

The Large Animal Emergency Rescue Simple Vertical Lift System Becker Sling

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Congratulations on your purchase of Large Animal Emergency Rescue Equipment from Häst. This information packet is included with every purchase whether you have ordered replacement parts or an entire assembly. This packet should be read in its entirety and all equipment should be inspected prior to use.

Like all aspects of technology, use and design of rescue equipment is an evolutionary process. Equipment is built, then, following a close examination of what design considerations work well, coupled with an imagination of what might make the design better, stronger, simpler, or just less expensive to own, the shape of products change. This Simple Vertical Lift System is based on that used by Drs Tomas and Rebecca Gimenez in their Large Animal Rescue Training Course. While this design closely resembles the equipment that they have used for years, there have been some modifications made in hardware and rigging procedures. One can be very certain that all aspects of this system will continue to be monitored and feedback gathered from instructors and rescue departments in the field so that this system represents the latest in design considerations.

CAUTION: Large animal rescue procedures are inherently dangerous. This equipment should never be used without proper training. Using this equipment in a fashion outside of it's design considerations could cause failure with subsequent injury or death to both the animal and the rescue personnel involved. Please take time to understand all rescue procedures and use of this equipment before any type of rescue is considered!! In addition, all equipment should undergo periodic inspection before and after every use.

Part List and Description for Complete Lift Assembly

The following is a list of all of the various parts of the Large Animal Emergency Rescue Simple Vertical Lift System and a description of each part and how it works and fits into the rest of the system.

Master Oval Link – The red link is the upper most part of the system that interfaces with the lifting machine, which is most likely a crane. The link will fit over most hooks and is designed to be strong for this specific operation of supporting a sling type load.

Prusik Loops – Each prusik loop is made of 8 feet of 1/2 inch kernmantle rescue rope with a double fisherman's knot. One end of the loop is placed through one arm of the upper shackle. The other end is run through the oval link and then back to the other side of the same upper shackle. The knot should always be located somewhere between the shackle and the oval link so that it is kept in a straight line. One should always be sure to avoid making twists in the rope.

Upper Shackles - While the main body of the upper and lower shackles are the same, the difference between the two lie in the pins that run through the spread bar. The upper shackles are equipped with a simple pin and a round retaining safety clip. The upper shackles with the prusik loops should be assembled to the spread bar on the top before the rescue and being placed on the crane. These will remain attached to the spread bar and should not be removed until after the rescue has been complete. The upper shackles may be placed in either pair of holes on the end of the spread bar that will allow the sling below to be properly spaced and balanced.

Spread Bar - Made of aluminum, the function of the spread bar is to hold the lifting slings apart at the proper distance for the animal being lifted. The shackles, both upper and lower, may be placed in either the inner or outer set of holes to achieve the proper distance. If an intermediate distance is desired, for proper load balance, the very front hole should go to the upper prussic, with the next inner hole assigned to the lower shackle. Then, on the two rear holes, the one in the front can be used on the upper prussic, with the most rear hole assigned to the lower shackle.

Lower Shackles - As stated above, the main body of the upper and lower shackles are the same. The lower shackles, however, have webbing attached to both the pin that runs through the spread bar as well as the quick release safety clip. The lower shackle is designed to accept the loops from the body sling below. They are to be attached to the spread bar during the rescue. Once the rescue is complete, the safety clip is pulled on one side and subsequently the shackle pin is removed from the other side by pulling on the webbing, allowing for a rapid disconnection of the animal from the spread bar.

Quick Attach Loops - These loops should be placed on the lower shackle prior to the rescue with the carabineer left dangling. The prusik knot should be placed upward near the shackle to keep it out of the way. Once the spread bar is positioned over the animal, the end of the loop with the carabineer should be passed through the large body sling loops and then attached to the shackle. Use of the Quick Attach Loops is optional. If a height restriction exists, the body sling loops may be placed in the lower shackle.

Body Slings - The body slings are made of an 8 inch wide, heavy duty webbing with loops in the ends. The loops are placed within the lower shackles during the rescue. Spaced 6 inches apart all along the sides of the sling are numerous "D" rings. These rings allow the attachment of the chest sling and possibly tag lines that can help turn or maneuver the animal while it is in the air for positioning. Also, the rings can be used to attach other accessories as desired. It is vital to note that these rings, while having a respectable load rating, are NOT intended for lifting the animal. If a significant load on these rings is anticipated, a "load sharing" configuration, using two or more D rings is recommended.

Chest Sling - The purpose of the chest sling is to prevent the animal from falling forward out of the body slings. While the vast majority of the weight is borne upon the body slings, the chest sling is still built very strong. Like the body slings, it also has D rings along the front where lines may be attached to position the animal while it is in the air. They are not to be used for dragging the animal or placing a heavy load on the rings. The chest sling is attached to the front body sling with the use of two long snaps on any of the body sling D rings that seem most convenient. The chest sling should always be padded as mentioned below.

Padding - Padding should always be placed under the chest sling and under the rear body sling. The padding supplied is slid over the webbing for positive positioning. (Note: These pads are nice and thick and *very* comfortable. However, there may be instances where they may need to be removed for a particular rescue. These instances might include being stuck in heavy mud where there is simply not be enough room to pass the webbing *with* the pads underneath the horse. In these cases the pads simply slip over the webbings so that they may be easily removed. And while this would be less comfortable for the horse, it may be the only way to complete the rescue.)

Temporary Support - This accessory, consisting of webbing and two non-rated non-locking carabiners, helps position the front body sling on the animal during the time the chest sling is being adjusted and attached. The carabiners are attached to two of the D rings on the front body sling and the webbing is run over the back of the animal. This accessory is intended to handle only the weight of the front body sling and should never be placed under heavy load.

Shipping/Storage Container - This heavy duty container can hold all of the needed parts and accessories for the sling. This same container is used by major disaster organizations for its durability and years of service.

Procedure for Rescue

1) Assess the size of the patient to be lifted for proper hole selection on the spread bar. Assemble the support structure consisting of the master oval loop, the two prusik loops, and the upper shackles and the spread bar. The Quick Attach Loops may be pre-placed on the lower shackles as described previously. Place this assembly on the hook of the crane.

2) Pass one of the body slings under the chest of the patient and hold it in place with the accessory support strap and non-locking carabiners. The sling should be fitting close to the animal's chest. Then secure the chest sling to a pair of the D rings in the body sling at an appropriate location. Tighten the straps on the chest sling to accommodate the size of the patient.

3) Using the crane, position the spread bar over the patient, low enough so that the body sling at the chest can reach the spread bar. Take the front Quick Attach Loop and pass it through the loops of the body sling and then secure it to the lower shackle. Place the rear body sling under the patient near the chest, and, using the same procedure as before, pass the rear Quick Attach Loop through the loops of the rear body sling and attach it to the rear lower shackle. Once both body slings have been secured, allow the rear sling to move to a position under the abdomen. Now you are ready to lift without delay.

Alternate Procedure without Quick Attach Loops - If these loops are not being used due to a height restriction or other reason, the lower shackle can be removed from the spread bar and the large loops of the body sling placed in the lower shackle directly. The order of placement is the same as in paragraph three.

4) Rescue the patient.

5) Once the patient is on firm ground, both shackle safety clips may be removed and the shackle pins pulled away by tugging on the webbing so that the slings are quickly disconnected from the spread bar. If there is only one attendant per side of the patient, the rear sling should be disconnected first. Remove the rear body sling from the area. Then, the chest sling can be removed from the front body sling and the temporary support also removed, totally freeing the patient from the lifting slings.

6) Inspect the equipment, clean if necessary, and properly store.