

Operation and Safety Manual

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

Skid-Lift Models 2030HD

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, Skid-Lift, Inc. reserves the right to make specification changes without prior notification. Contact Skid-Lift, 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



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



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



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



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

**WARNING**

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

NOTICE

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

NOTICE

SKID-LIFT, INC. MUST BE NOTIFIED IMMEDIATELY IN ALL INSTANCES WHERE SKID-LIFT PRODUCTS HAVE BEEN INVOLVED IN AN ACCIDENT INVOLVING BODILY INJURY OR DEATH OF PERSONNEL OR WHEN SUBSTANTIAL DAMAGE HAS OCCURRED TO PERSONAL PROPERTY OR THE SKID-LIFT PRODUCT.

For:

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

Contact:

Product Safety and Reliability Department
Skid-Lift, Inc.
4453 Mane Ave Suite G
Fargo, ND 58102
USA

Phone: 701-850-3736
E-mail: info@skid-lift.com

REVISION LOG

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SECTION 1. SAFETY

1.1 GENERAL

This section outlines the necessary precautions for proper and safe machine operation and maintenance. For proper machine use, it is mandatory that a daily routine is established based on the content of this manual. A maintenance pro-gram, using the information provided in this manual and the Service and Maintenance Manual, must also be established by a qualified person and followed to ensure the machine is safe to operate.

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

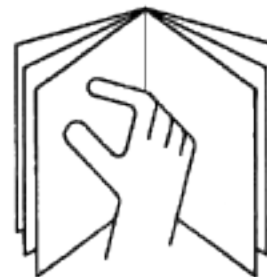
If there are any questions with regard to safety, training, inspection, maintenance, application, and operation, please contact Skid-Lift, Inc. ("Skid-Lift").



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

Operator Training and Knowledge

- Read and understand this manual before towing or operating the machine.



- Do not tow or operate this machine until complete training is performed by authorized persons.
- Only authorized and qualified personnel can operate the machine.

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- Read, understand, and obey all DANGERS, WARNINGS, CAUTIONS, and operating instructions on the machine and in this manual.
- Use the machine in a manner which is within the scope of its intended application set by Skid-Lift.
- All operating personnel must be familiar with the emergency controls and emergency operation of the machine as specified in this manual.
- Read, understand, and obey all applicable employer, local, and governmental regulations as they pertain to operation of the machine.

1.2 BEFORE OPERATING THE LIFT

Workplace Inspection

- The operator is to take safety measures to avoid all hazards in the work area prior to machine operation.
- Do not operate or raise the platform while on trucks, trailers, railway cars, floating vessels, scaffolds or other equipment unless approved in writing by Skid-Lift.
- Do not operate the machine in hazardous environments unless approved for that purpose by Skid-Lift.
- Be sure that the ground conditions are able to support the maximum load shown on the decals located on the machine.

Machine Inspection

- Before machine operation, perform inspections and functional checks. Refer to Section 2 of this manual for detailed instructions.
- Do not operate this machine until it has been serviced and maintained according to requirements specified in the Service and Maintenance Manual.
- Be sure all safety devices are operating properly. Modification of these devices is a safety violation.

**WARNING**

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

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

1.3 OPERATION

General

- Do not use the machine for any purpose other than positioning personnel, their tools, and equipment.
- Never operate a machine that is not working properly. If a malfunction occurs, shut down the machine.
- Never slam a control switch or lever through neutral to an opposite direction. Always return switch to neutral and stop before moving the switch to the next function. Operate controls with slow and even pressure.
- Hydraulic cylinders should never be left fully extended for long periods of time.
- Do not allow personnel to tamper with or operate the machine from the ground with personnel in the platform, except in an emergency.
- Do not carry materials directly on platform railing unless approved by Skid-Lift.
- When two or more persons are in the platform, the operator shall be responsible for all machine operations.
- Always ensure that power tools are properly stowed and never left hanging by their cord from the platform work area.

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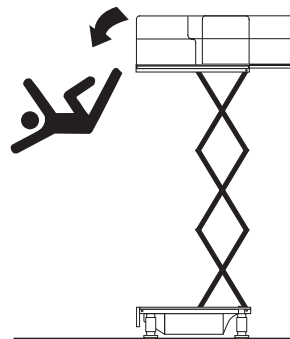
- Supplies or tools which extend outside the platform are prohibited unless approved by Skid-Lift.
- Do not place platform against any structure to steady the platform or to support the structure.
- Stow platform and shut off all power before leaving machine.

Trip and Fall Hazards

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



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



- Keep both feet firmly positioned on the platform floor at all times. Do not climb on platform rails. Never use ladders, boxes, steps, planks, or similar items on platform to provide additional reach.
- Never use the scissor assembly to enter or leave the platform.
- Use extreme caution when entering or leaving platform. Be sure the platform is fully lowered. Face the machine, maintain "three point contact" with the machine, using two hands and one foot or two feet and one hand during entry and exit.

Electrocution Hazards

- This machine is not insulated and does not provide protection from contact or proximity to electrical current.
- Maintain safe distance from electrical lines, apparatus, or any energized (exposed or insulated) parts according to the Minimum Approach Distance (MAD) as shown in Table 1-1.
- Allow for machine movement and electrical line swaying.

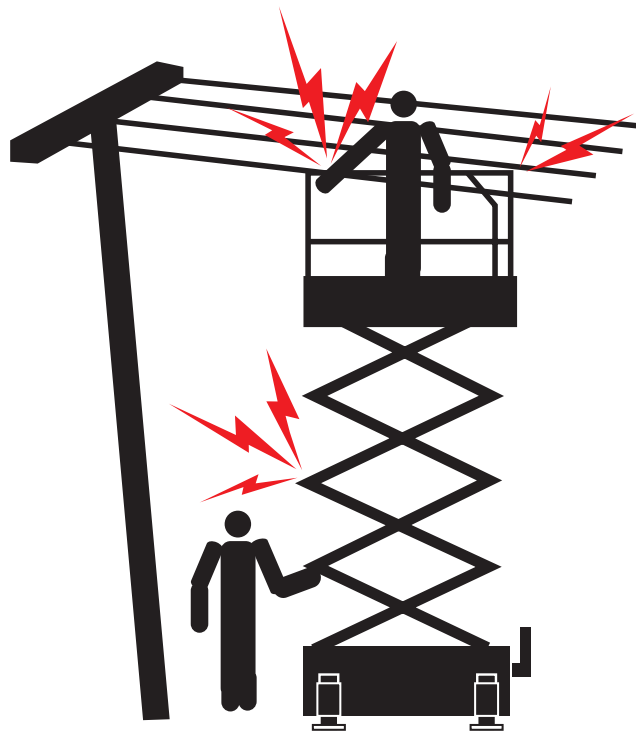


Table 1.1: Minimum Approach Distances (M.A.D.)

VOLTAGE RANGE (PHASE TO PHASE)	MINIMUM APPROACH DISTANCE IN FEET (METERS)
0 to 50 KV	10 (3)
Over 50KV to 200 KV	15 (5)
Over 200 KV to 350 KV	20 (6)
Over 350 KV to 500 KV	25 (8)
Over 500 KV to 750 KV	35 (11)
Over 750 KV to 1000 KV	45 (14)
Note: <i>This requirement shall apply except where employer, local or governmental regulations are more stringent.</i>	

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

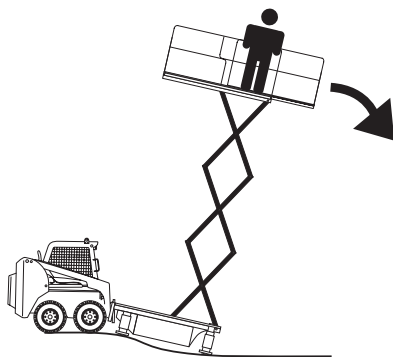
- The minimum approach distance may be reduced if insulating barriers are installed to prevent contact, and the barriers are rated for the voltage of the line being guarded. These barriers shall not be part of (or attached to) the machine. The minimum approach distance shall be reduced to a distance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



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

Tipping Hazards

- The user should be familiar with the surface before operating. Do not exceed the allowable sideslope and grade while operating.



- Do not elevate platform while on a soft surface.
- Before operating on floors, bridges, trucks, and other surfaces, check allowable capacity of the surfaces.
- Never exceed the maximum platform capacity. Distribute loads evenly on platform floor.

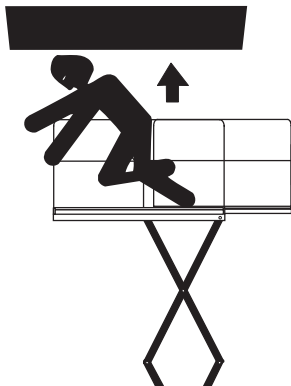
- Do not raise the platform unless the machine is on firm surfaces and manual legs are properly set.
- Keep the chassis and manual legs of the machine at least 2 ft.(0.6m) from holes, bumps, drop-offs, obstructions, debris, concealed holes, and other potential hazards on the floor/surface.
- Do not push or pull any object with the platform or the optional slide out deck.
- Never attempt to use the machine as a crane. Do not tie-off machine to any adjacent structure.
- Do not operate the machine when wind conditions exceed 28 mph (12.5 m/s).
- Do not increase the surface area of the platform or the load. Increase of the area exposed to the wind will decrease stability and could result in a tip-over.
- Do not increase the platform size with unauthorized platform extensions or attachments.
- If the platform is in a position that one or more manual legs are off the ground, all persons must be removed before attempting to stabilize the machine. Use cranes, forklift trucks, or other appropriate equipment to stabilize machine.
- Keep the skid-steer coupled to the attach plate at all times while there is any load or personal on the platform.

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- Always set park brake on the attached skid-steer or tractor and/or use wheel chocks to ensure unit does not creep.

Crushing and Collision Hazards

- Approved head gear must be worn by all operating and ground personnel.
- Check work area for clearances overhead, on sides, and bottom of platform when lifting or lowering platform, and relocating.



- During operation, keep all body parts inside platform railing.

- Always post a lookout when driving in areas where vision is obstructed.
- Keep non-operating personnel at least 6 ft. (1.8m) away from machine during all operations.
- Under all travel conditions, the operator must limit travel speed according to conditions of ground surface, congestion, visibility, slope, location of personnel, and other factors causing hazards of collision or injury to personnel.
- Exercise extreme caution at all times to prevent obstacles from striking or interfering with operating controls and persons in the platform.
- Be sure that operators of other overhead and floor level machines are aware of the aerial work platform's presence. Disconnect power to overhead cranes.
- Warn personnel not to work, stand, or walk under a raised platform. Position barricades on floor if necessary.
- Do not move or relocate the lift with any load or personal on the platform.
- Always set emergency brake on the skid-steer or tractor and/or use wheel chocks to eliminate any possible vehicle creep.

1.4 LIFTING, AND HAULING

- Never allow personnel in platform while lifting or hauling the machine.
- Ensure platform is in the stowed position prior to lifting or hauling. The platform must be completely empty.
- When lifting machine, lift only at designated areas of the machine. Lift the unit with equipment of adequate capacity.
- Refer to the Machine Operation section of this manual for lifting information.

1.5 ADDITIONAL HAZARDS / SAFETY

- Do not use machine as a ground for welding.
- When performing welding or metal cutting operations, precautions must be taken to protect the chassis and hydraulics from direct exposure to weld and metal cutting spatter.

SECTION 1 - SAFETY

NOTICE

DO NOT OPERATE THE MACHINE WHEN WIND CONDITIONS EXCEED 28 MPH (12.5 M/S).

Table 1-2. Beaufort Scale (For Reference Only)

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

SECTION 2. USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION

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 where overhead obstructions, other moving equipment, and obstacles, depressions, holes, drop-offs.
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.

2.2 PREPARATION, INSPECTION, AND MAINTENANCE

The following table covers the periodic machine inspections and maintenance required by Skid-Lift, 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.

NOTICE

SKID-LIFT, INC. RECOGNIZES A FACTORY-QUALIFIED SERVICE TECHNICIAN AS A PERSON WHO HAS SUCCESSFULLY COMPLETED THE SKID-LIFT SERVICE TRAINING SCHOOL FOR THE SPECIFIC SKID-LIFT PRODUCT MODEL.

SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION

Table 2.1: Inspection and Maintenance Table

TYPE	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 Skid-Lift Mechanic	Service and Maintenance Manual and applicable Skid-Lift 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;	Owner, Dealer, or User	Qualified Skid-Lift Mechanic	Service and Maintenance Manual and applicable Skid-Lift inspection form
Annual Machine Inspection	Annually, no later than 13 months from the date of prior inspection.	Owner, Dealer, or User	Factory Qualified Service Technician (Recommended)	Service and Maintenance Manual and applicable Skid-Lift inspection form
Preventative Maintenance	At intervals as specied in the Service and Maintenance Manual.	Owner, Dealer, or User	Qualified Skid-Lift Mechanic	Service and Maintenance Manual

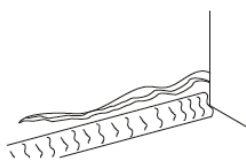
Note: *Inspection forms are available from Skid-Lift. Use the Service and Maintenance Manual to perform inspections.*

SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION

Pre-Start Inspection

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

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



Parent Metal Crack



Weld Crack

3. **Decals and Placards** – Check all for cleanliness and legibility. Make sure none of the decals and placards are missing. Make sure all illegible decals and placards are cleaned or replaced.

4. **Operation and Safety Manuals** – Make sure a copy of the Operator and Safety Manual, AEM Safety Manual (ANSI markets only), and ANSI Manual of Responsibilities (ANSI markets only) is enclosed in the weather resistant storage container.

5. **Daily Walk-Around Inspection** – Refer to Figure 2-2.

6. **Hydraulic Oil** – Check the hydraulic oil level. Ensure hydraulic oil is added as required on the skid-steer. Drain the emergency overflow tank if needed.

7. **Accessories/Attachments** - Reference the Operator and Safety Manual of each attachment or accessory installed upon the machine for specific inspection, operation, and maintenance instructions.

8. **Function Check** – Once the “Walk-Around” Inspection is complete, perform a functional check of all systems in an area free of overhead and ground level obstructions. Refer to Section 4 for more specific operating instructions.



WARNING

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

Function Check

Perform the Function Check as follows:

1. From the ground control console with no load in the platform:
 - a. Check that all guards protecting the function control switches and controllers are in place;
 - b. Operate all functions;
 - c. Ensure that all machine functions are disabled when the Emergency Stop Button is pushed in.

2. From the platform control console:

- a. Ensure that the control console is firmly secured in the proper location;
- b. Check that all guards protecting the function control switches and controllers are in place;
- c. Operate all functions;

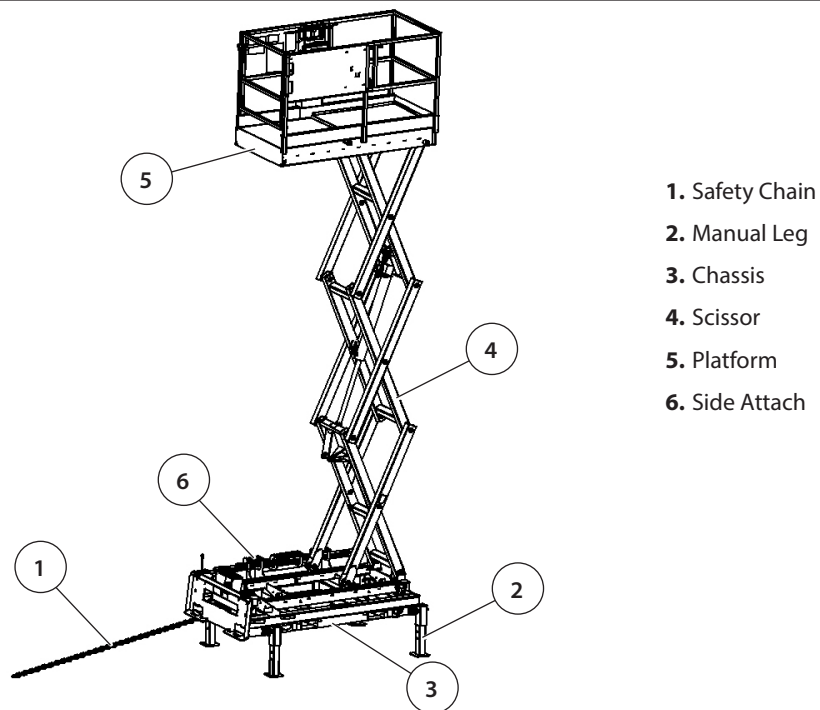


Figure 2.1: Basic Nomenclature

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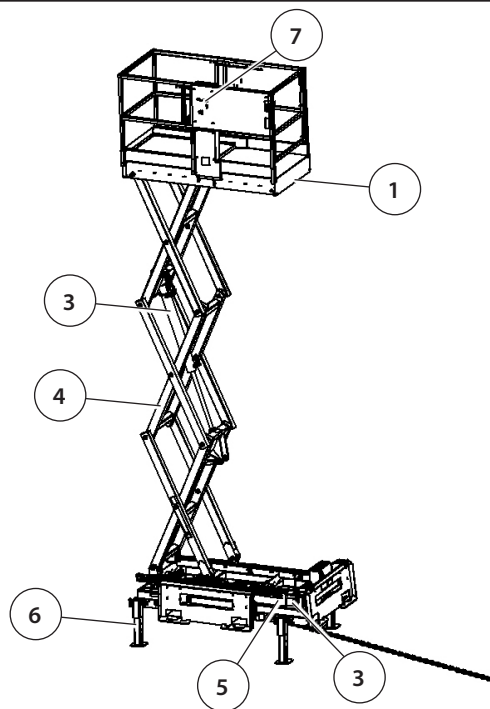


Figure 2.2: Daily Walk-Around Inspection

General

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



CAUTION

THE WALK-AROUND INSPECTION SHOULD BE PERFORMED BEFORE EVERY USE.



WARNING

TO AVOID POSSIBLE INJURY, BE SURE MACHINE POWER IS OFF. DO NOT OPERATE MACHINE UNTIL ALL MALFUNCTIONS HAVE BEEN CORRECTED.

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

- 1. Platform Assembly and Gate** - Gate closes and latches properly. Platform and handrail bolts are all tightened.
- 2. Ground Control** - Levers return to neutral, decals legible, e-stop button moves smoothly, and bypass valve closed.

3. All Hydraulic Cylinders - No visible damage, leaks, and pivot pins are greased.

4. Scissor - Tubes are free of damage or kinks, maintenance arm can swing unhindered. All pin retaining rings are present and seated within the ring groove.

5. Cover - Check that all hydraulic covers are in place.

6. Manual Legs - Slide smoothly and clear of obstructions.

7. Platform Controls - Levers return to neutral, decals legible, and bypass valve closed.

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SECTION 3. MACHINE CONTROLS AND INDICATORS

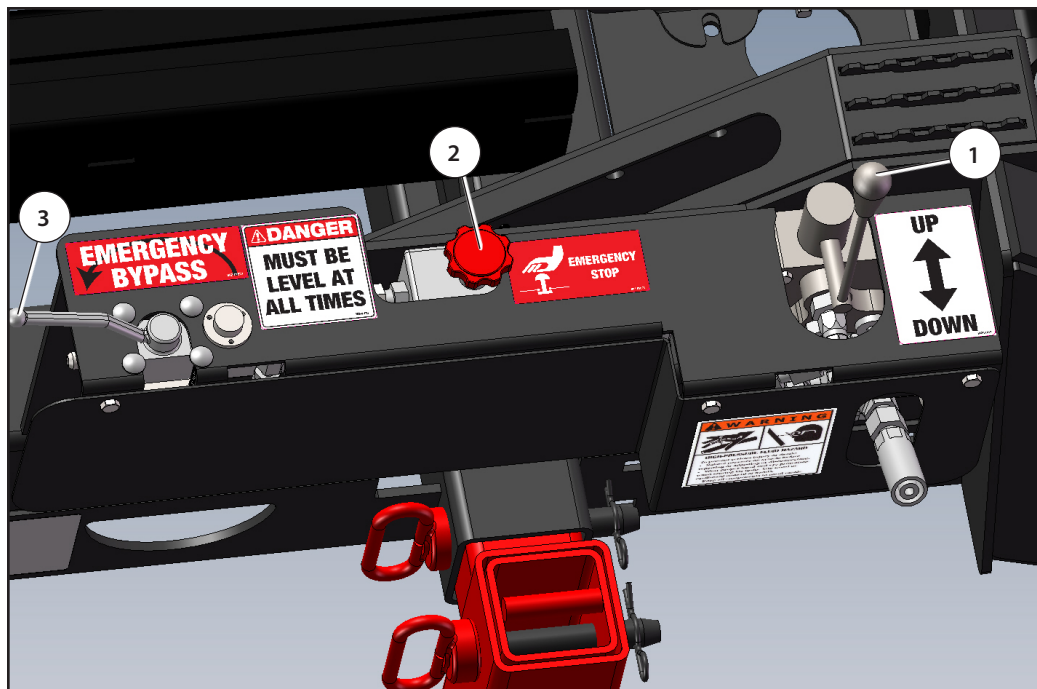
3.1 GENERAL

NOTICE

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

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

3.2 CONTROLS



- 1. Lift
- 2. Emergency Stop
- 3. Emergency Bypass

Figure 3.1: Ground Control Station



TO AVOID SERIOUS INJURY, DO NOT OPERATE MACHINE IF ANY CONTROL LEVERS CONTROLLING PLATFORM MOVEMENT DO NOT RETURN TO THE NEUTRAL POSITION WHEN RELEASED.

Ground Control Station

See Figure 3-1., Ground Control Station

1. Lift Control

Provides raising and lowering of the platform.
(Used primarily for maintenance, hydraulic testing and emergency control of the platform.)

2. Emergency Stop Button

A two-position red mushroom shaped button which supplies the hydraulic pressure to the lift when pulled out (on). When pushed in (off), all hydraulic pressure is diverted back to the skid-steer. All hydraulic functions on the lift will cease to function except for the emergency bypass valves located on the ground controls and on the platform control console.



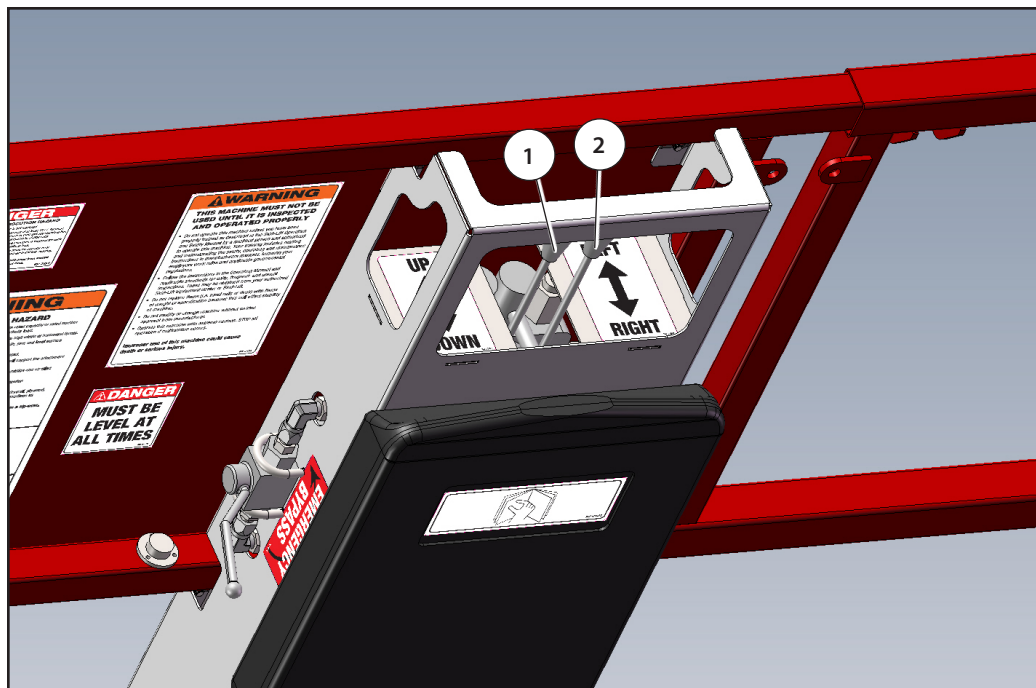
THE EMERGENCY STOP FUNCTION ONLY STOPS THE HYDRAULIC FUNCTIONS ON THE LIFT ITSELF. THE SKID-STEER WILL STILL HAVE FULL FUNCTIONALITY AND IF NEEDED WILL HAVE TO BE E-STOPEO OR SHUT DOWN INDEPENDENT OF THE LIFT.

3. Emergency Bypass

To be used in an emergency to lower the platform when all other hydraulic controls cannot be safely operated or when the lift loses hydraulic pressure.



THE BYPASS ONLY RELEASES HYDRAULIC PRESSURE IN THE LIFT CYLINDER TO LOWER THE PLATFORM. IT CANNOT LIFT THE CYLINDER BACK UP. THE DOWNWARD MOTION CAN ONLY BE STOPPED BY CLOSING THE VALVE OR WHEN THE PLATFORM COMES ALL THE WAY DOWN. MAKE SURE THERE ARE NO OBSTRUCTIONS BELOW THE PLATFORM BEFORE LOWERING.



1. Lift
2. Tilt
3. Emergency Bypass

Figure 3.2: Platform Control Console

Platform Station

See Figure 3-2., Platform Control Console



TO AVOID SERIOUS INJURY, DO NOT OPERATE MACHINE IF ANY CONTROL LEVERS CONTROLLING PLATFORM MOVEMENT DO NOT RETURN TO THE NEUTRAL POSITION WHEN RELEASED.



THE BYPASS ONLY RELEASES HYDRAULIC PRESSURE IN THE LIFT CYLINDER TO LOWER THE PLATFORM. IT CANNOT LIFT THE CYLINDER BACK UP. THE DOWNWARD MOTION CAN ONLY BE STOPPED BY CLOSING THE VALVE OR WHEN THE PLATFORM COMES ALL THE WAY DOWN. MAKE SURE THERE ARE NO OBSTRUCTIONS BELOW THE PLATFORM BEFORE LOWERING.

1. Lift control

Provides raising and lowering of the platform.

2. Tilt

Provides a side tilt for work access while the lift is still extended.

3. Emergency Bypass

To be used in an emergency to lower the platform when all other hydraulic controls cannot be safely operated or when the lift loses hydraulic pressure.

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SECTION 4. MACHINE CONTROLS AND INDICATORS

4.1 DESCRIPTION

This machine is a hydraulic personnel lift with a work platform mounted on top of a scissor assembly.

The primary control station is in the platform. The operator can raise or lower the platform or tilt up to 4° to either side (if optional side tilt installed).

The machine has a ground control station which will override the platform control station. Ground controls can only raise and lower the platform and are intended for emergency use to bring the platform down should the operator be unable to do so.

4.2 PLATFORM OPERATING CHARACTERISTICS AND LIMITATIONS

Capacities

The platform can be raised from the stowed position with or without any load in platform, if:

1. Machine is positioned on a firm surface and manual legs are set properly.

2. Machine is coupled to a skid-steer.
3. Load is within manufacturer's rated capacity.
4. All machine systems are functioning properly.
5. Machine is as originally equipped from Skid-Lift.

Stability

Machine stability is based on two (2) conditions which are called FORWARD and SIDE stability. The machine's position of least FORWARD stability is shown in (See Figure 4-1.), and its position of least SIDE stability is shown in (See Figure 4-2.)



TO AVOID FORWARD OR SIDE TIPPING, DO NOT OVERLOAD MACHINE OR OPERATE THE MACHINE ON AN OUT-OF-LEVEL SURFACE.

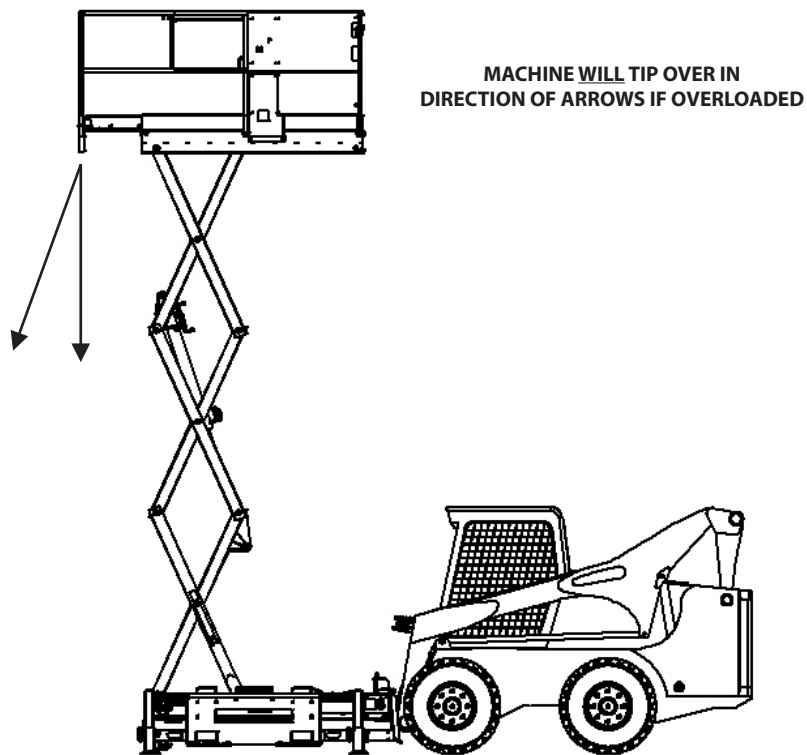


Figure 4.1: Position of Least Forward Stability

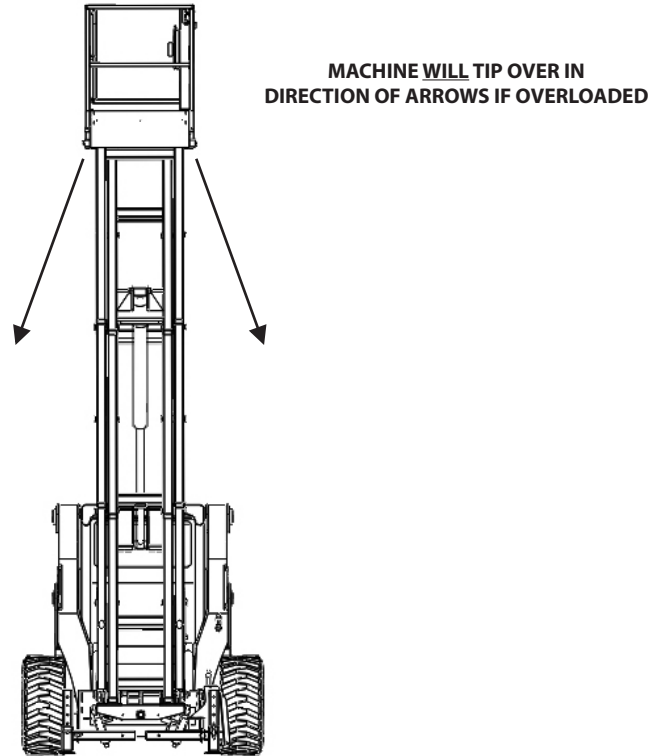


Figure 4.2: Position of Least Side Stability

SECTION 4 - MACHINE OPERATION

4.3 COUPLING TO SKID-STEER

Note: *Initial starting and testing should always be performed from the Ground Control console.*

Coupling Procedure

1. Drive skid-steer into position to couple to either the main attach plate or the side attach plate.
2. Using the lifting and tilting functions on the skid-steer, couple the male attach plate on the skid steer to the female attach plate on the lift.



3. Push down on the locking handles on the skid-steer plate. Make sure the coupler pins go through the receiving holes on the bottom of the attach plate on the lift.



4. Couple the safety chain to the Skid-steer.



WARNING

ONCE THE SAFETY CHAIN IS PROPERLY INSTALLED, THE SKID-STEER SHOULD NOT BE ABLE TO PICK THE LIFT MORE THAN A FEW INCHES OFF THE GROUND. IF THE HEIGHT IS MORE THEN A FEW INCHES, PLACE LIFT BACK DOWN AND REMOVE SOME SLACK FROM THE CHAIN.



SECTION 4 - MACHINE OPERATION

5. Couple the hydraulic inlet hoses from the lift onto the skid-steer.



NOTICE

IF THE SKID STEER IS NOT EQUIPPED WITH AN AUXILIARY RETURN COUPLER, THE BYPASS RETURN HOSE NEEDS TO BE COUPLED TO THE EMERGENCY OVERFLOW TANK INSTEAD.



6. Make sure all bypass valves are closed and then pull out the emergency stop (on).
7. If this is the first time running the lift for the day, the hydraulic functions should be checked now as well as checking for leaks.

Shutdown and Stow Procedure

1. Make sure the platform is completely down.
2. Raise and retract any manual legs that have been lowered or pulled out.
3. Disconnect the hydraulic hoses from the skid-steer.
4. Unattach the safety chain from the skid-steer.
5. Unlock the skid-steer coupler pins on the attach plate.
6. Using the skid-steer, uncouple from the attach plate on the lift.

4.4 MANUAL LEGS



ALL MANUAL LEGS MUST BE EXTENDED OUT FROM THE LIFT BEFORE RAISING THE PLATFORM.



AFTER EXTENDING MANUAL LEGS, DROP ALL FOUR MANUAL LEG FOOT PADS DOWN IN ORDER TO KEEP THE LIFT LEVEL WHILE KEEPING THE LIFT AS LOW TO THE GROUND AS POSSIBLE. ALL MANUAL LEG PINS MUST BE INSTALLED AT ALL TIMES WHILE PLATFORM IS IN USE.

Starting at the Ground Control

1. Using the skid-steer, position the lift as need for work.
2. With the manual legs all pulled out and the foot pad lifted as high as possible, make sure the lift is as low to the ground as possible. Rest as many foot pads on the ground as possible
3. Lower any foot pad not touching the ground. Let the foot pad down as far as possible and then pin the foot pad tube to the manual leg extension tube.

4.5 MAINTENANCE MODE

Maintenance mode is the lift position to safely inspect the lift for damage, wear, or leaks for everything below the platform. This is the position to safely do many repairs, check for leaks, clean the machine, tighten fasteners, and grease any needed pivots.

NOTICE

ACCESSING THE PLATFORM IN MAINTENANCE MODE IS NOT RECOMMENDED. LOWER THE PLATFORM COMPLETELY BEFORE INSPECTING ANYTHING ABOVE THE PLATFORM.



WARNING

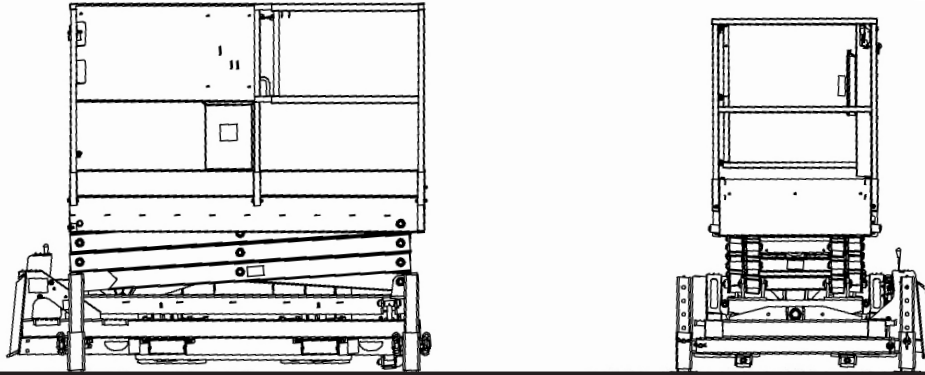
IF THE SKID-LIFT IS LOW ON OIL, THE LIFT DECK CAN TILT TO THE SIDE UNCONTROLLABLY WITHOUT WARNING. MAKE SURE ALL HYDRAULIC HOSES AND SYSTEMS HAVE OIL IN THEM AT ALL TIMES.

Setting Up in Maintenance Mode

1. Couple the skid-steer and hydraulics to lift as noted in section 4.3.
2. Rotate the maintenance arm all the way around until it rests against the holding angle arms on both sides of the Skit-Lift.

3. Using the ground control only, raise the platform until the maintenance arm just clears the holding angle.
4. Open the emergency bypass on the ground controls.
5. Wait until the lift settles completely and stops moving before closing the emergency bypass valve.
6. Be sure both bars are locked into position before performing any maintenance.





Note: Machine should be kept level at all times.

Figure 4.3: Grade and Sideslope

4.6 TIE DOWN

NOTICE

WHEN TRANSPORTING THE LIFT, THE PLATFORM MUST BE FULLY LOWERED.

1. Lower the platform completely.
2. Remove all loose items from the machine.
3. Secure the chassis and the platform using straps or chains of adequate strength and attached to the designated tie down points. (See Figure 4-4)

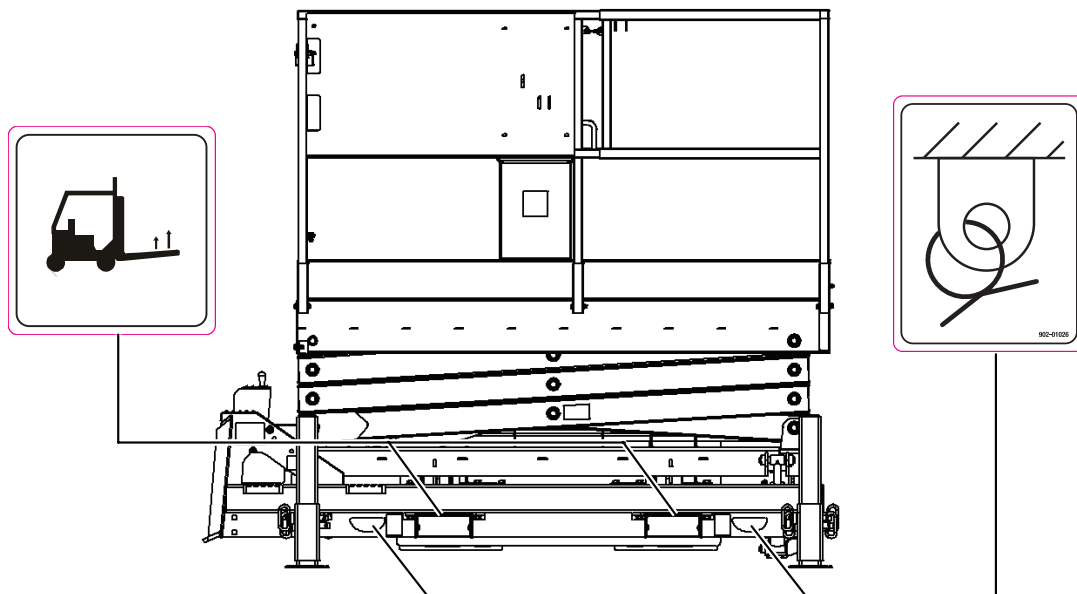


Figure 4.4: Lifting and Tie Down Chart

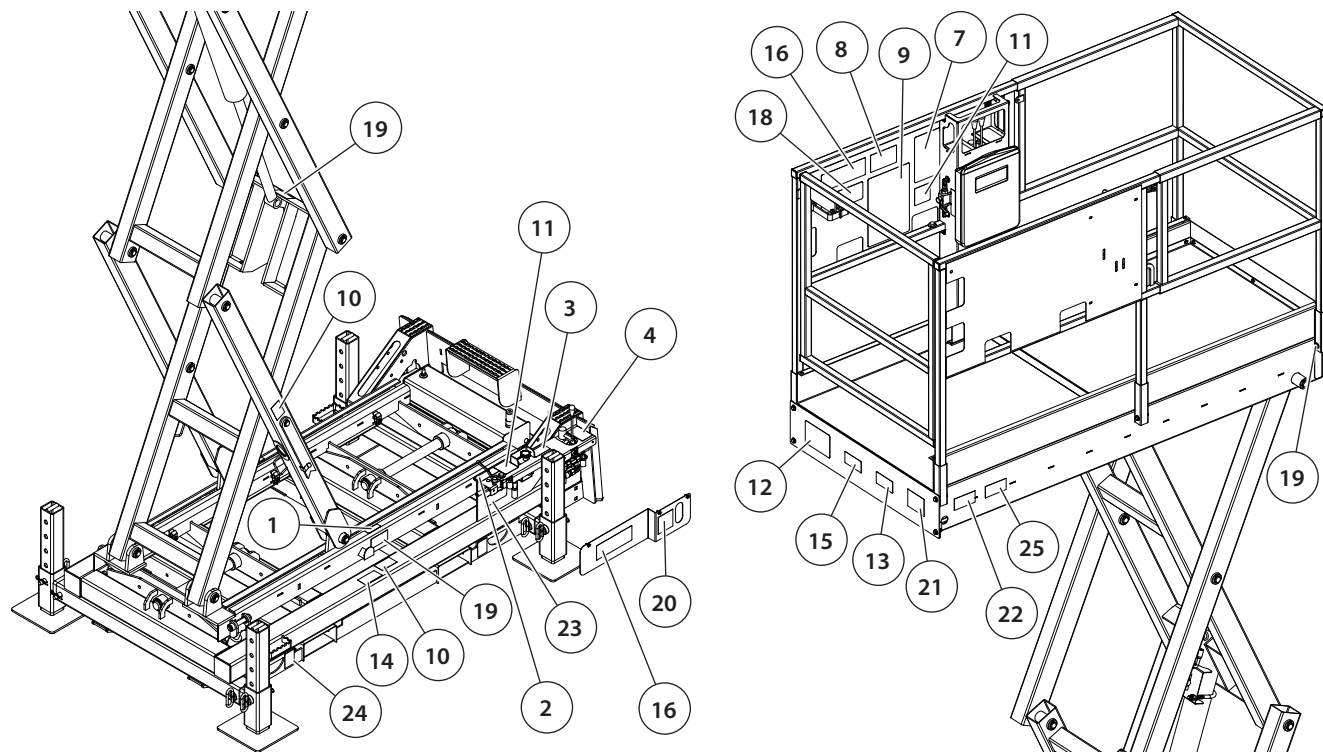


Figure 4.5: Decal Location - ANSI (Sheet 1 of 2)

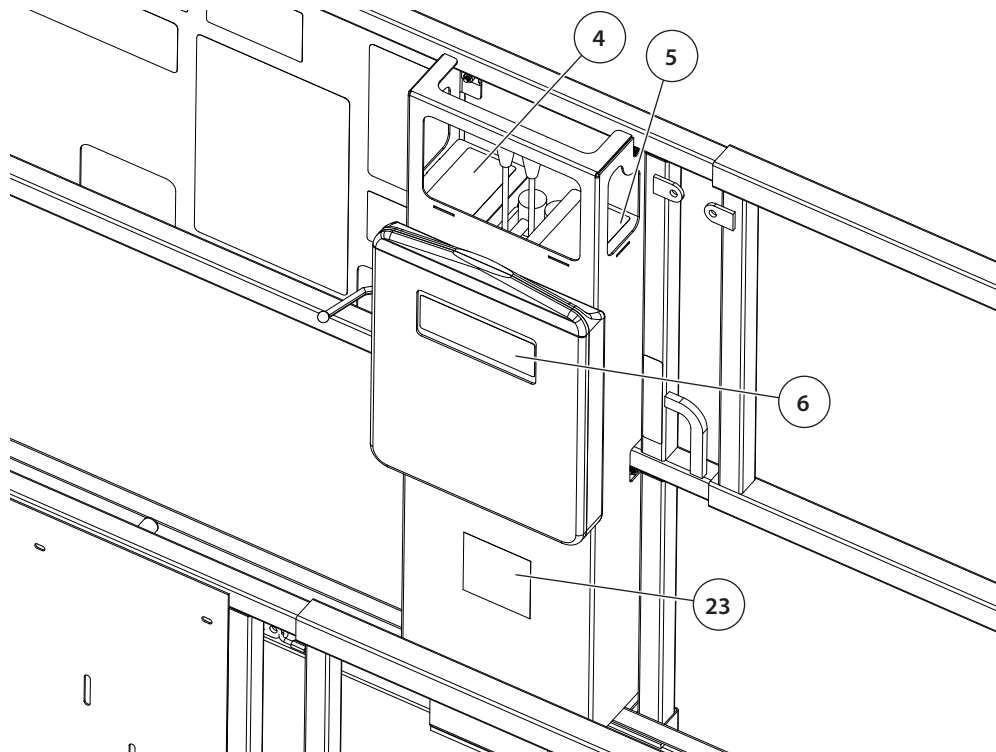


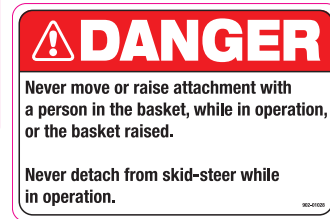
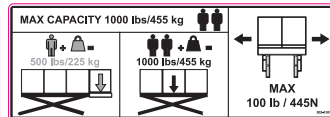
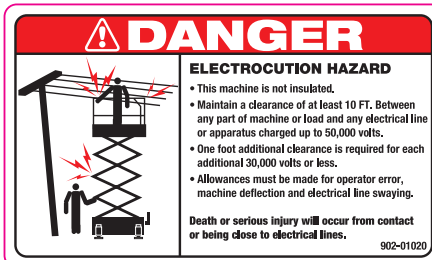
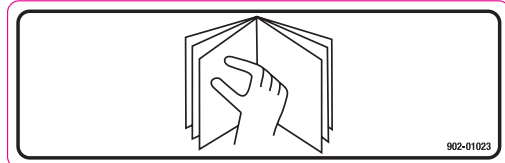
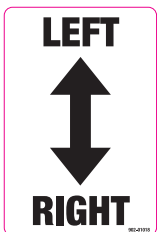
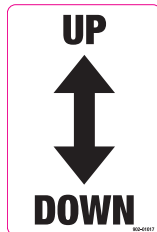
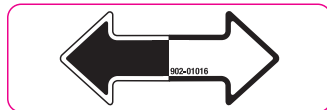
Figure 4.6: Decal Location - ANSI (Sheet 2 of 2)

SECTION 4 - MACHINE OPERATION

Table 4.1: Decal Legend (ANSI)

ITEM NO.	PART NUMBER	DESCRIPTION
1	902-01016	DECAL, DOUBLE ARROW
2	902-01022	DECAL, EMERGENCY BYPASS
3	902-01025	DECAL, EMERGENCY STOP
4	902-01017	DECAL, UP-DOWN DOUBLE ARROW
5	902-01018	DECAL, LEFT-RIGHT DOUBLE ARROW
6	902-01023	DECAL, OWNER OPERATOR MANUAL
7	902-01024	DECAL, WARNING, INSPECT OPERATE
8	902-01020	DECAL, DANGER, ELECTROCUTION HAZARD
9	902-01019	DECAL, WARNING, LIFT HAZARDS
10	902-01021	DECAL, MAINTENANCE ARM
11	902-01027	DECAL, DANGER, LEVEL AT ALL TIMES

12	902-01028	DECAL, DANGER, NEVER MOVE IN OPERATION
ITEM NO.	PART NUMBER	DESCRIPTION
13	902-01029	DECAL, 2300# SKID-STEER RATING
14	902-01030	DECAL, DANGER, LIFT LEG SUPPORT
15	902-01031	DECAL, WARNING, SKID-LIFT TRANSPORT
16	902-01015	DECAL, MAX CAPACITY 2030E
17	902-01034	DECAL, TIE OFF
18	902-01035	DECAL, SKID-LIFT, SERIAL
19	902-01007	Pinch Point Decal
20	902-01006	DECAL, WARNING HIGH PRESSURE FLUID HAZARD
21	902-01012	DECAL, DANGER QUICK ATTACH
22	902-01008	DECAL, MADE IN USA
23	902-01003	DECAL, DANGER, MISSING SHIELD HAZARD
24	902-01026	DECAL, TIE DOWN
25	902-01036	DECAL, PATENT #



SECTION 4 - MACHINE OPERATION



902-01034

MODEL

SERIAL NO.

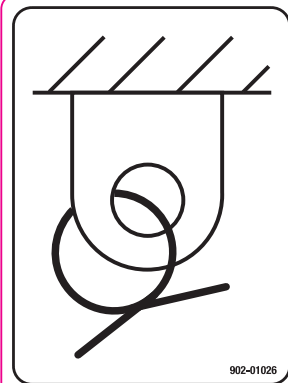
NOM. BATT. VOLTAGE V.D.C. MODEL YEAR

MACHINE WEIGHT LBS kg MAX PLATFORM HEIGHT FT m RATED WORK LOAD LBS kg MAX TRAVEL HEIGHT FT m



RATED WORK LOAD BASED ON FIRM LEVEL SURFACE AND INCLUDES ALL STANDARD ACCESSORIES
THIS MACHINE MEETS OR EXCEEDS APPLICABLE REQUIREMENTS OF ANSI/SIA A92.3-2006 AS ORIGINALLY
MANUFACTURED FOR INTENDED PURPOSES

902-01035



902-01026

**PATENT
PENDING**

⚠ DANGER
MISSING SHIELD HAZARD
Install and secure shield before
operating.

902-01003

⚠ WARNING

TIP-OVER HAZARD

- Do not exceed platform rated capacity or rated number of people. Evenly distribute load.
- Do not expose platform to high winds or horizontal forces.
- Machine must be on smooth, firm and level surface before elevating platform.
- Do not drive with platform raised.
- Make sure operating surface will support the attachment and skidsteer.
- Make sure all tires are in good condition and air filled tires are properly inflated.
- Outriggers or stabilizers shall be extended and properly set.
- Do not carry sheet type materials (i.e. drywall, plywood, roof panels) outdoors or in any windy conditions as they may act as a wind sail.

Death or serious injury could occur from a tip-over.

CRUSHING HAZARD

- Always look in the direction of movement.
- Keep clear of obstructions.
- Keep all body parts inside platform during operation.

Failure to follow instructions could result in death or serious injury.

FALLING HAZARD

- Keep both feet on platform floor.
- Do not climb, sit, or stand on platform guard rails.
- Ensure entrance area is properly closed.
- Do not use planks, ladders or similar items in platform to get added reach.
- All guard rails must be properly installed during operation.

Falling from platform could cause death or serious injury.

902-01015

⚠ WARNING

**THIS MACHINE MUST NOT BE
USED UNTIL IT IS INSPECTED
AND OPERATED PROPERLY**

- Do not operate this machine unless you have been properly trained as described in the Skid-Lift Operation and Safety Manual by a qualified person and authorized to operate this machine. Your training includes reading and understanding the safety, operating and maintenance instructions in manufacturers manuals, knowing your employers work rules and applicable governmental regulations.
- Follow the instructions in the Operating Manual and applicable standards for daily, frequent, and annual inspections. These may be obtained from your authorized Skid-Lift Equipment dealer or Skid-Lift.
- Do not replace items (i.e. hand rails or deck) with items of weight or specification because this will effect stability of machine.
- Do not modify or change machine without written approval from manufacturer.
- Operate this machine with extreme caution. STOP all operation if malfunction occurs.

**Improper use of this machine could cause
death or serious injury.**

902-01024

**MADE IN
USA**

SECTION 6. EMERGENCY PROCEDURES

5.1 GENERAL

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

5.2 INCIDENT NOTIFICATION

Skid-Lift, Inc. must be notified immediately of any incident involving a Skid-Lift product. Even if no injury or property damage is evident, the factory should be contacted by telephone and provided with all necessary details.

Skid-Lift Phone: 701-850-3736
(8am - 5:00pm CENTRAL)

E-mail:
info@Skid-Lift.com

Failure to notify the manufacturer of an incident involving a Skid-Lift Industries product within 48 hours of such an occurrence may void any warranty consideration on that particular machine.

NOTICE

FOLLOWING ANY ACCIDENT, THOROUGHLY INSPECT THE MACHINE AND TEST ALL FUNCTIONS FIRST FROM THE GROUND CONTROLS, THEN FROM THE PLATFORM CONTROLS. DO NOT LIFT ABOVE 3 M (10 FT.) UNTIL YOU ARE SURE THAT ALL DAMAGE HAS BEEN REPAIRED, IF REQUIRED, AND THAT ALL CONTROLS ARE OPERATING CORRECTLY.

5.3 EMERGENCY OPERATION

OPERATOR UNABLE TO CONTROL MACHINE

If The Platform Operator Is Pinned, Trapped Or
Unable To Operate Or Control Machine:

1. Other personnel should operate the machine from ground controls only as required.
2. Other qualified personnel on 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 platform occupants and stabilize motion of the machine.

NOTES:

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SECTION 6. GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

6.1 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.

6.2 OPERATING SPECIFICATIONS**Table 6.1: Operating & Maintenance Specifications**

MODEL	2030HD
Gross Machine Weight	2080 lbs
Lifting Capacity	1000 lbs/455 kg
Pull-out Deck Capacity	500 lbs/225 kg
Platform Height when Raised	18' 5"
Lift Distance	14' 5.5"
Side Tilt	4° from vertical
Footprint	4' 7.5" x 9' 1.5" Extended Pull-Out Deck
Max Working Grade/Slope	9% grade/5° slope
Max Manual Leg Adjustment	1'
Max Hydraulic Pressure	3000 psi
Max Operating Wind Speed	28 mph/12.5 m/s

Dimensional Data

Table 6.2: Dimensional Data

MODEL	2030HD
Overall Height (Raised)	21'
Overall Height (Lowered)	6' 7"
Max Manual Leg Adjustment	1'
Overall Width	4' 7.5"
Overall Length	7' 4.5"
Overall Length (Extended Deck)	9' 1.5"

Fluid Capacities

Table 6.3: Capacities

Lift Cylinder (Lift Volume)	1.67 Gallons
Lift Cylinder (Lowered Volume)	1.25 Gallons
Tilt Cylinders (pair)	.03 Gallon
Hydraulic Volume of Skid-Lift (including cylinders)	2 Gallons
Emergency Bypass Tank	2 Gallons
Overall Length (Extended Deck)	9' 1.5"

Component Weights**Table 6.4: Component Weights**

Component	Weight (lbs)	Weight (kg)
Chassis	548	248.57
Scissor Assembly	928	420.93
Platform	452	205.02
Manual Leg	35	15.88
Side Attach	564	255.83

6.3 OPERATOR MAINTENANCE

Note: *BELOW IS A MAINTENANCE SCHEDULE TO BE FOLLOWED FOR PROPER MAINTENANCE OF THE SKID-LIFT. IMPROPER MAINTENANCE CAN RESULT IN MACHINE MALFUNCTION OR FAILURE.*

Table 6.5: Maintenance Schedule

TASK	INTERVAL
Check hydraulic levels	Before every use
Make sure the E-stop button works easily and smoothly	Before every use
Make sure the bypass levers move easily and smoothly	Before every use
Clean any dirt or debris from the hydraulic couplers	Before every use
Check all retaining rings are installed	Daily
Check that all bolts are tight	Daily
Check that all hydraulic fittings and hose connections are tight	Daily
Check that the hydraulic overflow tank is empty	Daily
Grease all zerks	Daily as needed
Certified inspection	Yearly

SECTION 7. INSPECTION AND REPAIR LOG

Machine Serial Number

Table 7.1: Inspection and Repair Log

DATE	COMMENTS

SECTION 7 - INSPECTION AND REPAIR LOG

DATE	COMMENTS



TRANSFER OF OWNERSHIP

To 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 Skid-Lift, Inc. updated with the current ownership of all Skid-Lift products. Skid-Lift maintains owner information for each Skid-Lift product and uses this information in cases where owner notification is necessary.

Please use this form to provide Skid-Lift with updated information with regard to the current ownership of Skid-Lift products. Please return completed form to the Skid-Lift Product Safety & Reliability Department via facsimile or mail to address as specified below.

Thank You,
Product Safety & Reliability Department Skid-Lift, Inc.
4453 Main Ave Suite G
Fargo, ND 58103
USA
Telephone: +1-701-850-3736
Email: info@skid-lift.com

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

Mfg. Model: _____

Serial Number: _____

Previous Owner: _____

Address: _____

Country: _____ Telephone: (____) _____

Date of Transfer: _____

Current Owner: _____

Address: _____

Country: _____ Telephone: (____) _____

Who in your organization should we notify?

Name: _____

Title: _____



Corporate Office
Skid-Lift, Inc.
4453 Main Ave Suite G
Fargo, ND 58103 USA
(701) 850-3736