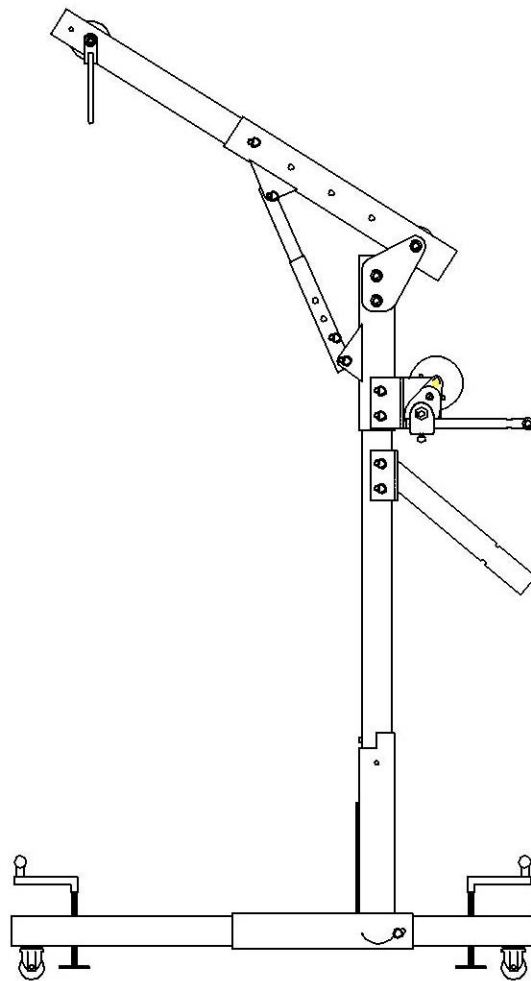


USER MANUAL

ADJUSTABLE RESCUE/RETRIEVAL DAVIT HOIST Part # P-00597



**Safe
Approach
Inc.**

Innovators
in Safety

206 Mechanic Falls Rd., Poland, ME 04274
Phone: 207-345-9900, Fax: 207-345-9100

WWW.SAFEAPPROACH.COM

INTRODUCTION



WARNING: Read carefully and understand the instructions all the way through before beginning to use the system. Conduct yourself in a safe and workmanlike manner at all times during all phases of setup and use. Failure to do so could result in injury or death.

1.0 APPLICATION

1.1 USE: The Safe Approach rescue/retrieval hoist is intended to be used as a confined space entry/retrieval device, personnel riding, personnel fall arrest or as a rescue device.

1.2 LIMITATIONS: The following is a list of application limitations.



WARNING: Exceeding the limitations of a safety device may result in injury or death.

- A. Capacity—the maximum working load is 310lbs.
- B. Fall Arrest—only use a self retracting lifeline meeting all OSHA guidelines as a fall arrest device.
- C. Material Handling—the maximum safe working load is 450 lbs. Do not use this unit to hoist materials and personnel simultaneously.

2.0 COMPATIBILITY

2.1 COMPONENTS: The components of this device have been designed for use with other compatible Safe Approach Components. Never use a component in this system that is not approved by Safe Approach.



WARNING: Using incompatible components could jeopardize the structural integrity of the system and may cause injury or death.

2.2 FALL ARREST DEVICES: The following devices may be used from any manufacturer as long as they meet all applicable ANSI/OSHA standards:

- A. Harnesses
- B. Self Retracting Lifelines

2.3 STRUCTURE: The structure this system is used on must be sound and capable of supporting adequate loads generated by this system. If you have any questions regarding the suitability of the structure, please contact Safe Approach.



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COMPONENTS

3.0 COMPONENTS: The following is a list of components that make up a complete rescue/retrieval system: Base, Mast, Winch, Fall Arrest Device, Harness.

3.1 BASE—The base is the support structure of the system, and may be either permanently mounted or portable. All Safe Approach bases are compatible with the mast and selection depends on each individual application. An example of each is shown below.



Portable Davit Base—Figure 1



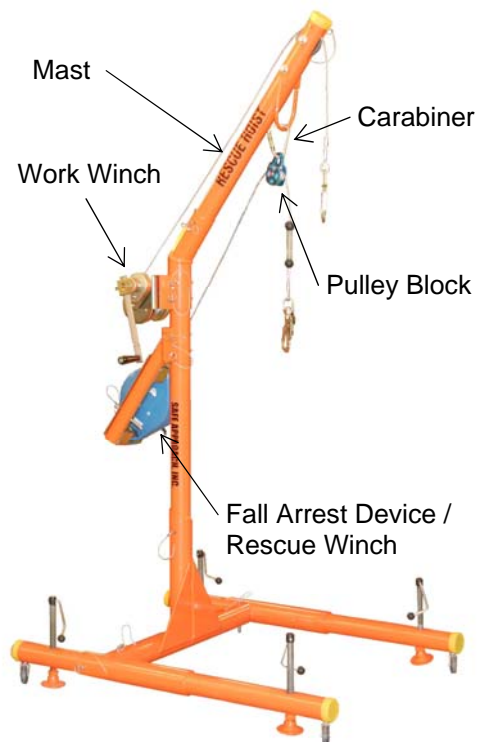
Permanent Davit Base—Figure 2

3.2 MAST—The mast is the portion of the system which carries the load. The Safe Approach mast is offset 20 1/2" from the edge of the mast to the cable. This allows for easy retrieval from nearly any application. Figure 3 shows the mast.

3.3 WINCH—There are two types of winches available for the rescue hoist. The first is the “man winch” or “work winch” shown in figure 3. This winch is for normal day to day entry and retrieval functions. It is personnel rated for a maximum of (1) user up to 350 lbs. The second type of winch is the “fall arrest device / rescue winch” or “3-way recovery unit.” This device is suitable for fall protection as well as emergency rescue/retrieval. It should not be used for day to day entry use.

3.4 CARABINER/PULLEY BLOCK—These devices are used when the 3-way recovery unit is included in the system.

3.5 HARNESS—When using a harness, be sure that it is fully compliant with all applicable OSHA and ANSI specifications. Any harness that is compliant with the above two regulations is compatible with this rescue hoist system.



Assembled Hoist—Figure 3



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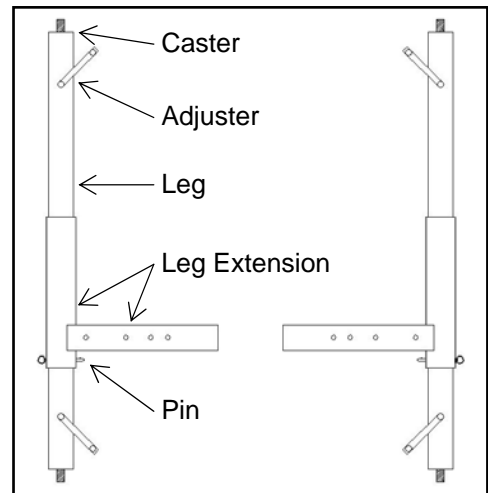
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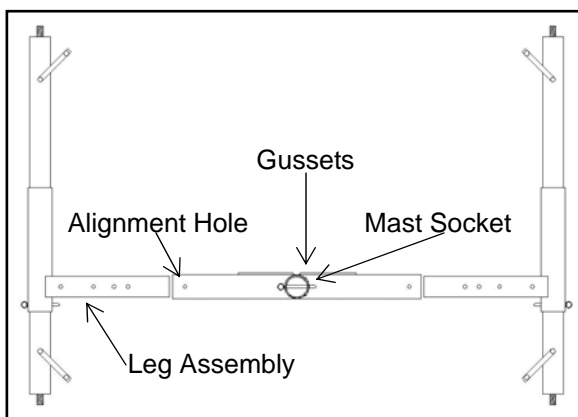
ASSEMBLY

4.0 ADJUSTABLE BASE ASSEMBLY (IF NOT INCLUDED, PROCEED TO STEP 5.0)

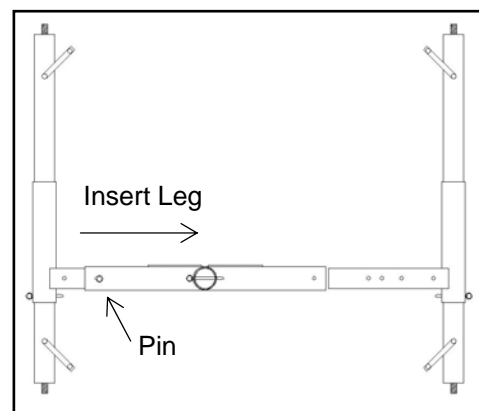
1. Before attempting to assemble the base it is important to inspect all the components to be sure nothing was damaged in shipping or transit.
2. Be sure that the work surface you are attempting to use the base on is sturdy and free from excess debris or clutter.
3. Start by rotating the leg extensions on the leg so that the extension is perpendicular to the casters and adjusters and insert the stainless steel pin into the hole to secure them. (see figure 4) Repeat the process for both legs. When properly done, one leg should resemble an "L" while the other should resemble a backwards "L".
4. Stand the mast socket upright and line up one of the leg assemblies with the horizontal tube. (figure 5)
5. Insert the leg into the tube until the alignment hole in the mast socket is lined up with the desired hole in the leg assembly and insert the stainless steel pin. (figure 6) Be sure the pin is fully seated in the hole.
6. Repeat step 4 for the remaining leg assembly. Be sure both legs are adjusted to the same hole.
7. Turn the adjusters clockwise until there is at least 1/2" of clearance between the bottom of the caster and work surface and so that the base assembly is stable and level.



Leg Assembly—Figure 4



Leg Assembly—Figure 5



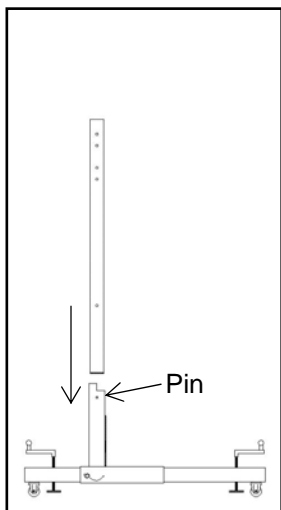
Leg Assembly—Figure 6



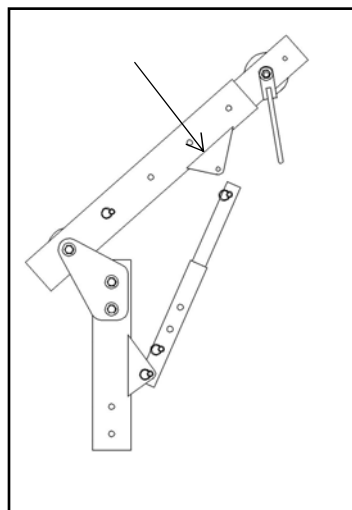
WARNING: Always be sure all pins are fully seated in the holes. The retainer ball should be completely showing on the opposite side of the tube as the pull ring.

5.0 MAST ASSEMBLY

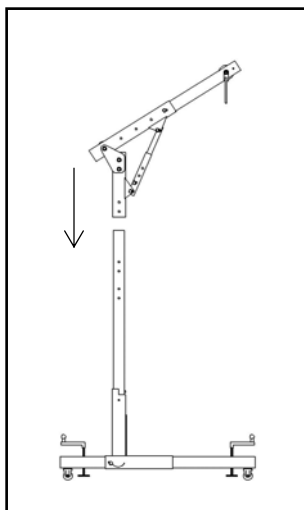
1. Insert mast bottom into mast socket of base so that the rotator stop is in the cut out area. Fully insert the stainless steel pin into the hole. If installing in a permanently mounted base, simply insert the bottom mast into the socket. (see figure 7)
2. Pivot knuckle until the strut lines up with the mounting hole and insert pin. (see figure 8)
3. Place knuckle down over the mast until it is fully seated. (see figure 9)
4. Place the work winch so that the holes in the bracket line up with the holes in the knuckle/ bottom mast and fully insert the stainless steel pins. (see figure 10)



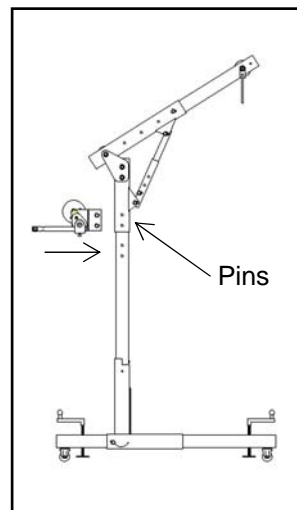
Mast Assembly—Figure 7



Mast Assembly—Figure 8

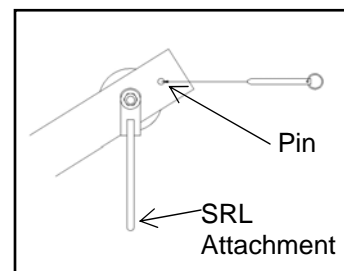


Mast Assembly—Figure 9



Mast Assembly—Figure 10

5. Remove the yellow caps from the top and bottom of the mast.
6. Remove the stainless steel pin from the top of the mast. (see figure 11)
7. Turn the winch handle counter clockwise until there is enough cable to extend up over both pulleys at each end of the mast and back down so that the snap hook is at roughly head height.
8. Replace pin and top cap.



Upper Mast Assembly—Figure 11

6.0 CONNECTING EQUIPMENT TO THE MAST

6.1 SELF RETRACTING LIFELINE

- A. A secondary fall arrest device should always be used when entering a confined space using the work winch.
- B. Use only a Self Retracting Lifeline of sufficient length for the worker to reach the work location.
- C. Connect the SRL to the mast using the SRL attachment point and a carabiner meeting OSHA and ANSI guidelines for fall arrest equipment. (see figure 11)

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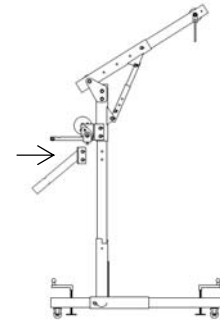
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6.2 3-WAY RECOVERY UNIT (IF INCLUDED)

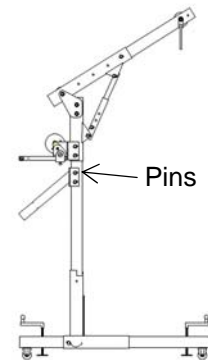
- A. The rescue hoist is equipped with an auxiliary attachment point for a combination SRL/Rescue winch, commonly called 3-way recovery units.
- B. The attachment point is just below the work winch on the mast. (see figure 12)
- C. Attach the 3-way mounting bracket to the winch and fully insert stainless steel pins. (see figure 13)
- D. Attach the 3-way recovery unit and bracket to the mounting bracket on the mast taking care that the handle is on the opposite side as the handle for the work winch.
- E. Secure the 3-way recovery unit using the provided stainless steel pin.
- F. Pull out enough cable from the unit to pass through the pulley provided in SAI part # P-00697-PB.
- G. Close the pulley and connect it to the SRL attachment loop shown in figure 11 using the provided carabiner. (see figure 14)
- H. Please see 3-way recovery unit instructions for proper use and care of that unit.



3-Way Bracket—Figure 12



Upper Mast—Figure 14



3-Way Bracket—Figure 13

OPERATION AND USE



WARNING: Do not alter or intentionally misuse this equipment. Do not use the 3-Way device as a material lift.



WARNING: Consult a doctor if there is any reason to doubt your physical fitness to use this equipment or to withstand the forces of a fall arrest. Women who are pregnant or minors should not use this equipment unless unavoidable for emergency reasons.



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7.0 OPERATION AND USE

7.1 BEFORE EACH USE: inspect this equipment according to the inspection procedure in section 7.5 of this manual.

7.2 PLAN: your setup before using the equipment. Take care to note any site specific conditions that could affect the effectiveness and safety of the setup.

- A. Consider any hazards that might affect the safety of the workers. Always obtain any necessary permits before entering a confined space. Look for obstructions, sharp edges, electrical power lines or any other hazards in the area
- B. When using the work winch to suspend a worker, always use a back up fall arrest device attached to the mast. See section 6.0 for proper attachment of this device.
- C. Always have a rescue plan in place in the event of an accident with injuries or other medical emergencies. Always assume that the victim will not be able to assist in any way with the rescue effort. Time often plays a critical role in the successful rescue of a victim so it is recommended that all users of this equipment are trained in emergency procedures.
- D. Always set up the davit arm on as level a surface as possible. Use the adjusters to level the unit if necessary, do not use blocking to level the unit. Make sure the cable is parallel to the mast during use.

7.3 WINCH OPERATION:

- A. Before operating the winch, inspect it according the instructions listed below.
- B. To move the load, turn the handle clockwise to raise the load and counter-clockwise to lower it.
- C. To operate the winch more quickly, you may move the handle closer to the crank by loosening the thumb screw and sliding it down the shaft.

WARNING: Never use a drill motor or other motorized or mechanical device to turn the shaft on the winch. Only use the provided handle.



- D. Move the load slowly at first and only a small distance to make sure the load is balanced and securely attached before continuing.
- E. Even though this unit is equipped with an automatic brake, it is good practice to engage the ratchet while raising a person.
- F. Always engage the ratchet if a person is going to work for an extended period of time suspended from the winch.

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7.4 CLEANING AND MAINTENANCE:

- A. Clean the davit and winch every six months or whenever it is dirty.
- B. Clean the davit by wiping off excess dirt and rinsing it off with warm water.
- C. Clean the winch by wiping off dirt and grease.
- D. Apply a light film of oil to the winch to protect against rust and corrosion.
- E. Lubricate winch bearings and shafts every 6 months by applying 2 to 3 drops of SAE30 non-detergent oil at all friction points. Lubricate gears after every 10 hours of operation by applying open gear lubricant to the teeth. Use dry lubricant such as dry graphite or Moly for dirty conditions. Lubricate the disc brake every 6 months by applying 1 or 2 drops of SAE 30 non-detergent oil into the hole in the brake housing marked "oil." Turn the handle several times to allow lubricant to penetrate.



WARNING: Do not overlubricate the brake bushings as this may cause oil to leak onto the friction disks, which may result in poor operation of the brake or damage the friction disks.

- F. Apply lubricant to the adjusters on the legs to ease operation and prevent corrosion.
- G. Apply lubricant to the pulley shaft at the top of the mast.
- H. Store the equipment in a dry place out of the elements.

7.5 INSPECTING THE EQUIPMENT

- A. Inspect all components of the davit and winch for cracks, dents, bending, rust, wear, corrosion or other damage.
- B. Inspect all pins for cracks, distortion or wearing.
- C. Check the equipment for missing, substituted or altered parts.
- D. Check all moving portions of base and mast to ensure they move freely.
- E. Make sure the winch is properly lubricated (see section 7.4).
- F. Make sure all fasteners are tightened securely (at least one full thread showing beyond nut).
- G. Inspect the cable according to a ASME B30.7.
- H. Make sure the cable is securely fastened to the winch.
- I. Operate the winch and listen for unusual noises.
- J. Make sure the winch handle operates freely in both directions.
- K. Apply a load to the snap hook and turn the handle counterclockwise. Make sure the load does not continue to coast or creep after releasing the handle.
- L. Return the winch biannually to Safe Approach for inspection and recertification.



WARNING: If an inspection reveals a defective component or an unsafe condition, remove the entire davit arm and base from service immediately and contact Safe Approach for service or repair.



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8.0 TRAINING

8.1 It is the responsibility of the user to read and fully understand these instructions. It is the responsibility of the purchaser to ensure the user reads and understands these instructions, is properly trained in the use of the equipment and understands the consequences of improper use of this equipment.

9.0 SPECIFICATIONS

9.1 Complies with OSHA 1910.66 and 1926.502 as a fall arrest anchor point.

9.2 Complies with OSHA 1910.146 and ANSI Z117.1 when used with a Safe Approach winch/retrieval mechanism.

WARRANTY

Equipment offered by Safe Approach Inc. is warranted against factory defects in workmanship and materials for a period of one year from the date of installation or use by the owner, provided that this period shall not exceed two years from the date of shipment. Upon notice in writing, Safe Approach Inc. will promptly repair or replace all defective items. Safe Approach reserves the right to elect to have any defective item returned to its plant for inspection before making a repair or replacement. Warranty does not cover equipment damages resulting from abuse, damage in transit or other damage beyond the control of Safe Approach Inc. This warranty applies only to original purchaser and is the only one applicable to our products and is in lieu of all other warranties expressed or implied.



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10.0 Sample Inspection Log

Inspection Report

Equipment: _____

Year: _____

	Date	Initials	Visual Insp. Notes	Maintenance Notes	Corrective Action Taken
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					



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