

K13J



# K13J

## TRAILER MOUNTED BOOM

### Operator & Safety

### Manual

# DANGER

**BEFORE ENTERING PLATFORM,  
CHECK ALL OUTRIGGERS**

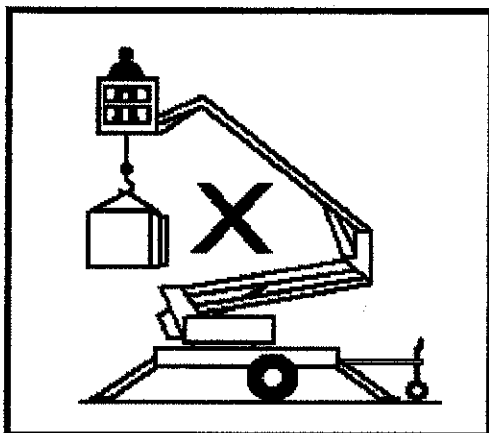


**DO NOT OPERATE  
THE MACHINE UNTIL YOU  
HAVE READ THE MANUAL**

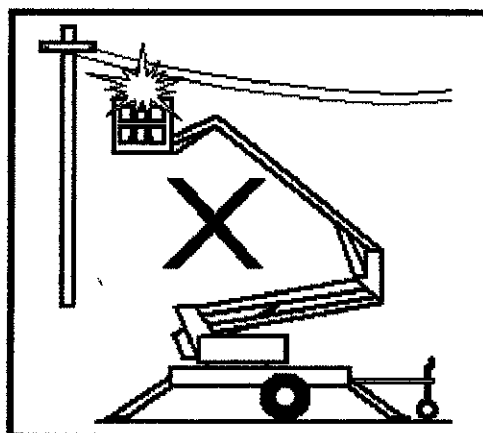


**FOR USE BY  
AUTHORISED AND  
TRAINED PERSONNEL ONLY**

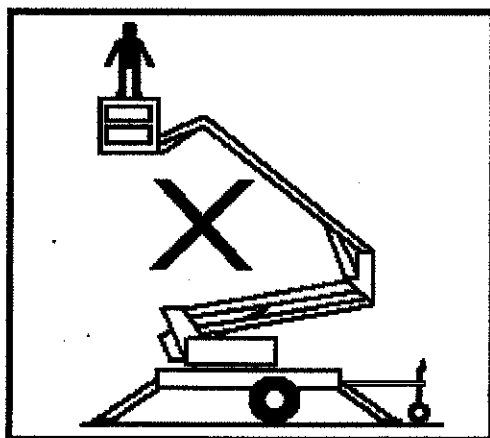
**IF YOU ARE IN ANY DOUBT,  
CONSULT JLG OR THEIR DEALER.**



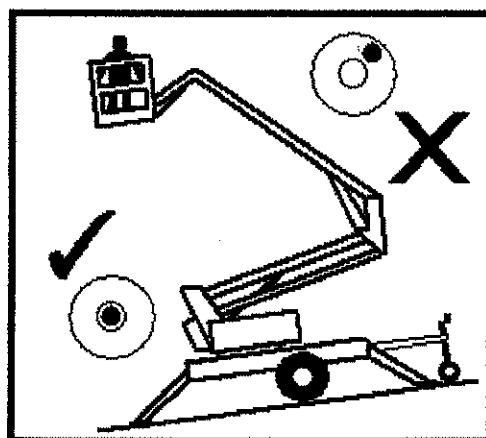
**NEVER USE BASKET  
FOR LIFTING**



**DO NOT OPERATE CLOSE TO  
OVERHEAD POWER CABLES**



**DO NOT SIT, CLIMB OR PLACE  
LOADS ON GUARDRAILS**



**ALWAYS LEVEL MACHINE WITH  
OUTRIGGERS BEFORE ELEVATING**

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# INTRODUCTION

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The JLG K13 is a very versatile means of gaining access in difficult locations.

The machine is extremely safe in operation providing that basic rules are observed in setting up the machine.

Operators should have read and understood the contents of the manual, and received full training in the safe use of the machine before attempting to use it.

## DESCRIPTION

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The JLG K13 is of the parallel linkage vertical boom design, mounted on a road towable trailer. The unique yet very simple boom configuration gives the maximum safety and control ability combined with a robust construction with withstand a heavy working environment.

The K13 machine is designed for two-man capacity (200 kg S.W.L.)

The machine incorporates a bottom boom with tie rod a short vertical boom and a top boom with tie rod. The K13 also has an independent hydraulically operated Flick-Out Boom for extra manoeuvrability.

The hydraulic system is of a failsafe design throughout, with built in hydraulic lock valves on all the rams as a precaution against hose failure. The machine is controlled by means of proportional manual control valves of the direct hand lever operation type.

Emergency lower valves are fitted as standard to allow the machines to be lowered from either the Platform or the Base. There is also a base control valve fitted as standard, repeating all the functions of the basket control valve.

The manual, or hydraulically operated outriggers are fitted with interlocks, to prevent the booms being raised without the outriggers being extended. A changeover valve prevents the hydraulic outriggers being accidentally retraced. A simple system of warning lights show the power is on and each of the outriggers is under load.

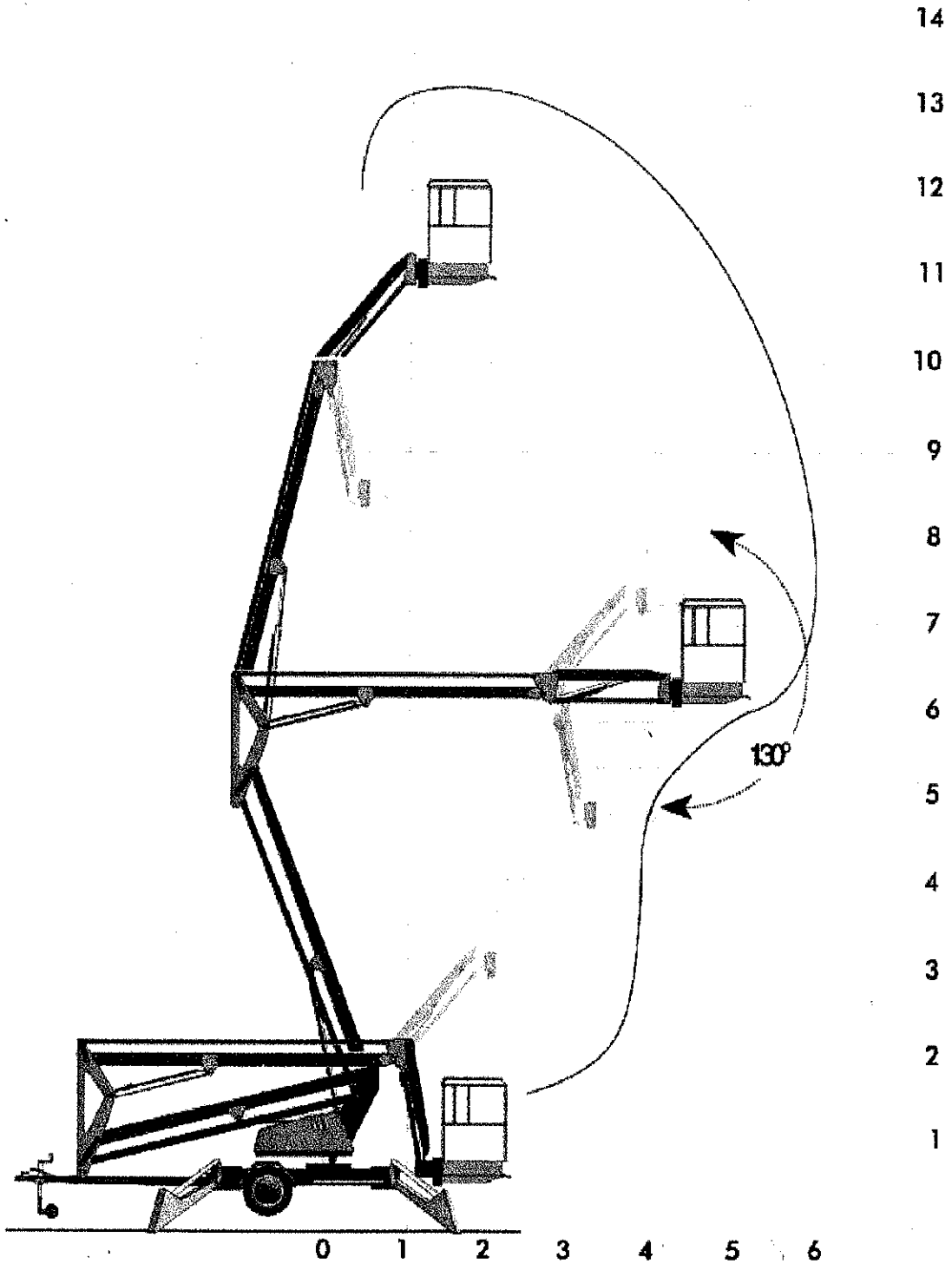
The machine complies fully with the requirements of the following EEC Directives:

- 1) 89/392/EEC, 91/368/EEC and 93/44EEC – the Machinery Directive.
- 2) 89/336/EEC, 91/263/EEC AND 92/31EEC – the Electromagnetic compatibility Directives
- 3) 73/23/EEC – the Low Voltage Directive.

The Machine is designed and tested in accordance with all applicable European Standards.

On Battery and Mains Powered machines the airborne noise emissions do not exceed a sound pressure level, at the operation positions, of 70 dB(A). On the optional LC. Powered and Air machines the airborne noise emissions do not exceed 85 dB(A).

# WORKING ENVELOPE



WORKING ENVELOPE

## THE OPERATOR

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1. To operate the machine you must be medically fit and have no problems with your eyesight or gearing.
2. You must have a good head for heights.
3. You should be the holder of a valid, current driving licence.
4. Your first concern must be the SAFE OPERATION of the work platform, the safety of the people working with you and or other persons in your working area.
5. You must be familiar with the Operation Instructions within this manual, and at no time attempt to operate the machine beyond the recommended limits.
6. The proper care of the work platform is a major factor in ensuring the safety of those who work with it. You must not misuse the machine or ignore or interfere with the devices and equipment which have been provided to maintain safety.
7. Operation of the machine should be restricted to Personnel who have been authorised to operate the equipment and have received proper training.

## WARNING NOTICES

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- 1. DO NOT** operate the machine unless you have been fully trained in the safe use of the machine.
- 2. DO NOT** operate the machine on soft, slippery or sloping ground unless adequate precautions have been taken.  
The stabilisers are designed to operate on *firm* and *level* ground with a *minimum bearing strength of 31 N/cm<sup>2</sup>*.  
The maximum load imposed by an outrigger is 10.3 kN.  
Advice should be obtained from JLG as to the type of supports and precautions required before attempting to operate the machine outside these parameters.
- 3. DO NOT** operate the machine unless all four stabilisers are down in full contact with the ground, the machine level and the wheels lifted clear of the ground.
- 4. DO NOT** use any equipment in the basket to increase the reach or working height of the machine, e.g. ladders.
- 5. DO NOT** fit any additional equipment to the machine which would increase the wind loadings, e.g. notice boards.
- 6. DO NOT** use the machine for any application which may produce special loads or forces; the Manufacturer, JLG, should be consulted for approval giving full details of the application prior to use.
- 7. DO NOT** use the machine near or close to live electrical conductors. The minimum safe working distance for a machine working beside overhead power cables is the maximum extended length of the booms plus 15m, measured with the boom pointing towards the lines, i.e. safe working distance for model K13 = 20m.  
It is the Operator's responsibility to ensure that when working in the vicinity of live overhead high voltage lines, the minimum safe working distance is maintained.  
Erect a simple barrier tape at the safe distance.
- 8. WORKING CLOSE TO POWER CABLES** – If work has to be carried out at less than the safe working distance, the operator *must ensure that the electricity supply has been switched off*. Before commencing work, a written permit to work must be obtained from the Owner's of the Power Cables or the responsible Persons/authorities.
- 9. DO NOT** tow the machine unless all booms and Stabilisers are fully latched in position.



## WARNING NOTICES

### BEAUFORT WIND SPEED SCALE

The Beaufort Scale of wind force is accepted internationally and is used in communication weather conditions. It consists of number 0 – 17, each representing certain strength of velocity of wind at 10m (33ft.) above ground in the open.

DESCRIPTION OF WIND	SPECIFICATION FOR USE ON LAND	M/Sec
0 CALM	<i>Calm – smoke rises vertically</i>	0-0.5
1 LIGHT AIR	<i>Direction of wind shown by smoke drift but not by wind vanes</i>	0.6-1.5
2 LIGHT BREEZE	<i>Wind felt on face; leaves rustle; ordinary vanes moved by wind</i>	1.6-3.0
3 GENTLE BREEZE	<i>Leaves and small twigs in constant motion; wind extends light flag</i>	3.5-5
4 MODERATE BREEZE	<i>Raises dust and loose paper; small branches are moved</i>	6-8
5 FRESH BREEZE	<i>Small trees in leaf begin to sway; crested wavelets form on inland waterways</i>	9-10
6 STRONG BREEZE	<i>Large branches in motion, umbrellas used with difficulty</i>	11-13
7 NEAR GALE	<i>When trees in motion; inconvenience felt when walking against wind.</i>	14-17
8 GALE	<i>Breaks twigs off trees; generally impedes progress</i>	18-21
9 STRONG GALE	<i>Slight structural damage occurs (chimney pots and slates removed).</i>	22-24

*Numbers 10-17 are not shown in this table.*

*Approximate corrections for wind speeds at other heights are:*

*2m subtract 30%; 3m subtract 20%; 6m subtract 10% 15m add 10%; 30m add 25%*

The maximum wind speed for safe operation of a K13 is 12.5m/sec.

## PRE-START CHECKS

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The following Pre-Start Checks should be carried out before taking the machine to the place of work.

- 1. WHEELS**  
Check tyres for correct pressure for K13 = 55 p.s.i. (3.8 bar).
- 2. HYDRAULIC FLUID**  
The oil level in the Tank must be full when booms are in the lowered position.  
Use ULTRAMAX HVI 68 (ISO) Grade Oil.
- 3. CUT-OUT SWITCHES**  
All cut-out and safety switches must be working correctly.
- 4. EMERGENCY STOP**  
Check that the emergency stop switches are functioning correctly.
- 5. EMERGENCY LOWER**  
Check that the emergency lower valves are free to operate and are in the fully closed position.
- 6. DAMAGED/LOOSE FITTINGS**  
Inspect the machine to ensure there are no signs of damage or loose hoses and fittings.
- 7. BATTERY POWER (where applicable)**  
If fitted, check that the batteries are fully charged and topped up with distilled water.  
**Do Not Overfill** – maximum 6mm over plates when battery is standing level.
- 8. ELECTRIC MAINS POWER (where applicable)**  
Check that the voltage and frequency of the power input matches that of the motor.
- 9. PETROL/DIESEL POWER (where applicable)**  
Check there is sufficient fuel and oil to enable the machine to work a full shift.
- 10. AIR POWER (where applicable)**  
Check that the air supply has sufficient flow and pressure to enable correct performance. The flow is not restricted and the supply shut off valves are open.  
That there is sufficient oil in the air line lubricator to enable the machine to work a full shift.

## ROAD TOWING INSTRUCTIONS

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Trailer mounted machines fitted with suspension units maybe safely towed behind a car or van at speeds of up to 50mph (80km/hr) where permitted.

1. Before towing, check the capacity of the vehicle being used. The machine weights 1320 kg.
2. Ensure that booms are fully lowered and both the boom locking pegs are fitted and holding the booms securely.
3. Ensure that the outriggers are fully raised.
4. Use the Jockey Wheel to raise or lower the tow bar coupling, to position the machine above the 50mm ball hitch on the towing vehicle.
5. Apply the handbrake.
6. Lower the tow bar coupling down onto the ball hitch using the jockey wheel and secure the safety chain.
7. Fully raise the jockey wheel and lock in position.
8. Release the Handbrake.
9. Plug in the trailer lights (7 pin plug) and check that both vehicle and trailer lights are working correctly.

## POWER SUPPLY

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**BATTERY POWER** – ensure batteries have been fully charged before use and that the Batter Isolator Switch is in the **ON** position.

### BATTERY CHARGING

- A.** Connect the charger to a power supply (either 110V AC or 240V AC). Voltage selection is automatic within the Aerial Charger. With the Deacon Charger the voltage has to be selected manually. The Battery Isolator (external circuit breaker) must be turned to the **OFF** position to prevent accidental operation of the machine. If the input power supply is **ON**, a red indicator light is shown on the charger.
- B.** Check battery fluid level regularly and top up with distilled water. *Do not overfill* – 6mm above the plates is sufficient. Heavy cycling of batteries will require more frequent topping up.

**MAINS POWER** - connect the mains supply, either 110V or 220/240V A.C. depending upon the motor specification. Check the motor is running when the key is turned to the **ON** position.

**PETROL/DIESEL POWER** – Check the fuel and oil levels of the engine. Switch on the ignition using the key switch on the slew mounted legend panel. Check the engine runs using the start and stop buttons in the basket.

**AIR POWER** – Connect to the air supply. A pressure of 80 p.s.i. (5.5 bar) is required. Ensure the lubricator bowl contains sufficient oil to outlast the days working. Adjust the regulator to achieve the required performance from the machine.

## SETTING UP

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**Do not attempt to set up the machine on steep slopes, ramps or soft ground.**

**Note:** The maximum load that can be exerted by the outrigger foot is 10.3 kN.

### HYDRAULIC OUTRIGGERS

- 1.** Ensure that the emergency stop button is pulled out. Select the ground controls on the controls selector switch.
- 2.** Keeping the black (outrigger enable) button depressed, use the outrigger control levers to lower each of the 4 outriggers to within 50-100 mm from the ground.
- 3.** Still with the black button depressed, use levers 1 and 2 to lower the front outriggers until the jockey wheel is clear of the ground.
- 4.** Now use levers 3 and 4 to lower the rear outriggers until the machine is level (see the "bubble" indicator on the chassis). Check to see that the machine tyres are off the ground. Make sure that all four of the green outrigger indicator lights on the control panel are lit up. The boom will not function until all four of these lights are on. Check that all outriggers are in firm contact with the ground.
- 5.** Before operating the machine, select the platform controls on the controls selector switch.

## OPERATION

1. Remove the boom the pegs at the bottom of the vertical boom and at the far end of the top boom.
2. Insert the key into the key switch on the slew turret. Turn the key to start the engine, applying the choke if the engine is cold. Turn the controls selector switch to 'GND' to operate ground controls, 'PLT' to operate Platform controls.
3. Climb in to the Basket. Check that the emergency Stop Switch is released (pull to release). The platform may now be raised, lowered or slewed in any direction by operation the control levers at the basket. The decal indicates which lever operates which function. *See Fig 8.*
4. A duplicate set of controls is mounted on the Slew Turret under the L.H. side cover which allows the platform to be operated from the ground. Again, the decal indicates which lever operates which function. *See Fig. 9*

### WARNING

Before raising, ensure there are no overhead obstructions or power cables and the outriggers are properly extended and secured.

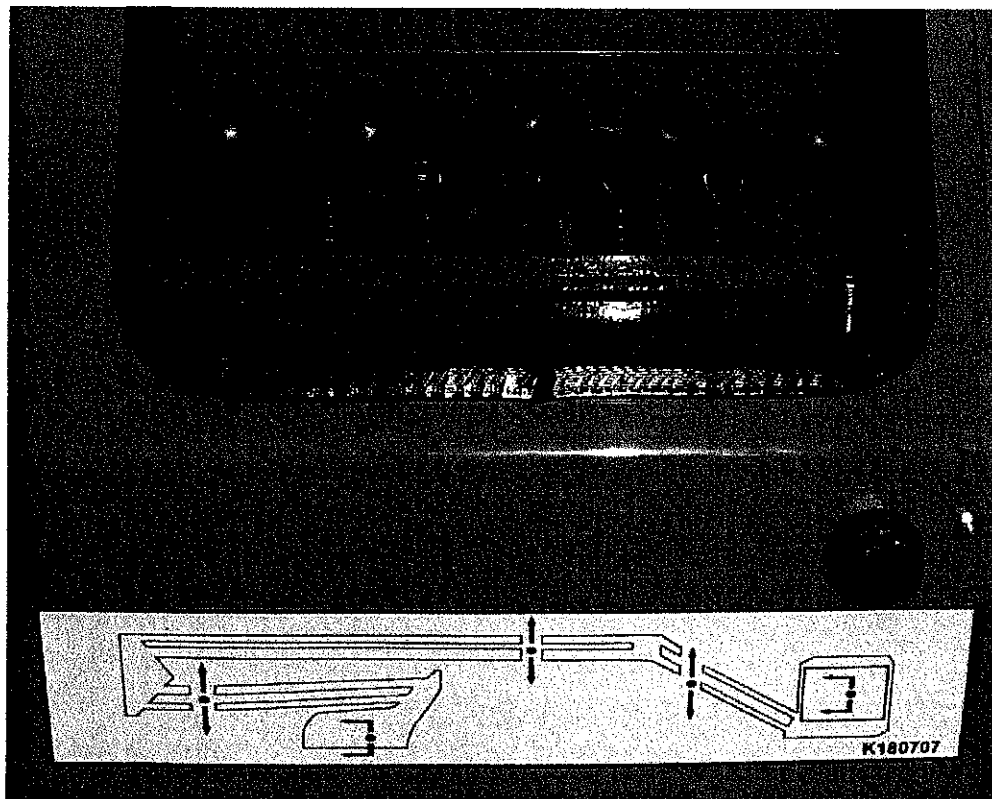
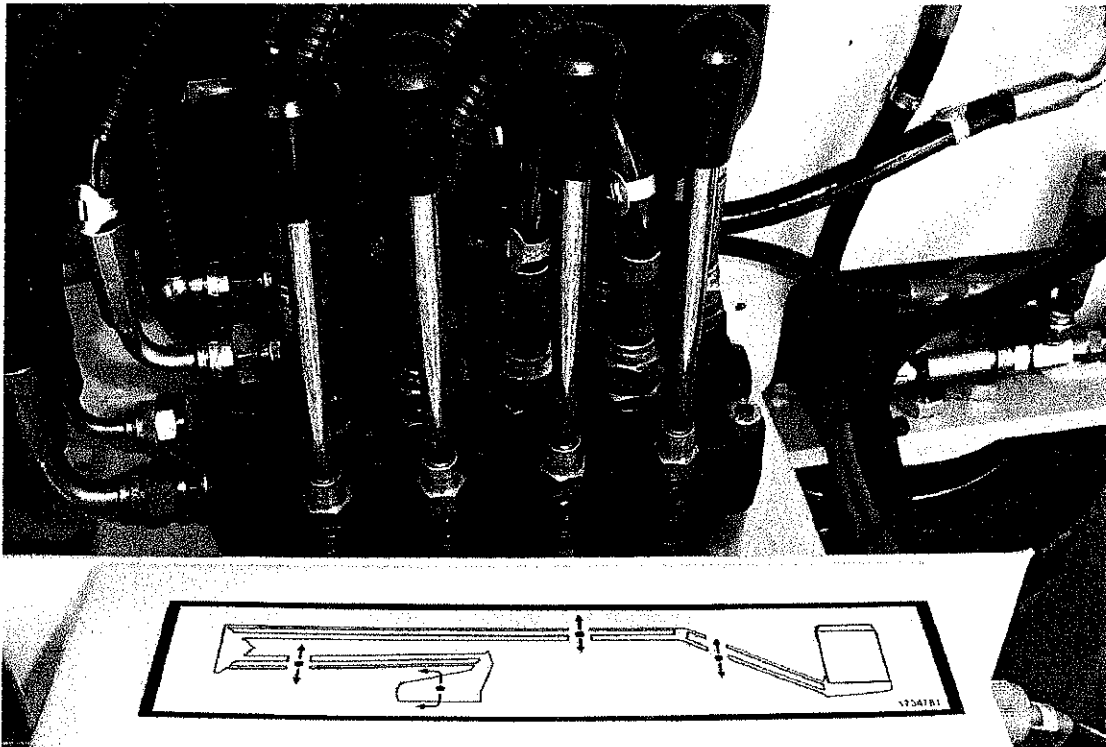


Figure 8: Basket Controls



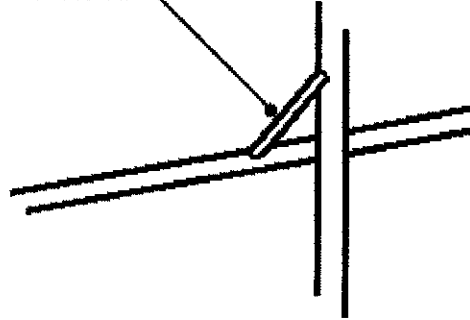
**Figure 9: Ground Controls**

## SAFETY HARNESS

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1. JLG recommend a full body safety harness to be used at all times. A permanent attachment point is provided in the basket for fixing the harness.

ATTACH SHACKEL HERE





## EMERGENCY

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1. Red emergency stop buttons are fitted on the machine to stop the motor in an emergency.  
In addition to the basket emergency stop button, an emergency stop is fitted on the lower control box.  
The emergency stops can be reset by pulling.

2. **BASKET & BASE EMERGENCY LOWER**

In the event of an emergency, the bottom and the top booms may be lowered by means of emergency lower valves.

There is one of these located on each boom cylinder. In the event of an emergency, an assistant may operate each of these valves simply by pushing the button on the each valve until the corresponding boom is lowered.

Also, there is a manual pump located on the left-hand side of the platform control box. This may be used in the event of loss of power to the main pump or malfunction of the main pump. All basket functions may be operated as per usual (except the upper and lower booms may only be lowered) while pumping manually.

3. **EMERGENCY SLEW** - In the event of a power failure, the machine may be manually slewed by holding the slew control valve lever down at the base and manually indexing the Slew Platform by means of 16mm ratchet on the shaft (red) of the Slew Gearbox.

**NOTE** - Before operation of the machine, it is important that both the Operator and some other responsible person on site, is aware of the position and function of the following: -

- a. Emergency Stop Buttons.
- b. Emergency Lowering Controls.
- c. Emergency Slew Drive Shaft.

## STOWING

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1. Fully lower all the booms and either where fitted, apply the two boom locking straps, tensioning them to securely hold the booms in place or the alternative method of inserting the pegs through the bottom of the vertical boom and the top boom. Ensure the arms of the pegs are secure in the retainer.
2. **HYDRAULIC OUTRIGGERS**
  - a. Press the Black button on the lower control box.
  - b. Fully raise the outriggers
3. **The machine is now ready for transportation.**