Häst Rescue Frame – Tripod

The tripod is the most stable of the three frame configurations. It's use is best suited for lifting animals that require little if any horizontal relocation. The tripod can be either constructed and raised directly over the animal, or it can be erected adjacent to the animal and and moved into position.

To construct the tripod, the head is the first piece to be placed on the ground on its side. Then, using either end, one of the upper columns is slid into the head and secured with a pin. (While the upper and lower columns can be separated, to reduce time, it is probably best to keep the column sets nested.) (Tip: When placing the columns into the tripod head, the use of a wood block under the tripod head can often speed insertion and alignment of this connection.) Next, a second column set is inserted into the tripod head that is on the ground. (Option: When these two columns are inserted into the tripod head, the two BIPOD feet can be either previously secured to the lower column or attached later. It may be faster to have the bipod feet already attached and pinned to the lower column along with the pin that secures the upper and lower columns together. By doing this, it may reduce the overall time for aligning the holes for the pins.) After the two column sets with the bipod feed have been attached to the tripod head, it is time to attach the column set with the MONOPOD foot to the tripod portion that is sticking up into the air. This column set should be in the most nested position and pinned to reduce the forces on the tripod head along with making the insertion process easier. With the three legs of the tripod head now constructed, one might notice that the bipod feet will have a "funny" angle to the ground. Don't worry, as when the tripod is uprighted, the feet will be flat on the ground.

Before the tripod is raised, while the tripod head is still on the ground, one should now attach any hoisting pulleys to the red lifting ring. In addition, one should also attach ropes to the three holes on the top plate of the tripod head. These ropes will be used to incrementally raise the tripod once it is upright. (Tip: It is best to use ropes of three different colours. This lessens any confusion when the team leader is directing which rope for rescue personnel to pull during the construction process. If the Tripod Rigging Kit has been purchased, the ropes come in blue, yellow, and orange.)

Now is the time to lift the tripod to vertical.. This will take a minimum of two persons lifting at the tripod head due to the weight. Similar to standing up an extension ladder, the tripod is hoisted. Once the head is sufficiently elevated, personnel on the rigging lines may assist in both pulling from the opposite side as

well as holding back the lifted side as to allow the monopod foot to come to an easy rest on the ground. The tripod is now at its minimum height. To raise the tripod, or to extend a column on uneven ground plumb the frame, one person on a rigging line, opposite of the leg to be extended, gently pulls to remove any pressure on the pin that secures the upper column to the lower column. The pin connecting the upper and lower columns is now removed. The rigging line is then pulled to extend the leg. Care must be taken as to avoid extending this leg too far at one time, or the tripod might tip. It is usually best to raise each leg 1-2 feet (holes) at a time. By making this increment relatively small, it keeps the tripod stable and reduces the pull required to raise each leg. (Note: As each leg is extended, the distance between the feet is increased. The feet should be allowed to move across the ground until the tripod is at the total height desired.) After one leg has been extended, the process is repeated on the other two legs, bringing the tripod back to a vertical and stable configuration. If more height is desired, that same process is repeated. (Note: As the tripod nears full extension, the pins securing the upper and lower columns may be too high for many but the tallest of persons. The use of a ladder, such as a Little Giant, is recommended.)

Once the tripod is at the desired height, and the tripod is located over the animal to be rescued, the feet should now be secured. This can be accomplished in either one, or both, of two methods. If the surface on which the tripod has been placed is soil, the use of ground stakes (18 inch, 1 inch diameter, double headed) can be used to both stabilize the tripod and mitigate the spreading forces on the legs due to the load. Four stakes in each foot is recommended. If the surface is hard, as in asphalt or concrete, use of the chain kit would then be the method of choice. Note: If only the chains are used, and horizontal forces are placed on the top of the tripod, the frame may tip. Understanding and due diligence of the forces involved is paramount when using this equipment.

Now that the frame is over the animal and the feet secured. The animal can be lifted. If using a chain hoist system, that can be attached to the sling and utilized. If a rope system is used, a “change of direction” pulley is strongly recommended at the bottom of one of the tripod legs. By rigging this pulley, there are no horizontal forces at the top of the tripod that might cause it to tip. This pulley should be connected to the inside center hole of one of the BIPOD feet only. (Connecting a pulley to the inside of the monopod foot could cause the foot to raise). Once the animal is lifted, it may be pulled in any direction if needed. So long as the patient remains within the footprint of the tripod, the center of gravity will remain within the boundaries of the feet and the tripod will not tip. However, if there is any concern, the top rigging lines on the head of the tripod, previously used to raise the frame, may be secured to better stabilize the top if needed.

Once the rescue has been completed, and load is no longer on the frame, deconstructing the tripod is performed in the reverse order of the instructions above. The chains or stakes are removed first. To lower one column set, tension is placed on the opposite rigging line to remove any pressure on the pin that secures the upper and lower columns. Once the pin has been removed, the column may be lowered 1-2 feet (holes). That pin is now replaced. Working in a circular pattern, the other columns are lowered incrementally until the tripod is in it's lowest position. It can now be tilted over the bipod feet, and, with care, the tripod head is lowered to the ground. The columns, starting with the upper one first, are removed and stored.

Foot Pads: The aluminum plates of the feet are shipped with soft but rugged rubber pads. These pads are to be used on surfaces that are hard, like concrete or asphalt. The pad both prevents damage to the surface as well as elevates the holes along the perimeter of the foot plate for easy attachment of chains, ropes, or carabiners. If the ground surface is soil, the rubber pads should be REMOVED, which allows the cleats on the bottom of the aluminum foot to engage the ground. This also lowers the center of gravity on the feet for better stability. If carabiners are to be attached to the foot plate without the pad, and the ground is relatively soft, the carabiner should be able to dig its way through that top layer of soil to attach to the foot plate by rotating it from the bottom first. By doing it this way, it also keeps the gate of the carabiner towards the top and away from the ground.