Operation & Safety Manual

Original Instructions -
Keep this manual with the machine at all times.

Model 800AJ HC3

PVC 2307

31222411

July 26, 2023 - Rev B

ANSI ***AS/NZS MOL70 GB***

An Oshkosh Corporation Company

⚠ WARNING

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

FOREWORD

The Mobile Elevating Work Platform (MEWP) models covered in this manual are designed and tested to meet or exceed various compliance standards. Please refer to the manufacturer's nameplate affixed to the subject MEWP for specific standard compliance information.

This manual is a very important tool! Keep it with the machine at all times.

The purpose of this manual is to provide owners, users, operators, lessors, and lessees with the precautions and operating procedures essential for the safe and proper machine operation for its intended purpose.

Due to continuous product improvements, JLG Industries, Inc. reserves the right to make specification changes without prior notification. Contact JLG Industries, Inc. for updated information.

Refer to www.JLG.com for Warranty, Product Registration, and other machine-related documentation.

SAFETY ALERT SYMBOLS AND SAFETY SIGNAL WORDS

This is the Safety Alert Symbol. It is used to alert you to the potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

Indicates an imminently hazardous situation. If not avoided, will result in serious injury or death. This decal will have a red background.

⚠ WARNING

Indicates a potentially hazardous situation. If not avoided, could result in serious injury or death. This decal will have an orange background.

⚠ CAUTION

Indicates a potentially hazardous situation. If not avoided, may result in minor or moderate injury. It may also alert against unsafe practices. This decal will have a yellow background.

NOTICE

Indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.

⚠ WARNING

This product must comply with all safety related bulletins. Contact JLG Industries, Inc. or the local authorized JLG representative for information regarding safety related bulletins which may have been issued for this product.

NOTICE

JLG Industries, Inc. sends safety related bulletins to the owner of record of this machine. Contact JLG Industries, Inc. to ensure that the current owner records are updated and accurate.

NOTICE

JLG Industries, Inc. must be notified immediately in all instances where JLG products have been involved in an accident involving bodily injury or death or when substantial damage has occurred to personal property or the JLG product.

For:

- Accident Reporting
- Product Safety Publications
- Current Owner Updates
- Questions Regarding Product Safety
- Standards and Regulations Compliance Information
- Questions Regarding Special Product Applications
- Questions Regarding Product Modifications

Contact:

Product Safety and Reliability Department

JLG Industries, Inc.

13224 Fountainhead Plaza

Hagerstown, MD 21742

USA

or Visit www.jlg.com to find your local JLG office.

In USA:

Toll Free: 877-JLG-SAFE (877-554-7233)

Outside USA:

Phone: 240-420-2661

Fax: 301-745-3713

E-mail: ProductSafety@JLG.com

REVISION LOG

Date	Revision	Description
July 10, 2023	A	Original Issue
July 26, 2023	B	Revision

Other Publications Available

Publication	Publication Number
Service & Maintenance Manual	31222412
Illustrated Parts Manual	31222413

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SECTION CONTENTS

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SECTION 1
Safety Precautions

1.1 GENERAL

This section outlines the necessary precautions for proper and safe machine usage and maintenance. It is mandatory that a daily routine is established based on the content of this manual to promote proper machine usage. A maintenance program, using the information provided in this manual and the Service & Maintenance Manual, must also be established by a qualified person and must be followed to ensure that the machine is safe to operate.

The owner/user/operator/lessor/lessee of the machine must not accept operating responsibility until this manual has been read, training is accomplished, and operation of the machine has been completed under the supervision of an experienced and qualified operator.

This section contains the responsibilities of the owner, user, operator, lessor, and lessee concerning safety, training, inspection, maintenance, application, and operation. If there are any questions with regard to safety, training, inspection, maintenance, application, and operation, please contact JLG Industries, Inc. ("JLG").

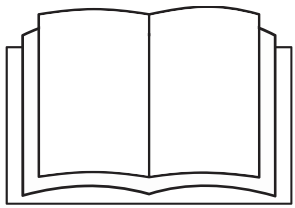
⚠ WARNING

Failure to comply with the safety precautions listed in this manual could result in machine damage, property damage, personal injury or death.

1.2 PRE-OPERATION

1.2.1 Operator Training and Knowledge

- Read, understand, and study the Operation and Safety Manual in its entirety before operating the machine. For clarification, questions, or additional information regarding any portions of this manual, contact JLG Industries, Inc.



- Only personnel who have received proper training regarding the inspection, application and operation of MEWPs (including recognizing and avoiding hazards associated with their operation) shall be authorized to operate a MEWP.

- Only properly trained personnel who have received unit-specific familiarization shall operate a MEWP. The user shall determine if personnel are qualified to operate the MEWP prior to operation.
- Read, understand, and obey all DANGERS, WARNINGS, CAUTIONS, and operating instructions on the machine and in this manual.
- Ensure that the machine is to be used in a manner which is within the scope of its intended application as determined by JLG.
- All operating personnel must have a thorough understanding of the intended purpose and function of the MEWP controls, including platform, ground and emergency descent controls.
- Read, understand, and obey all applicable employer, local, and governmental regulations as they pertain to your utilization and application of the machine.

1.2.2 Workplace Inspection

- Precautions to avoid all hazards in the work area must be taken by the user before and during operation of the machine.
- Do not operate or raise the platform from a position on trucks, trailers, railway cars, floating vessels, scaffolds or other equipment unless the application is approved in writing by JLG.
- Before operation, check work area for overhead hazards such as electric lines, bridge cranes, and other potential overhead obstructions.
- Check operating surfaces for holes, bumps, drop-offs, obstructions, debris, concealed holes, and other potential hazards.
- Check the work area for hazardous locations. Do not operate the machine in hazardous environments unless approved for that purpose by JLG.
- Ensure that the ground conditions are adequate to support the maximum tire load indicated on the tire load decals located on the chassis adjacent to each wheel. Do not travel on unsupported surfaces.

1.2.3 Machine Inspection

- Do not operate this machine until the inspections and functional checks as specified in the User Responsibilities, Machine Preparation, and Inspection Section of this manual have been performed.
- Do not operate this machine until it has been serviced and maintained according to the maintenance and inspection requirements as specified in the machine's Service Manual.
- Ensure all safety devices are operating properly. Modification of these devices is a safety violation.

⚠ WARNING

Modification or alteration of a MEWP shall be made only with prior written permission from the manufacturer.

- Do not operate any machine on which the safety or instruction placards or decals are missing or illegible.
- Check the machine for modifications to original components. Ensure that any modifications have been approved by JLG.
- Avoid accumulation of debris on platform floor. Keep mud, oil, grease, and other slippery substances from footwear and platform floor.

1.3 OPERATION

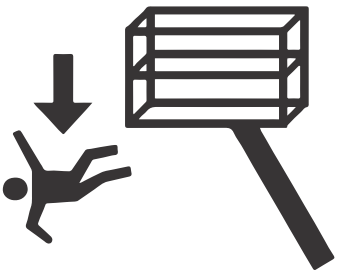
1.3.1 General

- Machine operation requires your full attention. Bring the machine to a full stop before using any device, i.e. cell phones, two-way radios, etc. that will distract your attention from safely operating the machine.
- Do not use the machine for any purpose other than positioning personnel, their tools, and equipment.
- Before operation, the user must be familiar with the machine capabilities and operating characteristics of all functions.
- Never operate a malfunctioning machine. If a malfunction occurs, shut down the machine. Remove the unit from service and notify the proper authorities.
- Do not remove, modify, or disable any safety devices.
- Never slam a control switch or lever through neutral to an opposite direction. Always return switch to neutral and stop before moving the switch to the next function. Operate controls with slow and even pressure.
- Do not allow personnel to tamper with or operate the machine from the ground with personnel in the platform, except in an emergency.
- Do not carry materials directly on platform railing unless approved by JLG.
- When two or more persons are in the platform, the operator shall be responsible for all machine operations.
- Always ensure that power tools are properly stowed and never left hanging by their cord from the platform work area.
- When driving, always position boom over rear axle in line with the direction of travel. Remember, if boom is over the front axle, steer and drive functions will be reversed.

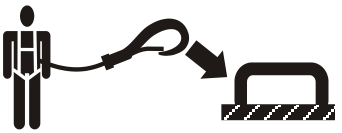
- Do not assist a stuck or disabled machine by pushing or pulling except by pulling at the chassis tie-down lugs.
- Fully lower platform and shut off all power before leaving machine.
- Remove all rings, watches, and jewelry when operating machine. Do not wear loose fitting clothing or long hair unrestrained which may become caught or entangled in equipment.
- Persons under the influence of drugs or alcohol or who are subject to seizures, dizziness or loss of physical control must not operate this machine.
- Hydraulic cylinders are subject to thermal expansion and contraction. This may result in changes to the platform position while the machine is stationary. Factors affecting thermal movement can include the length of time the machine will remain stationary, hydraulic oil temperature, ambient air temperature, and platform position.

1.3.2 Trip and Fall Hazards

- Before operating the machine, ensure all gates are closed and fastened in their proper position.



- During operation, occupants in the platform must wear a full body harness with a lanyard attached to an authorized lanyard anchorage point. Attach only one (1) lanyard per lanyard anchorage point.

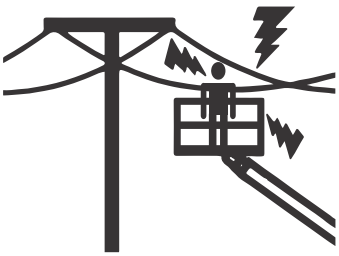


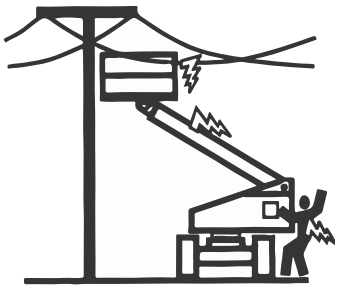
- Enter and exit only through gate area. Use extreme caution when entering or leaving platform. Ensure that the platform assembly is fully lowered. Face the platform when entering or leaving the platform. Always maintain “three point contact” with the machine, using two hands and one foot or two feet and one hand at all times during entry and exit.

- Keep both feet firmly positioned on the platform floor at all times. Never position ladders, boxes, steps, planks, or similar items on unit to provide additional reach for any purpose.
- Keep oil, mud, and slippery substances cleaned from footwear and the platform floor.

1.3.3 Electrocution Hazards

- This machine is not insulated and does not provide protection from contact with or proximity to electrical current.
- It is not recommended to use the machine during lightning. To prevent injury or machine damage if lightning occurs during operation, lower the boom and shut down the machine in a safe and secure location.





- Maintain distance from electrical lines, apparatus, or any energized (exposed or insulated) parts according to the Minimum Approach Distance (MAD) as shown in *Table — Minimum Approach Distances (MAD), page 17*.
- Allow for machine movement and electrical line swaying.

Table 1. Minimum Approach Distances (MAD)

Voltage Range (Phase to Phase)	Minimum Approach Distance in Feet (Meters)
0 to 50 KV	10 (3)
Over 50K V to 200 KV	15 (5)
Over 200 KV to 350 KV	20 (6)
Over 350 KV to 500 KV	25 (8)
Over 500 KV to 750 KV	35 (11)

Table 1. Minimum Approach Distances (MAD) (continued)

Voltage Range (Phase to Phase)	Minimum Approach Distance in Feet (Meters)
Over 750 KV to 1000 KV	45 (14)

Note: This requirement shall apply except where employer, local or governmental regulations are more stringent.

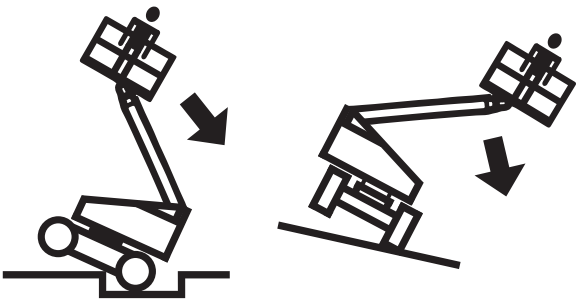
- Maintain a clearance of at least 10 ft (3m) between any part of the machine and its occupants, their tools, and their equipment from any electrical line or apparatus carrying up to 50,000 volts. One foot additional clearance is required for every additional 30,000 volts or less.
- The MAD may be reduced if insulating barriers are installed to prevent contact, and the barriers are rated for the voltage of the line being guarded. These barriers shall not be part of (or attached to) the machine.
- The MAD shall be reduced to a distance within the designed working dimensions of the insulating barrier. This determination shall be made by a qualified person with respect to electrical transmission and distribution in accordance with the employer, local, or governmental requirements for work practices near energized equipment.

⚠ DANGER

Do not maneuver machine or personnel inside prohibited zone (MAD). Assume all electrical parts and wiring are energized unless known otherwise.

1.3.4 Tipping Hazards

- Ensure that the ground conditions are adequate to support the maximum tire load indicated on the tire load decals located on the chassis adjacent to each wheel. Do not travel on unsupported surfaces.
- The user must be familiar with the operating surface before driving. Do not exceed the allowable side slope and grade while driving.



- Do not elevate platform or drive with platform elevated while on or near a sloping, uneven, or soft surface.

- Ensure machine is positioned on a smooth, firm surface within the limits of the maximum operating slope before elevating platform or driving with the platform in the elevated position.
- Before driving on floors, bridges, trucks, and other surfaces, check allowable capacity of the surfaces.
- Never exceed the maximum platform capacity as specified on the platform. Keep all loads within the confines of the platform, unless authorized by JLG.
- Keep the chassis of the machine a minimum of 2 ft (0.6m) from holes, bumps, drop-offs, obstructions, debris, concealed holes, and other potential hazards at the ground level.
- Do not push or pull any object with the boom.
- Never attempt to use the machine as a crane. Do not tie-off machine to any adjacent structure. Never attach wire, cable, or any similar items to platform.
- If boom assembly or platform is in a position that one or more wheels are off the ground, all persons must be removed before attempting to stabilize the machine. Use cranes, forklift trucks, or other appropriate equipment to stabilize machine.
- Do not operate the machine when wind conditions, including gusts, exceed 28 mph (12.5 m/s). Refer to *Table — Beaufort Scale (For Reference Only), page 20*. Factors affecting wind speed are; platform elevation, surrounding structures, local weather events, and approaching storms.
- Wind speed can be significantly greater at height than at ground level.
- Wind speed can change rapidly. Always consider approaching weather events, the time required to lower the platform, and methods to monitor current and potential wind conditions.
- Do not cover or increase surface area of the platform or the load. Do not carry large surface area items in the platform when operating outdoors. The addition of such items increases the exposed wind area of the machine. Increased areas exposed to wind will decrease stability.
- Do not increase the platform size with unauthorized modifications or attachments.

⚠ WARNING

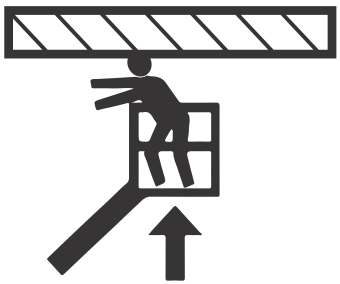
Do not operate the machine when wind conditions exceed specifications shown in the General Specifications section of this manual or as shown on the capacity placard on the platform billboard.

Table 2. Beaufort Scale (For Reference Only)

Beaufort Number	Wind Speed		Description	Land Conditions
	mph	m/s		
0	0	0-0.2	Calm	Calm. Smoke rises vertically
1	1-3	0.3-1.5	Light air	Wind motion visible in smoke
2	4-7	1.6-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle
3	8-12	3.4-5.4	Gentle breeze	Leaves and smaller twigs in constant motion
4	13-18	5.5-7.9	Moderate breeze	Dust and loose paper raised. Small branches begin to move.
5	19-24	8.0-10.7	Fresh breeze	Smaller trees sway.
6	25-31	10.8-13.8	Strong breeze	Large branches in motion. Flags waving near horizontal. Umbrella use becomes difficult.
7	32-38	13.9-17.1	Near Gale/Moderate Gale	Whole trees in motion. Effort needed to walk against the wind.
8	39-46	17.2-20.7	Fresh Gale	Twigs broken from trees. Cars veer on road.
9	47-54	20.8-24.4	Strong Gale	Light structure damage.

1.3.5 Crushing and Collision Hazards

- Approved head gear must be worn by all operating and ground personnel.
- Watch for obstructions around machine and overhead when driving. Check clearances above, on sides, and bottom of platform during all operations.



- During operation, keep all body parts inside platform railing.
- Use the boom functions, not the drive function, to position the platform close to obstacles.
- Always post a lookout when driving in areas where vision is obstructed.
- Keep non-operating personnel at least 6 ft (1.8 m) away from machine during all operations.

- Under all travel conditions, the operator must limit travel speed according to conditions of ground surface, congestion, visibility, slope, location of personnel, and other factors.
- Be aware of stopping distances in all drive speeds. When driving in high speed, reduce drive speed before stopping. Travel grades in low speed only.
- Do not use high speed drive in restricted or close quarters or when driving in reverse.
- Exercise extreme caution at all times to prevent obstacles from striking or interfering with operating controls and persons in the platform.
- Ensure that operators of other overhead and floor level machines are aware of the MEWP's presence. Disconnect power to overhead cranes. Barricade floor area if necessary.
- Do not operate over ground personnel. Warn personnel not to work, stand, or walk under a raised boom or platform. Position barricades on floor if necessary.

1.4 TOWING, LIFTING, AND HAULING

- Never allow personnel in platform while towing, lifting, or hauling.
- This machine should not be towed, except in the event of emergency, malfunction, power failure, or loading/unloading. Refer to the Emergency Procedures section of this manual for emergency towing procedures.
- Ensure boom is in the stowed position and, if equipped, the turntable locked prior to towing, lifting or hauling. The platform must be completely empty of tools.
- When lifting machine, lift only at designated areas of the machine. Lift the unit with equipment of adequate capacity.
- Refer to the Machine Operation section of this manual for lifting information.

1.5 MAINTENANCE

This sub-section contains general safety precautions which must be observed during maintenance of this machine. Additional precautions to be observed during machine maintenance are inserted at the appropriate points in this manual and in the Service and Maintenance Manual. It is of utmost importance that maintenance personnel pay strict attention to these precautions to avoid possible injury to personnel or damage to the machine or property. A maintenance program must be established by a qualified person and must be followed to ensure that the machine is safe.

1.5.1 Maintenance Hazards

- Shut off power to all controls and ensure that all moving parts are secured from inadvertent motion prior to performing any adjustments or repairs.

- Never work under an elevated platform until it has been fully lowered to the full down position, if possible, or otherwise supported and restrained from movement with appropriate safety props, blocking, or overhead supports.
- DO NOT attempt to repair or tighten any hydraulic hoses or fittings while the machine is powered on or when the hydraulic system is under pressure.
- Always relieve hydraulic pressure from all hydraulic circuits before loosening or removing hydraulic components.
- DO NOT use your hand to check for leaks. Use a piece of cardboard or paper to search for leaks. Wear gloves to help protect hands from spraying fluid.

- Use only replacement parts or components that are approved by JLG. To be considered approved, replacement parts or components must be identical or equivalent to original parts or components.
- Never attempt to move heavy parts without the aid of a mechanical device. Do not allow heavy objects to rest in an unstable position. Ensure adequate support is provided when raising components of the machine.
- Do not use machine as a ground for welding.
- When performing welding or metal cutting operations, precautions must be taken to protect the chassis from direct exposure to weld and metal cutting spatter.
- Do not refuel combustion engine-powered machines with the engine running.
- Use only approved non-flammable cleaning solvents.
- Do not replace items critical to stability, such as batteries or solid tires, with items of different weight or specification. Do not modify the MEWP in any way to affect stability.
- Refer to the Service & Maintenance Manual for the weights of critical stability items.

⚠ WARNING

Modification or alteration of a MEWP shall be made only with prior written permission from the manufacturer.

1.5.2 Battery Hazards

- Always disconnect batteries when servicing electrical components or when performing welding on the machine.
- Do not allow smoking, open flame, or sparks near battery during charging or servicing.
- Do not contact tools or other metal objects across the battery terminals.
- Always wear hand, eye, and face protection when servicing batteries. Ensure that battery acid does not come in contact with skin or clothing.

⚠ CAUTION

Battery fluid is highly corrosive. Avoid contact with skin and clothing at all times. Immediately rinse any contacted area with clean water and seek medical attention.

- Charge batteries only in a well ventilated area.
- Avoid overfilling the battery fluid level. Add distilled water to batteries only after the batteries are fully charged.

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SECTION 2
User Responsibilities, Machine Preparation, and Inspection

2.1 PERSONNEL TRAINING

The Mobile Elevating Work Platform (MEWP) is a personnel handling device, so it is necessary that it be operated and maintained only by trained personnel.

2.1.1 Operator Training

Operator training must cover:

1. Reading and understanding the Operation and Safety Manual.
2. Thorough understanding of the intended purpose and function of the MEWP controls, including platform, ground, and emergency descent controls.
3. Control labels, instructions, and warnings on the machine.
4. Applicable regulations, standards, and safety rules.
5. Use of approved fall protection equipment.
6. Enough knowledge of the mechanical operation of the machine to recognize a malfunction or potential malfunction.
7. The safest means to operate the machine where overhead obstructions, other moving equipment, and obstacles, depressions, holes, and drop-offs exist.
8. Means to avoid the hazards of unprotected electrical conductors.
9. Selection of the appropriate MEWP and available options for the work to be performed considering specific job requirements, with involvement from the MEWP owner, user, and/ or supervisor.
10. The responsibility of the operator to ensure all platform occupants have a basic level of knowledge to work safely on the MEWP, and to inform them of applicable regulations, standards, and safety rules.
11. The requirement for familiarization in addition to training.

2.1.2 Training Supervision

Training must be delivered by a qualified person in an open area free of hazards until the trainee has demonstrated the ability to safely control and operate the machine.

2.1.3 Operator Responsibility

The operator must be instructed that they have the responsibility and authority to shut down the machine in case of a malfunction or other unsafe condition of either the machine or the job site.

2.1.4 Machine Familiarization

Note: Responsibilities for familiarization may vary by region.

Only properly trained personnel who have received unit-specific familiarization shall operate a MEWP. The user shall determine if personnel are qualified to operate the MEWP prior to operation. The user shall ensure that after familiarization, the operator operates the MEWP for a sufficient period of time to achieve proficiency. When authorized by the user, self-familiarization can be achieved, if authorized, by a properly trained operator reading, understanding and following the manufacturer's operator's manual.

Prior to user's authorization of an operator to use a specific model of MEWP, the user shall ensure the operator is familiarized on the following:

1. Location of the manual storage compartment and the requirement to ensure the required manual(s) are present on the MEWP;
2. Purpose and function of the machine controls and indicators at the platform and ground control stations;
3. Purpose, location, and function of the emergency controls;
4. Operating characteristics and limitations;
5. Features and devices;
6. Accessories and optional equipment.

2.2 PREPARATION, INSPECTION, AND MAINTENANCE

The following table covers machine inspections and maintenance required by JLG Industries, Inc. Consult local regulations for further requirements for MEWPs. The frequency of inspections and maintenance must be increased as necessary when the machine is used in a harsh or hostile environment, if the machine is used with increased frequency, or if the machine is used in a severe manner.

Table 3. Inspection and Maintenance Table

Type	Frequency	Primary Responsibility	Service Qualification	Reference
Pre-Start Inspection	Before using each day; or whenever there is an Operator change	User or Operator	User or Operator	Operation & Safety Manual
Pre-Delivery Inspection (See Note)	Before each sale, lease, or rental delivery	Owner, Dealer, or User	Qualified JLG Mechanic	Service & Maintenance Manual and applicable JLG inspection form
Frequent Inspection (See Note)	In service for 3 months or 150 hours, whichever comes first or Out of service for a period of more than 3 months or Purchased used	Owner, Dealer, or User	Qualified JLG Mechanic	Service & Maintenance Manual and applicable JLG inspection form
Annual Machine Inspection (See Note)	Annually, no later than 13 months from the date of prior inspection	Owner, Dealer, or User	Factory Trained Service Technician (Recommended)	Service & Maintenance Manual and applicable JLG inspection form

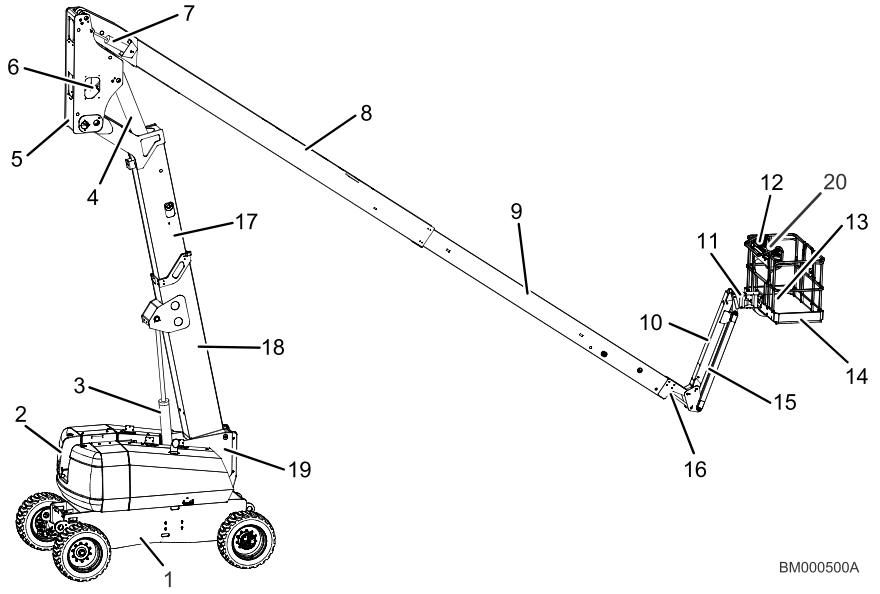
Table 3. Inspection and Maintenance Table (continued)

Type	Frequency	Primary Responsibility	Service Qualification	Reference
Preventive Maintenance	At intervals as specified in the Service & Maintenance Manual	Owner, Dealer, or User	Qualified JLG Mechanic	Service & Maintenance Manual
Note: Inspection forms are available from JLG. Use the Service & Maintenance Manual to perform inspections.				

NOTICE

JLG Industries, Inc. recognizes a factory trained service technician as a person who has successfully completed the JLG Service Training School for the specified JLG product model.

2.3 MACHINE COMPONENTS



1. Chassis
2. Ground Control Console
3. Tower Lift Cylinder
4. Upright Level Cylinder
8. Main Boom Base Section
9. Main Boom Fly Section
10. Jib
11. Rotator
15. Jib Lift Cylinder
16. Slave Cylinder
17. Tower Fly Section
18. Tower Base Section

5. Upright	12. Platform Control Console	19. Turntable
6. Main Boom Lift Cylinder	13. Footswitch	20. SkyGuard
7. Master Cylinder	14. Platform	

2.4 PRE-START INSPECTION

The Pre-Start Inspection should include each of the following:

1. **Cleanliness** — Check all surfaces for leakage (oil, fuel, or battery fluid) or foreign objects. Report any leakage to the proper maintenance personnel.
2. **Structure** — Inspect the machine structure for dents, damage, weld or parent metal cracks or other discrepancies.

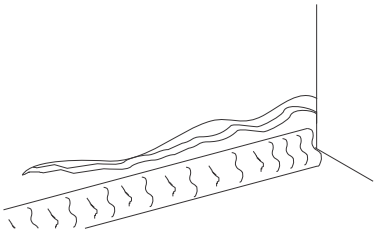


Figure 1. Parent Metal Crack

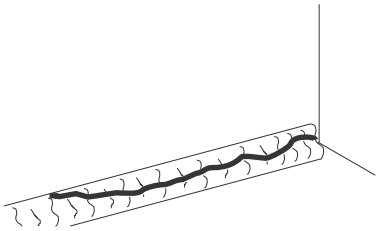


Figure 2. Weld Crack

3. **Decals and Placards** — Check all for cleanliness and legibility. Make sure none of the decals and placards are missing. Make sure all illegible decals and placards are cleaned or replaced.
4. **Operation and Safety Manuals** — Make sure a copy of the Operation & Safety Manual, AEM Safety Manual (ANSI markets only), and ANSI Manual of Responsibilities (ANSI markets only) are enclosed in the weather resistant storage container.
5. **Walk-Around Inspection** — Perform as instructed.
6. **Battery** — Charge as required.
7. **Fuel (Combustion Engine Powered Machines)** — Add the proper fuel as necessary.
8. **Engine Oil Supply** — Ensure the engine oil level is at the Full mark on the dipstick and the filler cap is secure.
9. **Hydraulic Oil** — Check the hydraulic oil level. Ensure hydraulic oil is added as required.

10. **Accessories/Attachments** — Refer to the Accessories section in this manual or accessory installed upon the machine for specific inspection, operation, and maintenance instructions.

11. **Function Check** — Once the Walk-Around Inspection is complete, perform a functional check of all systems in an area free of overhead and ground level obstructions. Refer to *Section — Machine Operation* for more specific instructions.

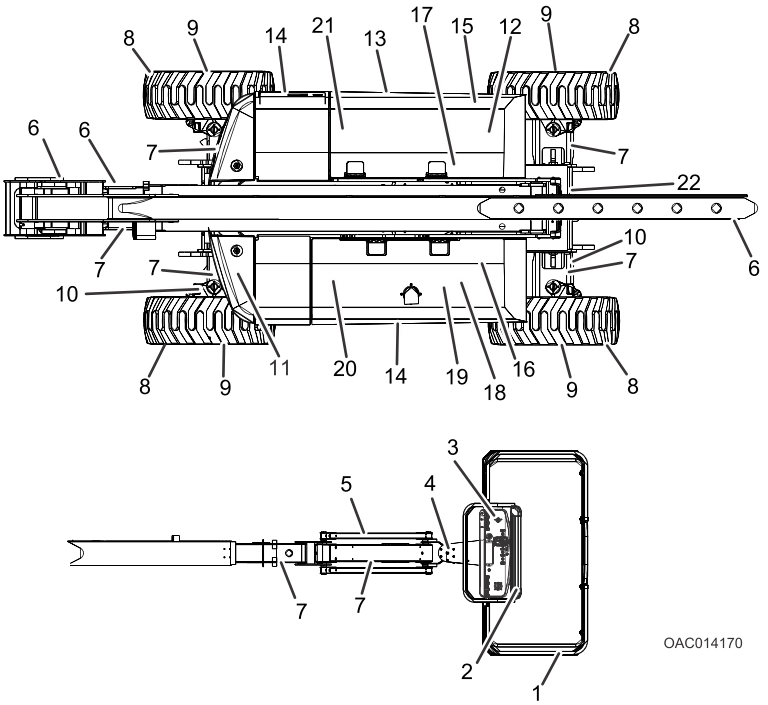
12. **Platform Gate** — Keep gate and surrounding area clean and unobstructed. Verify the gate closes properly and is not bent or damaged. Keep gate closed at all times except when entering/exiting the platform and loading/unloading materials.

13. **Lanyard Attach Points** — During operation, occupants in the platform must wear a full body harness with a lanyard attached to an authorized lanyard anchorage point. Attach only one (1) lanyard per lanyard anchorage point. Attach only one (1) lanyard per lanyard anchorage point.

⚠ WARNING

If the machine does not operate properly, turn off the machine immediately! Report the problem to the proper maintenance personnel. Do not operate the machine until it is declared safe for operation.

2.5 WALK-AROUND INSPECTION



2.5.1 General

Begin the Walk-Around Inspection at Item 1, as noted on the diagram. Continue checking each item in sequence for the conditions listed in the following checklist.

⚠ WARNING

To avoid possible injury be sure machine power is off. Do not operate machine until all malfunctions have been corrected.

NOTICE

Do not overlook visual inspection of chassis underside. Checking this area may result in discovery of conditions which could cause extensive machine damage.

INSPECTION NOTE: *On all components, make sure there are no loose or missing parts, that they are securely fastened, and no visible damage, leaks or excessive wear exists in addition to any other criteria mentioned.*

1. **Platform Assembly and Gate** - Footswitch works properly, not modified, disabled or blocked. Gate latches and hinges in working condition.
2. **SkyGuard** - See Inspection Note.
3. **Platform Control Console** - Switches and levers return to neutral when activated and released, decals/placards secure and legible, control markings legible.
4. **Platform Rotator** - See Inspection Note.
5. **Jib Assembly and Jib Rotator** - See Inspection Note.
6. **Boom Sections/Uprights/Turntable** - See Inspection Note.
7. **All Hydraulic Cylinders** - No visible damage; pivot pins and hydraulic hoses undamaged, not leaking.
8. **Wheel/Tire Assemblies** - Properly secured, no missing lug nuts. Inspect for worn tread, cuts, tears or other discrepancies. Inspect wheels for damage and corrosion.
9. **Drive Motor, Brake, and Hub** - No evidence of leakage.
10. **Tie Rod Ends and Steering Spindles** - See Inspection Note.
11. **Counterweight** - See Inspection Note.
12. **Main Control Valve** - See Inspection Note.
13. **Ground Control Console** - Switches and levers return to neutral when activated and released, decals/placards secure and legible, control markings legible.
14. **Hood Assemblies** - See Inspection Note.
15. **Auxiliary Hydraulic Pump** - See Inspection Note.

16. **Swing Motor and Brake** - No evidence of damage.
17. **Turntable Bearing** - Evidence of proper lubrication. No evidence of loose bolts or looseness between bearing and machine.
18. **Hydraulic Pump and Reservoir** - See Inspection Note.
19. **Battery** - Batteries have proper electrolyte level; cables tight; see Inspection Note.
20. **Air Shutoff Valve (ASOV) (If Equipped)** - See Inspection Note.
21. **Fuel Tank** - See Inspection Note.
22. **Frame** - See Inspection Note.

2.6 FUNCTION CHECK

⚠ WARNING

To avoid serious injury, do not operate machine if any control levers or toggle switches controlling platform movements do not return to the off position when released.

⚠ WARNING

To avoid a collision and injury if platform does not stop when a control switch or lever is released, remove foot from footswitch or use emergency stop to stop machine.

Perform the Function Check as follows:

1. From the ground control console with no load in the platform:
   a. Ensure that all machine functions are disabled when the Emergency Stop Button is pushed in.
   b. Ensure all functions stop when the function switch is released.
   c. Operate all functions and ensure proper operation.
   d. Ensure proper operation of the manual descent controls, as described in *Section — Machine Safety System Override (MSSO) (CE Only)* of this manual.

2. Test the tower boom assembly sequencing as follows:

    a. Place machine on level ground with the tower boom assembly in the stowed position. Identify the tower boom vertical limit switch adjacent to the tower lift cylinder at the bottom end (rear) of the tower base boom. Open the left side hood and perform a visual check that the plunger on the tower boom vertical limit switch is fully extended. The plunger is shown fully extended in *Figure — Tower Boom Vertical Limit Switch, page 34*.

Figure 3. Tower Boom Vertical Limit Switch

⚠ WARNING

Discontinue operation if plunger is not fully extended.

b. Attempt to extend the tower fly boom. The tower fly boom should not extend and the red boom malfunction light in the ground control panel should illuminate when pressing the tower telescope switch.

⚠ WARNING

Discontinue operation if the tower fly boom extends or the boom malfunction light does not illuminate.

c. Raise the tower base boom to approximately 40 degrees, then lower the tower boom back to the below horizontal position. While raising and lowering the tower boom assembly, observe the position of the upright. Ensure that the upright remains vertical relative to the chassis. Refer to *Figure — Boom Upright Positioning - Correct, page 36* and *Figure — Boom Upright Positioning - Incorrect, page 37*.

⚠ WARNING

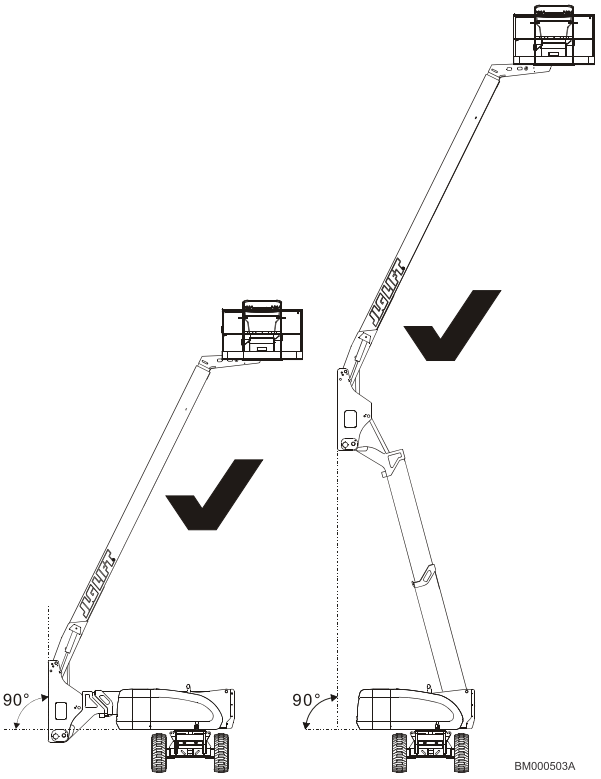
Discontinue operation if the upright is out of alignment or the boom malfunction light is flashing or on steady.

d. Raise the tower base boom to full height. Extend the tower fly boom a few feet. Check that the plunger on the tower boom horizontal limit switch at the end of the tower base boom section is fully extended. The plunger is shown fully extended in *Figure — Tower Boom Horizontal Limit Switch, page 35*.

Figure 4. Tower Boom Horizontal Limit Switch

⚠ WARNING

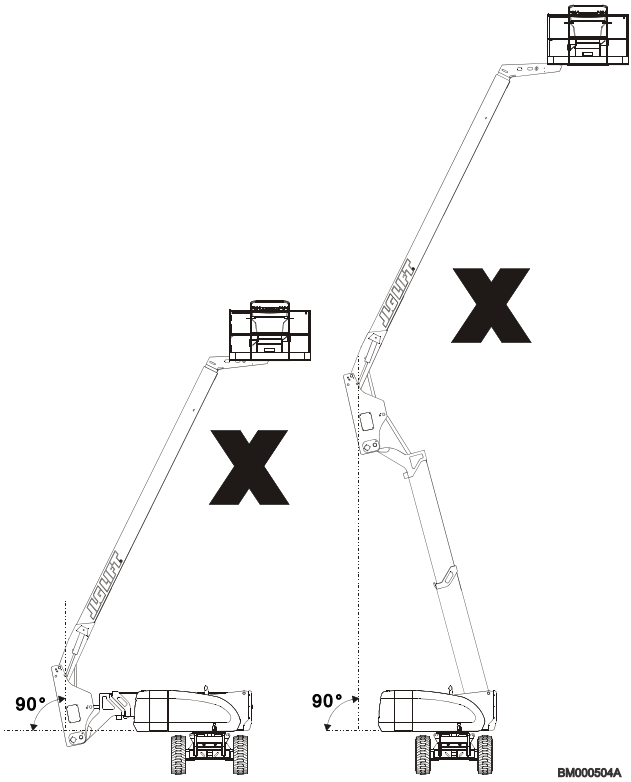
Discontinue operation if plunger is not fully extended.



⚠ WARNING

Upright must be 90° (vertical) relative to the chassis.

Figure 5. Boom Upright Positioning - Correct



⚠ WARNING

To avoid tipping if this occurs: lower platform to ground using main boom lift and telescope functions. Have condition corrected by a trained JLG service technician before continuing use of machine.

Figure 6. Boom Upright Positioning - Incorrect

e. Attempt to lower the tower base boom while the tower fly boom is extended. The tower base boom should not lower and the red boom malfunction light should illuminate when pressing the tower down switch.

⚠ WARNING

Discontinue operation if the tower base boom lowers or the boom malfunction light does not illuminate.

3. From the platform control console:
    a. Ensure that the control console is firmly secured in the proper location.
    b. Check that all guards protecting the switches or locks are in place.
    c. Ensure that all machine functions are disabled when the Emergency Stop Button is pushed in.
    d. Ensure that all machine functions stop when the footswitch is released.
    e. Operate all functions and ensure proper operation.
4. With the platform in the stowed position:
    a. Drive the machine on a grade, not to exceed the rated gradeability, and stop to ensure the brakes hold.
    b. Check that the tilt indicator is illuminated to ensure proper operation.
5. Swing the boom over either of the rear tires and ensure that the Drive Orientation indicator illuminates and that the Drive Orientation Override switch must be used for the drive function to operate.
6. With the machine positioned on a smooth, firm surface within the limits of the maximum operating slope, elevate the boom above 4 degrees of horizontal. Select high speed drive mode. Carefully attempt to drive and ensure the drive speed is reduced.

2.7 SKYGUARD® FUNCTION TEST

Note: Refer to *Section — SkyGuard Operation* for additional information on SkyGuard operation.

From the Platform Console in an area free from obstructions:

1. Operate the telescope out function.
2. Activate the SkyGuard sensor:
   a. **SkyGuard** — Apply approximately 50 lb (222 Nm) of force to yellow bar.
   b. **SkyGuard SkyLine®** — Press rod to break connection between the rod and the right bracket.
   c. **SkyGuard SkyEye®** — Put arm or hand in path of sensor beam.
3. Once the sensor has been activated, verify the following conditions:
   a. Telescope out function stops and telescope in function operates for a short duration.
   b. The horn sounds.
   c. If equipped with SkyGuard beacon, the beacon illuminates.

Note: If SkyGuard is enabled with the Soft Touch system, functions will cut out instead of reversing.

4. Disengage the SkyGuard sensor, release controls, then recycle the foot switch. Ensure normal operation is available.

Note: On machines equipped with SkyLine, reattach the rod to the right bracket.

If SkyGuard remains activated after function reversal or cutout, press and hold the SkyGuard Override Switch to allow normal use of machine functions until the sensor is disengaged.

2.8 OSCILLATING AXLE LOCKOUT TEST (IF EQUIPPED)

NOTICE

Lockout system test must be performed quarterly, any time a system component is replaced, or when improper system operation is suspected.

Note: Ensure boom is fully retracted, lowered, and centered between drive wheels prior to beginning lockout cylinder test.

1. Place a 6 in (15.2 cm) high block with ascension ramp in front of left front wheel.
2. From platform control station, start engine.

3. Position Drive Speed/Torque Select switch to Slow.
4. Place Drive control lever to Forward position and carefully drive machine up ascension ramp until left front wheel is on top of block.
5. Carefully activate Swing control lever and position boom over Right side of machine.
6. With boom over right side of machine, place Drive control lever to Reverse and drive machine off of block and ramp.
7. Have an assistant check to see that left front or right rear wheel remains elevated in position off of ground.
8. Carefully activate Swing control lever and return boom to stowed position (centered between drive wheels). When boom reaches center, stowed position, lockout cylinders should release and allow wheel to rest on ground, it may be necessary to activate Drive to release cylinders.
9. Place the 6 in (15.2 cm) high block with ascension ramp in front of right front wheel.
10. Place Drive control lever to Forward and carefully drive machine up ascension ramp until right front wheel is on top of block.
11. Carefully activate Swing control lever and position boom over left side of machine.
12. With boom over left side of machine, place Drive control lever to Reverse and drive machine off of block and ramp.
13. Have an assistant check to see that right front or left rear wheel remains elevated in position off of ground.
14. Carefully activate Swing control lever and return boom to stowed position (centered between drive wheels). When boom reaches center, stowed position, lockout cylinders should release and allow wheel to rest on ground, it may be necessary to activate Drive to release cylinders.
15. If lockout cylinders do not function properly, have qualified personnel correct the malfunction prior to any further operation.

SECTION 3
Machine Controls and Indicators

3.1 GENERAL

NOTICE

The manufacturer has no direct control over machine application and operation. The user and operator are responsible for conforming with good safety practices.

This section provides the necessary information needed to understand control functions.

3.2 CONTROLS AND INDICATORS

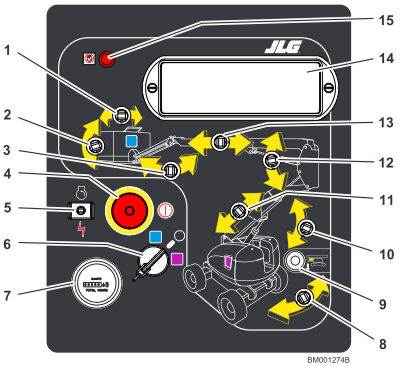
Note: The indicator panels use different shaped symbols to alert the operator to different types of operational situations that could arise. The meaning of those symbols are explained below.

Indicates a potentially hazardous situation, which if not corrected, could result in serious injury or death. This indicator will be red.

Indicates an abnormal operating condition, which if not corrected, may result in machine interruption or damage. This indicator will be yellow.

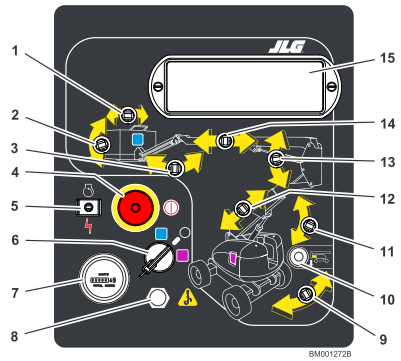
Indicates important information regarding the operating condition, i.e. procedures essential for safe operation. This indicator will be green with the exception of the capacity indicator which will be yellow.

3.3 GROUND CONTROL STATION



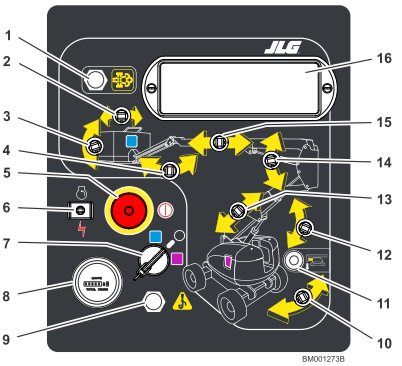
800AJ HC3 Ground Control Station without MSSO

1. Platform Rotate
2. Platform Leveling Override Switch
3. Jib
4. Power / Emergency Stop Switch
5. Engine Start / Auxiliary Power Switch
6. Platform / Ground Select Switch
7. Hourmeter
8. Swing
9. Tower Boom Stow Indicator (If Equipped)
10. Tower Lift
11. Tower Telescope
12. Main Boom Lift
13. Main Boom Telescope
14. Indicator Panel
15. Air Shutoff Valve (ASOV) (If Equipped)



800AJ HC3 Ground Control Station with MSSO

1. Platform Rotate
2. Platform Leveling Override Switch
3. Jib
4. Power / Emergency Stop Switch
5. Engine Start / Auxiliary Power Switch
6. Platform / Ground Select Switch
7. Hourmeter
8. Machine Safety System Override (MSSO)
9. Swing
10. Tower Boom Stow Indicator (If Equipped)
11. Tower Lift
12. Tower Telescope
13. Main Boom Lift
14. Main Boom Telescope
15. Indicator Panel



800AJ HC3 Ground Control Station with MSSO and DPF

1. Diesel Particulate Filter (DPF)
2. Platform Rotate
3. Platform Leveling Override Switch
4. Jib
5. Power / Emergency Stop Switch
6. Engine Start / Auxiliary Power Switch
7. Platform / Ground Select Switch
8. Hourmeter
9. Machine Safety System Override (MSSO)
10. Swing
11. Tower Boom Stow Indicator (If Equipped)
12. Tower Lift
13. Tower Telescope
14. Main Boom Lift
15. Main Boom Telescope
16. Indicator Panel

3.3.1 Ground Control Station Functions

⚠ WARNING

To avoid serious injury, do not operate machine if any control levers or toggle switches controlling platform movement do not return to the off or neutral position when released.

Note: When machine is shut down the Platform/ Ground Select switch and Emergency Stop must be positioned to off.

Air Shutoff Valve (ASOV) (If Equipped)
The red LED ASOV light indicates when the valve has been actuated.

Diesel Particulate Filter (DPF) (If Equipped)
This button initiates the standstill exhaust system cleaning.

Engine Start / Auxiliary Power Switch
To start the engine, the switch must be held up until the engine starts.

Note: When the glow plug indicator is illuminated on machines equipped with diesel engines, wait until the light goes out before cranking the engine.

To use auxiliary power, the switch must be held down for the duration of auxiliary pump use.

⚠ CAUTION

When operating on auxiliary power, do not operate more than one function at a time. Simultaneous operation can overload the auxiliary pump motor.

Hourmeter
Registers the amount of time the machine has been in use with the engine running. By connecting into the oil pressure circuit of the engine, only engine hours are recorded. The hourmeter registers up to 9,999.9 hours and cannot be reset.

Indicator Panel
The Indicator Panel contains indicator lights which signal problem conditions or functions operating during machine operation.

Jib
Provides raising and lowering of the jib.

Machine Safety System Override (MSSO) (If Equipped)
Provides emergency override of function controls that are locked out in the event of Load Sense System activation.

Main Boom Lift
Provides raising and lowering of the main boom.

Main Boom Telescope
Provides extension and retraction of the main boom.

Platform Leveling Override Switch
A three position switch allows the operator to adjust the automatic self leveling system. This switch is used to adjust platform level in situations such as ascending/descending a grade.

⚠ WARNING

Only use the platform leveling override function for slight leveling of the platform. Incorrect use could cause the load/occupant to shift or fall. Failure to do so could result in death or serious injury.

Platform Rotate
Provides rotation of the platform.

Platform / Ground Select Switch
The three position, key operated switch supplies power to the platform control console when positioned to Platform. With the switch key turned to the Ground position only ground controls are operable.

Note: When the Platform/Ground Select Switch is in the center position, power is shut off to the controls at both operating stations. Remove the key to prevent the controls from being actuated.

Power / Emergency Stop Switch
A two-position red mushroom shaped switch supplies power to Platform/Ground Select switch when pulled out (On position). When pushed in (Off position), power is shut off to the Platform/Ground Select switch.

Note: When Power/Emergency Stop switch is in the On position and engine is not running, an alarm will sound, indicating the ignition is On.

NOTICE

Always position emergency stop switch to the Off position (pushed in) when machine is not in use.

Swing
Provides 360 degrees continuous turntable rotation.

Tower Boom Lift
This switch provides raising and lowering of the tower boom. This function works only when the tower boom is fully retracted.

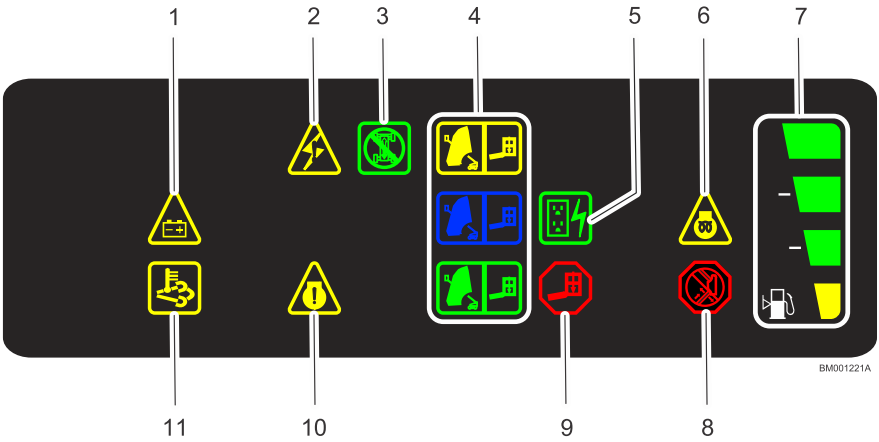
Tower Boom Stow Indicator (If Equipped)
A green LED illuminates when the tower boom is in the stowed position.

Tower Boom Telescope
This switch provides extending and retracting of the tower boom. This function works only when the tower boom is fully elevated.

⚠ WARNING

To avoid serious injury, do not operate machine if tower lift and tower telescope functions do not operate in the above sequence.

3.4 GROUND CONTROL INDICATOR PANEL



1. Battery Charge
2. System Distress
3. Drive and Steer Disable
4. Capacity Zone Indicator
5. AC Generator
6. Glow Plug
7. Fuel Gauge
8. Boom Malfunction
9. Platform Overload
10. Engine Error
11. Emissions Temperature

3.4.1 Ground Control Indicator Panel Functions

AC Generator
Indicates the generator is in operation.

Battery Charge
Indicates a problem in the battery or charging circuit, and service is required.

Boom Malfunction
When an audible alarm sounds and the Boom Malfunction indicator illuminates when attempting to activate a tower boom function, the function is being cutout by tower boom limit switch. This function is not permitted at the current boom configuration.
When an audible alarm sounds and the Boom Malfunction Indicator illuminates steady without a boom function attempt, the upright is out of alignment.

⚠ WARNING

Discontinue operation if the upright is out of alignment or the boom malfunction light remains illuminated.

⚠ WARNING

If the upright is out of alignment with the platform raised, lower the main boom and telescope out until the platform reaches the ground. The tower boom down function is cut out in this condition. Report the problem to the proper service personnel. Do not operate the machine until the condition is corrected.

Capacity Zone Indicator
Indicates the platform capacity zone for the current position of the platform. Restricted capacities are permitted at restricted platform positions (shorter boom lengths and higher boom angles).

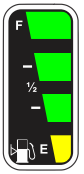
Note: Refer to the capacity decals on the machine for restricted and unrestricted platform capacities.

Drive and Steer Disable
Indicates the Drive and Steer Disable function has been activated.

Emissions Temperature
Indicator illuminates when exhaust temperature reaches 1022° F (550° C).

Engine Error
Indicates a fault with the engine and service is required or is requesting a cleaning sequence.

Fuel Gauge
Indicates the level of the fuel in the fuel tank.

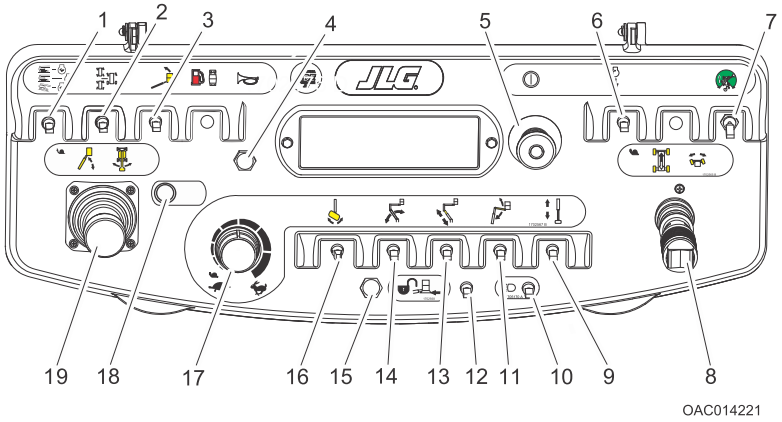


Glow Plug
Indicates the glow plugs are on. The glow plugs are automatically turned on with the ignition circuit and remain on for approximately seven seconds. Start the engine only after the light goes out.

Platform Overload
Indicates the platform has been overloaded.

System Distress
The light indicates that the JLG Control System has detected an abnormal condition and a Diagnostic Trouble Code has been set in the system memory. Refer to the Service Manual for instructions concerning the trouble codes and trouble code retrieval.
The system distress indicator light will illuminate for 2-3 seconds when the key is positioned to the On position to act as a self test.

3.5 PLATFORM CONTROL STATION



1. Drive Speed/Torque Select
2. Steer Select
3. Platform Level Override
4. Horn
5. Power / Emergency Stop
6. Engine Start/Auxiliary Power
7. Drive Orientation Override
8. Drive / Steer
9. Telescope
10. Lights
11. Jib
12. Soft Touch / SkyGuard / SkySense Override
13. Tower Telescope
14. Tower Lift
15. Soft Touch and SkyGuard Indicator / SkySense Mute
16. Platform Rotate
17. Function Speed Control
18. Tower Boom Stow Indicator (If Equipped)
19. Main Lift / Swing

3.5.1 Platform Control Station Functions

⚠ WARNING

To avoid serious injury, do not operate machine if any control levers or toggle switches controlling platform movement do not return to the off or neutral position when released.

Drive Orientation Override

When the boom is swung over the rear tires or further in either direction, the Drive Orientation indicator will illuminate when the drive function is selected. Push and release the switch, and within 3 seconds move the Drive/Steer control to activate drive or steer. Before driving, locate the black/white orientation arrows on both the chassis and the platform controls. Move the drive controls in a direction matching the directional arrows for the intended direction of travel.

Drive Speed / Torque Select

The machine has a three position switch - The forward position gives maximum drive speed. The back position gives maximum torque for rough terrain and climbing grades. The center position allows the machine to be driven as quietly as possible.

⚠ CAUTION

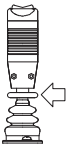
Do not operate machine if drive speed /torque select switch operates when boom is above horizontal.

Drive / Steer

Push forward to drive forward, pull back to drive in reverse. Steering is accomplished via a thumb-activated rocker switch on the end of the steer handle.

Note: To operate the Drive joystick, pull up on the locking ring below the handle.

Note: The Drive joystick is spring loaded and will automatically return to neutral (off) position when released.



Engine Start / Auxiliary Power

When pushed forward, the switch energizes the starter motor to start the engine.

The Auxiliary Power control switch energizes the electrically operated hydraulic pump. (Switch must be held on for duration of auxiliary pump use.)
The auxiliary pump functions to provide sufficient oil flow to operate the basic machine functions should the main pump or engine fail. The auxiliary pump will operate tower boom lift, tower telescope, main boom lift, main telescope and swing.

Function Speed Control
This control knob affects the speed of the Tower Lift, Tower Telescope, Jib Lift, Telescope, and Platform Rotate functions.

Note: During platform rotation, a speed difference may not be noticeable to the operator.

Turning the knob all the way counterclockwise until it clicks puts the machine into Creep Mode. Creep Mode puts the functions listed above as well as the Drive/Steer and Main Lift/ Swing functions into the slowest speed setting.

Note: To operate the Main Boom Lift/Swing joystick, pull up on the locking ring below the handle.

Note: The Main Boom Lift/Swing joystick is spring loaded and will automatically return to neutral (Off) position when released.

⚠ CAUTION

Do not operate machine if function speed switch operates when boom is above horizontal.

Horn
A push-type Horn switch supplies electrical power to an audible warning device when pressed.

Jib
Push forward to lift up, pull back to lift down. Variable lift speed is using the Function Speed Control.

Lights (If Equipped)
This switch operates the accessory lights package if the machine is so equipped.

Note: The ignition switch does not have to be on to operate the lights, so care must be taken to avoid draining the battery if left unattended. The master switch and/or the ignition switch at the ground control will turn off power to all lights.

Main Boom Telescope
Provides extension and retraction of the main boom.

Main Lift / Swing Controller
Provides main lift and swing. Push forward to lift up, pull backward to boom down. Move right to swing right, move left to swing left.

Platform Level Override
A three position switch allows the operator to adjust the automatic self leveling system. This switch is used to adjust platform level in situations such as ascending/descending a grade.

⚠ WARNING

Only use the platform leveling override function for slight leveling of the platform. Incorrect use could cause the load/occupants to shift or fall. Failure to do so could result in death or serious injury.

Platform Rotate
Provides rotation of the platform.

Power / Emergency Stop Switch
A two-position red mushroom shaped switch furnishes power to Platform Controls when pulled out (On). When pushed in (Off), power is shut off to the platform functions.

Soft Touch and SkyGuard Indicator/ SkySense Mute
Indicates the Soft Touch bumper is against an object or the SkyGuard sensor has been activated. All controls are cut out until the override button is pushed. For Soft Touch, controls are then active in the Creep Mode or for SkyGuard, controls will work normally.

If machine is equipped with SkySense, the switch will mute the SkySense speakers.

Soft Touch / SkyGuard / SkySense Override
For machines equipped with SkyGuard:
The SkyGuard override switch enables functions cut out by the SkyGuard system to be operated again, allowing the operator to resume use of machine functions.

For machines equipped with both SkyGuard and Soft Touch:
The switch operates like the SkyGuard override switch as described above. The switch also enables the functions cut out by the Soft Touch system to operate again at creep speed, allowing the operator to move the platform away from the obstacle that caused the shutdown situation.

For machines equipped with both SkyGuard and SkySense:
The switch operates like the SkyGuard override switch as described above. The switch also enables the functions cut out by the SkySense system to operate again at creep speed, allowing the operator to move the platform closer to the obstacle that caused the shutdown situation if desired.

Steer Select (If Equipped)

When equipped with four wheel steering, the action of the steering system is operator selectable. The center switch position gives conventional front wheel steering with the rear wheels unaffected. This is for normal driving at maximum speeds. The forward position is for "crab" steering. When in this mode both front and rear axles steer in the same direction, which allows the chassis to move sideways as it goes forward. This can be used for positioning the machine in aisle ways or against buildings. The back switch position is for "coordinated" steering. In this mode the front and rear axles steer in the opposite directions to produce the tightest turning circle for maneuvering in confined areas.

To re-synchronize the front and rear axles, position the rear drive wheels to the forward drive position by selecting either crab or compound steer, then select front steer (center switch position) to operate the normal steering function.

Tower Boom Stow Indicator (If Equipped)

A green LED illuminates when the tower boom is in the stowed position.

Tower Lift

This switch provides for raising and lowering of the tower boom when positioned to "up" or "down". Tower Lift must be fully elevated "up" before operating Tower Telescope. (Tower Lift should not function when Tower Telescope is extended).

⚠ WARNING

To avoid upset and serious injury, do not operate machine if tower lift and telescope do not operate in the order described above.

Tower Telescope

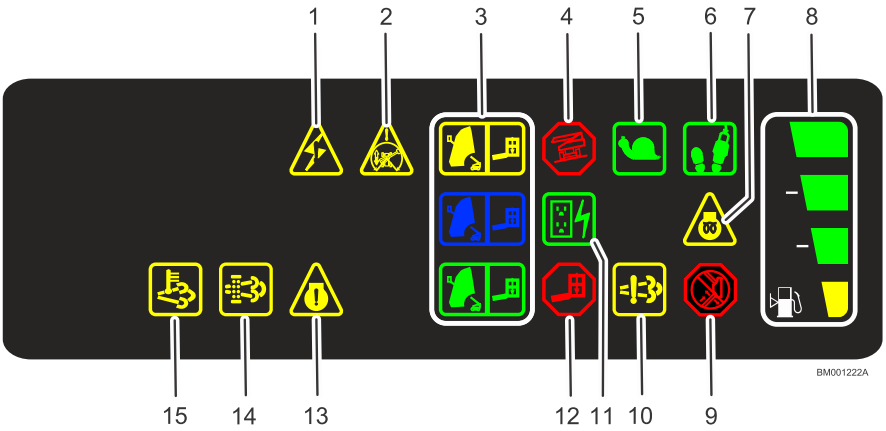
This switch provides for extending and retracting of the tower boom when positioned to in or out. Tower Telescope must be fully retracted before operating Tower Lift.

Note: Tower Telescope should not function when Tower Lift is not fully elevated (in the up position).

⚠ WARNING

To avoid serious injury, do not operate machine if tower lift and telescope do not operate in the order described above.

3.6 PLATFORM CONTROL INDICATOR PANEL



1. System Distress
2. Drive Orientation
3. Capacity Zone Indicator
4. Tilt Alarm / Warning
5. Creep
6. Footswitch
7. Glow Plug
8. Fuel Gauge
9. Boom Malfunction
10. Engine Emissions System Failure
11. AC Generator
12. Platform Overload
13. Engine Error
14. Diesel Particulate Filter
15. Emissions Temperature

3.6.1 Platform Control Indicator Panel Functions

AC Generator
Indicates the generator is in operation.

Boom Malfunction
When an audible alarm sounds and the Boom Malfunction Indicator illuminates when attempting to activate a tower boom function, the function is being cutout by tower boom limit switch. This function is not permitted at the current boom configuration.
When an audible alarm sounds and the Boom Malfunction Indicator illuminates steady without a boom function attempt, the upright is out of alignment.

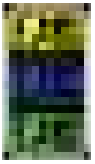
⚠ WARNING

Discontinue operation if the upright is out of alignment or the boom malfunction light remains illuminated.

⚠ WARNING

If the upright is out of alignment with the platform raised, lower the main boom and telescope out until the platform reaches the ground. The tower boom down function is cut out in this condition. Report the problem to the proper service personnel. Do not operate the machine until the condition is corrected.

Capacity Zone Indicator
Indicates the maximum platform capacity zone for the current position of the platform. Restricted capacities are permitted at restricted platform positions (shorter boom lengths and higher boom angles).



Note: Refer to the capacity decals on the machine for restricted and unrestricted platform capacities.

Creep Speed
When the Function Speed Control is turned to the creep position, the indicator acts as a reminder that all functions are set to the slowest speed.

Diesel Particulate Filter
Icon will illuminate when standstill exhaust system cleaning is required.

Drive Orientation
When the boom is swung beyond the rear drive tires or further in either direction, the Drive Orientation indicator will illuminate when the drive function is selected. This is a signal for the operator to verify that the drive control is being operated in the proper direction (i.e. controls reversed situations).

Emissions Temperature
Icon illuminates when the engine emissions control sensor reaches a high temperature.

Engine Emissions System Failure
Icon illuminates when there is a fault with the Emissions After Treatment system.

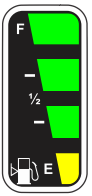
Engine Error
Indicates a fault with the engine and service is required or is requesting a cleaning sequence.

Footswitch Enable
To operate any function, the footswitch must be pressed down and the function selected within seven seconds. The enable indicator shows that the controls are enabled. If a function is not selected within seven seconds, or if a seven second lapse between ending one function and beginning the next function, the enable light will go out and the footswitch must be released and pressed again to enable the controls.
Releasing the footswitch removes power from all controls and applies the drive brakes.

⚠ WARNING

To avoid serious injury, do not remove, modify or disable the footswitch by blocking or any other means.

Fuel Gauge
Indicates the level of the fuel in the fuel tank.



Glow Plug
Indicates the glow plugs are operating. After turning on ignition, wait until light goes out before cranking engine.

Platform Overload
Indicates the platform has been overloaded.

System Distress
The light indicates that the JLG Control System has detected an abnormal condition and a Diagnostic Trouble Code has been set in the system memory. Refer to the Service Manual for instructions concerning the trouble codes and trouble code retrieval.

Tilt Warning Light and Alarm
This red illuminator indicates that the chassis is on a slope. If the boom is above horizontal and the machine is on a slope, the tilt alarm warning light will illuminate, an alarm will sound, available functions are placed in Creep speed, and drive is cut out in direction of travel. Drive in the opposite direction may be allowed under certain conditions.

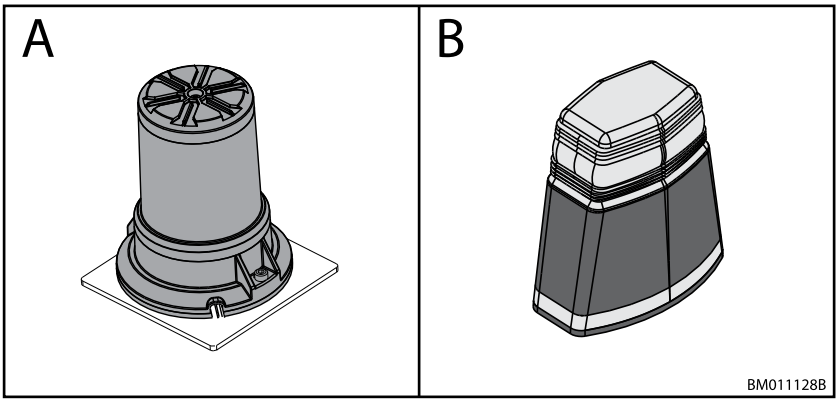
Note: When the tilt sensor alarm is activated, the Drive function will be disabled if the boom is elevated above horizontal.

⚠ WARNING

If tilt warning light is illuminated when boom is raised or extended, retract and lower to below horizontal then reposition machine so that it is within the limits of the maximum operating slope before extending boom or raising boom above horizontal.

Tilt Angle	Market
5°	All Markets

3.7 BEACONS



A. Beacon

B. LED Motion / Amber Beacon (CS550)

Note: Image for reference only. Beacon design may vary based on beacon type, machine model and installation location.

3.7.1 ClearSky® LED Motion / Amber Beacon (CS550)

The ClearSky® CS550 is installed on ClearSky Smart Fleet™ equipped machines.

The CS550 can function as a machine beacon using multiple colors and flash patterns for communication and identification purposes. In addition to amber, colors include: red, blue, green, cyan, and white. The ClearSky Smart Fleet mobile app can command visual alerts or audible alarms to assist in machine identification. Where applicable, the CS550 can also be configured to function as a SkyGuard Beacon (see below).

The CS550 also functions as a visible connectivity point for ClearSky Smart Fleet. Refer to the ClearSky Smart Fleet section for more information.

3.7.2 Amber Beacon

This amber-colored beacon flashes at a constant rate to alert those nearby that the machine is in an active work state. The device may also use different flash patterns to identify specific machine alerts.

3.7.3 Blue or Red SkyGuard® Beacon

The SkyGuard beacon is available in blue or red lamp options. The beacon will flash in conjunction with an audible alarm when the SkyGuard sensor is activated.

Refer to the SkyGuard Operation section for more information.

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SECTION 4
Machine Operation

4.1 GENERAL

This machine is a Mobile Elevating Work Platform (MEWP) used to position personnel, along with their necessary tools and materials at work locations.

The primary operator control station is in the platform. From this control station, the operator can drive and steer the machine in both forward and reverse directions. The operator can raise or lower the main or tower boom or swing the boom to the left or right.

Standard boom swing is 360° continuous left and right of the stowed position. The machine has a Ground Control Station which will override the Platform Control Station. Ground Controls operate all functions except drive and steer. Except for performing inspections and the Function Check, the ground controls are to be used in an emergency to lower the platform to the ground should the operator in the platform be unable to do so.

4.2 OPERATING CHARACTERISTICS AND LIMITATIONS

4.2.1 Capacities

The boom can be raised above horizontal with or without any load in platform, if:

1. Machine is positioned on a smooth, firm surface within the limits of the maximum operating slope.
2. Load is within manufacturer's rated capacity.
3. All machine systems are functioning properly.
4. Machine is as originally equipped from JLG.

4.2.2 Platform Load Sensing System (LSS)

The Platform Load Sensing System provides the platform load to the control system.

If the LSS system senses an overload condition, boom functions will be disabled, the overload indicator is illuminated at both control stations, and the overload alarm will sound. Reduce the weight in the platform to not exceed the rated workload indicated on the capacity decal, then the controls will work again.

4.2.3 Stability

Machine stability is based on two positions which are called FORWARD and BACKWARD stability. The machines position of least FORWARD stability is shown in *Section — Position of Least Forward Stability, page 63*, and its position of least BACKWARD stability is shown in *Figure — Positions of Least Backward Stability, page 62*.

⚠ WARNING

To avoid forward or backward tipping, do not overload machine or operate the machine beyond the limit of the maximum operating slope.

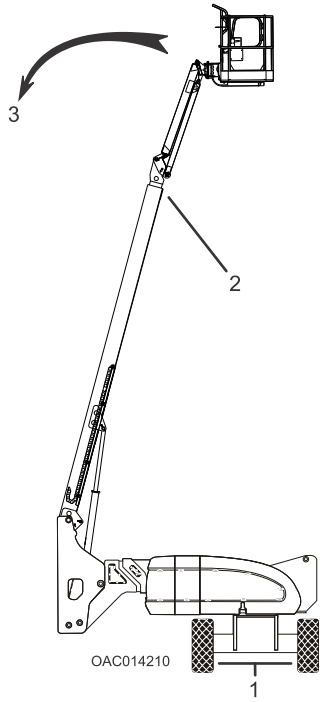


Figure 7. Positions of Least Backward Stability

1. Level surface.
2. Main boom fully retracted.
3. Machine will tip over in this direction if tower boom upright is placed beyond this position or operated beyond the limits of the maximum operating slope.

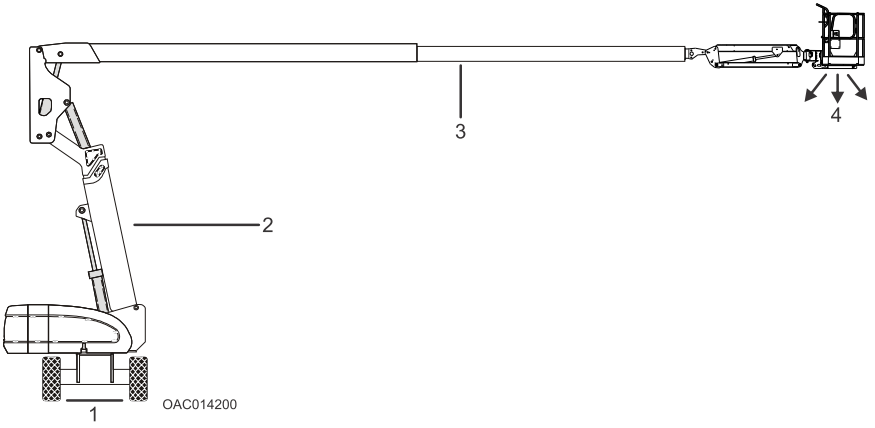
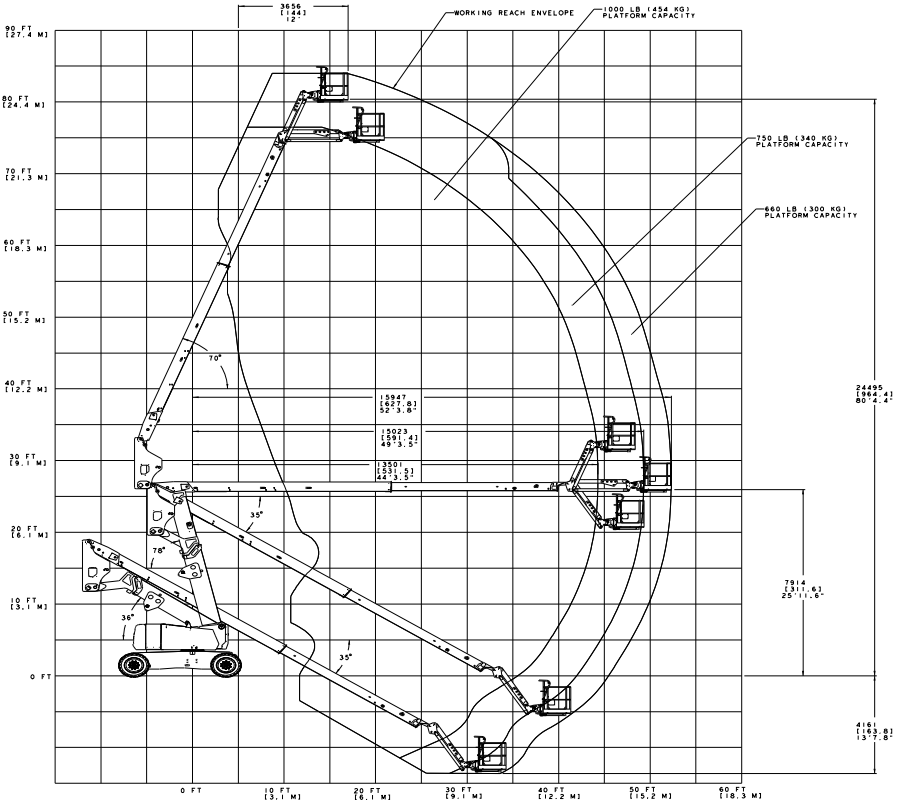


Figure 8. Position of Least Forward Stability

1. Level surface.
2. Tower boom full elevated and fully retracted.
3. Main boom level and fully extended.
4. Machine will tip over in this direction if overloaded or operated beyond the limits of the maximum operating slope.

4.3 800AJ HC3 REACH CHART



4.4 ENGINE OPERATION

Note: When operating a machine at high altitudes, a decrease in machine performance may occur due to a decrease in air density.

Note: When operating a machine at high ambient temperatures, a decrease in machine performance and an increase in engine coolant temperature may occur.

Note: Contact JLG Customer Service for operation under abnormal conditions.

Note: Initial starting should always be performed from the Ground Control station.

4.4.1 Starting Procedure

⚠ CAUTION

If engine fails to start promptly, do not crank for an extended time. Should engine fail to start again, allow starter to "cool off" for 2-3 minutes. If engine fails after several attempts, refer to engine maintenance manual.

Note: Diesel engines only: After turning on ignition, operator must wait until glow plug indicator light goes out before cranking engine.

1. Turn key of Platform/Ground Select switch to Ground.

2. Pull the Power/Emergency Stop switch to On.

3. Push the Engine Start switch until engine starts.

⚠ CAUTION

Allow engine to warm-up for a few minutes at low speed before applying any load.

4. After engine has had sufficient time to warm up, push in the Power/ Emergency Stop switch and shut engine off.

5. Turn Platform/Ground Select switch to Platform.

6. From Ground Control Console, pull Power/ Emergency Stop switch out.

7. From Platform, pull Power/Emergency Stop switch out.

8. Push the Engine Start switch until engine starts.

Note: Footswitch must be released in the up position before starter will operate. If starter operates with footswitch in the down position, do not operate the machine.

4.4.2 Shutdown Procedure

⚠ CAUTION

If an engine malfunction causes an unscheduled shutdown, determine the cause and correct it before restarting the engine.

1. Remove all load and allow engine to operate at low speed for 3-5 minutes; this allows further reduction of internal engine temperature.
2. Push Power/Emergency Stop switch in.

3. Turn Platform/Ground Select switch to Off.

Note: Refer to Engine Manufacturer's manual for detailed information.

4.5 AIR SHUTOFF VALVE (ASOV) (IF EQUIPPED)

Air Shutoff Valve (ASOV) is an overspeed protection device mounted to the engine's air intake system. When the valve is actuated, it obstructs airflow intake and stops the engine. Weekly tests are recommended to ensure the valve remains in good working condition.

1. Start the engine, running at idle.
2. Open the red switch guard on ASOV test switch, then activate toggle to test mode.

Note: Test switch is located under hood to the left of the ground control panel (look for test decal).

3. At the ground control panel, select any function and activate until valve actuates at test RPM of 1500. Once valve actuates, engine will stop.
4. Turn ignition power OFF.
5. Visually inspect valve to ensure it appears in good condition.
6. Reset valve by rotating valve handle to the Open position.

Note: The handle cannot be turned unless the machine is off. Ensure the ignition power is OFF.

⚠ WARNING

Do not use ASOV as an alternative to shutting down machine properly.

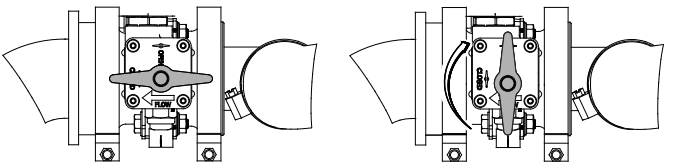


Figure 9. ASOV Reset (Closed to Open Position)

4.6 FUEL RESERVE / SHUT-OFF SYSTEM

Note: Reference the Service and Maintenance Manual along with a qualified JLG Mechanic to verify your machine setup.

The Fuel Shutoff System monitors the fuel in the tank and senses when the fuel level is getting low. The JLG Control System automatically shuts the engine down before the fuel tank is emptied unless the machine is set up for Engine Restart.

If fuel level reaches the Empty range, the Low Fuel Indicator or remaining level of the Fuel Gauge will begin to flash once a second and there will be approximately 60 minutes of engine run time left. If the system is in this condition and automatically shuts down the engine or if the operator manually shuts down the engine before the 60 minute run time is complete, the Low Fuel Indicator or remaining level of the Fuel Gauge light will flash 10 times a second and the engine will react according to machine setup. Setup options are as follows:

- Engine One Restart - When the engine shuts down, the operator will be permitted to cycle power and restart the engine once with approximately 2 minutes of run time. After the 2 minute run time is complete or if the engine is shut down by the operator prior to the completion of the 2 minute run time, it cannot be restarted until fuel is added to the tank.

- Engine Restart - When the engine shuts down, the operator will be permitted to cycle power and restart the engine for approximately 2 minutes of run time. After the 2 minutes of run time is complete, the operator may cycle power and restart the engine for an additional 2 minutes of run time. The operator can repeat this process until there is no more fuel available.

NOTICE

Contact a qualified JLG mechanic if the machine needs restarted after no more fuel is available.

- Engine Stop - When the engine shuts down, no restarts will be permitted until fuel is added to the tank.

4.7 DIESEL PARTICULATE FILTER (IF EQUIPPED)

Diesel Particulate Filter (DPF) is an emissions control system used in diesel engines and requires operator interaction to ensure proper operation of the system.

For peak operation, the DPF system must be cleaned using one of two methods, Standstill Cleaning and Maintenance Standstill Cleaning. Standstill Cleaning is any cleaning requested by the engine outside of the regular maintenance window (for example, if the system detects excessive soot in the DPF canister). Maintenance Standstill Cleaning is cleaning requested by the engine on the regular maintenance interval.

Note: The system will reset the maintenance interval back to zero hours after Standstill or Maintenance Standstill Cleaning events are performed.

Note: For Standstill Cleaning procedures, please refer to the Service & Maintenance manual associated with this model.

4.8 TRAVELING (GRADE AND SIDE SLOPE)

Note: Refer to the Operating Specifications table for gradeability and side slope ratings.

All ratings for gradeability and side slope are based upon the machine's boom being in the stowed position, fully lowered, and retracted.

Traveling is limited by two factors:

1. Gradeability, which is the percent of grade of the incline the machine can climb.
2. Side slope, which is the angle of the slope the machine can be driven across.

4.8.1 Traveling on a Grade

When traveling a grade, maximum braking and traction are obtained with the boom stowed, in position over the rear (drive) axle, and in line with the direction of travel. Drive the machine forward when climbing a grade, and in reverse when descending a grade. Do not exceed the machine's maximum rated gradeability.

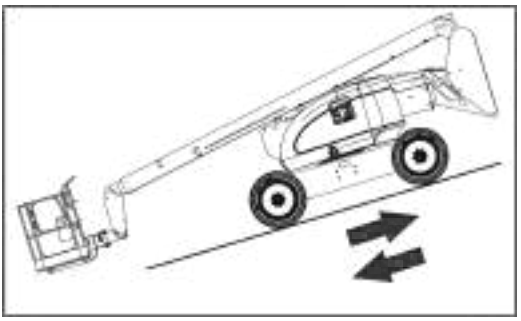


Figure 10. Traveling on a Grade