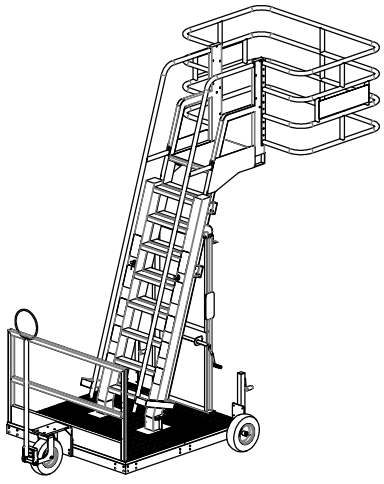
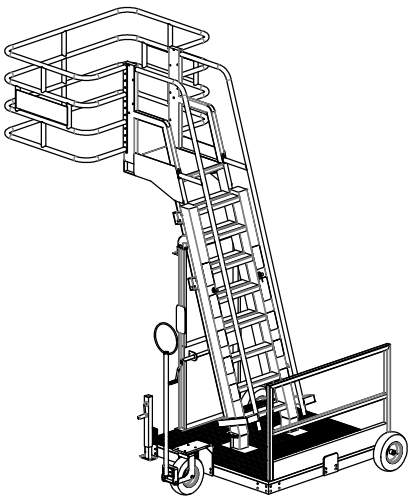
SafeRack
LOADING RACK TECHNOLOGIES

# OWNER'S MANUAL

# M3 - MAUI - Mobile Access Unit



Perpendicular



Parallel

THIS PRODUCT AND/OR IT'S COMPONENTS MAY BE COVERED BY ONE OR MORE PATENTS, SEE WWW.SAFERACK.COM/PATENTS

SafeRack 219 Safety Avenue / Andrews, SC 29510 / Ph 866 761 7225 / Fx 803 774 7233

# SHIPPING WARNING

BEFORE ACCEPTING UNIT:

PLEASE TAKE A MOMENT TO INSPECT YOUR NEW EQUIPMENT. PLEASE CHECK FOR SHIPPING DAMAGE OR ANY LOOSE BANDING WHICH MAY INDICATE A MISSING PART AND REPORT IT IMMEDIATELY. PLEASE CHECK PACKING LIST TO INSURE ALL PARTS HAVE ARRIVED WITHOUT DAMAGE.

ALL HARDWARE NEEDED FOR ASSEMBLY IS LOCATED IN A 3 GALLON BUCKET SHIPPED WITH THE UNIT. INSIDE YOU WILL FIND ALL HARDWARE BOXED AND MARKED TO INDICATE ITS PROPER LOCATION. IT IS RECOMMENDED THAT A FORKLIFT, HOIST, CRANE, OR OTHER SUITABLE LIFTING DEVICE BE USED FOR PROPER AND SAFE ASSEMBLY.

BE CAREFUL WHEN UNLOADING YOUR UNIT. ADDITIONAL ITEMS ARE STRAPPED ON TO BASE FOR SHIPPING AND SHOULD NOT BE PULLED ON WHEN UNLOADING UNIT.

**READ THROUGH ALL INSTRUCTIONS IN THIS MANUAL BEFORE STARTING ASSEMBLY**

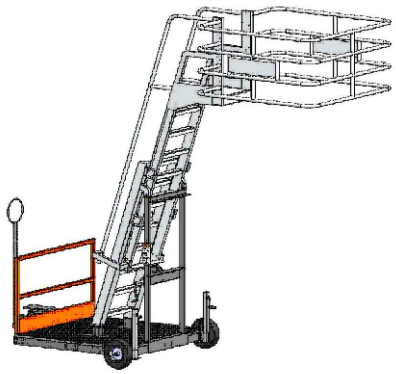
# INTRODUCTION

SAFERACK'S M3–MAU–I PORTABLE PLATFORM UNIT IS SPECIFICALLY DESIGNED TO ALLOW ACCESS TO TRUCKS, ISOTAINERS, OR RAILCARS ONLY UNLESS OTHERWISE SPECIFIED BY SAFERACK.

THE SAFERACK PORTABLE PLATFORM IS EASILY CONVERTED FROM PERPENDICULAR AND PARALLEL CONFIGURATION. PERPENDICULAR CONFIGURATION ALLOWS FOR EASY SPOTTING WITH THE TANK TRUCK, WHILE PARALLEL CONFIGURATION IS DESIGNED FOR INCREASED MANEUVERABILITY IN TIGHT SPACES. THE LADDER IS AVAILABLE WITH A WORKING RANGE OF 10 TO 14 FEET WITH AN ADAPTOR TO CONVERT IT TO 12 TO 16 FEET MODELS DEPENDING ON THE NEEDED HEIGHT. EACH UNIT IS RATED FOR A 500 POUND CAPACITY AND IS HEIGHT ADJUSTABLE VIA A HAND WINCH. LADDER THEN LOCKS WITH HIGH QUALITY STAINLESS STEEL SAFETY PINS. THIS ADJUSTABILITY ENSURES THAT THE CAGE OR PLATFORM WILL NEVER NEED TO CONTACT THE VEHICLE IF OBSTRUCTIONS ARE PRESENT.

WHILE SAFERACK'S PORTABLE LOADING PLATFORMS ARE EASILY ADJUSTED AND HIGHLY MANEUVERABLE, THE BASE OF THE ROLLING PLATFORM IS EXCEPTIONALLY STABLE TO ENSURE ON–THE–JOB SAFETY.

SAFERACK USES ONLY THE HIGHEST QUALITY MATERIAL IN THE CONSTRUCTION OF ITS PORTABLE PLATFORMS TO ENSURE THAT THEY OPERATE DEPENDABLY FOR YEARS. THESE ROLLING PLATFORMS ARE MANEUVERABLE, ADJUSTABLE, STABLE AND WILL PERFORM EFFICIENTLY FOR YEARS.



FEATURES:

- SOLID, 16 INCH, 'NO FLAT' TIRES
- DOUBLE LOCKING WINCH
- UNIT IS SELF SUPPORTING AND DOES NOT HAVE TO REST ON VEHICLE
- LADDER TELESCOPES TO FIT MULTIPLE HEIGHTS OF TRUCKS
- STAINLESS LOCKS SECURE LADDER IN POSITION
- UNIT IS LOAD RATED FOR 500 POUND (227 KG) CAPACITY
- TOW HANDLE WITH LOCKING BRAKE
- SAFETY CAGE RAISES HANDRAIL HEIGHT TO 42+ INCHES
- LEVELING JACKS
- SLIP RESISTANT WALK SURFACE
- FIELD ADJUSTABLE FROM PERPENDICULAR TO PARALLEL CONFIGURATION
- HOT DIPPED GALVANIZED STEEL BASE
- LIGHTWEIGHT ALUMINUM LADDER AND SAFETY CAGE
- SHIPS DISASSEMBLED FOR BOX TRUCK DELIVERY
- EASILY ASSEMBLED IN 1/2 DAY
- FAST DELIVERIES AVAILABLE

# SYSTEM DESIGN

UNIT CAN OPERATE IN TWO DIRECTIONS BASED ON INITIAL SET UP. UNIT CAN BE SET UP IN "PERPENDICULAR" MODE; MEANING THAT IT STEERS UP TO A VEHICLE FROM THE SIDE. THIS IS THE STANDARD MODE AND PREFERRED BY MANY CUSTOMERS.

IN TIGHT SPACES, OR FOR MULTIPLE HATCHES ON TRUCKS OR RAIL CARS, YOU CAN SET UP THE UNIT TO A "PARALLEL" MODEL BY SIMPLY ROTATING THE TIRE ASSEMBLES 90 DEGREES. THIS ALLOWS THE UNIT TO BE ROLLED IN THE SAME DIRECTION AS THE VEHICLE IT IS ACCESSING.

BOTH MODELS ARE SHOWN IN THESE ASSEMBLY INSTRUCTIONS.

NOTE: UNIT REQUIRES APPROXIMATELY 50 POUNDS OF FORCE TO OPERATE.

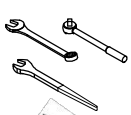
# START-UP TOOLS

ONCE YOU ARE READY TO ASSEMBLE UNIT, PLEASE HAVE THE FOLLOWING ITEMS READY FOR ASSEMBLY:

- 3 PEOPLE ARE RECOMMENDED FOR ASSEMBLY

- LIFT TRUCK OR CRANE CAPABLE OF LIFTING A MINIMUM 11 FT. IN THE AIR

- 2 NYLON LIFTING STRAPS (MIN 10' LONG)



- (2) 3/4" WRENCHES/SOCKETS
- (2) 7/16" WRENCHES/SOCKETS
- (2) 9/16" WRENCHES/SOCKETS

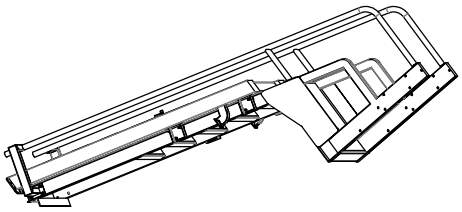
- ALIGNMENT PIN OR "SPUD WRENCH"
- SNAP RING PLIERS

# SHIPPING LIST



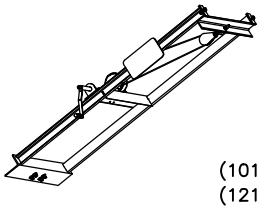
## Pallet # 1

### LADDER
(1 REQ'D)



(PART #12628)

### H-FRAME
with pulley system
(1 REQ'D)

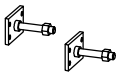


(1014 PART #12660)
(1216 PART #12661)

### HARDWARE BUCKETS

#### Bucket #1:

**Wheel Hubs**
(2 REQ'D)



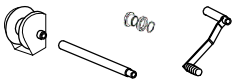
(PART #11048)

**Hardware Kit Pre-Packages**

INCLUDES:

| | |
|---|---|
| (2) UHMW SPACER PADS | (#13131) |
| (1) BASE/LADDER HARDWARE | (#106570) |
| (1) JACK/WINCH HARDWARE | (#106571) |
| (1) GOOSENECK HARDWARE | (#106572) |
| (1) CAGE HARDWARE | (# VARIES) |
| (1) OWNERS MANUAL | |

#### Bucket #2:

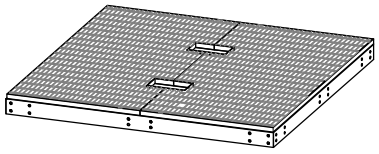


**Winch Kit**
WINCH, HANDLE, EXTENSION, BUSHINGS, HARDWARE
(1 REQ'D)

(PART #22084/163426)

## Pallet # 2

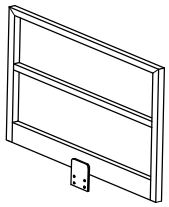
### BASE
(1 REQ'D)



(Remove skids/pallet before starting assembly)

(PART #12684)

### CHARIOT HANDRAIL
(1 REQ'D)



NOTE: Handrail may be shipped pre-assembled to base.

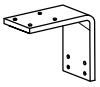
(PART #13127)

## Pallet # 2

### HANDLE
(1 REQ'D)

(PART #13525)

### GOOSENECK
(1 REQ'D)

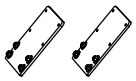


(PART #13524)

### SWIVEL WHEEL
(1 REQ'D)

(PART #11051)

### JACK MOUNT PLATE
(2 REQ'D)

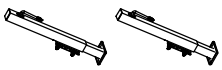


(PART #12517)

### RIGID WHEEL
(2 REQ'D)

(PART #11052)

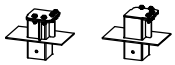
### LEVELING JACK
(2 REQ'D)



(Handles are in hardware bucket)

(PART #10526)

### LADDER ADAPTER Model 1014 only
(1 LEFT, 1 RIGHT)



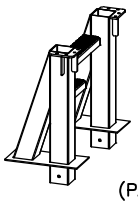
(Pallet # 1)

NOTE: Adapters may be shipped pre-assembled to base.

(PART #12622/43560)

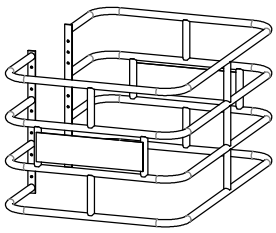
OR

### LADDER ADAPTER Model 1216 only
(1 REQ'D)



(PART #12648)

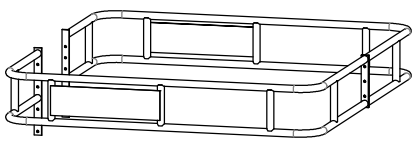
### CAGE - 4 Rail Model 1014
(1 REQ'D)



(PART #24054)

OR

### CAGE - 2 Rail Model 1216
(1 REQ'D)



(PART #28775)

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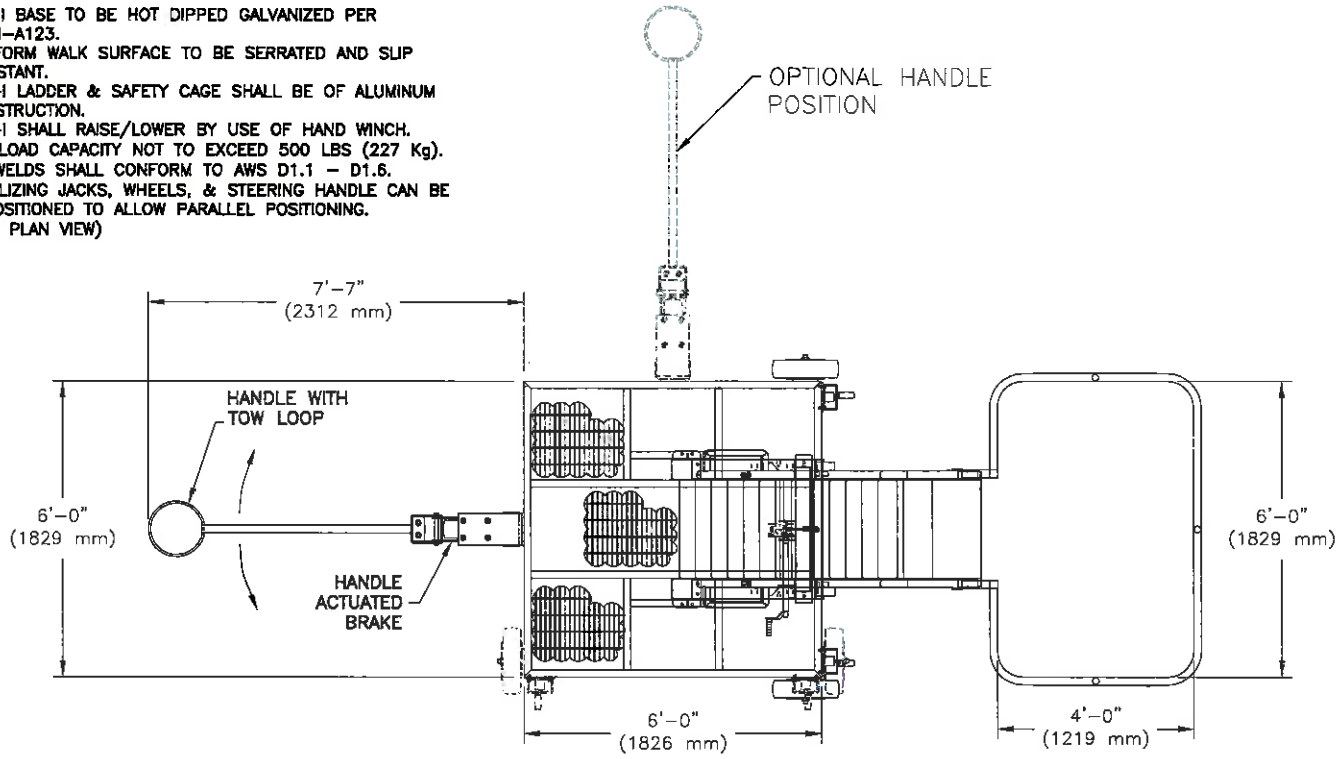
**M3 - MAUI**

# SPECIFICATION SHEET

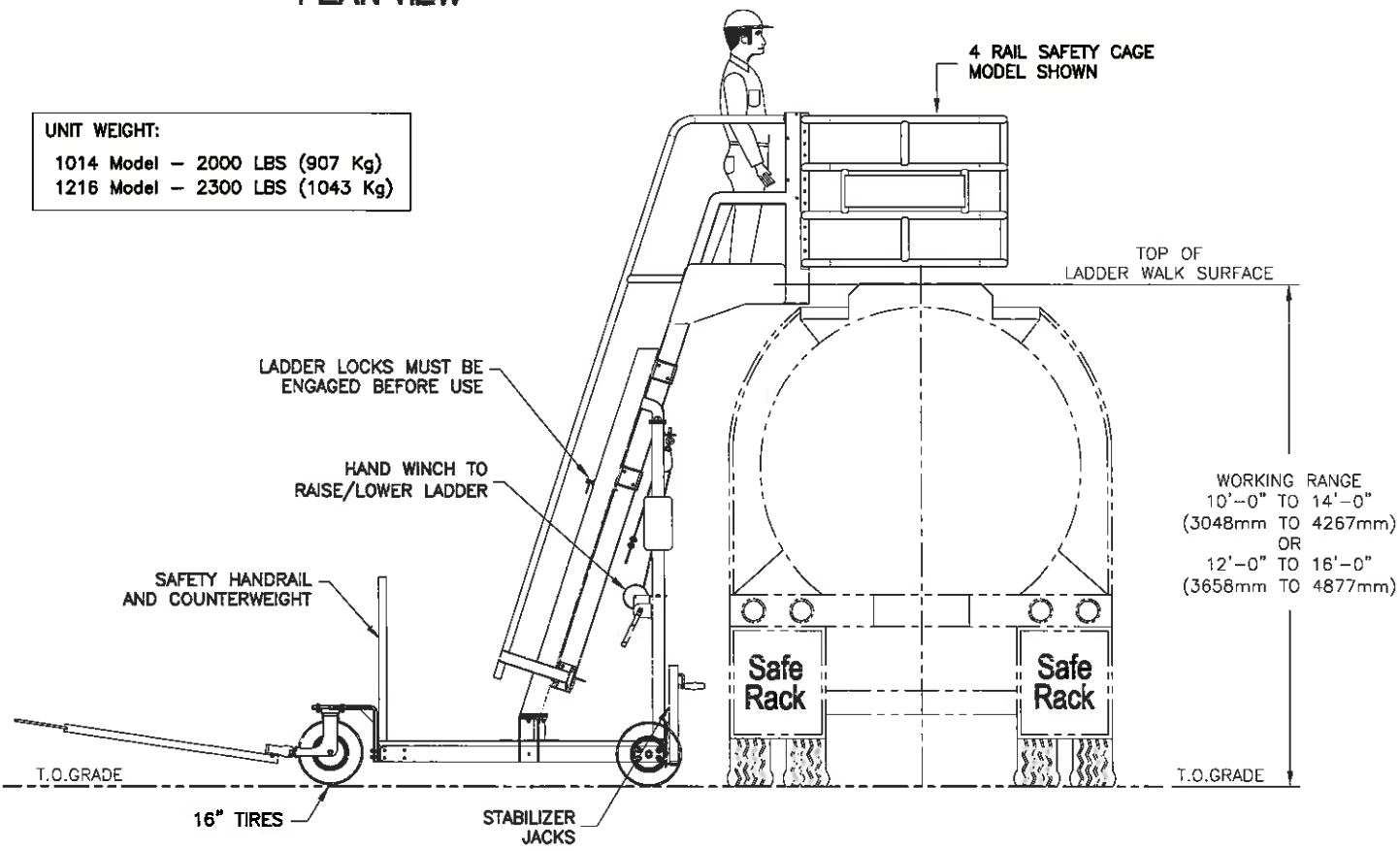


NOTES:
1) MAU–I BASE TO BE HOT DIPPED GALVANIZED PER ASTM–A123.
2) PLATFORM WALK SURFACE TO BE SERRATED AND SLIP RESISTANT.
3) MAU–I LADDER & SAFETY CAGE SHALL BE OF ALUMINUM CONSTRUCTION.
4) MAU–I SHALL RAISE/LOWER BY USE OF HAND WINCH.
5) LIVE LOAD CAPACITY NOT TO EXCEED 500 LBS (227 Kg).
6) ALL WELDS SHALL CONFORM TO AWS D1.1 – D1.6.
7) STABILIZING JACKS, WHEELS, & STEERING HANDLE CAN BE REPOSITIONED TO ALLOW PARALLEL POSITIONING. (SEE PLAN VIEW)




## PLAN VIEW

**UNIT WEIGHT:**
1014 Model – 2000 LBS (907 Kg)
1216 Model – 2300 LBS (1043 Kg)




## ELEVATION VIEW

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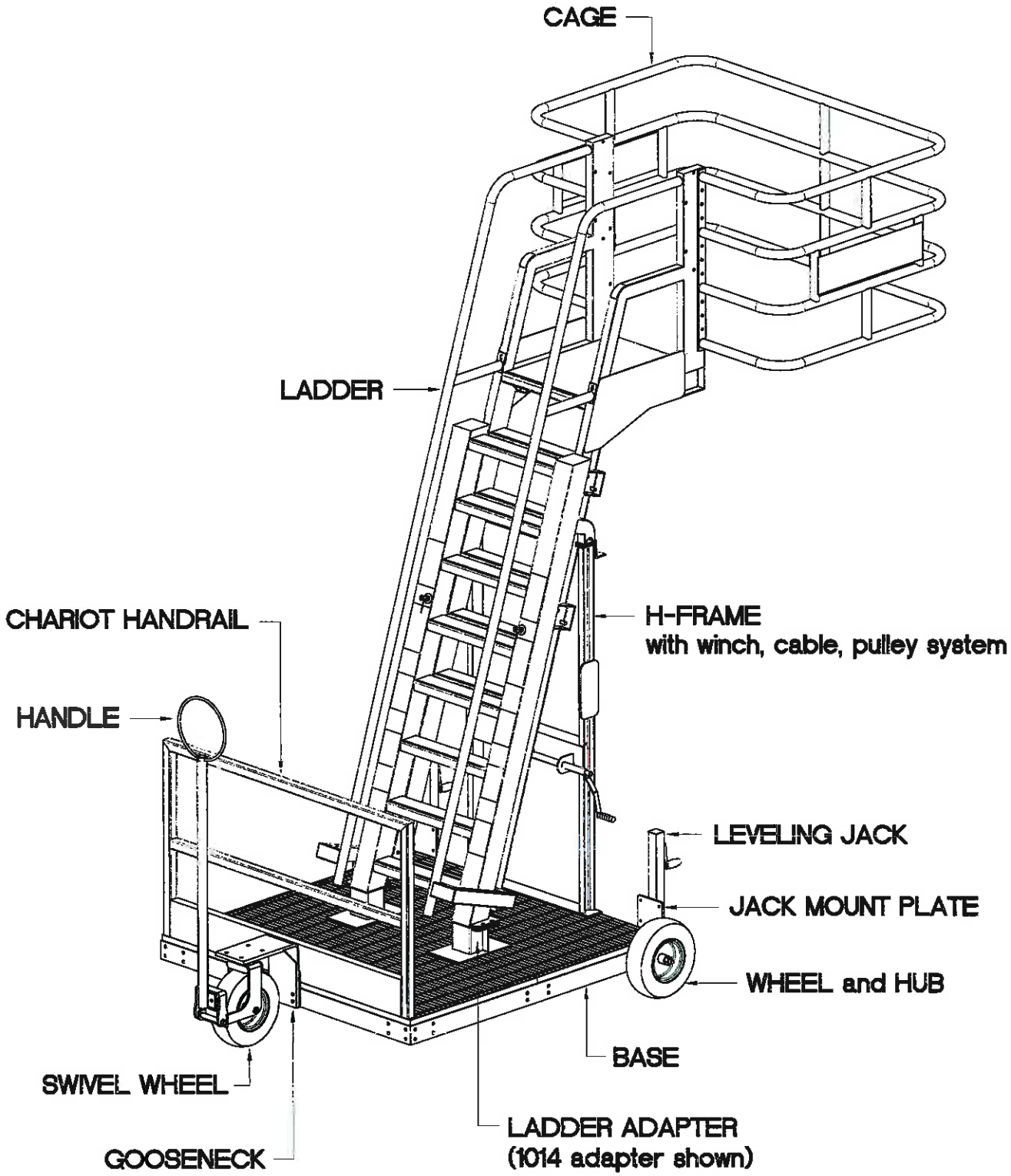
**M3 - MAUI**

# ORIENTATION DIAGRAM

Perpendicular Base Model

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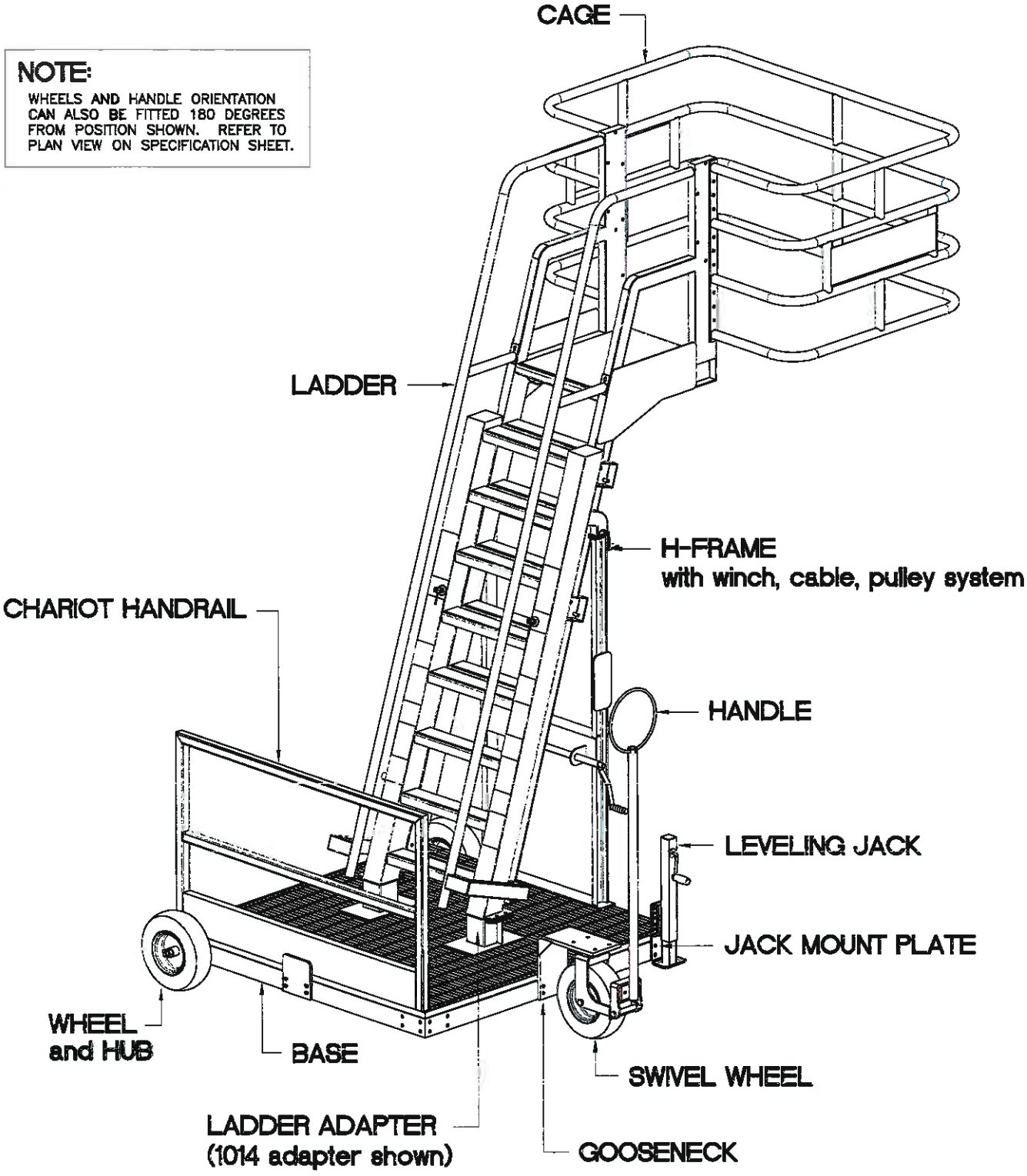
# ORIENTATION DIAGRAM

## Parallel Base Model

**NOTE:**
WHEELS AND HANDLE ORIENTATION CAN ALSO BE FITTED 180 DEGREES FROM POSITION SHOWN. REFER TO PLAN VIEW ON SPECIFICATION SHEET.



# ASSEMBLY INSTRUCTIONS - Adapter

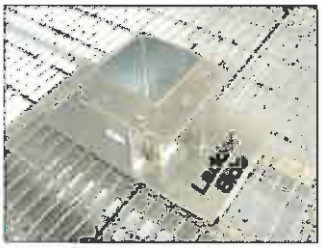
## Model 1014 Adapter Kit

## 1 ADAPTER ORIENTATION / INSTALLATION

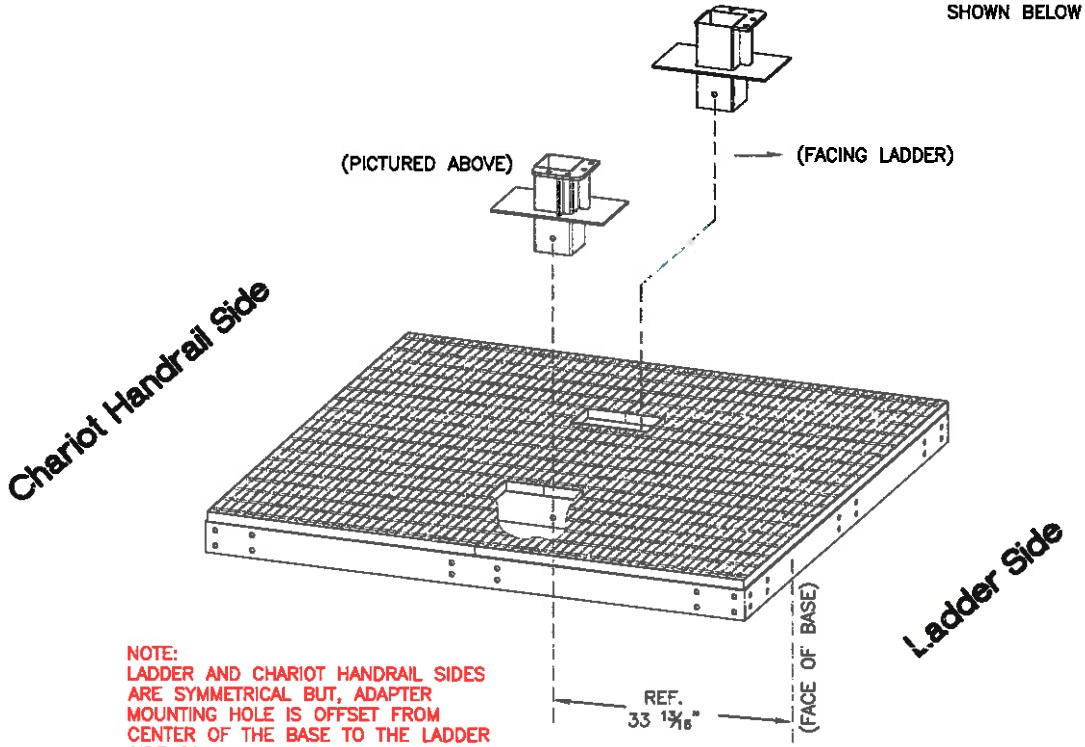
THE ADAPTERS (ONE LEFT, ONE RIGHT) MUST BE ORIENTED AS SHOWN BELOW FOR PROPER MOUNTING OF THE LADDER TO THE BASE.

HARDWARE NEEDED:
(4) ½" X 2" GALV BOLTS
(4) ½" GALV NUTS
(4) ½" GALV FLAT WASHERS
(4) ½" GALV LOCK WASHERS

NOTE:
THIS PART MAY BE PRE-ASSEMBLED ON SOME UNITS.



ADAPTERS SIT FLUSH ON TOP OF GRATING AND BOLT THROUGH BASE FRAME AS SHOWN BELOW




NOTE:
LADDER AND CHARIOT HANDRAIL SIDES ARE SYMMETRICAL BUT, ADAPTER MOUNTING HOLE IS OFFSET FROM CENTER OF THE BASE TO THE LADDER SIDE OF THE BASE.

CONNECT ADAPTER TO BASE FRAME AS SHOWN – (2) ½x2¼ BOLTS EACH SIDE OF ADAPTER. TIGHTEN ALL CONNECTIONS SECURELY WITH SOCKET AND WRENCH

WARNING:
ORIENTATION OF ADAPTERS TO BASE IS CRITICAL – VERIFY THESE ARE CORRECT BEFORE CONTINUING INSTALLATION.

# ASSEMBLY INSTRUCTIONS - Adapter

## Model 1216 Adapter Kit
## (Optional - Not Included on Every Unit)

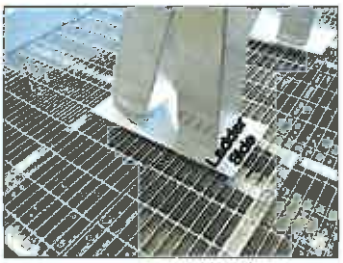
### 1 ADAPTER ORIENTATION / INSTALLATION

THE ADAPTER / STEP UNIT MUST BE ORIENTED AS SHOWN BELOW FOR PROPER MOUNTING OF THE LADDER TO THE BASE.

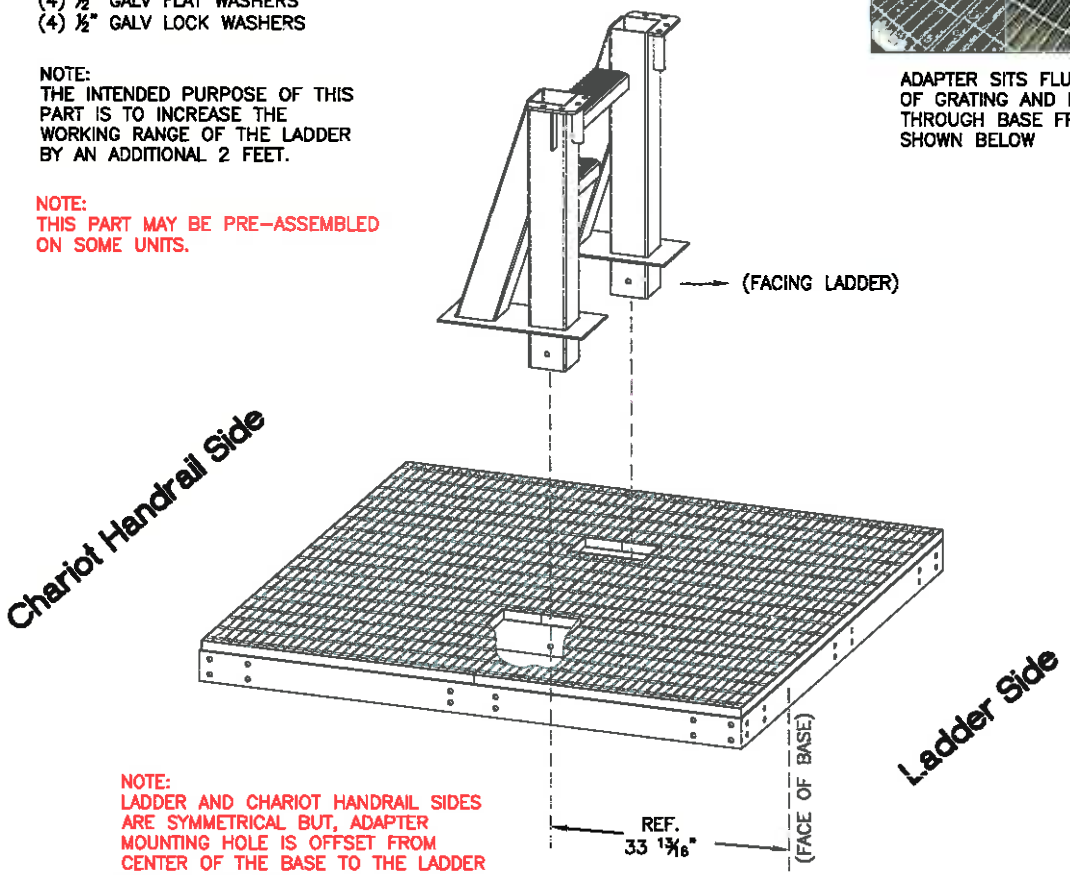
HARDWARE NEEDED:
(4) ½" X 2" GALV BOLTS
(4) ½" GALV NUTS
(4) ½" GALV FLAT WASHERS
(4) ½" GALV LOCK WASHERS

NOTE:
THE INTENDED PURPOSE OF THIS PART IS TO INCREASE THE WORKING RANGE OF THE LADDER BY AN ADDITIONAL 2 FEET.

NOTE:
THIS PART MAY BE PRE-ASSEMBLED ON SOME UNITS.




ADAPTER SITS FLUSH ON TOP OF GRATING AND BOLTS THROUGH BASE FRAME AS SHOWN BELOW




NOTE:
LADDER AND CHARIOT HANDRAIL SIDES ARE SYMMETRICAL BUT, ADAPTER MOUNTING HOLE IS OFFSET FROM CENTER OF THE BASE TO THE LADDER SIDE OF THE BASE.

CONNECT ADAPTER TO BASE FRAME AS SHOWN - (2) ½x2¼ BOLTS EACH SIDE OF ADAPTER. TIGHTEN ALL CONNECTIONS SECURELY WITH SOCKET AND WRENCH

WARNING:
ORIENTATION OF ADAPTERS TO BASE IS CRITICAL - VERIFY THESE ARE CORRECT BEFORE CONTINUING INSTALLATION.

# ASSEMBLY INSTRUCTIONS - Adapter

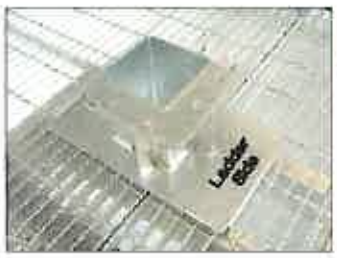
## Modified Narrow Base
## (Optional - Not Included on Every Unit)

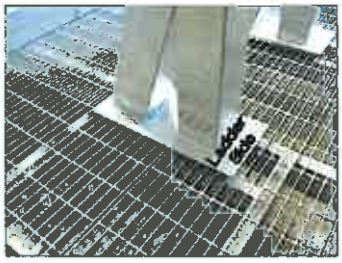
## 1a ADAPTER ORIENTATION / INSTALLATION

THE ADAPTERS (ONE LEFT, ONE RIGHT) MUST BE ORIENTED AS SHOWN BELOW FOR PROPER MOUNTING OF THE LADDER TO THE BASE.

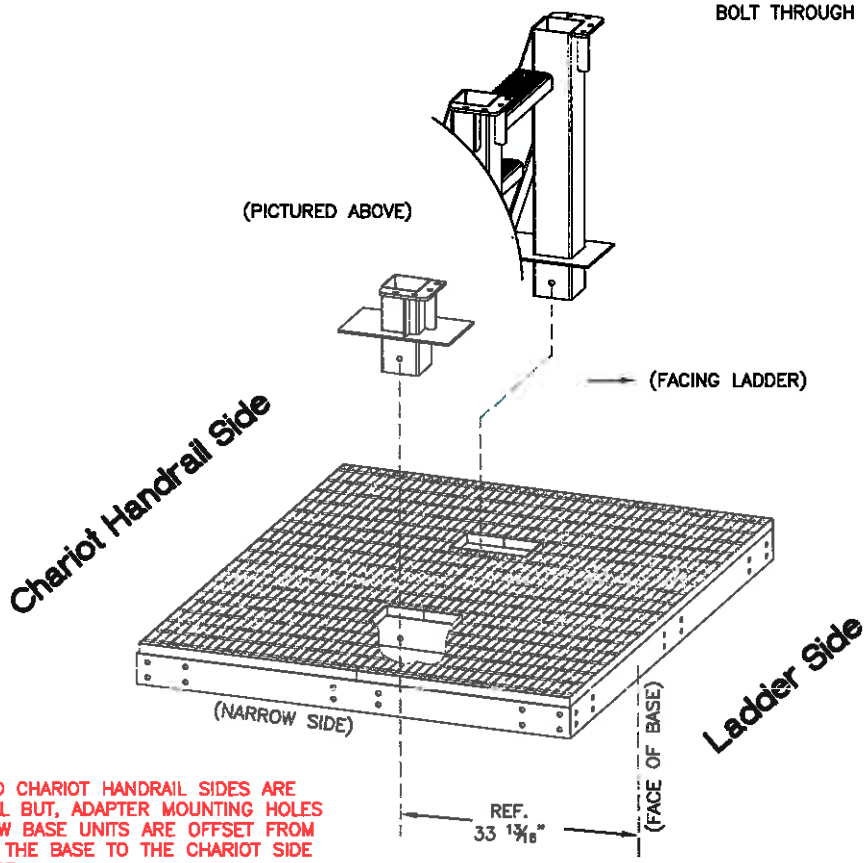
HARDWARE NEEDED:
(4) ½" X 2" GALV BOLTS
(4) ½" GALV NUTS
(4) ½" GALV FLAT WASHERS
(4) ½" GALV LOCK WASHERS

NOTE:
THIS PART MAY BE PRE-ASSEMBLED ON SOME UNITS.





ADAPTERS SIT FLUSH ON TOP OF GRATING AND BOLT THROUGH BASE FRAME AS SHOWN BELOW




NOTE:
LADDER AND CHARIOT HANDRAIL SIDES ARE SYMMETRICAL BUT, ADAPTER MOUNTING HOLES FOR NARROW BASE UNITS ARE OFFSET FROM CENTER OF THE BASE TO THE CHARIOT SIDE OF THE BASE.

CONNECT ADAPTER TO BASE FRAME AS SHOWN - (2) ½x2¼ BOLTS EACH SIDE OF ADAPTER. TIGHTEN ALL CONNECTIONS SECURELY WITH SOCKET AND WRENCH

WARNING:
ORIENTATION OF ADAPTERS TO BASE IS CRITICAL - VERIFY THESE ARE CORRECT BEFORE CONTINUING INSTALLATION.

# ASSEMBLY INSTRUCTIONS - Base

## Optional Perpendicular Base Orientation

## 2 Base / Wheel Assembly

IT IS RECOMMENDED AND IS EASIER TO ASSEMBLE THE BASE WHEN IT IS ON A SECURE WORK STAND ABOVE THE GROUND TO ALLOW EASY ACCESS TO THE UNDERSIDE OF THE BASE WHILE BOLTING UNIT TOGETHER.

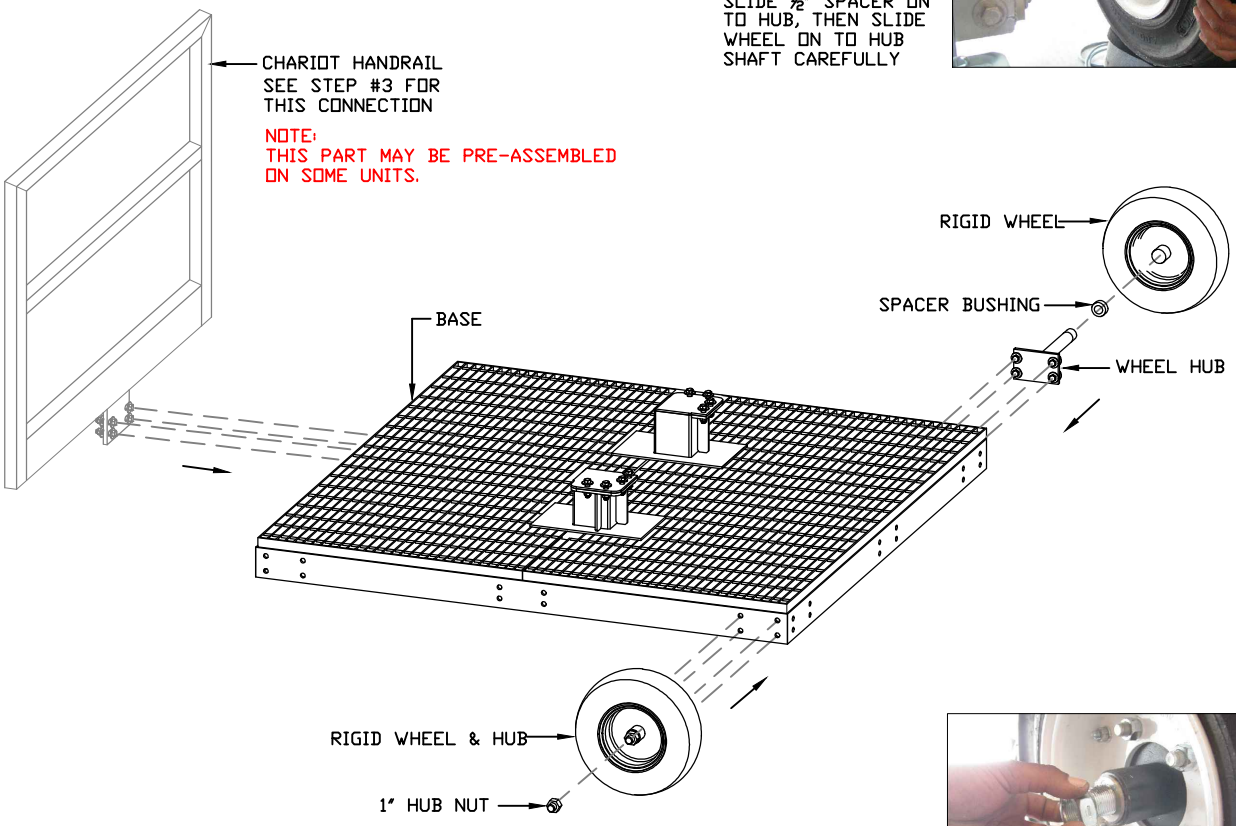
HARDWARE NEEDED:
(8) ½" X 2" GALV BOLTS
(8) ½" GALV NUTS
(8) ½" GALV FLAT WASHERS
(8) ½" GALV LOCK WASHERS
(2) ½" WIDE SPACER BUSHINGS
(2) 1" LOCK NUT

**2a**

BOLT WHEEL HUB(s) TO BASE AS SHOWN AND TIGHTEN EACH CONNECTION

**2b**

SLIDE ½" SPACER ON TO HUB, THEN SLIDE WHEEL ON TO HUB SHAFT CAREFULLY




**2c**

TIGHTEN 1" HUB NUT SECURELY

# ASSEMBLY INSTRUCTIONS - Base

## Optional Parallel Base Orientation

## 2 Base / Wheel Assembly

IT IS RECOMMENDED AND IS EASIER TO ASSEMBLE THE BASE WHEN IT IS ON A SECURE WORK STAND ABOVE THE GROUND TO ALLOW EASY ACCESS TO THE UNDERSIDE OF THE BASE WHILE BOLTING UNIT TOGETHER.

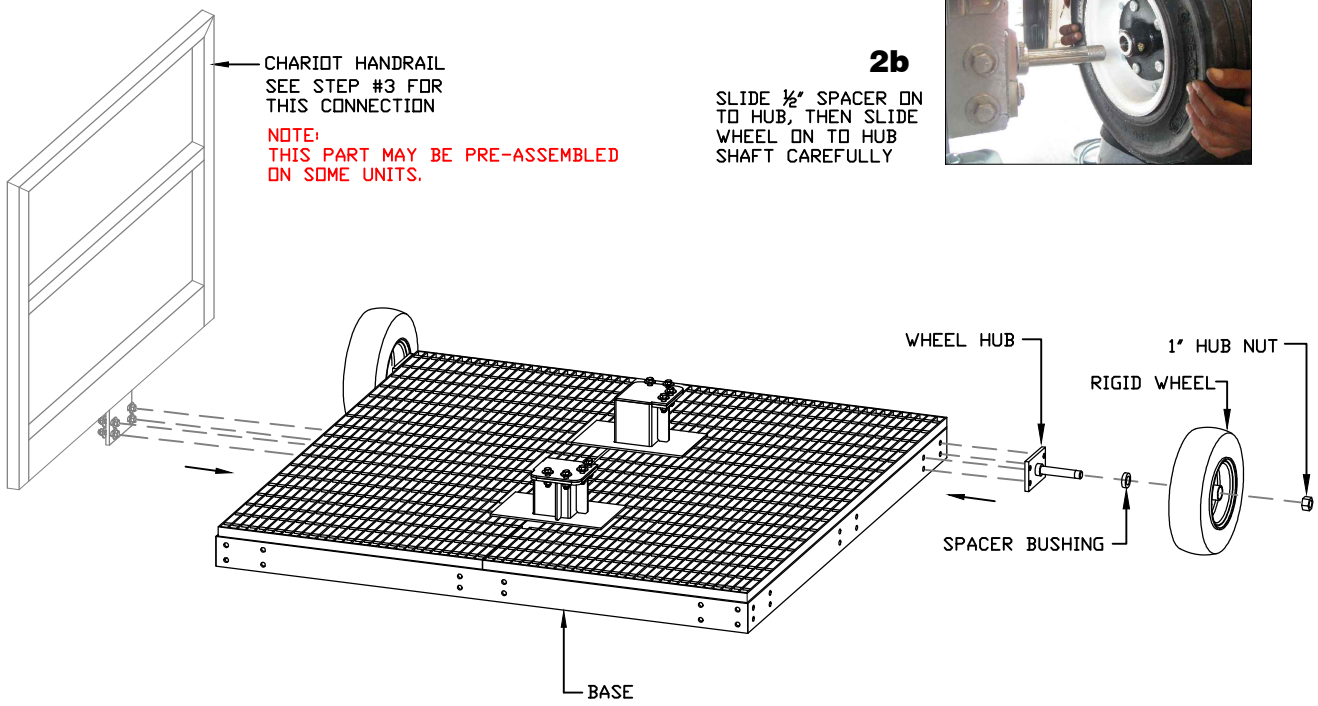
HARDWARE NEEDED:
(12) ½" X 2" GALV BOLTS
(12) ½" GALV NUTS
(12) ½" GALV FLAT WASHERS
(12) ½" GALV LOCK WASHERS
(2) ½" WIDE SPACER BUSHINGS
(2) 1" LOCK NUT

**2a**

BOLT WHEEL HUB(s) TO BASE AS SHOWN AND TIGHTEN EACH CONNECTION

**2b**

SLIDE ½" SPACER ON TO HUB, THEN SLIDE WHEEL ON TO HUB SHAFT CAREFULLY




**2c**

TIGHTEN 1" HUB NUT SECURELY

# ASSEMBLY INSTRUCTIONS - Wheel/Gooseneck

## Perpendicular Base Orientation

### 3 Swivel Wheel and Gooseneck Assembly:

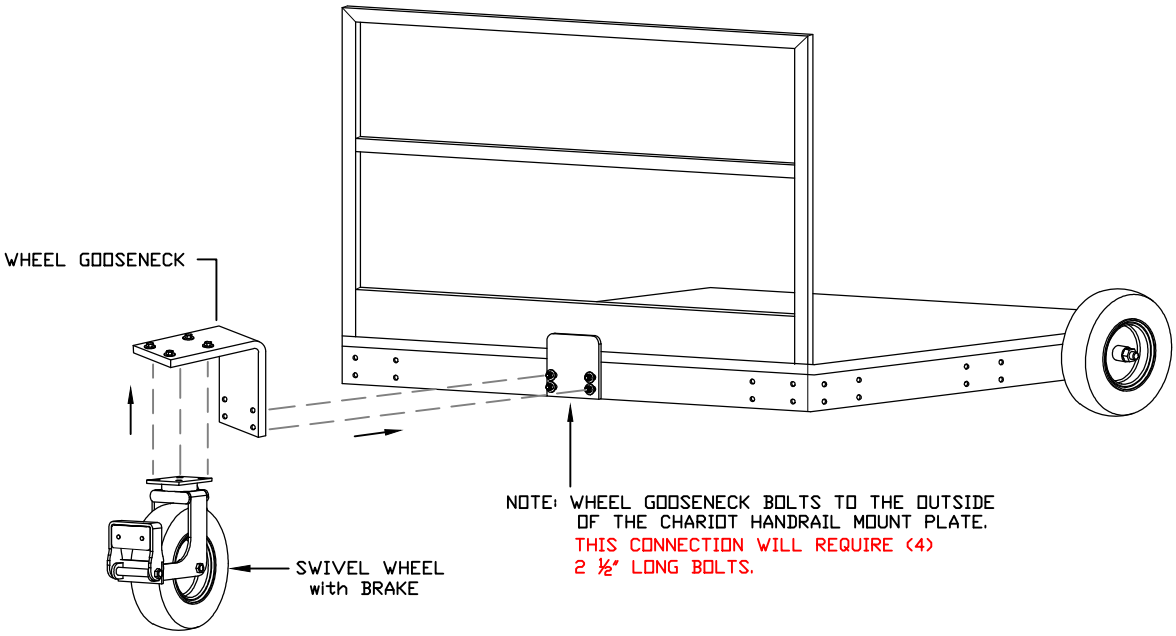
INSTALL WHEEL GOOSENECK TO BASE FIRST; BOLTING THROUGH MIDDLE CHARIOT BRACKET AS SHOWN BELOW.

HARDWARE NEEDED:
(8) ½" X 2 ½" GALV BOLTS
(8) ½" GALV NUTS
(8) ½" GALV FLAT WASHERS
(8) ½" GALV LOCK WASHERS

ALIGN HOLES IN GOOSENECK, CHARIOT BRACKET, AND BASE

**3a**

BOLT WITH ½x2½ BOLTS AND TIGHTEN ALL CONNECTIONS WITH SOCKET AND WRENCH




ALIGN SWIVEL WHEEL AND BOLT TO GOOSENECK WITH ½x2½" BOLTS

**3b**

TIGHTEN ALL (4) CONNECTIONS WITH SOCKET AND WRENCH

# ASSEMBLY INSTRUCTIONS - Wheel/Gooseneck

## Parallel Base Orientation

### 3 Wheel and Gooseneck Assembly:

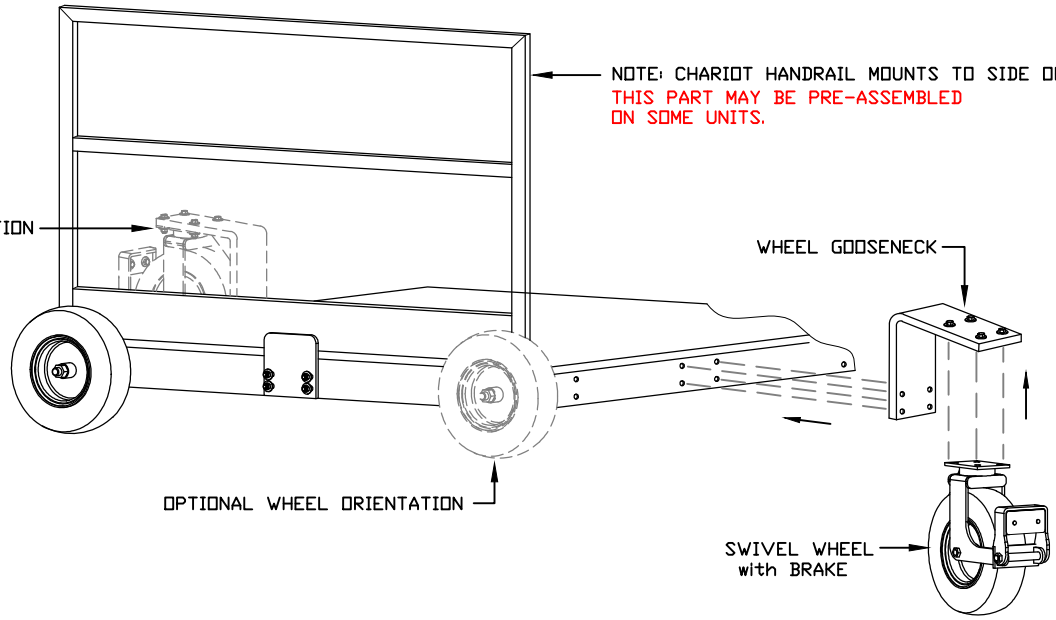
HARDWARE NEEDED:
(8) ½" X 2 ½" GALV BOLTS
(8) ½" GALV NUTS
(8) ½" GALV FLAT WASHERS
(8) ½" GALV LOCK WASHERS

ALIGN HOLES IN GOOSENECK AND BASE

**3a**

BOLT WITH ½x2½ BOLTS AND TIGHTEN ALL CONNECTIONS WITH SOCKET AND WRENCH

**Note:**
RIGID AND SWIVEL WHEEL ORIENTATION CAN ALSO BE FITTED 180 DEGREES IN THE OPPOSITE DIRECTION.




ALIGN SWIVEL WHEEL AND BOLT TO GOOSENECK WITH ½x2¼ BOLTS

**3b**

TIGHTEN ALL (4) CONNECTIONS WITH SOCKET AND WRENCH

# ASSEMBLY INSTRUCTIONS - Optional Dolly Kit

## For Use With Either Orientation

### 3 Gooseneck Assembly with Dolly Kit:

INSTALL WHEEL GOOSENECK TO BASE FIRST; BOLTING THROUGH CHARIOT BRACKET AS SHOWN BELOW.

HARDWARE NEEDED:
(8) ½" X 2 ¼" GALV BOLTS
(8) ½" GALV NUTS
(16) ½" GALV FLAT WASHERS
(8) ½" GALV LOCK WASHERS

NOTE:
REFER TO PAGE 12b, 12c, & 12d FOR DOLLY INSTRUCTIONS.

ALIGN HOLES IN GOOSENECK, CHARIOT BRACKET, AND BASE

BOLT WITH ½x2¼ BOLTS AND TIGHTEN ALL CONNECTIONS WITH SOCKET AND WRENCH

ALIGN DOLLY MOUNT PLATE AND BOLT TO TOP OF GOOSENECK WITH ½x2¼ BOLTS AS SHOWN


DOLLY KIT (SHOWN ATTACHED TO UNIT)

General Specifications:
Electric 24 V DC — (2) 12V batteries
Charger, 110 VAC, 60 HZ

**Power Train / Propelling System**
24 V DC electric motor
24 V DC controller

**Suspension System**
Casters —(1) rear, 8 in. (203.2 mm) dia.
Drive — (2) front, 12.4 in. (314.96 mm) dia.

**General Machine Dimensions**
Length — 36 in. (914 mm)
Width — 20.5 in. (521 mm)
Height — 41.1 in. (1042 mm)

**Machine**
Total Weight, with batteries— 350 lbs.

### 3a Replacing Swivel Wheel with Dolly Kit:

TO INSTALL DOLLY MOUNT PLATE, FIRST UNBOLT SWIVEL WHEEL FROM GOOSENECK.
NEXT, BOLT PIVOT PLATE TO TOP OF GOOSENECK AS SHOWN.

HARDWARE NEEDED:
(8) ½" X 2 ¼" GALV BOLTS
(8) ½" GALV NUTS
(16) ½" GALV FLAT WASHERS
(8) ½" GALV LOCK WASHERS

### For Existing Unit Replacement

SWAP OUT SWIVEL WHEEL WITH DOLLY MOUNT PLATE AS SHOWN

# ASSEMBLY INSTRUCTIONS - Optional Dolly Kit

## For Use With Either Orientation

### SAFETY PRECAUTIONS

For Safety:

1. Do not operate, maintain, or service machine:
   - Unless trained and authorized.
   - Unless operation manual is read and understood.
   - In flammable or explosive areas.
2. Before operating machine:
   - Make sure all safety devices are in place and operate properly.
3. When maintaining or servicing machine:
   - Disconnect battery connections before working on machine.
   - Avoid contact with battery acid.
   - Avoid moving parts. Do not wear loose jackets, shirts, ties, or sleeves when working on machine.

Warning:

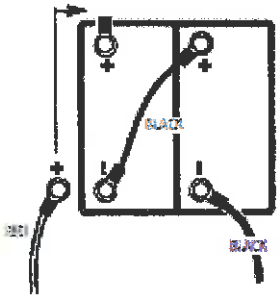
Batteries emit hydrogen gas. Explosion or fire can result. Keep sparks and open flame away. Keep covers open when charging.

Attention:

The battery charger supplied with the machine shall be grounded while in use to protect the operator form electric shock. This charger is designed for use on a nominal 120 volt circuit and has a grounding plug. Make sure the charger is connected to an outlet having the same configuration as the plug. No adapter should be used with this charger. The green conductor in the cord is the ground wire. Never connect this wire to other than the grounding pin of the attachment plug. Store indoors, do not expose to rain. This product is intended for commercial use.

### BATTERY REQUIREMENT AND CHARGING

1. Make sure the power switch is in the off (0) position.
2. Using the lift handles provided on the battery, place batteries in the machine with the terminal posts shown.




For Safety:

When maintaining or servicing the machine:

- Battery acid can cause burns. Avoid contact with battery acid.
- When working on or around batteries, wear protective clothing, gloves, and safety glasses.
- Do not lay metal tools or metal objects on top of the batteries.
- Only install deep cycle marine style lead acid batteries in your Maui mover. The charger is built specifically for lead acid batteries. Any other battery may become overcharged and cause serious damage to the machine or operator.
- When replacing batteries, you should replace all three batteries. This will assure the batteries will be kept in sync.

3. Remove the nuts from the terminal posts. Connect the wires as shown.
4. Make sure to attach the positive leads to the positive terminals. Place the nuts on the terminal and tighten securely.

The batteries have approximately an eight hour run time when fully charges. The batteries take about eight hours to charge charge after they have been fully discharged. The battery charger has an automatic timer that will turn off the charger when the batteries reach full charge. The batteries should be charged after every eight hours of operation of the machine.

To charge the batteries:

1. Move the machine to a flat, dry surface in a well ventilated room.
2. Open the machine cover.
3. Check the water level in the battery cells. If the level is low, add just enough distilled water to cover plates. DO NOT OVERFILL.
4. Wipe off tops of batteries with a cloth.
5. Connect this charge to the machine.
6. Plug the charger into a wall outlet.

# ASSEMBLY INSTRUCTIONS - Optional Dolly Kit

## For Use With Either Orientation

### OPERATION AND TRAINING

1. Operator has been shown and understands that the key switch and the safety stop switch must be turned on and the battery indicator gauge must be in the green/white position before the Maui mover will operate.

X_____

2. Operator has been shown and understands that the Maui mover has variable speed handle bar twist grips that will operate the unit between 0-3 mph forward and 0-1.5 mph backward. He/She understands that either allowing the handlebars to go back to neutral or pushing the safety stop switch, will stop the unit and load. The unit also has a speed gauge that limits high-end speed and power.

X_____

3. Operator has been shown and understands that turning the handle left or right turns the Maui mover, and thus turns the load. He/She understands that you should have two hands on the handle- bars when pushing a load, and walk along side the Maui mover with one hand on the handlebars when pulling a load.

X_____

4. Operator has been shown and understands that when the safety stop switch bumps into the operator and is depressed, the unit stops. The unit will not travel forward, only backwards in a slow manner as to unpin the operator if necessary. He/She must twist the safety stop switch in clockwise direction to release the switch before the unit becomes fully operational again.

X_____

5. Operator has been shown and understands that when the battery gauge is in the red, it should be plugged into the automatic charger until the unit is fully charged. The automatic charger must be unplugged and the gauge fully back in the green/white before the Maui mover is put back into operation.

X_____

### OPERATING

Before operating the machine:

1. Make sure the charge is OFF by unplugging the AC power cord from the wall outlet.
2. Lower the machine cover.
3. Make sure all controls are free and clear of any obstructions.
4. Turn the power switch ON.
5. Make sure the emergency stop switch is working correctly. (Optional)
6. Make sure the safety light is operating correctly. (Optional)
7. Make sure the speed control switch is either in fast or slow speed.

Power Switch

- The power switch controls the machine power.
- Turn key to (1) to turn on the power.
- Turn key to (O) to turn off the power.
- The machine batteries must be charged for the machine to have power.

Main Circuit Breaker

- The main circuit breaker protects the motor form overload. If the load is too high, the main circuit breaker will trip and the unit will stop. To reset the circuit breaker, press the circuit breaker reset button on the circuit breaker. It may be necessary to allow the circuit breaker to cool down before resetting, or it may trip again. Reduce the load before resuming.
- The circuit breaker protects control circuit form overload.

| | |
|---|---|
| Nominal Power | 1/2 hp (.373kW) |
| Maximum draw pull bar | 400 lbs. (181.4 kg) |
| Hauling Capacity | 1000 lbs (454 kg) |

Controls:

The handle assembly can easily be adjusted if the machine comes out of neutral and begins to creep. By removing (4) 5/16" self-threaded screws in the yellow control box, you will gain access to the control potentiometer. Adjust the potentiometer with a 1/2 SAE wrench. Turning the potentiometer towards the front of the machine will stop the machine from creeping backwards. Turning the potentiometer towards the rear of the machine will stop the machine from creeping forward.

# ASSEMBLY INSTRUCTIONS - Optional Dolly Kit

## For Use With Either Orientation

## MAINTENANCE

The daily and monthly maintenance requirements listed here may be performed without tools by the machine operators. Instructions for these maintenance requirements are provided in this section of the manual.

Daily:

Perform all duties listed under Pre-Operation Checklist.

Every Month:

Add distilled water if needed. Water should be just over the top of the cells in the batteries.

Every Three Months:

Lubricate the castor bearings with grease.
Check and tighten all fasteners and hardware.
Check, tighten, and lubricate battery posts and cables. Check transaxle for leaks, fill to level if required.

## TROUBLESHOOTING

**Q. The Maui mover turns on and powers up but does not move.**

A. 1. Make sure wires number 9 and 14 are plugged into the controller and are making a good connection.
2. Make sure motor connector under the machine is plugged in and is not damaged.
3. Check to make sure the 5k potentiometer in the handle bar is centered. Test the black and red wire on the pot, the center position is 2.5 ohm, when not moving the handle bars should read between 2.4k ohm and 2.6k ohm. If it is out of that range the machine will not move.
4. Test controller for power. You should have at least 36 volts coming into the controller at the b+ and b- terminals. Now check voltage at the motor connector under the machine. With the machine on and rotating the handle bars all the way forward or reverse you should have the same voltage as you did going to the controller. If you do not the controller could be bad.
5. Check manual brake. There is a lever by the drive tires to flip to make it a manual push to free wheel.

**Q. When I am done running the machine and I let go of the handle bars the machine slowly moves on its own.**

A. The potentiometer in the handle bar is slightly out of center. Center the pot to 2.5k ohm by testing the black and red wires on the pot and rotating it to whatever direction is needed.

**Q. When I turn the key on, nothing happens at all.**

A. If the voltmeter doesn't come on or you don't hear the contactor click one of three things could be bad. Check the battery voltage across all three batteries; you should have at least 36 volts. If that is OK either the contactor is not working or the key switch is not working. To bypass the key switch take the two wires going to the key switch and touch them together, if the key switch is bad the machine should turn on. If not, please contact SafeRack.

**Q. When I turn on the handle bar I can hear the machine running but it doesn't move.**

A. The gear at the end of the DC drive motor has either fallen off or broke. Take the drive motor off the transaxle to inspect the gear. At the end of the motor there should be a shaft with a gear and a clip holding it on. When taking the motor off you might want to tilt the machine at a slight angle to help prevent oil from leaking out of the transaxle. Note: Do not tip it too far, the batter- ies may leak acid out. If some oil leaks out, you can refill it with 80 or 90 weight gear oil.

**Q. When I rotate the handle bar, it does not snap back into the center position.**

A. The torsion spring has either slipped off the centering bolt or the spring has broke. Take the screws out of the control box to pull the box apart, the bottom part will pull completely off and the top part can rotate up. Inspect the torsion spring to make sure it is in the proper position.

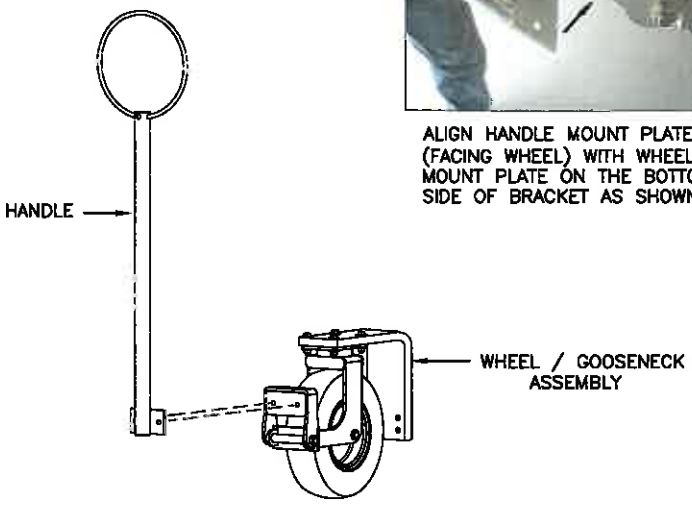
**Q. When I am pulling/pushing with the Maui mover, I hear a pop and the machine stops moving.**

A. The circuit breaker on the machine is blown, turn the machine off and push in the circuit breaker, it should reset itself. If this happens more often the circuit breaker could be wearing out and you may need to purchase a new breaker.

# ASSEMBLY INSTRUCTIONS - Handle/Jacks

## 4 Handle Mounting:

HARDWARE NEEDED:
(2) ½" X 2" GALV BOLTS
(2) ½" GALV NUTS
(2) ½" GALV FLAT WASHERS
(2) ½" GALV LOCK WASHERS




ALIGN HANDLE MOUNT PLATE (FACING WHEEL) WITH WHEEL MOUNT PLATE ON THE BOTTOM SIDE OF BRACKET AS SHOWN

BOLT TOGETHER WITH ½x2¼ BOLTS AND TIGHTEN BOTH CONNECTIONS WITH SOCKET AND WRENCH

Locked Wheel Position

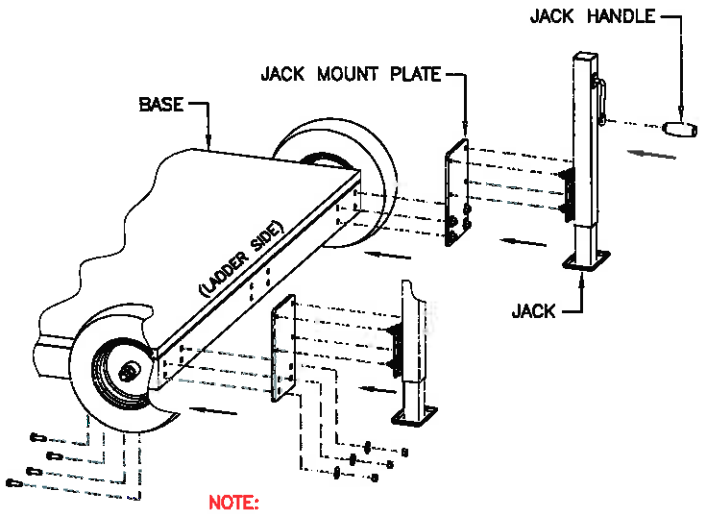
## 5 Stabilizing Jack Mounting:

HARDWARE NEEDED:

JACK PLATE TO BASE:
(8) ½" X 2" GALV BOLTS
(8) ½" GALV NUTS
(8) ½" GALV FLAT WASHERS
(8) ½" GALV LOCK WASHERS

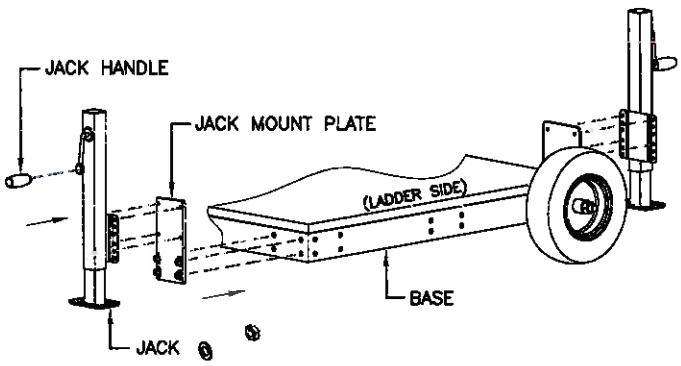
JACK TO JACK PLATE:
(8) ⅜" X 1 ½" GALV BOLTS
(8) ⅜" GALV NUTS
(8) ⅜" GALV FLAT WASHERS
(8) ⅜" GALV LOCK WASHERS

### Perpendicular Model




NOTE:
INSERT BOLTS THROUGH BASE HOLES FIRST WHEN MOUNTING JACK MOUNT PLATES TO AVOID INTERFERENCE WITH WHEEL HUB MOUNTING BOLTS.

### Parallel Model




TIGHTEN ALL BOLTED CONNECTIONS WITH SOCKET AND WRENCH

SafeRack
LOADING RACK TECHNOLOGIES

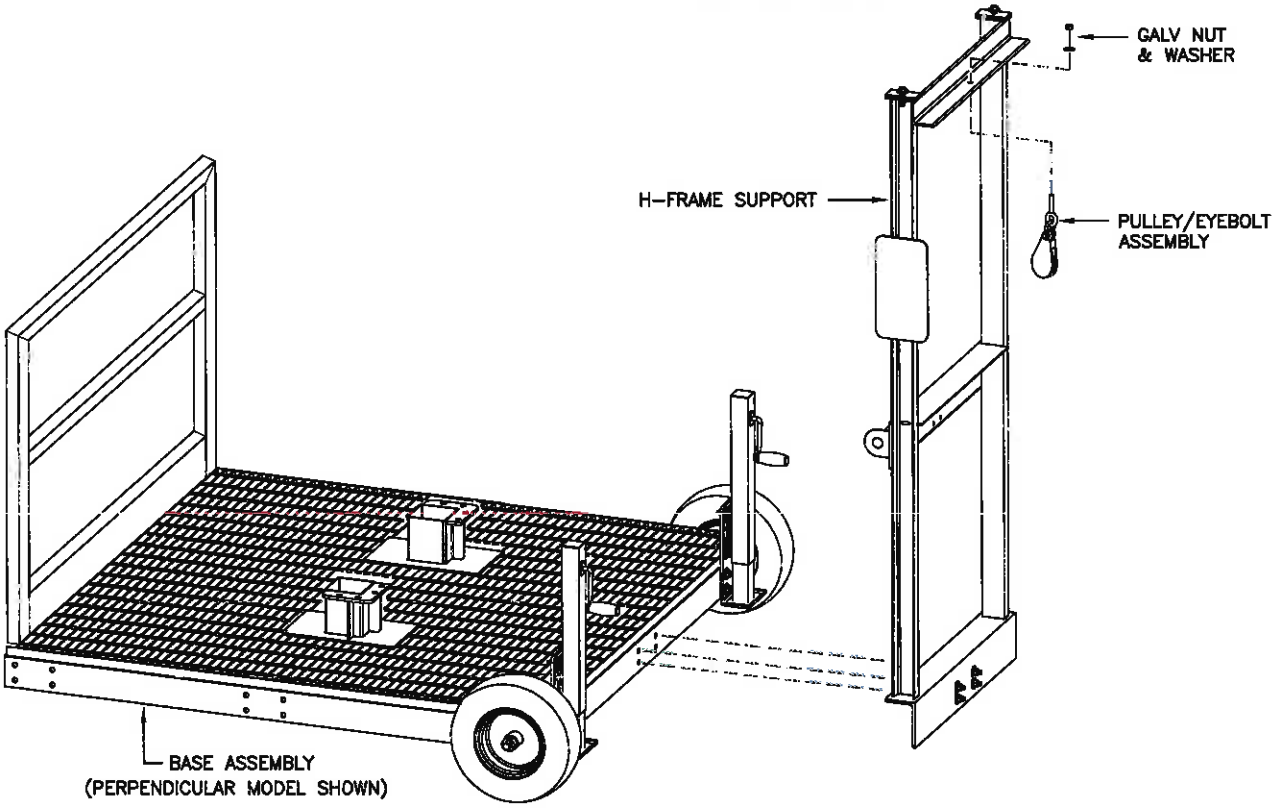
# ASSEMBLY INSTRUCTIONS - H-Frame

## (6) H-Frame Support Assembly:

HARDWARE NEEDED:
(4) ½" X 2" GALV BOLTS
(4) ½" GALV NUTS
(4) ½" GALV FLAT WASHERS
(4) ½" GALV LOCK WASHERS
(1) PULLEY/EYEBOLT ASSEMBLY w/GALV NUT and WASHER

ALIGN H-FRAME INTO POSITION

H-FRAME WILL REST RIGHT ABOVE WALK SURFACE




HAND TIGHTEN ½x2¼ BOLTS ONLY UNTIL COMPLETING LADDER ASSEMBLY

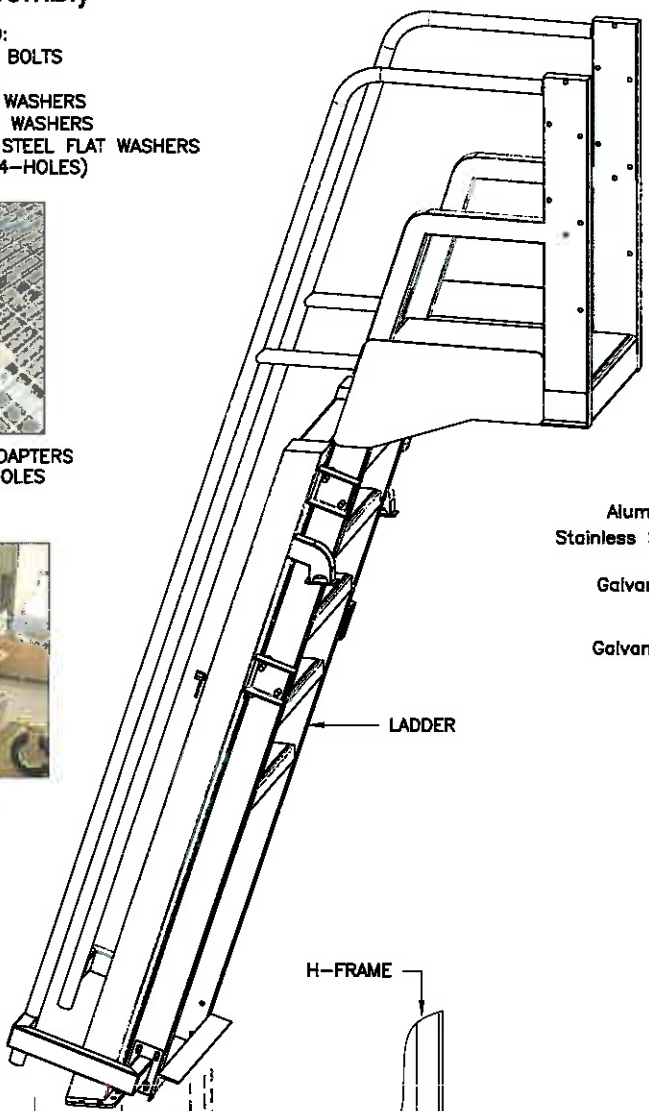
# ASSEMBLY INSTRUCTIONS - Ladder

## 7a Ladder Assembly:

HARDWARE NEEDED:
(8) ½" X 2" GALV BOLTS
(8) ½" GALV NUTS
(8) ½" GALV FLAT WASHERS
(8) ½" GALV LOCK WASHERS
(8) ½" STAINLESS STEEL FLAT WASHERS
(2) UHMW PADS (4-HOLES)

POSITION UHMW PADS ON ADAPTERS ALIGNING CORRESPONDING HOLES BEFORE MOUNTING LADDER

USING CRANE OR FORKLIFT, CAREFULLY RAISE AND POSITION LADDER OVER ADAPTER BRACKETS

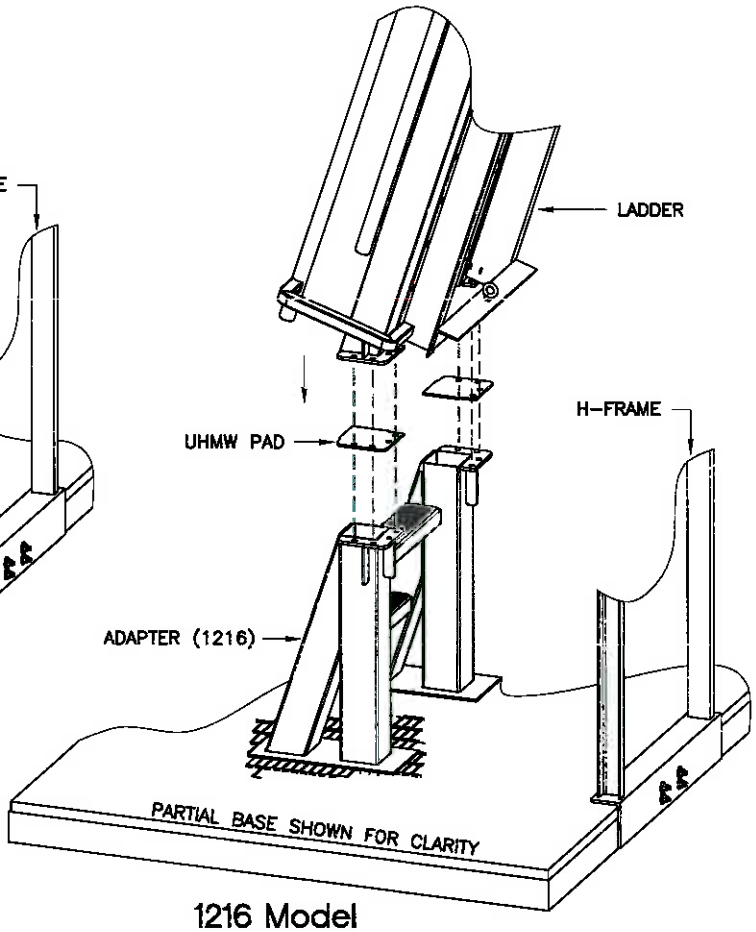



1014 Model

WARNING:
DISSIMILAR MATERIALS – UHMW PAD MUST BE BETWEEN ALUMINUM AND GALVANIZED MATERIAL BEFORE BOLTING

ALIGN HOLES AND MOVE INTO POSITION


HAND TIGHTEN ½x2¼ BOLTS ONLY UNTIL COMPLETING LADDER ASSEMBLY




1216 Model

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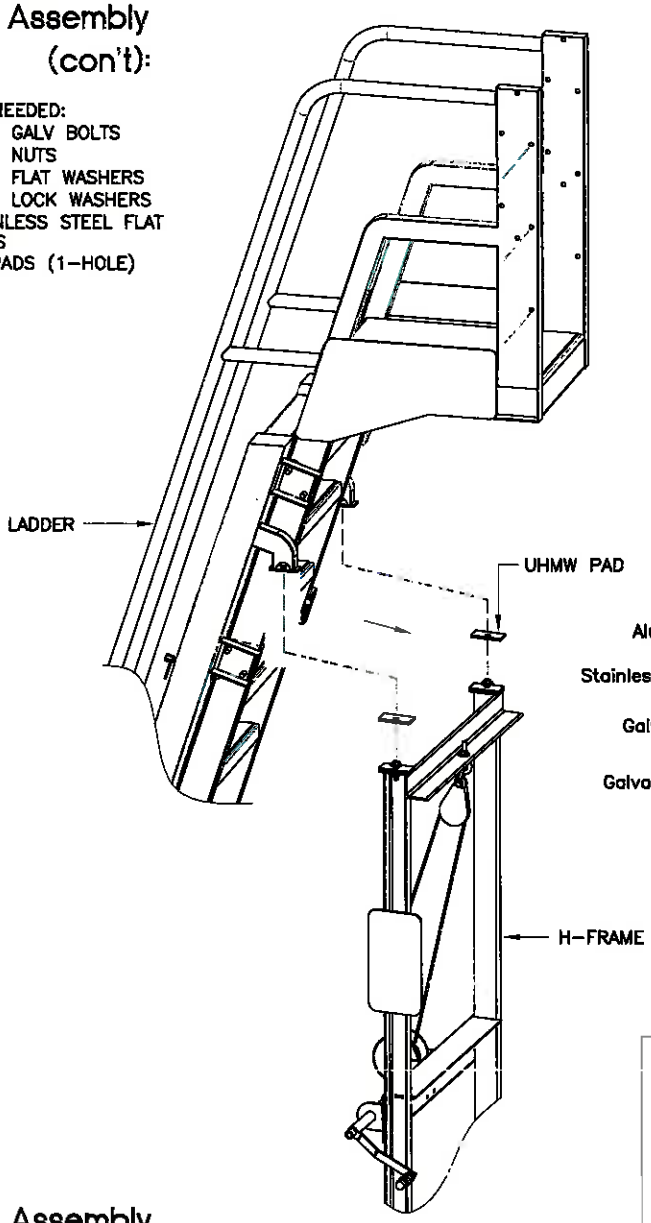
# ASSEMBLY INSTRUCTIONS - Ladder

## 7b Ladder Assembly (con't):

HARDWARE NEEDED:
(2) ½" X 2" GALV BOLTS
(2) ½" GALV NUTS
(2) ½" GALV FLAT WASHERS
(2) ½" GALV LOCK WASHERS
(2) ½" STAINLESS STEEL FLAT WASHERS
(2) UHMW PADS (1-HOLE)




WARNING:
DISSIMILAR MATERIALS – UHMW PAD MUST BE BETWEEN ALUMINUM AND GALVANIZED MATERIAL BEFORE BOLTING

POSITION UHMW PADS ON ADAPTERS ALIGNING CORRESPONDING HOLES BEFORE MOUNTING LADDER


HAND TIGHTEN ½x2¼ BOLTS ONLY UNTIL COMPLETING LADDER ASSEMBLY

ASSEMBLY NOTE:
ALL LADDER CONNECTIONS SHOULD PULL UP TIGHT AND FLUSH BETWEEN MOUNTING SURFACES. H-FRAME SUPPORT SHOULD BE PERPENDICULAR TO BASE AND LADDER STEPS/PLATFORM SHOULD BE LEVEL. IF THEY ARE NOT, THERE COULD BE A PROBLEM WITH THE ADAPTER ORIENTATION. REFER BACK TO STEP #1 AND THE ORIENTATION DIAGRAM AT THE BEGINNING OF THIS MANUAL.

## 7c Ladder Assembly (con't):

COMPLETE LADDER ASSEMBLY BY USING SOCKET AND WRENCH TO TIGHTEN ALL LADDER CONNECTIONS.

LADDER TO H-FRAME

LADDER TO ADAPTER

H-FRAME TO BASE

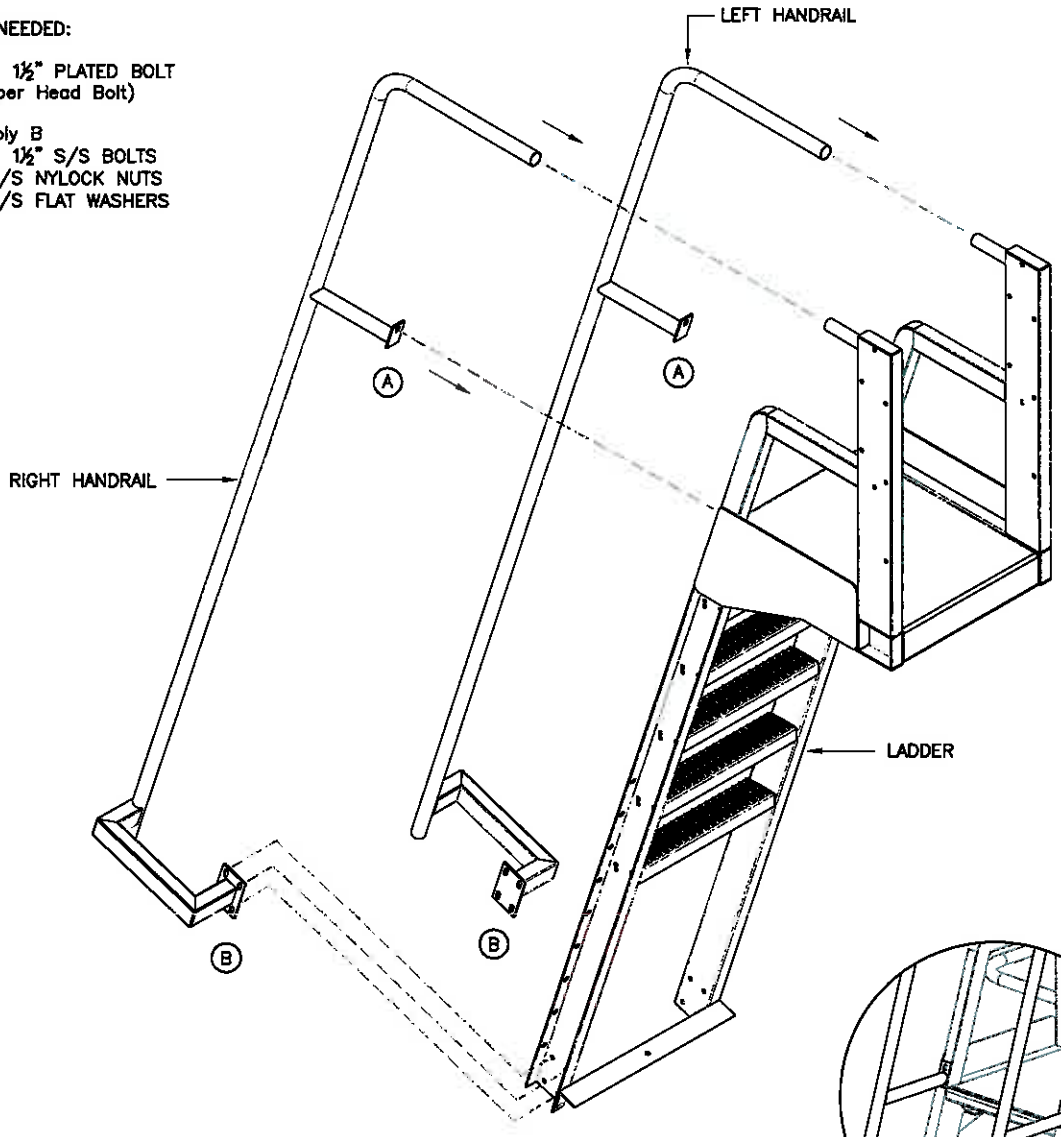
# ASSEMBLY INSTRUCTIONS
# Ladder Handrail

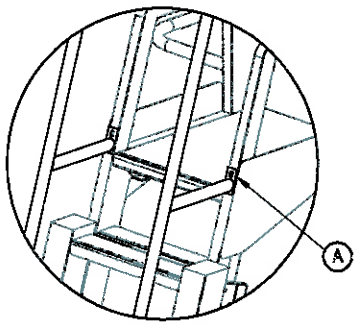
Note: Handrails Are Typically Shipped Pre-mounted On New Units.

## 7d Handrail Assembly / Replacement:

HARDWARE NEEDED:
Bolt A
(2) ½" X 1½" PLATED BOLT
(Gripper Head Bolt)

Bolt Assembly B
(8) ½" X 1½" S/S BOLTS
(8) ½" S/S NYLOCK NUTS
(8) ½" S/S FLAT WASHERS




FRONT OF LADDER

TO ATTACH HANDRAILS:

1) FIRST, SLIDE TOP OF HANDRAIL OVER PIPE SOCKET ON PLATFORM UPRIGHT.
2) POSITION HANDRAIL INTO PLACE AS SHOWN.
3) LOOSELY BOLT ON TOP HANDRAIL BRACKET (BOLT A).
4) ALIGN HOLES IN BOTTOM MOUNT BRACKET WITH LADDER SIDERAIL AND BOLT ON USING 4 BOLTED CONNECTIONS (BOLT B).
5) TIGHTEN ALL CONNECTIONS SECURELY (BOLTS A AND B).
6) REPEAT STEPS 1–5 FOR OTHER HANDRAIL CONNECTION.

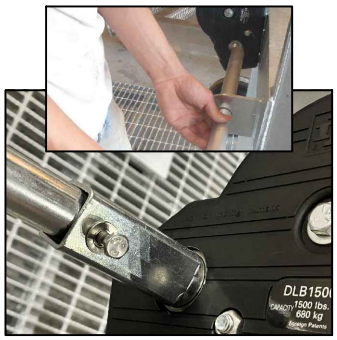
# ASSEMBLY INSTRUCTIONS
# Winch Handle and Cable

## 8 Winch, Handle and Extension Assembly:

HARDWARE NEEDED:
(3) ⅜" X 1½" GALV BOLTS
(3) ⅜" GALV NUTS
(3) ⅜" GALV FLAT WASHER
(2) ¼" X 2" S/S BOLTS
(2) ¼" S/S NYLOCK NUT
(4) ¼" S/S FLAT WASHER
(1) BUSHING W/ SNAP RING

**8a** LINE UP HOLES IN BACK OF WINCH WITH HOLES IN H-FRAME SUPPORT AS SHOWN AND BOLT ON USING ⅜x1½ BOLTS PROVIDED AND TIGHTEN ALL CONNECTIONS.

**8b** INSTALL BUSHING IN "EYE" BRACKET AND SECURE WITH SNAP RING AS SHOWN.




**8c** SLIDE ONE END OF HANDLE EXTENSION THROUGH "EYE" BRACKET AS SHOWN AND BOLT TO WINCH STUD.

**8d** FINALLY, SLIDE HANDLE ON TO OTHER END OF HANDLE EXTENSION AND SECURE WITH PROVIDED BOLT.

## 9 Cable Assembly Completion:

BEFORE STARTING CABLE ASSEMBLY:
CAREFULLY REMOVE WRAPPING FROM PULLEY AND WINCH AREAS AND UNWIND CABLE.
HARDWARE NEEDED:
(2) CABLE CLAMPS
(1) WIRE THIMBLE

WARNING:
(2) CABLE CLAMPS ARE REQUIRED FOR SAFE USE OF THE M3 MAUI. IF THIS CONNECTION IS NOT COMPLETE AND SECURE, DO NOT USE UNIT.

**9a** THREAD CABLE THROUGH TOP PULLEY OUTSIDE TO INSIDE AS SHOWN

**9b** NEXT, THREAD CABLE THROUGH EYEBOLT ATTACHED TO BOTTOM OF LADDER INSERT THIMBLE ONTO EYEBOLT AND POSITION CABLE AS SHOWN

**9c** NEXT, SQUEEZE CABLE TOGETHER AND ATTACH CABLE CLAMPS

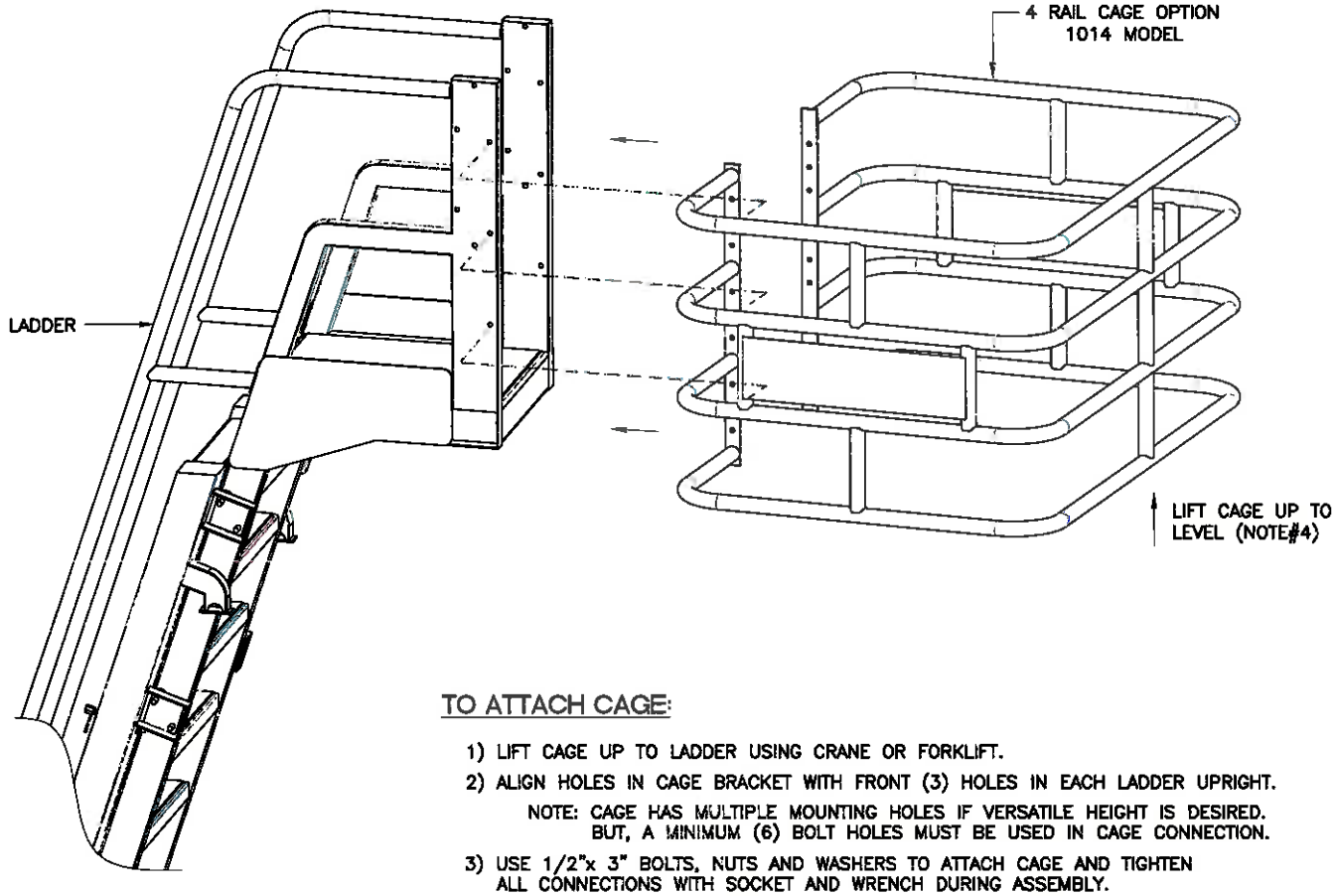
**9d** ALLOW ENOUGH CABLE TO FASTEN BOTH CABLE CLAMPS APPROX. 4 TO 6 INCHES APART AND TIGHTEN CLAMP CONNECTIONS SECURELY

# ASSEMBLY INSTRUCTIONS - 4 Rail Cage

## (10) 4 Rail Cage Assembly:

HARDWARE NEEDED:
(6) ½" X 3" S/S BOLTS
(6) ½" S/S NYLOCK NUTS
(12) ½" S/S FLAT WASHERS

WARNING:
FOR SAFETY, DON'T STAND ON THE TOP PLATFORM TO ATTACH CAGE WITHOUT ADDITIONAL FALL PROTECTION




### TO ATTACH CAGE:

1) LIFT CAGE UP TO LADDER USING CRANE OR FORKLIFT.
2) ALIGN HOLES IN CAGE BRACKET WITH FRONT (3) HOLES IN EACH LADDER UPRIGHT.
   NOTE: CAGE HAS MULTIPLE MOUNTING HOLES IF VERSATILE HEIGHT IS DESIRED. BUT, A MINIMUM (6) BOLT HOLES MUST BE USED IN CAGE CONNECTION.
3) USE 1/2"x 3" BOLTS, NUTS AND WASHERS TO ATTACH CAGE AND TIGHTEN ALL CONNECTIONS WITH SOCKET AND WRENCH DURING ASSEMBLY.
   NOTE: USE ANTI-SIEZE TO HELP PREVENT S/S HARDWARE FROM GAULLING.
4) IF CAGE APPEARS TO SAG, SLIGHTLY LOOSEN BOLTS, LIFT CAGE UP FROM THE FRONT OUTSIDE EDGE "OFF-LEVEL" AND THEN RETIGHTEN BOLTS.

# ASSEMBLY INSTRUCTIONS - 2 Rail Cage

## (10) 2 Rail Cage Assembly:

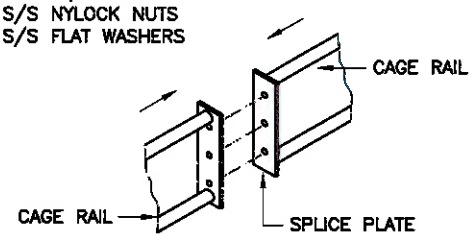
HARDWARE NEEDED:
(4) ½" X 3" S/S BOLTS
(4) ½" S/S NYLOCK NUTS
(8) ½" S/S FLAT WASHERS

WARNING:
FOR SAFETY, DON'T STAND ON THE TOP PLATFORM TO ATTACH CAGE WITHOUT ADDITIONAL FALL PROTECTION

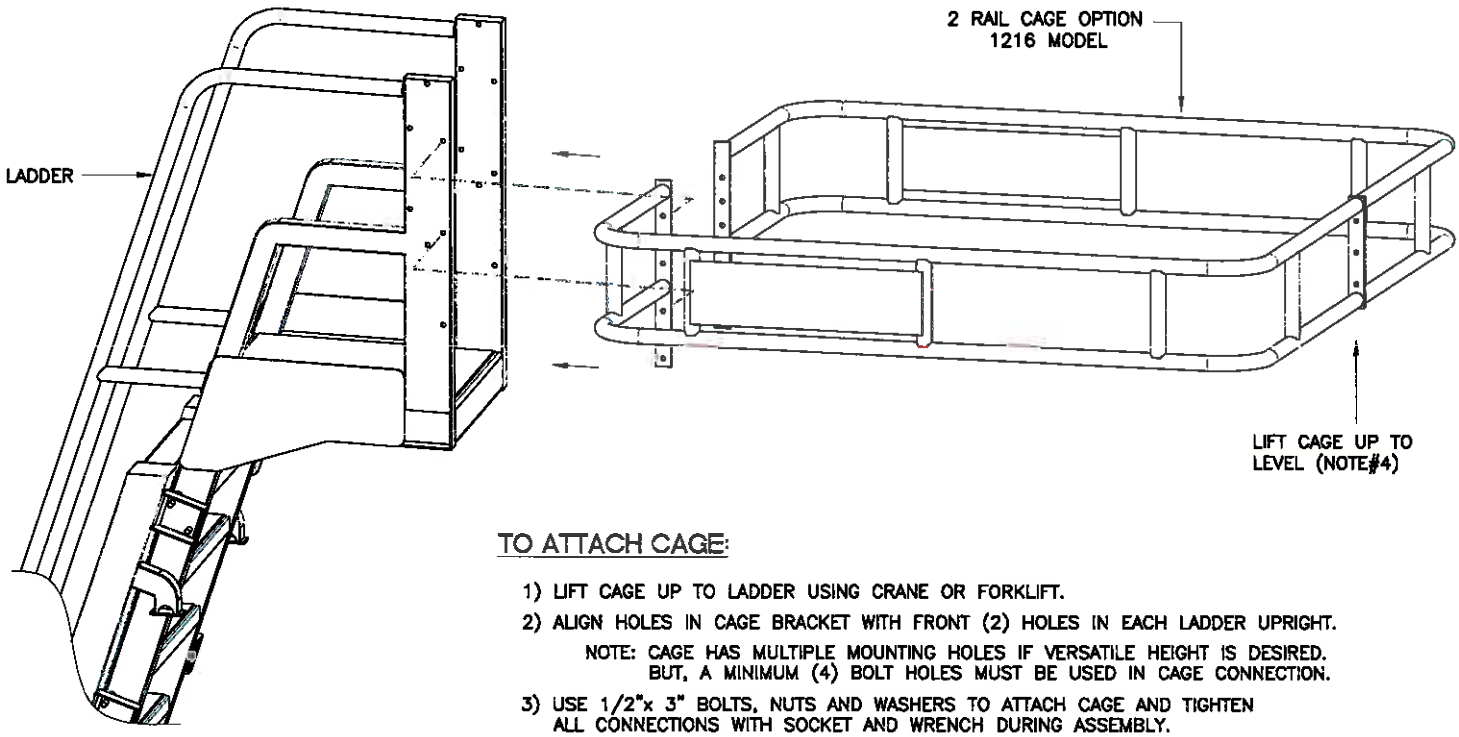
SOME CAGES MAY NEED TO BE PRE-ASSEMBLED BEFORE ATTACHING TO LADDER

1) ALIGN HOLES IN CAGE SPLICE PLATE LOCATED ON THE FRONT OF THE CAGE.
2) USE 1/2"x 3" BOLTS W/ NUT AND WASHERS TO ASSEMBLE CAGE AND WRENCH TIGHTEN ALL BOLTED CONNECTIONS.

SPLICE HARDWARE NEEDED (IF APPLICABLE):
(3) ½" X 2" S/S BOLTS
(3) ½" S/S NYLOCK NUTS
(3) ½" S/S FLAT WASHERS




SPLICE CONNECTION
FRONT OF CAGE




TO ATTACH CAGE:

1) LIFT CAGE UP TO LADDER USING CRANE OR FORKLIFT.
2) ALIGN HOLES IN CAGE BRACKET WITH FRONT (2) HOLES IN EACH LADDER UPRIGHT.
   NOTE: CAGE HAS MULTIPLE MOUNTING HOLES IF VERSATILE HEIGHT IS DESIRED. BUT, A MINIMUM (4) BOLT HOLES MUST BE USED IN CAGE CONNECTION.
3) USE 1/2"x 3" BOLTS, NUTS AND WASHERS TO ATTACH CAGE AND TIGHTEN ALL CONNECTIONS WITH SOCKET AND WRENCH DURING ASSEMBLY.
   NOTE: USE ANTI-SIEZE TO HELP PREVENT S/S HARDWARE FROM GAULLING.
4) IF CAGE APPEARS TO SAG, SLIGHTLY LOOSEN BOLTS, LIFT CAGE UP FROM THE FRONT OUTSIDE EDGE "OFF-LEVEL" AND THEN RETIGHTEN BOLTS.

# ASSEMBLY INSTRUCTIONS
# YELLOWGATE - OPTION

## (11) Yellowgate Assembly:

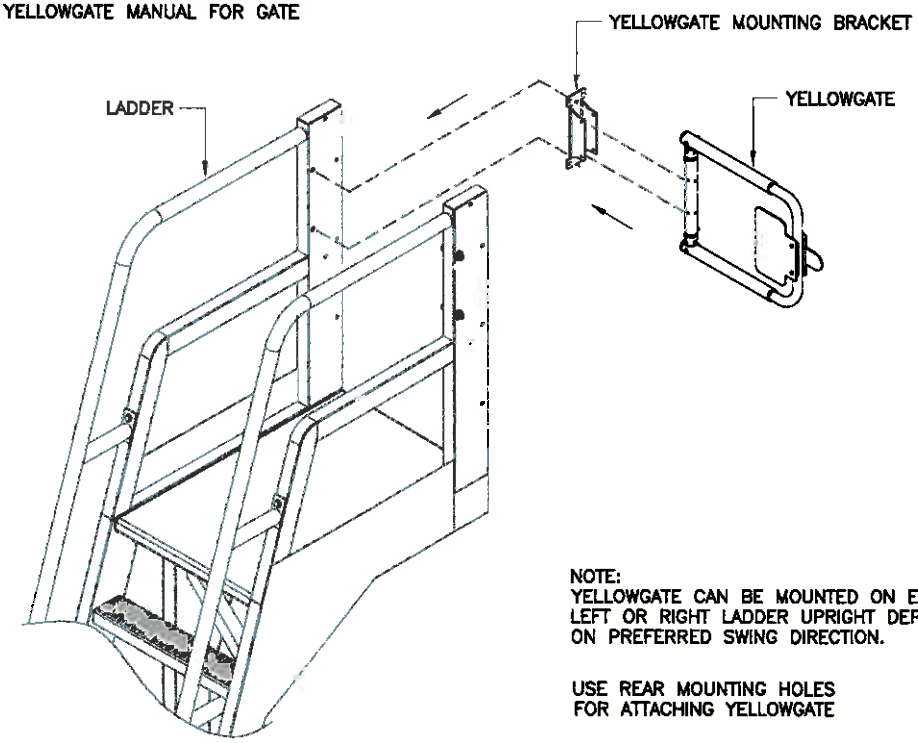
HARDWARE NEEDED:

(2) – ½"x3" S/S BOLTS
(2) – ½" S/S NYLOCK NUTS
(4) – ½" S/S FLAT WASHERS

NOTE:
REFER TO YELLOWGATE MANUAL BEFORE INSTALLATION TO MAUI UNIT.

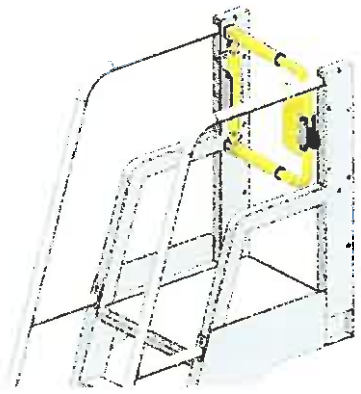
## Assembly:

- ALIGN YELLOWGATE MOUNTING BRACKET HOLES WITH CORRESPONDING MOUNTING HOLES IN LADDER UPRIGHT AS SHOWN BELOW AND BOLT TOGETHER USING SUPPLIED BOLTS, NUTS, AND WASHERS.
- TIGHTEN ALL CONNECTIONS SECURELY.
- FOLLOW INSTRUCTIONS IN YELLOWGATE MANUAL FOR GATE INSTALLATION.




NOTE:
YELLOWGATE CAN BE MOUNTED ON EITHER LEFT OR RIGHT LADDER UPRIGHT DEPENDING ON PREFERRED SWING DIRECTION.

USE REAR MOUNTING HOLES FOR ATTACHING YELLOWGATE



# OPERATING INSTRUCTIONS

**ALWAYS INSPECT UNIT FOR DAMAGE, WEAR, OR POOR MAINTENANCE PRIOR TO USE**

1) ROLL UNIT INTO PLACE USING HANDLE. MAKE SURE THAT THE OPTIONAL SAFETY CAGE IS HIGH ENOUGH TO CLEAR VEHICLE PRIOR TO MOVING IN PLACE.
TAKE CARE MANEUVERING MAU-I. UNIT TAKES APPROXIMATELY 50 POUNDS OF FORCE TO OPERATE ON LEVEL GROUND.
PLEASE ENSURE THAT UNIT HAS BEEN SPOTTED CORRECTLY SO THAT NO GAP OR MINIMUM GAP IS PRESENT BETWEEN SAFETY CAGE RAIL AND VEHICLE OR BETWEEN LADDER PLATFORM AND VEHICLE.

2) LOWER JACKS INTO PLACE. PULL PINS AND DROP LEVELING JACKS TO GRADE. REPLACE LOCK PINS BACK IN PLACE AND USE WINCH HANDLE TO COMPRESS THE REST OF THE WAY. (FIGURE A)
JACKS HAVE TO SECURE BASE PRIOR TO USE.

3) CHECK LOCKING PINS ON LADDER TO INSURE THAT THEY ARE DIS-ENGAGED. LADDER WILL NOT OPERATE WITH PINS IN PLACE! (FIGURE B)

FAILURE TO DIS-ENGAGE PINS BEFORE OPERATING WINCH CAN DAMAGE UNIT.

4) LOWER LADDER AND SAFETY CAGE (OPTIONAL) DOWN INTO PLACE OVER HATCH LOCATION ON VEHICLE. (FIGURE C)
PLEASE ENSURE THAT UNIT HAS BEEN SPOTTED CORRECTLY SO THAT NO GAP OR A MINIMAL GAP IS PRESENT BETWEEN SAFETY CAGE RAIL AND VEHICLE OR BETWEEN LADDER PLATFORM AND VEHICLE.

FIGURE A

FIGURE B


FIGURE C

5) UNIT IS DESIGNED FOR 500 POUND CAPACITY AND IS SELF SUPPORTING; HOWEVER, ONLY ONE OPERATOR AT A TIME IS RECOMMENDED.

6) LOCK SAFETY PINS ON BOTH SIDES OF LADDER SIDERAIL PRIOR TO CLIMBING. (FIGURE B) THIS TAKES THE LOAD OFF OF THE WINCH AND CABLE.
BE SURE LOCKING PIN ON EACH SIDE IS FULLY ENGAGED. IF THEY ARE NOT, THIS EFFECTS THE SELF SUPPORTING FEATURE AND SHOULD BE CHECKED BEFORE USING UNIT. PINS SHOULD EXTEND THROUGH LOCKING HOLE A MINIMUM OF 3/16" – 1/4".

REMEMBER, SAFETY FIRST. WEAR APPRORIATE PROTECTIVE GEAR AT ALL TIMES WHILE USING THIS EQUIPMENT AS WELL AS FOLLOWING ANY LOCAL SAFETY REGULATIONS FOR YOUR AREA OF WORK. THIS MAY INCLUDE, BUT NOT LIMITED TO: HARD HAT, SAFETY GLASSES, PROTECTIVE CLOTHING, SLIP RESISTANT SHOES, AND GLOVES.

7) CLIMB AND ACCESS TANK TRUCK OR RAIL CAR FOR SINGLE HATCH ACCESS. DO NOT ATTEMPT TO MOVE MAU-I WHILE IN WORKING POSITION AND DO NOT MOVE VEHICLE WHILE UNIT IS IN PLACE.

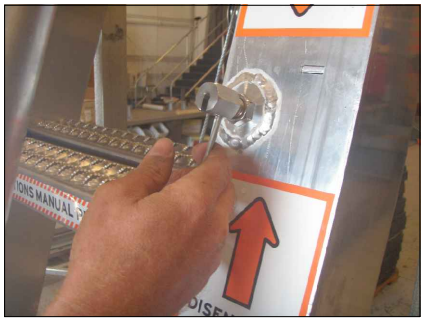
8) AFTER USE AND BEFORE OPERATING WINCH, PULL LOCK PINS OUT AND RAISE UNIT SO THAT IT CLEARS VEHICLE. (FIGURES B & C) RAISE LEVELING JACKS INTO STORED POSITION (FIGURE A); AND MOVE MAU-I TO STORED LOCATION.

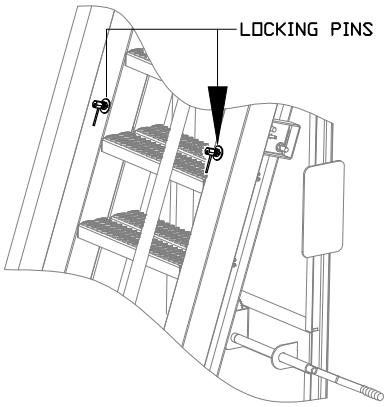
FAILURE TO DIS-ENGAGE PINS BEFORE OPERATING WINCH CAN DAMAGE UNIT.

THE MAU-I IS A SELF-SUPPORTING UNIT, BUT IT IS NOT DESIGNED TO "RIDE ON" WHILE UNIT IS BEING MANEUVERED INTO WORKING POSITION

# WARNING
# (OPERATIONAL HAZARDS)

SPRING LOCKS ON BOTH SIDES OF LADDER SIDERAIL MUST BE ENGAGED "FULLY" BEFORE CLIMBING LADDER , IF THEY ARE NOT, THEN THIS EFFECTS THE SELF SUPPORTING FEATURE AND SHOULD BE CHECKED BEFORE USING UNIT. PINS SHOULD EXTEND THROUGH LOCKING HOLE A MINIMUM OF 3⁄16" - ¼".






STABILIZING JACKS MUST BE ENGAGED BEFORE CLIMBING LADDER

WHEEL LOCKING HANDLE MUST BE ENGAGED (UP POSITION) BEFORE CLIMBING LADDER

**DO NOT MODIFY YOUR MAUI UNIT IN ANY WAY. UNAUTHORIZED MODIFICATION OF THE MAUI COULD AFFECT THE FUNCTION AND/OR SAFETY OF THE EQUIPMENT.**

**REMEMBER, SAFETY FIRST. YOU ARE RESPONSIBLE FOR THE SAFE OPERATION, MAINTENANCE AND INSPECTION OF YOUR M3-MAUI UNIT. PLEASE ENSURE THAT ANYONE WHO IS GOING TO OPERATE, MAINTAIN, INSPECT OR WORK AROUND THE M3-MAUI IS FAMILIAR WITH THE OPERATING AND MAINTENANCE PROCEDURES LISTED IN THIS MANUAL AND ANY SAFETY INFORMATION FOR YOUR AREA OF WORK.**

PLEASE CONTACT THE MANUFACTURER IF YOU HAVE ANY QUESTIONS ABOUT USE.

**WARNING:** This product can expose you to chemicals including cadmium, which is known to the State of California to cause cancer, and/or birth defect or other reproductive harm.

For more information go to www.P65warnings.ca.gov

# TROUBLESHOOTING (OPERATIONAL HAZARDS)

LOCKING PIN DAMAGE:

FAILURE TO DIS-ENGAGE PINS BEFORE OPERATING WINCH CAN DAMAGE UNIT. IF THIS HAPPENS, PINS CAN BEND AND JAM LADDER SECTIONS AND PREVENT UNIT FROM WORKING.

IN SOME CASES OF MIS-APPLIED FORCE, PINS CAN SHEER OFF AT LOCKING HOLE.

IN EITHER CASE, UNIT SHOULD NOT BE USED.

LOCKING PINS MUST BE REMOVED AND REPLACED. CONTACT SAFERACK TO ORDER NEW PINS.

**WITHOUT THE LOCKING PINS, UNIT IS NOT SELF SUPPORTING AND SHOULD NOT BE USED AS SUCH. THE M3-MAUI SHOULD NOT BE USED FOR ANY ACCESS BEING ONLY SUPPORTED BY WINCH AND CABLE.**

# RECOMMENDED INSPECTION CHECKLIST

## (MONTHLY MAINTENANCE)

### 1) INSPECT LOCKING PINS

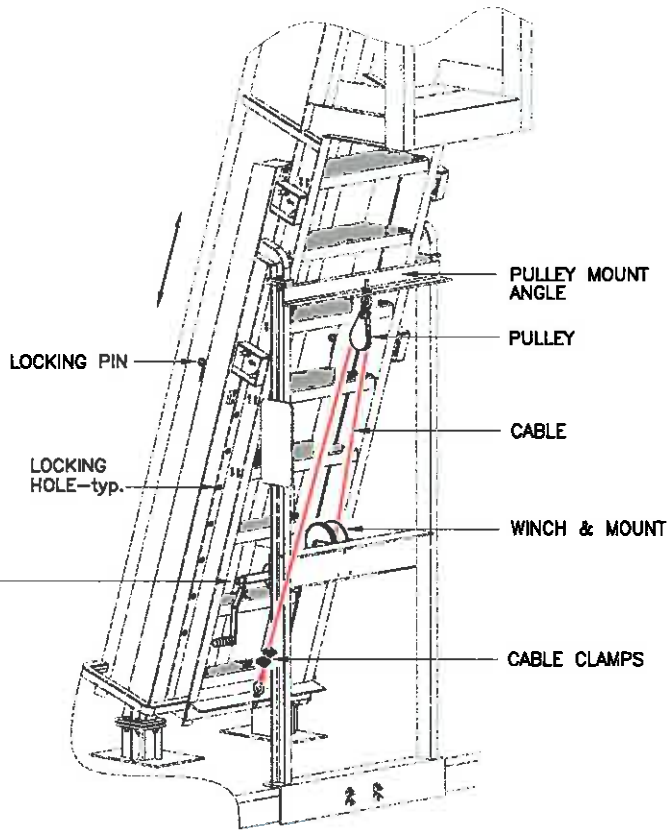
A) VERIFY PINS ARE WORKING PROPERLY
B) ENSURE PINS ARE TIGHTENED PROPERLY IN PLACE
C) VERIFY THAT PINS PROTRUDE FULLY THRU LOCKING HOLE A MINIMUM OF 3/16" TO 1/4"

### 2) MOVEMENT OF LADDER/PLATFORM UNIT

A) VERIFY UNIT'S ABILITY TO CRANK UP AND DOWN EASILY
B) INSPECT LADDER ROLLERS
C) ENSURE ALL FASTENERS ARE TIGHTENED PROPERLY

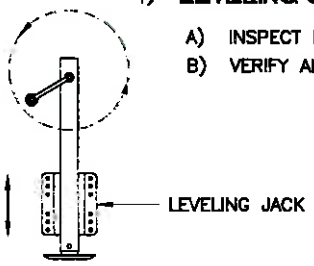
### 3) WINCH / CABLE / PULLEY SYSTEM

A) CHECK CABLE FOR SIGNS OF FRAYING
B) VERIFY CABLE CLAMPS ARE TIGHTENED PROPERLY
C) INSPECT PULLEYS, VERIFY ALL CONNECTIONS ARE TIGHT
D) VERIFY PULLEY MOUNT ANGLE IS NOT DAMAGED OR DEFORMED
E) INSPECT WINCH FOR WEAR AND VERIFY IT IS SECURELY FASTENED TO FRAME
F) INSPECT WINCH AND CABLE FOR ANY CORROSION FORMING
G) INSPECT WINCH HANDLE AND HANDLE EXTENSION AND ENSURE LOCKNUT ON END IS SECURELY FASTENED




### 4) LEVELING JACKS

A) INSPECT FOR PROPER WORKING AND EASY CRANKING
B) VERIFY ALL FASTENERS ARE TIGHTENED PROPERLY




### 5) CONNECTIONS / FASTENERS

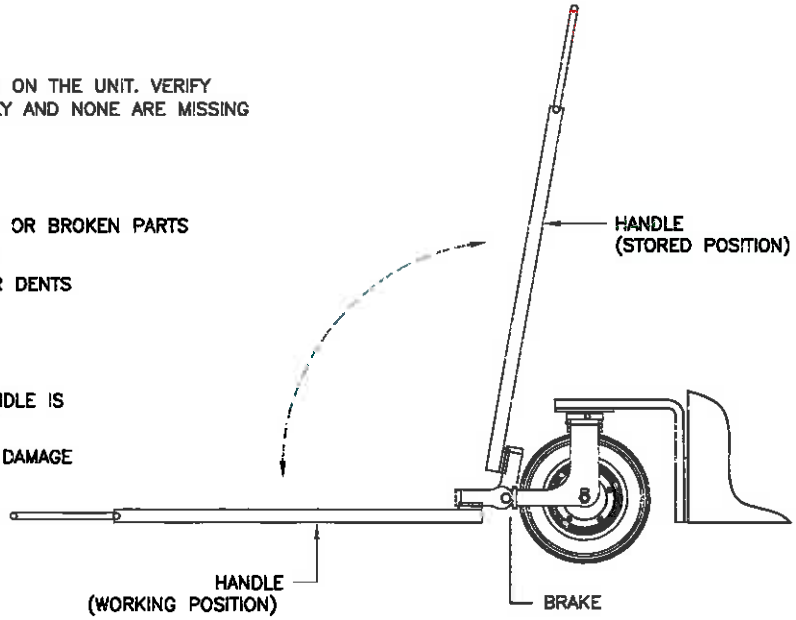
A) INSPECT ALL BOLTED CONNECTIONS ON THE UNIT. VERIFY THAT ALL ARE TIGHTENED PROPERLY AND NONE ARE MISSING

### 6) VISIBLE DAMAGE

A) INSPECT UNIT FOR DAMAGED, BENT OR BROKEN PARTS
B) INSPECT UNIT FOR BROKEN WELDS
C) INSPECT UNIT FOR BUMPS AND/OR DENTS

### 7) HANDLE / WHEEL BRAKE

A) VERIFY BRAKE ENGAGES WHEN HANDLE IS IN STORED POSITION
B) INSPECT HANDLE/BRAKE FOR ANY DAMAGE




SafeRack
LOADING RACK TECHNOLOGIES

# SCHEDULED MAINTENANCE

EVERY SIX MONTHS:

1) CHECK ALL BOLTED CONNECTIONS TO ENSURE THAT THEY ARE PROPERLY TIGHTENED AND THAT NONE ARE MISSING.

2) INSPECT EQUIPMENT FOR ANY DAMAGE THAT MAY HAVE OCCURRED WHILE IN USE AND MAY AFFECT EQUIPMENT OPERATION.

3) CHECK CABLE FOR SIGNS OF FRAYING.

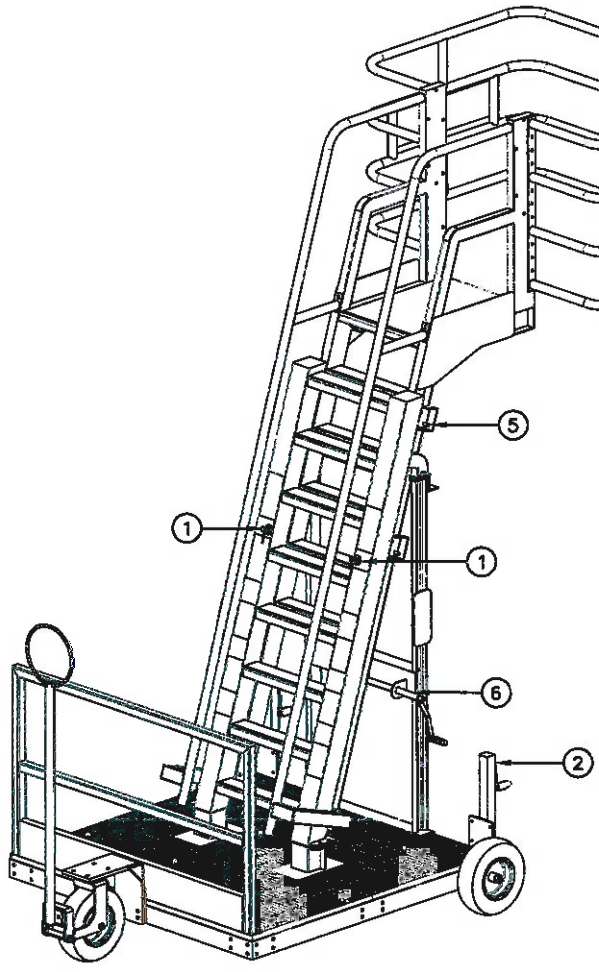
4) LUBRICATE LOCKING PINS WITH A MULTIPURPOSE LITHIUM GREASE ONLY.

5) RE-PACK WHEEL BEARINGS WITH WHEEL BEARING GREASE AS REQUIRED.

6) GREASE STABILIZER JACKS WITH A MULTIPURPOSE LITHIUM GREASE.

7) MAKE SURE LOCKING PINS ARE NOT BROKE AND WILL FULLY ENGAGE.

# REPLACEMENT PARTS




| ITEM | QUANTITY | DESCRIPTION |
|---|---|---|
| 1 | 2 | LOCKING PIN |
| 2 | 2 | STABILIZING JACKS |
| 3 | 1 | CABLE |
| 4 | 2 | CABLE CLAMPS |
| 5 | 8 | ROLLERS |
| 6 | 1 | WINCH W/ HANDLE |
| | | |