



# ***Operators and Safety Manual***

## ***Model 26MRT***

**3120790**

*April 19, 2000*

***ANSI***



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**CALIFORNIA PROPOSITION 65  
BATTERY WARNING**

**Battery posts,  
terminals and related  
accessories contain  
lead and lead compounds,  
chemicals 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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## FOREWORD

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

### IMPORTANT

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.

### IMPORTANT

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.

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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 A92.6-1992. 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 de energized 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.

## REVISION LOG

January 3, 2000 - Original Issue

Pro 65 page added - Updated 4-19-00

4-1 - Updated 4-19-00

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## SECTION 1. SAFETY PRECAUTIONS

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### 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 -1990. 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.

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### 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.

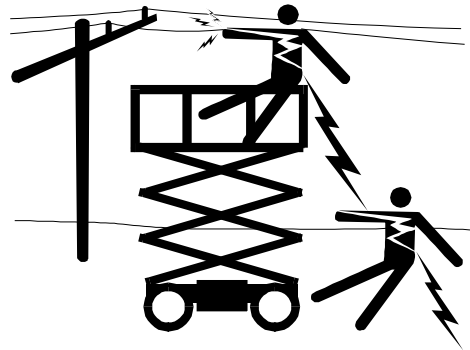
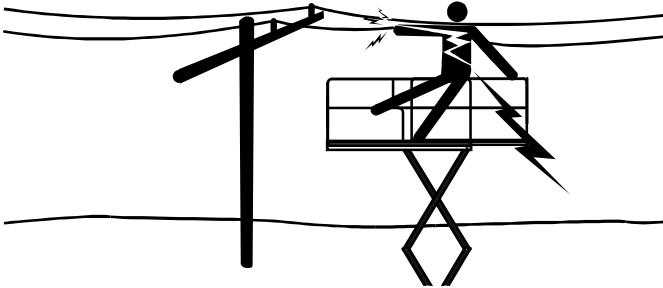
It is not recommended that this machine be towed, except in the event of a machine malfunction, a total machine power failure, or for loading on a truck. Refer to Section 6 for emergency towing procedures.

#### **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 PERSONEL INSIDE PROHIBITED ZONE. ASSUME ALL ELECTRICAL PARTS AND WIRING ARE ENERGIZED UNLESS KNOWN OTHERWISE.

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

M.S.A.D. = MINIMUM SAFE APPROACH DISTANCE  
(SEE TABLE BELOW)

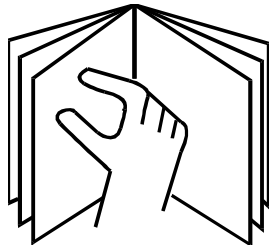
Table 1-1.  
Minimum Safe Approach Distances (M.S.A.D.) to energized  
(exposed or insulated) power lines and parts

VOLTAGE RANGE (Phase To Phase)	MINIMUM SAFE APPROACH DISTANCE Feet (Meters)
0 to 300V	AVOID CONTACT
Over 300V to 50KV	10 (3)
Over 50KV to 200KV	15 (5)
Over 200KV to 350KV	20 (6)
Over 350KV to 500KV	25 (8)
Over 500KV to 750KV	35 (11)
Over 750KV to 1000KV	45 (14)

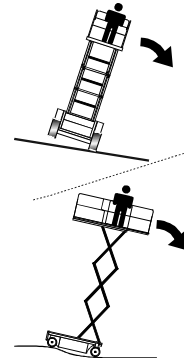
MAINTAIN SAFE CLEARANCE FROM ELECTRICAL LINES AND APPARATUS. ALLOW FOR PLATFORM SWAY, ROCK OR SAG AND ELECTRICAL LINE SWAYING. THE MACHINE DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR.

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.

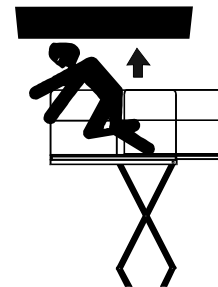
1.4 PRE-OPERATIONAL



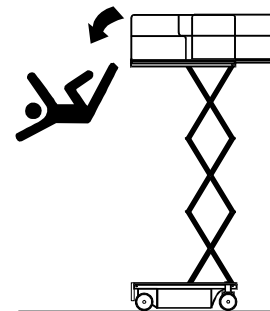
- READ YOUR MANUAL. UNDERSTAND WHAT YOU'VE READ - THEN BEGIN OPERATIONS.
- ALLOW ONLY THOSE AUTHORIZED AND QUALIFIED PERSONNEL TO OPERATE MACHINE WHO HAVE DEMONSTRATED THAT THEY UNDERSTAND SAFE AND PROPER OPERATION AND MAINTENANCE OF THE UNIT.
- AN OPERATOR MUST NOT ACCEPT OPERATING RESPONSIBILITIES 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

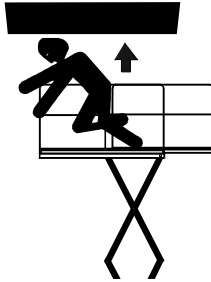
## SECTION 1 - SAFETY PRECAUTIONS

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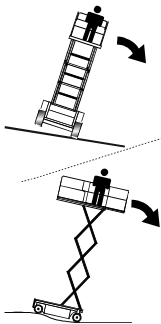
WITH THE MACHINE AT ALL TIMES DURING MOUNT AND DISMOUNT.

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### 1.5 DRIVING



- WATCH FOR OBSTRUCTIONS AROUND MACHINE AND OVERHEAD WHEN DRIVING.

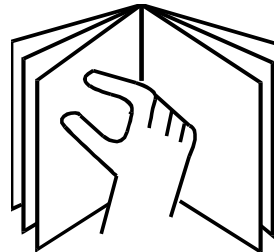


- CHECK TRAVEL PATH FOR PERSONS, HOLES, BUMPS, DROP-OFF, OBSTRUCTIONS, DEBRIS, AND COVERINGS WHICH MAY CONCEAL HOLES AND OTHER HAZARDS.
- DO NOT DRIVE WITH PLATFORM RAISED OR RAISE PLATFORM WHILE ON A SLOPING, UNEVEN, OR SOFT SURFACE.
- BEFORE DRIVING ON FLOORS, BRIDGES, TRUCKS AND OTHER SURFACES, CHECK 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.

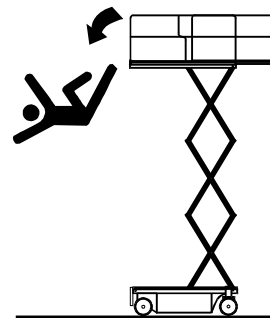
- BE AWARE OF STOPPING DISTANCES WHEN TRAVELING IN HIGH AND LOW SPEEDS.
- ALWAYS POST A LOOKOUT WHEN DRIVING IN AREAS WHERE VISION IS OBSTRUCTED.
- KEEP NON-OPERATING PERSONNEL AT LEAST 6 FEET (1.8 M) AWAY FROM MACHINE DURING DRIVING OPERATIONS.

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### 1.6 OPERATION



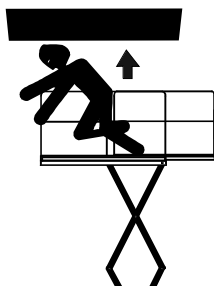
- READ YOUR MANUAL, UNDERSTAND WHAT YOU'VE READ - THEN BEGIN OPERATIONS.
- DO NOT OPERATE ANY MACHINE ON WHICH DANGER, WARNING, CAUTION OR INSTRUCTION PLACARDS OR DECALS ARE MISSING OR ILLEGIBLE.



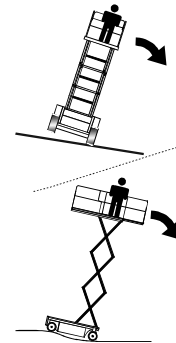
- NEVER USE SCISSOR ARMS TO GAIN ACCESS TO OR LEAVE PLATFORM.
- WHEN APPLICABLE BY REASON OF LOCAL REGULATIONS OR JOBSITE/EMPLOYER SAFETY RULES, ALL PERSONNEL IN THE PLATFORM SHALL AT ALL TIMES WEAR APPROVED FALL PROTECTION DEVICES AND OTHER SAFETY GEAR AS REQUIRED.
- TO AVOID FALLING - USE EXTREME CAUTION WHEN ENTERING OR LEAVING PLATFORM ABOVE GROUND. ENTER OR EXIT THRU GATE ONLY. PLATFORM MUST BE WITHIN 1 FOOT (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.

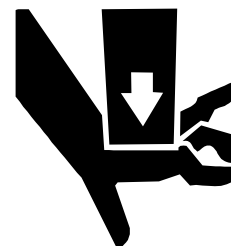
- NEVER POSITION LADDERS, STEPS, OR SIMILAR ITEMS ON UNIT TO PROVIDE ADDITIONAL REACH FOR ANY PURPOSE.
- WHEN RIDING IN OR WORKING FROM PLATFORM BOTH FEET MUST BE FIRMLY POSITIONED ON DECK.
- DO NOT EXTEND REACH LIMITS OF THIS MACHINE WITH ADDITIONAL EQUIPMENT SUCH AS PLANKS, BOXES, ETC.
- DO NOT OPERATE 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

## SECTION 1 - SAFETY PRECAUTIONS

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**

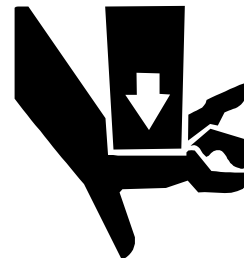
MODIFICATION OF THE MACHINE WITHOUT CERTIFICATION BY A RESPONSIBLE AUTHORITY THAT THE MACHINE IS AT LEAST AS SAFE AS ORIGINALLY MANUFACTURED IS A SAFETY VIOLATION.

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.

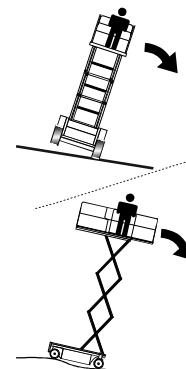
Your safety, and that of others, is the first consideration when engaging in the maintenance of equipment. Always be conscious of weight.

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. 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.

#### IMPORTANT

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

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.

All preparation 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.

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 located 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.

#### Sizzor Arms

No visible damage, abrasions and/or distortions.

#### Electrical Cable

No visible damage; properly secured.

#### Pivot Pins

No loose or missing retaining hardware; no visible damage; no evidence of pin or bushing wear.

#### Lift Cylinder

No rust, nicks, scratches or foreign material on piston rod; no leakage.

#### Frame

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

#### Tire and Wheel Assemblies

No loose or missing lug nuts; no visible damage.

#### Sliding Wear Pad Blocks

No excessive wear.

#### Hydraulic Oil Supply

Level should be at full mark on side of hydraulic tank (all systems shut down, machine in stowed position).

#### Steer Cylinder

No rust, nicks, scratches or foreign material on piston rod; no leakage.

#### Steer Linkage

No loose or missing parts; no visible damage.

#### Front Spindle Assemblies

No excessive wear; no damage; evidence of proper lubrication.

## SECTION 2 - PREPARATION AND INSPECTION

---

### Control Boxes (Console and Ground)

Switches operable; no visible damage; placards secure and legible; controller operable; no visible damage.

### Battery

Proper electrolyte level; cable connections tight; no visible damage; no corrosion at battery cable connections.

### Engine

Engine oil level - full mark on dipstick; filler cap secure; air filter secure.

### Hydraulic Pump and Valves

No visible damage; no leakage; units secure.

### Platform Placards

No visible damage; placards secure and legible.

---

## 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, Service, and Parts 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 the Lubrication Chart in Section 7 for specific requirements.

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

### WARNING

TO AVOID INJURY DO NOT OPERATE A MACHINE UNTIL ALL MALFUNCTIONS HAVE BEEN CORRECTED. USE OF A MALFUNCTIONING MACHINE IS A SAFETY VIOLATION.

1. Start each day with a full fuel tank.
2. Ensure that all items requiring lubrication are serviced in accordance with the Lubrication Chart in Section 7.
3. Perform functional checks in accordance with paragraph 2-5, Daily Functional Check.

---

## 2.5 DAILY FUNCTIONAL CHECK

### WARNING

TO AVOID INJURY DO NOT OPERATE A MACHINE UNTIL ALL MALFUNCTIONS HAVE BEEN CORRECTED. USE OF A MALFUNCTIONING MACHINE IS A SAFETY VIOLATION.

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

1. Raise and lower platform several times. Check for smooth elevation and lowering. Check for High Drive cut-out as platform begins to raise.
2. Drive forward and reverse, check for proper operation.
3. Check that drive brake holds when machine is driven up a hill, not to exceed rated gradeability, and stopped.
4. Steer left and right. Check for proper operation.
5. Check fluid level on hydraulic oil reservoir. Refer to the Lubrication Chart.

---

## 2.6 TORQUE REQUIREMENTS

The Torque Chart in this section 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. This section provides specific torque values and periodic maintenance procedures with a listing of individual components. Utilizing this Torque



Chart in conjunction with the preventive maintenance procedures, will enhance safety, reliability and performance of the machine.

---

## 2.7 DUAL FUEL SYSTEM (IF EQUIPPED)

### 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.

### CAUTION

BE SURE ALL GASOLINE IS EXHAUSTED BEFORE SWITCHING TO LP GAS.

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 gas to be sent to the fuel regulator.

Changing from LP Gas to Gasoline.

1. With the engine operating on LP gas under a no load condition, position the LPG/GAS SELECT switch at the ground control station to the GAS SELECT position.
2. If the engine 'stumbles' because of a lack of gasoline, place the switch to the LPG position until the engine regains smoothness, then return the switch to the GAS SELECT position. Repeat as necessary until the 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 consists of standard torque values based on bolt diameter and grade, also specifying dry, wet and loctite 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. The Service and Maintenance section provides specific torque values and periodic maintenance procedures with a listing of individual components. Utilizing this torque chart in conjunction with preventive maintenance section will enhance safety, reliability and performance of the machine.

SECTION 2 - PREPARATION AND INSPECTION

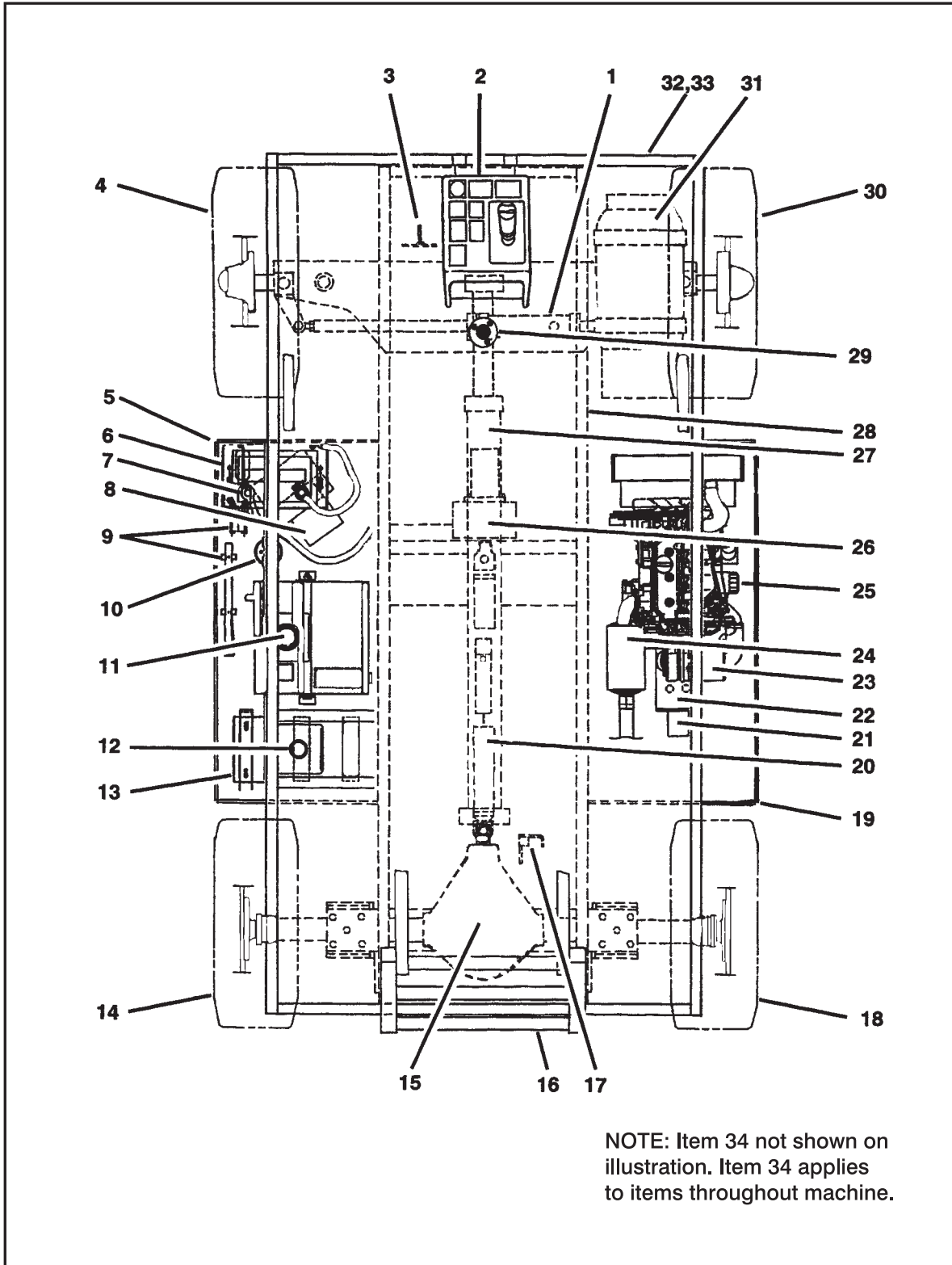


Figure 2-1. Walk - Around Inspection Diagram (Sheet 1 of 2)

### • 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."**

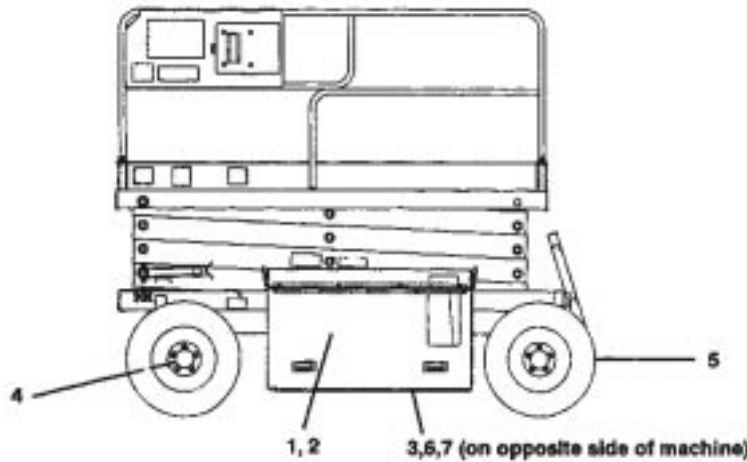
#### Note

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

1. Manual Descent Cable and Pull Ring - Properly secured; no loose or missing parts; no visible damage.
2. Platform Controls - Switches and control lever properly secured; no loose or missing parts; no visible damage; switches and control lever return to neutral position. Placards secure and legible; control markings legible; manual in manual storage box.
3. Steer Cylinder and Linkage - No loose or missing parts; no visible damage; no evidence of steer cylinder leakage.
4. Wheel and Tire Assembly, Left Front - Properly secured; no loose or missing lug nuts; no visible damage; tire properly inflated.
5. Compartment Cover and Latches - Cover and latches in working condition; properly secured; no loose or missing parts.
6. Horn - Properly secured; no visible damage; no loose or broken wiring.
7. Battery Installation - Proper electrolyte level; cables secure; no damage or corrosion. Holddowns secure.
8. Control Valve Installation - No loose or missing parts; no evidence of leakage; no unsupported wires or hoses; no damaged or broken wires.
9. Brake Valve and Pump Handle - Properly secured; no visible damage; no loose or missing parts; no evidence of leakage at valve.
10. Hydraulic Filter - No visible damage; properly secured; no evidence of leakage.
11. Hydraulic Reservoir - No visible damage; no loose or missing parts; no evidence of leakage. Recommended hydraulic fluid level in sight gauge. Breather cap secure and working.
12. Fuel Tank - No visible damage; no evidence of leakage; filler cap properly secured.
13. Ground Controls - Properly secured; no visible damage; switches operable; switches return to neutral position; placards secure and legible.
14. Wheel and Tire Assembly, Left Rear - Properly secured; no loose or missing lug nuts; no visible damage; tire properly inflated.
15. Drive Axle Assembly - Properly secured; no visible damage; no evidence of leakage.
16. Ladder - Properly secured; no visible damage; no loose or missing hardware.
17. Limit Switch - Properly secured; no visible damage; no loose or missing parts.
18. Wheel and Tire Assembly, Right Rear - Properly secured; no loose or missing lug nuts; no visible damage; tire properly inflated.
19. Compartment Cover and Latches - Cover and latches in working condition; properly secured; no visible damage; no loose or missing parts.
20. Driveline Assembly - Properly secured; no visible damage; no loose or missing parts.
21. Drive Pump - Properly secured; no visible damage; no evidence of leakage.
22. Function/Charge Pump - Properly secured; no visible damage; no evidence of leakage.
23. Engine Air Filter Assembly - Properly secured; no visible damage; no loose or missing parts; element clean.
24. Muffler and Exhaust System - Properly secured; no visible damage; no loose or missing parts; no evidence of leakage.
25. Engine Oil Supply - Oil level to full mark on dipstick; filler cap secure.
26. Drive Brake - Properly secured; no visible damage; no evidence of leakage.
27. Lift Cylinder - Properly secured; no visible damage; no loose or missing parts; no evidence of leakage.
28. Sizzor Arms and Sliding Wear Pads - Properly secured; no visible damage; no loose or missing parts. If equipped, inspect sizzor arm guards for damage and proper installation.
29. Tilt Switch (If Equipped) - Properly secured; no loose or missing parts; no visible damage; no loose or broken wiring.
30. Wheel and Tire Assembly, Right Front - Properly secured; no loose or missing lug nuts; no visible damage; tire properly inflated.
31. LP Tank Installation (If Equipped) - Properly secured; no visible damage; no evidence of leakage.
32. Platform Assembly - No loose or missing parts; no visible damage; platform deck extension operates properly.
33. Handrail Installation - All railings securely attached; no visible damage; no missing parts; chain in proper working order.
34. (Not Shown on Illustration) Valves, Valve Fittings, Hosing and Tubing - Properly secured; no loose or missing parts; no visible damage; no evidence of leakage.

Figure 2-2. Walk - Around Inspection Points (Sheet 2 of 2)

SECTION 2 - PREPARATION AND INSPECTION



INDEX NUMBER	COMPONENT	NO/TYPE LUBE POINTS	LUBE/METHOD	INTERVAL HOURS	COMMENTS
1	Hydraulic Oil	Fill Cap/Drain Plug	HO - Check HO Level HO - Change HO	Daily/1200	Check oil level daily. Change oil and clean strainer every 1200 hrs.
2	Hydraulic Return Filter Element	N/A	N/A	50/300	Change filter after first 50 hours of operation, then every 300 hours thereafter.
3	Charge Pump Filter	N/A	N/A	50/300	Change filter after first 50 hours of operation, then every 300 hours thereafter.
4	Wheel Bearings	2 - Front Wheels	MPG - Repack	1200	N/A
5	Rear Axle	Fill Plug/Drain Plug	EPGL - Check EPGL Level EPGL - Change EPGL	150/1200	Check oil level every 150 hours. Change oil every 1200 hours.
6	Crankcase - Vanguard Gasoline/LP Engine	Fill Cap/Drain Plug	EO - Check EO Level EO - Change EO	Daily/50/300	Check oil level daily. Change oil after first 50 hours of operation and every 300 hours thereafter.
7	Crankcase - Yanmar Diesel Engine	Fill Cap/Drain Plug	EO - Check EO Level EO - Change EO	Daily/50/150	Check oil level daily. Change oil after first 50 hours of operation and every 150 hours thereafter.

**Key To Lubricants:**

- EO - Engine Oil
- EPGL - Extreme Pressure Gear Lubricant
- HO - Hydraulic Oil - Mobilfluid 424
- MPG - Multi-Purpose Grease

**⚠ WARNING**

**TO AVOID PERSONAL INJURY, USE SAFETY PROP FOR ALL MAINTENANCE REQUIRING PLATFORM TO BE ELEVATED.**

**Notes:**

1. Be sure to lubricate like items on each side of machine.
2. Recommended lubricating intervals are based on normal use. If machine is subjected to severe operating conditions, user must adjust lubricating requirements accordingly.
3. Lubricating intervals are calculated on 50 hours of machine operation per week.
4. Spindle bushings are prelubed at assembly and do not require periodic lubrication.

Figure 2-3. Lubrication Chart

VALUES FOR ZINC PLATED BOLTS ONLY													UNPLATED CAP SCREWS				
SIZE	THD	BOLT DIA. (IN.)	THREAD STRESS AREA (SQ. IN.)	SAE GRADE 5 BOLTS & GRADE 2 NUTS						SAE GRADE 8 BOLTS & GRADE 8 NUTS						UNBRAKO 1960 SERIES SOCKET HEAD CAP SCREW WITH LOC-WEL PATCH TORQUE (as received)	
				TORQUE			CLAMP LOAD (LB.)	TORQUE			CLAMP LOAD (LB.)	TORQUE			CLAMP LOAD (LB.)	TORQUE (LB. FT.)	
				(DRY OR LOC. 263) LB. IN.	(LUB.) LB. IN.	(LOCTITE 262) LB. IN.		(DRY OR LOC. 263) LB. IN.	(LUB.) LB. IN.	(LOCTITE 262) LB. IN.		(DRY OR LOC. 263) LB. IN.	(LUB.) LB. IN.	(LOCTITE 262) LB. IN.			
4	40	0.1120	0.00604	8	6	—	540	12	9	—	—	—	—	—	—		
	48	0.00661	420	9	7	—	600	13	10	—	—	—	—	—	—		
6	32	0.00909	580	16	12	—	820	23	17	—	—	—	—	—	—		
	40	0.01015	610	18	13	—	920	25	19	—	—	—	—	—	—		
8	32	0.01400	900	30	22	—	1260	41	31	—	—	—	—	—	—		
	36	0.01474	940	31	23	—	1320	43	32	—	—	—	—	—	—		
10	24	0.01750	1120	43	32	—	1580	60	45	—	—	—	—	—	—		
	32	0.02000	1285	49	36	—	1800	68	51	—	—	—	—	—	—		
1/4	20	0.0318	2020	96	75	—	105	2860	144	108	—	—	160	3180	13		
	28	0.0364	2320	120	86	—	135	3280	168	120	—	—	185	3640	14		
5/16	18	0.0524	3340	17	13	16	19	4720	25	18	22	30	5240	25	25		
	24	0.0580	3700	19	14	17	21	5220	25	20	25	30	5800	27	27		
3/8	16	0.0775	4940	30	23	28	35	7000	45	35	40	50	7750	45	45		
	24	0.0878	5600	35	25	32	40	7900	50	35	45	55	8780	50	50		
7/16	14	0.1063	6800	50	35	45	55	9550	70	55	63	80	10630	70	70		
	20	0.1187	7550	55	40	50	60	10700	80	60	70	90	11870	75	75		
1/2	13	0.1419	9050	75	55	68	85	12750	110	80	96	120	14190	110	110		
	20	0.1599	10700	90	65	80	100	14400	120	90	108	135	15990	115	115		
9/16	12	0.1820	11600	110	80	98	120	16400	150	110	139	165	18200	155	155		
	18	0.2030	12950	120	90	109	135	18250	170	130	154	190	20300	165	165		
5/8	11	0.2260	14400	150	110	135	165	20350	220	170	180	240	22600	210	210		
	18	0.2560	16300	170	130	153	190	23000	240	180	204	265	25600	220	220		
3/4	10	0.3340	21300	260	200	240	285	30100	380	280	301	420	33400	365	365		
	16	0.3730	23800	300	220	268	330	33600	420	320	336	465	37300	400	400		
7/8	9	0.4620	29400	430	320	386	475	41600	600	460	485	660	46200	585	585		
	14	0.5090	32400	470	350	425	520	45800	660	500	534	725	50900	635	635		
1	8	0.6060	38600	640	480	579	675	51500	900	680	687	990	60600	865	865		
	12	0.6630	42200	700	530	633	735	59700	1000	740	796	1100	66300	915	915		
1-1/8	7	0.7630	42300	800	600	714	840	68700	1280	960	1030	1400	76300	1240	1240		
	12	0.8560	47500	880	660	802	925	77000	1440	1080	1155	1575	85600	1380	1380		
1-1/4	7	0.9690	53800	1120	840	1009	1175	87200	1820	1360	1453	2000	96900	1750	1750		
	12	1.0730	59600	1240	920	1118	1300	96600	2000	1500	1610	2200	107300	1880	1880		
1-1/2	6	1.1550	64100	1460	1100	1322	1525	104000	2380	1780	1907	2625	115500	2320	2320		
	12	1.3150	73000	1680	1260	1506	1750	118100	2720	2040	2165	3000	131500	2440	2440		
1-1/2	6	1.4050	78000	1940	1460	1755	2025	126500	3160	2360	2530	3475	140500	3040	3040		
	12	1.5800	87700	2200	1640	1974	2300	142200	3560	2660	2844	3925	158000	3270	3270		

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



SAE GRADE 5



SAE GRADE 8

Figure 2-4. Torque Chart

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## SECTION 3. USER RESPONSIBILITIES AND MACHINE CONTROL

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### 3.1 GENERAL

#### **IMPORTANT**

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 scissor 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.

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 scissor 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.*

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### 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.

#### **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.

## SECTION 3 - USER RESPONSIBILITIES AND MACHINE CONTROL

### Capacities

Raising platform above horizontal 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.

### 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

The machine is equipped with control panels that use symbols instead of words to indicate control functions. Refer to Table 3-1 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.

**NOTE:** *When the machine is shut down for overnight parking or battery charging, the EMERGENCY STOP and POWER SELECTOR switches must be positioned to OFF to prevent draining the batteries.*

1. 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 emergency stop switch at the platform controls. When positioned to GROUND, the switch provides power to the emergency stop switch at the ground controls. With the power selector switch in the center off position, power is shut off to both platform and ground controls and the key can be removed to disable the machine.

**NOTE:** *With the Power Selector 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.*

*With the POWER SELECTOR switch positioned to GROUND, ground functions will operate at low speed at all times.*

*Low speed is the default speed for all functions. When the platform is elevated, all functions operate in creep speed only.*

2. Ignition/Emergency Stop Switch - A two-position, red, mushroom-shaped IGNITION/EMERGENCY STOP switch, when positioned to ON with the POWER SELECTOR switch positioned to GROUND, furnishes operating power to the ground control station. In addition, the switch can be used to turn off power to the function controls in the event of an emergency. Power is turned on by pulling the switch out (ON), and is turned off by pushing the switch in (OFF).
3. Lift Switch - A three position, momentary contact Lift control switch provides raising and lowering of the platform when positioned to up or down.
4. Start Switch - A momentary contact, push button type switch that supplies electrical power to the starter solenoid when the emergency stop switch is in the ON position and the start button is depressed.

#### **IMPORTANT**

FOR MACHINES EQUIPPED WITH THE YANMAR DIESEL ENGINE, THE TIMER RELAY MUST SEAT THE FUEL SOLENOID WITH ITS INITIAL PULSE, OR THE ENGINE WILL NOT START. PROLONGED NO-START IS AN INDICATION THAT THE FUEL SOLENOID HAS NOT SEATED OR THAT THERE IS NO FUEL. IF THE ENGINE FAILS TO START, THE START SWITCH MUST BE RE-CYCLED TO PULSE THE FUEL SOLENOID INTO THE SEATED POSITION.

5. Engine/Filter Distress Lights - These warning lights, when illuminated, warn the operator of an engine or hydraulic system fault condition. The specific fault condition for each indicator (left to right) is as follows:

**Alternator** - Illuminates when the alternator output drops below a pre-set level.

**Oil Pressure** - Illuminates when the engine oil pressure drops below 8 psi (0.6 bar).

**Engine Temperature** - Illuminates when the engine temperature exceeds a preset temperature limit.

**Return Filter** - Illuminates when the return pressure drops below 29 psi (2.0 bar), indicating the return hydraulic filter is clogged and needs to be replaced.



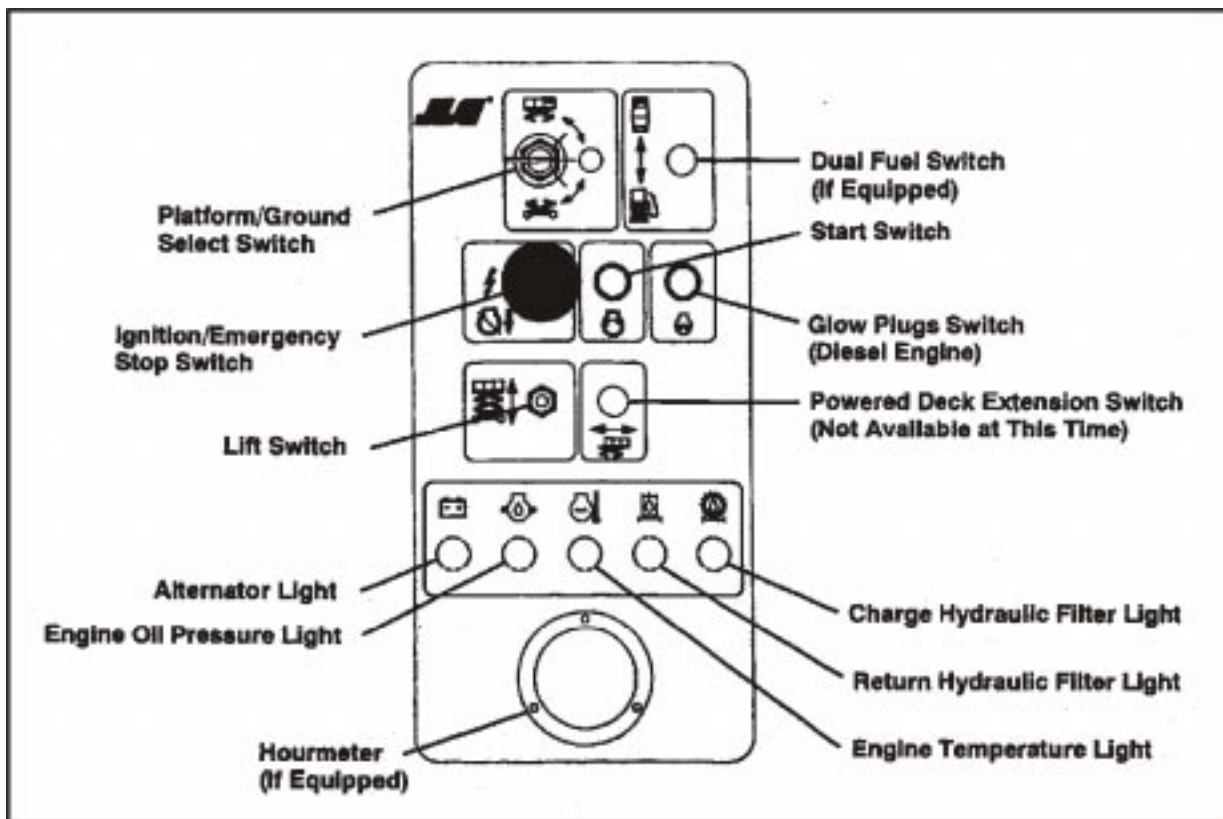


Figure 3-1. Ground Control Station

**Charge Pressure** - Illuminates when the charge pressure drops below 70 psi (4.8 bar), indicating the charge filter is clogged and needs to be replaced. The indicator is also connected to a temperature sensor to prevent false signals from being generated when the hydraulic oil is below normal operating temperature.

6. **Glow Plug Switch - (Diesel Engine Only)** - A momentary contact, push button type switch that supplies electrical power to the engine's glow plugs, when depressed, to assist cold starting.
7. **Hourmeter - (If Equipped)** - The machine may be equipped with an hourmeter to indicate the number of hours the machine has been operated.
8. **Gasoline/Lpg Select Switch - (Dual Fuel Engine Only)** - A three-position, toggle-type switch is used to select the desired method of powering the machine. Placing the switch in the GASOLINE 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 the supply tank to be used to power the machine. With the switch in the center position, fuel flow is restricted from both supply tanks.

### 3.5 PLATFORM CONTROL STATION

1. **Enable Switch** - The machine is equipped with an ENABLE switch, located on the left side of the platform control box. On all machines with a serial number before 0200058990 the ENABLE switch must be depressed before activating the DRIVE or LIFT functions. A built-in timer shuts off power to these functions if they are not activated within three seconds after the ENABLE switch is depressed. In addition, this timer will shut off power to these functions three seconds after they are deactivated, making it necessary to depress the ENABLE switch before activating DRIVE or LIFT again. On machines built from, and including, serial number 0200058990 the ENABLE switch must be depressed and held for the duration of lift. The ENABLE switch works in conjunction with the lift switch only.

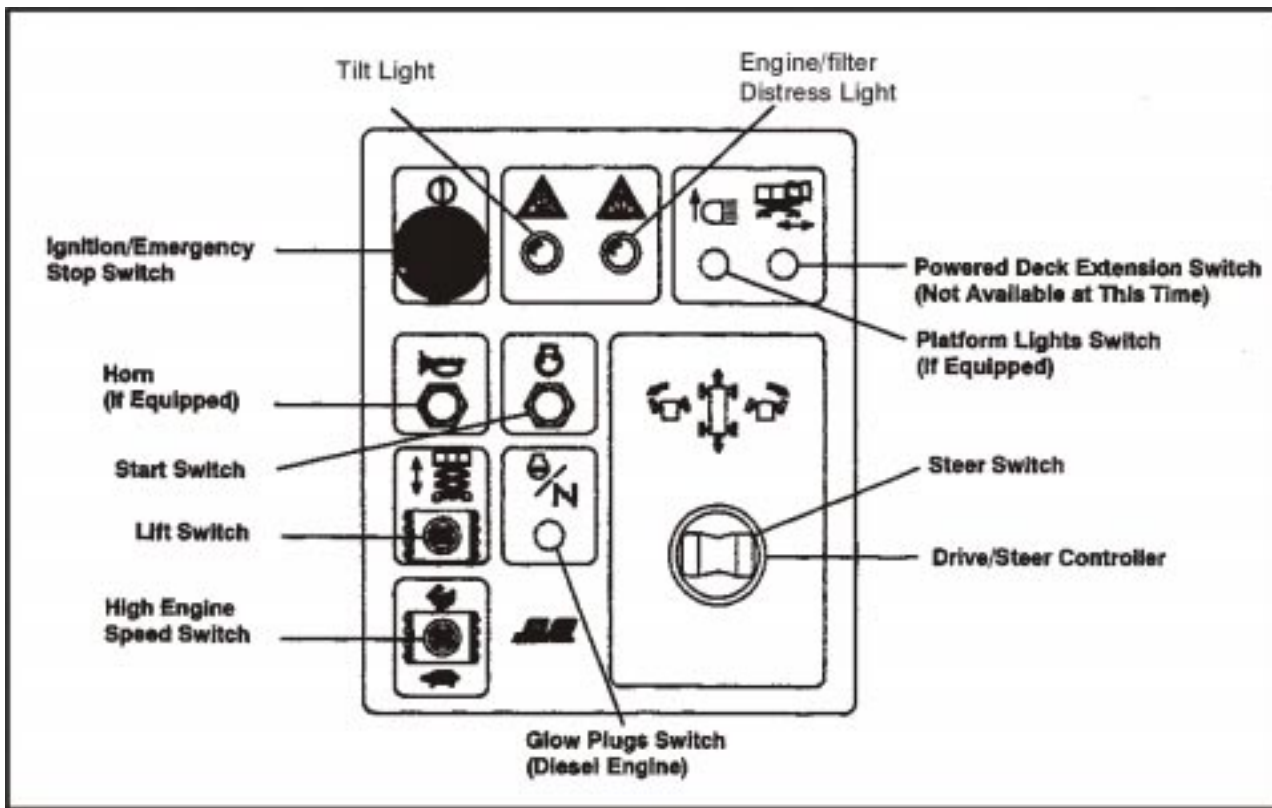


Figure 3-2. Platform Control Station

2. **Enable Switch** - The machine is equipped with an ENABLE switch, located on the left side of the platform control box. On all machines with a serial number before 0200058990 the ENABLE switch must be depressed before activating the DRIVE or LIFT functions. A built-in timer shuts off power to these functions if they are not activated within three seconds after the ENABLE switch is depressed. In addition, this timer will shut off power to these functions three seconds after they are deactivated, making it necessary to depress the ENABLE switch before activating DRIVE or LIFT again. On machines built from, and including, serial number 0200058990 the ENABLE switch must be depressed and held for the duration of lift. The ENABLE switch works in conjunction with the lift switch only.
3. **Emergency Stop Switch** - A two-position, red, mushroom-shaped EMERGENCY STOP switch functions to provide power to the platform control station and also to turn off power to the platform function controls in the event of an emergency. With the POWER SELECTOR switch positioned to PLATFORM, power is turned on by pulling the switch out (ON), and is turned off by pushing the switch in (OFF).
4. **PQ Controller** - The PQ Controller controls three functions: DRIVE, STEER and DRIVE SPEED. On all machines, built before serial number 0200058990, tilting the controller in the desired direction of travel (forward or reverse) activates drive in that direction. DRIVE SPEED is controlled by the distance the controller is moved from the center-off position. The thumb-operated STEER switch on top of the controller handle activates the steer wheels in the direction it is moved (right or left). On all machines built after, and including, serial number 0200058990 there is a red trigger switch on the front of the PQ Controller. This switch must be depressed and held in order to drive the machine.
5. **Engine Speed Switch** - The two position ENGINE SPEED switch permits the operator to select either HIGH or LOW engine rpm as required.

**CAUTION**

DO NOT USE HIGH ENGINE SPEED WHEN DRIVING IN CLOSE QUARTERS OR WHEN DRIVING IN REVERSE.

**NOTE:** *The engine speed switch will cut-out when the platform is raised above the stowed position, returning drive speed to low until the platform is lowered completely.*

6. Lift Switch - The lift switch provides for raising and lowering the platform. Lift is activated by pressing the enable switch and positioning the lift switch to up or down.

**⚠ CAUTION**

**DO NOT "LIFT DOWN" WITHOUT COMPLETELY RETRACTING THE PLATFORM EXTENSION.**

7. Engine/Filter Distress Light - This warning light, when illuminated, warns the operator of an engine or hydraulic system fault condition. A bank of warning lights, located at the ground control station, indicates the specific fault condition to the operator. The indicator lights are: Alternator, Charge Pressure, Engine Temperature, Oil Pressure, and Return Filter.
8. Circuit Breaker - This 10 Amp circuit breaker, located on the left side of the platform control box, restores interrupted power to the platform controls.
9. Horn - (If Equipped) - This push-button switch, when activated, permits the operator to warn jobsite personnel when the machine is operating in the area.
10. Start Switch - A momentary contact, push button type switch that supplies electrical power to the starter solenoid when the EMERGENCY STOP switch is in the ON position and the START button is depressed.

**IMPORTANT**

**FOR MACHINES EQUIPPED WITH THE YANMAR DIESEL ENGINE, THE TIMER RELAY MUST SEAT THE FUEL SOLENOID WITH ITS INITIAL PULSE, OR THE ENGINE WILL NOT START. PROLONGED NO-START IS AN INDICATION THAT THE FUEL SOLENOID HAS NOT SEATED OR THAT THERE IS NO FUEL. IF THE ENGINE FAILS TO START, THE START SWITCH MUST BE RE-CYCLED TO PULSE THE FUEL SOLENOID INTO THE SEATED POSITION.**

11. Glow Plug Switch - (Diesel Engine Only) - This momentary contact, pushbutton type switch supplies electrical power to the engine's glow plugs to assist cold start operation.
12. Tilt Alarm Warning Light - (If Equipped) - A red warning light on the control panel that illuminates when the chassis is on a severe slope (over 5 degrees).

**⚠ CAUTION**

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

13. Tilt Alarm Warning Horn - (If Equipped) - The Tilt Alarm Warning Horn is activated by the Tilt Alarm Switch when the chassis is on a severe slope (over 5 degrees).

**⚠ CAUTION**

**DO NOT OPERATE MACHINE IF HIGH DRIVE SPEED OPERATES WHEN PLATFORM IS RAISED ABOVE THE STOWED POSITION.**

14. Lights Switch - (If Equipped) - This two-position switch provides electrical power to the optional platform work lights.

**SECTION 3 - USER RESPONSIBILITIES AND MACHINE CONTROL**

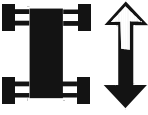


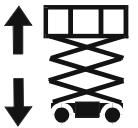

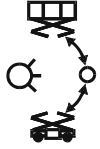

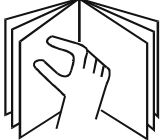


FUNCTION	SYMBOL	FUNCTION	SYMBOL
Power Emergency Stop		Drive	
Chassis Out of Level		Steer	
Platform Up Down		Low Speed Drive	
Deck Extension		High Speed Drive	
Platform/ Ground Select		Fork Lift	
Manual Descent		Manual	
Safety Prop		Hydraulic Oil	
Lifting Area		Tie Down Area	
Directional Arrow			

Figure 3-3. Symbols

## SECTION 4. MACHINE OPERATION

### 4.1 DESCRIPTION

This machine is a self-propelled aerial work platform on top of an elevating 'scissor' mechanism. The Scissor 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 positioned at ground level.

The JLG Scissor 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, raise and lower the platform and, if equipped, operate the powered deck extension. The machine has a Ground Control Station which will override the Platform Control Station. Ground Controls operate lift up and down. Ground Controls are to be used only 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 Scissor Lift is designed to provide efficient and safe operation when maintained and operated in accordance with warnings on the machine, the Operating and Safety Manual, the Service and Maintenance 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. It is absolutely necessary that the JLG Lift be regularly maintained in accordance with this manual and the machine Service and Maintenance Manual, 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 Scissor 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 JLG Scissor 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 control levers. The speeds of functions controlled by control levers are variable from zero to maximum speed, depending upon

the position of the control lever. Functions controlled by toggle or push-button switches are either on or off. In some instances, a function switch can be used in conjunction with the controller to give the machine a higher function speed range.

The JLG Scissor Lift is a two wheel drive machine with drive power being supplied to the rear wheels by a pump-driven drive axle. The rear wheels are supplied with a hydraulic disc brake. This brake is automatically applied any time the Drive controller is returned to the neutral position.

The platform capacity of the scissor lift is 1,000 lb. (454 kg). The weight in the platform should be uniformly distributed in the center of the platform. The total combined weight of personnel, tools and supplies must not exceed the above figures.

The platform may be raised only when positioned on firm, level and uniform surfaces.

### 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 the machine. It is important that the user read and understand the proper procedures before operating the machine.

### 4.3 ENGINE OPERATION

#### Power Selector Switch

The power selector switch functions to direct electrical power to the desired control station. With the switch in the ground position, power is supplied to the emergency stop switch at the ground control station. When the switch is in the platform position, power is supplied to the emergency stop switch at the platform control station. The switch should be in the off position when parking the machine overnight.

#### Emergency Stop Switch

This switch, when in the on (out) position, provides electrical power to the ground controls or platform controls, as applicable. In addition, the switch can be used to turn off power (push the switch IN) to the function controls in the event of an emergency.

### Starting Procedure

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

1. Check engine oil before attempting to start engine; if necessary, add oil in accordance with Engine Manufacturers Manual.
2. Pull out the red EMERGENCY STOP switch (ON).
3. Position the PLATFORM/GROUND SELECT switch to the desired operating control station (PLATFORM or GROUND).
4. If operating a dual fuel machine, place the LPG/GASOLINE SELECT switch to the desired position.

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

#### **⚠ IMPORTANT**

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.

FOR MACHINES EQUIPPED WITH THE YANMAR DIESEL ENGINE, THE TIMER RELAY MUST SEAT THE FUEL SOLENOID WITH ITS INITIAL PULSE, OR THE ENGINE WILL NOT START. PROLONGED NO-START IS AN INDICATION THAT THE FUEL SOLENOID HAS NOT SEATED OR THAT THERE IS NO FUEL. IF THE ENGINE FAILS TO START, THE START SWITCH MUST BE RE-CYCLED TO PULSE THE FUEL SOLENOID INTO THE SEATED POSITION.

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

5. If starting the machine from the ground controls, position the EMERGENCY STOP switch to ON and depress the START button and hold until until the engine starts. If starting from the platform controls, position the platform EMERGENCY STOP switch to ON and depress the START button and hold until the engine starts.

#### **⚠ IMPORTANT**

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

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

### 4.4 RAISING AND LOWERING

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#### **⚠ WARNING**

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

#### Raising

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1. If the machine is shut down, place the POWER SELECTOR switch to desired position (platform or ground).
2. Position the applicable EMERGENCY STOP Switch to the ON position.
3. If operating from the ground controls, position the LIFT switch to UP and hold until desired elevation is achieved. If operating from the platform controls, press the ENABLE switch then position the LIFT switch to UP and hold until desired elevation is reached. The LIFT switch is part of the enable circuit, which supplies power to the LIFT switch for 3 seconds after the ENABLE switch is pressed. If the LIFT switch is not activated within 3 seconds after the ENABLE switch is pressed, power is removed from the circuit and the ENABLE switch must be pressed again before activating the LIFT switch.

#### Lowering

---

#### **⚠ WARNING**

ENSURE SCISSOR ARM AREA IS FREE OF PERSONNEL PRIOR TO LOWERING PLATFORM.

ENSURE PLATFORM EXTENSION IS COMPLETELY IS COMPLETELY RETRACTED PRIOR TO LOWERING PLATFORM.

If operating from the ground controls, position the lift switch to down and hold until desired elevation is achieved or until platform is fully lowered. If operating from the platform controls, press the enable switch and then position the lift switch to down and hold until desired elevation is reached or until platform is fully lowered. The lift switch is part of the enable circuit, which supplies power to the lift switch for 3 seconds after the enable switch is pressed. If the lift switch is not activated within 3 seconds after the enable switch is pressed, power is removed from the lift switch and the enable switch must be pressed again before activating the lift switch.

#### **⚠ WARNING**

DO NOT 'LIFT DOWN' WITHOUT COMPLETELY RETRACTING THE PLATFORM EXTENSION.

---

## 4.5 PLATFORM EXTENSION

The machine is equipped with a mechanically extendable deck, which adds 3 feet (0.9 meters) to the front of the platform, giving the operator better access to worksites. To extend the deck, squeeze the release lever on the handle on the left side of the platform to release the lock pin, then use the handle and handrail to push the extendable deck out. To retract the deck, squeeze the release lever to release the lock pin and use the handle and handrail to pull and retract the deck. Be sure the lock pin is locked in place after the deck is retracted. Maximum capacity of the deck extension is 250 lbs. (113 kg).

### **WARNING**

DO NOT 'LIFT DOWN' WITHOUT COMPLETELY RETRACTING THE PLATFORM EXTENSION.

---

## 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. 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

### **WARNING**

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

TO AVOID LOSS OF TRAVEL CONTROL OR UPSET ON GRADES AND SIDESLOPES, DO NOT DRIVE MACHINE ON GRADES OR SIDESLOPES EXCEEDING THOSE SPECIFIED ON CAUTION PLACARD AT PLATFORM.

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 (1.8 M) OF AN OBSTRUCTION.

---

## Traveling Forward

1. Place the power selector switch at the ground control station to platform.
2. Position the emergency stop switch at the platform control station to the on position.
3. Press the enable switch and move the drive controller forward and hold for the duration of travel. Drive speed is determined by the distance the control handle is moved from the center off position. The drive controller is part of the enable circuit, which supplies power to the drive controller for 3 seconds after the enable switch is pressed. If the drive controller is not activated within 3 seconds after the enable switch is pressed, power is removed from the drive controller and the enable switch must be pressed again before activating the controller. When the drive controller is returned to the center off position, the operator has 3 seconds to re-activate the controller before power is removed by the enable circuit. For additional drive speed, position the high engine speed switch to high while operating in the drive forward mode.

---

## Traveling in Reverse

1. Position the power selector switch at the ground control station to platform.
2. Position the emergency stop switch at the platform control station to the on position.
3. Press the enable switch and move the drive controller rearward (reverse) and hold for the duration of travel. Drive speed is determined by the distance the control handle is moved from the center off position. The drive controller is part of the enable circuit, which supplies power to the drive controller for 3 seconds after the enable switch is pressed. If the drive controller is not activated within 3 seconds after the enable switch is pressed, power is removed from the controller and the enable switch must be pressed again before activating the drive controller. When the drive controller is returned to the center off position, the operator has 3 seconds to re-activate the controller before power is removed by the enable circuit. Do not activate the high engine speed switch when traveling in reverse.

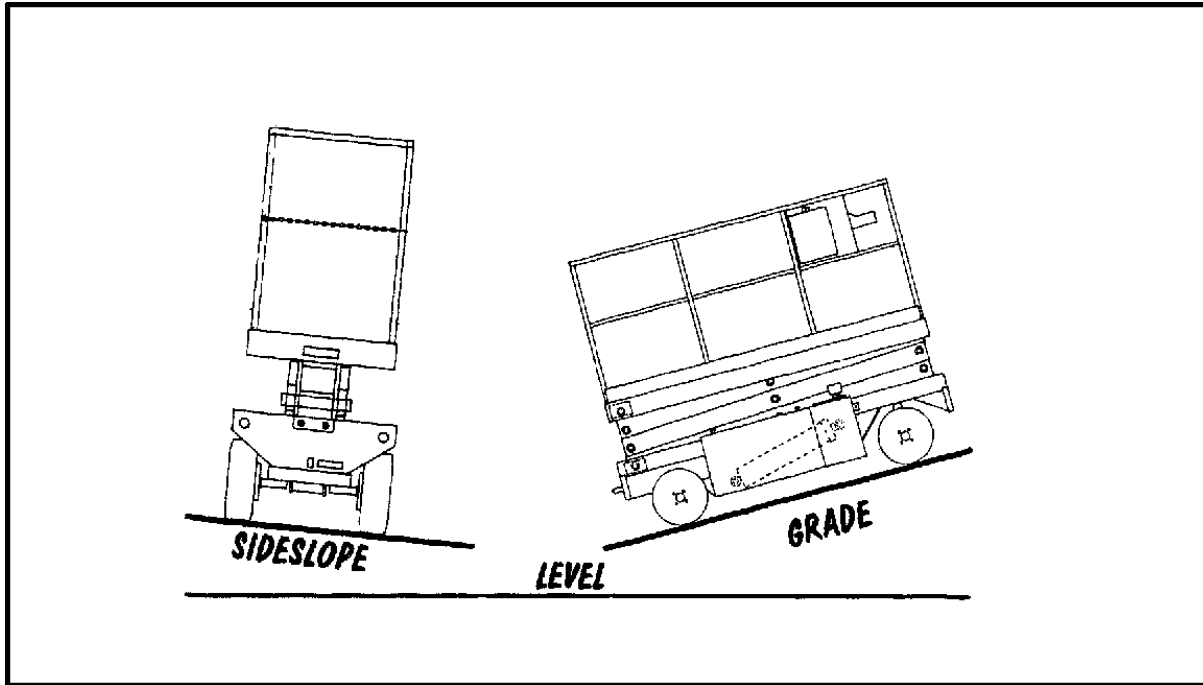


Figure 4-1. Grade and Sideslope

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#### 4.8 PARKING AND STOWING

Park and stow the machine as follows:

1. Drive the machine to a reasonably well-protected and well-ventilated area.
2. Ensure the platform is fully lowered.
3. Position the emergency stop switch to the 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 the machine for an extended period of time.
6. Turn the power selector switch to off and remove the key to disable the 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. The machine is positioned on a smooth, firm and level surface.

2. All braking devices are engaged.
3. The maximum platform capacity in its standard configuration is 1,000 lb. (455 kg). See note.
4. The maximum capacity of the manual platform extension is 250 lb. (115 kg).

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 PROP

**⚠ CAUTION**

**THE SAFETY PROP MUST BE USED WHENEVER MAINTENANCE PERFORMED ON THE MACHINE REQUIRES THE SCISSOR ARMS TO BE RAISED.**

To engage the safety prop, raise the platform, then rotate the prop clockwise until it hangs vertically. Lower the platform until the safety prop rests on the point provided on the frame. Maintenance can now begin.

To store the safety prop, raise the platform so that the prop can be rotated counterclockwise until it rests on the stop provided on the scissor arms.



---

#### **4.11 TIE DOWN**

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

** WARNING**

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

---

#### **4.12 TOWING**

It is not recommended that this machine 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.

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## SECTION 5. OPTIONAL EQUIPMENT

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### 5.1 HORN

The warning horn is located on the frame of the machine, and is controlled by a push button switch on the platform control console. The warning horn permits the operator to warn jobsite personnel when the machine is operating in the area.

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### 5.2 TRAVEL ALARM

The travel alarm horn produces an audible warning when the machine is in the travel (drive) mode. It will function in forward or reverse to warn jobsite personnel the machine is traveling.

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### 5.3 MOTION ALARM

The motion alarm horn produces an audible warning when the machine is in the travel (drive) or lift mode. It will function in forward, reverse, lift up or lift down to warn jobsite personnel the machine is traveling or lifting.

---

### 5.4 DESCENT ALARM

The descent alarm produces an audible warning when platform lift control is placed in the lift down position. The alarm warns personnel in the jobsite area to avoid the sissor arms.

---

### 5.5 TILT ALARM

Senses when the machine is out of level in any direction approximately 5° and illuminates a warning light at the platform control station and sounds the machine's horn, signaling the operator.

---

### 5.6 110 VOLT RECEPTACLE

The 110 Volt dual receptacle is mounted on the platform kick rail. The receptacle is connected to a plug on the machine frame which can be connected to a ground receptacle.

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### 5.7 PLATFORM WORK LIGHTS

The two platform work lights are installed on the platform rails, one at the front and one at the rear, to provide additional lighting for the operator. Each light is equipped with an on-off switch.

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### 5.8 ROTATING BEACON

An amber rotating beacon is installed on the machine frame. When the machine power is turned on, the light is activated and provides a visual warning to the machine's operation.

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### 5.9 FOLD-DOWN HAND RAILS

The fold-down handrails enable the operator to take the machine into areas where platform height may pose a clearance problem. The fold-down hand rails give the operator an additional 14 inches (36 cm) of clearance.

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### 5.10 DUAL FUEL SYSTEM

This system permits the gasoline engine to run on either gasoline or LP gas. Included are the LP supply tank and the hoses and valves necessary to permit the engine to be switched between gasoline operation and LP gas operation.

---

### 5.11 PIPE RACKS

The machine may be equipped with bolt-on pipe racks, suitable for carrying long sections of pipe, conduit, or tubing. The racks bolt to the right top rail of the platform and contain a tie down belt to secure the load being carried.

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## SECTION 6. EMERGENCY PROCEDURES

### 6.1 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.

### 6.2 EMERGENCY TOWING PROCEDURES

Although towing the machine is prohibited, 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 the wheels securely.
2. Locate the brake cartridge on the hydraulic control valve, located adjacent to the hydraulic oil tank on the left side of the machine. Depress the plunger on the brake cartridge.
3. Locate the brake release pump, in front of the hydraulic control valve. Turn the knob on the pump clockwise to close the pump valve.
4. Install the handle on the brake release pump and pump it to release the brake.

#### **⚠ WARNING**

USE EXTREME CAUTION WHEN OPENING THE TOW VALVE. THE DRIVE FUNCTION WILL STILL OPERATE WITH THE TOW VALVE OPEN, BUT THE BRAKE IS DISABLED. ENSURE THE TOW VALVE REMAINS CLOSED AT ALL TIMES, EXCEPT WHEN THE MACHINE IS BEING TOWED. CLOSE THE TOW VALVE IMMEDIATELY AFTER TOWING IS COMPLETED.

5. Locate the tow valve handle on the front of the machine frame and turn the valve handle counterclockwise to open the tow valve.
6. Using suitable equipment for assistance, remove the chocks, and move the machine to an appropriate maintenance area.

After moving the machine, complete the following procedures:

1. Position the machine on a firm, level surface.
2. Chock the wheels securely.
3. Turn the handle on the tow valve clockwise to close the valve.

4. Turn the knob on the brake pump counterclockwise to open the pump valve.
5. Remove the chocks from the wheels.

### 6.3 EMERGENCY CONTROLS AND THEIR LOCATIONS

#### Emergency Stop Switch

These large red buttons, one located at the Ground Control Station and one at the Platform Control Station, will immediately stop the machine when depressed.

#### **⚠ WARNING**

CHECK MACHINE DAILY TO MAKE SURE EMERGENCY STOP BUTTON IS IN PLACE AND THAT GROUND CONTROL INSTRUCTIONS ARE IN PLACE AND LEGIBLE.

#### 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 functions from the ground. Place the POWER SELECT SWITCH in the GROUND position and operate the lift switch to lift up or down.

#### Manual Descent

The manual descent valve is used, in the event of total power failure, to lower the platform using gravity. The manual descent ring is located on the front of the machine frame, between the scissor arms. The ring is connected, by a cable, to the manual descent valve on the lift cylinder. Pulling the manual descent ring opens the valve spool, lowering the platform.

### 6.4 EMERGENCY OPERATION

#### Use of Ground Controls

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**

---

1. 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.
2. Other qualified personnel on the platform may use the platform controls. DO NOT CONTINUE OPERATION IF CONTROLS DO NOT FUNCTION NORMALLY.
3. 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**

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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**

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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**

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

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## **6.5 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 Product Safety and Reliability Department at 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.









# TRANSFER OF OWNERSHIP

To: JLG, Gradall, Lull and Sky Trak product owner:

If you now own, but ARE NOT the original purchaser of the product covered by this manual, we would like to know who you are. For the purpose of receiving safety-related bulletins, it is very important to keep JLG Industries, Inc. updated with the current ownership of all JLG products. JLG maintains owner information for each JLG product and uses this information in cases where owner notification is necessary.

Please use this form to provide JLG with updated information with regard to the current ownership of JLG Products. Please return completed form to the JLG Product Safety & Reliability Department via facsimile (717) 485-6573 or mail to address as specified on the back of this form.

Thank you,  
Product Safety & Reliability Department  
JLG Industries, Inc.  
1 JLG Drive  
McConnellsburg, PA 17233-9533  
Telephone: (717) 485-5161  
Fax: (717) 485-6573

NOTE: Leased or rented units should not be included on this form.

Mfg. Model: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Previous Owner: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip: \_\_\_\_\_ Telephone: ( \_\_\_\_\_ ) \_\_\_\_\_

Date Of Transfer: \_\_\_\_\_

Current Owner: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip: \_\_\_\_\_ Telephone: ( \_\_\_\_\_ ) \_\_\_\_\_

Who in your organization should we notify?

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Please cut on the dotted line and fax to 717-485-6573









Corporate Office  
JLG Industries, Inc.  
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Customer Support Toll Free: (877) 554-5438  
Fax: (717) 485-6417

## JLG Worldwide Locations

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