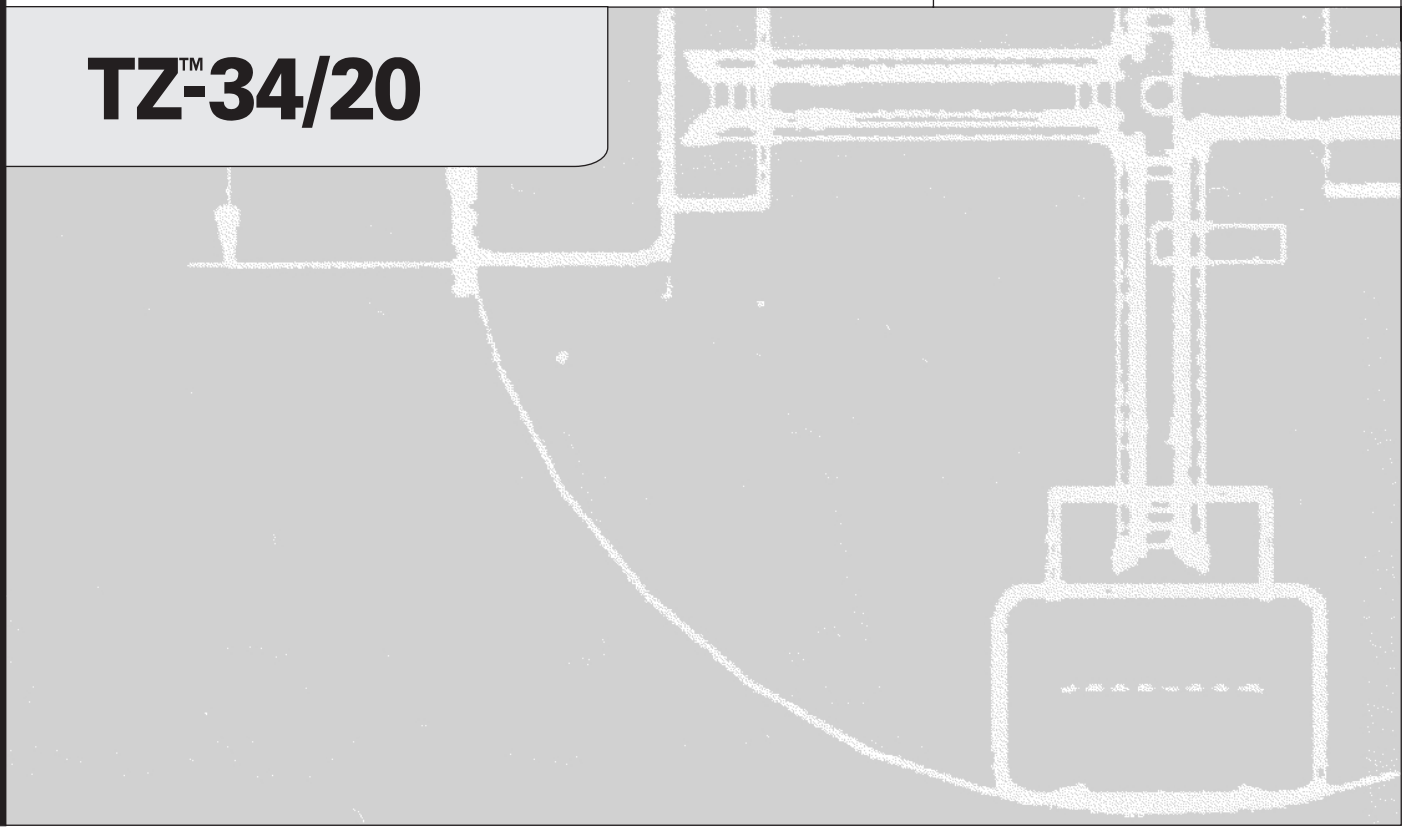
Genie®

# Operator's Manual

*with Maintenance Information*

First Edition
First Printing
Part No. 82400

## TZ™-34/20



## Important

Read, understand and obey these safety rules and operating instructions before operating this machine. Only trained and authorized personnel shall be permitted to operate this machine. This manual should be considered a permanent part of your machine and should remain with the machine at all times. If you have any questions, call Genie Industries.

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# Safety Rules



## Danger

Failure to obey the instructions and safety rules in this manual will result in death or serious injury.

## Do Not Operate Unless:

☑ You learn and practice the principles of safe machine operation contained in this operator's manual.

**1 Avoid hazardous situations.**

**Know and understand the safety rules before going on to the next section.**

2 Always perform a pre-operation inspection.

3 Always perform function tests prior to use.

4 Inspect the workplace.

5 Only use the machine as it was intended.

☑ You read, understand and obey:

Manufacturer's instructions and safety rules—safety and operator's manuals and machine decals

employer's safety rules and worksite regulations

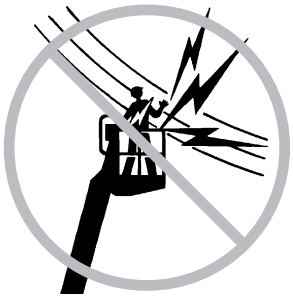
applicable governmental regulations

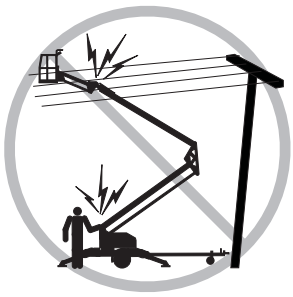
☑ You are properly trained to safely operate the machine.

SAFETY RULES

## Electrocution Hazards

This machine is **not** electrically insulated and will **not** provide protection from contact with or proximity to electrical current.





Maintain safe distances from electrical power lines and apparatus in accordance with applicable governmental regulations and the following chart.

| Voltage Phase to Phase | Minimum Safe Approach Distance Feet | Meters |
|---|---|---|
| 0 to 300V | Avoid Contact | |
| 300V to 50KV | 10 | 3.05 |
| 50KV to 200KV | 15 | 4.60 |
| 200KV to 350KV | 20 | 6.10 |
| 350KV to 500KV | 25 | 7.62 |
| 500KV to 750KV | 35 | 10.67 |
| 750KV to 1000KV | 45 | 13.72 |

Allow for platform movement, electrical line sway or sag and beware of strong or gusty winds.

Keep away from the machine if it contacts energized power lines. Personnel on the ground or in the platform must not touch or operate the machine until energized power lines are shut off.

Do not operate the machine during lightning or storms.

Do not use the machine as a ground for welding.

## Tip-over Hazards

Occupants, equipment and materials shall not exceed the maximum platform capacity.

| | | |
|---|---|---|
| **Maximum platform capacity without optional platform rotate ANSI & CSA models** | 500 lbs | 227 kg |
| **Maximum platform capacity with optional platform rotate ANSI & CSA models** | 440 lbs | 200 kg |
| **Maximum occupants** | | 2 |

Do not raise the boom unless the machine is level. Do not set the machine up on a surface where it cannot be leveled using only the outriggers.

Do not raise the boom unless all four outriggers are lowered, the footpads are in firm contact with the ground and the machine is level.





Do not set the machine up unless it is on a firm surface. Avoid drop-offs, holes, unstable or slippery surfaces and other possible hazardous conditions.

Do not move the machine when the boom is raised.

Do not adjust or stow the outriggers when the boom is raised.

Do not depend on the tilt alarm as a level indicator. The tilt alarm sounds in the platform only when the machine is on a severe slope.

When the tilt alarm sounds, immediately lower the boom and adjust the outriggers to level the machine.

Do not alter or disable the limit switches.



Do not operate the machine in strong or gusty winds. Do not increase the surface area of the platform or the load. Increasing the area exposed to the wind will decrease machine stability.

Do not alter or disable machine components that in any way affect safety and stability.

Do not replace items critical to machine stability with items of different weight or specification.

Do not modify or alter an aerial work platform without prior written permission from the manufacturer. Mounting attachments for holding tools or other materials onto the platform, toeboards or guard rail system can increase the weight in the platform and the surface area of the platform or the load.

Do not transport tools and materials unless they are evenly distributed and can be safely handled by person(s) in the platform.

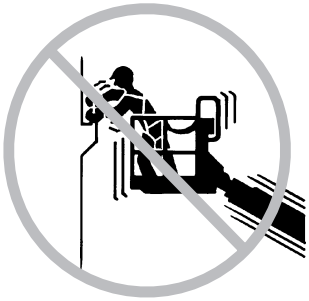
Do not place ladders or scaffolds in the platform or against any part of this machine.

Do not use the machine on a moving or mobile surface or vehicle.

Be sure all tires are properly inflated and in good condition and lug nuts are properly tightened.

Do not use the platform as a crane.

Do not place loads outside the platform perimeter.



Do not place or attach overhanging loads to any part of the platform.

Do not push off or pull toward any object outside of the platform.

Do not push the machine or other objects with the boom.

Do not use the platform controls to free a platform that is caught, snagged or otherwise prevented from normal motion by an adjacent structure. All personnel must be removed from the platform before attempting to free the platform using the ground controls.

Do not use batteries that weigh less than the original equipment. Four batteries are used as counterweight and are critical to machine stability. Each battery must weigh 65 pounds / 29.5 kg.

Do not contact adjacent structures with the boom.

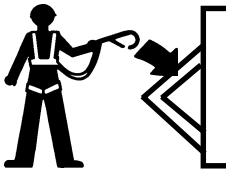
Do not tie the boom or platform to adjacent structures.

## Explosion and Fire Hazards

Do not operate the machine in hazardous locations or locations where potentially flammable or explosive gases or particles may be present.

SAFETY RULES

## Fall Hazards



Occupants must wear a safety belt or harness and comply with applicable governmental regulations. Attach the lanyard to the anchor provided in the platform.

Do not sit, stand or climb on the platform guard rails. Maintain a firm footing on the platform floor at all times.

Do not climb down from the platform when raised.

Keep the platform floor clear of debris.

Lower the platform entry mid-rail or close the entry gate before operating.

## Collision Hazards

Be aware of boom position when rotating the turntable.

Operators must comply with employer, job site and governmental rules regarding use of personal protective equipment.

The machine must be on a level surface or secured before releasing the parking brake.

Use the parking brake to control the speed of the machine when pushing a machine that is not attached to a tow vehicle.

Check the work area for overhead obstructions or other possible hazards.

Be aware of crushing hazards when grasping the platform guard rail.

Do not lower the boom unless the area below is clear of personnel and obstructions.

Do not operate a boom in the path of any crane unless the controls of the crane have been locked out and/or precautions have been taken to prevent any potential collision.

No stunt driving or horseplay while operating the machine.

## Component Damage Hazards

Do not use the machine as a ground for welding.

Do not fully lower the booms unless the booms are aligned with the tongue. The primary boom must be lowered into the chassis cradle.

## Lifting Hazards

Use proper lifting techniques to move, load or unload the machine.

## Damaged Machine Hazards

Do not use a damaged or malfunctioning machine.

Conduct a thorough pre-operation inspection of the machine and test all functions before each work shift. Immediately tag and remove from service a damaged or malfunctioning machine.

Be sure all maintenance has been performed as specified in this manual and the appropriate service manual.

Be sure all decals are in place and legible.

Be sure the operator’s, safety and responsibilities manuals are complete, legible and in the storage container located on the platform.

## Bodily Injury Hazard

Do not operate the machine with a hydraulic oil or air leak. An air leak or hydraulic leak can penetrate and/or burn skin.

## Towing Hazards

Read, understand and obey all of your tow vehicle manufacturer's recommendations, warnings and instructions before towing this machine.

Make sure your tow vehicle is properly maintained and capable of towing this machine.

Be sure the hitch is properly and securely attached to your tow vehicle.

Do not overload your tow vehicle. Observe the manufacturer's Gross Vehicle Weight Rating (GVWR).

Be sure all lights, mirrors and hitch components conform to federal and local regulations.

Be sure that all driving lights are operational.

Be sure the tires are properly inflated.

Do not tow the machine unless the boom is lowered into the chassis cradle and the hold-down latch is securely locked in place.

Do not load cargo on the machine. The TZ is not designed to carry any extra cargo.

Be sure the safety chains (if required) are securely attached to the tow vehicle.

Do not tow the machine on public roads unless it meets all governmental regulations for towing.

Do not exceed 60 mph / 97 km/h. Obey all local and national towing speed laws.

Be sure to chock the wheels of the trailer when parking on a hill.

## Decal Legend

Genie product decals use symbols, color coding and signal words to identify the following:



Safety alert symbol—used to alert personnel to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

**⚠DANGER** Red—used to indicate the presence of an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**⚠WARNING** Orange—used to indicate the presence of a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**⚠CAUTION** Yellow with safety alert symbol—used to indicate the presence of a potentially hazardous situation which, if not avoided, may cause minor or moderate injury.

**CAUTION** Yellow without safety alert symbol—used to indicate the presence of a potentially hazardous situation which, if not avoided, may result in property damage.

**NOTICE** Green—used to indicate operation or maintenance information.

SAFETY RULES

## Battery Safety

### Burn Hazards

Batteries contain acid. Always wear protective clothing and eyewear when working with batteries.





Avoid spilling or contacting battery acid. Neutralize battery acid spills with baking soda and water.

### Explosion Hazards



Keep sparks, flames and lighted tobacco away from batteries. Batteries emit an explosive gas.

The covers should be open during the entire charging cycle.

Do not contact the battery terminals or the cable clamps with tools that may cause sparks.

### Component Damage Hazards

Do not use any battery charger greater than 24V to charge the batteries.

Do not expose the batteries or the charger to water or rain.

### Electrocution Hazards

Connect the battery charger to a grounded, AC 3-wire electrical outlet only.



Inspect daily for damaged cord, cables and wires. Replace damaged items before operating.

Avoid electrical shock from contact with battery terminals. Remove all rings, watches and other jewelry.

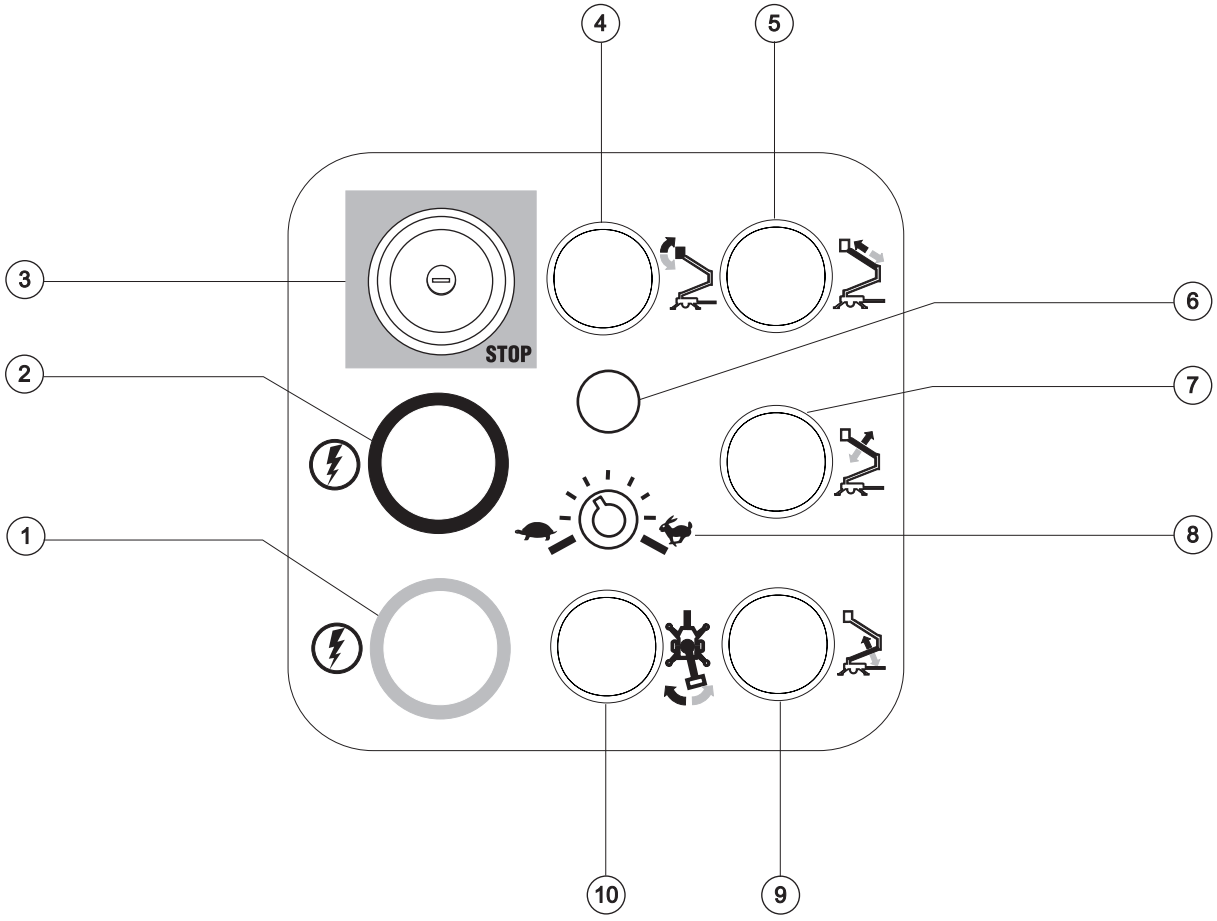
### Tip-over Hazard

Do not use batteries that weigh less than the original equipment. Four batteries are used as counterweight and are critical to machine stability. Each battery must weigh 65 pounds / 29.5 kg.

### Lifting Hazard

Use the appropriate number of people and proper lifting techniques when lifting batteries.

# Controls




**Platform Control Panel**

1 Function enable button for:
- Platform down
- Primary boom down
- Primary boom retract
- Secondary boom down
- Turntable rotate left

2 Function enable button for:
- Platform up
- Primary boom up
- Primary boom extend
- Secondary boom up
- Turntable rotate right

3 Red Emergency Stop button

4 Platform level button

5 Primary boom extend/retract button

6 Not used

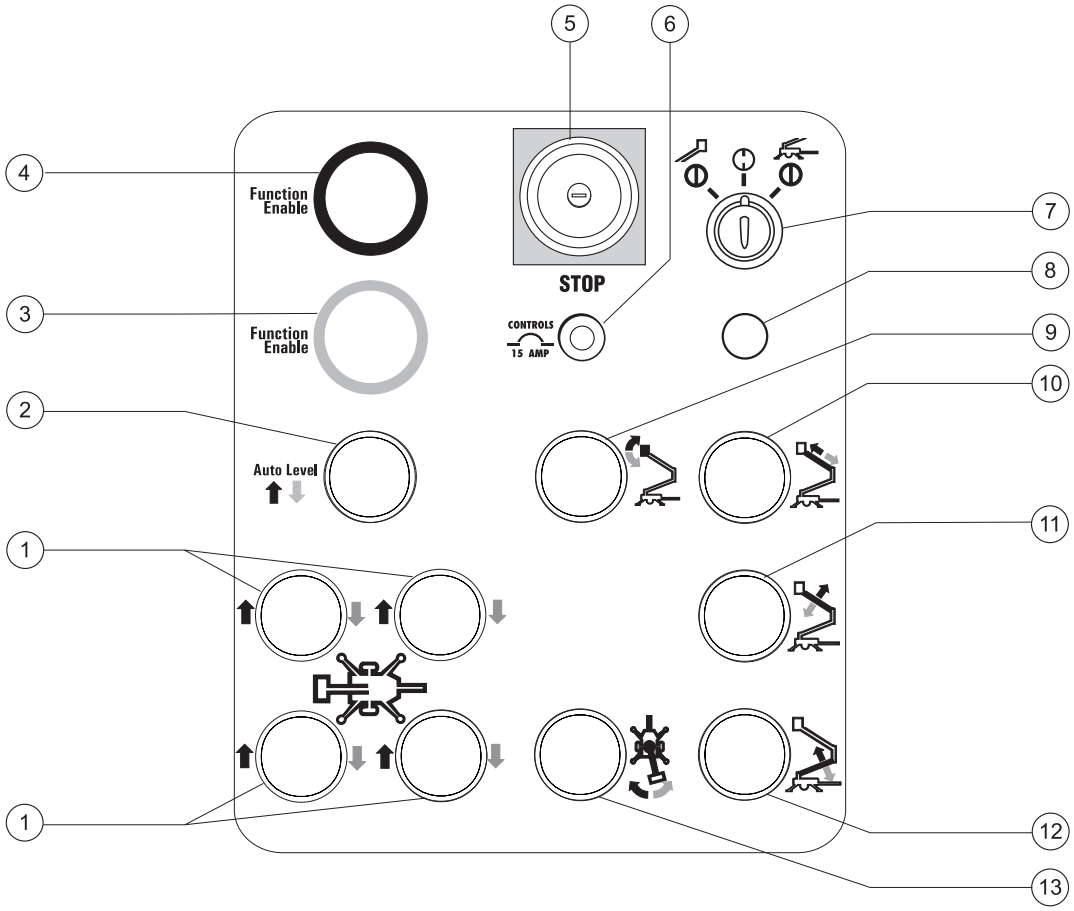
7 Primary boom up/down button

8 Boom function speed controller

9 Secondary boom up/down button

10 Turntable rotate button

CONTROLS




**Ground Control Panel**

1 Outrigger raise/lower button

2 Outrigger auto level button

3 Function enable button for:
Platform down
Primary boom down
Primary boom retract
Secondary boom down
Turntable rotate left
Outrigger lower

4 Function enable button for:
Platform up
Primary boom up
Primary boom extend
Secondary boom up
Turntable rotate right
Outrigger raise

5 Red Emergency Stop button

6 15 amp breaker for controls circuits

7 Key switch for ground/off/platform selection

8 Not used

9 Platform level button

10 Primary boom extend/retract button

11 Primary boom up/down button

12 Secondary boom up/down button

13 Turntable rotate button

# Pre-operation Inspection



## Do Not Operate Unless:

☑ You learn and practice the principles of safe machine operation contained in this operator's manual.

1 Avoid hazardous situations.

**2 Always perform a pre-operation inspection.**

**Know and understand the pre-operation inspection before going on to the next section.**

3 Always perform function tests prior to use.

4 Inspect the workplace.

5 Only use the machine as it was intended.

## Fundamentals

It is the responsibility of the operator to perform a pre-operation inspection and routine maintenance.

The pre-operation inspection is a visual inspection performed by the operator prior to each work shift. The inspection is designed to discover if anything is apparently wrong with a machine before the operator performs the function tests.

The pre-operation inspection also serves to determine if routine maintenance procedures are required. Only routine maintenance items specified in this manual may be performed by the operator.

Refer to the list on the next page and check each of the items.

If damage or any unauthorized variation from factory delivered condition is discovered, the machine must be tagged and removed from service.

Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications. After repairs are completed, the operator must perform a pre-operation inspection again before going on to the function tests.

Scheduled maintenance inspections shall be performed by qualified service technicians, according to the manufacturer's specifications and the requirements listed in the responsibilities manual.

PRE-OPERATION INSPECTION

## Pre-operation Inspection

- ❏ Be sure that the operator's, safety and responsibilities manuals are complete, legible and in the storage container located on the platform.
- ❏ Be sure that all decals are legible and in place. See Decals section.
- ❏ Check for hydraulic oil leaks and proper oil level. Add oil if needed. See Maintenance section.
- ❏ Check for battery fluid leaks and proper fluid level. Add distilled water if needed. See Maintenance section.
- ❏ Check for proper tire pressure and lug nut torque. Add air to tires if needed. See Maintenance section.

Check the following components or areas for damage, improperly installed or missing parts and unauthorized modifications:

- ❏ Electrical components, wiring and electrical cables
- ❏ Hydraulic power unit, reservoir, hoses, fittings, cylinders and manifolds
- ❏ Boom components and wear pads
- ❏ Tires and wheels
- ❏ Trailer lights and reflectors
- ❏ Parking brake components
- ❏ Outriggers and foot pads
- ❏ Limit switch and alarms
- ❏ Nuts, bolts and other fasteners
- ❏ Platform entry mid-rail/gate
- ❏ Surge brake components
- ❏ Safety chains (if required)
- ❏ Light and brake cables
- ❏ Mechanical brake components (if equipped)
- ❏ Axle components
- ❏ Beacon and alarms (if equipped)

Check entire machine for:

- ❏ Cracks in welds or structural components
- ❏ Dents or damage to machine

- ❏ Be sure that all structural and other critical components are present and all associated fasteners and pins are in place and properly tightened.
- ❏ Be sure that the batteries are in place and properly connected.
- ❏ Models equipped with hydraulic surge brake systems:
  Check the hydraulic oil level in the surge brake. Check for leaks.
- ❏ After you complete your inspection, be sure that all compartment covers are in place and latched.

# Maintenance



## Observe and Obey:

☑ Only routine maintenance items specified in this manual shall be performed by the operator.

☑ Scheduled maintenance inspections shall be completed by qualified service technicians, according to the manufacturer's specifications and the requirements specified in the responsibilities manual.

**Maintenance Symbols Legend**

**NOTICE** The following symbols have been used in this manual to help communicate the intent of the instructions. When one or more of the symbols appear at the beginning of a maintenance procedure, it conveys the meaning below.



Indicates that tools will be required to perform this procedure.



Indicates that new parts will be required to perform this procedure.

## Check the Batteries



Proper battery condition is essential to good machine performance and operational safety. Improper fluid levels or damaged cables and connections can result in component damage and hazardous conditions.

**NOTICE** This procedure does not need to be performed on machines with sealed or maintenance-free batteries

**⚠WARNING** Electrocution hazard. Contact with hot or live circuits could result in death or serious injury. Remove all rings, watches and other jewelry.

**⚠WARNING** Bodily injury hazard. Batteries contain acid. Avoid spilling or contacting battery acid. Neutralize battery acid spills with baking soda and water.

1 Put on protective clothing and eye wear.

2 Be sure that the battery cable connections are tight and free of corrosion.

3 Be sure that the battery hold-down brackets are secure.

4 Remove the battery vent caps.

5 Check the battery acid level. If needed, replenish with distilled water to the bottom of the battery fill tube. Do not overfill.

6 Install the vent caps.

## Check the Tires and Wheels

**⚠WARNING** Bodily injury hazard. An over-inflated tire can explode and may cause death or serious injury.

**⚠WARNING** Collision hazard. An excessively worn tire can cause poor handling and continued use could result in tire failure.

**⚠WARNING** Tip-over hazard. Do not use temporary flat tire repair products.

Maintaining the tires and wheels in good condition is essential to safe operation and good performance. Tire and/or wheel failure could result in a machine tip-over. Component damage may also result if problems are not discovered and repaired in a timely fashion.

1 Check the tire surface and sidewalls for cuts, cracks, punctures and uneven or excessive tread wear.

⊙ Result: Replace the tire if uneven or excessive tread wear is found.

**NOTICE** Tires and wheels must be replaced with tires and wheels of the specifications listed.

2 Check each wheel for damage, bends and cracks.

⊙ Result: Replace the wheel if any damage is found.

3 Check each tire with an air pressure gauge and add air as needed.

4 Check the torque of each lug nut.

**Tires and wheels - ANSI & CSA**

| | | |
|---|---|---|
| Tire size | | ST205/75 R14 Load Range C |
| Lug nut torque (dry) | 100 ft-lbs | 135 Nm |
| Tire pressure (cold) | 50 psi | 3.4 bar |

## Check the Hydraulic Oil Level

Maintaining the hydraulic oil at the proper level is essential to machine operation. Improper hydraulic oil levels can damage hydraulic components. Daily checks allow the inspector to identify changes in oil level that might indicate the presence of hydraulic system problems.

1 Be sure the boom is in the stowed position and the outriggers are raised.

2 Remove the cap from the hydraulic tank and check the dipstick.

⊙ Result: The hydraulic oil level should be at the mark on the dipstick.

**Hydraulic oil specifications**

| | |
|---|---|
| Hydraulic oil type | Chevron Rykon Premium MV equivalent |

## Scheduled Maintenance

Maintenance performed quarterly, annually, semi-annually and every two years must be completed by a person trained and qualified to perform maintenance on this machine according to the procedures found in the service manual for this machine.

Machines that have been out of service for more than three months must receive the quarterly inspection before they are put back into service.

# Function Tests



## Do Not Operate Unless:

☑ You learn and practice the principles of safe machine operation contained in this operator's manual.

1 Avoid hazardous situations.

2 Always perform a pre-operation inspection.

**3 Always perform function tests prior to use.**

**Know and understand the function tests before going on to the next section.**

4 Inspect the workplace.

5 Only use the machine as it was intended.

## Fundamentals

The function tests are designed to discover any malfunctions before the machine is put into service. The operator must follow the step-by-step instructions to test all machine functions.

A malfunctioning machine must never be used. If malfunctions are discovered, the machine must be tagged and removed from service. Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications.

After repairs are completed, the operator must perform a pre-operation inspection and function tests again before putting the machine into service.

FUNCTION TESTS

## Setup

1 Position the machine below the desired work area.

2 Set the parking brake.

3 Disconnect the trailer lights, safety chains and brake cables from the vehicle.

4 Open the latch on the ball coupler.

5 Pull the jack release handle and rotate the tongue jack to the lifting position.

6 Raise the tongue by turning the jack handle.

7 Be sure the boom hold-down latch is unlatched.

8 Be sure the batteries are connected.

## At the Ground Controls

9 Insert the key and turn to ground control.

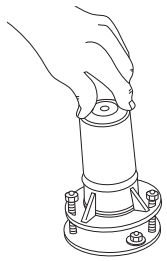
10 Pull out the red Emergency Stop button to the on position.

11 **Auto level:** Push and hold the yellow function enable button. Push and hold the auto level button. The outriggers will lower and adjust to level the machine and raise the wheels slightly off the ground. Level the machine using only the outriggers. Use the bubble level to make sure the machine is level.

**Manual level:** Push and hold the yellow function enable button. Push and hold each outrigger button to lower the outriggers. Adjust the outriggers to level the machine and raise the wheels slightly off the ground. Level the machine using only the outriggers. Use the bubble level to make sure the machine is level.

**Test the Tilt Sensor**

12 Locate the tilt sensor next to the forklift pocket on the side of the machine opposite the ground controls.



13 Press down one side of the tilt sensor.

⊙ Result: The alarm should sound.

**Test Emergency Stop**

14 Push in the red Emergency Stop button to the off position.

⊙ Result: All ground and platform control functions should not operate.

15 Pull out the red Emergency Stop button to the on position.

**Test Boom Functions and Function Enable**

16 Do not push a function enable button. Attempt to activate each boom function button.

⊙ Result: All boom functions should not operate.

17 Push and hold the blue function enable button. Activate each boom function button.

⊙ Result: Primary boom up, primary boom extend, secondary boom up, platform level up and turntable rotate right should all function.

18 Push and hold the yellow function enable button. Activate each boom function button.

⊙ Result: Primary boom down, primary boom retract, secondary boom down, platform level down and turntable rotate left should all function.

**Test Outrigger Interlock**

19 Place the boom in the stowed position.

20 Push and hold the blue function enable button. Push and hold one outrigger button and raise the outrigger off the ground.

21 Push and hold the blue function enable button and activate each boom function.

⊙ Result: All boom functions should not operate.

22 Use the leveling buttons to lower the outrigger.

23 Repeat this procedure for each outrigger.

24 Use the function enable buttons and the auto level button or the outrigger leveling buttons to make sure the machine is level.

25 Raise the platform approximately 2 feet / 60 cm.

26 Push and hold the blue function enable button and attempt to raise each outrigger off the ground.

⊙ Result: The outriggers should not raise.

## At the Platform Controls

27 Turn the key switch to platform control.

28 Pull out the platform red Emergency Stop button to the on position.

**Test Emergency Stop**

29 Push in the platform red Emergency Stop button to the off position.

⊙ Result: All platform control functions should not operate.

30 Pull out the platform red Emergency Stop button to the on position.

**Test Boom Functions and Function Enable**

31 Do not push a function enable button. Attempt to activate each boom function button.



⊙ Result: All boom functions should not operate.

32 Push and hold the blue function enable button. Activate each boom function button.

⊙ Result: Primary boom up, primary boom extend, secondary boom up, platform level up and turntable rotate right should all function.

33 Push and hold the yellow function enable button. Activate each boom function button.

⊙ Result: Primary boom down, primary boom retract, secondary boom down, platform level down and turntable rotate left should all function.

# Workplace Inspection



## Do Not Operate Unless:

☑ You learn and practice the principles of safe machine operation contained in this operator's manual.

1 Avoid hazardous situations.

2 Always perform a pre-operation inspection.

3 Always perform function tests prior to use.

**4 Inspect the workplace.**

**Know and understand the workplace inspection before going on to the next section.**

5 Only use the machine as it was intended.

## Fundamentals

The workplace inspection helps the operator determine if the workplace is suitable for safe machine operation. It should be performed by the operator prior to moving the machine to the workplace.

It is the operator's responsibility to read and remember the workplace hazards, then watch for and avoid them while moving, setting up and operating the machine.

## Workplace Inspection

Be aware of and avoid the following hazardous situations:

- drop-offs or holes
- bumps, floor obstructions or debris
- slopes that exceed the machine's leveling capability
- unstable or slippery surfaces
- overhead obstructions and high voltage conductors
- hazardous locations
- inadequate surface support to withstand all load forces imposed by the machine
- wind and weather conditions
- the presence of unauthorized personnel
- other possible unsafe conditions

# Operating Instructions



## Do Not Operate Unless:

☑ You learn and practice the principles of safe machine operation contained in this operator's manual.

1 Avoid hazardous situations.

2 Always perform a pre-operation inspection.

3 Always perform function tests prior to use.

4 Inspect the workplace.

**5 Only use the machine as it was intended.**

## Fundamentals

The Operating Instructions section provides instructions for each aspect of machine operation. It is the operator's responsibility to follow all the safety rules and instructions in the operator's, safety and responsibilities manuals.

Using the machine for anything other than lifting personnel, along with their tools and materials, to an aerial work site is unsafe and dangerous.

Only trained and authorized personnel should be permitted to operate a machine. If more than one operator is expected to use a machine at different times in the same work shift, they must all be qualified operators and are all expected to follow all safety rules and instructions in the operator's, safety and responsibilities manuals. That means every new operator should perform a pre-operation inspection, function tests and a workplace inspection before using the machine.

OPERATING INSTRUCTIONS

## Emergency Stop

Push in the red Emergency Stop button to the off position at the ground or platform controls to stop all machine functions.

Repair any function that operates when the red Emergency Stop button is pushed in.

Selecting and operating the ground controls will override the platform red Emergency Stop button.

## Setup

Make sure the machine is properly set up and tested. See Function Tests section.

## Operation from Ground

1 Turn the key switch to ground control.

2 Pull out the red Emergency Stop button to the on position.

3 Press and hold the yellow function enable button. Press and hold the auto level button or the individual outrigger buttons to lower the outriggers and level the machine.

4 Check the bubble level to make sure the machine is level.

**To Position Platform**

1 Push and hold the appropriate function enable button.

2 Push and hold the coordinating boom function button according to the markings on the control panel.

## Operation from Platform

1 Turn the key switch to platform control.

2 Pull out both ground and platform red Emergency Stop buttons to the on position.

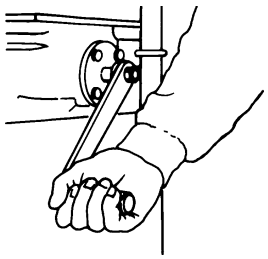
**To Position Platform**



1 Push and hold the appropriate function enable button.

2 Push and hold the coordinating boom function button according to the markings on the control panel.

3 If equipped: Rotate the platform by turning the hand crank in either a clockwise or counterclockwise direction.



## Fall Protection

Personal fall protection equipment (PFPE) is required when operating this machine.

All PFPE must comply with applicable governmental regulations, and must be inspected and used in accordance with the PFPE manufacturer's instructions.

## Manual Operation of Functions

All boom functions can be operated with the hand pump located on top of the power unit cover.

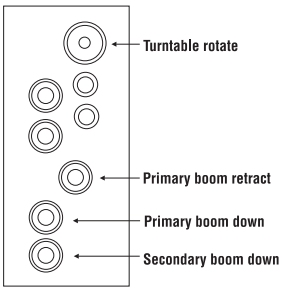
Manifold valves are located under the manifold cover on both sides of the machine.

**To Lower and Retract Boom**

1 Open the valve completely by turning clockwise.

2 Operate the hand pump.

3 Close the valve completely by turning counterclockwise.




Note: The machine will not operate unless the valves are closed.

**Manual Turntable Rotate**

1 Open the valve completely by turning counterclockwise.

2 Push the turntable in the desired direction.

3 Close the valve completely by turning clockwise.

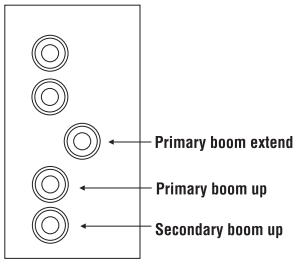
Note: The machine will not operate unless the valves are closed.

**To Raise and Extend Boom**

1 Open the valve completely by turning clockwise.

2 Operate the hand pump.

3 Close the valve completely by turning counterclockwise.




Note: The machine will not operate unless the valves are closed.

## After Each Use

1 Rotate the turntable so that the platform is opposite the tongue of the machine.

2 Lower the boom into the mast cradle.

3 Secure the boom with the hold-down latch.

4 Turn the key switch to the off position and remove the key to secure from unauthorized use.

5 Charge the batteries.

## Storage

1 Make sure the boom is properly stowed and the hold-down latch is secured.

2 Raise and stow the outriggers.

3 Select a safe parking location—firm level surface, clear of obstructions and traffic.

4 Turn the key switch to the off position and remove the key to secure from unauthorized use.

5 Chock the wheels.

6 Charge the batteries.

OPERATING INSTRUCTIONS

## Moving Machine Without a Tow Vehicle

Use the parking brake to control the speed of the machine when pushing a machine that is not attached to a tow vehicle.

## Backing Up with Trailer (if equipped with hydraulic surge brake)

If your machine is equipped with a hydraulic surge brake, the system must be released before backing up.

Consult the surge brake system manual for specific instructions on each surge brake.

Be sure that the machine is returned to towing or operating configuration when finished.

## Towing

1 Set the parking brake.

2 Secure the boom with the hold-down latch.

4 Raise the tongue by turning the jack handle.

5 Position the ball of the transport vehicle directly under the ball coupler.

6 Open the latch on the ball coupler.

7 Lower the tongue by turning the jack handle.

8 Close the latch on the ball coupler.

9 Attach the safety chains (if required) and the brake cables to the vehicle.

10 Pull the jack release handle and rotate the tongue jack to the stowed position.

11 Connect and test the trailer lights.

12 Release the parking brake.

## Towing Information

**Driving a vehicle that is pulling a trailer is different from driving a vehicle alone. Read the following instructions carefully.**

Use the checklist on the back cover of this manual before towing and while on the road. Inspect all connections at each stop.

All tires must be properly inflated. Find the recommended cold tire pressures on the tire sidewall or trailer decal. Do not overinflate the tires. Tire pressures go up during driving. Checking the tire pressure when the tires are warm will give you an inaccurate pressure reading.

Increase the distance between your vehicle and the vehicle in front of you to twice the normal following distance when towing a trailer. Allow more following distance in adverse weather.

Slow down for downgrades and shift your transmission into a lower gear.

Slow down for curves, hazardous road conditions, freeway exits, and when driving in adverse weather.

When passing other vehicles, be sure to leave enough room for the extra length of the trailer. You will need to go much farther beyond the passed vehicle before you can return to your lane.

When turning with a trailer, avoid jerky or sudden movements.

Heavy winds, excessive speed, load shifting or passing vehicles can cause the trailer to sway while driving. If this occurs, do not brake, speed up or turn the steering wheel. Turning the steering wheel or applying the brakes can cause the vehicle and trailer to jackknife. Let up on the gas pedal and keep the steering wheel straight.

If the vehicle and/or trailer travels off the paved road, hold the steering wheel firmly and let up on the gas pedal. Do not apply the brakes. Do not turn sharply. Slow down to under 25 mph / 40 km/h. Gradually turn the steering wheel to get back on the road. Proceed with caution when entering traffic.



## Battery and Charger Instructions

## Observe and Obey:

- ☑ Do not use an external charger or booster battery.
- ☑ Charge the battery in a well-ventilated area.
- ☑ Use the proper AC input voltage for charging as indicated on the charger.
- ☑ Use only a Genie authorized battery and charger.

## To Charge Battery

1 Be sure the batteries are connected before charging the batteries.

2 Open the battery box covers. The covers should remain open for the entire charging cycle.

3 Remove the battery vent caps and check the battery acid level. If necessary, add only enough distilled water to cover the plates. Do not overfill prior to the charge cycle.

4 Replace the battery vent caps.

5 Connect the battery charger to a grounded AC circuit.

6 Turn the battery charger on.

7 The charger will indicate when the battery is fully charged.

8 Check the battery acid level when the charging cycle is complete. Replenish with distilled water to the bottom of the fill tube. Do not overfill.

## Dry Battery Filling and Charging Instructions

1 Remove the battery vent caps and permanently remove the plastic seal from the battery vent openings.

2 Fill each cell with battery acid (electrolyte) until the level is sufficient to cover the plates.

Do not fill to maximum level until the battery charge cycle is complete. Overfilling can cause the battery acid to overflow during charging. Neutralize battery acid spills with baking soda and water.

3 Install the battery vent caps.

4 Charge the battery.

5 Check the battery acid level when the charging cycle is complete. Replenish with distilled water to the bottom of the fill tube. Do not overfill.

# Transport and Lifting Instructions

## Observe and Obey:

- ☑ The transport vehicle must be parked on a level surface.
- ☑ The transport vehicle must be secured to prevent rolling while the machine is being loaded.
- ☑ Be sure the vehicle capacity, loading surfaces and chains or straps are sufficient to withstand the machine weight. See the serial plate for the machine weight.

## Securing to Truck or Trailer for Transit

Fully lower and retract the boom. Make sure the boom rests in the cradle on the chassis.

Securely latch the boom hold-down latch.

Raise all four outriggers to the stowed position.

Always chock the machine wheels in preparation for transport.

Turn the key switch to the off position and remove the key before transporting.

Inspect the entire machine for loose or unsecured items.

**Securing the Chassis and Boom**

Place a block under the tongue.

Place a block on both sides of the axle.

Use the tie-down points on the chassis for anchoring down to the transport surface.

Use chains or straps of ample load capacity.

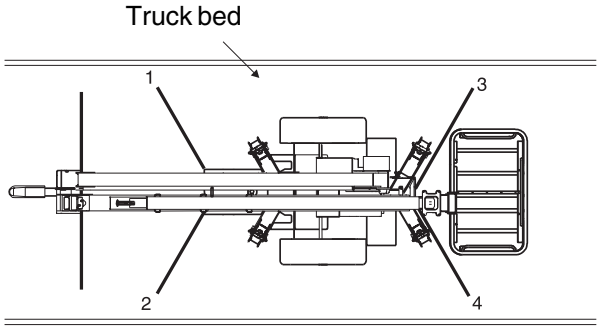
Use a minimum of 4 chains to secure the chassis.

Adjust the rigging to prevent damage to the chains.

**Securing the Boom**

Place a block under the secondary boom at the mid-pivot.

Secure the boom with a nylon strap placed over the secondary boom. Do not use excessive downward force when securing the boom section.



## Observe and Obey:

☑ Only qualified riggers should rig and lift the machine.

☑ Be sure the crane capacity, loading surfaces and straps or lines are sufficient to withstand the machine weight. See the serial plate for the machine weight.

## Lifting Instructions

Fully lower and retract the boom. Make sure the boom rests in the cradle on the chassis.

Securely latch the boom hold-down latch.

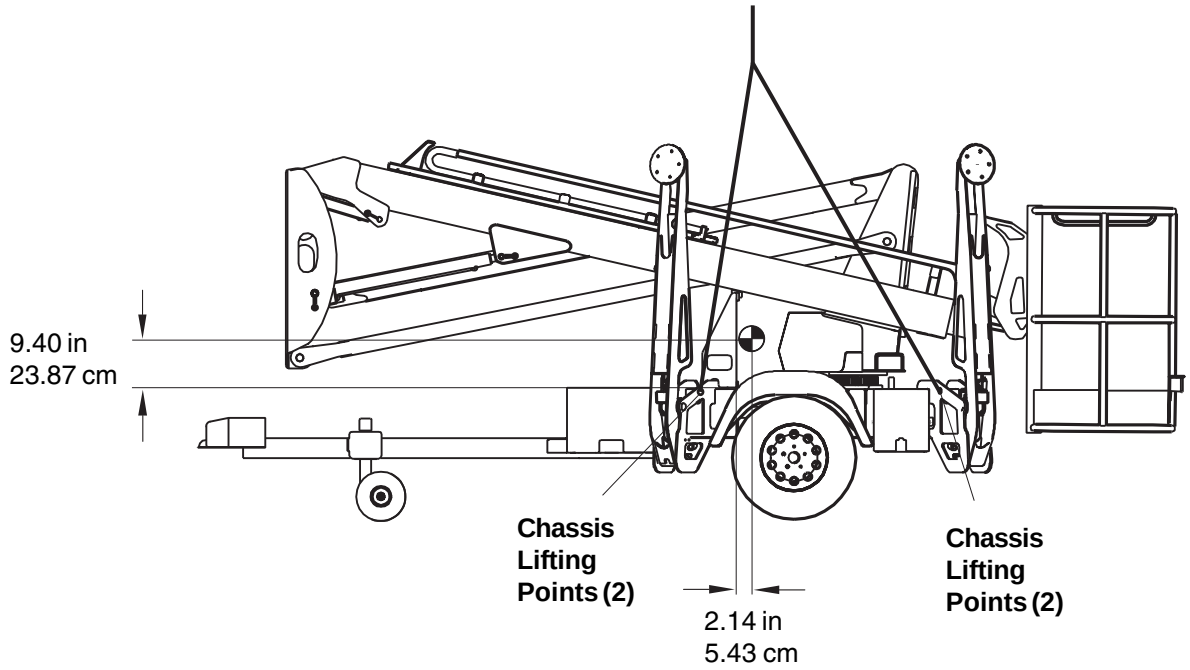
Raise all four outriggers to the stowed position.

Remove all loose items on the machine.

Determine the center of gravity of your machine using the table and the picture on this page.

Attach the rigging only to the designated lifting points on the machine. There are four lifting points on the chassis.

Adjust the rigging to prevent damage to the machine and to keep the machine level.



# Decals

## Decal Inspection

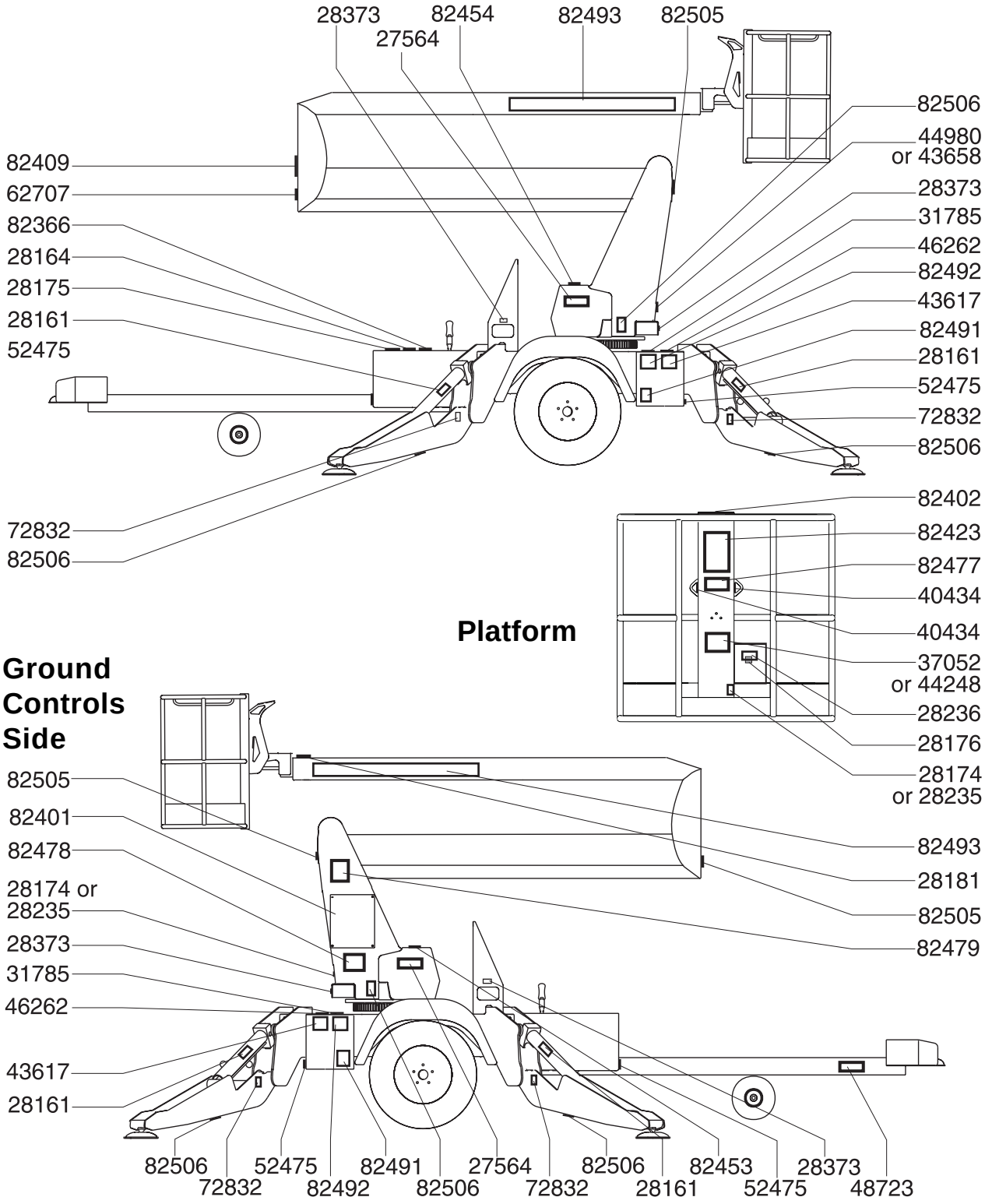
Use the picture on the next page to verify that all decals are legible and in place.

Below is a numerical list with quantities and descriptions.

| Part No. | Description | Quantity |
|---|---|---|
| 27564 | Danger - Electrocution Hazard | 2 |
| 28161 | Warning - Crushing Hazard | 4 |
| 28164 | Notice - Hazardous Materials | 1 |
| 28174 | Label - Power to Platform, 230V | 2 |
| 28175 | Caution - Compartment Access | 1 |
| 28176 | Notice - Missing Manuals | 1 |
| 28181 | Warning - No Step or Ride | 1 |
| 28235 | Label - Power to Platform, 115V | 2 |
| 28236 | Warning - Failure To Read . . . | 1 |
| 28373 | Label - Forklift Pocket | 4 |
| 31785 | Notice - Battery Charger Operating Instr. | 2 |
| 37052 | Notice - Max Capacity, 500 lbs / 227 kg | 1 |
| 40434 | Label - Lanyard Anchorage | 2 |
| 43617 | Danger - Tip-over (batteries) | 2 |
| 43658 | Label - Power to Battery Charger, 230V | 1 |
| 44248 | Notice - Max Capacity, 440 lbs / 200 kg | 1 |
| 44980 | Label - Power to Battery Charger, 115V | 1 |
| 46262 | Danger - Battery/Charger Safety | 2 |
| 48723 | Label - Parking Brake, ANSI | 1 |

| Part No. | Description | Quantity |
|---|---|---|
| 52475 | Label - Transport Tie-down | 4 |
| 62707 | Warning - Towing Hazard | 1 |
| 72832 | Danger - Tip-over Hazard | 4 |
| 82366 | Label - Chevron Rykon | 1 |
| 82401 | Ground Control Panel | 1 |
| 82402 | Platform Control Panel | 1 |
| 82409 | Warning - Transport Instructions | 1 |
| 82423 | Danger - General Safety, Platform | 1 |
| 82453 | Label - Manual Operating Valves | 1 |
| 82454 | Label - Manual Operating Valves | 1 |
| 82477 | Notice - Operating Instructions, Platform | 1 |
| 82478 | Notice - Operating Instructions, Ground | 1 |
| 82479 | Danger - General Safety, Ground | 1 |
| 82491 | Notice - Tire Specifications, ANSI & CSA | 2 |
| 82492 | Notice - Battery Connection Diagram | 2 |
| 82493 | Cosmetic, Genie TZ-34/20 | 2 |
| 82505 | Danger - Crushing Hazard, Elevated Components | 2 |
| 82506 | Caution - Foot Crushing Hazard | 6 |

DECALS


28373
82454
27564
82493
82505
82506
44980
or 43658
28373
31785
46262
82492
43617
82491
28161
52475
72832
82506
82409
62707
82366
28164
28175
28161
52475
72832
82506
82402
82423
82477
40434
40434
37052
or 44248
28236
28176
28174
or 28235
Platform
Ground
Controls
Side
82505
82401
82478
28174 or
28235
28373
31785
46262
43617
28161
82493
28181
82505
82479
82506
72832
52475
82492
82491
82506
27564
72832
82506
28161
82453
52475
28373
48723

# Specifications

| | |
|---|---|
| Height, working maximum | 40 ft<br>12.2 m |
| Height, platform maximum | 34 ft<br>10.3 m |
| Height, stowed maximum | 6 ft 5 in<br>1.96 m |
| Horizontal working reach maximum from centerline of machine | 20 ft<br>6.1 m |
| Outrigger footprint (w x l) | 10 ft 9 in x 11 ft 10 in<br>3.3 x 3.6 m |
| Maximum load capacity, ANSI and CSA models without optional platform rotate | 500 lbs<br>227 kg |
| Maximum load capacity, ANSI and CSA models with optional platform rotate | 440 lbs<br>200 kg |
| Width | 4 ft 10 in<br>1.47 m |
| Length, stowed | 16 ft 8 in<br>5 m |
| Turntable rotation | 359° |
| Platform rotation (option) | 90° |
| Platform dimensions | 44 x 27 in<br>1.1 m x 68 cm |
| Platform leveling | self-leveling |
| Power source | 4 GroupT-105<br>6V 225AH Batteries |
| AC outlet in platform | standard |
| Tire size<br>ANSI & CSA models | ST205/75 R14<br>Load Range C |

**Continuous improvement of our products is a Genie policy. Product specifications are subject to change without notice or obligation.**

| | |
|---|---|
| Ground clearance | 10 in<br>25.4 cm |
| Weight<br>(Machine weights vary with option configurations) | See Serial Plate |
| Maximum towing speed | 60 mph<br>97 km/h |
| Maximum tongue weight<br>ANSI & CSA | 315 lbs<br>136 kg |
| Airborne noise emissions<br>Maximum sound level at normal operating workstations (A-weighted) | 70 dB |

**Floor Loading Information (ANSI & CSA)**

| | | |
|---|---|---|
| GVW | 3150 lbs | 1429 kg |
| Axle load, maximum (GVW only) | 2850 lbs | 1293 kg |
| Wheel load, maximum (GVW only) | 1425 lbs | 646.3 kg |
| Localized pressure per tire (GVW only) | 37 psi | 2.6 kg/cm$^2$<br>255 kPa |
| Localized pressure per outrigger (including rated load) | 44 psi | 3.1 kg/cm$^2$<br>303.3 kPa |
| Outrigger load, maximum (including rated load) | 1935 lbs | 877 kg |

Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.

# Reporting Safety Defects

**Genie Industries**
**PO Box 97030**
**Redmond, WA 98073-9730**

## Reporting Safety Defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to Genie Industries.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in any individual problems between you, your dealer or Genie Industries.

To contact NHTSA you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (366-0123 in Washington DC area) or write to:

**NHTSA**
**U.S. Department of Transportation**
**400 7th Street SW, (NSA-11)**
**Washington DC 20590**

You can also obtain information about motor vehicle safety from the Hotline.

# Towing Checklist
(Use at each stop)

| | |
|---|---|
| **Before Towing** | ☐ Boom hold-down latch is securely locked in place<br>☐ Towing hitch is properly secured to tow vehicle<br>☐ Safety chains (if required) are properly attached and secure (chains are crossed below hitch)<br>☐ All lights are connected and working<br>☐ Tires are properly inflated |
| **Before Driving** | ☐ Fasten safety restraints<br>☐ Properly adjust mirrors |
| **On The Road** | ☐ Do not exceed 60 mph / 97 km/h. Obey all local and national towing speed laws<br>☐ Check connections and tire pressure at each stop<br>☐ Slow down for hazardous conditions<br>☐ Allow extra distance for following and passing other vehicles |

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