<u>USER MANUAL</u> <u>SPREADER BEAM</u>



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USER MANUAL SPREADER BEAM:

Spreader beams are used for lifting and horizontal moving of loads according to the technical data and the operating conditions.

Spreader beams are beams which are usually equipped, on the site of the crane, with a suspension frame in the middle as a point of engagement for a crane hook and on the site of the load with two or more lifting points to hook the load. Spreader beams distribute the forces of the crane hook on the lifting points of the load, avoid bending forces and breaking strains and protect the lifted load. With symmetric loading on two lifting points every point carries 50% of the load. Adjustable lifting points can be placed such a way that the suspension point of the crane hook comes to lie outside the geometrical center and so above an asymmetrical center of gravity suspension. In this case you must keep in mind that the lifting points (and also the thereon applied lifting accessories) which are closest to the crane hook or under heavier load than the points beyond. Asymmetrically loaded spreader beams in the H-form must have a torsion approved design! Only use the presented lifting points. Pulling with a sideways force is forbidden. Never change the distance between the lifting points of an adjustable spreader beam during lifting.

Take into account the maximum permissible load of each lifting point when you have several lifting points. Usually the most outer lifting points of these spreader beams cannot carry the full load.

Spreader beams and lifting frames are mainly loaded on breaking and not on bending and are therefore suitable for static loads. It is forbidden to add additional lifting points on to the spreader beams or lifting frames, or use other than the available lifting points. Make sure that by suspension structures of adjustable spreader beams and lifting frames the maximum permissible outer angle is not to be exceeded, and also not the maximum working length. This is why it is forbidden to add extra holes to adjust the adjustable range, or shorten the slings.

A spreader beam must be visually inspected every year and if the beam has been repaired it must be tested again.

SAFETY INSTRUCTIONS:

- Read the instructions carefully and make sure that the instructions are available at any time.
- Before using the spreader beam you must check the spreader beam for any damages or missing parts. With doubt you should not use the spreader beam and let the beam to be inspected by an authorized expert body.
- Repair of any other changes to the spreader beam is not allowed.
- Never exceed the safe Working Load Limit (WLL) of the spreader beam.
- Never exceed the separate working load of the lifting points.
- Make sure that there are no persons in the danger zone of the load.
- Spreader beams are not intended for transport of persons (except for example work baskets).
- Do not use the spreader beam if the identification plate of the WLL is missing or is unreadable.
- The spreader beam is not to be used when the temperature is below -20° and above +100°, nor be exposed to chemical influences like acids, leach and vapor.
- Only lift well balanced loads. The center of gravity of the load must be directly under the crane hook. The places where the load is being picked up must be directly under the lifting points of the lifting tool. The load must be equally divided over the several lifting points. The maximum permissible deflection of the horizontal line is 6°.
- Never use spreader beams for pulling.
- Make sure that the lifting points and attachments are calculated on the weight of the load and the towing attachment. Beware of the inclination angle. By lifting in the form of a basked the load can shift and when this is the case you must secure the load.
- The locking device of all support means must be closed. The suspension eye of the hoisting device must have enough clearance in the crane hook to be able to move freely. Never load the hook at the point.
- It is forbidden to use the spreader beam for sideways loading and pulling of stuck or clamped loads. Never lift with shocks. Maximum lifting speed: 10 m/min.
- Special attention is required when the center of gravity of the load is above the point where the load is being hooked on. The stable height of the combination spreader beam load must be positive.
- Always drive with low speed when you transport the load with a forklift truck.
- Heat treatment and welding on the spreader beam is forbidden.
- Operate and transport the spreader beam carefully. Use the handles so you can keep hands away from moving parts. Make sure that there is enough space to transport the load and that there are no persons under the load. Pay attention that the load cannot turn over, shift or roll away when the load is being put down. Never leave the load hanging unguarded or longer than necessary.