

Assembly instructions for spreader plates (EAWI)

General principles regarding the utilisation of lifting accessories and their components:

The falling of loads, caused by the failure and / or incorrect utilisation and handling of lifting equipment or its individual parts constitutes a direct risk to the life or health of the people who are present in the danger zone of lifting processes.

These operating instructions contain information with regard to the safe utilisation and handling of the lifting accessories and their components. Before using the lifting equipment, the assigned persons are to be briefed with regard to handling and utilisation by a qualified person.

The following principles apply:

- The Working Load Limit (WLL) (see label) of the lifting equipment must correspond to the load. The lifting equipment may not be used if the label is missing or is illegible.
- No danger areas (e.g. crushing points, cutting points, trapping or impact points) may occur that may hinder or endanger the person carrying out the slinging process and / or the transport.
- The base material and the constructive design of the load must be able to hold the applied forces without deformation.
- Stress that leads to a non-uniform load distribution, e.g. which is caused as a result of an off-centre introduction of force must be taken into account when selecting the lifting accessories and their components.
- In the event that extreme stress or strong dynamic strain (shock influences) may occur, this must be taken into account when selecting the lifting equipment and the Working Load Limit (WLL).
- The lifting equipment may not be used for the transportation of persons. No persons are ever permitted to remain present in the danger area of a suspended load.
- The lifting equipment may not come into contact with acids and other aggressive agents. Attention must also be paid to the fact that acid fumes may occur in certain production processes.
- Never make unauthorised amendments to the lifting equipment (e.g. grinding, welding, bending, and attachment of parts)!
- The lifting equipment may not be exposed to any forbidden manipulation of temperature.
- Only original spare parts may be used.
- The relevant additional regulations must be observed when transporting hazardous substances.
- Lifting accessories and their components must be stored in such a manner that they are protected against being damaged and do not cause any danger.
- If damaged, the lifting equipment must be immediately taken out of circulation and has to undergo maintenance work.
- When ready to be discarded, lifting accessories and their components are to be correctly disposed of. Attention: Any substances present that are hazardous to the environment (e.g. greases and oils) are to be disposed of separately.

Inspection and maintenance:

On a regular basis before being used, lifting equipment is to be closely inspected with regard to correct utilisation and faultless condition (e.g. screw fit, absence of strong corrosion and deformation, etc.), for example by the person carrying out the slinging process. Defective lifting equipment may not be used. It has to be tested at least once a year by a qualified person whilst taking the relevant standards and trade association regulations (e.g. BGR 500) into account. Every three years lifting equipment must be tested by a qualified person using a proper testing device in order to check that the product is free of cracks. The user must observe the results of the risk assessment in accordance with the occupational safety directives. The re-testing period is shortened in the event that the products are exposed to critical operating conditions. Inspection records are to be kept.

The testing coefficient (EC-Machinery Directive 2006/42/EC point 4.4.1) is defined according to the Standard DIN EN 818 ff. and DIN EN 1677 ff.

Attention: In the event of violation, the operating permission will become void.

Assembly / Handling:

Spreader plates are used in order to be able to count upon 4 load bearing chain legs by means of a uniform load distribution when dealing with 2 x 2 leg / 4 leg suspensions. By utilising this measure, lower lifting capacities are required for each leg and thinner and thereby lighter chains can be used in comparison to conventional suspensions. When using 2 units of 2 leg suspensions (see picture) / 4 leg suspensions, a suspension with a plate will be used. **Provided that a symmetrical load distribution is in place, the slinging angle (β) amounts to a maximum of 45° and the balance posture of the plate (α) does not measure more than 10°, factor 4 may be calculated in accordance with the lifting capacity table instead of factor 3 (→ BGR 500, Chapter 2.8, Point 3.5.3).**

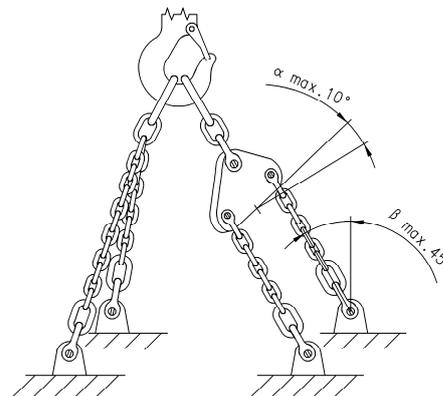
The following points are to be observed:

- No inclined position (α) > 10°.
- Both chains are always to be placed under strain on the plate. Single-chains are not permitted.
- The nominal sizes of the spreader plates and the sling chains must correspond to each other.

Working load limit and temperature use



Bezeichnung code	Tragfähigkeit / WLL		
	two-leg		4str. = 2x2
	0°-45° [t]	45°-60° [t]	0°-45°* [t]
EAWI 1 6	2	1.4	4
EAWI 1 8	3.55	2.5	7.1
EAWI 1 10	5.6	4	11.2
EAWI 1 13	9.5	6.7	19
EAWI 1 16	14	10	28
EAWI 1 18	18	12.5	36




Bezeichnung code	Chain nominal size $\varnothing d$ [mm]	Tragfähigkeit / WLL		
		two-leg		4str. = 2x2
		0°-45° [t]	45°-60° [t]	0°-45°* [t]
EAWI 2 10	16x48	5.6	4	11.2
EAWI 2 13	18x54	9.5	6.7	19
EAWI 2 16	22x66	14	10	28

Working temperature in °C	WLL in %
minus 40°C - plus 200°C	100
plus 200°C - plus 300°C	90
plus 300°C - plus 400°C	75
above 400°C	not allowed

* The mentioned working load limits are valid only in case of using 2 chain slings of 2-legged chain slings. In this case one of the 2-legged chain slings must be assembled with a spreader plate and both chain slings have to be assembled to the crane hook. This is valid also in case of a 4-legged chain sling. Therefore two legs have to be assembled with a spreader plate. The above mentioned working load limits are valid only in case of a symmetric distribution of load.



Translation of the original assembly instructions

In case of doubts or misunderstanding, the German version of the document is decisive.