner, employer, user and operator hereby agree to indemnify and hold harmless Terex USA, Terex Global GmbH and its parent and affiliated companies against any and all liabilities, claims, suits, losses, costs and legal fees caused by, arising out of, or resulting from any negligent act or omission in the operation of the equipment; the failure to comply with the criteria set forth in this manual related to the use of a boom as a Fall Arrest anchorage; the safety rules and operating instructions in the Operator's Manual. **By proceeding with the use of a boom as a Fall Arrest anchorage, you agree to adhere to the requirements set forth herein, including said indemnification. If you do not agree, do not proceed with the proposed use.**

Fall Arrest Guidance

▲ WARNING Failure to comply with all restrictions, instructions and warnings contained in this section, the Operator's Manual and the applicable safety or owner's manual could result in death or serious injury.

- 3 The user/employer and the operator shall comply with all applicable jobsite, local, state, provincial, or federal rules, regulations, and standards related to the use of the equipment and its modification.
- 4 The Genie equipment must be in proper working condition and configuration.

Owner/Employer/User/Operator Requirements:

- 1 A copy of this supplement must always accompany the operator's manual in the weather resistant storage compartment located on the equipment.
- 2 Operators must be trained and qualified how to safely operate the equipment and be familiar with the specific model of Genie equipment as follows:
 - Be familiar with, and comply with, the equipment operating and safety manuals.
 - Understand all control functions, decals and warnings.
 - Be aware of and understand all safety devices specific to the equipment being used.
 - Be instructed regarding the specific hazards associated with using the Genie equipment in the application, and utilize all means, including those provided by the user/employer, to avoid them.

California Proposition 65



Operating, servicing and maintaining this equipment can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. These chemicals can be emitted from or contained in other various parts and systems, fluids and some component wear by-products. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your equipment and vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your equipment or vehicle and after operation. For more information go to www.P65Warnings.ca.gov/passenger-vehicle.

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov/diesel.