PM-M3ZZZZ-MGE-00

KITO

Cross Hauling with CB manual chain hoists

※ When using this manual, Be sure to read the M3 Chain Hoist Instruction Manual, and understand the contents before using the product.

CB manual chain hoists can be used at angles up to 60 degrees from the vertical within the rated capacity of the hoist (Diagram 1).

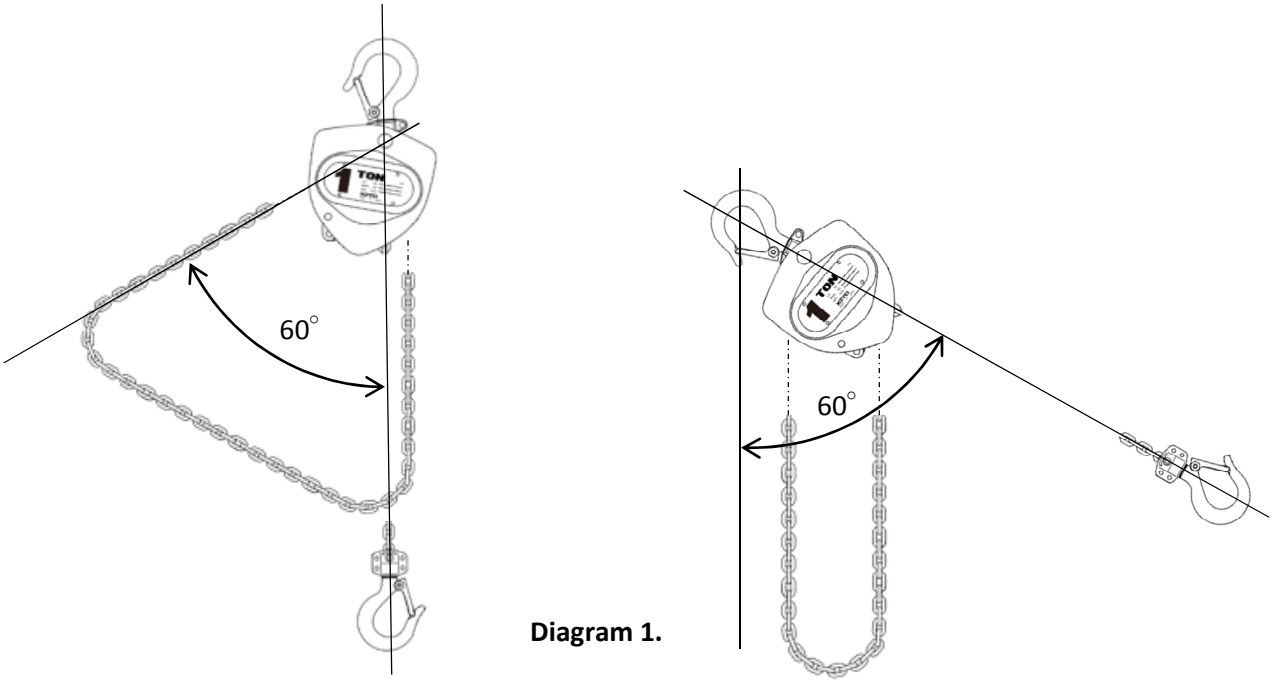

Diagram 1.

As such, CB manual chain hoists can also be used in cross haul applications. Cross hauling is defined here as the simultaneous use of two or more manual chain hoists to maneuver a load laterally from one point to another.

1. Conditions:

1) It is necessary to carry out a lift plan that assesses all aspects of the operation including the weight of the load, angles of loading, load path, obstacles to be avoided, condition and suitability of hoist equipment, connection devices, and all other factors related to the safe completion of the procedure.
2) When two or more CB manual chain hoists are used to lift or maneuver a load one person must be designated to be in charge of the procedure to manage the operation and instruct all personnel involved in the proper positioning and installation of hoisting equipment & components. This designated person will then instruct the hoist operators to ensure safe movement of the load.
3) Each CB manual chain hoist and its components (hooks, chain, body) must be allowed to form an unrestricted straight line in the direction of loading. Care must be taken to ensure the same is true for other rigging components used in the procedure.
4) CB manual chain hoists intended for use in a cross haul application must be anchored at the same elevation. If the hoists are not anchored at the same elevation, a detailed lift analysis must be conducted to ensure no risk of overloading.
5) The anchoring positions of each CB manual chain hoist should be determined that an operating angle should not exceed 60 degrees at any point during the maneuver.

6) Ensure no one moves into the load path of any time while the load is suspended.
7) Avoid jerky, sudden, or abrupt movements.
8) Observe and follow safe rigging practices at all times.

2. Operation:

During the cross haul procedure, the CB manual chain hoists should be operated simultaneously for best control of the load.

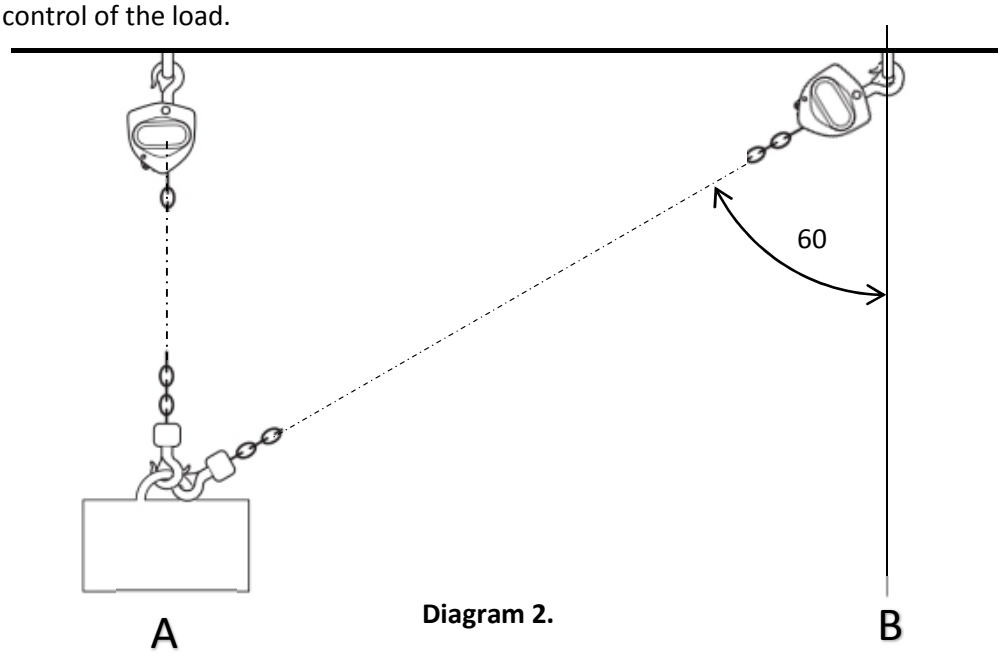

Diagram 2.

1) Operators A and B follow the guidance and instructions of the designated person.
2) With the load beginning at Load Point "A", Operator A pulls on the hand chain (take in load chain) to raise the load. Operator B waits.
3) With the load lifted just high enough to safely clear the floor/deck, Operator B takes up any slack in the load line of hoist B until it becomes taught at which point Operator B continues to take in load chain causing the load to begin moving/drifting laterally toward hoist B and ensure that the angle of operation for hoist B does not exceed 60 degrees from the vertical at this point (See Diagram 2).
4) Both operators work simultaneously with Operator A letting out load chain at the same rate at which Operator B takes in load chain. This maintains load elevation and makes for smooth lateral travel.
5) If the load must pass over any obstacles, it is a good practice to keep the load as low as possible until the load approaches the obstacles at which point Operator A can pause operation while Operator B continues to take up load chain. This causes the load to begin moving upwards (vertically). To increase the rate of climb Operator A can opt to slowly take in load chain accordingly. Ensure that the angle of operation for each hoist does not exceed 60 degrees from the vertical at this point. Once the desired load elevation has been reached, operator A can once again begin letting out load chain.

6) When the load is at the halfway position (where the connection point to the load is equidistant between hoist A and hoist B), the line tension on hoist A and hoist B is equal (Diagram 3).

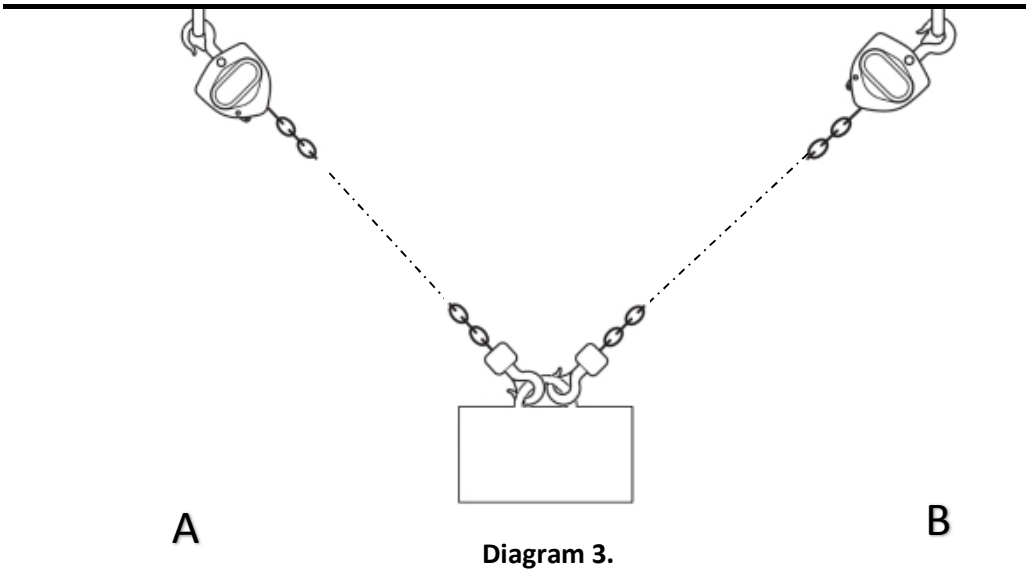

Diagram 3.

7) Operator B continues to take up chain while operator A lets out chain to continue moving the load laterally. Once it reaches the position directly below hoist B, Operator B begins to let out load chain (along with Operator A) allowing the load to lower until it fully settles on the floor/deck at Load Position "B". The cross haul operation is now complete (Diagram 4).

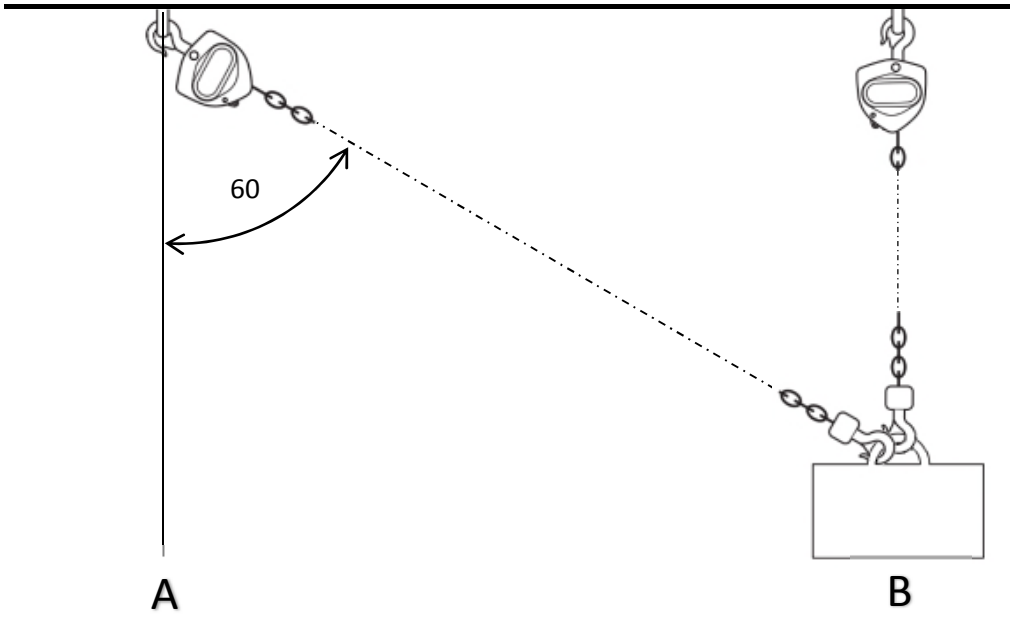

Diagram 4.

3. Precautions for safety

1) Take care to ensure operators are positioned appropriately for proper balance, footing and view of the load at all times. Be aware of each operator's proximity to the load and ensure they have a clear escape route in the event of an unexpected issue.
2) Uncontrolled load swing can result if the load becomes disconnected from at least one of the points supporting the load. Do not disconnect any of the bottom hooks from the load during the maneuver if those hooks are controlling the load in any way. Every precaution must be taken to ensure the support structure and all connections are always of suitable condition and function to secure the load.
3) Care must be taken to ensure line tension never exceeds the rated capacity of the CB manual chain hoists or related connection hardware at any time during the cross haul procedure.
4) During the cross haul operation, ensure the load is raised only high enough to clear obstructions. Minimal load height is essential in minimizing line tensioning during the procedure.
5) Consider environmental elements (such as temperature, humidity and any other external factors) and how they might affect the cross haul operation.
6) Do not allow the connecting devises to restrict the swivel function of the top and bottom hooks including the safety latches.
7) Ensure that the angle of operation for each hoist does not exceed 60 degrees from the vertical at any point.