

Subject: Instructions for use - Green Pin® Plate lifting clamp, types E/ES/EU/EUS (P-6615, P-6616, P-6625 and P-6626)
 Note: Main dimensions, general info and warnings can be found in our latest catalogue.

Article

Green Pin® Plate lifting clamp, type E/ES/EU/EUS

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Ref

PI-03-16 EN

Revision

A



P-6615
 P-6616
 P-6625
 P-6626

Green Pin® Plate lifting clamp types E/ES/EU/EUS

- Material : Carbon and alloy steel
- Safety Factor : MBL equals 5 x WLL

1) Description of the plate lifting clamp

These vertical hoisting clamps are suitable for vertical hoisting, manipulating and transporting of rigid metal plates. The Safe Working Load of the clamps must not be exceeded.

Types E and ES have a lifting eye hinged in one plane. Types EU and EUS have a lifting eye hinged in two planes. Types ES and EUS differ from types E and EU in having a larger jaw opening. The clamp also has a locking lever which clamps the load safely. Types E/ES and EU/EUS consists of the following four main parts (See Figure 1 and 2):

The clamp consists of the following three main parts:

- 1) The lifting eye (types E/ES);
 - a. The lifting eye, universal (types EU/EUS);
- 2) The body;
- 3) The locking lever;
- 4) The segment;

When the clamp has been positioned on the plate and the safety lever has been set to "locked" (a pre-clamping force is applied in this position), application of tension to the lifting eye causes the plate to be clamped.

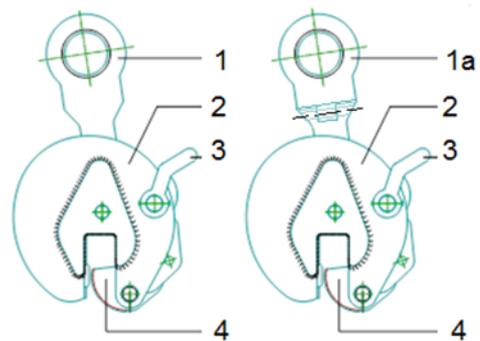


Figure 1: Types E/ES

Figure 2: Types EU/EUS

2) Instructions for use

Ensure, that the Working Load Limit (WLL) of each clamp is not exceeded.

Fitting the clamp

- Never attach the clamp directly to large hooks. Always use suiting lifting components, e.g. shackles for wire rope, connection links for chain and master links.
- Select a equal or higher WLL for the required tackle (wire ropes, chains, load hook, etc.) than for the clamp.
- Use accessories which meet the applicable safety requirements.

Positioning the clamp

Before use, the clamps must be inspected. See paragraph Inspection for the criteria.

Always use a suitable clamp for each hoisting job. Consult the supplier if in doubt;

- 1) Unlock (rotate) the locking lever (3). This pulls the segment away and opens the jaw;
- 2) Move the clamp such that the plate as far as possible fits into the jaw opening of the clamp;
- 3) Lock (rotate) the locking lever (3). The plate is thereby pre-clamped.
- 4) Hoist the clamp. The teeth of the segment then lock onto the plate.
- 5) Inspect again the positioning of clamps and slings;
- 6) The plate can now be transported vertically, horizontally or turned/flipped over if necessary.

Warnings and use limitations

Information indicated on clamp:

- EU121036: Type/serial number;
- WLL: kg: Maximum vertical load which may be exerted upon the clamp.
- 0-75mm: Minimum and maximum plate thickness which can be clamped.
- Do not place hands and/or fingers between the segment and the load when the load is clamped in order to raise it.
- The types E and ES must not be loaded in a direction perpendicular to the surface of the clamp (See Figures 3-4-5).

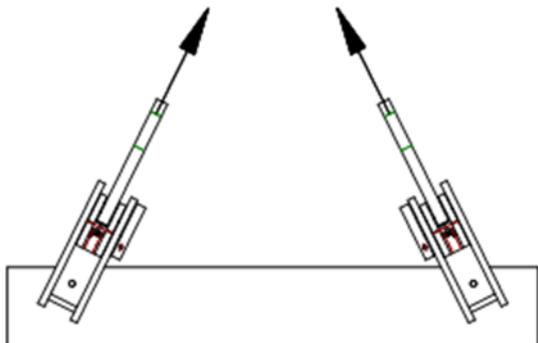


Figure 3

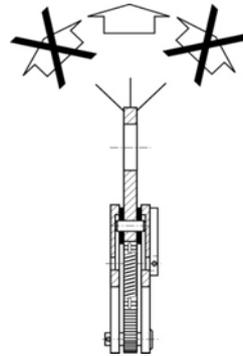


Figure 4

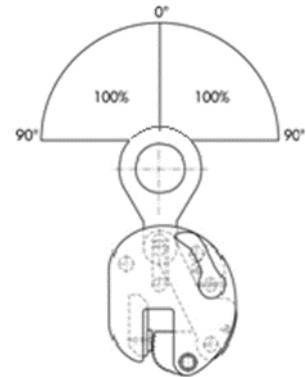


Figure 5

- If gripping of the load in this way is unavoidable, clamp types EU and EUS must be employed (See Figures 6-7).
- Do not use the clamp as a permanent fixing.

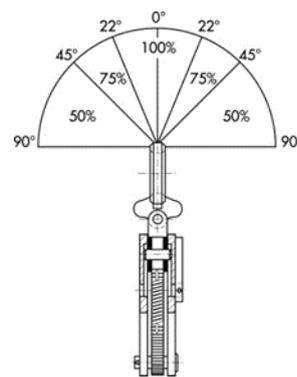


Figure 6

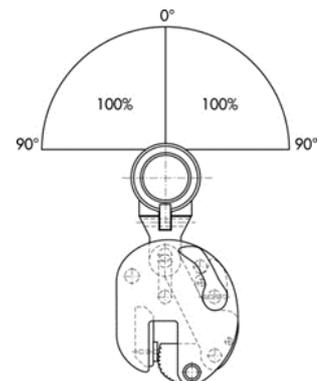


Figure 7

- When turning/flip over the plate round (See Figure 8), the lower edge of the plate must be in contact with a firm surface. Take into account the possibility of the plate slipping.
- We recommend the use of clamps in pairs in order to reach the required balance, also with long plates.
- Do not transport any loads the weight of which is not distributed evenly.
- The surface of the load must be free of:
 - Coatings;
 - Dirt;
 - Grease.
- The service temperature (both the ambient temperature and the temperature of the load) must be between 0°C and +100°C.
- The maximum surface hardness of the load is 50 HRC.
- Unauthorized modifications and/or alterations to the clamp are prohibited.
- Subjecting the clamp to loads exceeding the specified Working Load Limit (WLL) is prohibited.
- Only use clamps for their proper purpose. For example, never use the clamps to pull plates from beneath stacks, or use these clamps as horizontal clamps.
- Take any bystanders into account, and ensure that the load remains within the operator's view.
- Keep in mind that the load may move when it is lifted off the ground if the crane is not above center of gravity of the load.
- Do not swing the load by transporting it too quickly.
- Never transport more than one plate at a time.
- Do not stand under the load as it is hoisted or transported.
- Clamp rigid metal plates only. Do not clamp any soft materials, such as wood or lead.
- Wear personal safety equipment such as safety shoes and helmet.
- Modifications on the clamp such as grinding or welding, etc. is prohibited, as this affects the heat treatment of the clamp. If necessary, spare parts can requested at Van Beest B.V.
- The serviceability of the clamps is ensured only when clamps are used with the original parts fitted.
- Take clamps which have been overloaded out of service. Refer to the WLL, indicated in the catalogue.

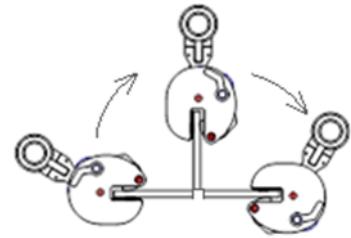


Figure 8

Removing the clamp

The clamp can be removed by relieving the hoisting force on the clamp, as follows:

- 1) Relief the ropes a little;
- 2) Rotate the locking lever to the unlocked position. This releases the clamping force and pulls the segment away.
- 3) Pull the clamp away from the plate.

Note: Slight marking of the plate is inevitable.

Inspection

The points below must be observed during inspection:

- The clamp (specifically, the condition of the teeth and welds) must be first checked carefully each time it is used. The criteria are as follows:
 - Visibly damaged teeth and pivot;
 - Weld cracking;
 - Tolerance between the segment bolt and the hole must not exceed 0,5 mm;
- Remove grease and oil from the segment and the base at frequent intervals.
- The clamp must be able to move freely. If the clamping mechanism is stiff, the grooves on the inside of the body must be greased.

Maintenance

Remove the product from service, before replace any part.

When necessary the clamp can be disassembled as follows:

- 1) Remove the dowel pin of the bolt for the cam assembly;
- 2) Withdraw the cam pin to free the cam assembly
- 3) Move the lifting eye in the direction to the hole in the body (middle);
- 4) Remove the eye pin of the lifting eye;
- 5) Remove the cam assembly and lifting eye.

Note: Check operation of the clamp following assembly.

Worn parts may be disposed of as scrap iron, properly marked, for recycling.

If you have further questions, please do not hesitate to contact us.

Kind regards,

Van Beest Product Management