Genie®
A TEREX COMPANY

Operator's Manual

QS-12w
QS-15w
QS-20w

CE

with
Maintenance
Information

First Edition
First Printing
Part No. 133495

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.

Contents

	Page
Introduction	1
Symbol and Hazard Pictorials Definitions	3
General Safety	5
Personal Safety	7
Work Area Safety	8
Legend	15
Controls	16
Inspections	19
Operating Instructions	28
Transport and Lifting Instructions	34
Maintenance	37
Specifications	39

Contact us:

Internet: http://www.genielift.com
e-mail: techpub@genieind.com

Copyright © 2009 by Genie Industries

First Edition: First Printing, November 2009

"Genie" is a registered trademark of Genie Industries in the U.S.A. and many other countries.

CE

♻ Printed on recycled paper

Printed in U.S.A.

Introduction

Owners, Users and Operators:

Genie appreciates your choice of our machine for your application. Our number one priority is user safety, which is best achieved by our joint efforts. We feel that you make a major contribution to safety if you, as the equipment users and operators:

1 **Comply** with employer, job site and governmental rules.

2 **Read, understand and follow** the instructions in this and other manuals supplied with this machine.

3 **Use good safe work practices** in a common sense way.

4 **Only have trained/certified operators,** directed by informed and knowledgeable supervision, running the machine.

If there is anything in this manual that is not clear or which you believe should be added, please contact us.

Internet: www.genielift.com

E-mail: techpub@genieind.com



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 the manufacturer's instructions and safety rules—safety and operator's manuals and machine decals.

☑ You read, understand and obey employer's safety rules and work site regulations.

☑ You read, understand and obey all applicable governmental regulations.

☑ You are properly trained to safely operate the machine.

Introduction

Hazard Classification

Genie uses symbols, color coding and signal words to identify the following:



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

⚠DANGER
Red

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠WARNING
Orange

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION
Yellow

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE
Blue

Indicates a property damage message.

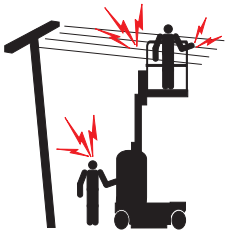
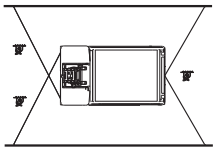
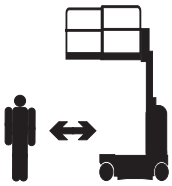
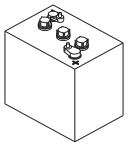
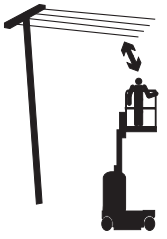
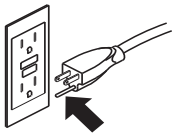
Intended Use

This machine is intended to be used only to lift personnel, along with their tools and materials to an aerial work site.

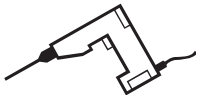
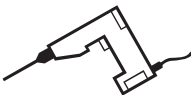
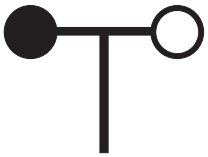
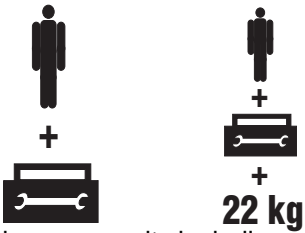
Safety Sign Maintenance

Replace any missing or damaged safety signs. Keep operator safety in mind at all times. Use mild soap and water to clean safety signs. Do not use solvent-based cleaners because they may damage the safety sign material.

Symbol and Hazard Pictorials Definitions

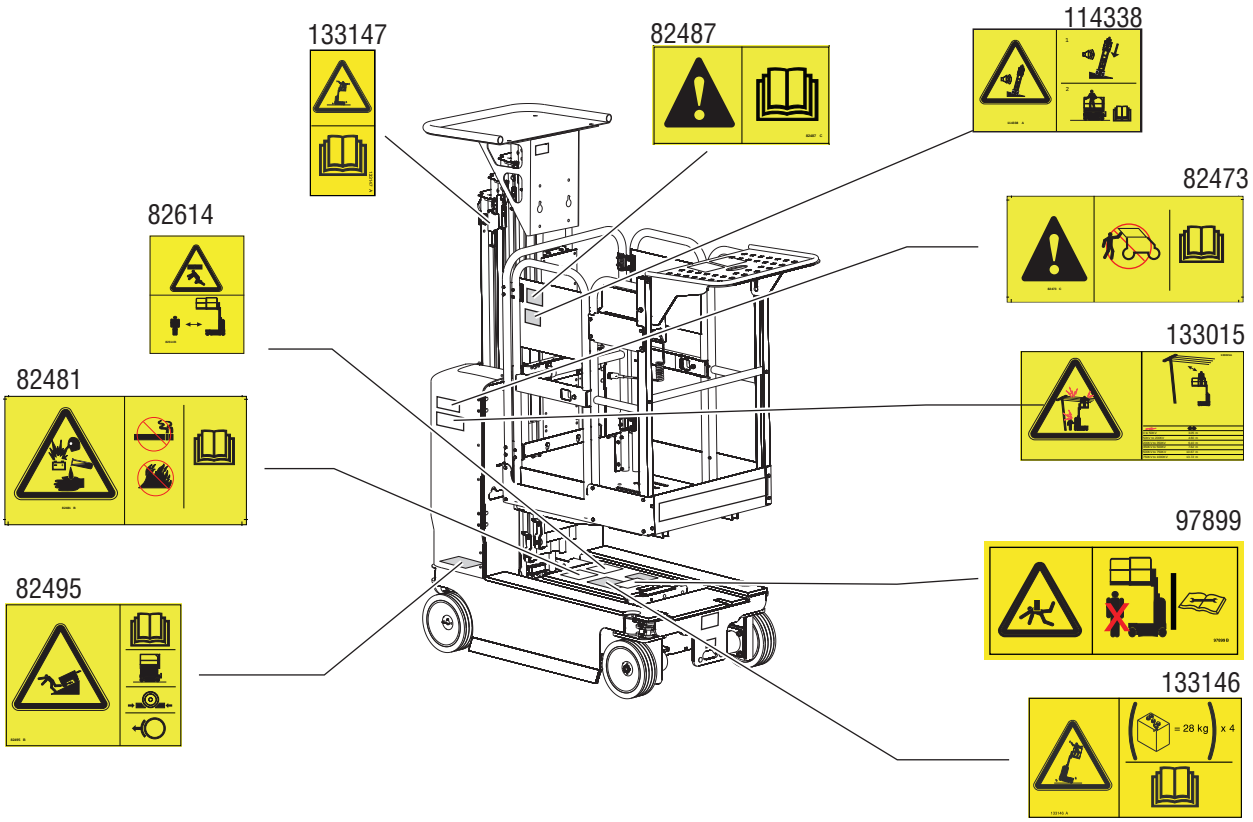
 Read the operator's manual	 Read the service manual	 Crush hazard	 No smoking	 Collision hazard
 Collision hazard	 Tip-over hazard	 Tip-over hazard	 Use a piece of cardboard or paper to search for leaks	 Electrocution hazard
 Electrocution hazard	 Explosion hazard	 Fire hazard	 Burn hazard	 Skin injection hazard
 Transport diagram	 Tiedown	 Keep away from moving parts	 Move machine to level ground	 Batteries used as counterweights
 Maintain required clearance	 Only trained maintenance personnel should access compartments	 Chock the wheels	 Release brakes	 Grounded AC 3-wire only

Symbol and Hazard Pictorials Definitions

 Replace damaged wires and cords	 Wheel load	 Side force	 Lanyard attachment point	 Voltage rating for power to platform
 Pressure rating for air line to platform	 Wind speed			
 Maximum capacity including occupant	 Maximum capacity including occupant, tools and tray			

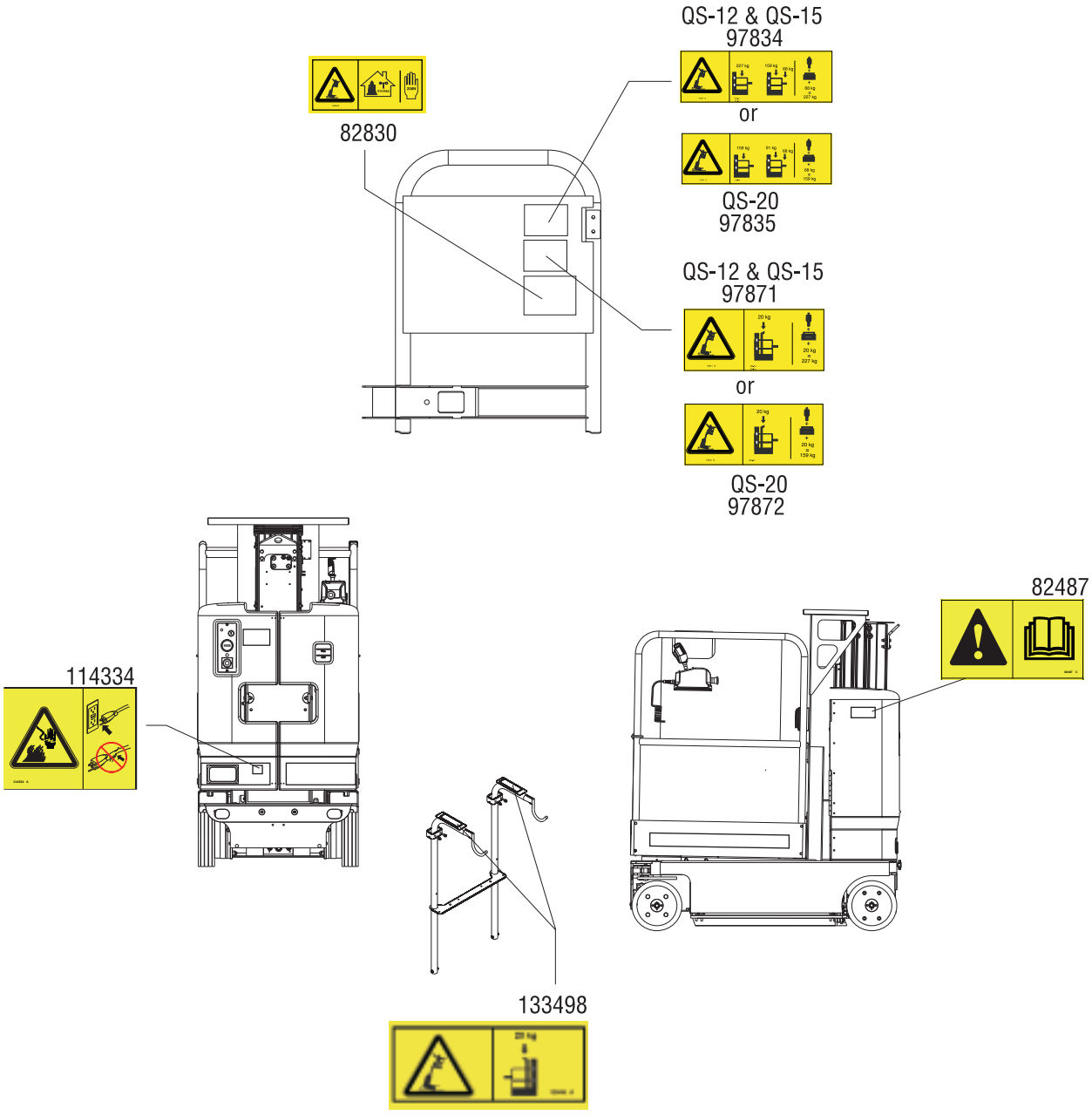
General Safety

Safety signs and locations
Decals with symbols



General Safety

Safety signs and locations
Decals with symbols



Fall Protection

Personal fall protection equipment (PFPE) is not required when operating this machine. If PFPE is required by job site or employer rules, the following shall apply:

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

Work Area Safety

⚠ 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.

Line Voltage	Required Clearance
0 to 50KV	3.05 m
50KV to 200KV	4.60 m
200KV to 350KV	6.10 m
350KV to 500KV	7.62 m
500KV to 750KV	10.67 m
750KV to 1000KV	13.72 m

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 must not exceed the maximum platform capacity. Weight in trays and in each bike rack is part of the total platform load.

Maximum capacity - QS-12W	
Platform capacity	227 kg
Work tray	68 kg
Parcel tray	68 kg
Bike rack (option) (each)	20 kg
Maximum occupants	1
Maximum capacity - QS-15W	
Platform capacity	227 kg
Work tray	68 kg
Parcel tray	68 kg
Bike rack (option) (each)	20 kg
Maximum occupants	1
Maximum capacity - QS-20RW	
Platform capacity	159 kg
Work tray	68 kg
Bike rack (option) (each)	20 kg
Maximum occupants	1

Work Area Safety





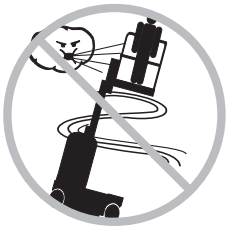
Do not raise the platform unless the machine is on a firm, level surface.

Do not depend on the tilt alarm as a level indicator. The tilt alarm sounds inside the battery charger tray only when the machine is on a severe slope.

If the tilt alarm sounds: Lower the platform. Move the machine to a firm, level surface. If the tilt alarm sounds when the platform is raised, use extreme caution to lower the platform.

Do not drive over 0.8 km/h with the platform raised.

When raising the platform, follow ratings for allowable side force and number of occupants on the next page.



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 a stowed position across uneven terrain, debris, unstable or slippery surfaces and near holes and drop-offs.



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

Do not use the machine as a crane.

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

Do not contact adjacent structures with the platform.

Do not tie the platform to adjacent structures.

Do not place loads outside of the platform. Bike racks and parcel trays are considered part of the platform.

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.

Work Area Safety



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

Maximum allowable side force	
CE	200 N

Do not alter or disable the limit switches.

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 use batteries that weigh less than the original equipment. Batteries are used as counterweight and are critical to machine stability. Each battery must weigh 28 kg.

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

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



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

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



Be sure all tires are in good condition, castle nuts are properly tightened and cotter pins are properly installed.

⚠ Crushing Hazard

Keep hands and limbs out of mast.

Do not work under the platform or mast without the battery cover raised.

Use common sense and planning when operating the machine with the controller from the ground. Maintain safe distances between the operator, the machine and fixed objects.

Be sure loads on bike racks and in parcel trays are securely positioned and balanced.

Use care when transferring loads to and from parcel trays and to and from bike racks.

Work Area Safety

⚠ Operation on Slopes Hazards

Do not drive the machine on a slope that exceeds the slope and side slope rating of the machine. Slope rating applies to machines in the stowed position only.

Maximum slope rating, stowed position	30% (17°)
Maximum side slope rating, stowed position	30% (17°)

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

⚠ Fall Hazards

The guard rail system provides fall protection. If the occupant of the platform is required to wear personal fall protection equipment (PFPE) due to job site or employer rules, PFPE and its use shall be in accordance with the PFPE manufacturer's instructions and applicable governmental requirements. Use approved lanyard attachment point provided.

Keep the platform floor clear of debris.

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



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



Do not climb down from the platform when raised.

Do not enter or exit the platform unless the machine is in the stowed position.

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

⚠ Collision Hazards



Be aware of limited sight distance and blind spots when driving or operating.

Be aware of the extended platform position when moving the machine.

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

Work Area Safety



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

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



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

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



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



Do not operate a machine in the path of any crane or moving overhead machinery 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 a machine.

⚠ 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.

Improper contact with components under any cover will cause serious injury. Only trained maintenance personnel should access compartments. Access by the operator is only advised when performing a pre-operation inspection. All compartments must remain closed and secured during operation.

⚠ Explosion and Fire Hazards

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

Work Area Safety

⚠ 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.

⚠ Component Damage Hazards

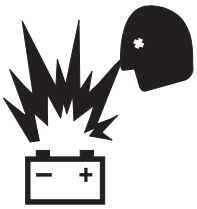
Do not use any battery charger greater than 24V to charge the batteries.

Do not use the machine as a ground for welding.

Work Area Safety

⚠ Battery Safety

Burn Hazards



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

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



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

Explosion Hazards



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

The battery tray should remain open during the entire charging cycle.



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

Component Damage Hazard

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

Electrocution/Burn Hazards



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

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

Avoid electrical shock/burns 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 28 kg.

Lifting Hazard

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

Lockout After Each Use

1 Select a safe parking location—firm level surface, clear of obstruction and traffic.

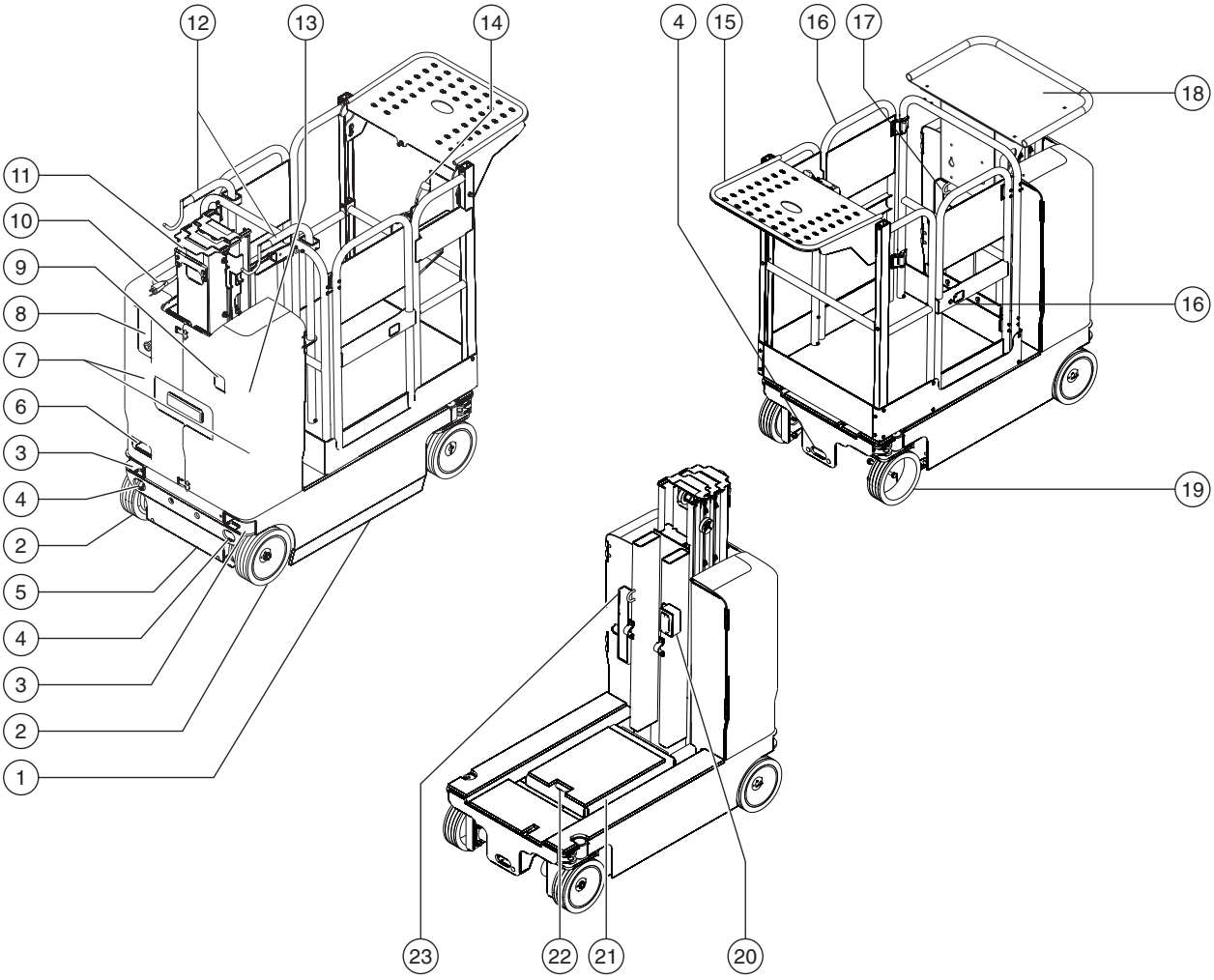
2 Lower the platform.

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

4 Chock the wheels.

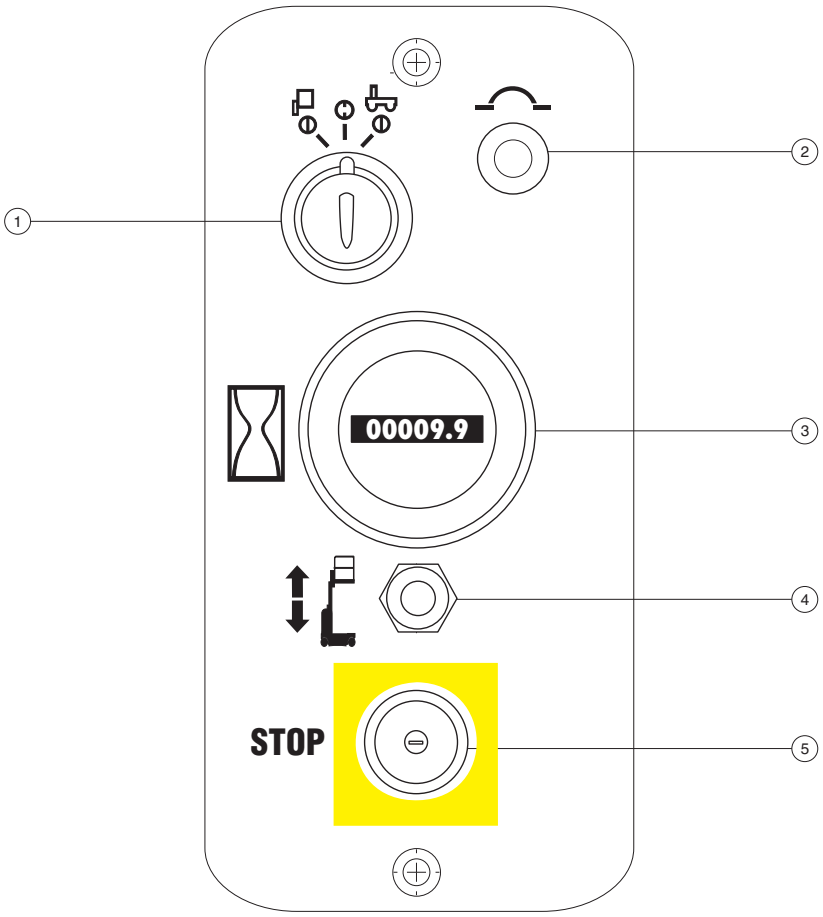
5 Charge the batteries.

Legend



1 Pothole guard
2 Non-steer tire
3 Forklift pocket
4 Transport tie-down
5 Emergency lowering valve
6 Battery charger display
7 Covers
8 Ground controls
9 Hydraulic oil level indicator
10 Power to platform/battery charger connection for optional inverter
11 Mast
12 Bike rack (if equipped)
13 Brake release pump knob (under covers)
14 Platform controls
15 Work tray
16 Dual-entry gate
17 Lanyard anchorage point
18 Parcel tray (QS-12 and QS-15)
19 Steer tire
20 GFCI outlet
21 Battery compartment cover
22 Battery cover latch
23 Manual storage container

Controls



Ground Control Panel

1 Key switch for platform/off/ground selection

Turn the key switch to the platform position and the platform controls will operate. Turn the key switch to the off position and the machine will be off. Turn the key switch to the base position and the ground controls will operate.

2 7 amp breaker for electric circuits

3 Hour meter

Indicates the number of hours the machine has been put into use.

4 Platform up/down toggle switch

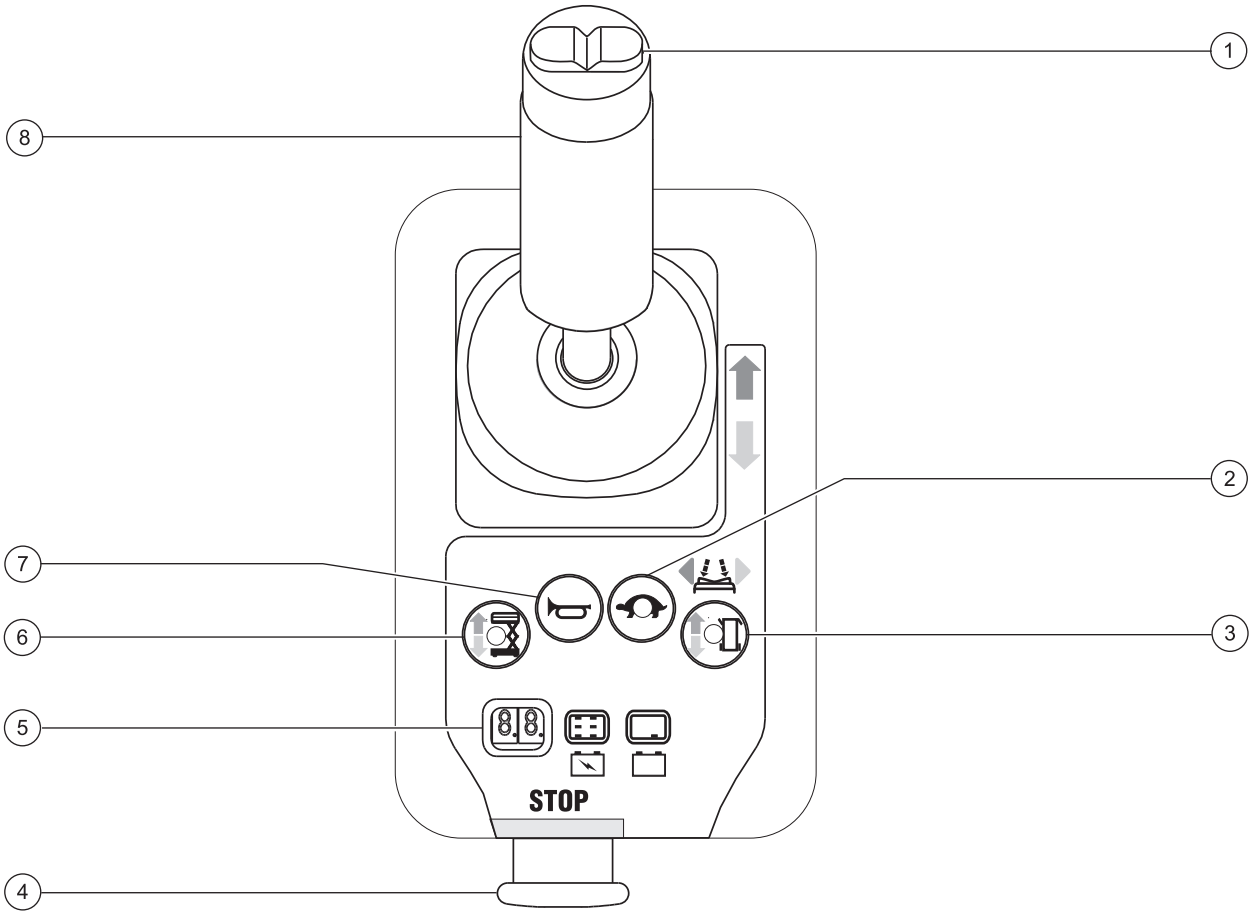


Move the switch up and the platform will raise. Move the switch down and the platform will lower.

5 Red Emergency Stop button

Push in the red Emergency Stop button to the off position to stop all functions. Pull out the red Emergency Stop button to the on position to operate the machine.

Controls



Platform Control Panel

1 Thumb rocker switch for steer functions

2 Drive speed button

3 Drive function select button

4 Red Emergency Stop button

5 LED diagnostic readout / Battery charge indicator

6 Lift function select button

7 Horn button

8 Proportional control handle and function enable switch for lift and drive functions

Controls

Platform Control Panel

1 Thumb rocker switch for steer functions

Press the thumb rocker switch in either direction to activate the steer function.

2 Drive speed button

Press this button to activate slow drive function. The indicator light will be on when slow drive is selected.

3 Drive function select button



Press this button to activate the drive function.

4 Red Emergency Stop button

Push in the red Emergency Stop button to the off position to stop all functions. Pull out the red Emergency Stop button to the on position to operate the machine.

5 LED

Diagnostic read out, battery charge indicator.

6 Lift function select button



Press this button to activate the lift function.

7 Horn Button

Push the horn button and the horn will sound. Release the horn button and the horn will stop.

8 Proportional control handle and function enable switch for lift and drive functions

Lift function: Press and hold the function enable switch to enable the lift function on the platform control handle. Move the control handle in the direction indicated by the blue arrow and the platform will raise. Move the control handle in the direction indicated by the yellow arrow and the platform will lower. The descent alarm should sound while the platform is lowering.

Drive function: Press and hold the function enable switch to enable the drive function on the platform control handle. Move the control handle in the direction indicated by the blue arrow on the control panel and the machine will move in the direction that the blue arrow points. Move the control handle in the direction indicated by the yellow arrow on the control panel and the machine will move in the direction that the yellow arrow points.

Inspections



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.

Pre-operation Inspection 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.

Inspections

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

- ❏ Electrical components, wiring and electrical cables
- ❏ Hydraulic power unit, tank, hoses, fittings, cylinders and manifolds
- ❏ Battery pack and connections
- ❏ Drive motors
- ❏ Tires and wheels
- ❏ Ground strap
- ❏ Limit switches, alarms and horn
- ❏ Alarms and beacons (if equipped)
- ❏ Nuts, bolts and other fasteners
- ❏ Platform entry mid-rail bar, chain or gate
- ❏ Sequencing cables and pulleys
- ❏ Pothole guards
- ❏ Work trays and bike racks (if equipped)
- ❏ Brake release components
- ❏ Battery cover
- ❏ Mast columns and counterweight
- ❏ Platform control joystick

Check the entire machine for:

- ❏ Cracks in welds or structural components
- ❏ Dents or damage to the machine
- ❏ Excessive rust, corrosion or oxidation

- ❏ Be sure that all structural and other critical components are present and all associated fasteners and pins are in place and properly tightened.

Note: If the platform must be raised to inspect the machine, make sure the battery cover is in place. See Operating Instructions section.

Inspections

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.

Function Test 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.

2 Be sure the batteries are connected.

At the Ground Controls

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

4 Turn the key switch to ground control.

5 Observe the diagnostic LED readout on the platform controls.

⊙ Result: The LED should look like the picture at right.



Test Emergency Stop

6 Push in the ground red Emergency Stop button to the off position.

⊙ Result: No functions should operate.

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

Inspections

Test the Up/Down Functions

The audible warnings on this machine and the standard horn all come from the same central alarm. The horn is a constant tone. The descent alarm sounds at 60 beeps per minute. The alarm that goes off when the pothole guards have not deployed sounds at 300 beeps per minute. The alarm that goes off when the machine is not level sounds at 600 beeps per minute. An optional automotive-style horn is also available.

8 Activate the up function.

⊙ Result: The platform should raise.

9 Activate the down function.

⊙ Result: The platform should lower. The descent alarm should sound while the platform is lowering.

Test Emergency Lowering

10 Activate the up function and raise the platform approximately 60 cm.

11 Pull the Emergency lowering knob located at the base of the machine below the mast.

⊙ Result: The platform should lower. The descent alarm will not sound.

12 Turn the key switch to platform control.

At the Platform Controls

Test Emergency Stop

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

⊙ Result: No functions should operate.

Test the Horn

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

15 Push the horn button.

⊙ Result: The horn should sound.

Test the Function Enable Switch

16 Do not hold the function enable switch on the control handle.

17 Slowly move the control handle in the direction indicated by the blue arrow, then in the direction indicated by the yellow arrow.

⊙ Result: No functions should operate.

Test the Up/Down Functions



18 Press the lift function select button.

19 Press and hold the function enable switch on the control handle.

20 Slowly move the control handle in the direction indicated by the blue arrow.

⊙ Result: The platform should raise. The pothole guards should deploy

Inspections

21 Release the control handle.

⊙ Result: The platform should stop raising.

22 Press and hold the function enable switch. Slowly move the control handle in the direction indicated by the yellow arrow.

⊙ Result: The platform should lower. The descent alarm should sound while the platform is lowering.

Test the Steering

Note: When performing the steer and drive function tests, stand in the platform facing the steer end of the machine.

23 Press the drive function select switch.

24 Press and hold the function enable switch on the control handle.



25 Depress the thumb rocker switch on top of the control handle in the direction indicated by the blue triangle on the control panel.

⊙ Result: The steer wheels should turn in the direction that the blue triangle points on the control panel.

26 Depress the thumb rocker switch in the direction indicated by the yellow triangle on the control panel.

⊙ Result: The steer wheels should turn in the direction that the yellow triangle points on the control panel.

Test Drive and Braking

27 Press and hold the function enable switch.

28 Slowly move the 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 control panel, then come to an abrupt stop.

29 Slowly move the 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.

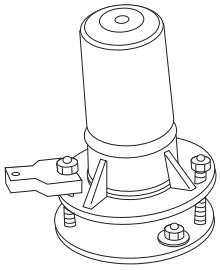
⊙ Result: The machine should move in the direction that the yellow arrow points on the control panel, then come to an abrupt stop.

Note: The brakes must be able to hold the machine on any slope it is able to climb.

Test the Tilt Sensor Operation

30 Locate the tilt sensor located above the ground controls panel behind the ground controls cover.

31 Press down one side of the tilt sensor and place the tilt sensor test tool under one of the posts.



⊙ Result: The alarm, located in the platform, should sound after 1 second.

Inspections

32 Test all ground and platform control functions.

- Result: Before the platform is raised approximately 30 cm, the lift function should stop, an alarm should sound and the LED readout should display LL.

33 Remove the tilt sensor test tool.

34 Turn the key switch to platform control.

Test Limited Drive Speed

35 Press the lift function select button.

36 Press and hold the function enable switch on the control handle. Raise the platform approximately 60 cm from the ground.

37 Press the drive function select button.

38 Press and hold the function enable switch on the control handle. Slowly move the control handle to the full drive position.

- Result: The maximum achievable drive speed with the platform raised should not exceed 20 cm per second.

If the drive speed with the platform raised exceeds 20 cm per second, immediately tag and remove the machine from service.

Test the Pothole Guards

Note: The pothole guards should automatically deploy when the platform is raised. The pothole guards activate another limit switch which allows the machine to continue to function. If the pothole guards do not deploy, an alarm sounds and the machine will not drive.

39 Raise the platform.

- Result: When the platform is raised 1.2 m from the ground, the pothole guards should deploy.

40 Press on the pothole guards on one side, and then the other.

- Result: The pothole guards should not move.

41 Lower the platform.

- Result: The pothole guards should return to the stowed position.

42 Place a 2x4 or similar piece of wood under a pothole guard. Raise the platform.

- Result: Before the platform is raised 2.1 m from the ground, an alarm should sound and the drive function should not work.

43 Lower the platform and remove the 2x4.

Inspections



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
- sloped surfaces
- 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

Inspections

Decal Inspection

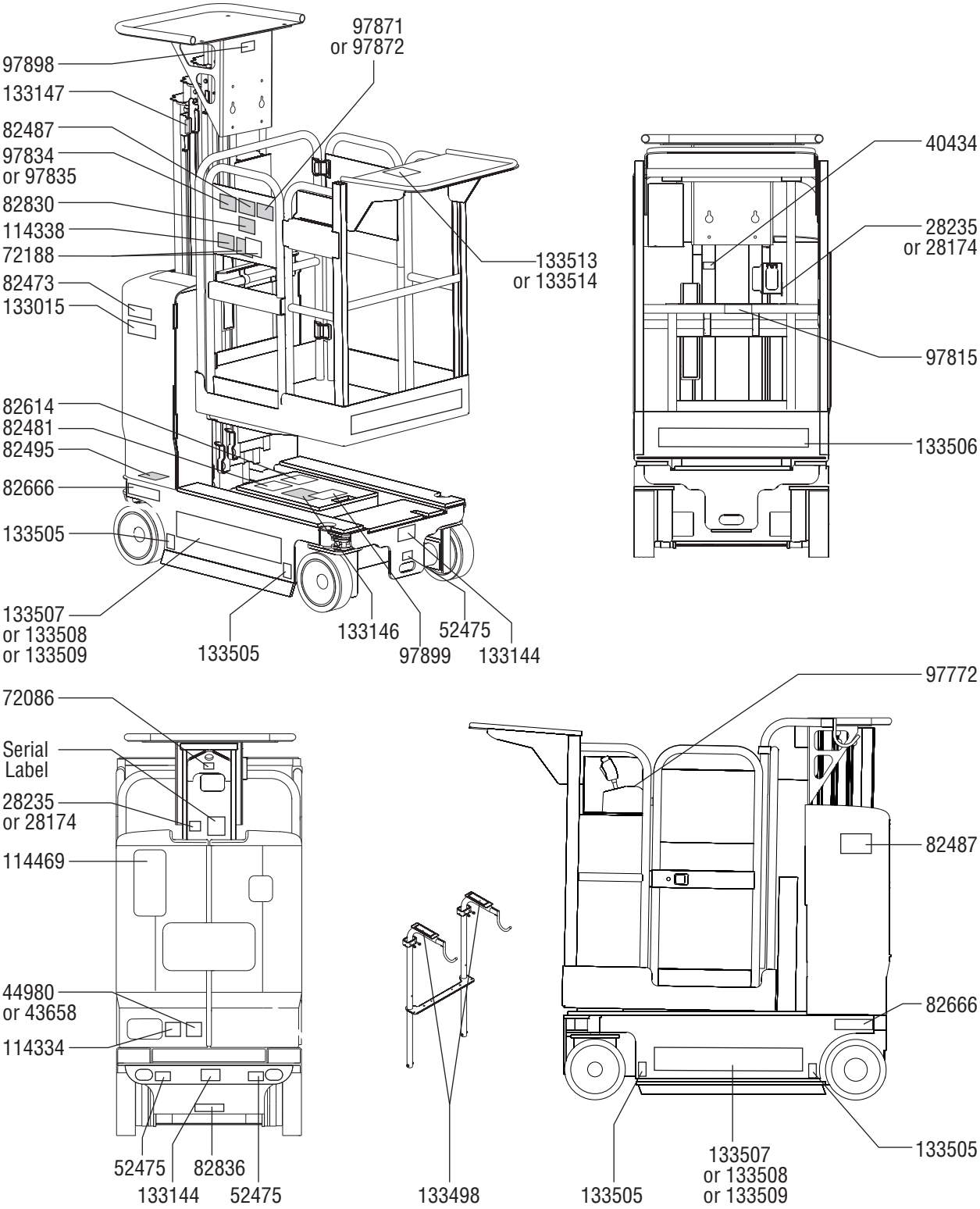
Use the pictures on the next page to verify that all decals are legible and in place.

Below is a numerical list with quantities and descriptions.

Part No.	Description	Quantity
28174	Label - Power to Platform, 230V	2
28235	Label - Power to Platform, 115V	2
40434	Label - Lanyard Anchorage	1
43658	Label - Power to Charger, 230V	1
44980	Label - Power to Charger, 115V	1
52475	Label - Transport Tie-down	3
72086	Label - Lifting Eye	1
72188	Label - Directional Arrows	2
82473	Label - Compartment Access	1
82481	Label - Battery Safety	1
82487	Label - Read the Manual	2
82495	Label - Brake Release Safety and Operation	1
82614	Label - Collision Hazard	1
82666	Label - Forklift Pocket	2
82830	Label - Max Side Force, 400N	1
82836	Label - Emergency Lowering	1
97772	Platform Control Panel	1
97834	Label - Max Capacity, 227 kg, QS-12, QS-15	1
97835	Label - Max Capacity, 159 kg, QS-20	1
97871	Label - Max Capacity, Bike Rack, 20 kg, QS-12, QS-15	1
97872	Label - Max Capacity, Bike Rack, 20 kg, QS-20	1
97898	Label - Max Capacity, Parcel Tray, 68 kg, QS-12, QS-15	1

Part No.	Description	Quantity
97899	Label - Safety Chock	1
114334	Label - Electrocution Hazard, Plug	1
114338	Label - Tip-over Hazard, Tilt Alarm	1
114469	Ground Control Panel	1
133015	Label - Electrocution Hazard	1
133144	Label - Transport Diagram	2
133146	Label - Tip-over Hazard, Batteries	1
133147	Label - Tip-over Hazard, Limit Switch	1
133498	Label, Tip-over Hazard, Bike Rack	2
133505	Label - Wheel Load	4
133506	Cosmetic - Genie QuickStock	1
133510	Cosmetic - Genie QS-12W	2
133511	Cosmetic - Genie QS-15W	2
133512	Cosmetic - Genie QS-20W	2
133513	Label, Max Capacity, Tray, 68 kg, QS-12, QS-15	1
133514	Label, Max Capacity, Tray, 68 kg, QS-20	1

Inspections



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 functions.

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

Emergency Lowering



1 Pull the Emergency lowering knob.

Operation From Ground

1 Turn the key switch to ground control.

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

3 Be sure the battery pack is connected before operating the machine.

To Position Platform

1 Move the up/down toggle switch according to the markings on the control panel.

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

Operation From Platform

1 Turn the key switch to platform control.

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

3 Be sure the battery pack is connected before operating the machine.

To Position Platform



1 Press the lift function select button.

2 Press and hold the function enable switch on the control handle.

3 Move the control handle according to the markings on the control panel.

To Steer



1 Press the drive function select button.

2 Press and hold the function enable switch on the control handle.

3 Turn the steer wheels with the thumb rocker switch located on the top of the control handle.

To Drive

1 Press the drive function select button.

2 Press and hold the function enable switch on the control handle.

3 Increase speed: Slowly move the control handle off center.

Decrease speed: Slowly move the control handle toward center.

Stop: Return the control handle to center or release the function enable switch.

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

Operating Instructions

Machine travel speed is restricted when the platform is raised.

Battery condition will affect machine performance. Machine drive speed and function speed will drop when the battery level indicator is flashing.

To Reduce Drive Speed

The drive controls can operate in two different drive speed modes. When the drive speed button light is on, slow drive speed mode is active. When the button light is off, fast drive speed mode is active.

Press the drive speed button to select the desired drive speed.

⚠ Driving on a slope

Determine the slope and side slope ratings for the machine and determine the slope grade.



Maximum slope rating, stowed	30% (17°)



Maximum side slope rating, stowed	30% (17°)

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

Press the drive speed button to the fast drive speed mode.

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 1 m long

tape measure

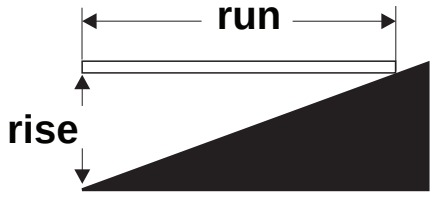
Lay the piece of wood on the slope.

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 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:



Run = 3.6 m

Rise = 0.3 m

0.3 m ÷ 3.6 m = 0.083 x 100 = 8.3%

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

Operating Instructions

Error indicator readout



If the LED diagnostic readout displays an error code, such as LL, push in and pull out the red Emergency Stop button to reset the system.

ECM Fault Codes

Code	Condition
--	Condition Normal
01	Internal ECM Error
02	ECM/Platform Communication Error
03	Undefined Platform Dip Switch Setting
12	Chassis Up/Down Toggle Closed At Startup
18	Pothole Guard Failure
42	Platform Left Turn Switch Fault
43	Platform Right Turn Switch Fault
46	Platform Drive Enable Switch Fault
47	Platform Joystick Fault
52	Forward Coil Fault
53	Reverse Coil Fault
54	Up Coil Fault
55	Down Coil Fault
56	Right Coil Fault
57	Left Coil Fault
58	Brake Coil Fault
59	Parallel/Series Coil Fault
68	Low Battery Voltage
LL	Off-Level
OL	Overload Cutout Option

For more information, please consult the appropriate Genie Service Manual.

To Raise and Lower Work Tray

To raise the work tray:

1 Grasp a side rail carefully with one hand.

2 Grasp the hole located in the center of work tray with other hand.

3 Raise the work tray until it is level with the work tray mount.

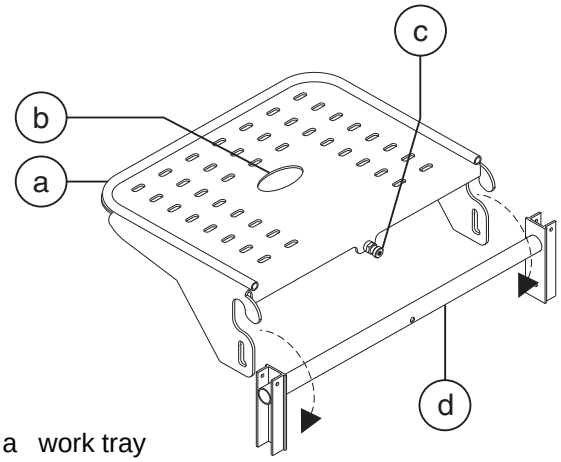
4 Lower the work tray until the snap pin engages.

Note: The snap pin must be properly engaged for proper work tray use.

To lower the work tray:

5 Pull the snap pin while vertically raising tray to clear the work tray mount.

6 Lower the work tray to the stowed position.



a work tray

b handle

c snap pin

d work tray mount

Operating Instructions

Platform Overload



Flashing OL in the LED diagnostic readout indicates the platform is overloaded and no functions will operate. An alarm will sound.

1 Push in the Red Emergency stop button to the off position.

2 Remove weight from the platform.

3 Pull out the Red Emergency stop button to the on position.

Battery Level Indicator



Full Low

Use the LED diagnostic readout to determine the battery level.

Operating Instructions



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 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 compartment. The compartment should remain open for the entire charging cycle.

3 Rest the cover against the chassis.

4 Lower the platform until the mast just contacts the battery cover.

⚠ Crushing hazard. Keep hands clear of the battery cover when lowering the platform.

5 Turn the key switch to the off position.

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

Maintenance - free batteries

7 Connect the battery charger to a grounded AC circuit.

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

Standard Batteries

7 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.

8 Replace the battery vent caps.

9 Connect the battery charger to a grounded AC circuit.

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

11 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:

- ☑ Genie Industries provides this securement information as a recommendation. Drivers are solely responsible for making sure machines are properly secured and the correct trailer is selected pursuant to US Department of Transportation regulations, other localized regulations, and their company policy.
- ☑ Genie customers needing to containerize any lift or Genie product should source a qualified freight forwarder with expertise in preparing, loading and securing construction and lifting equipment for international shipment.
- ☑ Only qualified aerial lift operators should move the machine on or off the truck.
- ☑ 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. Genie lifts are very heavy relative to their size. See the serial label for the machine weight.
- ☑ The machine must be on a level surface or secured before releasing the brakes.
- ☑ Do not drive the machine on a slope that exceeds the uphill, downhill or side slope rating. See Driving on a Slope in the Operating Instructions section.
- ☑ If the slope of the transport vehicle exceeds the maximum slope rating, the machine must be loaded and unloaded using a winch as described in the brake release operation.

Brake Release Operation

1 Chock the wheels to prevent the machine from rolling.



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

3 Push in the black brake release knob to open the brake valve.



4 Pump the red brake release pump knob.

After the machine is loaded:

1 Chock the wheels to prevent the machine from rolling.

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

3 Press the drive function select button. Press and hold the function enable switch on the control handle. Move the control handle off center and immediately release it to reset the brakes.

4 Push the red Emergency stop buttons on both the ground and platform controls to the off position.

Towing the QS-12W, the QS-15W or the QS-20W is not recommended. If the machine must be towed, do not exceed 3.2 km/h.

Transport and Lifting Instructions

⚠ Securing to Truck or Trailer for Transit

Always chock the machine wheels in preparation for transport.

Always use the extension deck lock when the machine is transported.

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

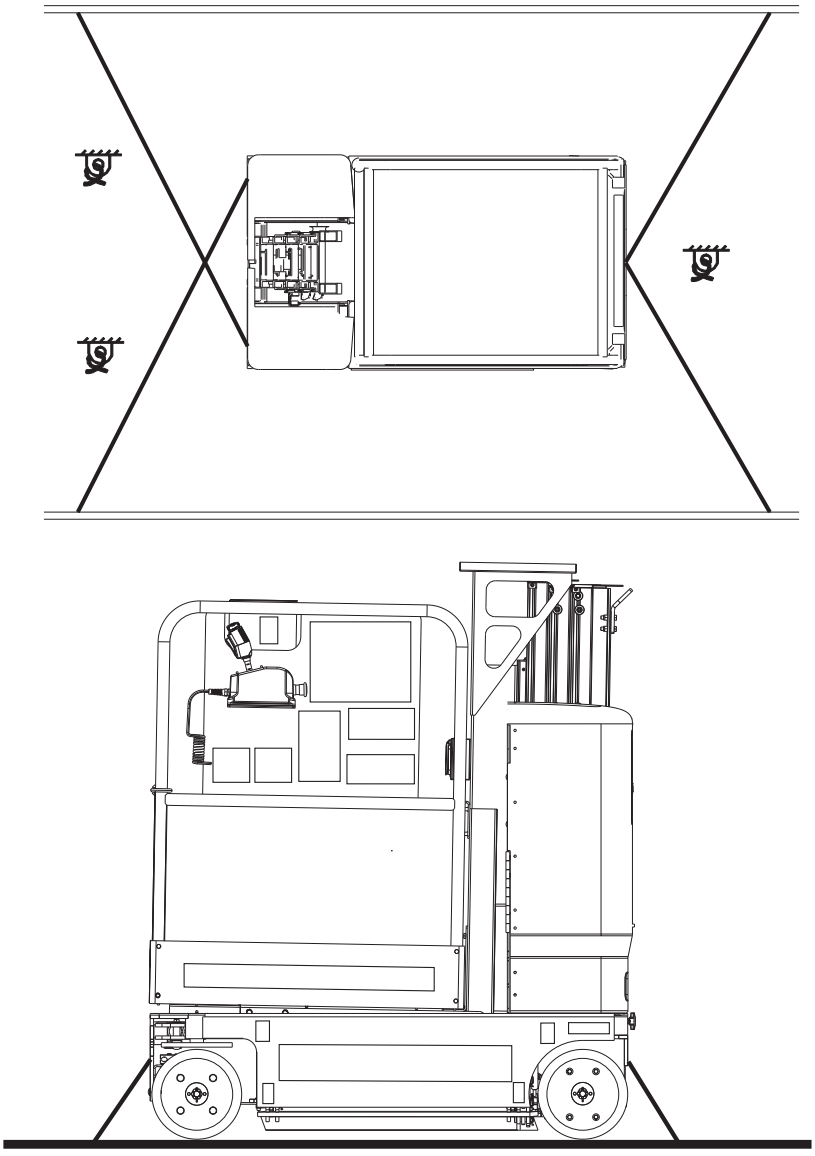
Inspect the entire machine for loose or unsecured items.

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 or straps.

Adjust the rigging to prevent damage to the chains.



Transport and Lifting Instructions

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 label for the machine weight.

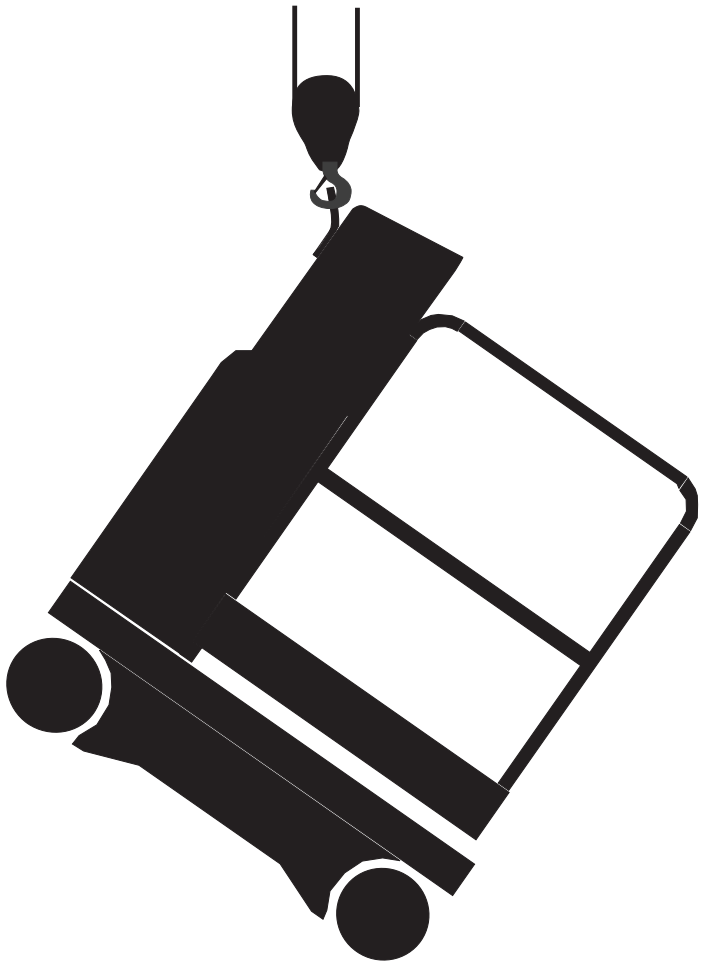
⚠ Loading the Machine With a Crane

Use the lifting eye mounted on the rear mast column.

Make sure the mast is fully lowered.

Inspect the machine and remove any loose or unsecured items.

Always place the lifting hook through the lifting eye so that it points away from the machine.



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.
- ☑ Use only Genie approved replacement parts.

Maintenance Symbols Legend

The following symbols have been used in this manual to help communicate the intent of the instructions. When one or more of the symbols appears 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 Hydraulic Oil Level



Maintaining the hydraulic oil at the proper levels 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.

Note: Perform this procedure with the platform in the stowed position.

1 Visually inspect the oil level in the hydraulic tank.

⊙ Result: The hydraulic oil level should be as marked on the tank.

2 Add oil if necessary. Do not overfill.

Hydraulic oil specifications	
Hydraulic oil type	Chevron Rando Premium MV equivalent

Maintenance

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.

Note: This procedure does not need to be performed on machines with sealed or maintenance - free batteries.

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

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

Note: Perform this test after fully charging the batteries.

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 bars are in place and secure.

Note: Adding terminal protectors and a corrosion preventative sealant will help eliminate the corrosion on the battery terminals and cables.

Scheduled Maintenance

Maintenance performed quarterly, 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.

Specifications

QS-12W	
Height, working maximum	5.3 m
Height, platform maximum	3.5 m
Height, stowed maximum	1.6 m
Width	74.9 cm
Length, stowed	1.35 m
Length with stock picker platform including adjustable tray	1.77 m
Platform, with work tray (length x width)	142.2 x 74.9 cm
Maximum capacity (stockpicker platform)	227 kg
Maximum capacity (adjustable work tray)	68 kg
Maximum capacity (parcel tray)	68 kg
Maximum wind speed	0 m/s
Turning radius (inside)	0 cm
Turning radius (outside)	132.1 cm
Ground clearance	6.4 cm
Weight (Machine weights vary with option configurations. See serial label for specific machine weight.)	755 kg
Power source	4 Batteries, 6V 225AH
Controls	Proportional
AC outlet in platform	Standard
Maximum hydraulic pressure (functions)	207 bar
Tire size	25.4 x 7.6 x 2.5 cm
Airborne noise emissions Maximum sound level at normal operating workstations (A-weighted)	<70 dB
Maximum slope rating, stowed position	30% (17°)
Maximum side slope rating	30% (17°)

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

Drive speeds	
Stowed, maximum	4.0 km/h 12.2 m/10.9 sec
Platform raised, maximum	0.8 km/h 12.2 m/55 sec

Floor loading information	
Tire load, maximum	308 kg
Tire contact pressure	7.4 kg/cm^2 721.3 kPa
Occupied floor pressure	935.8 kg/m^2 9.2 kPa

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

Specifications

QS-15W	
Height, working maximum	6.3 m
Height, platform maximum	4.5 m
Height, stowed maximum	1.98 m
Width	74.9 cm
Length, stowed	1.35 m
Length with stock picker platform including adjustable tray	1.77 m
Platform, with work tray (length x width)	142.2 x 74.9 cm
Maximum capacity (stockpicker platform)	227 kg
Maximum capacity (adjustable work tray)	68 kg
Maximum capacity (parcel tray)	68 kg
Maximum wind speed	0 m/s
Turning radius (inside)	0 cm
Turning radius (outside)	132.1 cm
Ground clearance	6.4 cm
Weight (Machine weights vary with option configurations. See serial label for specific machine weight.)	1033 kg
Power source	4 Batteries, 6V 225AH
Controls	Proportional
AC outlet in platform	Standard
Maximum hydraulic pressure (functions)	207 bar
Tire size	25.4 x 7.6 x 2.5 cm
Airborne noise emissions Maximum sound level at normal operating workstations (A-weighted)	<70 dB
Maximum slope rating, stowed position	30% (17°)
Maximum side slope rating	30% (17°)

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

Drive speeds	
Stowed, maximum	4.0 km/h 12.2 m/10.9 sec
Platform raised, maximum	0.8 km/h 12.2 m/55 sec

Floor loading information	
Tire load, maximum	327 kg
Tire contact pressure	7.8 kg/cm^2 763.7 kPa
Occupied floor pressure	1209 kg/m^2 11.9 kPa

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

Specifications

QS-20W	
Height, working maximum	7.9 m
Height, platform maximum	6.0 m
Height, stowed maximum	1.98 m
Width	80 cm
Length, stowed	1.35 m
Length with stock picker platform including adjustable tray	1.77 m
Platform, with work tray (length x width)	142.2 x 74.9 cm
Maximum capacity (stockpicker platform)	159 kg
Maximum capacity (adjustable work tray)	68 kg
Maximum wind speed	0 m/s
Turning radius (inside)	0 cm
Turning radius (outside)	134.6 cm
Ground clearance	6.4 cm
Weight (Machine weights vary with option configurations. See serial label for specific machine weight.)	1136 kg
Power source	4 Batteries, 6V 225AH
Controls	Proportional
AC outlet in platform	Standard
Maximum hydraulic pressure (functions)	207 bar
Tire size	25.4 x 7.6 x 2.5 cm
Airborne noise emissions Maximum sound level at normal operating workstations (A-weighted)	<70 dB
Maximum slope rating, stowed position	30% (17°)
Maximum side slope rating	30% (17°)

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

Drive speeds	
Stowed, maximum	4.0 km/h 12.2 m/10.9 sec
Platform raised, maximum	0.8 km/h 12.2 m/55 sec

Floor loading information	
Tire load, maximum	395 kg
Tire contact pressure	9.4 kg/cm^2 922.8 kPa
Occupied floor pressure	1181 kg/m^2 11.6 kPa

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

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

Distributed By:

Genie North America
Phone 425.881.1800
Toll Free USA and Canada
800.536.1800
Fax 425.883.3475

Genie Australia Pty Ltd.
Phone +61 7 3375 1660
Fax +61 7 3375 1002

Genie China
Phone +86 21 53852570
Fax +86 21 53852569

Genie Malaysia
Phone +65 98 480 775
Fax +65 67 533 544

Genie Japan
Phone +81 3 3453 6082
Fax +81 3 3453 6083

Genie Korea
Phone +82 25 587 267
Fax +82 25 583 910

Genie Brasil
Phone +55 11 41 665 755
Fax +55 11 41 665 754

Genie Holland
Phone +31 183 581 102
Fax +31 183 581 566

Genie Scandinavia
Phone +46 31 575100
Fax +46 31 579020

Genie France
Phone +33 (0)2 37 26 09 99
Fax +33 (0)2 37 26 09 98

Genie Iberica
Phone +34 93 579 5042
Fax +34 93 579 5059

Genie Germany
Phone +49 (0)4202 88520
Fax +49 (0)4202 8852-20

Genie U.K.
Phone +44 (0)1476 584333
Fax +44 (0)1476 584334

Genie Mexico City
Phone +52 55 5666 5242
Fax +52 55 5666 3241