Operation & Safety Manual

Models
400RTS
500RTS

3120695
November 9, 2007
The purpose of this manual is to provide users with the operating procedures essential for the promotion of proper machine operation for its intended purpose. It is important to over-stress proper machine usage. All information in this manual should be READ and UNDERSTOOD before any attempt is made to operate the machine. YOUR OPERATING MANUAL IS YOUR MOST IMPORTANT TOOL - Keep it with the machine. REMEMBER ANY EQUIPMENT IS ONLY AS SAFE AS THE OPERATOR.

BECAUSE THE MANUFACTURER HAS NO DIRECT CONTROL OVER MACHINE APPLICATION AND OPERATION, PROPER SAFETY PRACTICES ARE THE RESPONSIBILITY OF THE USER AND HIS OPERATING PERSONNEL.

ALL INSTRUCTIONS IN THIS MANUAL ARE BASED ON THE USE OF THE MACHINE UNDER PROPER OPERATING CONDITIONS, WITH NO DEVIATIONS FROM THE ORIGINAL DESIGN. ALTERATION AND/OR MODIFICATION OF THE MACHINE IS STRICTLY FORBIDDEN, WITHOUT WRITTEN APPROVAL FROM JLG INDUSTRIES, PER OSHA REGULATIONS.

THIS SAFETY ALERT SYMBOL IS USED TO CALL ATTENTION TO POTENTIAL HAZARDS WHICH MAY LEAD TO SERIOUS INJURY OR DEATH IF IGNORED.

Safety of personnel and proper use of the machine are of primary concern, DANGER, WARNING, CAUTION, IMPORTANT, INSTRUCTIONS and NOTE are inserted throughout this manual to emphasize these areas. They are defined as follows:

**DANGER**
DANGER INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED WILL RESULT IN SERIOUS INJURY OR DEATH.

**WARNING**
WARNING INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED COULD RESULT IN SERIOUS INJURY OR DEATH.

**CAUTION**
CAUTION INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY. IT MAY ALSO BE USED TO ALERT AGAINST UNSAFE PRACTICES

**NOTICE**
IMPORTANT OR INSTRUCTIONS INDICATES A PROCEDURES ESSENTIAL FOR SAFE OPERATION AND WHICH, IF NOT FOLLOWED, MAY RESULT IN A MALFUNCTION OR DAMAGE TO THE MACHINE.

JLG INDUSTRIES MAY HAVE ISSUED SAFETY RELATED BULLETINS FOR YOUR JLG PRODUCT. CONTACT JLG INDUSTRIES INC. OR THE LOCAL AUTHORIZED JLG DISTRIBUTOR FOR INFORMATION CONCERNING SAFETY RELATED BULLETINS WHICH MAY HAVE BEEN IssUED FOR YOUR JLG PRODUCT. ALL ITEMS REQUIRED BY THE SAFETY RELATED BULLETINS MUST BE COMPLETED ON THE AFFECTED JLG PRODUCT. CALL 1 - 877 - JLG - SAFE

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.
All procedures herein are based on the use of the machine under proper operating conditions, with no deviations from original design intent... as per OSHA regulations.

READ & HEED!

The ownership, use, service, and/or maintenance of this machine is subject to various governmental and local laws and regulations. It is the responsibility of the owner/user to be knowledgeable of these laws and regulations and to comply with them. Owner/user/operator must be familiar with Sections 6, 7, 8, 9, and 10 of ANSI A92.6-1999. These sections contain the responsibilities of the owner, users, operators, lessors, and lessees concerning safety, training, inspection, maintenance, application, and operation. The most prevalent regulations of this type in the United States are the Federal OSHA Safety Regulations*. Listed below, in abbreviated form, are some of the requirements of Federal OSHA regulations in effect as of the date of publication of this handbook.

The listing of these requirements shall not relieve the owner/user of the responsibility and obligation to determine all applicable laws and regulations and their exact wording and requirements, and to comply with the requirements. Nor shall the listing of these requirements constitute an assumption of responsibility of liability on the part of JLG Industries, Inc.

1. Only trained and authorized operators shall be permitted to operate the aerial lift.
2. A malfunctioning lift shall be shut down until repaired.
3. The controls shall be plainly marked as to their function.
4. The controls shall be tested each day prior to use to determine that they are in safe operating condition.
5. All personnel in the platform shall, at all times, wear approved fall protection devices and other safety gear as required.
6. Load limits specified by the manufacturer shall not be exceeded.
7. Instruction and warning placards must be legible.
8. Aerial lifts may be field modified for uses other than those intended by the manufacturer only if certified in writing by the manufacturer to be in conformity to JLG requirements and to be at least as safe as it was prior to modification.
9. Aerial lifts shall not be used near electric power lines unless the lines have been deenergized or adequate clearance is maintained (See OSHA 29 CFR 1910.67 and 1926.453).
10. Employees using aerial lifts shall be instructed on how to recognize and avoid unsafe conditions and hazards.
11. Ground controls shall not be operated unless permission has been obtained from personnel in the platform, except in case of an emergency.
12. Regular inspection of the job site and aerial lift shall be performed by competent persons.
13. Personnel shall always stand on the floor of the platform, not on boxes, planks, railing or other devices, for a work position.

*Applicable Federal OSHA regulations for the United States, as of the date of publication of this manual, include, but are not limited to, 29 CFR 1910.67, 29 CFR 1926.20, 29 CFR 1926.21, 29 CFR 1926.28, and 29 CFR 1926.453.
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SECTION 1. SAFETY PRECAUTIONS

1.1 GENERAL

This section prescribes the proper and safe practices for major areas of machine usage which have been divided into three basic categories: Driving, Operation, and Maintenance. In order to promote proper usage of the machine, it is mandatory that a daily routine be established based on the instructions given in this manual. A maintenance program, using the information provided in the Service and 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 should not accept operating responsibility until this manual has been read and operation of the machine, under the supervision of an experienced and qualified operator, has been completed. Owner/user/operator/lessor/lessee must be familiar with Sections 6, 7, 8, 9, and 10 of ANSI A92.6 -1999. These sections contain the responsibilities of the owner, users, operators, lessors and lessees concerning safety, training, inspection, maintenance, application and operation. If there is a question on application and or operation, JLG Industries should be consulted.

⚠️ WARNING

MODIFICATION OR ALTERATION OF AN AERIAL PLATFORM SHALL BE MADE ONLY WITH PRIOR WRITTEN PERMISSION OF THE MANUFACTURER.

1.2 DRIVING/TOWING/CARRYING

Before driving the machine the user must be familiar with the drive, steer and stopping characteristics. This is especially important when driving in close quarters.

The user should be familiar with the driving surface before driving. The surface should be firm and level and grades should not exceed the allowable grade for the machine, 25%.

NOTE: Remember that the key to safe and proper usage is common sense and its careful application.

It is not recommended that this machine be towed, except in the event of a machine malfunction, a total machine power failure, or for loading on a truck. Refer to Section 6 for emergency towing procedures.

⚠️ WARNING

FAILURE TO COMPLY WITH SAFETY PRECAUTIONS LISTED IN THIS SECTION AND ON MACHINE MAY RESULT IN MACHINE DAMAGE, PERSONNEL INJURY OR DEATH AND IS A SAFETY VIOLATION.

Carrying or loading the unit should be accomplished using a forklift vehicle of suitable capacity with the forks being positioned correctly at the indicated areas on the machine frame. Refer to Section 4 for lifting information.
1.3 ELECTROCUTION HAZARD

**DANGER**

DO NOT MANEUVER MACHINE OR PERSONNEL INSIDE PROHIBITED ZONE. ASSUME ALL ELECTRICAL PARTS AND WIRING ARE ENERGIZED UNLESS KNOWN OTHERWISE.

**NOTE:** MAINTAIN M.A.D. FROM ALL OTHER CHARGED LINES AND PARTS AS WELL AS THOSE SHOWN.

**M.A.D. = MINIMUM APPROACH DISTANCE**

(SEE TABLE BELOW)

**Table 1-1.**

Minimum Approach Distances (M.A.D.) to energized (exposed or insulated) power lines and parts

<table>
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<th>VOLTAGE RANGE (Phase To Phase)</th>
<th>MINIMUM APPROACH DISTANCE Feet (Meters)</th>
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<tr>
<td>0 to 300V</td>
<td>AVOID CONTACT</td>
</tr>
<tr>
<td>Over 300V to 50KV</td>
<td>10 (3)</td>
</tr>
<tr>
<td>Over 50KV to 200KV</td>
<td>15 (5)</td>
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<tr>
<td>Over 200KV to 350KV</td>
<td>20 (6)</td>
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<tr>
<td>Over 350KV to 500KV</td>
<td>25 (8)</td>
</tr>
<tr>
<td>Over 500KV to 750KV</td>
<td>35 (11)</td>
</tr>
<tr>
<td>Over 750KV to 1000KV</td>
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MAINTAIN SAFE CLEARANCE FROM ELECTRICAL LINES AND APPARATUS. ALLOW FOR PLATFORM SWAY, ROCK OR SAG AND ELECTRICAL LINE SWAYING. THE MACHINE DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO ELECTRICAL CURRENT.

MAINTAIN A CLEARANCE OF AT LEAST 10 FEET (3 M) BETWEEN ANY PART OF THE MACHINE OR ITS LOAD AND ANY ELECTRICAL LINE OR APPARATUS CARRYING UP TO 50,000 VOLTS. ONE FOOT (0.3 M) ADDITIONAL CLEARANCE IS REQUIRED FOR EVERY ADDITIONAL 30,000 VOLTS OR LESS.
1.4 PRE-OPERATIONAL

- Read your manual. Understand what you’ve read - then begin operations.

- Allow only those authorized and qualified personnel to operate machine who have demonstrated that they understand safe and proper operation and maintenance of the unit.

- An operator must not accept operating responsibilities until adequate training has been given by competent and authorized persons.

- Read and obey all warnings, cautions and operating instructions on machine and in this manual.

- Be familiar with location and operation of ground controls.

- Before operation check work area for overhead electric lines, machine traffic such as bridge cranes, highway, railway and construction equipment.

- Precautions to avoid all known hazards in the work area must be taken by the operator and his supervisor before starting the work.

- Do not operate this machine unless it has been serviced and maintained according to the manufacturers specifications and schedule.

- Ensure daily inspection and function check are performed prior to placing machine into operation.

- Never disable or modify any safety device. Any modification of the machine is a safety violation and is a violation of OSHA rules.

- Do not operate machine when wind conditions exceed 30 MPH.

- Never operate or raise platform when machine is on a truck or other vehicle.

- This machine can be operated in nominal ambient temperatures of 0° F to 104° F (-20° C to 40° C). Consult factory to optimize operation outside this temperature range.

- Approved head gear must be worn when required by all operating and ground personnel.

- Always use ‘three point contact’ with the machine. Face the machine when entering or leaving the platform. ‘Three point contact’ means that two hands and one foot or one hand and two feet are in contact with the machine at all times during mount and dismount.
1.5 DRIVING

• WATCH FOR OBSTRUCTIONS AROUND MACHINE AND OVERHEAD WHEN DRIVING.

• CHECK TRAVEL PATH FOR PERSONS, HOLES, BUMPS, DROP-OFF, OBSTRUCTIONS, DEBRIS, AND COVERINGS WHICH MAY CONCEAL HOLES AND OTHER HAZARDS.

• DO NOT DRIVE WITH PLATFORM RAISED OR RAISE PLATFORM WHILE ON A SLOPING, UNEVEN, OR SOFT SURFACE.

• BEFORE DRIVING ON FLOORS, BRIDGES, TRUCKS AND OTHER SURFACES, CHECK ALLOWABLE CAPACITY OF SURFACES.

• DO NOT TRAVEL ON SOFT OR UNEVEN SURFACES, AS TIPPING WILL OCCUR.

• WHEN DRIVING IN HIGH SPEED, SWITCH TO LOW BEFORE STOPPING. TRAVEL GRADES IN LOW DRIVE ONLY. THE HYDRAULIC MOTORS GENERATE MAXIMUM TORQUE WHEN THE JOYSTICK IS PLACED IN THE SLOW DRIVE POSITION. MOTORS ALSO ACT AS SERVICE BRAKES.

• DO NOT USE HIGH SPEED DRIVE IN RESTRICTED OR CLOSE QUARTERS OR WHEN DRIVING IN REVERSE.

• BE AWARE OF STOPPING DISTANCES WHEN TRAVELING IN HIGH AND LOW SPEEDS.

• ALWAYS POST A LOOKOUT WHEN DRIVING IN AREAS WHERE VISION IS OBSTRUCTED.

• KEEP NON-OPERATING PERSONNEL AT LEAST 6 FEET (1.8 M) AWAY FROM MACHINE DURING DRIVING OPERATIONS.

1.6 OPERATION

• READ YOUR MANUAL, UNDERSTAND WHAT YOU’VE READ - THEN BEGIN OPERATIONS.

• DO NOT OPERATE ANY MACHINE ON WHICH DANGER, WARNING, CAUTION OR INSTRUCTION PLACARDS OR DECALS ARE MISSING OR ILLEGIBLE.

• NEVER USE SCISSOR ARMS TO GAIN ACCESS TO OR LEAVE PLATFORM.

• WHEN APPLICABLE BY REASON OF LOCAL REGULATIONS OR JOBSITE/EMPLOYER SAFETY RULES, ALL PERSONNEL IN THE PLATFORM SHALL AT ALL TIMES WEAR APPROVED FALL PROTECTION DEVICES AND OTHER SAFETY GEAR AS REQUIRED.

• TO AVOID FALLING - USE EXTREME CAUTION WHEN ENTERING OR LEAVING PLATFORM ABOVE GROUND. ENTER OR EXIT THRU GATE ONLY. PLATFORM MUST BE WITHIN 1 FT (0.3 M) OF ADJACENT - SAFE AND SECURE - STRUCTURE.
• Transfers between a structure and the platform expose operators to fall potentials. This practice should be discouraged wherever possible. Where transfer must be accomplished to perform the job, two lanyards will be used. One lanyard should be attached to the platform, the other to the structure. The safety lanyard that is attached to the platform should not be disconnected until such time as the transfer to the structure is complete.

• Never position ladders, steps, or similar items on unit to provide additional reach for any purpose.

• When riding in or working from platform both feet must be firmly positioned on deck.

• Do not extend reach limits of this machine with additional equipment such as planks, boxes, etc.

• Do not operate without handrails in place and secured. It is a safety violation.

• Do not step outside of handrails.

• Avoid accumulation of debris on platform work area. Keep mud, oil, grease and other slippery substances from footwear and platform deck.

• Check clearances above, on sides and bottom of platform when raising and lowering platform.

• 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 aerial platform’s presence. Disconnect power to overhead cranes. Barricade floor area if necessary.

• Never exceed manufacturers rated platform capacity - refer to capacity decal on machine. Distribute load evenly on platform floor.

• Ensure machine is positioned on a firm, level and uniform supporting surface before raising platform.

• Do not add notice boards or similar items to platform. Addition of such items increases exposed wind area of machine.

• Do not attach overhanging loads to the platform or increase the platform size with unauthorized deck extensions or attachments.

• Do not elevate platform unless machine is level.

• Do not tie off machine to any adjacent structure. Never attach wire, cable or any similar items to platform.

• During operation keep all body parts inside platform railings.

• Never 'slam' a control switch or lever through neutral to opposite direction. Always return switch to neutral and stop; then move switch to the desired position. Operate levers with slow, even pressure.

• Do not carry materials on platform railing.

• Never operate a malfunctioning machine. If a malfunction occurs, shut down the
MACHINE, RED TAG IT, AND NOTIFY PROPER AUTHORITIES.

• NO STUNT DRIVING OR HORSEPLAY IS PERMITTED.

• DO NOT ALLOW PERSONNEL TO TAMPER WITH, SERVICE, OR OPERATE THIS MACHINE FROM THE GROUND WITH PERSONNEL IN PLATFORM EXCEPT IN AN EMERGENCY.

• WHEN TWO OR MORE PERSONS ARE IN 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.

1.7 TOWING AND HAULING

• TOW OR PULL MACHINE IN THE EVENT OF AN EMERGENCY ONLY. TO MOVE MACHINE, CARRY MACHINE WITH FORKLIFT OF SUITABLE CAPACITY.

• HAVE PLATFORM COMPLETELY EMPTY OF TOOLS AND DEBRIS BEFORE CARRYING.

• WHEN LIFTING MACHINE, POSITION FORKS ONLY AT DESIGNATED AREAS AT FRONT OR REAR OF MACHINE.

• HAVE PLATFORM FULLY RETRACTED WHILE MACHINE IS BEING CARRIED.

• NEVER ALLOW PERSONNEL IN PLATFORM WHILE CARRYING.

1.8 MAINTENANCE

This section contains the general safety precautions which must be observed during maintenance of the aerial work platform. It is of utmost importance that maintenance personnel pay strict attention to these warnings and precautions to avoid possible injury to themselves or others or damage to the equipment. A maintenance program must be established by a qualified person and must be followed to ensure that the machine is safe to operate.

**WARNING**

MODIFICATION OF THE MACHINE WITHOUT CERTIFICATION BY A RESPONSIBLE AUTHORITY THAT THE MACHINE IS AT LEAST AS SAFE AS ORIGINALLY MANUFACTURED IS A SAFETY VIOLATION.

The specific precautions to be observed during machine maintenance are inserted at the appropriate point in the manual. These precautions are, for the most part, those that apply when servicing hydraulic and larger machine component parts.

Your safety, and that of others, is the first consideration when engaging in the maintenance of equipment. Always be conscious of weight.

Never attempt to move heavy parts without the aid of a mechanical device. Do not allow heavy objects to rest in an unstable position. When raising a portion of the equipment, ensure that adequate support is provided.

• ALWAYS DISCONNECT BATTERIES WHEN REPLACING ELECTRICAL COMPONENTS.

• REMOVE RINGS, WATCHES AND JEWELRY WHEN PERFORMING ANY MAINTENANCE.

• DO NOT WEAR LOOSE FITTING CLOTHING OR LONG HAIR UNRESTRAINED, WHICH IS APT TO BECOME CAUGHT ON, OR ENTANGLED IN EQUIPMENT.

• USE ONLY CLEAN APPROVED NONFLAMMABLE CLEANING SOLVENTS.

• SHUT OFF ALL POWER CONTROLS BEFORE MAKING ADJUSTMENTS, LUBRICATING OR PERFORMING ANY OTHER MAINTENANCE.

• NEVER WORK UNDER AN ELEVATED PLATFORM UNTIL IT HAS BEEN RESTRAINED FROM MOVEMENT WITH SAFETY PROPS, BLOCKING OR OVERHEAD SLING.

• NEVER ALTER, REMOVE OR SUBSTITUTE ANY ITEMS SUCH AS COUNTERWEIGHTS, SOLID TIRES, BATTERIES, ETC. WHICH WOULD REDUCE THE OVERALL WEIGHT OR BASE STABILITY OF THE MACHINE.
SECTION 2. MACHINE PREPARATION AND INSPECTION

2.1 GENERAL

This section provides the necessary information needed by those personnel that are responsible to place the machine in operation readiness, and lists checks that are performed prior to use of the machine. It is important that the information contained in this section be read and understood before any attempt is made to operate the machine. Ensure that all the necessary inspections have been completed successfully before placing the machine into service. These procedures will aid in obtaining maximum service life and safe operation.

NOTICE

SINCE THE MACHINE MANUFACTURER HAS NO DIRECT CONTROL OVER THE FIELD INSPECTION AND MAINTENANCE, SAFETY IS THE RESPONSIBILITY OF THE OWNER/OPERATOR.

2.2 PREPARATION FOR USE

1. Before a new machine is put into operation it must be carefully inspected for any evidence of damage resulting from shipment and inspected periodically thereafter, as outlined in paragraph 2-3, Delivery and Periodic Inspection. The unit should be thoroughly checked for hydraulic leaks during initial start-up and run. A check of all components should be made to assure their security.

2. All preparations necessary to place the machine in operation readiness status are the responsibility of management personnel. Preparation requires good common sense, (i.e. lift works smoothly and brakes operate properly) coupled with a series of visual inspections. The mandatory requirements are given in paragraph 2-4, Daily Walk Around Inspection.

3. It should be assured that the items appearing in the Delivery and Periodic Inspection and Functional Check are complied with prior to putting the machine into service.

2.3 DELIVERY AND PERIODIC INSPECTION

NOTE: This machine requires periodic safety and maintenance inspections by a JLG Dealer. A decal on the frame provides a place to record (stamp) inspection dates. Check decal and notify dealer if inspection is overdue.

The following checklist provides a systematic inspection to assist in detecting defective, damaged, or improperly installed parts. The checklist denotes the items to be inspected and conditions to examine.

Periodic inspection shall be performed monthly or more often when required by environment, severity, and frequency of usage.

Handrail Assemblies

Properly installed; no loose or missing parts; no visible damage.

Platform Assembly

No visible damage; free of dirt and debris.

Sissor Arms

No visible damage, abrasions and/or distortions.

Electrical Cable

No visible damage; properly secured.

Pivot Pins

No loose or missing retaining hardware; no damage or wear to pin heads which would cause pin to rotate; no evidence of pin or bushing wear.

Lift Cylinder

No rust, nicks, scratches or foreign material on piston rod. No leakage. Evidence of proper lubrication.

Frame

No visible damage; loose or missing hardware (top and underside).

Drive Hubs

Check oil level in drive hub by removing pipe plug and feeling for oil level. (Contact service personnel for assistance if needed.)

NOTE: Torque Hubs should be one-half full of lubricant.

Tire and Wheel Assemblies

No loose or missing lug nuts; no visible damage

Sliding Wear Pad Blocks

No excessive wear; adequate lubrication.
Hydraulic Oil Supply

NOTE: Prior to checking the hydraulic oil level, operate the machine through one complete cycle of the lift function (full up and down). Failure to do so will result in an incorrect oil level reading on the hydraulic tank.

Operate hydraulic systems through one complete cycle before checking oil level in hydraulic oil tank. Oil should be visible in ADD sight window on hydraulic oil tank. If oil is not visible, add oil until oil is visible in both ADD and FULL sight windows on tank. Do not overfill tank.

2.4 DAILY WALK-AROUND INSPECTION

It is the user’s responsibility to inspect the machine before the start of each workday. It is recommended that each user inspect the machine before operation, even if the machine has already been put into service under another user. This Daily Walk-Around Inspection is the preferred method of inspection.

In addition to the Daily Walk-Around Inspection, be sure to include the following as part of the daily inspection:

Overall Cleanliness

Check all standing surfaces for oil, fuel and hydraulic oil spillage and foreign objects. Ensure overall cleanliness.

Placards

Keep all information and operating placards clean and unobstructed. Cover when spray painting or shot blasting to protect legibility.

Operators and Safety Manual

Ensure a copy of this manual is enclosed in the manual storage box.

Machine Log

Ensure a machine operating record or log is kept. Check to see that it is current and that no entries have been left uncleared, leaving machine in an unsafe condition for operation.

Daily Lubrication

For those items pointed out in the Daily Walk-Around Inspection requiring daily lubrication, refer to Figure 2-5, Lubrication Diagram for specific requirements.

Perform the following checks and services before attempting to operate the machine.

1. Start each day with a full fuel tank.
2. Ensure that all items requiring lubrication are serviced in accordance with the Lubrication Chart.
3. Perform functional checks in accordance with paragraph 2-5, Daily Functional Check.
2.5 DAILY FUNCTIONAL CHECK

**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 POSITION WHEN RELEASED.

A functional check of all systems must be performed, under no load, in an area free of overhead and ground level obstructions. Perform the functional check in accordance with the following procedure once the walk-around inspection is complete:

1. From the ground control station, raise and lower the platform several times and check for the following:
   a. Smooth elevation and lowering.
   b. High function speeds cut out as soon as possible after the platform lifts beyond the stowed position and begins to elevate. High function speeds must cut out prior to a maximum platform height of 14 ft (4.2 m).
   c. If equipped with oscillating axles - Make sure that the axle lockout valve switch is free of debris and the plunger of the switch actuates properly. As shown below, the plunger must extend (out) a minimum of 5.6 mm (0.22 in) to lock the axles when the scissor arms are raised. When fully lowered, the scissor arms will press the plunger in to allow the axles to oscillate.

2. Ensure the machine is on a firm level surface. Check for proper operation of the leveling jack limit switch first from the ground control station and then from the platform controls. With all the leveling jacks retracted, check that the platform will not raise above the following limits:

- **400RTS - 8.0m (26ft) Approximate elevation 65%**
- **500RTS - 6.7m (22ft) Approximate elevation 44%**

3. Drive forward and reverse, check for proper operation.
4. Check that drive brakes hold when machine is driven up a hill, not to exceed rated gradeability, and stopped.
5. Steer left and right. Check for proper operation.
6. Check hydraulic oil reservoir sight gauge. Refer to Lubrication Chart.

**WARNING**

TO AVOID INJURY DO NOT OPERATE A MACHINE UNTIL ALL MALFUNCTIONS HAVE BEEN CORRECTED. USE OF A MALFUNCTIONING MACHINE IS A SAFETY VIOLATION.
2.6 LOCKOUT CYLINDER CHECK (IF EQUIPPED)

To be performed quarterly, any time a system component is replaced, or when improper system operation is suspected on machines with oscillating axles.

NOTE: Ensure platform is fully lowered prior to beginning lockout cylinder check.

1. Place a 8 in (20 cm) high block with ascension ramp in front of the left front wheel.
2. Activate the machine's hydraulic system from the platform control station.
3. Place the engine speed and drive speed control switches to their respective “LOW” positions.
4. Place the drive controller to the “FORWARD” position and carefully drive the machine up the ascension ramp until the left front wheel is on top of the block.
5. Raise the machine platform approximately 2 ft (61 cm); ensure the lockout cylinder cam valve is free of the sizzor arm trip bar.
6. Place the drive controller to the “REVERSE” position and carefully drive the machine off of the block and ramp.
7. Have an assistant check to see that the left front wheel remains locked in position off of the ground.
8. Lower the machine platform; the lockout cylinder should then release the wheel and allow it to rest on the ground.
9. If the lockout cylinder does not function properly, have qualified personnel correct the malfunction prior to any further operation.
Figure 2-1. Daily Walk-Around Inspection Diagram
SECTION 2 - MACHINE PREPARATION AND INSPECTION

GENERAL

Begin the “Walk-Around Inspection” at Item 1, as noted on the diagram. Continue to the right (counterclockwise viewed from top) checking each item in sequence for the conditions listed in the “Walk-Around Inspection Checklist”.

WARNING

TO AVOID INJURY DO NOT OPERATE MACHINE UNTIL ALL MALFUNCTIONS HAVE BEEN CORRECTED. USE OF A MALFUNCTIONING MACHINE IS A SAFETY VIOLATION. TO AVOID POSSIBLE INJURY, BE SURE MACHINE POWER IS “OFF” DURING “WALK-AROUND INSPECTION”.

NOTE: Do not overlook visual inspection of chassis underside. Checking this area often results in discovery of conditions which could cause extensive machine damage.

1. Steer Cylinder and Tie Rod Ends - No loose or missing parts, no visible damage. No steer cylinder leaks or damage.
2. Leveling Jack, Left Front (If Equipped) - No loose or missing parts, no visible damage. No cylinder leaks or damage.
3. Drive and Lift Cutout Switches (If Equipped) - No visible damage, properly secured.
4. Steer Spindle, Left Front - No loose or missing parts, no visible damage, evidence of proper lubrication.
5. Steer/Drive Wheel and Tire Assembly, Left Front - Properly secured, no loose or missing lug nuts, no visible damage. Refer to inflation psi stenciled on frame.
6. Drive Motor, Left Front (4 Wheel Drive) - No visible damage, no evidence of leakage.
7. Drive Brake, Left Front (4 Wheel Drive) - No loose or missing parts, no visible damage, no evidence of leakage.
8. Drive Hub, Left Front (4 Wheel Drive) - No visible damage, no evidence of leakage. Drive hubs should be one half full of EPGL SAE 90.
9. Traversing Platform Extension Cylinder (If Equipped) - Properly secured, no visible damage, no loose or missing parts, no evidence leakage.
10. Oscillating Axle (If Equipped) - Properly secured, evidence of proper lubrication. No lockout cylinder leaks or damage.
11. Ladder - No damage, securely attached.
12. Hydraulic Reservoir - No visible damage or missing parts. No evidence of leaks. Recommended oil level in sight glass. Breather cap secure and working.
13. Ground Controls - Switches operable, no visible damage, placards secure and legible.
14. Tilt Alarm Switch - Properly secured, no loose or missing parts, no visible damage.
15. Hydraulic Filter - No visible damage, properly secured, no evidence of leakage.
17. Control Valves - Valves properly secured, no visible damage, no evidence of leakage. Hoses and fittings properly secured, no visible damage, no evidence of leaks.
18. Hand Pump Manual Descent - Properly secured, no loose or missing parts, no visible damage.
19. Fuel Tank (Gasoline or Diesel Engine) - Filler cap secure, sight gauge visible, no damage or leaks.
20. Traversing Platform Extension Cylinder (If Equipped) - Properly secured, no visible damage, no loose or missing parts, no evidence leakage.
21. Travel/Descent/Motion Alarm - Properly secured, no loose or missing parts, no visible damage.
22. Safety Prop - Stored securely, no missing parts.
23. Drive Wheel and Tire Assembly, Left Rear - Properly secured, no loose or missing lug nuts, no visible damage. Refer to inflation psi stenciled on frame.
24. Drive Motor, Left Rear - No visible damage, no evidence of leakage.
25. Drive Brake, Left Rear - No loose or missing parts, no visible damage, no evidence of leakage.
26. Drive Hub, Left Rear - No visible damage, no evidence of leakage. Drive hubs should be one half full of EPGL SAE 90.
27. Steer Spindle, Left Rear (If Equipped) - No loose or missing parts, no visible damage, evidence of proper lubrication.
28. LP Tank and Bracket (If Equipped) - No loose or missing parts, no visible damage. No leaks or damage.

Figure 2-2. Walk-Around Inspection Points (Sheet 1 of 3)
| 29. | Leveling Jack, Left Rear (If Equipped) - No loose or missing parts, no visible damage. No cylinder leaks or damage. |
| 30. | Drive and Lift Cutout Switches (If Equipped) - No visible damage, properly secured. |
| 31. | Battery Installation (Gasoline or Diesel Engine) - Proper electrolyte level, cables secure, no damage or corrosion. Holddowns secure. |
| 32. | Ladder - No damage, securely attached. |
| 33. | Traversing Platform (If Equipped) - No loose or missing parts, no visible damage, platform deck extension operates properly. |
| 34. | Leveling Jack, Right Rear (If Equipped) - No loose or missing parts, no visible damage. No cylinder leaks or damage. |
| 35. | Drive and Lift Cutout Switches (If Equipped) - No visible damage, properly secured. |
| 36. | Rear Steer Cylinder and Tie Rod Ends (If Equipped) - No loose or missing parts, no visible damage. No steer cylinder leaks or damage. |
| 37. | LP Tank and Bracket (If Equipped) - No loose or missing parts, no visible damage. No leaks or damage. |
| 38. | Steer Spindle, Right Rear (If Equipped) - No loose or missing parts, no visible damage, evidence of proper lubrication. |
| 39. | Drive Wheel and Tire Assembly, Left Rear - Properly secured no loose or missing lug nuts, no visible damage. Refer to inflation psi stenciled on frame. |
| 40. | Drive Motor, Right Rear - No visible damage, no evidence of leakage. |
| 41. | Drive Brake, Right Rear - No loose or missing parts, no visible damage, no evidence of leakage. |
| 42. | Drive Hub, Right Rear - No visible damage, no evidence of leakage. Drive hubs should be one half full of EPGL SAE 90. |
| 43. | Safety Prop - Stored securely, no missing parts. |
| 44. | Traversing Platform Extension Cylinder (If Equipped) - Properly secured, no visible damage, no loose or missing parts, no evidence leakage. |
| 45. | Engine Installation - Engine oil to full mark on dipstick, oil fillercap secure. Muffler/exhaust system properly secured, no leakage. Air filter assembly secure, no loose or missing parts, element clean. Gasoline Engine Only - Radiator cap secure, coolant to correct level. |
| 46. | Hydraulic Pump - Pump properly secured, no visible damage, no evidence of leakage. Hoses and fittings properly secured, no visible damage, no evidence of leaks. |
| 47. | Handrail installation - All railings securely attached, no damage or missing parts, chains securely attached. |
| 48. | Sizzor Arms and Sliding Wear Pads - Properly secured, no visible damage, evidence of proper lubrication. Inspect sizzor arm guards for damage and proper installation. |
| 49. | Ladder - No damage, securely attached. |
| 50. | Lift Cylinder - Properly secured, no visible damage, no loose or missing parts, no evidence leakage. |
| 51. | Traversing Platform Extension Cylinder (If Equipped) - Properly secured, no visible damage, no loose or missing parts, no evidence of leakage. |
| 52. | Steer/Drive Wheel and Tire Assembly, Right Front - Properly secured, no loose or missing lug nuts, no visible damage. Refer to inflation psi stenciled on frame. |
| 53. | Drive Motor, Right Front (4 Wheel Drive) - No visible damage, no evidence of leakage. |
| 54. | Drive Brake, Right Front (4 Wheel Drive) - No loose or missing parts, no visible damage, no evidence of leakage. |
| 55. | Drive Hub, Right Front (4 Wheel Drive) - No visible damage, no evidence of leakage. Drive hubs should be one half full of EPGL SAE 90. |
| 56. | Steer Spindle, Right Front - No loose or missing parts, no visible damage, evidence of proper lubrication. |
| 57. | High Speed Limit Switch - No visible damage, properly secured. |
| 58. | Platform Controls - Properly secured, no loose or missing parts, no visible damage. Placards secure and legible, control switches return to neutral. Control markings legible, manual in manual storage box. |
| 59. | Leveling Jack, Right Front (If Equipped) - No loose or missing parts, no visible damage. No cylinder leaks or damage. |
| 60. | Drive and Lift Cutout Switches (If Equipped) - No visible damage, properly secured. |
| 61. | Traversing Platform (If Equipped) - No loose or missing parts, no visible damage, platform deck extension operates properly. |

Figure 2-3. Walk-Around Inspection Points (Sheet 2 of 3)
SECTION 2 - MACHINE PREPARATION AND INSPECTION

2.7 DUAL FUEL SYSTEM

CAUTION
IT IS POSSIBLE TO SWITCH FROM ONE FUEL SOURCE TO THE OTHER WITHOUT ALLOWING THE ENGINE TO STOP. EXTREME CARE MUST BE TAKEN AND THE FOLLOWING INSTRUCTIONS MUST BE FOLLOWED.

Changing from Gasoline to LP Gas

1. Start the engine from the ground control station.
2. Open the hand valve on the LP Gas supply tank by turning counterclockwise.
3. While the engine is operating, place the three-position LPG/GAS SELECT switch at the ground control station to the center OFF position. Allow the engine to operate, without load, until the engine begins to ‘stumble’ from lack of gasoline.
4. As the engine begins to ‘stumble’ place the switch to the LPG position, allowing the LP fuel to be sent to the fuel regulator.

Changing from LP Gas to Gasoline

1. With engine operating on LP under a no-load condition, position the LPG/GAS SELECT switch at ground control to the GAS SELECT position.
2. If engine ‘stumbles’ because of lack of gasoline, place the switch to the LPG position until engine regains smoothness, then return the switch to the GAS SELECT position. Repeat as necessary until engine runs smoothly on gasoline.
3. Close the hand valve on the LP gas supply tank by turning clockwise.

2.8 TORQUE REQUIREMENTS

The Torque Chart (See Figure 2-6.) consists of standard torque values based on bolt diameter and grade, also specifying dry and wet torque values in accordance with recommended shop practices. This chart is provided as an aid to the operator in the event he/she notices a condition that requires prompt attention during the walk-around inspection or during operation until the proper service personnel can be notified. Section 1 of the Service and Maintenance Manual provides specific torque values and periodic maintenance procedures with a listing of individual components. Utilizing this Torque Chart in conjunction with the preventive maintenance section in Section 2 of the Service and Maintenance Manual, will enhance safety, reliability and performance of the machine.

| 62. Drive Cutout Switch and High Speed Cutout Switch - No visible damage, properly secured. |
| 63. Leveling Gauge - No visible damage, properly secured. |
| 64. Traversing Platform Valve (If Equipped) - No loose or missing parts, no visible damage, properly secured, no evidence of leakage. |
| 65. Platform Assembly - No loose or missing parts, no visible damage, platform deck extension operates properly. |

Figure 2-4. Walk-Around Inspection Points (Sheet 3 of 3)
SECTION 2 - MACHINE PREPARATION AND INSPECTION

Figure 2-5. Lubrication Diagram
### Table 2-1. Lubrication Chart

<table>
<thead>
<tr>
<th>INDEX NO</th>
<th>COMPONENT</th>
<th>NUMBER/TYPe LUBE POINTS</th>
<th>LUBE METHOD</th>
<th>INTERVAL HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Oscillating Axle Pivot Point (Optional)</td>
<td>1 Grease Fitting</td>
<td>MPG - Pressure Gun</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Lockout Cylinders (Optional)</td>
<td>2 Grease Fittings (1 each cylinder)</td>
<td>MPG - Pressure Gun</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Front Steering Spindles (2-W/D)</td>
<td>2 Grease Fittings</td>
<td>MPG - Pressure Gun</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Front Steering Spindles (4-W/D) (Optional)</td>
<td>2 Grease Fittings</td>
<td>MPG - Pressure Gun</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Tow Bar Hitch (Optional)</td>
<td>1 Grease Fitting</td>
<td>MPG - Pressure Gun</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>Wheel Bearings (2-W/D) N/A</td>
<td>Fill Plug</td>
<td>EPGL (SAE 90)</td>
<td>500</td>
</tr>
<tr>
<td>7</td>
<td>Wheel Drive Hub (4-W/D) (Optional)</td>
<td>Fill Plug</td>
<td>EPGL (SAE 90)</td>
<td>500</td>
</tr>
<tr>
<td>8</td>
<td>Hydraulic Oil Reservoir Fill Cap/Drain Plug</td>
<td>HO - Check HO Level (See note 4) / HO - Change HO</td>
<td>10/500</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>** Hydraulic Filter Element N/A</td>
<td>Initial Change - 40 Hours</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Wheel Drive Hub (Optional)</td>
<td>Fill Plug</td>
<td>EPGL (SAE 90)</td>
<td>500</td>
</tr>
<tr>
<td>11</td>
<td>Rear Steering Spindles (4-W/S) (Optional)</td>
<td>2 Grease Fittings</td>
<td>MPG - Pressure Gun</td>
<td>100</td>
</tr>
<tr>
<td>12</td>
<td>400 RTS Sizzor Arm Pivot Pins 500 RTS Sizzor Arm Pivot Pins</td>
<td>30 Grease Fittings (400 RTS) 38 Grease Fittings (500 RTS)</td>
<td>MPG - Pressure Gun</td>
<td>100</td>
</tr>
<tr>
<td>13</td>
<td>Rail Slides N/A</td>
<td></td>
<td>MPG - Brush</td>
<td>100</td>
</tr>
<tr>
<td>14</td>
<td>Platform Extension Slides (Optional) N/A</td>
<td></td>
<td>MPG - Brush</td>
<td>100</td>
</tr>
<tr>
<td>15</td>
<td>Lift Cylinder 4 Grease Fittings</td>
<td></td>
<td>MPG - Pressure Gun</td>
<td>100</td>
</tr>
<tr>
<td>16</td>
<td>Engine Crankcase</td>
<td>Fill Cap/Drain Plug</td>
<td>Check Engine Oil Level</td>
<td>10/100</td>
</tr>
</tbody>
</table>

* Torque Hubs should be 1/2 full of lubricant
** JLG Industries recommends replacing the hydraulic filter after the first 40 hours of operation and every 250 hours thereafter.

**KEY TO LUBRICANTS:**

MPG - Multi-purpose Grease

EPGL - Extreme Pressure Gear Lube

HO - Hydraulic Oil (Mobil 424)

**NOTE:**

1. Be sure to lubricate like items on each side
2. Recommended lubricating intervals are based on machine operations under normal conditions. For machines used in multi-shift operations and/or exposed to hostile environments or conditions, lubrication frequencies must be increased accordingly.
3. Operate hydraulic functions through one complete cycle before checking hydraulic oil level in tank. Oil should be visible in ADD sight window on hydraulic tank. If oil is not visible, add oil until oil is visible in both ADD and FULL sight windows on tank. Do not overfill tank.
4. Any time the pump coupling is removed, coat splines of coupling with Texaco Code 1912 grease prior to assembly. (gasoline or diesel engine only).

**WARNING**

TO AVOID PERSONAL INJURY, USE SAFETY PROP FOR ALL MAINTENANCE REQUIRING PLATFORM TO BE ELEVATED.
## Values for Zinc Plated Bolts Only

<table>
<thead>
<tr>
<th>SIZE</th>
<th>THD</th>
<th>BOLT DIA. (IN.)</th>
<th>THREAD STRESS AREA (SQ. IN.)</th>
<th>CLAMP LOAD (LB.)</th>
<th>TORQUE (Lb.-in.)</th>
<th>CLAMP LOAD (LB.)</th>
<th>TORQUE (Lb.-in.)</th>
<th>UNPLATED CAP SCREWS</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>40</td>
<td>0.1120</td>
<td>0.003604</td>
<td>380</td>
<td>8</td>
<td>640</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>32</td>
<td>0.1380</td>
<td>0.009050</td>
<td>580</td>
<td>16</td>
<td>820</td>
<td>23</td>
<td>17</td>
</tr>
<tr>
<td>8</td>
<td>32</td>
<td>0.1640</td>
<td>0.010030</td>
<td>600</td>
<td>18</td>
<td>820</td>
<td>25</td>
<td>19</td>
</tr>
<tr>
<td>10</td>
<td>24</td>
<td>0.1900</td>
<td>0.014740</td>
<td>640</td>
<td>20</td>
<td>820</td>
<td>27</td>
<td>22</td>
</tr>
<tr>
<td>1/4</td>
<td>20</td>
<td>0.2500</td>
<td>0.031800</td>
<td>220</td>
<td>50</td>
<td>820</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

**Legend:**
- **SAE Grade 5 Bolts:** 80% minimum tensile strength
- **SAE Grade 8 Bolts:** 100% minimum tensile strength
- **Unplated Cap Screws:** Without zinc plating

**Note:** These torque values do not apply to cadmium plated fasteners.

**Figure 2-6. Torque Chart**

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**Section 2 - Machine Preparation and Inspection**

3120695 – JLG Sizzor – 2-11
SECTION 3 - USER RESPONSIBILITIES AND MACHINE CONTROL

3.1 GENERAL

NOTICE

SINCE THE MANUFACTURER HAS NO DIRECT CONTROL OVER MACHINE APPLICATION AND OPERATION, CONFORMANCE WITH GOOD SAFETY PRACTICES IN THESE AREAS IS THE RESPONSIBILITY OF THE USER AND HIS OPERATING PERSONNEL.

This section provides the necessary information needed to understand control functions. Included in this section are the operating characteristics and limitations, and functions and purposes of controls and indicators. It is important that the user read and understand the proper procedures before operating the machine. These procedures will aid in obtaining optimum service life and safe operation.

3.2 PERSONNEL TRAINING

The sissor lift is a personnel handling device; therefore, it is essential that it be operated and maintained only by authorized personnel who have demonstrated that they understand the proper use and maintenance of the machine. It is important that all personnel who are assigned to and responsible for the operation and maintenance of the machine undergo a thorough training program and check out period in order to become familiar with the characteristics prior to operating the machine.

In addition, personnel operating the machine should be familiar with ANSI standard A92.6-1999 Responsibilities. This standard contains sections outlining the responsibilities of the owners, users, operators, lessors and lessees concerning safety, training, inspection, maintenance, and operation.

Persons under the influence of drugs or alcohol or who are subject to seizures, dizziness or loss of physical control must not be permitted to operate the machine.

Operator Training

Operator training must include instruction in the following:

1. Use and limitations of the platform controls, ground controls, emergency controls and safety systems.
2. Knowledge and understanding of this manual and of the control markings, instructions and warnings on the machine itself.
3. Knowledge and understanding of all safety work rules of the employer and of Federal, State and Local Statutes, including training in the recognition and avoidance of potential hazards in the work place; with particular attention to the work to be performed.
4. Proper use of all required personnel safety equipment.
5. Sufficient knowledge of the mechanical operation of the machine to recognize a malfunction or potential malfunction.
6. The safest means to operate near overhead obstructions, other moving equipment, obstacles, depressions, holes, dropoffs, etc. on the supporting surface.
7. Means to avoid the hazards of unprotected electrical conductors.
8. Any other requirements of a specific job or machine application.

Training Supervision

Training must be done under the supervision of a qualified operator or supervisor in an open area free of obstructions until the trainee has developed the ability to safely control a sissor lift in congested work locations.

Operator Responsibility

The operator must be instructed that he has 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 and to request further information from his supervisor or JLG Distributor before proceeding.

NOTE: Manufacturer or Distributor will provide qualified persons for training assistance with first unit(s) delivered and thereafter as requested by user or his personnel.

3.3 OPERATING CHARACTERISTICS AND LIMITATIONS

General

A thorough knowledge of the operating characteristics and limitations of the machine is always the first requirement for any user, regardless of user’s experience with similar types of equipment.
SECTION 3 - USER RESPONSIBILITIES AND MACHINE CONTROL

Placards

Important points to remember during operation are provided at the control stations by DANGER, WARNING, CAUTION, IMPORTANT and INSTRUCTION placards. This information is placed at various locations for the express purpose of alerting personnel of potential hazards constituted by the operating characteristics and load limitations of the machine. See foreword for definitions of the above placards.

Capacities

Raising platform above stowed position with or without any load in platform, is based on the following criteria:

1. Machine is positioned on a smooth, firm and level surface.
2. Load is within manufacturer’s rated capacity.
3. All machine systems are functioning properly.
4. Leveling Jacks properly set (If Equipped).

Stability

This machine, as originally manufactured by JLG and operated within its rated capacity on a smooth, firm and level supporting surface, provides a stable aerial platform for all platform positions.

3.4 CONTROLS AND INDICATORS

Machines are equipped with control panels that use symbols instead of words to indicate control functions. Refer to Figure 3-3., Control Panel Symbols for these symbols and their corresponding functions.

Ground Control Station

**WARNING**

DO NOT OPERATE FROM GROUND CONTROL STATION WITH PERSONNEL IN THE PLATFORM EXCEPT IN AN EMERGENCY.

PERFORM AS MANY PRE-OPERATIONAL CHECKS AND INSPECTIONS FROM THE GROUND CONTROL STATION AS POSSIBLE.

![Figure 3-1. Ground Control Station](image-url)
1. **Ignition/Emergency Stop** - A two-position, red mushroom shaped switch supplies electrical power to the Start button when positioned up. When positioned down, the switch shuts off electrical power to the ignition circuit, acting as an emergency stop switch. With the MAIN POWER switch in the OFF position, the key can be removed in order to incapacitate the machine on the jobsite to avoid unauthorized use of the machine.

2. **Power Selector Switch** - A three position key-operated power selector switch supplies operating power to the platform or ground controls, as selected. When positioned to platform, the switch provides power to the platform controls. When positioned to ground, the switch provides power to the ground controls. With the power selector switch in the center off position, power is shut off to both platform and ground controls.

**NOTE:** With the PLATFORM/GROUND SELECT switch positioned to GROUND, engine speed will stay in LOW at all times.

3. **Start Button** - A momentary contact, pushbutton-type switch that supplies electrical power to the starter solenoid when the IGNITION/EMERGENCY STOP switch is in the ON position and the START button is depressed.

4. **Lift Switch** - A three position, momentary contact lift control switch provides raising and lowering of the platform when positioned to UP or down.

5. **High Engine Circuit Breaker (Diesel Engine)** - A push button reset 3 Amp circuit breaker located on ground control panel returns interrupted power to diesel engine throttle when depressed.

6. **Start Button** - A momentary contact, push-button type switch supplies electrical power to the starter solenoid when the IGNITION switch is positioned up and the START button is depressed.

7. **Choke Switch (If Equipped)** - A momentary contact, push-button type switch supplies power to the choke solenoid, when depressed, to assist cold start operation.

8. **Platform Traversing Switch (If Equipped)** - A double throw, momentary contact toggle-type platform traversing switch permits the operator to hydraulically extend and retract the rear platform extension as needed for “up and over” work access.

9. **Platform Traversing Select Switch (If Equipped)** - A full throw, momentary contact toggle-type platform traversing select switch that works simultaneously with the platform traversing switch to permits the operator to hydraulically extend and retract the rear platform extension as needed for “up and over” work access.

10. **Gasoline/LPG Select Switch (Duel Fuel Only)** - A three position toggle-type switch is used to select the desired method of powering the unit. Placing the switch in the gasol ine position shuts off the fuel flow from the lp gas supply tank and allows fuel flow from the gasoline tank. Moving the switch to the lpg position shuts off fuel flow from the gasoline tank and allows lp gas from supply tank to be used to power the unit. With the switch in the center position, fuel flow is restricted from both supply tanks.

11. **Hourmeter** - The hourmeter records engine or electric motor operating time.

12. **Voltmeter** - With the emergency stop switch in the up position, and before starting the engine, the voltmeter indicates output voltage of the alternator. Normal reading for the voltmeter will be 12-14 volts with a properly charged or charging battery.

13. **Water Temperature Gauge** - The water temperature gauge provides a visual display of the engine coolant temperature.

14. **Oil Pressure Gauge** - The oil pressure gauge displays the engine lubrication system operating pressure.

### Platform Control Station

1. **Enable Switch** - These machines are equipped with an enable switch on the side of the platform control console. On machines built with a serial number before 0200058922, the enable switch must be pressed before activating the drive, lift or steer functions. A built-in timer shuts off power to these functions if they are not activated within 3 seconds after the enable switch is depressed. In addition, this timer will shut off power to the drive and lift functions 3 seconds after they are deactivated, making it necessary to depress the enable switch before activating drive and lift again. The steer function, unless activated in conjunction with the drive or lift functions, will automatically cut off after 3 seconds of operation. On machines built from, and including, serial number 0200058922, the enable switch must be depressed and held for the duration of lift. The enable switch works in conjunction with the lift switch only.

2. **Ignition/Emergency Stop Switch** - An ignition/ emergency stop red mushroom-type switch is provided in order to turn on machine power in the platform and also to turn off machine power in the event of an emergency. Power is turned on by positioning the switch to the up (on) position, and is turned off by positioning the switch to the down (off) position.
3. **Start Button** - A momentary contact, pushbutton-type switch that supplies electrical power to the starter solenoid when the ignition/emergency stop switch is in the on position and the start button is depressed.

4. **Tilt Alarm Warning Horn** - The Tilt Alarm Warning Horn is activated by the Tilt Alarm Switch when the chassis is on a severe slope (over 5 degrees on the 400RTS and 2 degrees on the 500RTS) with the platform raised.

   **CAUTION**

   IF TILT ALARM IS ON WHEN PLATFORM IS RAISED, LOWER PLATFORM COMPLETELY, THEN REPOSITION MACHINE SO THAT IT IS LEVEL BEFORE RAISING PLATFORM.

5. **Tilt Alarm Warning Light** - A warning light on the control console that lights when the chassis is on a severe slope (over 5 degrees on the 400RTS and 2 degrees on the 500RTS).

   **WARNING**

   TO AVOID SERIOUS INJURY, DO NOT OPERATE MACHINE IF TOGGLE SWITCHES DO NOT RETURN TO THE CENTER OFF POSITION WHEN RELEASED.

6. **Lift Switch** - The lift toggle switch provides for raising and lowering the platform when positioned to up or down.

7. **Engine Speed Switch** - A two position engine speed control switch provides the operator either high or low engine rpm as required.

8. **Pump Speed Switch** - A two position pump speed control switch allows the operator to select low (one pump section operating) or high (both pump sections operating) speed pump operation.

   **NOTE:** HIGH ENGINE speed, high drive speed (SPEED), and HIGH PUMP speed functions will cut-out when platform is raised above stowed position, leaving only low function speeds available until platform is lowered completely.

   **WARNING**

   DO NOT OPERATE MACHINE IF HIGH DRIVE SPEED, HIGH ENGINE SPEED, AND HIGH PUMP SPEED FUNCTIONS OPERATE WHEN PLATFORM IS RAISED ABOVE THE STOWED POSITION.
SECTION 3 - USER RESPONSIBILITIES AND MACHINE CONTROL

9. **PQ Controller** - The PQ Controller performs three functions: Drive, Steer and Drive Speed. On all machines built before serial number 0200058922, tilting the controller in the direction you want to go (forward or reverse) activates drive in that direction. The thumb-operated steer switch on top of the controller handle activates the steer wheels in the direction it is moved. If machine is equipped with four wheel steer, this switch operates only the front steer wheels. On all machines built after, and including, serial number 0200058922 there is a red trigger switch on the front of the controller. This switch must be depressed and held in order to drive the machine.

10. **Auxiliary Power (If Equipped)** - A toggle type auxiliary power control switch energizes the electrically operated hydraulic pump, when actuated. Switch must be held ON for the duration of auxiliary pump use.

The auxiliary power pump functions to provide sufficient oil flow to operate the Traversing Platform Extensions should the main pump or engine fail during operation.

It should be noted that the functions will operate at a slower than normal rate because of the lower GPM delivered.

**NOTE:** Auxiliary power pump only operates the Traversing Platform Extensions.

11. **Platform Traversing Switch (If Equipped)** - This is a double throw, momentary contact toggle-type switch which permits the operator to hydraulically extend and retract the platforms as needed for “up and over” work access.

12. **Platform Traversing Select Switch (If Equipped)** - In order to select the platform to traverse there is a full throw, momentary contact toggle-type platform traversing select switch, that works in conjunction with the platform traversing switch to permit the operator to hydraulically extend and retract the platforms as needed for “up and over” work access.

13. **Travel Warning Horn** - A push-button type horn switch supplies electrical power to an audible warning device when pressed.

14. **Choke (If Equipped)** - A push-button type switch supplies power, when depressed, to the choke solenoid for cold start operations.

15. **Leveling Jacks (If Equipped)** - The four momentary contact type toggle switches correspond to the four leveling jacks, one at each corner of the machine.

**CAUTION**

BE AWARE OF OTHER PERSONNEL AND EQUIPMENT WHEN EXTENDING OR RETRACTING LEVELING JACKS.

16. **Engine Distress Light (Gasoline Engine)** - The engine distress light is connected to a sensor on the engine that detects when coolant temperature rises above a preset level, illuminating the warning light.

17. **Engine Distress Light (Diesel Engine)** - The engine distress light is connected to a sensor on the engine that detects when oil pressure falls below a preset level, illuminating the warning light.
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Figure 3-3. Control Panel Symbols
Figure 3-4. Decal Location - Right Side (Sheet 1 of 2)
SECTION 3 - USER RESPONSIBILITIES AND MACHINE CONTROL

Figure 3-5. Decal Location - Left Side (Sheet 2 of 2)
SECTION 4. MACHINE OPERATION

4.1 DESCRIPTION

This machine is a self-propelled elevating ‘sizzor’ aerial work platform. The Sizzor Lift’s intended purpose is to position personnel with their tools and supplies at positions above ground level. The machine can be used to reach work areas located above machinery or equipment.

The JLG Sizzor Lift has a primary operator Control Station in the platform. From this Control Station, the operator can drive and steer the machine in both forward and reverse directions as well as raise and lower the platform. The machine has a Ground Control Station which will override the Platform Control Station. Ground Controls operate Lift Up, Lift Down, and Platform Traversing, (If Equipped). The controls are to be used only for daily check or in an emergency to lower the platform to the ground should the operator in the platform be unable to do so.

Instructions and hazard warnings are posted adjacent to both operator control stations and at other places on the machine. It is extremely important that operators know what instructions and warnings are placed on the machine, and review these periodically so that they are fresh in their minds. Vibrations emitted by these machines are not hazardous to an operator in the work platform.

The JLG Sizzor Lift is designed to provide efficient and safe operation when maintained and operated in accordance with warnings on the machine, the Operators & Safety, Service and Specification Manual and all jobsite and government rules and regulations. As with any type of machinery, the operator is very important to efficient and safe operation. Owner/user/operator must be familiar with Sections 6, 7, 8, 9, and 10 of ANSI A92.6-1999. These sections contain the responsibilities of the owner, users, operators, lessors and lessees concerning safety, training, inspection, maintenance, application and operation. It is absolutely necessary that the JLG Lift be regularly maintained in accordance with this section and the Service and Specifications section, and that any evidence of lack of maintenance, malfunction, excessive wear, damage or modification to the machine be reported immediately to the machine owner or the jobsite supervisor or safety manager and that the machine be taken out of service until all discrepancies are corrected.

The JLG Sizzor Lift is not intended to be used to lift material other than supplies which personnel in the platform require to do their job. Supplies or tools which extend outside the platform are prohibited. It must not be used as a forklift, crane, support for overhead structure, or to push or pull another object.

The machine has a manual descent system which will allow the platform to lowered without power from the engine/motor powered pump.

The JLG Sizzor Lift is powered using hydraulic motors and cylinders for the various machine motions. The hydraulic components are controlled by electrically activated hydraulic valves using switches and the joystick controller. The machine is equipped with a Enable Switch which must be pressed before activating the DRIVE, LIFT or STEER functions. The Enable Switch has a built-in timer which shuts off power to these functions if they are not activated within 3 seconds after Enable Switch is depressed. The speeds of functions controlled by the joystick controller are variable from zero to maximum speed depending upon the position of the controller. Functions controlled by toggle switches are either on or off. Higher or lower speed is possible only when the applicable high function speed control switch at the Platform Control Station is used in conjunction with the drive function. All switches at the platform are guarded to prevent inadvertent operation by individual switch guards.

The JLG Sizzor is a two or four wheel drive machine with drive power being supplied by a hydraulic motor for each drive wheel. Each drive wheel is supplied with a hydraulically released, spring applied brake. The brakes are automatically applied anytime the Drive controller is returned to the neutral position.

The capacities of model 400RTS and 500RTS are found on the capacity decals located on the machine. These capacities are based on a load uniformly distributed in the center of the platform. This means that the total combined weight of personnel, tools and supplies must not exceed the given capacity for a particular model.

The platform may be raised only when positioned on firm, level and uniform surfaces. Leveling jacks, if provided, are to assist in leveling the Sizzor Lift. The Sizzor Lift must be level when operating on leveling jacks.

4.2 GENERAL

This section provides the necessary information needed to operate the machine. Included in this section are the procedures for starting, stopping, traveling, steering, parking, platform loading and transporting. It is important that the user read and understand the proper procedures before operating the machine.
4.3 ENGINE OPERATION

NOTICE

RTS SERIES SCISSOR LIFTS MANUFACTURED AFTER AUGUST 26, 1996 ARE EQUIPPED WITH A HYDRAULIC OIL TEMPERATURE SWITCH THAT SHUTS DOWN THE ENGINE WHEN THE HYDRAULIC OIL REACHES A TEMPERATURE OF APPROXIMATELY 230˚ F (111˚ C). THIS SHUT DOWN IS INTENDED TO PROTECT THE HYDRAULIC SYSTEM AND ITS COMPONENTS FROM DAMAGE DUE TO EXCESSIVE HEAT. HEAT MAY BUILD UP DUE TO EXTENDED DRIVING, IN CONJUNCTION WITH HIGH AMBIENT TEMPERATURES, ACTIVATING THIS SWITCH AND SHUTTING DOWN THE MACHINE. IF THE MACHINE SHUTS DOWN, ALLOW THE HYDRAULIC OIL TO COOL, THEN RESUME NORMAL OPERATION.

NOTE: Initial starting should always be performed from the Ground Control Station.

Starting Procedure

1. Check engine oil before attempting to start engine; if necessary, add oil in accordance with Engine Manufacturers Manual.
2. Pull the red mushroom-type Ignition/Emergency Stop switch at the Ground Control Station to the UP position (ON).
3. Place the PLATFORM/GROUND SELECT switch to the applicable position for desired control station operation.
4. If operating a dual fuel machine, place the LP/GAS-OLINE SELECT switch to the desired position.

NOTE: If LPG system is selected, ensure that the hand valve on the LPG supply tank is opened prior to attempting to start the engine.

5. IF ENGINE FAILS TO START PROMPTLY, DO NOT CRANK FOR AN EXTENDED PERIOD. SHOULD ENGINE FAIL TO START ONCE AGAIN, ALLOW STARTER TO “COOL OFF” FOR 2 TO 3 MINUTES. IF ENGINE FAILS TO START AFTER SEVERAL ATTEMPTS, REFER TO ENGINE MAINTENANCE MANUAL.

NOTE: If starting machine from the platform control station, place the engine speed control switch to the LOW position prior to starting the engine.

6. Check engine voltmeter when starting engine and monitor gauge periodically during operation.

NOTICE

ALLOW ENGINE TO WARM-UP FOR A FEW MINUTES AT LOW SPEED BEFORE APPLYING ANY LOAD.

7. After engine has had sufficient time to warm up, proceed with operation of unit.

4.4 RAISING AND LOWERING (LIFTING)

WARNING

DO NOT RAISE PLATFORM EXCEPT ON A FIRM, LEVEL SURFACE FREE OF OBSTRUCTIONS AND HOLES.

NOTE: This machine is equipped with a Enable Switch on the side of the platform control console. This switch must be depressed before activating DRIVE, LIFT, or STEER functions from the platform control console.

Raising

NOTE: On machines equipped with leveling jacks, leveling jacks must be in contacted with the ground for lift system to raise above 22 ft. (6.7 m).

1. Position MAIN POWER switch to desired position and position POWER ON (platform) or EMERGENCY STOP (ground) switch, as applicable, to ON. If machine has been shut down, start engine and allow warm-up period before beginning any lifting.
2. Pull LIFT toggle switch, then move it to UP and hold until desired elevation is achieved.

Lowering

WARNING

ENSURE SIZZOR ARM AREA IS FREE OF PERSONNEL PRIOR TO LOWERING PLATFORM. DO NOT ‘LIFT DOWN’ WITHOUT COMPLETELY RETRACTING THE OPTIONAL TRAVERSING DECK.

Pull LIFT toggle switch, then move it to DOWN and hold until desired elevation is achieved or until platform is fully lowered.
4.5 TRAVERSING PLATFORM (OPTIONAL)

The machine may be equipped with hydraulically operated traversing platforms that moves 4 ft. (1.2 meters) at each end of the machine to give the operator “up and over” access to worksites. The traversing platform is operated by either the TRAVERSE toggle switches at platform control console or the TRAVERSE toggle switch at the ground control switches.

**WARNING**

TO AVOID INJURY TO GROUND PERSONNEL, RETRACT TRAVERSING PLATFORM COMPLETELY BEFORE LOWERING PLATFORM.

4.6 STEERING

To steer the machine, the thumb operated steer control switch on the controller handle is positioned to the right for traveling right, or to the left for traveling left.

To steer the machine with the optional 4 wheel steer, position steer control switch to right for traveling right, or to left for traveling left.

When released, the switch will return to the center-off position and the wheels will remain in the previously selected position. To return the wheels to the straightened position, the switch must be activated in the opposite direction until the wheels are centered.

4.7 TRAVELING (DRIVING)

**WARNING**

ALWAYS RAISE LEVELING JACKS, IF EQUIPPED, BEFORE TRAVELING TO AVOID INJURY TO PERSONNEL OR DAMAGE TO MACHINE.

IF EQUIPPED WITH LEVELING JACKS, DRIVE FUNCTION IS CUT OUT WHEN LEVELING JACKS ARE IN THE SET POSITION.

IF MACHINE BECOMES STUCK DURING TRAVEL, DO NOT “ROCK” MACHINE IN AN ATTEMPT TO REGAIN TRACTION, AS DAMAGE TO DRIVE HUBS MAY RESULT.

**WARNING**

DO NOT DRIVE WITH PLATFORM RAISED EXCEPT ON A SMOOTH, FIRM, AND LEVEL SURFACE FREE OF OBSTRUCTIONS AND HOLES.

TO AVOID LOSS OF CONTROL OR UPSET ON GRADES AND SIDESLOPES, DO NOT DRIVE MACHINE ON GRADES OR SIDESLOPES EXCEEDING THOSE SPECIFIED FOR THE MACHINE. TRAVEL GRADES AND SIDESLOPES WITH PLATFORM COMPLETELY LOWERED.

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Figure 4-1. Grade and Sideslope
TRAVEL GRADES IN "LOW" DRIVE SPEED ONLY. USE EXTREME CAUTION WHEN DRIVING IN REVERSE AND AT ALL TIMES WHEN DRIVING WITH PLATFORM ELEVATED AND ESPECIALLY WHEN DRIVING WITH ANY PART OF MACHINE WITHIN 6 FEET (2 M) OF AN OBSTRUCTION.

HIGH DRIVE SPEED IS CUT OUT WHEN PLATFORM IS RAISED ABOVE STOWED POSITION. IF LIMIT SWITCH MALFUNCTIONS, SHUT DOWN MACHINE AND HAVE AUTHORIZED SERVICE PERSONNEL REPAIR OR REPLACE LIMIT SWITCH PRIOR TO RESUMING OPERATION.

THE 400RTS MAY BE EQUIPPED WITH A 5 DEGREES TILT SWITCH THAT ILLUMINATES A LIGHT ON THE PLATFORM CONTROL CONSOLE AND SOUNDS AN AUDIBLE ALARM WHEN THE MACHINE IS ON A SLOPE (OVER 5 DEGREES) WITH THE PLATFORM RAISED.

THE 500RTS IS EQUIPPED WITH A 2 DEGREES TILT SWITCH THAT ILLUMINATES A LIGHT ON THE PLATFORM CONTROL CONSOLE AND SOUNDS AN AUDIBLE ALARM WHEN THE MACHINE IS ON A SLOPE (OVER 2 DEGREES) WITH THE PLATFORM RAISED. WHEN MACHINE IS ON A SLOPE (OVER 2 DEGREES) WITH THE PLATFORM COMPLETELY LOWERED, ONLY THE WARNING LIGHT IS ILLUMINATED.

### Traveling Forward

**NOTE:** On machines equipped with leveling jacks, leveling jacks must be in the stowed position before operation of the drive system.

1. Position ignition/emergency stop switch to on. If machine has been shut down, start engine and allow warm-up period before beginning any lifting.

2. Position pump and engine control switches to desired positions (high or low) and position drive control switch to desired position (torque or speed).

3. Position controller to forward, pull up on safety lock, and hold controller in position for duration of travel. Once drive is initiated, the safety lock can be released and drive will continue to function until controller is returned to the center off position. Drive speed is determined by the distance the controller is moved from the center off position.

### Traveling in Reverse

**NOTE:** On machines equipped with leveling jacks, leveling jacks must be in the stowed position before operation of the drive system.

1. Position ignition/emergency stop switch to on. If machine has been shut down, start engine and allow warm-up period before beginning any lifting.

2. Position pump and engine control switches to desired positions (high or low) and position drive control switch to desired position (torque or speed).

3. Position controller to forward, pull up on safety lock, and hold controller in position for duration of travel. Once drive is initiated, the safety lock can be released and drive will continue to function until controller is returned to the center off position. Drive speed is determined by the distance the controller is moved from the center off position.

### 4.8 PARKING AND STOWING

Park and stow machine as follows:

1. Drive machine to a reasonably well-protected and well-ventilated area.

2. Ensure platform is fully lowered.

3. Position emergency stop switch to off position.

4. If necessary, cover the instruction placards, caution and warning decals so that they will be protected from hostile environment.

5. Chock at least two wheels when parking machine for an extended period of time.

6. Turn ignition/emergency stop switch to off and turn the Power selector switch to the center position and remove key to disable machine from unauthorized use.

### 4.9 PLATFORM LOADING

The platform maximum rated load capacity is shown on a placard located on the platform and is based upon the following criteria.

1. Machine is positioned on a smooth, firm and level surface.

2. All braking devices are engaged.

3. Refer to Section 3 for platform capacities.

4. Leveling Jacks properly set (If Equipped).

It is important to remember that the load should be evenly distributed on the platform. The load should be placed near the center of the platform when possible.
4.10 SAFETY PROPS

**CAUTION**

SAFETY PROPS MUST BE USED WHEN MAINTENANCE PERFORMED ON MACHINE REQUIRES SIZZOR ARMS TO BE RAISED.

To engage safety props, raise platform so that both props can be disconnected from locking arms and lowered to a vertical position. Lower the platform until the safety props rest on the pads provided on the frame. Maintenance can now begin.

To store safety props, raise platform so that props can be pivoted up and secured by their locking arms.

4.11 MACHINE TIE DOWN

When transporting machine, platform must be fully retracted in the stowed mode with machine securely tied down to truck or trailer deck. Four tie down lugs are provided, one at each corner of the machine frame.

**WARNING**

USE TIE DOWN LUGS ONLY TO SECURE THE MACHINE FOR SHIPPING. DO NOT USE TIE DOWN LUGS TO LIFT MACHINE.

4.12 TOWING

The machine should not be towed, except in the event of an emergency such as a machine malfunction or a total machine power failure. Refer to Section 6 for emergency towing procedures.
SECTION 5. EMERGENCY PROCEDURES

5.1 GENERAL

This section provides information on the procedures to be followed and on the systems and controls to be used in the event an emergency situation is encountered during machine operation. Prior to operation of the machine and periodically thereafter, the entire operating manual, including this section, should be reviewed by all personnel whose responsibilities include any work or contact with the machine.

5.2 EMERGENCY TOWING PROCEDURES

Although towing the machine is prohibited, when not equipped with a tow package, provisions for moving the machine, in case of a malfunction or power failure, have been incorporated. The following procedures are to be used ONLY for emergency movement to a suitable maintenance area.

1. Chock wheels securely.
2. Disengage (reverse) the disconnect cap on each drive torque hub by removing the two attaching capscrews, turning the cap around, and reinstalling and tightening the capscrews.
3. Remove chocks and move the machine to an appropriate maintenance area, using suitable equipment for assistance.

After moving machine, complete the following procedures:

1. Position machine on a firm, level surface.
2. Chock wheels securely.
3. Return disconnect caps to normal (engaged) position.
4. Remove chocks from wheels.

5.3 EMERGENCY CONTROLS AND THEIR LOCATIONS

Emergency Stop Switch

At platform controls, push red Ignition/Emergency stop switch this will immediately stop the machine.

Ground Control Station

The Ground Control Station is located on the left side of the machine frame. The controls on this panel provide the means for overriding the platform controls and for controlling the platform lift up and down and ignition functions from the ground. Position the Ignition/Emergency Stop switch to ON, position the PLATFORM/GROUND SELECT switch to the GROUND position and operate the appropriate switch, LIFT or IGNITION.

**NOTICE**

IF MACHINE IS EQUIPPED WITH PLATFORM EXTENSION OR TRAVERSING DECK, RETRACT DECK BEFORE LOWERING PLATFORM.

Manual Descent (Engine/Pump Failure - Platform Controls)

In the event of engine/pump failure while operating the machine from the platform console, the following procedure should be followed to lower the platform. Turn the power on switch to on. Place the lift control switch to down. When platform is completely down, return lift control switch to center off and position power on switch to off.
SECTION 5 - EMERGENCY PROCEDURES

Manual Descent (Engine/Pump Failure - Ground Controls)

The following procedure should be used to lower the platform from the ground controls in the event of engine/pump failure. Turn main power switch to on and platform/ground select switch to ground. For battery powered machines, position main power switch to ground. Place lift control switch to down. When platform is completely down, return lift control switch to center off and position main power switch to off.

Manual Descent (Complete Loss of Power)

The manual descent valve is used, in the event of total power failure, to lower the platform using gravity. The manual descent handle is located on the inside of the valve compartment on the left side of the machine. Turn the release valve on the side of the pump to the closed position and pump the handle. This will release the holding valve, lowering the platform. After the platform reaches the stowed position, open the release valve on the pump.

Auxiliary Power (If Equipped) (Engine/Pump Failure - Platform Controls)

A toggle type auxiliary power control switch is located on the platform control station. Operation of switch turns on the electrically driven auxiliary hydraulic pump. This should be used in the case of failure of the main power plant. The auxiliary pump will operate "only" the traversing platforms. To activate auxiliary power:

1. Position IGNITION switch to off.
2. Operate appropriate control switch for desired function and hold.
3. Position AUXILIARY POWER switch to ON and hold.
4. Release AUXILIARY POWER switch and selected control switch.

Auxiliary Power (If Equipped) (Engine/Pump Failure - Ground Controls)

The toggle type traversing platform control switches are located on the ground control station. Operation of switch turns on the electrically driven auxiliary hydraulic pump.

1. Position IGNITION switch to off.
2. Operate appropriate control switch for desired traversing platform function and hold.

5.4 EMERGENCY OPERATION

Use of Ground Controls

**NOTICE**

KNOW HOW TO USE THE GROUND CONTROLS IN AN EMERGENCY SITUATION.

Ground personnel must be thoroughly familiar with the machine operating characteristics and the ground control functions. Training should include operation of the machine, review and understanding of this section and hands-on operation of the controls in simulated emergencies.

Operator Unable to Control Machine

If the platform operator is pinned, trapped or unable to operate or control the machine.

1. USE THE MANUAL DESCENT SYSTEM AS FIRST CHOICE for bringing the platform and operator down, particularly IF THERE IS INDICATION OF CONTROL MALFUNCTION. Further use of hydraulic power may cause severe injury or death.
2. Operate the machine from ground controls ONLY with the assistance of other personnel and equipment (cranes, overhead hoists, etc.) as may be required to safely remove the danger or emergency condition.
3. Other qualified personnel on the platform may use the platform controls. DO NOT CONTINUE OPERATION IF CONTROLS DO NOT FUNCTION NORMALY.
4. Cranes, forklift trucks or other equipment which may be available are to be used to remove platform occupants and stabilize motion of the machine in case machine controls are inadequate or malfunction when used.

Platform Caught Overhead

If the platform becomes jammed or snagged in overhead structures or equipment, do not continue operation of the machine from either the platform or the ground until the operator and all personnel are safely moved to a secure location. Only then should an attempt be made to free the platform using any necessary equipment and personnel. Do not operate controls to cause one or more wheels to leave the ground.
Righting of Tipped Machine

A forklift of suitable capacity or equivalent equipment should be placed under the elevated side of the chassis, with a crane or other suitable lifting equipment used to lift the platform while the chassis is lowered by the forklift or other equipment.

Post-Incident Inspection

Following any accident, thoroughly inspect the machine and test all functions first from the ground controls, then from the platform controls. Do not lift above 10 ft (3 meters) until you are secure that all damage has been repaired, if required, and that all controls are operating correctly.

5.5 INCIDENT NOTIFICATION

It is imperative that JLG Industries, Inc. be notified immediately of any incident involving a JLG product. Even if no injury or property damage is evident, the factory should be contacted by telephone and provided with all necessary details. Contact at 1-877-JLG-SAFE (554-7223) between the hours of 8:00 AM - 4:45 PM Eastern Standard time.

It should be noted that failure to notify the Manufacturer of an incident involving a JLG Industries product within 48 hours of such an occurrence may void any warranty consideration on that particular machine.
### Table 6-1. Inspection and Repair Log

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CALIFORNIA PROPOSITION 65
BATTERY WARNING

Battery posts, terminals and related accessories contain lead and lead compounds, chemical known to the State of California to cause cancer and reproductive harm.

WASH HANDS AFTER HANDLING!

WARNING: The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.
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