

# Inspections



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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 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

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- Be sure that the operator's, safety and responsibilities manuals are complete, legible and in the storage container located in 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.
- FE models: Check for engine oil leaks and proper oil level. Add oil if needed. See Maintenance section.
- FE models: Check for engine coolant leaks and proper level of coolant. Add coolant 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 hoses, fittings, cylinders and manifolds
- Fuel and hydraulic tanks
- Drive and turntable motors and drive hubs

- Wear pads
- Tires and wheels
- FE models: Engine and related components
- Limit switches, angle sensors and horn
- Alarms and beacons (if equipped)
- Nuts, bolts and other fasteners
- Platform entry mid-rail or gate
- Platform load cell (if equipped)
- Lanyard anchorage points

Check entire machine for:

- Cracks in welds or structural components
- Dents or damage to 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.
- After you complete your inspection, be sure that all compartment covers are in place and latched.

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- ☑ 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.

# Inspections

## At the Ground Controls

- 1 Select a test area that is firm, level and free of obstruction.
- 2 Turn the key switch to ground control.
- 3 Pull out the red Emergency Stop button to the on position.
- ⊙ Result: The beacon (if equipped) should flash.
- 4 FE models: Start the engine. See Operating Instructions section.

## Test Emergency Stop

- 5 Push in the red Emergency Stop button to the off position.
- ⊙ Result FE models: The engine will shut off after 2 to 3 seconds.
- 6 Press and hold the function enable button and activate each boom and platform function toggle switch.
- ⊙ Result: No functions should operate.
- 7 Pull out the red Emergency Stop button to the on position.

## Test Machine Functions

- 8 Do not push and hold the function enable button. Attempt to activate each boom and platform function toggle switch.
- ⊙ Result: No boom and platform functions should operate.
- 9 Press and hold the function enable button and activate each boom and platform function toggle switch.
- ⊙ Result: All boom and platform functions should operate through a full cycle. The descent alarm should sound while the boom is lowering.

## Test Emergency Controls

FE Models:

- 10 Turn the key switch to ground control.
- 11 Pull out the red Emergency Stop button to the on position.
- 12 Select hybrid mode.
- 13 Simultaneously hold the emergency power switch on and activate each boom function toggle switch.



Note: To conserve battery power, test each function through a partial cycle.

- ⊙ Result: All boom functions should operate.

DC Models:

- 14 Turn the key switch to ground control.
- 15 Pull out the red Emergency Stop button to the on position.
- 16 Simultaneously hold the emergency power switch on and activate each boom function toggle switch.



Note: To conserve battery power, test each function through a partial cycle.

- ⊙ Result: All boom functions should operate.

# Inspections

## Test the Tilt Sensor

FE Models:

- 17 Select a test area that is firm, level and free of obstruction.
  - 18 Turn the key switch to ground control.
  - 19 Pull out the red Emergency Stop button to the on position.
  - 20 Select hybrid mode.
  - 21 Start the engine. See Operating Instructions section.
- ⊙ Result: At machine start up the ground control meter displays pitch and roll angles of the machine and the alarm will beep 4 seconds.

DC Models:

- 22 Select a test area that is firm, level and free of obstruction.
  - 23 Turn the key switch to ground control.
  - 24 Pull out the red Emergency Stop button to the on position.
- ⊙ Result: At machine start up the ground control meter displays pitch and roll angles of the machine and the alarm will beep 4 seconds.

## Test the Platform Controls

- 25 Turn the key switch to platform control.
- 26 Pull out the red Emergency Stop button to the on position.
- 27 FE models: Start the engine. See Operating Instructions section.

## Test Emergency Stop

- 28 Push in the platform red Emergency Stop button to the off position.
- ⊙ Result FE models: The engine should turn off.
- 29 Activate each function control handle, toggle switch or thumb rocker switch.
- ⊙ Result: No functions should operate.
- 30 Pull out the platform red Emergency Stop button to the on position.

## Test the Horn

- 31 Press the horn button.
- ⊙ Result: The horn should sound.

# Inspections

## Test the Foot Switch

DC Models:

32 Do not press down the foot switch. Test each machine function.

- ⊙ Result: No functions should operate.

FE Models:

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

34 Pull out the red Emergency Stop button to the on position and do not start the engine.

35 Do not press down the foot switch and attempt to start the engine by moving the machine mode select switch to hybrid mode.

- ⊙ Result: The engine should not start.

36 Move the machine mode select switch to hybrid mode.

37 Press and hold the foot switch.

- ⊙ Result: The engine should start.

38 Do not press down the foot switch and test each machine function.

- ⊙ Result: No functions should operate.

## Test Machine Functions

39 Press down the foot switch.

40 Activate each machine function control handle or toggle switch.

- ⊙ Result: All boom and platform functions should operate through a full cycle.

## Test the Steering

41 Press down the foot switch.

42 Press the thumb rocker switch on top of the drive control handle in the direction indicated by the blue triangle on the control panel OR slowly move the control handle in the direction indicated by the blue triangle.

- ⊙ Result: The steer wheels should turn in the direction that the blue triangles point on the drive chassis.

43 Press the thumb rocker switch in the direction indicated by the yellow triangle on the control panel OR slowly move the control handle in the direction indicated by the yellow triangle.

- ⊙ Result: The steer wheels should turn in the direction that the yellow triangles point on the drive chassis.

## Test Drive and Braking

44 Press down the foot switch.

45 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.

46 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 drive chassis, then come to an abrupt stop.

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

# Inspections

## Test the Drive Enable System

- 47 Press down the foot switch and lower the boom to the stowed position.
- 48 Rotate the turntable until the primary boom moves past one of the non-steer wheels.

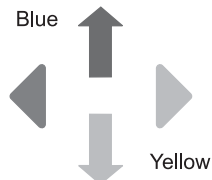
- ⊙ Result: The drive enable indicator light should come on and remain on while the boom is anywhere in the range shown.



- 49 Move the drive control handle off center.
- ⊙ Result: The drive function should not operate.
- 50 Move and hold the drive enable toggle switch to either side and slowly move the drive control handle off center.
- ⊙ Result: The drive function should operate.

Note: When the drive enable system is in use, the machine may drive in the opposite direction that the drive and steer control handle is moved.

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



## Test Limited Drive Speed

- 51 Press down the foot switch.
- 52 Raise the primary boom approximately 61 cm.
- 53 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 30 cm/s.
- 54 Lower the primary boom to the stowed position.
- 55 Extend the primary boom approximately 61 cm.
- 56 Slowly move the drive control handle to the full drive position.
- ⊙ Result: The maximum achievable drive speed with the primary boom extended should not exceed 30 cm/s.
- 57 Retract the primary boom to the stowed position.
- 58 Raise the secondary boom approximately 61 cm.
- 59 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 30 cm/s.
- 60 Lower the secondary boom to the stowed position.

If the drive speed with the primary or secondary boom raised or the primary boom extended exceeds 30 cm per second, immediately tag and remove the machine from service.

# Inspections

## Test the Oscillating Axle (if equipped)

- 61 Drive the right steer tire up onto a 15 cm block or curb.
  - ⊙ Result: The three remaining tires should stay in firm contact with the ground.
- 62 Drive the left steer tire up onto a 15 cm block or curb.
  - ⊙ Result: The three remaining tires should stay in firm contact with the ground.
- 63 Drive both steer tires up onto a 15 cm block or curb.
  - ⊙ Result: The non-steer tires should stay in firm contact with the ground.

## Test Emergency Controls

- 64 Push in the red Emergency Stop button to the off position.
- 65 Pull out the red Emergency Stop button to the on position.
- 66 Press down the foot switch.
- 67 Simultaneously move and hold the emergency power switch and activate each function control handle, toggle switch or thumb rocker switch. Note: To conserve battery power, test each function through a partial cycle.
  - ⊙ Result: All boom and steer functions should operate. Drive functions should not operate with emergency power.

## Test the Lift/Drive Select Function (if equipped)

- 68 Press down the foot switch.
- 69 Move the drive control handle off center and activate a boom function toggle switch.
  - ⊙ Result: No boom functions should operate. The machine will move in the direction indicated on the control panel.

Repair any malfunctions before operating the machine.

## Test Aircraft Protection Package (if equipped)

Note: Two people may be required to perform this test.

- 70 Extend the primary boom approximately 30 cm.
- 71 Move the yellow bumper at the bottom of the platform 10 cm in any direction.
- 72 Activate each function control handle or toggle switch.
  - ⊙ Result: No boom and steer functions should operate.
- 73 Move and hold the aircraft protection override switch.



- 74 Activate each function control handle or toggle switch.
  - ⊙ Result: All boom and steer functions should operate.



# Inspections



## Do Not Operate Unless:

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- 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.

## Workplace Inspection Checklist

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

## Workplace Inspection 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.

## Inspections


### Inspection for Decals with Words Z-60/37DC

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.

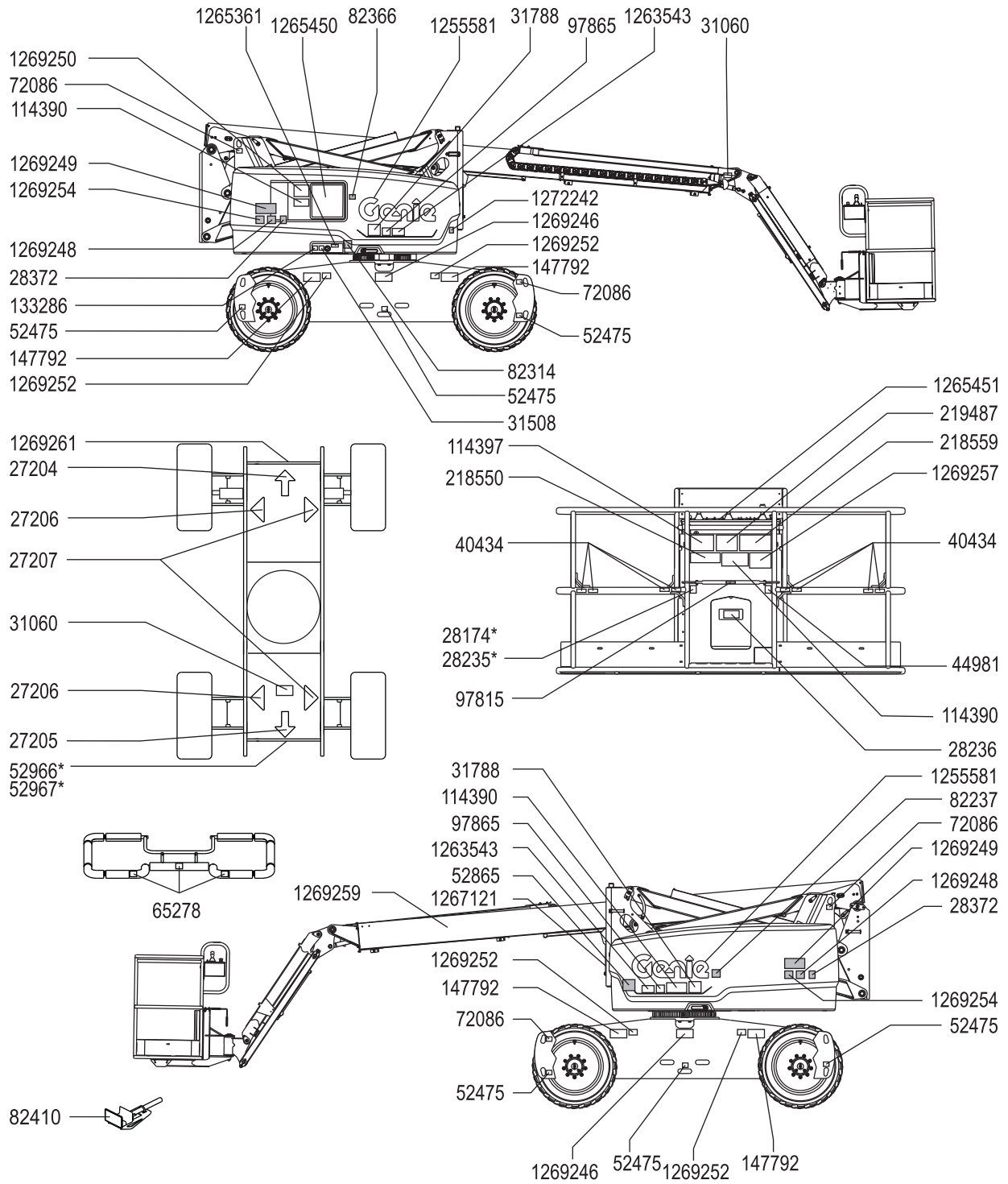
Part No.	Decal Description	Qty
27204	Arrow – Blue	1
27205	Arrow – Yellow	1
27206	Triangle – Blue	2
27207	Triangle – Yellow	2
28174	Label – Power to Platform, 230V	2
28235	Label – Power to Platform, 115V	2
28236	Warning – Improper Operation	1
28372	Label – Disconnect Battery Pack Plug	2
31060	Danger – Tip-over Hazard, Limit Switch	2
31508	Danger – Electrocutation Hazard	1
31788	Danger – Explosion/Burn Hazard	2
40434	Label – Lanyard Anchorage Point	8
44981	Label – Air Line to Platform (option)	2
52475	Label – Transport Tie-down	6
52865	Warning – Annual Inspection Record	1
52966	Cosmetic – 4 x 2	1
52967	Cosmetic – 4 x 4	1
65278	Caution – No Step	3
72086	Label – Lifting Point	4
82237	Danger – Electrocutation Hazard	1
82314	Danger – Tip-over Hazard	1
82366	Label – Chevron Rando	1
82410	Warning – Panel Cradle (option)	2
97815	Label – Lower Mid-rail	1

Part No.	Decal Description	Qty
97865	Warning – Electrocutation Hazard	2
114390	Danger – Electrocutation Hazard	3
114397	Danger – Tilt-Alarm	1
133286	Label – Power to Charger	1
147792	Danger – Tire Specifications	4
218550	Danger – Tip-over Hazard, AUS, 500 lbs / 227 kg	1
218559	Danger, Warning – Tip-over, Crush Hazard	1
219487	Label – Platform Overload	1
1255581	Cosmetic – Genie	2
1263543	Warning – Compartment Access	2
1265361	Label – Battery Charger Indicator	1
1265450	Ground Control Panel	1
1265451	Platform Control Panel	1
1267121	Warning – Crush Hazard, Service	1
1269246	Label – Transport/Lifting	2
1269248	Instructions – Battery Connection Diagram	2
1269249	Instructions – Battery Charging	2
1269250	Notice – Operating Instructions	1
1269252	Label – Wheel Load, Z-60/37	4
1269254	Danger – Tip-over Hazard, Batteries	2
1269257	Label – Slope Rating, Z-60/37	1
1269259	Cosmetic – Genie Z-60/37DC	1
1269261	Cosmetic – Z-60/37DC	1
1272242	Label – Machine Registration/Owner Transfer	1

 Shading indicates decal is hidden from view, i.e. under covers

\* These decals are model, option or configuration specific.

# Inspections



## Inspections


### Inspection for Decals with Words Z-60/37FE

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.	Decal Description	Qty
27204	Arrow – Blue	1
27205	Arrow – Yellow	1
27206	Triangle – Blue	2
27207	Triangle – Yellow	2
28159	Label – Diesel	1
28174	Label – Power to Platform, 230V	2
28235	Label – Power to Platform, 115V	2
28236	Warning – Improper Operation	1
28372	Label – Disconnect Battery Pack Plug	2
31060	Danger – Tip-over Hazard, Limit Switch	2
31508	Danger – Electrocutation Hazard	1
31788	Danger – Explosion/Burn Hazard	2
40434	Label – Lanyard Anchorage Point	8
44981	Label – Air Line to Platform (option)	2
52475	Label – Transport Tie-down	6
52865	Warning – Annual Inspection Record	1
52966	Cosmetic – 4 x 2	1
52967	Cosmetic – 4 x 4	1
65278	Caution – No Step	3
72086	Label – Lifting Point	4
82237	Danger – Electrocutation Hazard	1
82314	Danger – Tip-over Hazard	1
82366	Label – Chevron Rando	1
82410	Warning – Panel Cradle (option)	2
97602	Warning – Explosion Hazard	1
97815	Label – Lower Mid-rail	1
97865	Warning – Electrocutation Hazard	2

Part No.	Decal Description	Qty
114258	Danger – Explosion Hazard	2
114390	Danger – Electrocutation Hazard	3
114397	Danger – Tilt-Alarm	1
133278	Label – Low Sulfur Fuel (diesel models)	1
133286	Label – Power to Charger	1
147792	Danger – Tire Specifications	4
218550	Danger – Tip-over Hazard, AUS, 500 lbs / 227 kg	1
218559	Danger, Warning – Tip-over, Crush Hazard	1
219487	Label – Platform Overload	1
1255581	Cosmetic – Genie	2
1263543	Warning – Compartment Access	2
1265361	Label – Battery Charger Indicator	1
1265450	Ground Control Panel	1
1265451	Platform Control Panel	1
1267121	Warning – Crush Hazard, Service	1
1269246	Label – Transport/Lifting	2
1269247	Instructions – Kubota Diesel Engine Specifications (D1105-E4B)	1
1269248	Instructions – Battery Connection Diagram	2
1269249	Instructions – Battery Charging	2
1269251	Notice – Operating Instructions	1
1269252	Label – Wheel Load, Z-60/37	4
1269254	Danger – Tip-over Hazard, Batteries	2
1269257	Label – Slope Rating, Z-60/37	1
1269260	Cosmetic – Genie Z-60/37FE	1
1269262	Cosmetic – Z-60/37FE Hybrid	1
1272242	Label – Machine Registration/Owner Transfer	1

 Shading indicates decal is hidden from view, i.e. under covers

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