

An Oshkosh Corporation Company



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# **Operation and Safety Manual**

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

Model 19AMI



**3121189** June 29, 2018 - Rev F



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## A WARNING

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

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## FOREWORD

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

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

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

## SAFETY ALERT SYMBOLS AND SAFETY SIGNAL WORDS



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

## A DANGER

INDICATES AN IMMINENTLY HAZARDOUS SITUATION. IF NOT AVOIDED, WILL RESULT IN SERIOUS INJURY OR DEATH. THIS DECAL WILL HAVE A RED BACKGROUND.

## **A** CAUTION

INDICATES A POTENTIALITY HAZARDOUS SITUATION. IF NOT AVOIDED, <u>MAY</u> RESULT IN MINOR OR MODERATE INJURY. IT MAY ALSO ALERT AGAINST UNSAFE PRACTICES. THIS DECAL WILL HAVE A YELLOW BACKGROUND.

## **WARNING**

INDICATES A POTENTIALITY HAZARDOUS SITUATION. IF NOT AVOIDED, <u>COULD</u> RESULT IN SERIOUS INJURY OR DEATH. THIS DECAL WILL HAVE AN ORANGE BACKGROUND.

## NOTICE

INDICATES INFORMATION OR A COMPANY POLICY THAT RELATES DIRECTLY OR INDIRECTLY TO THE SAFETY OF PERSONNEL OR PRO-TECTION OF PROPERTY.

## **WARNING**

THIS PRODUCT MUST COMPLY WITH ALL SAFETY RELATED BULLE-TINS. CONTACT JLG INDUSTRIES, INC. OR THE LOCAL AUTHORIZED JLG REPRESENTATIVE FOR INFORMATION REGARDING SAFETY RELATED BULLETINS WHICH MAY HAVE BEEN ISSUED FOR THIS PRODUCT.

## NOTICE

JLG INDUSTRIES, INC. SENDS SAFETY RELATED BULLETINS TO THE OWNER OF RECORD OF THIS MACHINE. CONTACT JLG INDUSTRIES, INC. TO ENSURE THAT THE CURRENT OWNER RECORDS ARE UPDATED AND ACCURATE.

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- Accident Reporting
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- Standards and Regulations
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- Questions Regarding Special Product Applications
- Questions Regarding Product Modifications

#### Contact :

Product Safety and Reliability Department JLG Industries, Inc. 1 JLG Drive McConnellsburg, PA 17233

or Your Local JLG Office (See addresses on manual rear cover)

#### In USA:

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

#### **Outside USA:**

Phone: 717-485-5161 E-mail: ProductSafety@JLG.com

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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: Transporting, Pre-Operation and Operation. In order to promote proper usage of the machine, it is mandatory that a daily routine be established based on instruction given in this section. A maintenance program must also be established by a qualified person and must be followed to ensure that the machine is safe to operate.

The user/operator of the machine should not accept operating responsibility until this manual has been READ and UNDER-STOOD, and operating instructions of the machine under the supervision of an experienced and qualified operator, has been completed. If there is a question on application and/or operation, JLG Industries Product Safety and Reliability Department should be consulted.

## A WARNING

MODIFICATION OF THE MACHINE WITHOUT APPROVAL OF JLG INDUS-TRIES INC., OR CERTIFICATION BY A NATIONALLY RECOGNIZED TEST-ING LAB TO BE IN CONFORMITY WITH APPLICABLE OSHA REGULATIONS, AND TO BE AT LEAST AS SAFE AS BEFORE MODIFICA-TION, IS PROHIBITED AND IS A VIOLATION OF OSHA RULES.

## 1.2 TRANSPORTING

Before transporting the machine the user/operator must be familiar with the proper procedures for transporting the machine, as well as the weight and size of the machine.

The user/operator should be familiar with the surrounding work area and surface before transporting the machine. The work area must be a smooth, firm surface on which machine is capable of being leveled.

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

## A WARNING

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

#### **Transport Safety**

- Fully Lower And Completely Empty Platform Of Tools And Debris Before Moving Machine.
- Never Allow Personnel In Platform While Moving Machine.



FAILURE TO OBSERVE THE FOLLOWING TIPPING HAZARD INSTRUC-TIONS COULD CAUSE THE UNIT TO TIP OVER OR BE HARD TO CON-TROL WHEN BEING MOVED, WHICH COULD RESULT IN SERIOUS INJURY OR DEATH DUE TO BEING PINNED OR CRUSHED BY THE UNIT.

- On A Level Surface, Always Travel With The Platform End Leading The Way.
- Watch For Obstructions Around Machine And Overhead
   When Moving.
- Check Travel Path For Persons, Holes, Bumps, Drop-offs, Obstructions, Debris, And Coverings Which May Conceal Holes And Other Hazards, As Tipping Could Occur.
- Before Moving Machine On Floors, Trucks And Other Surfaces, Check Allowable Capacity Of Surfaces.
- Two People Are Required On Slopes Up To 5 Degrees. A Forklift Must Be Used When Moving Units On Slopes Greater Than 5 Degrees.
- Always Travel Up Or Down A Slope With The Platform End Of The Machine Positioned Towards The Low Side Of The Slope. The Operator And Assistant Must Walk Beside And Guide The Machine With The Handles On The Mast Crossbar.
- Never Position The Unit Sideways On A Slope.



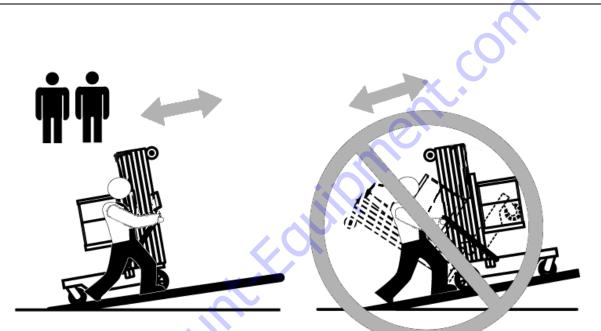
Use Handles Provided On Mast Crossbar To Move Machine.

- Use Caution And Check Clearances When Moving Machine In Restricted Or Close Quarters.
- Always Use An Assistant When Moving Machine In Areas Where Vision Is Obstructed.



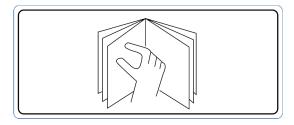
#### Do Not Move Unit on Soft or Uneven Surfaces or Over Obstructions, Bumps, Debris, Etc.

• Keep Non-operating Personnel At Least 6 Feet (1.8 M) Away From Machine During Transporting Operations.



Two People May Be Required on Slopes Up To Five Degrees. Also Always Travel With Platform End On The Low Side of Slope.

## **1.3 PRE-OPERATIONAL SAFETY**



#### Read Your Manual.

- 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.
- Before Operation Check Work Area For Overhead Electric Lines. (See Electrocution Hazard)

- Before Operation Check Work Area For Machine Traffic Such As Forklifts, Cranes, And Other Construction Equipment.
- Set-up Machine For Operation Only On A Smooth, Firm Level Surface.
- Ensure That Operators Of Other Overhead And Floor Level Machines Are Aware Of The Aerial Platforms Presence. Disconnect Power To Overhead Cranes. Barricade Floor Area If Necessary.
- 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 Is Performed Prior To Placing Machine Into Operation. Have Authorized Personnel Take Any Necessary Corrective Action Before 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 And Ansi Rules.
- Do Not Operate Machine When Exposed To High Wind, Rain Or Snow.

- Never Operate Or Raise Platform When Machine Is On A Truck Or Other Vehicle.Approved Head Gear (I.e. Hard Hat, Etc.) Must Be Worn When Required By All Operating And Ground Personnel.
- Read And Obey All Danger, Warnings, Cautions And Operating Instructions On Machine And In This Manual.
- Be Familiar With Location And Operation Of Ground Station And Emergency Controls.

## 1.4 OPERATING SAFETY

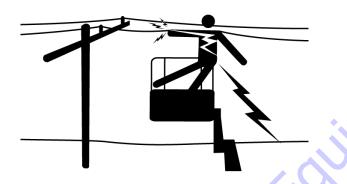
- Do Not Operate Any Machine On Which Danger, Warning, Caution Or Instruction Placards Or Decals Are Missing Or Illegible.
- Never Exceed Manufacturers Rated Platform Capacity -Refer To Capacity Decal On Machine.
- Operate Ac Units With An Extension Cord Wire Rated At A Minimum Of 15 Amps.
- Do Not Enter Platform Until The Floor Brake Has Been Properly Adjusted And The Unit's Base Frame Is Level According To The Bubble Level Indicator On Base Frame.
- Do Not Operate Machine On Soft Footing That Will Allow The Floor Brake To Settle Into Or Break Through Surface.



Always Look in the Direction of Movement. Watch for Overhead and Other Obstructions.

- Never Operate A Malfunctioning Machine. If A Malfunction Occurs, Shut Down The Machine, Remove It From Service, And Notify Proper Authorities.
- When Applicable By Reason Of Local Regulations Or Job Site/Employer Safety Rules, Personnel In The Platform Shall At All Times Wear Approved Fall Protection Devices And Other Safety Gear As Required. A Lanyard Attachment Is Supplied On The Side Of The Machine's Mast.

#### **Electrocution Hazard**

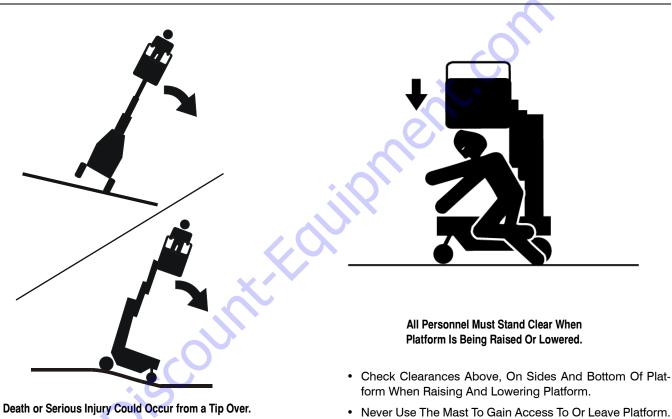


Maintain a clearance of at least 10 ft (3m) between any part of the machine and its occupants, their tools, and their equipment from any electrical line or apparatus carrying up to 50,000 volts. One foot (0.3m) additional clearance is required for every additional 30,000 volts or less.

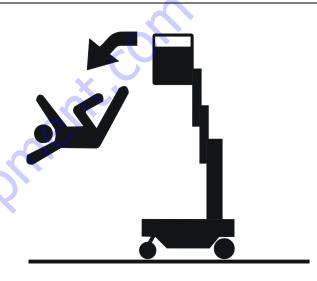
Table 1-1. Minimum Approach Distance (M.A.D.)

	•
VOLTAGE RANGE (PHASE TO PHASE)	MINIMUM APPROACH DISTANCE - Feet (m)
(PTIASE TO PTIASE)	DISTANCE - Feet (III)
0-50KV	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)
<b>NOTE:</b> This Minimum App except where emplo ulations are more st	oroach Distance shall apply yer, local, or governmental reg- ringent.

The minimum approach distance may be reduced if insulating barriers are installed to prevent contact, and if the barriers are rated for the voltage of the line being guarded. These barriers shall not be part of *(or attached to)* the machine. The minimum approach distance shall be reduced to a distance within the designed working dimensions of the insulating barrier. This determination shall be made by a qualified person in accordance with employer, local, or governmental requirements for work practices near energized equipment.



- Do Not Attach Overhanging Loads To The Platform Or Increase The Platform Size With Unauthorized Deck Extensions Or Attachments.
- Do Not Tie Off Machine To Any Adjacent Structure. Never Attach Wire, Cable Or Any Similar Items To Platform.
- 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 And The Platform Must Be Within 1 Foot (0.3 M) Of The Adjacent - Safe And Secure - Structure. 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.
- No Horseplay Is Permitted In Platform.
- Do Not Allow Personnel To Tamper With, Service, Or Operate This Machine From The Ground With Personnel In Platform Except In An Emergency.
- During Platform Operation Keep All Body Parts Inside Platform Railings.
- Never Position Ladders, Steps, Or Similar Items On Unit To Provide Additional Reach For Any Purpose.



Falling from Platform could cause Death or Serious Injury.

- When 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 Use Ladders On Or Against Machine. Do Not Perform Work That Will Subject Unit To A Horizontal Force Or Create A Rocking Motion Of The Platform.
- Do Not Operate Machine From Platform Without The Platform Gate In Place And Properly Closed. This Is A Safety Violation.
- Always Ensure That Power Tools Are Properly Stowed And Never Left Hanging By Their Cord From The Platform Work Area.
- Avoid Accumulation Of Debris On Platform Work Area. Keep Mud, Oil, Grease And Other Slippery Substances From Footwear And Platform Deck.

## 1.5 MAINTENANCE SAFETY PRECAUTIONS

## **WARNING**

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

• Remove all rings, watches, and jewelry when performing any maintenance.

- Do not wear long hair unrestrained, or loose fitting clothing and neckties which are apt to become caught on or entangled in equipment.
- Observe and obey all danger, warning, caution and other instructions on machine.
- Keep standing surfaces and hand holds free of oil, grease, water, etc.
- Never work under an elevated platform until platform has been safely restrained from any movement by blocking or overhead sling.
- Before making adjustments, lubricating or performing any other maintenance, shut off all power controls.
- Battery should always be disconnected during replacement of electrical components.
- Keep all support equipment and attachments stowed in their proper place.
- Use only approved, nonflammable cleaning solvents.

## 2.1 PERSONNEL TRAINING

The aerial platform is a personnel handling device; so it is necessary that it be operated and maintained only by trained personnel.

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

## **Operator Training**

Operator training must cover:

- 1. Use and limitations of the controls in the platform and at the ground, emergency controls and safety systems.
- 2. Control labels, instructions, and warnings on the machine.
- 3. Rules of the employer and government regulations.
- 4. Use of approved fall protection device.
- 5. Enough knowledge of the mechanical operation of the machine to recognize a malfunction or potential malfunction.

- 6. The safest means to operate the machine when overhead obstructions, other moving equipment, obstacles, depressions, holes, and drop-offs exist.
- 7. Means to avoid the hazards of unprotected electrical conductors.
- 8. Specific job requirements or machine application.

## **Training Supervision**

Training must be done under the supervision of a qualified person in an open area free of obstructions until the trainee has developed the ability to safely control and operate the machine.

## **Operator Responsibility**

The operator must be instructed that he/she 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.

**NOTE:** The Manufacturer or Distributor will provide qualified people for training assistance with the first unit(s) delivered and from that time forward as requested by the user or his/her personnel.

## 2.2 PREPARATION, INSPECTION, AND MAINTENANCE

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



JLG INDUSTRIES, INC. RECOGNIZES A FACTORY-TRAINED SERVICE TECHNICIAN AS A PERSON WHO HAS SUCCESSFULLY COMPLETED THE JLG SERVICE TRAINING SCHOOL FOR THE SPECIFIC JLG PROD-UCT MODEL.

ТҮРЕ	FREQUENCY	PRIMARY RESPONSIBILITY	SERVICE QUALIFICATION	REFERENCE
Pre-Start Inspection	Before using each day; or whenever there's an Operator change.	User or Operator	User or Operator	Operator and Safety Manual
Pre-Delivery Inspection (See Note)	Before each sale, lease, or rental delivery.	Owner, Dealer, or User	Qualified JLG Mechanic	Service and Maintenance Manual and applicable JLG inspection form
Frequent Inspection	In service for 3 months or 150 hours, whichever comes first; or Out of service for a period of more than 3 months; or Purchased used.	Owner, Dealer, or User	Qualified JLG Mechanic	Service and Maintenance Manual and applicable JLG inspection form
Annual Machine Inspection	Annually, no later than 13 months from the date of prior inspection.	Owner, Dealer, or User	Factory-Trained Service Technician (Recommended)	Service and Maintenance Manual and applicable JLG inspection form
Preventative Maintenance	At intervals as specified in the Service and Main- tenance Manual.	Owner, Dealer, or User	Qualified JLG Mechanic	Service and Maintenance Manual
NOTE: Inspection	n forms are available from JLG. Use the Service a	nd Maintenance Manual	to perform inspection	S.
100		C Liff		

Table 2-1. Inspection and Maintenance Table

## 2.3 PRE-START INSPECTION

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

- 1. Cleanliness Check all surfaces for leakage (oil, fuel, or battery fluid) or foreign objects. Report any leakage to the proper maintenance personnel.
- 2. Decals and Placards Check all for cleanliness and legibility. Make sure none of the decals and placards are missing. Make sure all illegible decals and placards are cleaned or replaced.
- 3. Operators and Safety Manuals Ensure a copy of the Operator and Safety Manual, EMI Safety Manual (Domestic only), and ANSI Manual of Responsibilities (Domestic only) is enclosed in the weather resistant storage container.
- 4. Walk-Around Inspection Refer to Figure 2-1. on page 2-7
- 5. Battery Charge as required.
- 6. Fuel (Combustion Engine Powered Machines Only) Add the proper fuel as necessary.
- Hydraulic Oil Check the hydraulic oil level. Ensure hydraulic oil is added as required. See Section 7 for hydraulic oil specifications.

8. Function Check – Once the "Walk-Around" Inspection is complete, perform a function check of all systems in an area free of overhead and ground level obstructions. Refer to Section 3 for specific operating instructions.



IF THE MACHINE DOES NOT OPERATE PROPERLY, TURN OFF THE MACHINE IMMEDIATELY! REPORT THE PROBLEM TO THE PROPER MAIN-TENANCE PERSONNEL. DO NOT OPERATE THE MACHINE UNTIL IT IS DECLARED SAFE FOR OPERATION.

## 2.4 FUNCTION CHECK

The function check of all systems should be performed in an area free of overhead and ground level obstructions. Perform a function check as follows:

- 1. Set-up machine for operation, according to instructions in Section 3.
- 2. Enter platform, raise and lower platform 2 ft. to 3 ft. (.61m to .92m) several times. Check for smooth elevation and lowering of platform.
- With platform completely lowered, check hydraulic oil level in reservoir at ground control station. Maintain an oil level to the "Fill to Line" indicator on the side of the reservoir. NEVER USE HYDRAULIC BRAKE FLUID.

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## 2.5 DAILY WALK-AROUND INSPECTION

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

#### General

Begin the "Walk-Around Inspection" (See Figure 2-1.) at item 1 listed following. Continue around machine checking each item in sequence for the conditions listed in the "Walk-Around Inspection Check list".

## **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" DUR-ING "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. Wheels and Casters Properly secured, wheels and casters turn freely and are properly lubricated. Check for any visible damage.
- 2. Floor Brake Properly secured to frame, no visible damage (*cracks, distortion, etc.*) and is functioning properly.
- **3. Base Frame** No visible damage; components properly secured, no loose wires dangling below base; bubble level in place and functioning properly.
- 4. Manual Descent Control Valve Properly secured, no loose or missing parts, no visible damage.
- Battery Box/Charger Installation (DC Machines) Proper battery electrolyte level, cables secure, no damage or corrosion.
- Motor/Pump/Reservoir Unit All properly secured, no visible damage, no evidence of hydraulic leaks. Check that hydraulic reservoir fluid level is filled to the "Fill to Line" mark on the side of the reservoir.
- Ground Controls Key switch operable, no visible damage; placards secure and legible; emergency stop switch, no visible damage and properly set for operation.
- 8. Mast Installation Mast sections properly secured, no visible damage to mast sections, no loose or missing

parts, slide pads properly secured. Mast chains and cables properly secured, lubricated and undamaged. Sequencing cables properly secured and undamaged. Sheaves and pins are properly secured, have no visible damage, no loose or missing parts and are lubricated.

- 9. Platform Controls Up/Down and Function Enable buttons properly secured, no loose or missing parts, no visible damage. Placards secure and legible, emergency shut-off button set for operation. Control markings legible; Operators manual enclosed in manual storage tube.
- **10. Guard Rail Installation** All railings securely attached, no visible damage, no missing parts; sliding entry bar in proper working order. Platform gate/slide bar working properly, no visible sign of damage *(if so equipped)*.
- 11. Platform Assembly Secure to mast; no loose or missing parts, no visible damage. Control and power cables, no visible damage; cables properly tensioned and seated in control cable sheaves; control cable sheaves not damaged and rotate freely.

Mast chains and cables properly secured, lubricated and undamaged. Sequencing cables properly secured and undamaged.

#### 8 **Daily Walk-Around** Inspection Items 10 1. Wheels & Casters Floor Brake(s) 2. **Base Frame** 3. Manual Descent Valve -4. (Located in recess on Bottom Rear of Base Frame) Battery Box/Charger 5. Motor/Pump/Reservoir Unit 6. Ground Controls 7. Mast Installation 8. Platform Controls 9. Guard Rail Installation 10. Platform Assembly 11.

#### SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION

Figure 2-1. Daily Walk-Around Inspection.

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## SECTION 3. MACHINE CONTROLS AND INDICATORS

## 3.1 GENERAL



THE MANUFACTURER HAS NO DIRECT CONTROL OVER MACHINE APPLICATION AND OPERATION. THE USER AND OPERATOR ARE RESPONSIBLE FOR CONFORMING WITH GOOD SAFETY PRACTICES.

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

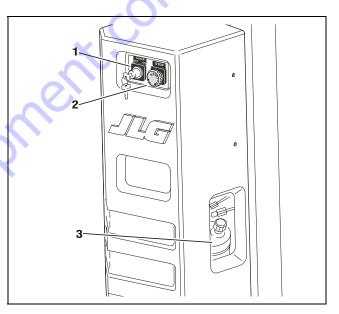
## 3.2 CONTROLS AND INDICATORS

### **Ground Control Station**

(See Figure 3-1.)

- **NOTE:** For overnight parking or battery charging, be sure the POWER ON/OFF KEY SWITCH is positioned to OFF to prevent battery drain.
  - 1. POWER ON/OFF Key Switch

A key switch located on the ground control station controls power to all functions on the machine.



#### Figure 3-1. Ground Control Station.

- 1. Power ON/OFF Key
- 2. Power/Emergency Stop
- 3. Hydraulic Reservoir/Circuit Breaker/Fuse

#### 2. POWER/EMERGENCY STOP

The two position switch allows power to the platform and ground controls when RESET (ON). When pushed in (OFF), power is shut off to the platform and ground controls.

**3.** HYDRAULIC RESERVOIR / CIRCUIT BREAKER / FUSE (located inside the ground control station housing)

The hydraulic oil level can be checked through an access hole in the side of the cover.

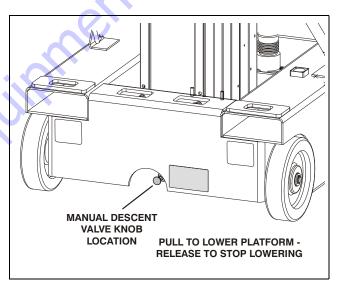
**NOTE:** Check hydraulic oil only when platform is completely lowered and after cycling platform up/down a few times.

A 5 Amp in-line fuse is located inside the ground control station cover.

#### **Manual Descent Valve**

(See Figure 3-2.)

Located at the rear and bottom of the base frame. This pull to release - spring loaded return valve (RED Knob), allows for lowering of the platform in an emergency or power failure.





#### **SECTION 3 - MACHINE CONTROLS AND INDICATORS**

#### **Platform Control Station**

(See Figure 3-3.)

1. POWER/EMERGENCY STOP

A two position mushroomed shaped switch furnishes power to the platform and ground controls when RESET (ON). When pushed in (OFF), power is shut off to the platform and ground controls.

2. PLATFORM UP Button.

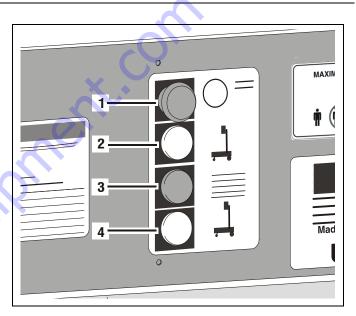
When depressed simultaneously with ENABLE button raises the platform.

3. FUNCTION ENABLE Button.

This (GREEN) button must be depressed for machine to operate.

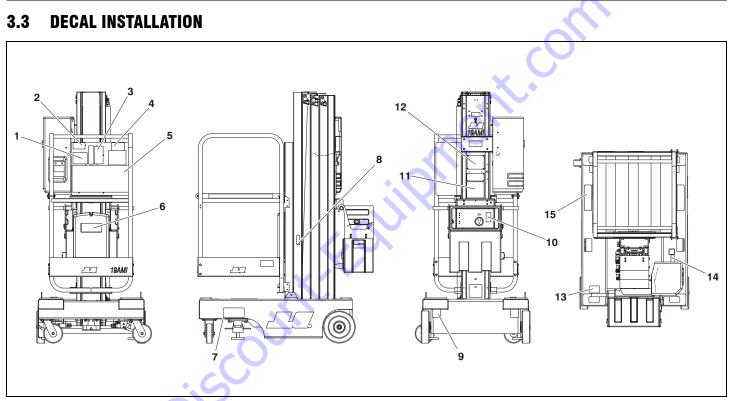
4. PLATFORM DOWN Button.

When depressed simultaneously with ENABLE button lowers the platform.



#### Figure 3-3. Platform Control Station.

- 1. Emergency Stop (RED)
- 2. Platform UP (WHITE)
- 3. Function Enable (GREEN)
- 4. Platform DOWN (WHITE)



#### SECTION 3 - MACHINE CONTROLS AND INDICATORS

Figure 3-4. Decal Installation. (ANSI, CSA and ANSI Export Specification)

ltem	ANSI	CSA	JAPAN 🗸	CHINA
1	1703781	1703781	1704086	1704077
2	1704366	1704366	N/A	N/A
3	1704212	1704212	1704215	1001128104
4	1704259	1706344	1704290	1001128105
5	1704221	1704221	1704224	1704964
6	1701509	1701509	1701509	1701509
7	1704424	1704424	1704776	1001128106
8	1704277	1704277	1703844	1704277
9	1703817	1703817	1703817	1703817
10	1703785	1703785	1704089	1704079
11	1703784	1703784	1704088	1704078
12	3252636	3252636	1707135	1707135
13	1703814	1703814	1703814	1703814
14	1703789	1703789	1704092	1704083
15	1703786	1703786	1704090	1704081
5				

Table 3-1. Decal Installation Chart (ANSI, CSA, ANSI EXPORT)

(See Figure 3-4.)

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## **SECTION 4. MACHINE OPERATION**

## 4.1 **DESCRIPTION**

This machine is a manually propelled machine, with a work platform mounted to an elevating aluminum mast mechanism. The personnel lift's intended purpose is to provide personnel (with their tools and supplies) access to areas above ground level.

The primary operator control station is in the platform. From this control station, the operator can raise and lower the platform. A ground control station is provided to lower the platform to the ground in an emergency if the operator in the platform is unable to do so, or if a power failure should occur.

Vibrations emitted by these machines are not hazardous to an operator in the work platform. The equivalent continuous A-Weighted sound pressure level at the work platform is less than 70dB(A).

# 4.2 OPERATING CHARACTERISTICS AND LIMITATIONS

#### Capacities

The platform can be raised above the stowed position if:

- The machine is positioned on a smooth, firm surface on which the machine is capable of being leveled.
- Load is within manufacturer's rated capacity.
- All machine systems are functioning properly.
- The machine floor brake is set and operating properly.

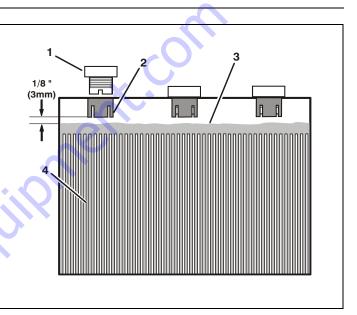
# 4.3 BATTERY CHARGING & MAINTENANCE

AMI Models are equipped with a 12 volt, 10 amp output - dual voltage (120/240V) input battery charger. The charger is microprocessor controlled featuring an automatic charge sensing circuit which can determine cell voltage and regulate charger output and terminate charging as required.

## Battery Maintenance and Safety (See Figure 4-1.)

- BATTERY ACID IS HIGHLY CORROSIVE. AVOID CONTACT WITH SKIN AND CLOTHING AT ALL TIMES.
- BATTERY ACID RELEASES AN EXPLOSIVE GAS WHILE CHARGING, ALLOW NO OPEN FLAMES, SPARKS OR LIGHTED TOBACCO PRODUCTS IN THE AREA WHILE CHARGING BATTERIES. CHARGE BATTERIES ONLY IN A WELL VENTILATED AREA.
- ADD ONLY DISTILLED WATER TO BATTERIES. WHEN ADDING DISTILLED WATER TO THE BATTERIES, A NON-METALLIC CONTAINER AND/OR FUNNEL MUST BE USED.

The battery fluid level should be approximately 1/8" (3mm) below vent tubes. (See Figure 4-1.)



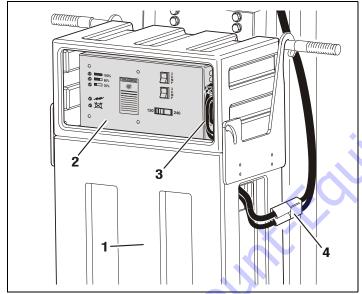


**1.** Battery Filler Cap

2. Vent Tube

Fluid Level
 Cell Plates

#### Battery Charger Operation (See Figure 4-2. & Figure 4-3.)



#### Figure 4-2. Battery Box and Charger Assembly.

- 1. Battery Box/Charger Assembly
- 2. DC Battery Charger

- 3. Charger AC Power Cord
- 4. DC Battery to Machine Main Power Connector



#### ALWAYS CHECK THE VOLTAGE SELECT SWITCH ON THE FACE OF THE BATTERY CHARGER BEFORE OPERATION. IF NOT SET TO THE PROPER AC POWER INPUT VOLTAGE, THE CHARGER MAY BE DAMAGED.

- 1. Turn the ground control key switch to the OFF position.
- 2. Set the AC voltage switch on the face of the charger for the local AC line voltage.
  - Plug the battery charger AC power cable, stowed inside the battery/charger carrier (*beside charger*) into a properly grounded receptacle. Use a suitable extension cord, if necessary.
- **4.** The charger runs through a self-diagnostic check. The LED's on the face of the charger flash in the following sequence;
  - **a.** First all five (5) LED's flash three (3) times.
  - **b.** Next each LED lights in sequence.
  - c. Finally all five (5) LED's flash three (3) times again.
- 5. When ready to charge, the CHARGER ON LED and the INCOMPLETE CHARGE (25%) LED on the front panel of the charger will light up, the charger will then begin to charge the batteries.

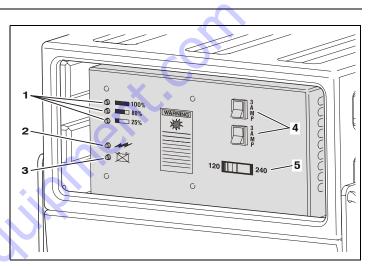
#### **SECTION 4 - MACHINE OPERATION**

- 6. When the battery cell voltage reaches 2.37 V/cell the 80% CHARGE LED will light up. The charger then continues to monitor the increase in charge until it sees no increase, and then terminates the charging process.
- **7.** The CHARGE COMPLETE (100%) LED will light when the batteries are fully charged.
- 8. Unplug the charger AC power cord and stow the cord.

## **Abnormal Cycle Indicator LED**

The ABNORMAL CYCLE indicator LED will light when;

- The AC input to the charger was interrupted.
- There is a dead cell or cells in the battery.
- One or more of the battery connectors are loose or corroded.



#### Figure 4-3. Dual Voltage Charger - Front Panel.

- 1. % of Charge in Progress LED's (Green)
- 2. Charger On LED (Green)
- Abnormal Cycle LED (Yellow)

- 4. Circuit AC Circuit Breakers
- 5. AC Voltage Selection Switch

# 4.4 MACHINE SET-UP AND OPERATION

The following sequence of set-up procedures must be followed to safely operate this machine.

- 1. Position machine in work area. Work area must be a smooth, firm, level surface.
- **NOTE:** Check that battery box assembly is installed, battery is charged and connected to the machine's DC receptacle.
  - 2. Set Power On/Off Key Switch to the ON position at the ground control station.
  - **3.** Check both Emergency Stop switches, one on platform control station and one on ground control station, they must be in the reset position for operation.
  - 4. Set Floor Stop, see steps following.

## **Floor Stop Operation**

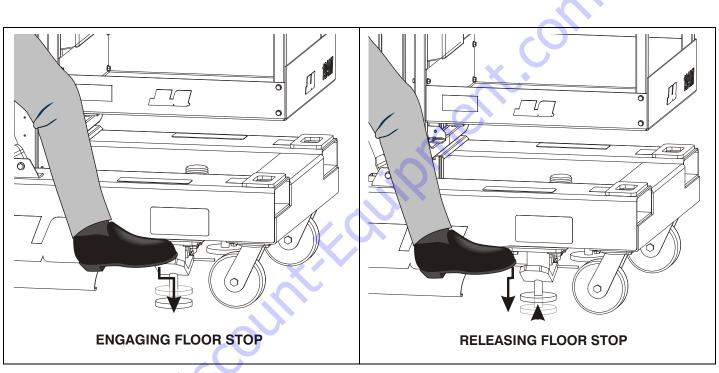
(See Figure 4-4. on page 4-6)

1. Located on both sides of the machine under the base frame, behind either of the front caster wheels, are the floor stop assemblies. Engage and lock one or both of the floor stop assemblies down into position

# **WARNING**

THE FRONT CASTER WHEELS SHOULD BE RELIEVED OF THE MACHINES WEIGHT ENOUGH SO THE MACHINE DOES NOT ROLL IN ANY DIRECTION. IF THIS IS NOT THE CASE DO NOT ATTEMPT TO ELE-VATE THE PLATFORM UNTIL THE FLOOR STOP IS OPERATING PROP-ERLY.

**2.** To disengage the floor stop, apply pressure to the release rod or lift up on the floor stop pedal.





# **Platform Loading**

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

Maximum capacity for the 19AMI model is as follows:

Platform Type	Platform Capacity	Specification		
All Platforms (Except Extendible)	350 lb.* (160kg)	ANSI/CSA		
Extendible Platform	300 lb.* (135kg)	ANSIONLY		

Table 4-1. Maximum Platform Capacity.

\* Distribute weight evenly throughout the platform.

# **Platform Operation**

# **WARNING**

DO NOT ATTEMPT TO RAISE THE PLATFORM UNLESS THE FLOOR BRAKE IS PROPERLY SET AND MACHINE IS ON A SMOOTH, FIRM, LEVEL SURFACE.

BEFORE AND WHILE RAISING THE PLATFORM, CHECK CLEARANCES ABOVE AND AROUND PLATFORM AND MAST TO ENSURE ADEQUATE CLEARANCE OF SURROUNDING OBJECTS AND PERSONNEL.

- 1. Enter platform and close the gate/slide bar.
- **NOTE:** On platform control box the FUNCTION ENABLE (green button) must be depressed simultaneously with either the PLATFORM UP or PLATFORM DOWN button in order for these functions to work.
  - 2. To raise the platform up, depress the FUNCTION ENABLE BUTTON (green) and PLATFORM UP button (top, white button) on the platform control panel simultaneously. Upon reaching desired elevation level release PLATFORM UP and FUNCTION ENABLE buttons.

# 

# ENSURE AREA BENEATH PLATFORM IS FREE OF PERSONNEL AND OBSTRUCTIONS PRIOR TO LOWERING PLATFORM.

**3.** To lower platform, depress FUNCTION ENABLE BUTTON (*green*) and PLATFORM DOWN button (*bottom, white button*) on control panel simultaneously. Upon reaching desired elevation level release PLATFORM DOWN and FUNCTION ENABLE buttons.

#### **SECTION 4 - MACHINE OPERATION**

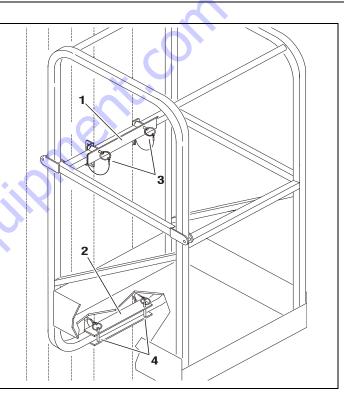
# 4.5 QUICK-CHANGE PLATFORM

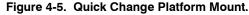
(See Figure 4-5.)

The AMI model is equipped with quick-change platform mounts which will allow quick removal and installation of the currently available quick-change platforms. The following procedures describe platform removal and installation:

# **Platform Removal**

- 1. Remove both pins (4) securing the **lower** platform support rail to the platform lower mount (2).
- 2. Remove both pins (3) securing the **upper** platform support rail to the platform upper mount (1).
- 3. Using either suitable lifting equipment capable of lifting the weight of the mounted platform, or another person, swing the lower platform support rail forward, away from the mast to clear the platform lower mount, then lift the upper platform support rail up and out of the platform upper mount. Move the platform clear of the machine and carefully set the platform on its base out of the way.





#### **Platform Installation**

- 1. Using either two people or suitable lifting equipment capable of lifting the weight of the unmounted platform, lift the platform and set the platforms' upper support rail into the upper platform mount on the mast.
- **2.** Swing the platform lower support rail into the lower platform mount on the mast.
- 3. Secure the platform support rails with the two (2) platform upper mount pins, and the two (2) lower platform mount pins.

The platform is now ready for operation.

# 4.6 STOWING MACHINE

1. Ensure that platform is fully lowered, turn POWER ON/OFF key switch (on the Ground Control Station) to the OFF position.

#### NOTICE

WHEN MOVING MACHINE PLEASE FOLLOW ALL SAFETY PRECAUTIONS DESCRIBED IN SECTION 1-5, "TRANSPORT SAFETY" OF THIS MANUAL. ALSO SEE SECTION 4-6, "TRANSPORTING AND LIFTING" FOR PROPER PROCEDURES FOR TRANSPORTING.

- 2. Move machine to a well-protected and well-ventilated area. If necessary, cover the machine so it will be protected if in a hostile environment.
- **3.** Set the floor brake when parking machine for an extended period of time.
- 4. If necessary remove key from Ground Control Panel POWER ON/OFF key switch to disable machine from unauthorized use.
- **NOTE:** If required, DC machine batteries should be charged in preparation for next work day in accordance with Section 2-7, "Battery Charging" (DC Machines).

# 4.7 TRANSPORTING, LIFTING AND TIE DOWN

#### General

The AMI machine may be transported from work-site to worksite using any of the following methods:

- Pushing the machine around on its base wheels.
- Transport with a forklift truck using the forklift pockets in the base frame or to lift onto a transport vehicle.

# **Transporting by Pushing**

# NOTICE

#### CAREFULLY REVIEW ALL SAFETY PRECAUTIONS NOTED IN SECTIONS 1-3 & 1-4, "TRANSPORT SAFETY", BEFORE ATTEMPTING TO MOVE MACHINE.

The AMI machine's base frame is equipped with load bearing wheels mounted on a straight axle at the mast end of the machine; and a pair of heavy duty swivel caster wheels mounted on the frame at the platform end of the machine. It is important to closely follow the instructions mentioned in the following WARNING note to ensure safe transport of unit when pushing.



FAILURE TO HEED THE FOLLOWING INSTRUCTIONS COULD CAUSE THE UNIT TO TIP OVER OR BE HARD TO CONTROL WHEN BEING MOVED WHICH COULD RESULT IN SERIOUS INJURY OR DEATH DUE TO BEING PINNED OR CRUSHED BY UNIT.

- WALK BEHIND THE UNIT TO PUSH AND STEER USING THE HANDLES ON THE MAST CROSSBAR.
- ON A LEVEL SURFACE, ALWAYS TRAVEL WITH THE PLAT-FORM END LEADING THE WAY.
- ON A SLOPE, ALWAYS TRAVEL WITH THE PLATFORM END ON THE LOW SIDE OF THE SLOPE.
- TWO PEOPLE ARE REQUIRED ON SLOPES UP TO 5 DEGREES, A FORKLIFT MUST BE USED WHEN MOVING UNITS ON SLOPES GREATER THAN 5 DEGREES.
- NEVER POSITION THE UNIT SIDEWAYS ON A SLOPE.
- DO NOT MOVE UNIT ON SOFT OR UNEVEN SURFACES, OR OVER OBSTRUCTIONS, BUMPS, DEBRIS, ETC.



BEFORE MOVING A MACHINE BY PUSHING, SECURE ANY TOOLS OR OBJECTS WHICH MAY OTHERWISE FALL OFF AND CAUSE INJURY OR BE DAMAGED DURING TRANSPORT.

#### **SECTION 4 - MACHINE OPERATION**

# Lifting

If it becomes necessary to lift the machine, use suitable lifting equipment capable of handling the weight of the machine, see below.

**NOTE:** Fork lifts, cranes, chains, slings, etc. must be capable of handling the following weights:

#### Table 4-2. AMI Machine Gross Weights

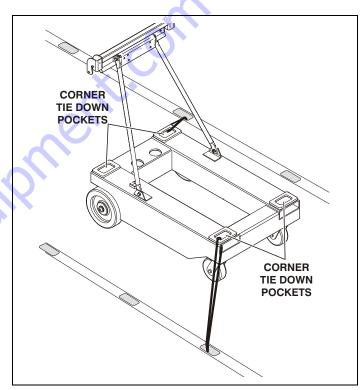
AM Model	Gross Weight
19AMI	1,140 lb. (517 kg)

**NOTE:** The 19AMI is equipped with forklift pockets at the mast end of frame for transporting the unit. An optional mast mounted crane hook is available. Do not attempt to lift with a crane without the optional crane hook.

## **Transport Vehicle Tie Down**

(See Figure 4-6.)

When placing the AMI machine onto a transport vehicle for transport to another work-site, always tie machine securely to the transport vehicle using the tie down pockets provided on the machine. There are four tie down pockets, one on each corner of the machine. Use corner tie down pockets as needed. Tie down method shown is for illustrative purposes only.





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# SECTION 5. OPTIONAL EQUIPMENT

# 5.1 OPTIONAL EQUIPMENT

The following optional equipment is available for AM model machines:

#### 26" x 50" Quick-Change - Extendible Platform

(See Section 5.2, Extendible Platform Operation)

The 26" long x 50" wide extendible platform features a gull wing gate and is attached to the mast using the quick change mount.

#### Extra Power Pack (DC Battery, Charger & Case)

An extra power pack which includes the battery, charger and molded case allows for extended use of an AMI machine under high cycle conditions. One power pack can be charging while the other is in use.

## **Lifting Hook**

The optional lifting hook is mounted at the top rear of the first mast section. The hook is used to lift the machine up or down to another level.

#### Cord Reel

The optional cord reel contains a latching - self-retracting AC power cord - 25 ft. of 16-3 gauge (120V - 10 Amp Rated) insulated wire with ground plug. It comes complete with mounting bracket and a 5 ft. pigtail with ground receptacle to plug into the battery charger. The cord reel mounts to the top rear of the mast assembly just above the ground control station mount.

## **Platform Auxiliary Power Lowering Device**

The Platform Auxiliary Power Lowering device is a switch activated battery backed electrical circuit designed to provide power to the platform control box in the event of loss of the machines power supply. This can be useful to the operator if the main battery on a DC model becomes depleted or the AC power supply of an AC model is interrupted while the platform is raised. Also if the on/off key switch on the ground control station is turned to the off position while the platform is still raised.

#### **SECTION 5 - OPTIONAL EQUIPMENT**

#### Hour-meter

(See Figure 5-1., Hour-Meter Location. (Option))

The machine hour-meter accumulates pump operation time during the platform LIFT UP cycle only. The reading indicates hours and tenths of an hour.

## **Programmable Security Lock**

(See Section 5.3, Programmable Security Lock (PSL™) (Option)

The optional keyless Programmable Security Lock switch can be programmed with a four (4) digit operators code to allow only those persons with the code to power-up and operate the machine.



Figure 5-1. Hour-Meter Location. (Option) 1. Hour-Meter

# 5.2 EXTENDIBLE PLATFORM OPERATION

The optional extendible platform is designed to increase operator reach over the front of the machine, this allows the operator access to work areas which may otherwise be unreachable from the standard platform. The following procedures describe proper use of the Extendible Platform.

# **Mounting to Mast**

The Extendible Platform mounts using the same quick-mount hardware as the standard platform, see Section 4, Quick-Change Platform, in the Operators and Safety manual for procedures to mount and remove the platform on the mast.

Once the platform is mounted re-check that all mounting pins on upper and lower platform mast mounts, two (2) pins on upper mount and two (2) pins on lower mount are installed and secure.

# **Entering/Exiting Platform**

(Refer to Figure 5-2.)

The Extendible Platform is equipped with a swing-up gull-wing gate for entrance into the platform.

# 

THE TOTAL WEIGHT CAPACITY FOR THE EXTENDIBLE PLATFORM ASSEM-BLY IS 300 LB. (135 KG) U.S.A. (U.S.A. ONLY - C.S.A. NOT AVAILABLE)

#### To ENTER the platform:

- 1. Raise the swing up gate by grasping the front mid rail with one hand and pull up on the gate lock-pin release cable on the front of the platform assembly.
- 2. Next lift the gate high enough to enter the platform. Step into the platform, when completely inside platform, lower the gate until it's closed and the gate lock-pin is engaged and locked.

#### To EXIT platform:

**1.** Repeat the above steps and exit the platform.

# **Extending Platform**

(Refer to Figure 5-2.)

- 1. Locate the two platform extend handles (1), one located each side of platform on the vertical rails at the back of the platform (2).
- Grasp each extend handle and pull the handle (1) up to a horizontal position releasing it from the spring clamp. Face the mast (4) and pull the extend handles to extend the platform extension forward away from mast (5).
- 3. Slide the platform extension forward until it's completely extended (5), and the extend handles line up with the

#### **SECTION 5 - OPTIONAL EQUIPMENT**

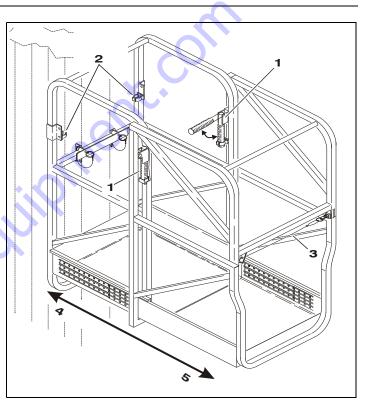
spring clamps on the vertical rail at the opposite end of the platform (1).

4. Next fold the extend handles down until they lock into the spring clamps on the vertical rail (1), this will lock the platform extension in place.

# **Retracting Platform**

(Refer to Figure 5-2.)

- 1. To retract the platform grasp the extend handles now located at the middle of the extended platform on the vertical rail (1). Pull up on each handle to a horizontal position to clear the handle spring clamps.
- Retract the platform extension by standing on the rear (mast) platform section and pulling the extend handles (1) toward the mast (4), (you may need to pull the handles halfway then turn and push them the rest of the way to fully retract the platform extension).
- **3.** When both extend handles line up with the handle spring clamps (2) on the vertical rail at the rear of the platform, fold the handles (1) down locking them into the spring clamps (2).





# 5.3 Programmable Security Lock (PSL™) (Option)

The optional keyless Programmable Security Lock switch can be programmed with a four (4) digit operators code to allow only those persons with the code to power-up and operate the machine.

#### **PSL™** Box Location

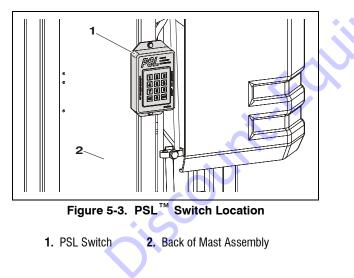




Figure 5-4. PSL<sup>™</sup> Switch Controls & Indicators.

1. ON (Green LED	)) 4.	Key Pad
2. ACCEPT (Amb	er LED) 5.	OFF Button
3 PROGRAM (Re	d I FD) 6	ON Button

# Machine Power Up using the $\mathsf{PSL}^{\mathrm{\tiny M}}$

- **NOTE:** When entering code on the keypad, a short beep indicates a properly depressed key, a long beep indicates an error in depressing key. If an error occurs, you must restart the code entry process again.
  - Enter the four digit code on the PSL key pad. The ACCEPT - AMBER LED indicator will be lit if the code is correct.
  - 2. Press the keypad ON button. The ON GREEN LED indicator will light and power will be supplied to the Ground Control Station.
  - **3.** At the ground control station, turn the main power selector switch from OFF to ON.
  - 4. The machine will now operate normally.

## **Machine Power Down**

- 1. At the Ground Control Station set the main power selector switch to the OFF position.
- 2. Press the OFF button on the PSL keypad. No LEDs on the PSL box will be lit.

# **Changing the Operator's Code**

The PSL Operators Code can be changed by a supervisor should the need occur. A separate permanent Supervisor's Code matched to the serial number of the PSL box is included on a sheet in the PSL user manual supplied with the machine.

- 1. Enter the Supervisor's code on the key pad. The PRO-GRAM - RED LED will be lit if correct code is entered.
- **NOTE:** The ON or OFF button cannot be one of the four digits of the Operator's code.
  - 2. Enter a new four (4) digit Operator's code on the keypad. The ACCEPT - AMBER LED will light up if the new Operator's code is accepted.
  - **3.** Press the OFF button on the keypad to activate the new Operator's code.
- **NOTE:** The new Operator's code will remain in the PSL even when power is removed from the equipment, or until the Supervisor changes the Operator's code.

# SECTION 6. EMERGENCY PROCEDURES

# 6.1 GENERAL INFORMATION

This section explains the steps to be taken in case of an emergency situation while operating the machine.

# 6.2 EMERGENCY OPERATION

#### **Operator Unable to Control Machine**

IF THE PLATFORM OPERATOR IS PINNED, TRAPPED OR UNABLE TO OPERATE OR CONTROL THE MACHINE, USE THE FOLLOWING INSTRUCTIONS AS A GUIDELINE.

- 1. Other personnel should operate the machine from ground controls only as required.
- 2. Only qualified personnel in the platform may use the platform controls. DO NOT CONTINUE OPERATION IF CONTROLS DO NOT FUNCTION PROPERLY.
- **3.** Cranes, forklift trucks or other equipment can be used to remove the platform occupant and stabilize motion of the machine.

## Platform Caught Overhead

If the platform becomes jammed or snagged in overhead structures or equipment, rescue the platform occupant prior to freeing the machine.

# **Righting of Tipped Machine**

Before righting a tipped machine, check machine for any damage which may prevent it from setting properly on its base wheels once in a vertical position, (i.e. base wheels damaged, base frame distorted, etc.). Use a crane, forklift or other suitable lifting equipment and carefully lift the machine to an upright position.

#### NOTICE

FOLLOWING ANY INCIDENT, THOROUGHLY INSPECT THE MACHINE AND TEST ALL FUNCTIONS. DO NOT LIFT ABOVE 10 FEET (3 METERS) UNTIL YOU ARE SURE THAT ALL DAMAGE HAS BEEN REPAIRED, IF REQUIRED, AND THAT ALL CONTROLS ARE OPERATING CORRECTLY.

# 6.3 Incident Notification

JLG Industries, Inc. must 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.

JLG Phone:

USA: 877-JLG-SAFE (554-7233) (8am till 4:45pm EST)

EURO: 011 44 1 698 811005

AUSTRALIA: 011 61 2 65 811111

Email (USA): productsafety@jlg.com

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.

# SECTION 7. GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE

# 7.1 INTRODUCTION

This section of the manual provides additional necessary information to the operator for proper operation and maintenance of this machine.

The maintenance portion of this section is intended as information to assist the machine operator to perform daily maintenance tasks only, and does not replace the more thorough Preventive Maintenance and Inspection Schedule included in the Service and Maintenance Manual. Other Publications Available Specific to this Machine:

Service and Maintenance Manual

Illustrated Parts Manual

ANSI/CSA ..... 3121191

# 7.2 GENERAL SPECIFICATIONS

## **Machine Specifications**

# **Platform Data**

SPECIFICATION	19AMI	
Gross Machine Weight:	1,140 lb.	
( <i>Platform Empty</i> ):	(517kg)	
Machine Height:	78 in.	
(Platform Stowed)	(1.9m)	
Machine Base - Overall :	33 x 47.5 in.	
<i>(Length x Width)</i>	(83cm x 120cm)	
Maximum Wind Speed:	0 mph	
(Machine rated for indoor use only)	(0kph)	
Maximum Horizontal Manual Side Force:	50 Pound Force	
(Platform fully extended with Maximum load)	(222 Newtons)	
Maximum Hydraulic System Pressure:	Pressure Relief Set to 2800 PSI (193 bar) at Factory	

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SPECIFICATION	19AMI
Occupants: (Persons allowed in Platform)	1
Platform Capacity: (All platforms except Extendible) ANSI/CSA:	350 lb. (160 kg)
Extendible Platform: ANSI ONLY:	300 lb. (135 kg)
Platform Height - Mast Fully Extended : (Ground to Platform Floor):	19 ft. (5.8 m)
Platform Working Height: (Average Size Person)	26 ft. (7.92 m)
Platform Cycle Performance: Lift Up:	31-34
(in seconds) (w/max. rated load) Lift Down:	18-25

## **Electrical Specifications**

SPECIFICATION			19AMI	G
System Voltage:		12 Volts DC		
Battery Specifications:		Battery Type WET/DRY COMBO AGM (VRLA		AGM (VRLA)
		Voltage	12 Volts DC	
		Amp Hour (AH) Rating	105 Amp Hr. @ 20 Hr.	100 Amp Hr. @ 20 Hr.
		<b>Reserve Capacity</b>	165 Min.	N/A
		Cold Cranking Amps	105 Amps @ 0° F	N/A
		Weight	54 lb. (24kg)	78 lb. (35kg)
Battery Charger Inp	out:	120/240 Volts AC - 50/60 Hz - Voltage Selectable		
Outp	out:	12 Volt - 10 Amps DC - w/Auto Charge Sensing Circuit		

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# **Machine Component Weights**

SPECIFICATIO	20AM	
Platform Weight :	Standard Platform:	55 lb. (25 kg)
(Quick-Change Platforms)	Extendible Platform:	70 lb. (32 kg)
DC Voltage Battery Pack: (Wet Cell)		70 lb. (32 kg)

## **Serial Number Locations**

For machine identification, a serial number plate is affixed to the machine. The plate is located on the back of the mast, just above the mast support bracket.

# 7.3 SUPPLEMENTAL INFORMATION

The following information is provided in accordance with the requirements of the European Machinery Directive 2006/42/EC and is only applicable to CE machines.

For electric powered machines, the equivalent continuous A-Weighted sound pressure level at the work platform is less than 70dB(A).

For combustion engine powered machines, guaranteed Sound Power Level (LWA) per European Directive 2000/ 14/EC (Noise Emission in the Environment by Equipment for Use Outdoors) based on test methods in accordance with Annex III, Part B, Method 1 and 0 of the directive, is 109 dB.

The vibration total value to which the hand-arm system is subjected does not exceed 2,5 m/s2. The highest root mean square value of weighted acceleration to which the whole body is subjected does not exceed 0,5 m/s2.

# 7.4 **Operator Maintenance**

# Lubrication

Hydraulic Oil (HO)

HYDRAULIC SYSTEM OPERATING TEMPERATURE RANGE	SAE VISCOSITYGRADE
+0° F to +180° F (-18° C to +83° C)	10W
+0°F to +210°F (-18°C to +99°C)	10W-20, 10W-30
+50° F to +210° F (+10° C to +99° C)	20W-20 🔷

Hydraulic oils must have anti-wear qualities at least to API Service Classification GL-3, and sufficient chemical stability for mobile hydraulic system service. JLG Industries, recommends Mobilfluid 424 hydraulic oil, which has an SAE viscosity of 10W-30 and a viscosity index of 152.

For cold weather applications, i.e. when temperatures remain consistently below  $+20^{\circ}F$  ( $-7^{\circ}C$ ) JLG recommends using Mobil DTE 13 hydraulic oil.

Aside from JLG recommendations, it is not advisable to mix oils of different brands or types, as they may not contain the same required additives or be of comparable viscosities. If use of hydraulic oil other than Mobilfluid 424 is desired, contact JLG Industries for proper recommendations.

#### Table 7-1. - Lubrication Specifications

KEY	SPECIFICATIONS
MPG -	Multipurpose Grease having a minimum dripping point of 350° F. Excellent water resistance and adhesive qualities, and being of extreme pressure type. (Timken OK 40 pounds minimum.)
EPGL -	Extreme Pressure Gear Lube (oil) meeting API service classification GL-5 or MIL-Spec MIL-L-2105.
H0 -	Hydraulic Oil. ISO-Vg grade 32, 46.
CL-	Chain Lube. Use a good quality chain lubricant

**NOTE:** Refer to Lubrication Chart, Table 7-2 for specific lubrication locations on machine.

#### **SECTION 7 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE**

# **Battery Maintenance**

**NOTE:** This information applies to wet cell batteries only. Do not attempt to open a maintenance-free sealed battery.

The battery fluid level should be approximately 1/8" (3mm) below vent tubes. *(See Illustration)* 

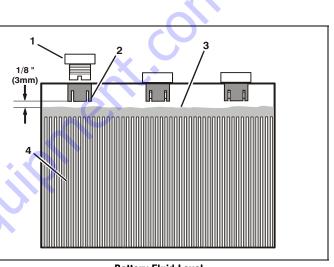
Keep cable connections clean and free of corrosion.

## **A**CAUTION

BATTERY ACID IS HIGHLY CORROSIVE. AVOID CONTACT WITH SKIN AND CLOTHING AT ALL TIMES.

BATTERY ACID RELEASES AN EXPLOSIVE GAS WHILE CHARGING, ALLOW NO OPEN FLAMES, SPARKS OR LIGHTED TOBACCO PROD-UCTS IN THE AREA WHILE CHARGING BATTERIES. CHARGE BATTER-IES ONLY IN A WELL VENTILATED AREA.

ADD ONLY DISTILLED WATER TO BATTERIES. WHEN ADDING DIS-TILLED WATER TO THE BATTERIES, A NON-METALLIC CONTAINER AND/OR FUNNEL MUST BE USED.

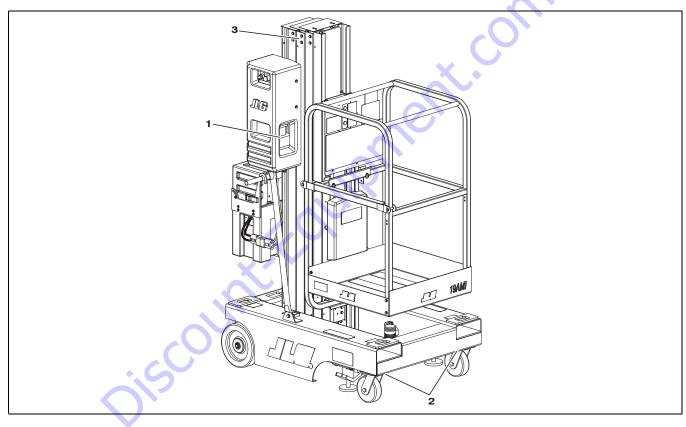


#### **Battery Fluid Level**

- **1.** Battery Filler Cap
- 2. Vent Tube

Fluid Level
 Cell Plates

#### **SECTION 7 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE**



#### **SECTION 7 - GENERAL SPECIFICATIONS AND OPERATOR MAINTENANCE**

					INTERVA	L HOURS		
ITEM	COMPONEN	T NO/TYPE LUBE POINTS	LUBE/METHOD	3 Months 150 Hrs.	6 Months 300 Hrs.	1 YEAR 600 Hrs.	2 YEARS 1200 Hrs.	COMMENTS
1	Hydraulic Oil	Fill To Line on Reservoi 5 Qt. (4.3 L) Reservoir	HO/Check Hydraulic Oil Level HO/Change Hydraulic Oil		Re		~	Check oil level every day. Change hydraulic oil every 2 years.
2	Swivel Racewa	ays 2 - Front Casters	MPG - Pressure Gun		~			
3	Mast Chains *	2 - Per Section	CL - Brush or Spray		V			Inspect, lubricate if drying or rusting.
* Applie	s Only to Mast S	ections with Chains.						
Key to L	Н	<b>PG</b> - Multipurpose Grease D - Hydraulic Oil - ISO-Vg gra Chain Lube. Use a good qı						
Notes:	<ol> <li>Reconsuch</li> <li>Such</li> <li>Lubrid</li> <li>Prior t</li> </ol>	as a high number of cycles, l cating intervals are calculate	als are based on normal use. If ocation, corrosive/dirty enviro d on 50 hours of machine oper l, operate machine through on	onment, etc., ration a week	user must a «.	djust lubrica	iting require	nents accordingly.

Table 7-2. - Lubrication Intervals for Various Components

#### **SECTION 8 - INSPECTION AND REPAIR LOG**

# SECTION 8. INSPECTION AND REPAIR LOG

Machine Serial Number:

Table 8-1. Inspection and Repair Log

Comments
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#### **SECTION 8 - INSPECTION AND REPAIR LOG**

	Machine Serial Number:
	Table 8-1. Inspection and Repair Log
Date	Comments
	S

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