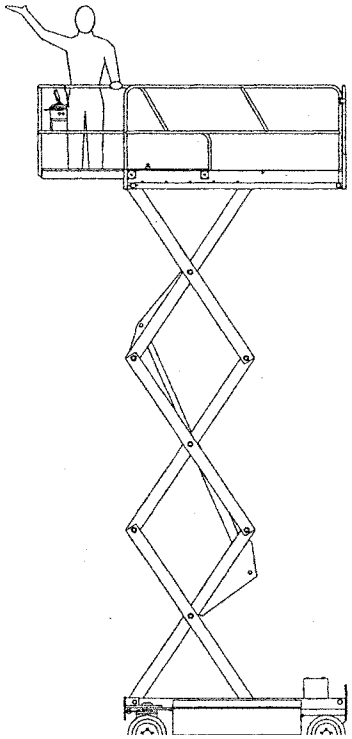
TIME CONDOR Corporation

SELF-PROPELLED ELEVATING WORK PLATFORM

Model V1833XL, V2033XL, V2048XL, V2053XL, V2648XL, V2653XL, V3148XL

OPERATOR'S, MAINTENANCE, AND PARTS MANUAL



Manual 92388-001
January 2000

Introduction

The purpose of this manual is to provide the user with a thorough explanation of the proper operating procedures necessary to comply with the intended use of the CONDOR and to provide the information necessary to maintain and service the CONDOR.

The Operator & Maintenance Manual must be retained on the CONDOR at all times.

Do not attempt to operate or service the CONDOR until you have read and understand all information provided in this manual. Familiarize yourself with the functions and operations of the upper and lower controls. A good understanding of the controls, their limitations, and their capabilities will maximize operation efficiency. The various decals attached to this CONDOR also contain vital safety and operational instructions. Follow all decal instructions during and prior to operating CONDOR equipment.

It is the user's responsibility to follow the manufacturer's instructions while operating the CONDOR. The manufacturer cannot control the wide range of applications that may be used in carrying out a variety of jobs. Therefore, it is the user's responsibility to consider all personnel when making decisions regarding the CONDOR's intended use.

It is also the user's responsibility to understand and obey all federal, state, and local regulations in addition to your employer's regulations and the manufacturer's instructions, regarding the operation and use of aerial work platforms. A copy of the ANSI/SIA 92.6-1999 Manual of Responsibilities is attached for your use.

Safety Alert Symbol

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

⚠ DANGER DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

CAUTION CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Introduction

This manual contains general safety precautions to be followed during maintenance of the CONDOR. Maintenance personnel should read all warnings and precautions before servicing this CONDOR. These warning and precautions are found throughout this manual at the appropriate section and on decals on the CONDOR. Your safety and those around you should be first priority when servicing this CONDOR.

Establish a maintenance program and follow it to ensure the CONDOR is safe to operate. TIME CONDOR Corp. has no direct control over the maintenance and inspection thus safety in this area is the responsibility of the owner/operator.

Please abide by the following safety precautions as well as those found in this manual and decals to ensure your safety and the safety of those around you.

- ☐ Remove all rings, watches and jewelry when performing any maintenance.
- ☐ Do not wear loose fitting clothing or long hair unrestrained, which could become caught on or entangled in equipment.
- ☐ Observe and obey all warnings and cautions on decals and in this manual.
- ☐ Keep oil, grease, water, etc. wiped from standing surfaces and hand holds.
- ☐ Never work under an elevated platform until safety props have been engaged or 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 places.
- ☐ Use only approved nonflammable cleaning solvents.

Service Information

Parts used in the manufacture of the CONDOR have specific properties, and the manufacturer requires that replacement parts be purchased through TIME CONDOR Corp. in order to ensure the original integrity of the product.Annual inspection, repairs and adjustments should only be made by trained and qualified personnel. Refer to the Maintenance and Repair Manual for information on service and maintenance of the CONDOR.

NOTE: Please refer to the Maintenance & Repair Manual for information pertaining to your machine.

Do not alter or modify this CONDOR without prior written approval from the management of TIME CONDOR Corp.

There are numerous written Maintenance Procedures available for this CONDOR. These procedures are available through the TIME CONDOR Corp. Service Department to anyone who requests them.

Service and maintenance are not a substitute for trained, qualified service technicians. TIME CONDOR Corp. conducts service schools on a continuing basis. Call any of our service or sales technicians for a schedule. Remember that training of mechanics is the responsibility of the employer, but TIME CONDOR Corp. Service Schools help in providing this training.

Specifications

Hydraulic Tank

- V1833Xl - 4.2 gallons (15.9 l)
- V2033XL/V2048XL/V2053XL/V2648XL/ V2653XL/V3148XL - 9.8 gallons (37.1 l)

Hydraulic Pump/Motor Assembly

ALL MODELS

- 24 volt motor with a two section Gear Pump
- Each Section 2.6 GPM (9.9 LPM)

Batteries

ALL MODELS

- Standard 6 volt, 220 amp hours

Battery Charger

ALL MODELS

- 115V/60HZ -25A/24VDC w/auto timer
- European Option 220V/50HZ-40A/24VDC w/ auto timer

Hydraulic Filter

ALL MODELS

- 10 microm return with bypass

Tires

- Solid non-marking rib
- V1833XL/V2033XL - 14 x 4 1/2
- V2048XL/V2648XL/V3148XL - 16 x 5
- Foam Filled
- V2053XL/V2653XL - 18 x 9 5/8

Platform Size

- V1833XL - 30" X 60" (76.2cm X 152.4cm)
- V2033XL-30" X 92 1/2" (76.2cm X 235 cm)
- V2048XL/V2053XL/V2648XL/V2653XL/ V3148XL-44" X 92 1/2" (1.1 m X 2.4 m)

Travel Speed

- V1833XL/V2033XL
  Drive Speed High-0-3mph (0-4.8 kph)
  Drive Speed Creep-0-.75mph (0-1.2kph)
- V2053XL/V2653XL
  Drive Speed High-0-2.4mph (0-3.8 kph)
  Drive Speed Creep-0-.75mph (0-1.2kph)
- V2048XL/V2648XL/V3148XL
  Drive Speed High-0-2.4mph (0-3.8kph)
  Drive Speed Creep-0-.6mph (0-.96kph)

Gradeability

- V1833XL - 26%
- V2033XL/V3148XL - 20%
- V2048XL/V2053XL/V2648XL/ V2653XL -25%

Lift Speed Without Load

- V1833XL - 25/25 sec
- V2033XL - 31/31 sec
- V2048XL/V2053XL - 37/30 sec
- V2648XL/V2653XL - 45/45 sec
- V3148XL - 60/57 sec

Inside Turn Radius

- V1833XL/V2048XL/V2053XL/V2648XL/ V2653XL/V3148XL - 0"
- V2033XL - 8" (20.3 cm)

Outside Turn Radius

- V1833XL - 61.5" (1.6 m)
- V2033XL - 93.5" (2.4 m)
- V2048XL/V2053XL/V2648XL/V2653XL/ V3148XL - 99" (2.5 m)

Specifications

Platform Capacity

- V1833XL - 500 lbs (227 kg)
- V2033XL/V3148XL - 750 lbs (340 kg)
- V2048XL/V2053XL - 1250 lbs (567.5 kg)
- V2648XL/V2653XL - 1000 lbs (454 kg)

Extension Deck Capacity

- ALL MODELS - 250lbs (113 kg)

Extension Deck Capacity is not in addition to Platform Capacity. The weight on the Extension Deck Should be subtracted from the Platform Capacity i.e. V1833XL - if there is 250 lbs (113 kg) on the Extension Deck there can only be 250 lbs (113 kg) on the Platform for a total of 500 lbs (227 kg).

Machine Weight

- V1833XL - 2950 lbs (1338 kg)
- V2033XL - 3475 lbs (1576 kg)
- V2048XL - 4250 lbs (1928 kg)
- V2053XL - 4450 lbs (2019 kg)
- V2648XL - 4650 lbs (2109 kg)
- V2653XL - 4850 lbs (2200 kg)
- V3148XL - 5600 lbs (2540 kg)

Wheelbase

- V1833XL - 50.6" (1.3 m)
- V2033XL - 78.8" (2.0 m)
- V2048XL/V2053XL/V2648XL/V2653XL/ V3148XL - 75" (1.9 m)

Working Height

- V1833XL - 24' (7.3 m)
- V2033XL/V2048XL/V2053XL - 26' (7.9 m)
- V2648XL/V2653XL - 32' (9.7 m)
- V3148XL - 37' (11.2 m)

Platform Height

- V1833XL - 18' (5.5 m)
- V2033XL, V2048XL, V2053XL - 20' (6.1 m)
- V2648XL, V2653XL - 26' (7.9 m)
- V3148XL - 31' (9.4 m)

Platform Height Stowed

- V1833XL - 39 5/8" (1.0 m)
- V2033XL - 39" (1.0 m)
- V2048XL - 40 3/4" (1.0 m)
- V2053XL - 42 1/2" (1.1 m)
- V2648XL - 45 3/4" (1.2 m)
- V2653XL - 47 1/2" (1.2 m)
- V3148XL - TBD

Machine Height Stowed

- V1833XL - 78 5/8" (2.0 m)
- V2033XL - 79 3/4" (2.0 m)
- V2048XL - TBD
- V2053XL - TBD
- V2648XL - TBD
- V2653XL - TBD
- V3148XL - TBD

Guardrail Height

- V1833XL/V2033XL - 39" (1.0 m)
- V2048XL /V2053XL/V2648XL/V2653XL- 39 1/2" (1.0 m)
- V3148XL - 43" (1.1 m)

Toeboard Height

- ALL MODELS - 6" (15.2 cm)

Specifications

Machine Length

- V1833XL - 72" (1.83 m)
- V2033XL - 101 3/4" (2.6 m)
- V2048XL/V2053XL/V2648XL/V2653XL/ V3148XL - 102 3/4" (2.6 m)

Machine Width

- V1833XL/V2033XL - 33" (83.8 cm)
- V2048XL/V2648XL/V3148XL - 48" (1.2 m)
- V2053XL/V2653XL - 53" (1.3 m)

Ground Clearance

- V1833XL - 2 7/8" (7.3 cm)
- V2033XL/V2048XL/V2648XL/V3148XL - 4 1/8" (10.5 cm)
- V2053XL/V2653XL - 6 1/8" (15.6 cm)

Ground Clearance with Pothole Protection Deployed

- V1833XL - 1/2" (1.3 cm)
- V2033XL - 5/8" (1.6 cm)
- V2048XL/V2053XL/V2648XL/V2653XL/ V3148XL - 3/4" (1.9 cm)

Horsepower

- ALL MODELS - 4 HP (2.94 kW)

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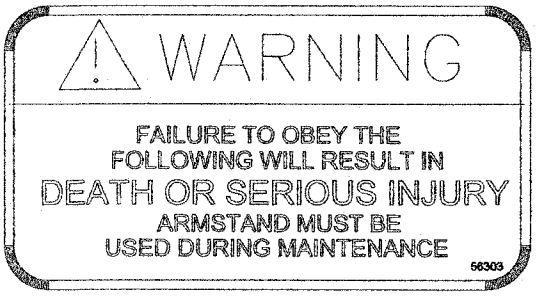
Section One

Operation

Operation

The CONDOR V Series Self-Propelled Elevating Work Platforms covered in this manual are electric over hydraulic. This means that the machine is controlled by electrically operated valves that control the routing of hydraulic oil to various functions. All electrical functions are routed through the micro processor based motor controller. The motor controller turns on various valves that are selected via inputs from switches and controls the pump motor speed via the joystick. As the joystick is moved off center the pump speed increases which creates proportional controls.

1.1 Rated Work Load



The platform will support a combined weight (the unit's rated work load) which includes personnel, tools and equipment throughout the working height of the CONDOR.

Rated workload on extension deck is 250 lbs. (113 kg) including one occupant. See chart for the total rated workload of each machine; this includes the load on the extension deck.

Example: Extension Deck Capacity is not in addition to Platform Capacity. The weight on the Extension Deck Should be subtracted from the Platform Capacity i.e. V1833XL - if there is 250 lbs (113 kg) on the Extension Deck there can only be 250 lbs (113 kg) on the Platform for a total of 500 lbs (227 kg).

Model	Rated Workload	
V1833XL	500 lbs	(227 kg)
V2033XL	750 lbs	(340 kg)
V2048XL	1250 lbs	(567.5 kg)
V2053XL	1250 lbs	(567.5 kg)

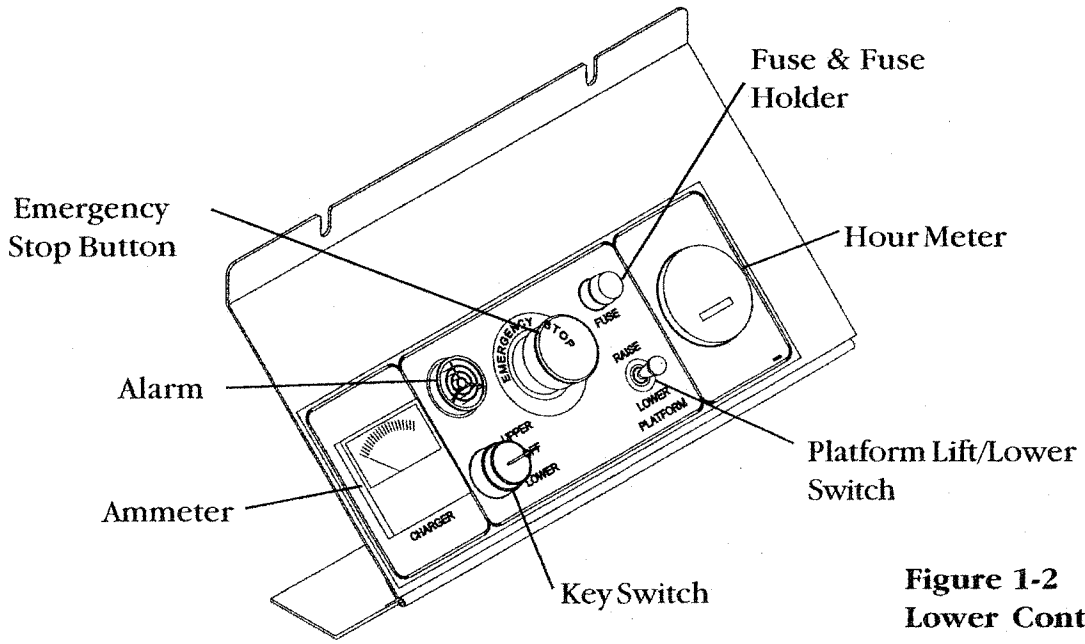


Figure 1-2
Lower Controls

V2648XL	1000 lbs	(454 kg)
V2653XL	1000 lbs	(454 kg)
V3148XL	750 lbs	(340 kg)

1.2 Lower Controls

Turn key switch to "lower" position, to operate from ground.

Pull the emergency stop button out for normal operation. Push the emergency stop button in to stop all power functions.

Use "raise" or "lower" toggle switch to raise or lower platform.

1.2.1 Armstand

1.2.1.1 To engage armstand, raise platform, then rotate stand until it hangs vertically. Lower the platform until the armstand rests on the cross tube on the frame. Maintenance can now begin.

1.2.1.2 To store armstand, raise platform so that armstand can be rotated until it rests on the stop provided on the scissors arms.

1.3 Upper Controls

Turn key switch, on lower control panel, to "upper" position to operate from platform. Note: Chain should be snapped in place across entry when operating CONDOR from the upper controls.

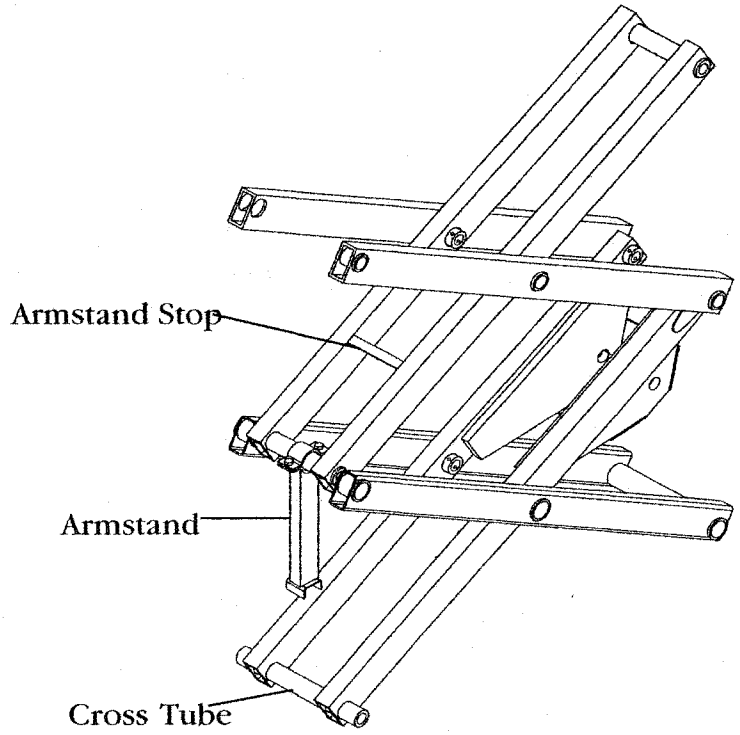


Figure 1-2-1
Armstand

Figure 1-3
Upper Controls

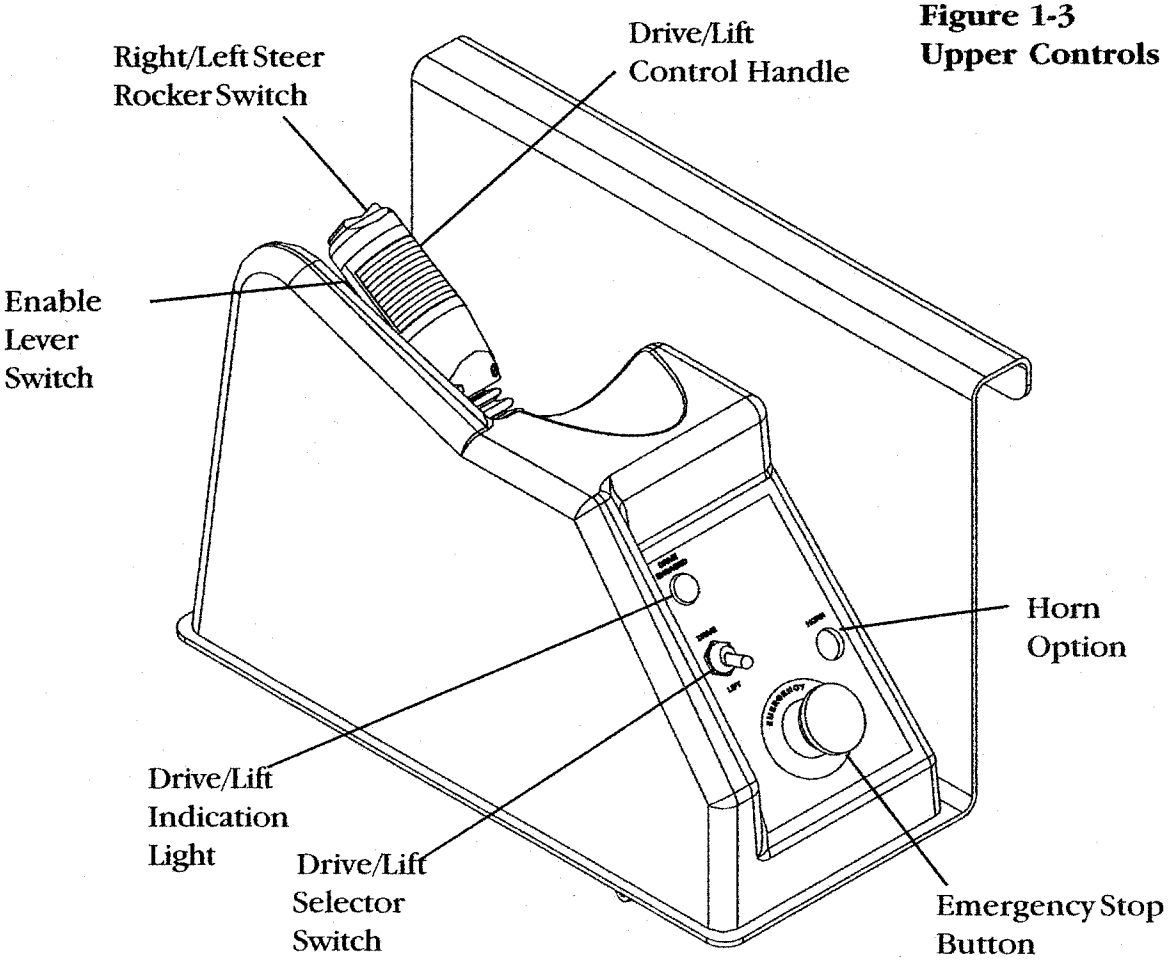


Figure 1-3-1

Model	Designated Height
V1833XL	Seven Feet
V2033XL	Six Feet
V2048XL	Seven Feet
V2053XL	Seven Feet
V2648XL	Seven Feet
V2653XL	Seven Feet
V3148XL	Seven Feet

To operate from platform, emergency stop button must be pulled out. In an emergency, push emergency stop button in; this will stop any powered functions from the upper control station.

The enable lever switch on the joystick should be squeezed to operate upper controls. If a function is not used within 25 seconds of squeezing the enable switch the desired function should not work and the operator will have to reset the enable switch prior to operating the function.

To raise or lower the platform, switch the "drive/ lift" selector switch to "lift". Squeeze the enable lever switch on the handle and push to lower or pull to raise the platform. This function is proportional. This means that the further the handle is moved, the faster the function is; and the less it is moved, the slower the function is. Release the lever switch to stop movement. Letting go of the handle will also stop movement.

To drive forward or reverse, switch the drive/ lift selector switch to drive. The red light located just above the toggle will come on to signal that the control handle is now in the "drive" mode. Squeeze the enable lever switch on the handle and push or pull in the intended direction of travel. This function is proportional. This means that the further the handle is moved, the faster the function is; and the less it is moved, the slower the function is. Release the lever switch to stop movement. Letting go of the handle will also stop movement.

When driving the CONDOR in an elevated position, the CONDOR's drive speed will slow to a creep speed at a designated height (See Figure 1-3-1). If the pothole protection guards are not fully deployed, the platform should not raise past the designated height (See Figure 1-3-1) and a **five beep** audible alarm should sound. The CONDOR should not drive or steer until the platform is lowered past the designated height.

To test the pothole protection system, place a 2 x 4 under one or both of the pothole guards. This will obstruct the full deployment of the pothole protection guards. The platform should not raise past the designated height (See Figure 1-3-1) and a **five beep** audible alarm should sound.

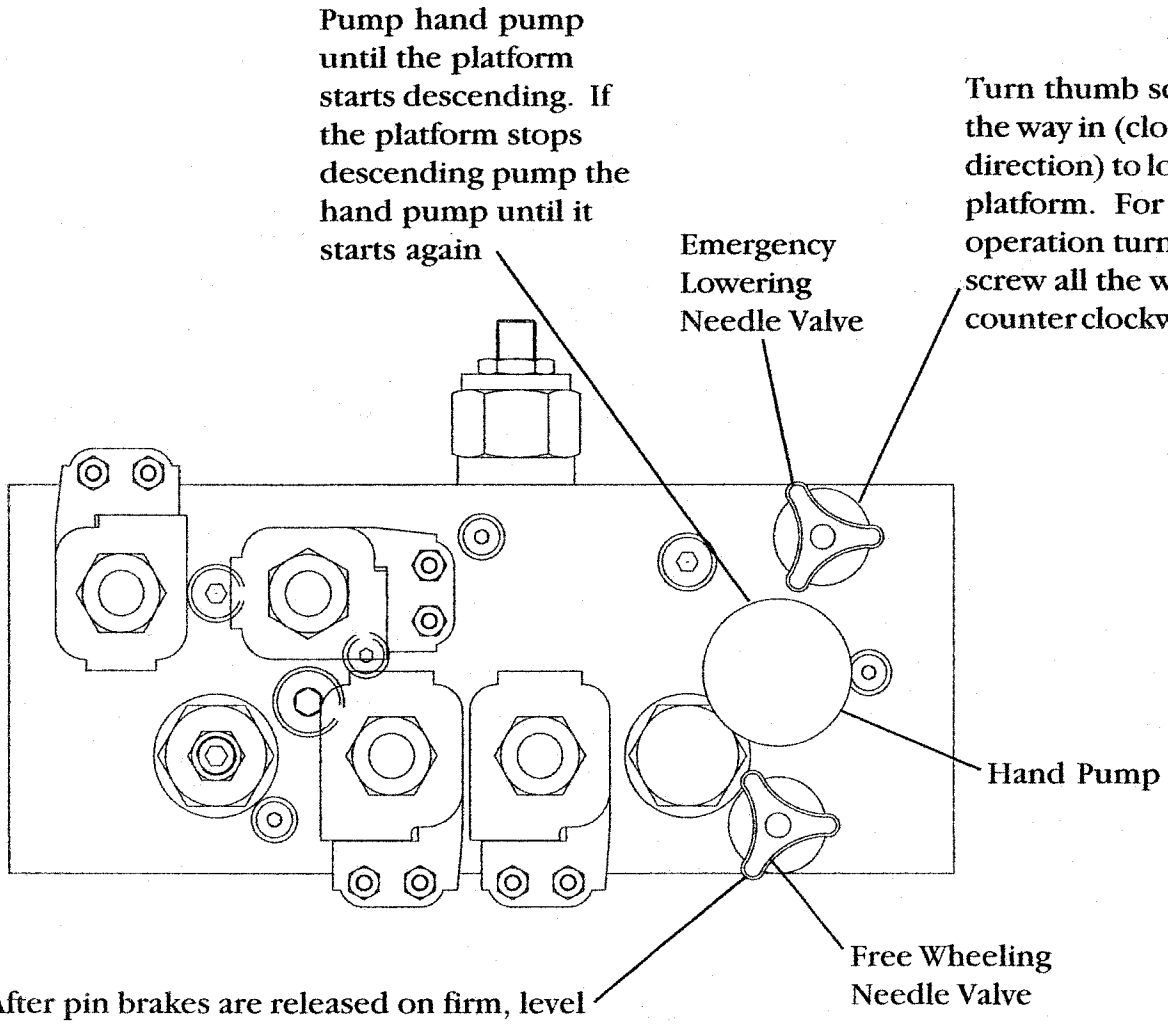
If the CONDOR is on a slope two degrees or greater a **continuous** audible alarm should sound and the platform should not raise. Drive, steer and platform lower should function normally up to the designated height (See Figure 1-3-1). If the alarm sounds at the designated height or above, the only function that should be available is platform lower. The CONDOR should not drive, raise or steer until the platform is lowered below the designated height. The only time the CONDOR should drive, raise or steer in an elevated position is on a surface less than two degrees.

Brakes are automatically released whenever the handle is moved in the drive mode. Let go of the handle to automatically set the brakes.

To steer left or right, squeeze the enable lever switch on handle and depress rocker switch on top of handle in the intended direction of travel. Steering is not automatically self-centering. Be sure the steering wheels are pointed in the direction you want before letting go of the steer switch.

Operation

Figure 1-4



After pin brakes are released on firm, level ground, turn free wheel thumb screw all the way counter clockwise to put the wheel motors in "Free Wheel".

For normal operation, turn the free wheel thumb screw all the way clockwise and energize drive to reset the pin brakes.

1.4 Emergency Lowering

When it is required to manually emergency lower the CONDOR platform, the following steps must be taken. (See Figure 1-4)

1.4.1 Turn the top thumb screw all the way in clockwise.

1.4.2 Pump hand pump until the unit starts to descend. If the unit stops descending pump the handle until it starts again.

1.4.3 Turn the top thumb screw all the way out. Counter clockwise for normal operation.

1.5 Freewheel Operation

Never exceed 5 mph (8 kph) when moving the CONDOR in the freewheel mode or component damage could occur. (See Figure 1-4)

1.6 Deck Extension

Squeeze lever at left side of extension deck to release lock pin and push extension forward (or out). Release handle when deck is extended to desired location. Push or pull deck extension slightly to lock pin in place with handle released. To retract simply reverse this operation.

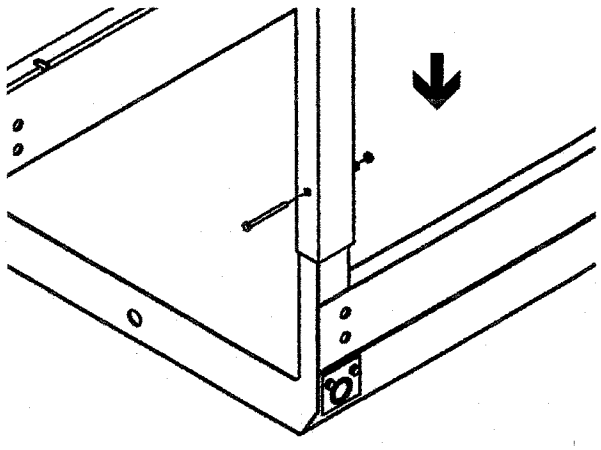
1.7 Slide Down Rail Operation (V2648XL & V2653XL Only)

The guard rails on the V2648XL and V2653XL can be lowered to drive the unit through a standard double door. To drop the rails down remove the 1/4-20 bolts located at each vertical post See Figure 1-7. Guard rails should be raised to proper height during normal operation.

⚠WARNING

Only qualified personnel should lower or raise guardrails.

Figure 1-7



1.8 Folding Rail Operation (V3148XL Only)

The guard rails on the V3148XL can be folded down to drive the unit through a standard double door. All of the guard rails can be folded down by first lifting the rail out of the pocket and then folding inward. The following sequence should be followed when lowering rails.

1. Remove Upper Control Box. (see 1.10.2)
2. Release latch and swing front rail inward, towards upper control station.
3. Lift and fold left hand rail of extension deck.

4. Lift and fold right hand rail of extension deck with front rail attached.

5. Lift and fold rear guard rail.

6. Lift and fold left hand main deck rail.

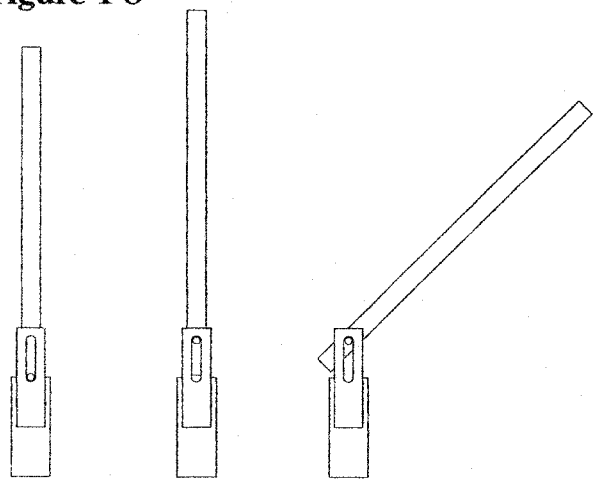
7. Lift and fold right hand main deck rail.

Reverse procedure for normal operation.

⚠WARNING

Only qualified personnel should lower or raise guardrails.

Figure 1-8



1.9 Moving from Job-site to Job-site

1.9.1 Loading and Unloading

Although this CONDOR is somewhat small compared with larger construction equipment, it requires the same care and attention in loading, transporting and unloading. At no time should its size or weight be underestimated. Before loading or unloading, inspect the CONDOR for any physical damage or defects.

The means by which you load or unload the CONDOR should be sufficient to support its weight.

Model	Weight	Weight
V1833XL	2950 lbs.	1338 kg
V2033XL	3475 lbs.	1576 kg
V2048XL	4250 lbs.	1928 kg
V2053XL	4450 lbs.	2019 kg
V2648XL	4650 lbs.	2109 kg
V2653XL	4850 lbs.	2200 kg
V3148XL	5600 lbs.	2540 kg

1.9.2 Ramp method

Ensure that the ramp is sufficiently strong to support the weight of the CONDOR. Refer to the chart below for the maximum slope of the ramp.

Model	Slope
V1833XL	14°, 26% or a rise of 30 inches in a run of 10 feet (.7 m in a run of 3 m)
V2033XL	11°, 20% or a rise of 23 inches in a run of 10 feet (.6 m in a run of 3 m)
V2048XL	14°, 25% or a rise of 30 inches in a run of 10 feet (76.2 cm in a run of 3 m)
V2053XL	14°, 25% or a rise of 30 inches in a run of 10 feet (76.2 cm in a run of 3 m)
V2648XL	14°, 25% or a rise of 30 inches in a run of 10 feet (76.2 cm in a run of 3 m)
V2653XL	14°, 25% or a rise of 30 inches in a run of 10 feet (76.2 cm in a run of 3 m)
V3148XL	14°, 25% or a rise of 30 inches in a run of 10 feet (76.2 cm in a run of 3 m)

Before driving the CONDOR on a ramp, lower the platform completely and test the drive/steer controls and the brake system.

The front of the CONDOR should be uphill, meaning drive forward uphill and reverse downhill.

Keep CONDOR in alignment with the ramp during loading and unloading procedures.

1.9.3 Forklift Loading and Unloading Method

Ensure that the forklift has sufficient capacity to safely handle the weight of this CONDOR.

This CONDOR can be lifted from the rear using the forklift pockets provided.

Note: The center of gravity if measured from the rear end of the CONDOR.

Model	Center of Gravity
V1833XL	32 ½ inches (.8 m)
V2033XL	49 inches (1.2 m)
V2048XL	49 inches (1.2 m)
V2053XL	49 inches (1.2 m)
V2648XL	49 inches (1.2 m)
V2653XL	49 inches (1.2 m)
V3148XL	49 inches (1.2 m)

Keep forklift travel to a minimum. Carry CONDOR as close as possible to the ground only raising to a height sufficient to clear any obstructions. Set the CONDOR down gently.

1.9.4 Transporting by Truck/Trailer

This CONDOR can be easily transported between job-sites if the following procedures are followed:

1. Block all wheels to prevent forward and reverse motion.

2. Tie down the CONDOR with chains and cables, running them through the tie-down holes only. Do not tie down over the guardrails or entry steps.

3. Always turn the power off at the lower control station.

1.10 STORAGE

1.10.1 Nightly Storage

Turn key switch to the off position.

1.10.2 'Removable' Upper Control Box

Unsnap overcenter latch at bottom of upper control box and pull plug out of receptacle. Bend cable so that plug faces down and remove ¼-20 bolt through mounting bracket. Lift box and store it in a secure place to prevent unauthorized use of the CONDOR.

Section Two

Inspection and Maintenance