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Article:	Green Pin [®] Adjustable (beam) clamp type ESV	Revision:	A
Subject:	Instructions for use - Green Pin [®] Adjustable (beam) clamp, type ESV		
Note:	Main dimensions, general info and warnings can be found in our latest catalogue.		



P-6685

Green Pin[®] Adjustable (beam) clamp type ESV

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

1) Description of the Adjustable (beam) clamp

This adjustable beam clamp is suited for hoisting and transporting beams and profiles. Furthermore it can also be used as a fixed hoisting point. However, the clamp's Safe Working Load may never be exceeded.

The beam clamp type ESV consists of the following parts (see Figure 1):

1. Hoisting eye
2. Frame
3. Screw spindle

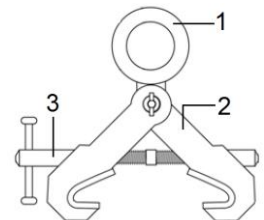


Figure 1

The screw spindle (3) can be used to increase or decrease the width of the jaws of the clamp.

As soon as the clamp is positioned on the beam or profile, it will be fixed by means of the screw spindle to ensure a solid and safe positioning.

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 steel 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. Loosen the screw spindle to such an extent that the jaw opening is large enough to position the clamp.
2. Position the clamp as such that the beam or profile is placed into the jaw opening as far as possible.
3. Fasten the screw spindle to ensure that the clamp is correctly tightened.

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Warnings and use limitations

Information indicated on clamp:

- ESV 4.0 Type
- 121036: Serial number;
- WLL: kg: Maximum vertical load which may be exerted upon the clamp.

- The surface of the load area of the beam or profile must be free of:
 - Covers
 - Dirt.
 - Grease.
- Do not place hands and/or fingers between the load and clamp while fastening the screw spindle.
- We recommend the use of clamps in pairs in order to reach the required balance.

Ensure that the beam or profile can carry its own weight at the time it is clamped. The beam or profile could bend or break if not correctly supported.
- Do not transport any loads if the weight is not distributed evenly.
- 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 beams or profiles from beneath stacks, or use as vertical 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 transport too quickly, the load can become unstable.
- Never transport more than one beam or profile at a time.
- Do not stand under the load as it is hoisted or transported.
- Clamp rigid profiles only. Do not clamp any soft materials, such as wood.
- 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 be 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.

Removing the clamp

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

- Release the tension;
- Loosen the screw spindle to release the clamp
- Remove the clamp

Note: Minor damages to beam or profiles cannot be avoided.

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Inspection

The points below must be observed during inspection:

- The clamp must be thoroughly checked prior to each use (mainly the condition of the screw thread and welds).

The criteria are:

- visible damage of the screw thread;
- crack formation in the welds;
- tolerance of the pin must not exceed 0,5 mm;
- frame deformation.
- Frequently remove oil and grease from locations where these are not required.
- If the clamping device indicates a stiffness, the connection 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 pins;
- 2) Withdraw the lifting eye bolt to free the lifting eye;
- 3) Remove the 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

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