

**Genie Industries**

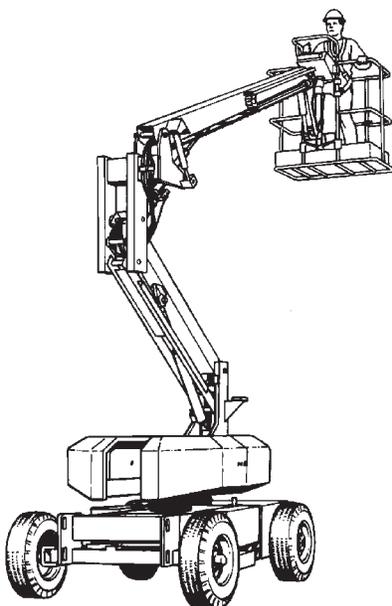


Incorrect operation can result from use of this manual on machines that have not been updated according to Genie Campaign Bulletin 070001. Death or Serious Injury can result.

This manual only applies to machines that have been updated according to Genie Campaign Bulletin 070001. Contact Genie Industries for information on this bulletin.

# Genie® Z-30/20

## Operator's Manual



Third Edition, Fifth Printing  
Part No. 43062

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## 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



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## Danger

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

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## 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 work place.

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

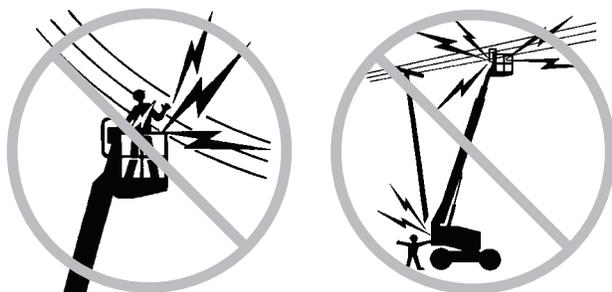
applicable governmental regulations

- 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 and equipment shall not exceed the maximum platform capacity.

<b>Maximum platform capacity</b>	500 lbs	227 kg
<b>Maximum occupants</b>	2	



Do not raise or extend the boom unless the machine is on a firm, level surface.

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

If tilt alarm sounds:

Do not extend, rotate or raise boom above horizontal. Move machine to a firm, level surface before raising platform. If tilt alarm sounds when platform is raised, use extreme caution to retract boom and lower platform. Do not rotate boom while lowering. Move machine to a firm, level surface before raising platform.

Do not alter or disable the limit switch(s).

Do not drive over 0.6 mph (1 km/h) with the primary or the secondary boom raised.

**SAFETY RULES**

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.



Use extreme care and slow speeds while driving the machine in stowed position across uneven terrain, debris, unstable or slippery surfaces and near holes and drop-offs.

Do not drive the machine on a slope that exceeds the maximum uphill, downhill or side slope rating of the machine. Slope rating applies to machines in the stowed position.

**Maximum slope rating, stowed position**

Counterweight uphill	20%	(11°)
Counterweight downhill	20%	(11°)
Side slope	20%	(11°)

Note: Slope rating is subject to ground conditions and adequate traction.

Do not drive the machine on or near uneven terrain, unstable surfaces or other hazardous conditions with the boom raised or extended.

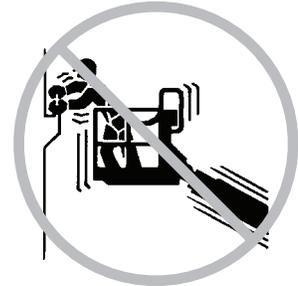
Do not push off or pull toward any object outside of the platform.

**Maximum allowable side force - ANSI & CSA**

150 lbs / 667 N

**Maximum allowable manual force - CE**

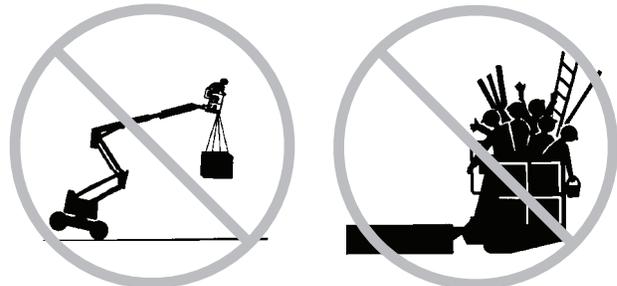
90 lbs / 400 N



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 place or attach overhanging loads to any part of this machine.



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

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

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

## SAFETY RULES

Do not use batteries that weigh less than the original equipment. Batteries are used as counterweight and are critical to machine stability. Each battery must weigh 65 pounds (29.4 kg). Each battery pack including batteries must weigh a minimum of 314 pounds (142 kg).

Do not use the machine as a crane.

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

Do not contact adjacent structures with the boom.

Do not tie the boom or platform to adjacent structures.

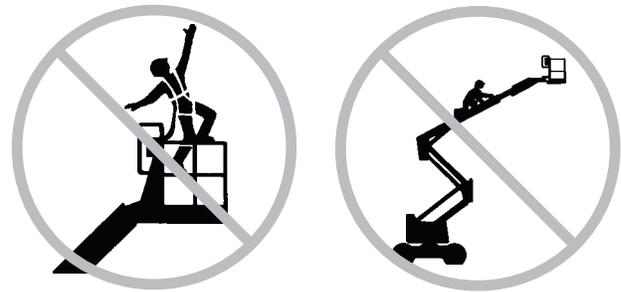
Do not place loads outside the platform perimeter.

### Fall Hazards



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

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

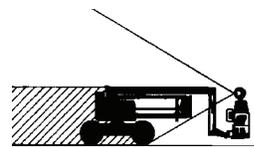


Do not climb down from the platform when raised.

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 limited sight distance and blind spots when driving or operating.

Be aware of boom position when rotating turntable.

Machine must be on level surface or secured before releasing brakes.

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.

**SAFETY RULES**

Do not drive the machine with the brakes released. If the travel alarm sounds when not driving, the brakes are released.

Check work area for overhead obstructions or other possible hazards.



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

It is recommended that operators wear an approved hard hat when operating the machine.

Observe and use color-coded direction arrows on the platform controls and drive chassis for drive and steer functions.

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



Limit travel speed according to condition of ground surface, congestion, slope, location of personnel, and any other factors which may cause collision.

Use extreme care and slow speeds while driving the machine in the stowed position on any slope.

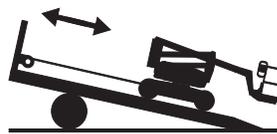
Do not drive on a slope with boom raised.

Do not allow the machine speed on any slope to exceed 3 mph / 4.8 km/h (walking pace).

Stop the machine by returning the drive control handle to the center position or releasing the foot switch.

When stopped on a slope, the machine may initially move slightly downhill when the drive control handle is moved to drive up the slope. Be sure the area behind the machine is clear.

Do not drive on a slope with the wheels turned. Be sure the wheels are aligned up and down the slope.



Always use a winch to load and unload a machine from a transport vehicle.

## SAFETY RULES

## Component Damage Hazard

Do not use machine as a ground for welding.

## 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 *Genie Z-30/20 Service Manual*.

Be sure all decals are in place and legible.

Be sure safety and operator's 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.

## Crushing Hazard

Be aware of primary boom movement when operating the ground controls.



## Decal Legend

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

**▲ DANGER** Red—used to indicate the presence of a hazard that will cause death or serious injury.

**▲ WARNING** Orange—used to indicate the presence of a hazard that may cause death or serious injury.

**▲ CAUTION** Yellow—used to indicate the presence of a hazard that will or may cause serious injury or damage to the machine.

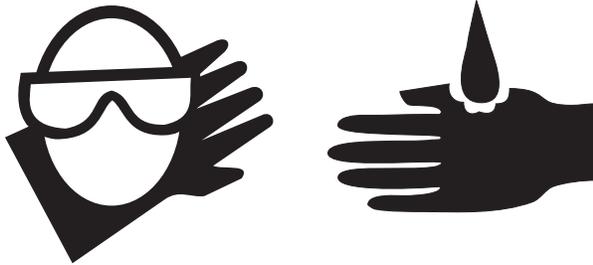
**NOTICE** Green—used to indicate operation or maintenance information.

## 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.

Battery pack must remain in upright position.

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

### Explosion Hazards



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

The battery pack cover must remain off 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 48V to charge the batteries.

Both battery packs must be charged together.

Disconnect the battery pack plug before removing the battery pack.

### 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.

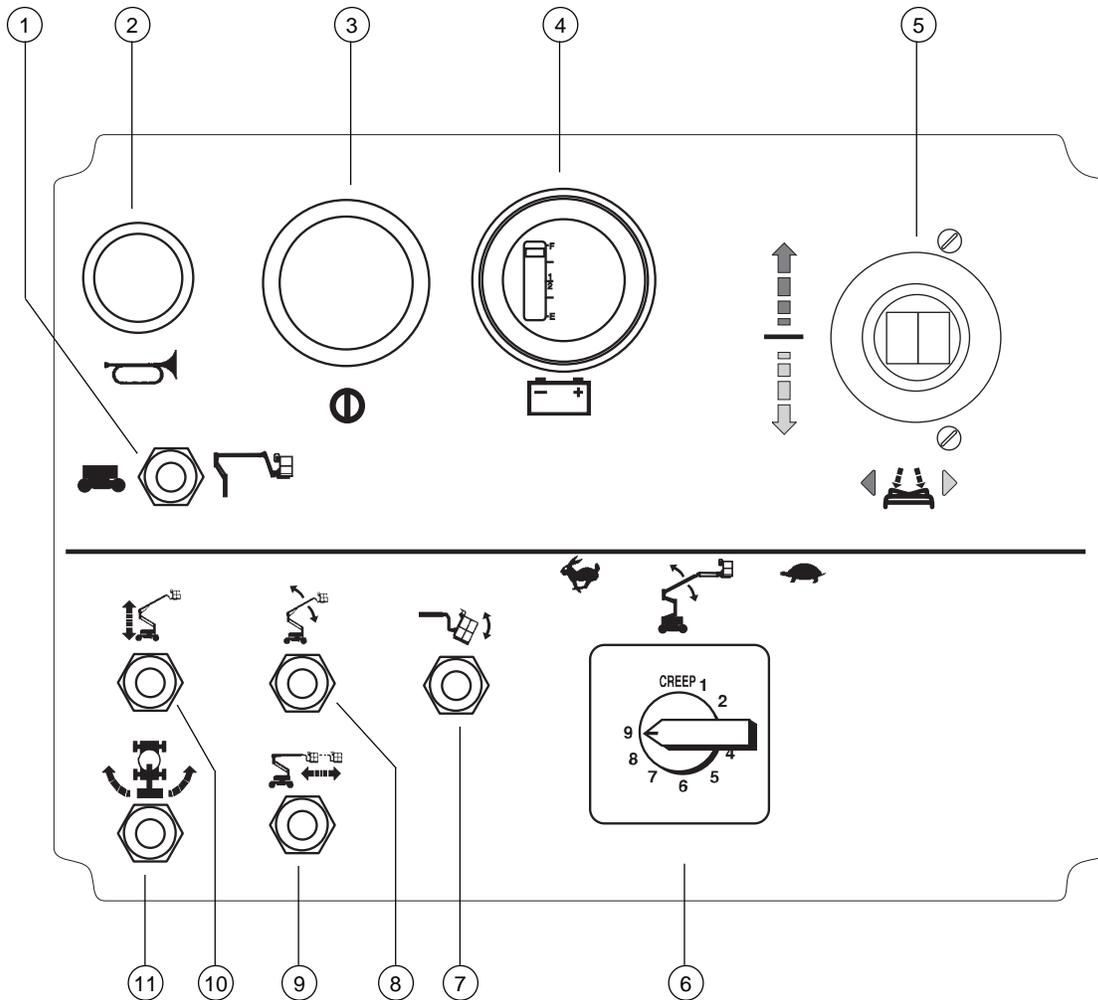
### Tip-over Hazard

Do not use batteries that weigh less than the original equipment. Batteries are used as counterweight and are critical to machine stability. Each battery must weigh 65 pounds (29.4 kg). Each battery pack including batteries must weigh a minimum of 314 pounds (142 kg).

### Lifting Hazard

Use a forklift to remove or install the battery pack(s).

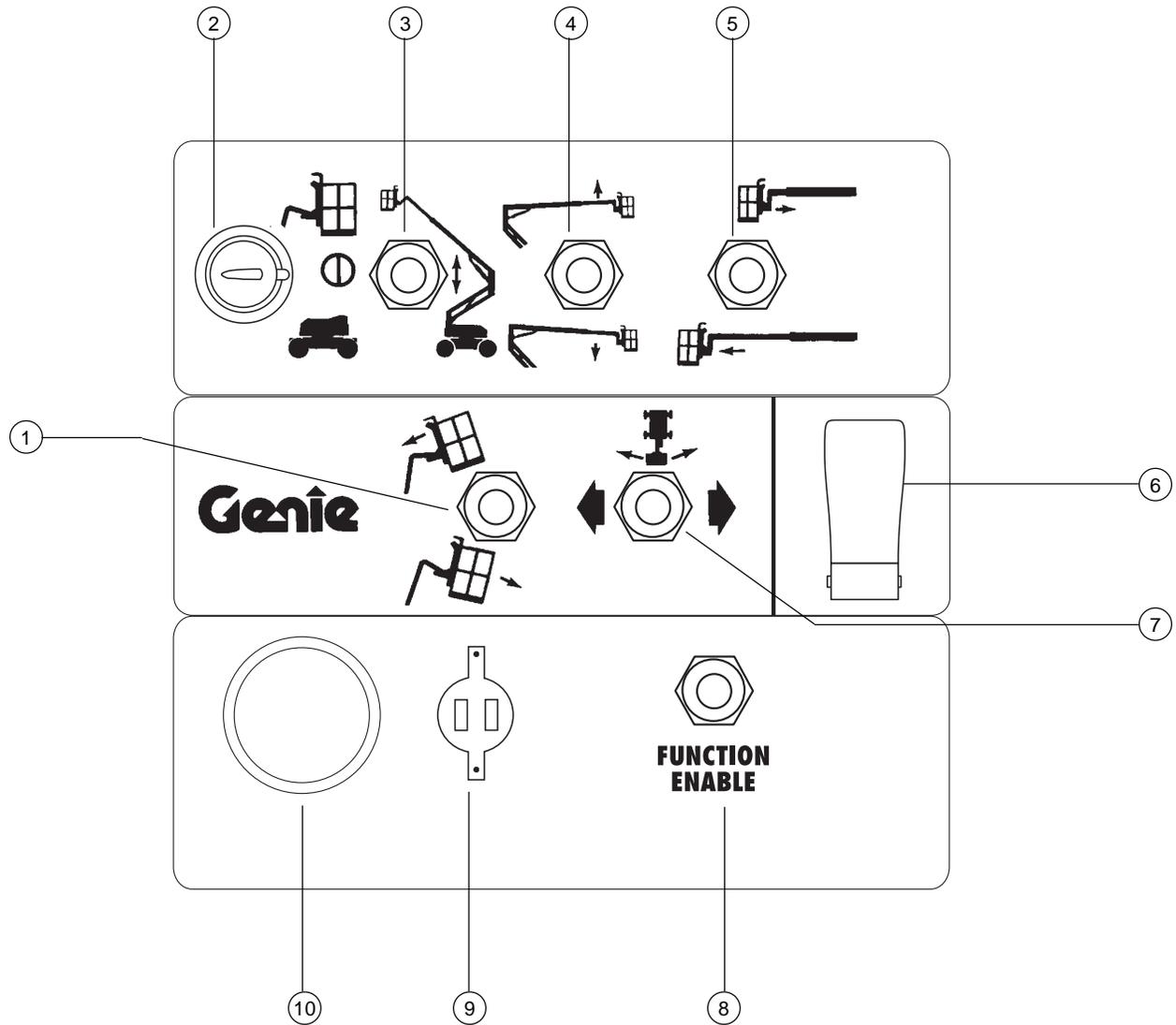
# Controls



## Platform Control Panel

- |  |                                      |
|--|--------------------------------------|
| 1 Lift/Drive select switch (option)  | 7 Platform level switch              |
| 2 Service horn button  | 8 Primary boom up/down switch        |
| 3 Emergency Stop button  | 9 Primary boom extend/retract switch |
| 4 Battery charge indicator   | 10 Secondary boom up/down switch     |
| 5 Proportional control handle for drive function and thumb rocker for steer function | 11 Turntable rotate switch           |
| 6 Boom function speed controller   |                                      |

CONTROLS



**Ground Control Panel**

- |   |  |    |                                  |
|---|--|----|----------------------------------|
| 1 | Platform level switch                        | 6  | Emergency Stop switch with cover |
| 2 | Key switch for platform/off/ground selection | 7  | Turntable rotate switch          |
| 3 | Secondary boom up/down switch                | 8  | Function enable switch           |
| 4 | Primary boom up/down switch                  | 9  | Remote brake release             |
| 5 | Primary boom extend/retract switch           | 10 | Tilt alarm                       |

# Pre-operation Inspection



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## 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 work place.

5 Only use the machine as it was intended.

## Fundamentals

It is the responsibility of the operator to perform a Pre-operation Inspection.

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.

Refer to the list on page 11 and check each of the items and locations for modifications, damage or loose or missing parts.

A damaged or modified machine must never be used. If damage or any 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 manuals.

## PRE-OPERATION INSPECTION

## Pre-operation Inspection

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- Be sure that the operator's, safety and responsibilities manuals are legible and in the storage container located on the platform.
- Be sure that all decals are legible and in place (see Decals, page 25).
- Check the hydraulic power unit oil level. Check for leaks.

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

- Electrical components, wiring and electrical cables
- Hydraulic power unit, reservoir, hoses, fittings, cylinders and manifolds
- Drive and turntable motors and torque hubs
- Boom wear pads
- Tires and wheels
- Limit switches, alarms and horn
- Nuts, bolts and other fasteners
- Platform entry mid-rail/gate
- 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 both battery packs are in place and properly connected.
- After you complete your inspection, be sure that all compartment covers are in place.

# 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 work place.

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.

- 1 Select a test area that is firm, level and free of obstruction.

### At the Ground Controls

- 2 Turn the key switch to ground control.

- 3 Lift the red Emergency Stop switch cover and move the toggle switch to the on position.

- ⦿ Result: The beacon (if equipped) should flash.

### Test the Emergency Stop

- 4 Press down on the red Emergency Stop switch cover to the off position.

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

- 5 Lift the red Emergency Stop switch cover and move the toggle switch to the on position.

### Test the Boom Functions

- 6 Do not hold the function enable switch to either side. Attempt to activate each boom and platform function toggle switch.

- ⦿ Result: All boom and platform functions should not operate.

- 7 Hold the function enable switch to either side and activate each boom and platform function toggle switch.

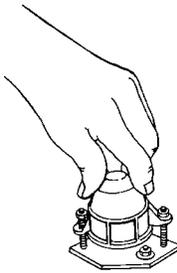
- ⦿ Result: All boom and platform functions should operate through a full cycle. Descent alarm (if equipped) should sound while boom is lowering.

Machines equipped with Platform Level Control Disable Function: The platform level toggle switch will not operate when the primary boom is raised past the drive speed limit switch.

## FUNCTION TESTS

**Test the Tilt Sensor**

- 8 Lift the red Emergency Stop switch cover and move the toggle switch to the on position. Turn the key switch to platform control.
  - 9 Remove the turntable cover on the function manifold side. Locate the tilt sensor next to the printed circuit board on the turntable.
  - 10 Press down one side of the tilt sensor.
- ⦿ Result: The alarm, located in the platform, should sound.

**At the Platform Controls****Test the Emergency Stop**

- 11 Push in the platform red Emergency Stop button to the off position.
- ⦿ Result: All platform control functions should not operate.

**Test the Service Horn**

- 12 Pull out the red Emergency Stop button to the on position.
  - 13 Push the service horn button.
- ⦿ Result: The service horn should sound.

**Test the Foot Switch**

- 14 Do not press down the foot switch. Activate each machine function.
- ⦿ Result: The machine functions should not operate.

**Test the Machine Functions**

- 15 Move the lift/drive select switch to the lift position (if equipped).
  - 16 Press down the foot switch.
  - 17 Activate each machine function control handle or toggle switch.
- ⦿ Result: All boom/platform functions should operate through a full cycle.

Note: Control the speed of boom functions by adjusting the boom function speed controller. Drive and steer functions are not affected by the boom function speed controller.

Machines equipped with Platform Level Control Disable Function: The platform level toggle switch will not operate when the primary boom is raised past the drive speed limit switch.

**Test the Steering**

- 18 Move the lift/drive select switch to the drive position (if equipped).
  - 19 Press down the foot switch.
  - 20 Depress the thumb rocker switch on top of the drive control handle in the direction identified by the blue triangle on the control panel.
- ⦿ Result: The steer wheels should turn in the direction that the blue triangles point on the drive chassis.
- 21 Depress the thumb rocker switch in the direction identified by the yellow triangle on the control panel.
- ⦿ Result: Steer wheels should turn in the direction that the yellow triangles point on the drive chassis.

## FUNCTION TESTS

**Test Drive and Braking**

- 22 Move the lift/drive select switch to the drive position (if equipped).
- 23 Press down the foot switch.
- 24 Slowly move the drive control handle in the direction indicated by the blue arrow on the control panel until the machine begins to move, then return the handle to the center position.
  - ⊙ Result: The machine should move in the direction that the blue arrow points on the drive chassis, then come to an abrupt stop.
- 25 Slowly move the drive control handle in the direction indicated by the yellow arrow on the control panel until the machine begins to move, then return the handle to the center position.
  - ⊙ Result: The machine should move in the direction that the yellow arrow points on the drive chassis, then come to an abrupt stop.

**Test Limited Drive Speed**

- 26 Move the lift/drive select switch to the lift position (if equipped).
- 27 Press down the foot switch.
- 28 Raise the primary boom 1 foot (30 cm).
- 29 Move the lift/drive select switch to the drive position (if equipped).
- 30 Slowly move the drive control handle to the full drive position.
  - ⊙ Result: The maximum achievable drive speed with the primary boom raised should not exceed 40 feet per 45.5 seconds (12.2 meters per 45.5 seconds).
- 31 Move the lift/drive select switch to the lift position (if equipped).
- 32 Lower the primary boom to the stowed position.
- 33 Raise the secondary boom 1 foot (30 cm).
- 34 Move the lift/drive select switch to the lift position (if equipped).
- 35 Slowly move the drive control handle to the full drive position.
  - ⊙ Result: The maximum achievable drive speed with the secondary boom raised should not exceed 40 feet per 45.5 seconds (12.2 meters per 45.5 seconds). If the drive speed with the primary or secondary boom raised exceeds 40 feet per 45.5 seconds (12.2 meters per 45.5 seconds), immediately tag and remove the machine from service.

## FUNCTION TESTS

**Test the Lift/Drive Select Switch (if equipped)**

- 36 Move the lift/drive select switch to the lift position.
- 37 Press down the foot switch.
- 38 Move the drive control handle off center.
  - ⦿ Result: No drive functions should operate.
- 39 Activate each boom function toggle switch.
  - ⦿ Result: All boom functions should operate.
- 40 Move the lift/drive select switch to the drive position.
- 41 Press down the foot switch.
- 42 Activate each boom function toggle switch.
  - ⦿ Result: No boom functions should operate.
- 43 Move the drive control handle off center.
  - ⦿ Result: The drive functions should operate.
- 44 Repair any malfunctions before operating the machine.

# Work Place 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 work place.

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

- 5 Only use the machine as it was intended.

## Fundamentals

The Work Place Inspection helps the operator determine if the work place is suitable for safe machine operation. It should be performed by the operator prior to moving the machine to the work place.

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

## Work Place Inspection

Be aware of and avoid the following hazardous situations:

- Drop-offs or holes
- Bumps, floor obstructions or debris
- 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
- Determine the slope of any surface in the path of travel on the job site

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# Operating Instructions



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## 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 work place.
  - 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 and tools 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 work place inspection before using the machine.

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## OPERATING INSTRUCTIONS

### Emergency Stop

Press down the red Emergency Stop switch cover to the off position to stop all ground and platform control functions. Push in the platform red Emergency Stop button to the off position to stop all platform control functions.

Repair any function that operates from the ground or platform controls when the Emergency Stop switch cover at the ground controls is pressed down.

Repair any function that operates from the platform when the Emergency Stop button at the platform controls is pushed in.

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

Operating the manual controls will override the ground control Emergency Stop switch and the platform control Emergency Stop button.

### Operation from Ground

- 1 Be sure both battery packs are connected before operating the machine.
- 2 Turn the key switch to ground control.
- 3 Lift the red Emergency Stop switch cover and move the toggle switch to the on position.

### To Position Platform

- 1 Hold the function enable switch to either side.
- 2 Move the appropriate toggle switch according to markings on the control panel.

Drive and steer functions are not available from the ground controls.

Machines equipped with Platform Level Control Disable Function: The platform level toggle switch will not operate when the primary boom is raised past the drive speed limit switch.

### Operation from Platform

- 1 Be sure that both battery packs are connected before operating machine.
- 2 At the ground controls: Turn the key switch to platform control and lift the red Emergency Stop switch cover and move the toggle switch to the on position.
- 3 At the platform controls: Pull out the red Emergency Stop button to the on position.

## OPERATING INSTRUCTIONS

**To Position Platform**

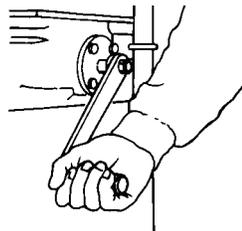
- 1 Set boom function speed controller to desired speed.

Note: Drive and steer functions are not affected by boom function speed controller.

- 2 Move the lift/drive select switch to the lift position (if equipped).
- 3 Press down the foot switch.
- 4 Move the appropriate toggle switch according to the markings on the control panel.

Machines equipped with Platform Level Control Disable Function: The platform level toggle switch will not operate when the primary boom is raised past the drive speed limit switch.

- 5 Rotate the platform by turning the hand crank in either a clockwise or counterclockwise direction.

**To Steer**

- 1 Move the lift/drive select switch to the drive position (if equipped).
- 2 Press down the foot switch.
- 3 Turn the steering wheels with the thumb rocker switch located on top of the drive control handle.

Use the color-coded direction arrows on the platform controls and the drive chassis to identify the direction wheels will turn.

**To Drive**

- 1 Move the lift/drive select switch to the drive position (if equipped).
- 2 Press down the foot switch.
- 3 Increase speed: Slowly move the drive control handle off center.

Decrease speed: Slowly move the drive control handle toward center.

Stop: Return the drive control handle to center or release the foot switch.

Use the color-coded direction arrows on the platform controls and the drive chassis to identify the direction the machine will travel.

Note: When the turntable is rotated so the boom is past the non-steer tires, the machine may move in the opposite direction that the drive and steer controls are moved.

Machine travel speed is restricted when the booms are raised.

Battery condition will affect the ability of the machine to climb a slope.

## OPERATING INSTRUCTIONS

**Driving on a slope**

Determine the uphill, downhill and side slope ratings for the machine and determine the slope grade.



Maximum slope rating,  
counterweight uphill (gradeability):  
20% (11°)



Maximum slope rating, counterweight  
downhill: 20% (11°)



Maximum side slope rating:  
20% (11°)

Note: Slope rating is subject to ground conditions and adequate traction. The term gradeability applies to the counterweight uphill configuration only.

Be sure the boom is below horizontal and the platform is between the non-steer tires.

**To determine the slope grade:**

Measure the slope with a digital inclinometer OR use the following procedure.

You will need:

- carpenter's level
- straight piece of wood, at least 3 feet / 1 m long
- tape measure

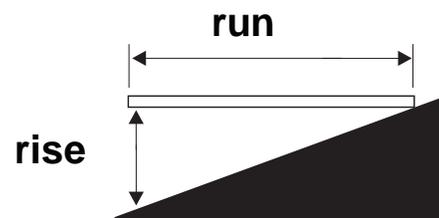
Lay the piece of wood on the slope.

At the downhill end, lay the level on the top edge of the piece of wood and lift the end until the piece of wood is level.

While holding the piece of wood level, measure the vertical distance from the bottom of the piece of wood to the ground.

Divide the tape measure distance (rise) by the length of the piece of wood (run) and multiply by 100.

Example:



Piece of wood = 144 inches (3.6 m)

Run = 144 inches (3.6 m)

Rise = 12 inches (0.3 m)

$12 \text{ in} \div 144 \text{ in} = 0.083 \times 100 = 8.3\% \text{ grade}$

$0.3 \text{ m} \div 3.6 \text{ m} = 0.083 \times 100 = 8.3\% \text{ grade}$

If the slope exceeds the maximum uphill, downhill or side slope rating, then the machine must be winched or transported up or down the slope. See Transport and Lifting Instructions section.

## OPERATING INSTRUCTIONS

## Driving Up/Down Slopes

### Drive/Brake Control Theory

Brakes release progressively as the drive control handle is moved out of neutral in either direction. Brakes apply progressively as the drive control handle is moved toward the neutral position. If the machine is on a slope, the progressive release/application of the brakes combined with torque from the drive motors allows you to control the speed of the machine. For this reason, in some circumstances it is more effective to drive down a sloped surface by moving the drive control handle in the uphill direction. This is called "plug braking." Apply these principles for driving on a slope by following the instructions below.

### Driving up a slope

Be sure the platform is fully lowered and the platform is between the drive wheels. Be sure the wheels are aligned up and down the slope.

- 1 Press down the foot switch.
- 2 Move the drive control handle firmly.

When stopped on a slope, the machine may initially move slightly downhill when the drive control handle is moved to drive up the slope. Be sure the area behind the machine is clear.

### Driving down a slope

Be sure the platform is fully lowered and the platform is between the drive wheels. Be sure the wheels are aligned up and down the slope.

- 1 Position the steer wheels on the downhill side of slope.
- 2 Press down the foot switch.
- 3 On steeper slopes, it may be more effective to move the drive control handle in the uphill direction (plug braking) in order to drive downhill. For this reason, no matter what slope you are on, always begin the process of driving downhill by slowly moving the drive control handle in the uphill direction. Use small movements of the drive control handle to control the machine speed.

If the machine moves uphill instead of downhill, the slope is too small to use plug braking. Move the drive control handle back to the neutral position to apply the brakes and proceed as follows:

- 4 Slowly move the drive control handle **downhill**. Use small movements of the drive control handle to control the machine speed.

To stop the machine completely, return the drive control handle to the center (neutral position). The machine can also be stopped by removing your foot from the foot switch or pushing in the red Emergency Stop button.

If machine speed exceeds 3 mph / 4.8 km/h (walking pace), immediately stop the machine.

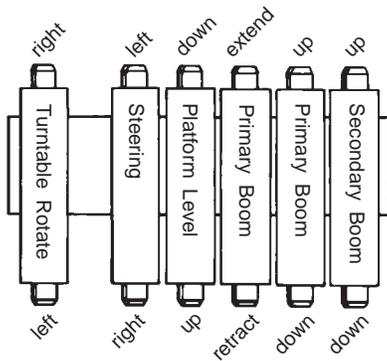
## OPERATING INSTRUCTIONS

**Low Voltage Interrupt (option)**

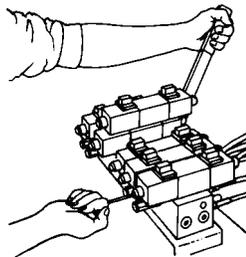
Light on indicates that the battery charge is almost gone and all lift functions will not work. The batteries need to be charged.

**Manual Controls**

These controls may be used in the event of a primary power source failure. All boom functions can be operated with the hand pump located on the turntable hydraulic manifold.



- 1 Remove the turntable cover to access the manual controls.
- 2 Select a function and its corresponding valve.
- 3 Manually open the valve by pushing in on the end of the valve spool with the T-handle.
- 4 Hold in the open position and operate the hand pump with a push/pull motion.
- 5 Remove the T-handle from the valve spool to close the valve.

**After Each Use**

- 1 Select a safe parking location—firm level surface, clear of obstruction and traffic.
- 2 Lower the boom to the stowed position.
- 3 Rotate the turntable so that the boom is between the non-steering wheels.
- 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.

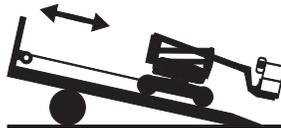
## OPERATING INSTRUCTIONS



## Transport Instructions

### Observe and Obey:

- ☑ Common sense and planning must be applied to control the movement of the machine when lifting it with a crane or forklift.
- ☑ Transport vehicle must be parked on a level surface.
- ☑ Transport vehicle must be secured to prevent rolling while machine is being loaded.
- ☑ Be sure vehicle capacity, loading surfaces and chains or straps are sufficient to withstand machine weight (see *Specifications*, page 28).
- ☑ Machine must be on level surface or secured before releasing brakes.
- ☑ The machine must be loaded and unloaded using a winch as described.



## OPERATING INSTRUCTIONS

**Securing to Truck or Trailer for Transit**

Always chock machine wheels in preparation for transport.

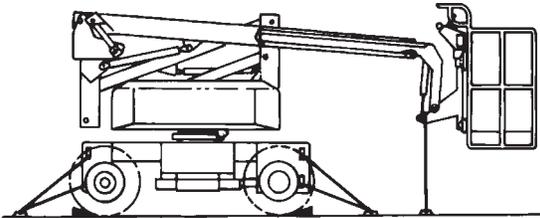
Use tie points on drive chassis for anchoring down to transport surface.

Use lower platform mount between boom end and platform to secure boom from side-to-side movement. Do not use excessive downward force when securing boom section.

Use chains or straps of ample load capacity.

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

Inspect entire machine for loose or unsecured items.

**Free-wheel Configuration for Winching**

- 1 Chock wheels to prevent machine from rolling.
- 2 Release the non-steer wheel brakes by turning over torque hub disconnect caps (see below).

Machines with remote brake switch:

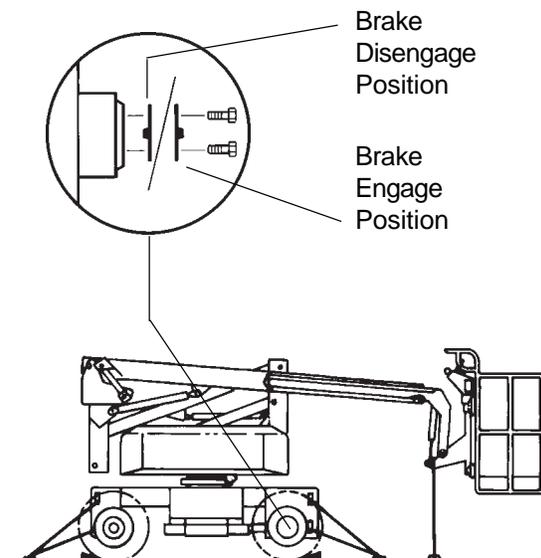
Plug the switch into the adaptor at the ground control box. Apply the remote brake release switch while winching the machine.

- 3 Be sure winch line is properly secured to drive chassis tie points and path is clear of all obstructions.

After machine is loaded:

- 1 Chock wheels to prevent machine from rolling.
- 2 Apply the non-steer wheel brakes by turning over torque hub disconnect caps (see below).

Towing of the Genie Z-30/20 is not recommended. If the machine must be towed, do not exceed 2 mph (3.2 km/h).



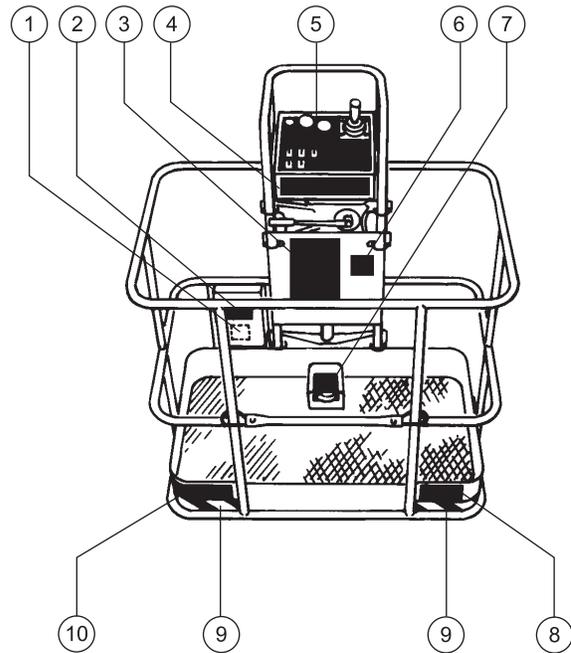
# Decals

Index	Part No. Decal Description	Quantity	Index	Part No. Decal Description	Quantity
1	28176 Notice - Missing Manuals	1	18	31782 Notice - Operating Instructions - Ground	1
2	28236 Warning - Failure To Read . . .	1	19	43701 Label - Function Enable Switch	1
3	114330 Danger - General Safety Rules	1	20	31508 Notice - Power to Battery Charger	1
4	114332 Notice - Operating Instructions - Platform	1	21	43658 Label - Power to Battery Charger - 230V or 44980 Label - Power to Battery Charger - 115V	1
5	43065 Platform Control Panel	1	22	37056 Triangle, Yellow	2
6	33952 Danger - Tilt Alarm	1	23	37053 Arrow, Blue	1
7	28165 Notice - Foot Switch	1	24	43702 Notice - Function Enable	1
8	37051 Notice - Maximum Side Force - 150 lbs / 667N or 44986 Notice - Maximum Manual Force - 90 lbs / 400N	1	25	28175 Caution - Compartment Access	1
9	33550 Safety Tape	—	26	43626 Label - Brake Release Alarm	1
10	37052 Notice - Max Load 500 lbs / 227 kgg	1	27	37054 Arrow, Yellow	1
11	28181 Warning - No Step or Ride	1	28	37055 Triangle, Blue	2
12	28174 Power to Platform, 220V or 28235 Power to Platform, 115V	2	29	31789 Serial Plate	1
13	43627 Warning - Brakes Released . . .	1	30	28157 Label - Dexron	1
14	38112 Caution - Collision	1	31	28171 Label - No Smoking	2
15	27564 Danger - Electrocution Hazard	4	32	28164 Notice - Haz. Materials	1
16	23661 Ground control panel	1	33	31784 Notice - Lug nuts	4
17	23662 Ground control panel	1	34	43075 Danger - Tip-over (batteries)	2
			35	43074 Battery Connection Diagram	2

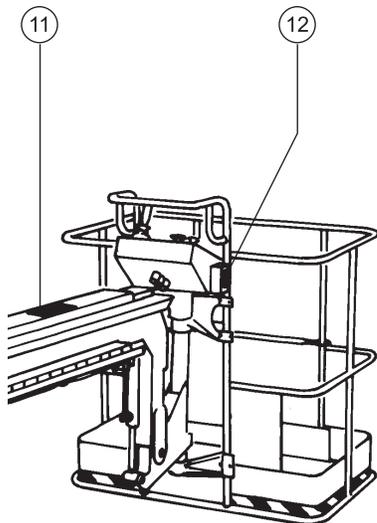
DECALS

Index	Part No. Decal Description	Quantity
36	43076 Danger - Battery/Charger Safety	2
37	43073 Notice - Battery Charger Operating Instructions	2
38	28372 Caution - Component Damage	2
39	31060 Danger - Do Not Alter Limit Switch	2
40	23665 Notice Manual Controls	1
41	28161 Warning - Crush Hazard	1
42	32700 Danger - Safety Rules	1

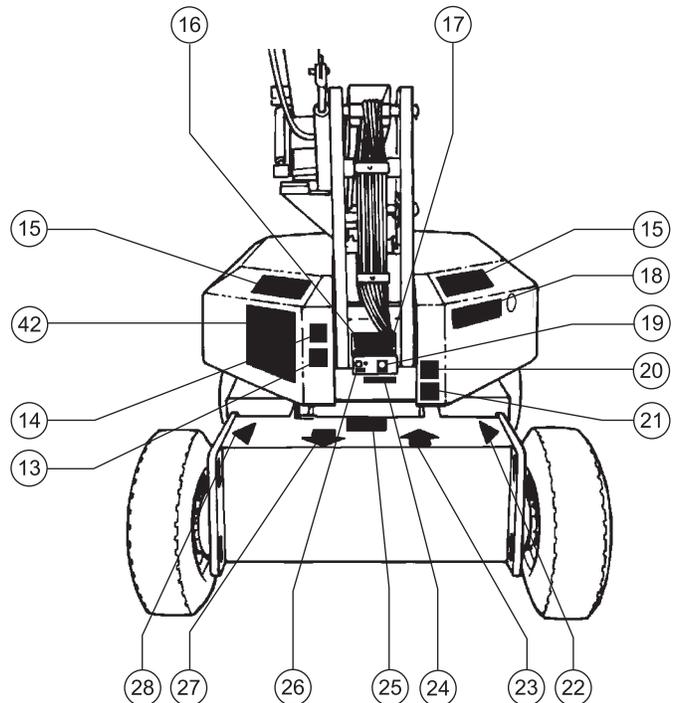
Platform



Platform

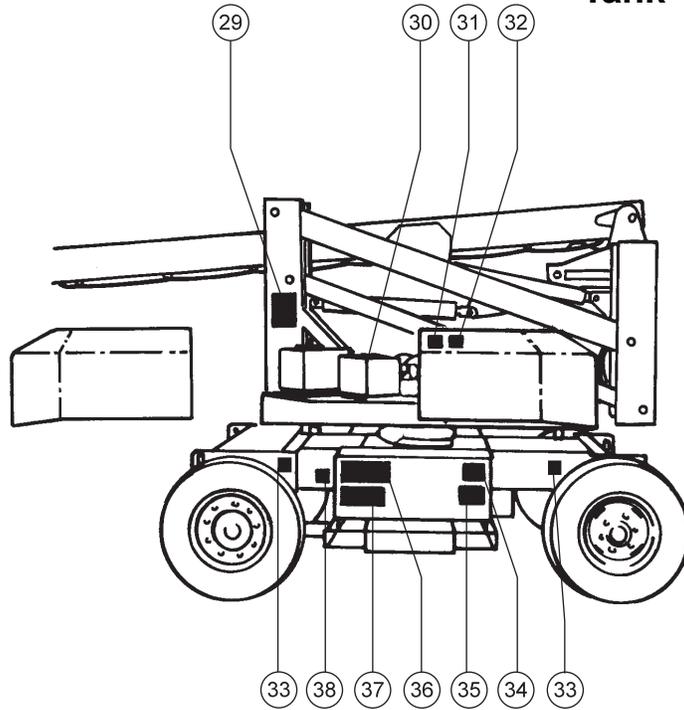


Ground Controls

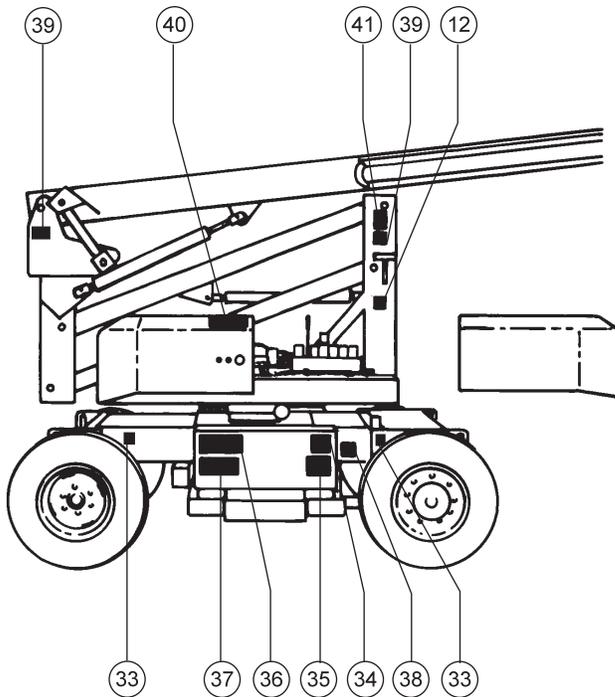


DECALS

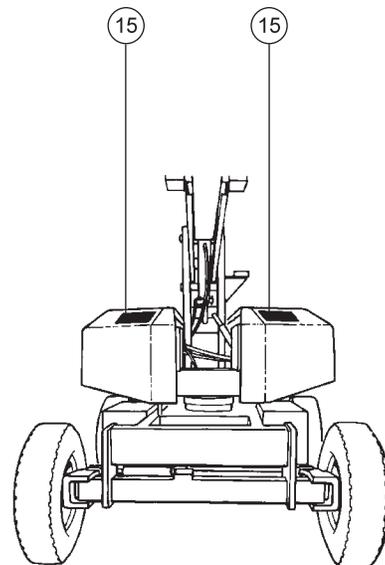
**Tank Side**



**Manifold Side**



**Steer End**



# Specifications

Height, working maximum	37 ft	11.28 m
Height, platform maximum	31 ft	9.45 m
Height, stowed	6 ft 7 in	2 m
Horizontal reach, maximum	20 ft	6.1 m
Width	5 ft 10 in	1.8 m
Length, stowed	15 ft 9 in	4.8 m
Maximum load capacity 46 inch (117 cm) platform	500 lb	227 kg
Wheelbase	6 ft	1.83 m
Turning radius (outside)	13 ft 9 in	4.19 m
Turning radius (inside)	6 ft 4 in	1.93 m
Turntable rotation (degrees)	359°	
Turntable tailswing	0	
Power source	8 Group-GC2B 6V 245AH Batteries	

### Drive speeds

Drive speed, stowed	0 - 4.5 mph	0 - 7.2 km/h
	40 ft/6.1 sec	12.2 m/6.1 sec

Drive speed, raised	0 - 0.6 mph	0 - 0.96 km/h
	40 ft/45.5 sec	12.2 m/45.5 sec

Controls	12V DC proportional
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Platform dimensions, (length x width)	
5 foot	60 in x 30 in 152 cm x 76 cm
4 foot	48 in x 30 in 121 cm x 76 cm

Platform leveling	self-leveling
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Platform rotation	130°
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AC outlet in platform	standard
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Hydraulic pressure (maximum) (boom functions)	2000 psi 138 bar
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Tires size	9-14.5 LT
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### Maximum slope rating, stowed position

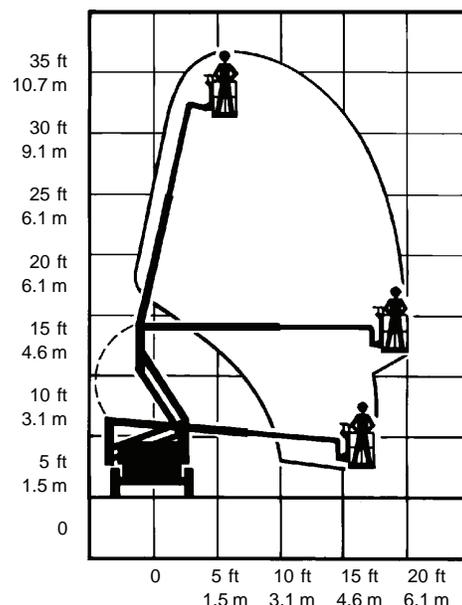
Counterweight uphill	20%	(11°)
Counterweight downhill	20%	(11°)
Side slope	20%	(11°)

Note: Slope rating is subject to ground conditions and adequate traction.

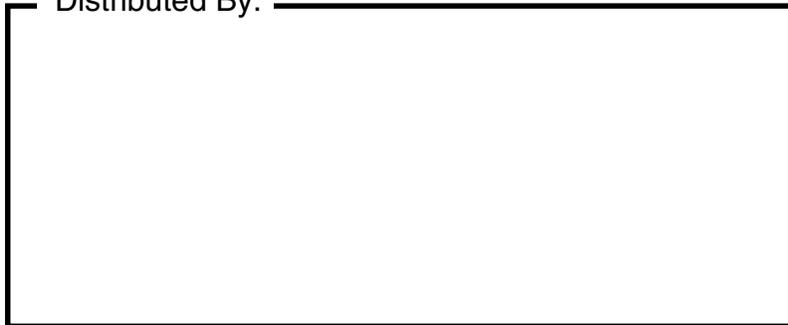
Ground clearance	7 <sup>3</sup> / <sub>8</sub> in	19 cm
Hydraulic tank capacity	2.5 gallons	9.5 liters
Weight	8820 lbs	4000 kg

Airborne noise emissions Maximum sound level at normal operating workstations (A-weighted)	70 dB
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**Continuous improvement of our products is a Genie policy. Product specifications are subject to change without notice or obligation.**



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