

pewag



D	Gebrauchsanleitung pewag Sicherheits-Hebeklemme HXW / HSXW, HXW-V, DHW, HSKW, NMHW
E	Owner's Manual pewag safety lifting clamp HXW / HSXW, HXW-V, DHW, HSKW, NMHW
F	Mode d'emploi Pinces de levage de sécurité pewag HXW / HSXW, HXW-V, DHW, HSKW, NMHW
NL	Gebruikershandleiding pewag veiligheids-hijsklem HXW / HSXW, HXW-V, DHW, HSKW, NMHW

D

Lesen Sie die Gebrauchsanleitung vor Benutzung des Produkts sorgfältig durch.

Bei Fragen wenden Sie sich bitte an Ihren Zulieferer.

Die Gebrauchsanleitung dient während der gesamten Lebensdauer des Produkts als ständige Informationsquelle.

Für Hinweise oder Anmerkungen zur Verbesserung des Inhalts dieser Gebrauchsanleitung sind wir dankbar.

Aufgrund kontinuierlicher Forschungs- und Entwicklungsprozesse behalten wir uns technische Änderungen und/oder Änderungen äußerlicher Merkmale der Lastaufnahmemittel vor.

E

Please read the safety instructions of this owner's manual carefully before using the safety lifting clamp.

In case of any doubts, please refer to your dealer.

Our manuals are intended to be a reference source throughout the lifetime of your product. We appreciate any suggestions, and/or comments regarding this manual.

Due to continuing research and development activities, product specifications are subject to change without notice.

F

Lisez attentivement ce mode d'emploi avant d'utiliser la pince.

En cas de doute: demandez conseil à votre fournisseur.

Nos modes d'emploi ont pour but de servir de référence durant la durée de vie de votre produit.

Nous apprécions les suggestions et/ou les remarques concernant ce mode d'emploi.

En raison des activités continues de recherche et de développement, les spécifications techniques et l'apparence des pinces peuvent être changés sans avis préalable.

NL

Lees deze gebruiksaanwijzing aandachtig door, nog voordat u de hijsklem gebruikt.

Bij twijfel raadpleeg uw leverancier!

Deze gebruikershandleiding is bedoeld als referentiebron gedurende de levenscyclus van uw product.

Commentaar en op- of aanmerkingen met betrekking tot de inhoud van deze handleiding wordt op prijs gesteld.

In verband met voortdurende onderzoeks- en ontwikkelingsactiviteiten, kunnen technische specificaties en/of uiterlijke kenmerken van de hijsklemmen zonder voorafgaande kennisgeving gewijzigd worden.

Owner's Manual pewag safety lifting clamp HXW/HSXW, HXW-V, DHW, HSKW, NMHW

Contents

1. General	8
2. Description of functions	8
3. Permitted Applications	8
4. Safety Instructions	9
5. Lifting	10
6. Maintenance	10
7. Disassembling/Assembling	10
- HXW, HSXW, HXW-V, DHW	
- HSKW	
- NMHW	
8. Overhaul	11
9. Disposal	11
10. Troubleshooter's Checklist	11
11. Warranty	12
12. Conditions and Specifications	12
13. Safety Inspections	12
14. Inspection Schedule	12

E

1. General

Thank you for choosing one of our high-quality products. The quality systems of management and services of pewag austria GmbH fully comply with ISO 9001 standards. The many years of vast experience are a guarantee of optimum quality and safety. pewag lifting clamps are manufactured from high quality alloy steels and comply fully with all relevant standards and product requirements including: European standard: EN 13155, Australian standard AS 4991, US standard ASME B30.20-2010 and machinery directive 2006/42/EG.

2. Description of functions

The HXW, HSXW, HXW-V, DHW, HSKW and NMHW horizontal safety lifting clamps have been specially developed for the horizontal transporting of steel plates. The clamps consist of a body, cam, and cam pin. The cam also functions as a lifting shackle and ensures that the load is held firmly while it is being lifted. The HSKW horizontal safety lifting clamps, as well as the HXW/HSKW horizontal safety lifting clamps have been especially developed for the horizontal lifting and transporting of steel plates. The HSKW horizontal lifting clamps consist of a height-adjustable body and a cam. The cam also serves as a lifting shackle and has the same function as the HXW/HSXW clamp described above.

3. Permitted applications

HXW, HSXW, HXW-V and NMHW

pewag HXW, HSXW and NMHW lifting clamps are only suitable for lifting and horizontal movement of non-bending steel plates and structures where it is possible to position the clamp on a flat point of contact. The clamps should always be used in pairs, or multiples thereof. In the latter case, however, preferably with a load spreader beam.

DHW

pewag DHW lifting clamps are only suitable for lifting and horizontal transporting of bending and formed steel plates, where it is possible to position the clamp on a flat point of contact. DHW lifting clamps should always be used in pairs, or multiples thereof.

HSKW

pewag HSKW safety lifting clamps are only suitable for horizontal transporting of steel plates, where it is possible to position the clamp on a flat point of contact. The HSKW clamps should always be used in pairs, or or multiples thereof using a load equalising beam. HSKW safety lifting clamps may also be used in a vertical position using a load equalising beam. Provided that the steel plate of plates do not bend (deflect), one or more plates can be hoisted at once per lift. When pairs or multiple clamps are used, each clamp should carry an equal part of the load.

4. Safety Instructions

Safety First! Guarantee your personal safety by carefully reading the following safety instructions first!

Ensure your own safety and continue to benefit from our product safety by having the clamp inspected, tested and, if necessary, overhauled at least once (1x) a year by pewag austria GmbH or a recognised mechanical repair and service centre. See also Chapter 8 – Overhaul. Contact pewag austria GmbH for further information.

Avoid life-threatening situations

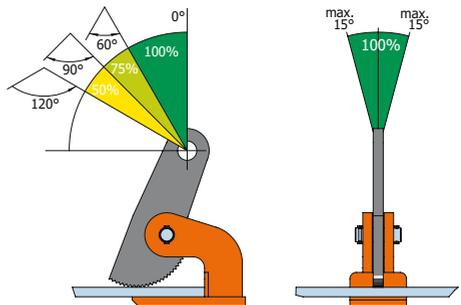
- Never work with an untested clamp or clamps with an expired test certificate
- Keep your distance when lifting and never stand under the load
- Do not use the clamp if (it has been) damaged
- Have the clamp immediately repaired by pewag austria GmbH or a recognised mechanical repair centre
- Unless otherwise noted, the clamps are to be used only for transporting single plates and not for plate packages (except HSKW)
- Never lift plates heavier than the working load limit (WLL), as indicated on the clamp, in the test certificate and in the table
- Do not lift plates which are thicker or thinner than the jaw opening, as indicated on the clamp, in the test certificate and in the table
- When simultaneously operating a number of lifting clamps arranged in a row, use lifting slings or chains which are of sufficient length to ensure that the angle between the slings or chains never exceeds 60°
- When simultaneously operating a number of lifting clamps in parallel, use a lifting beam (equaliser) and lifting slings or chains of a sufficient length to ensure that the lifting shackles on the clamps are never subjected to lateral load
- Do not place the clamp on conical sections of the plate or structure to be lifted
- Remove all grease, oil, dirt, corrosion and mill scale from the plate at the point where the clamp is to be attached
- Ensure that the clamp(s) is (are) positioned so as to balance the load when it is being lifted
- The surface hardness of the plate must not exceed 37 Hrc (345 Hb, 1,166 N/mm² except the NMHW)
- All clamps are only suitable for use in normal atmospheric conditions

Safety precautions

- Ensure that the lifting shackle can never be subjected to lateral load
- A free fall or uncontrolled swaying at the crane hook resulting in objects being struck may cause damage to the clamp. If this occurs, check whether the clamp is in good working order before further use
- Lifting clamps are not suitable for creating permanent joints
- The clamp should be subjected to preventive maintenance on a monthly basis in accordance with the guidelines as described in Chapter 6 – Maintenance
- Do not modify the clamp (by welding, grinding, etc.), as this can adversely affect its operation and safety, thereby nullifying any forms of guarantee and product liability
- Use only original pewag components and accessories

The following additional safety precautions are applicable to the HXW, HSXW, DHW and HSKW lifting clamps. The clamps can be loaded laterally at a maximum angle of 15°. The capacity of the clamps has been calculated on basis of a maximum top angle of 60°. In case of situations with larger top angles, then the WLL should be reduced proportionally, according to the following loading drawing.

With shored up usage, a maximum top angle of 60° is applicable and the WLL is 50% of the maximum permissible working load. The environmental temperature for use of the standard lifting clamps lies between -40 °C and +100 °C. For the NMHW the environmental temperature for use lies between -40 °C and +50 °C.



5. Lifting

- Check whether the working load limit (WLL) of the clamp is sufficient for the load created in the lifting situation. Note: The working load limit (WLL) is shown on the lifting clamp
- Attach the lifting clamp to the hoisting mechanism by one of the following means:
 - safety shackle directly to a crane hook
 - coupling link or D-shackle
 - sling or chain, if necessary in conjunction with a coupling link or D-shackle
- Ensure that all attachments have been tested and are of the correct tonnage. Make sure that coupling links and shackles are of sufficient dimensions to allow the clamp to move freely in the hook
- Check whether the clamp has any visible damage
- Check whether the cam opens and closes smoothly
- Check whether the teeth of the cam are free from dirt, and if necessary clean with a wire brush
- Remove any grease, dirt and mill scale from the plate at the site of the lifting clamp
- Open the clamp
- Place the jaws as far as they will go over the plate, making sure that the clamp is positioned so as to balance the load when it is being lifted
- Lift gently so that the lifting force can be applied; check whether the clamp is rotating or tilting
- If the clamp is rotating or tilting consult the information given in this section
- Ensure that the load is in a stable position

E

HSKW

- Place the clamp onto the plate (cable or chain already attached to the tooth segment; and take care that the chain or cable is not twisted)
- Tighten the clamps firmly by hand
- Tension the cables or chains with the crane hook, while the inside of the jaws presses firmly against the edge of the plate (note: due to the fact that the clamp does not have a constant pretension available on the tooth segment, it will be necessary to watch the position of the clamps until the cables are tensioned: make sure the clamps stay in the correct position)
- The load can now be lifted carefully
- During the transport of the load, take care that a constant tension is maintained on chains or slings
- To unhook, the crane hook should be lowered so far that the clamp is completely free of any load (note: make sure that when the load is lowered, there are no obstacles underneath where the load could rest on during lowering and whereby the clamps will become unloaded to early by accident)
- The clamps can now be removed from the load

6. Maintenance

Once a month the clamp needs to be checked for damages and/or contamination.

Do not use the clamp if:

- the body is split or deformed, in particular in the corners of the jaws
- the cam has been visibly deformed
- the cam teeth are no longer sharp
- the shackle pins have visibly been deformed
- any retaining pins are missing
- the marking on the clamp is no longer legible
- clamp is difficult to open or close

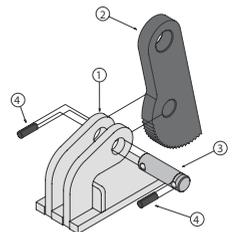
Depending on the defects noted: disassemble and clean the clamp (see Chapter 7 – Disassembling/Assembling) or have the clamp overhauled by *pewag austria GmbH* or another recognised mechanical repair center (see Chapter 8 – Overhaul).

7. Disassembling/Assembling

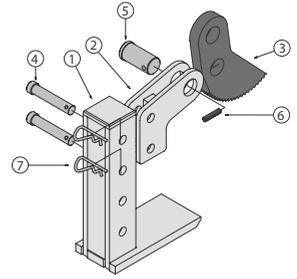
HXW, HXSW, HXW-V, DHW lifting clamps

The HXW, HXSW, HXW-V and DHW lifting clamps can be easily disassembled for cleaning and inspection purposes. Please make use of the following procedure.

- Remove the retaining pin (4) and the cam pin (3)
- Remove the cam (2)
- Clean all parts with a standard degreasant
- Grease the cam pin (3) with bearing grease
- Assembling the clamp is in reverse order



- Always insert new original retaining pins (4) with the aid of a hammer, combination pliers and pin punch
- Always use original pewag components when replacing parts
- Remove any burr with a file



HSKW lifting clamps

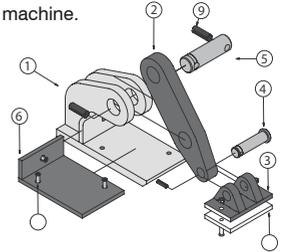
The HSKW lifting clamps can be easily disassembled for cleaning and inspection purposes. Please make use of the following procedure.

- Remove the tension pin (6) with the use of a pin driver from the tooth segment shaft (5).
- The tooth segment shaft can now be pushed out of the frame and the tooth segment (3) can be removed.
- After removing the hairpin pegs (7) and the two pins (4), the two side plates (2) can be taken from the clamp (1).
- Assemble the clamp in reverse sequence. Replace the retaining pins regularly.
- After maintenance and/or repairs, the clamp must be tested on a tension testing machine.

NMHW lifting clamps

The NMHW clamp can be easily disassembled for cleaning and inspection purposes. Please make use of the following procedure.

- Remove the retaining pin (9) and the cam pin (5 & 4)
- Remove the cam (2)
- Remove the small retaining pin (9) and the cam pin (4)
- Clean all parts with a standard degreasant
- If necessary you can remove the fabric pads (6 & 7) by removing the bolts (8)
- Grease the cam pin (5 & 4) with bearing grease
- Assembling the clamp is in reverse order
- Always insert new original retaining pins(9) with the aid of a hammer, combination pliers and pin punch
- Always use original pewag components when replacing parts
- Remove any burr with a file



8. Overhaul

At least once (1x) a year (required by law) or in case of any damage to the clamp, the clamp should be inspected, tested and if necessary overhauled by pewag austria GmbH or a recognised mechanical repair centre.

9. Disposal

Provided that the lifting clamp is rendered unfit for further use, it may be disposed of, in line with the local guidelines.

10. Troubleshooter's Checklist

Fault	Possible Cause	Action
Load slipping	Load dirty Cam dirty Cam blunt Jaws bent open	Clean Clean Replace Replace
Cam pivoting badly	Cam overloaded	Reject cam
Body bent	Clamp overloaded	Reject clamp
Cam shackle oval	Clamp overloaded	Reject clamp
Cam pin bent	Clamp overloaded	Renew clamp
Adjustable pins bent	Clamp overloaded	Reject clamp
Retaining pins missing	Incorrectly assembled	Fit new retaining pins
Clamp difficult to open/close	Clamp worn out Clamp dirty	Reject clamp Clean

11. Warranty

pewag austria GmbH provides end users with a 5 year warranty on its lifting clamps. This warranty is applicable to the original end user of the lifting clamps. This warranty applies only if the clamp has been inspected, checked and maintained in line with the manufacturer's and distributor's instructions during the entire warranty period. This warranty period of 5 years is valid from the day of purchase, and is subject to all conditions and specifications stated in this document.

12. Conditions and Specifications

The warranty only covers faults which are due to production errors and occur during normal use. The warranty does not cover wear to components. Should there be any kind of failure within this guarantee period, the lifting clamp will be replaced or repaired following assessment by the producer.

No warranty is given to clamps with faults due to the following:

- Normal wear
- Overload
- Wrong and/or careless use
- Damages
- Not following procedures and measures
- Hoisting differing material other than indicated on clamp or stated in the user's manual
- Adapting and/or modifying of the pewag clamp
- The incompetent use of the clamp, and not following all indications which are stated in the user's manual
- When maintenance and/or revision has not been carried out by an authorised pewag distributor

The producer is not responsible for incidental damage or damage due to incorrect use of the lifting clamps as well as from violation of this manual.

13. Safety Inspection

All inspection and repairs must be noted in the maintenance diagram. This does not only apply to your own inspections but also to inspections carried out by your authorised pewag distributor. When the clamp is handed in for maintenance and inspection, you must always provide the maintenance diagram.

Defective Lifting Clamps

When a form of wear or damage is indicated, you must take the following measures:

- Take the lifting clamp out of service. (Note the date of failure of the lifting clamp)
- Try to identify the cause of the failure, for example (complete list is available in Chapter 10):
Such damages are not covered by the guarantee! To guarantee your own safety and that of your colleagues you are obliged to follow this procedure
- Return your lifting clamp (with the maintenance history) to your authorised pewag repair shop
- If the lifting clamp has been revised/repared by your distributor, you can safely use your clamp again.
Please note this date in your maintenance diagram

14. Inspection Schedule

Months	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60
Years	1		2				3			4			5		
Safety inspections by your own inspector	■	■		■	■		■	■		■	■		■	■	
Maintenance by an official pewag distributor			■						■						
Revision by an official pewag distributor						■						■			

Konformitätserklärung

gemäß Anhang VII A der Maschinenrichtlinie 2006/42/EG 2010 für Lastaufnahmemittel:

Bevollmächtigter für techn. Unterlagen gemäß Anhang VII Teil A:

DI Bernhard Oswald; Gaslaternenweg 4; A-8041 Graz

Wir erklären in alleiniger Verantwortung, dass die Produkte für welche diese Betriebsanleitung gilt, die Bestimmungen der Richtlinie 2006/42/EG erfüllen.

Folgende Norm(en) wurden angewendet: EN 13155

Bei jeder nicht von pewag bewilligten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit. Voraussetzung für die Inbetriebnahme ist, dass die Betriebsanleitung gelesen und verstanden wurde.

Declaration of conformity

Pursuant to Appendix II A of Machinery Directive 2006/42/EC for lifting tackle:

Authorised representative for technical documents pursuant to Appendix VII, part A:

DI Bernhard Oswald; Gaslaternenweg 4; A-8041 Graz

We hereby declare, on our own responsibility, that the products to which these operating instructions apply satisfy the provisions of Directive 2006/42/EC. Any alteration of the product not authorised by pewag shall invalidate this declaration.

The following standards were applied: EN 13155

Prerequisite for putting this product into service is that the operating instructions have been read and understood.

Déclaration de conformité

En conformité avec l'annexe II A de la directive « Machines » 2006/42/CE pour élingues:

Personne autorisée à constituer le dossier technique suivant l'annexe VII partie A:

DI Bernhard Oswald; Gaslaternenweg 4; A-8041 Graz

Nous déclarons sous notre seule responsabilité que les produits auxquels la présente notice de service s'applique, répondent aux exigences de la Directive 2006/42/CE. Toute modification du produit non approuvée par pewag entraîne la cessation de la validité de la présente déclaration.

Les normes suivantes ont été utilisées: EN 13155

La condition préalable à la mise en service est l'étude et la compréhension de la notice de service.

Verklaring van overeenstemming

Conform bijlage II A van de machinerichtlijn 2006/42/EG voor aanslagmiddelen:

Gemachtigde voor techn. documentatie conform bijlage VII deel A:

DI Bernhard Oswald; Gaslaternenweg 4; A-8041 Graz

Wij verklaren onder uitsluitende verantwoordelijkheid dat de producten waarvoor dit bedrijfsvoorschrift geldt, voldoen aan de bepalingen in richtlijn 2006/42/EG. Bij elke niet door pewag goedgekeurde wijziging verliest deze verklaring zijn geldigheid.

De volgende normen zijn gebruikt: EN 13155

Voorwaarde voor de inbedrijfname is, dat het bedrijfsvoorschrift is gelezen en begrepen.

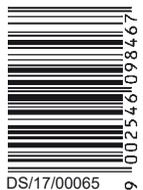
Graz, 2014-06-02

pewag austria GmbH



ppa. Stefan Duller

pewag austria GmbH
A-8041 Graz, Gaslaternenweg 4
Phone: +43 50 50 11-0
Fax: +43 50 50 11-100
saleinfo@pewag.com
www.pewag.com



DS/17/00065 9