

Translation of Original operating manual

pewag winner profilash

PLEW-LC pewag winner eta lashing point

This operating manual is an integral part of the product. It has to be made available to the operator for the duration of its service life and has to be passed on to the next owner or operator along with the product.

This operating manual is subject to a continuous improvement process; only the most recent version is deemed valid. It is available as a download on www.pewag.com.

This product is designed to be used in compliance with this manual as well as the national regulations for the for securing loads during transport. It may only be used if the user manual has been fully read and understood.

The colour-highlighted text in this manual indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. Please read this additional advice carefully.

Document Version:
01876_BA_PLEW-LC_R1.0_ENG
Release: 1.0
Release date: 2021-11-01



PLEW-LC pewag winner eta lashing point

This operating manual is valid for:
PLEW-LC pewag winner eta
lashing point

Size

PLEW-LC 3.000 daN - PLEW-LC 20.000 daN



Please read this operating manual carefully before using the product, paying particular attention to the sections on Safety and Mounting.

This product may only be used once all the points in this manual have been fully understood.

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1. SAFETY INSTRUCTIONS



WARNING

A wrongly mounted or damaged lashing point as well as improper use can increase the risk of accidents leading to injuries and/or death! Damaged lashing points (see maintenance instructions) can fail even under normal circumstances – they must not be used.

- Only competent persons are allowed to use this product. They must be familiar with and apply all relevant standards and country-specific regulations.
- The user of this product must be in good health. He/she is not allowed to be under the influence of drugs, alcohol or medication.
- Please make sure that in the event of an emergency, a rescue plan is available that includes all possible emergencies.
- Check for visible damage (deformations, cracks) prior to each use and ensure that the product is functioning correctly – brackets have to be tiltable (alignable with the load direction). Ensure that the product has not been modified in any way.
- All repairs must be undertaken in accordance with the instructions specified by pewag.
- Loading must always take place in the stated direction (fig. 1 under section 2 of this manual), with the maximum lashing capacity according to table 1 and taking into consideration the operating conditions stated in section 2.
- This product is not intended for the lifting or holding of persons.

Code	Max. lashing capacity [daN]
PLEW-LC 3000	3000
PLEW-LC 5000	5000
PLEW-LC 8000	8000
PLEW-LC 13400	13400
PLEW-LC 20000	20000

Table 1: Lashing capacity

2. Intended use

Purpose: The pewag PLEW-LC is a lashing point that is welded onto loads or transport units so that lashing chain components (hooks, shackles, straps...) may be attached to enable the load to be secured for transport. The product may be used for direct lashing or tie-down lashing. The max. lashing capacity is marked on the product.

Target groups: This product may only be used and serviced by properly trained personnel, provided that the instructions of this operating manual and all relevant country-specific regulations are complied with. Repairs, regular inspections and the exchange of parts may only be performed by competent personnel. Also see point 4 of this operating manual.

Load: Loading must always take place in the stated direction (fig. 1) with the maximum lashing capacity according to table 1 and taking into consideration the operating conditions as specified here.

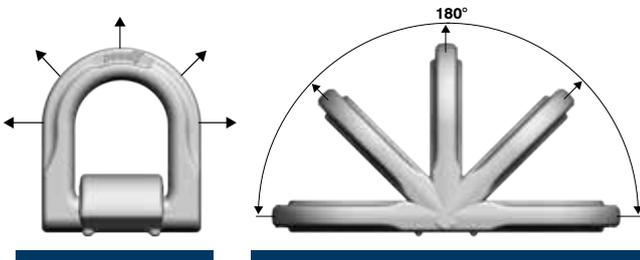


Fig. 1: Permissible pull directions that occur when used correctly.

Operating temperature:

The long-term permitted ambient temperature must be between -20 °C to 200 °C.

Impacts: If the lashing procedure is performed according to EN 12195-1, occasional shock loads are admissible as they will be balanced by the vehicle shock absorber system and the elasticity of the lashing equipment.

Other: Use only original parts for the assembling of the lashing point. The ring is 180° foldable and must be aligned in the direction of the pull before loading.

Note: Lashing points have a safety factor of 2 – this means that they must not be used as lifting points for safety reasons!

2.1 Limitations of use

- PLEW lashing points are not to be used in areas with highly corrosive influences (e.g. sewage or chemicals etc.). They must not be exposed to acids and alkalis or their fumes. Please consult our technical service on advice for using the products in aggressive environments.
- The lashing points must not be used over edges or corners.
- This product must not be used for the lifting or securing of persons.

⚠
WARNING

The information contained in this operating manual is based on the assumption that no particularly hazardous conditions apply. Such conditions include offshore use and use in areas with nuclear contamination. In such cases, please contact pewag to determine the permissibility of the application and the degree of danger.

2.2 Foreseeable improper operation

- Operation by unskilled persons.
- Operation by persons who do not understand the language used in this manual and therefore do not fully understand what they are reading.
- Attachment to objects for which no instruction manual or strength verification is present or available
- Attachment of lashing equipment for which no instruction manual or inspection based on applicable standards is present or available.
- Welding performed by persons who have not passed the test required by applicable standards.
- Use of filler metals other than those specified in this instruction manual.

2.3 Identification

Each pewag PLEW lashing point has been stamped with the maximum lashing capacity for adverse load distribution, manufacturer and batch identification. Fig. 2 shows the exact identification details on the product.

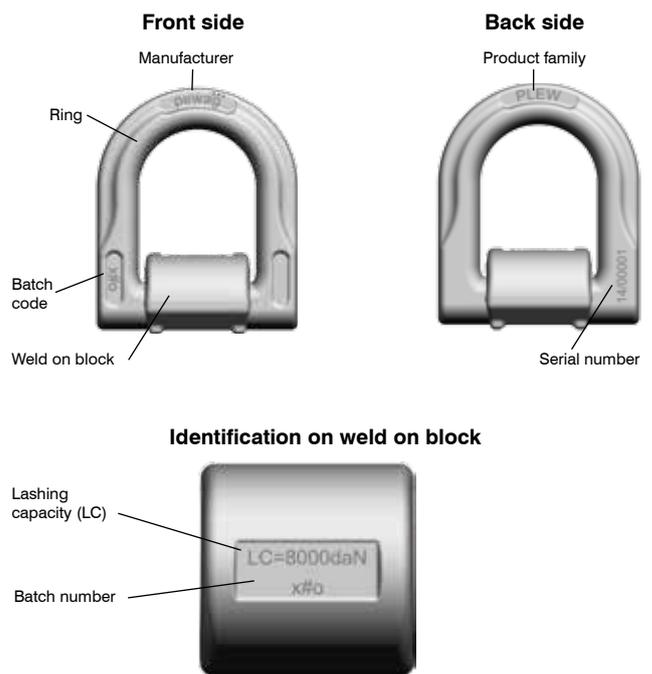


Fig. 2: Component description and location of identification details on product.

3. Mounting Instructions

3.1 General

- Mounting must only be carried out by persons who have received instructions on the safe use of the product and who have the required knowledge and skills for the task.
- The correct selection of lashing points will be influenced by the size, shape and weight of loads as well as the transport environment (additional equipment, friction coefficient between load and platform...) Lashing points must have a suitable lashing capacity for the purpose at hand. If in doubt, the next dimension up should be selected to avoid overloading.
- The material of the object to which the lashing points are weld-on, must be able to absorb the applied forces without deformations (safety evidence).
- When choosing the position of the lashing points, make sure to avoid incorrect loading, for instance if:
 - There is no possibility to align in the pull direction.
 - The pull direction is not in the specified area acc. to fig. 1.
- Mount the lashing points in such a way that they may be reached with ease and without obstructions when attaching/removing the lashing equipment. Also make sure that the lashing points are affixed in such a way that no dangerous areas are produced that may endanger the user or prevent correct use (bruising, shearing, trapping or bumping).
- Only original pewag parts may be used – recognisable by the stamping (Manufacturer, Batch number, ...).
- The delivery condition may not be changed. The delivery condition may not be changed. It is not permitted to perform mechanical machining, heat and/or surface treatments with material-damaging effects (e.g. electro galvanised).
- Always take into account the user and assembly instructions of the lashing devices used and, where applicable, also those of the goods to be secured.
- Only use non-defective lashing points.
- Used lashing points must be checked according to the maintenance instructions prior to each use.
- Ensure prior to each use that the lashing point has been attached correctly and that it is in a flawless condition.
- The attached lashing equipment (e.g. hook) must be free to move within the ring.
- Keep the lashing points clean and dry.
- For custom-made designs: Take into account the additional information provided and the specifications on the customer`s drawings (where applicable).

3.2 Safety measures to be taken by the user

Always take into account the restrictions on use and the maximum lashing capacity of the lashing points used. Always wear safety gloves when attaching the lashing equipment. Align the ring of the lashing point in the expected direction of pull before tensioning the lashing device.



WARNING

Prior to reopening the lashing chains for unloading, always ensure that loads are stable and secure even without the chain and that there is no risk of personal or material damage caused by falling/tilting loads.

3.3 Residual risks

Overloading by not respecting the maximum lashing capacities or due to undue environmental influences (temperature, etc.). Wrong adjustment of the lashing points can also lead to failing, as can the use of non-authorized or damaged parts of the attached lashing equipment.

3.4 Mounting

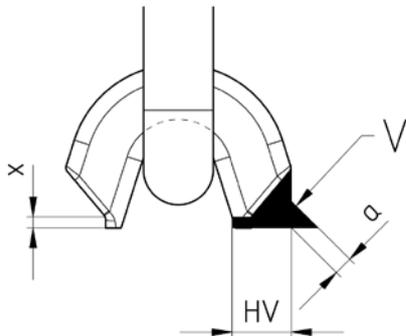
- Persons welding this product have to be in possession of a valid qualification acc. to EN ISO 9606-1. Basically, the local mandatory regulations of the respective country apply (For USA: Welder is to be qualified acc. to AWS American Welding Society and/or ASME American Society of Mechanical Engineers).
- The surface of the part to be welded has to be thoroughly cleaned before starting to weld. Damp, dirt, oil, color, tinder, etc. have to be removed.
- The verification of the basis material suitability for welding (counter part of the lashing point), the analytical and strength equivalence of the basis material to the pewag part and the degree of safety of the whole device is the responsibility of the welding company.
- Material of weld on block: S355.
- The part on which the lashing point will be welded must be able to resist the load and load application on the desired place.
- After welding, the weld-on block and the welding seam should be protected against corrosion (e.g. by varnishing).

3.5 Execution of the welding seam

- Select the pre-heating and the interpass temperature as well as the build-up sequence in accordance with the material thickness and the grade of the basic material.
- The root seam must be cleaned carefully prior to adding more subsequent weld runs and the final run.
- The nubs on the weld-on bracket determine the gap for the root seam and must not be removed.
- Ensure that the weld metal does not touch the orange ring/ the metal spring. After welding, the ring must be rotatable by 180° without jamming.
- The weld metal must be placed in such a way as to cover the entire cross-section of the welding seam.

Examples of filler metals:

MAG – wire: ISO 14341 : G3 Si 1 / AWS A5.18: ER 70 S-6
 Stick – electrode: EN ISO 2560 A: E 42 5 B 4 2 H5 or
 E 42 6 B 3 2 / AWS A5.1: E7018-1 / AWS 5.5: E8018-G



Picture 2: Weld seam geometry
 x = Distance nap for root seam (2 - 3 mm)

Weld seam			
	Dimension	Length [mm]	Volume [cm ³]
PLEW-LC 3000	HV 8 + ▲ a3	2 x 35 mm	≈ 3,3 cm ³
PLEW-LC 5000	HV 9 + ▲ a3	2 x 41 mm	≈ 4,7 cm ³
PLEW-LC 8000	HV 10 + ▲ a4	2 x 45 mm	≈ 6,8 cm ³
PLEW-LC 13400	HV 14 + ▲ a4	2 x 56 mm	≈ 14,9 cm ³
PLEW-LC 20000	HV 17 + ▲ a5	2 x 61 mm	≈ 24,1 cm ³

4. Maintenance, inspection, repairs

WARNING

The safety of the user is contingent upon the effectiveness and durability of the equipment used. For this reason, ensure that inspections are performed regularly. Damaged lashing points may fail during normal conditions of use, causing the load to fall. Such lashing points may not be used.

- This product must be checked by a competent person at least annually in accordance with all the manufacturer’s information. This interval may be shorter, depending on operational conditions and legal regulations. In case of frequent use, a crack test must be performed every 2 years.
- During inspection, all parts need to be checked for damages that could impair safety and function of the product.
- For regular inspections as well as crack tests, all parts must be free from oil, dirt and rust. Appropriate cleaning procedures are procedures that do not overheat, hide surface defects and cause hydrogen embrittlement or stress crack corrosion.

“Competent person“ refers to someone who, in view of his or her expert training and experience, has sufficient knowledge in the field of lashing points and is sufficiently familiar with the relevant national standards and regulations to be able to assess the safe-for-working state of the product as well as its intended use.

4.1 Inspection

Check the following points before each usage:

- Correct selection of lashing points based on the size of the load.
- Flawless functioning (folding of the ring) and appearance of parts and the weld seam.
- The ring of the lashing point used must be aligned with the expected load direction.

Regular inspection:

Regular inspections must be performed by the manufacturer or a competent person under strict compliance with the manufacturer’s information.

4.2 Elimination criteria

- Breakage, deformation, sharp notches and/or cracks of any kind.
- Any sign of exposure to high heat.
- Reasonable doubts on the functionality and/or safety of the lashing points.
- Illegible markings.
- Wear or excessive corrosion resulting in a cross-sectional reduction more than 10 %.
- In case of cracks or other damage to the welding seam.
- If it is not possible to freely fold the ring after assembly.

CAUTION

If there is any doubt on the correct functioning/ safety of the lashing point, it must be discarded!

4.3 Accident and incident procedure

If the lashing equipment becomes jammed in the ring of the lashing point, do not apply force in order to prevent further damage. If the lashing point becomes deformed (e.g. due to overloading) or other exceptional circumstances apply, the product must immediately be removed from operation and handed to a competent person for inspection/repair.

4.4 Maintenance

- If necessary, clean product with a damp cloth and leave to dry naturally.

4.5 Repairs

- Repairs may only be carried out by the manufacturer or a competent person.
- Welding (to repair purposes) and heat treatment are not permitted.
- If small defects like notches or score marks are visible you can remove them with carefully polishing or filing. After repairs, repairs area must be intergradient, without a sudden change in cross-section. Due to complete elimination of the error may be the cross-section by no more than 5 % decreases.
- Inspections and repairs need to be fully documented and remain with the product for the duration of its operating life. A documentation reference sheet can be downloaded at www.pewag.com.

Each lashing point is stamped with a unique serial number based on the template "JJ/xxxx". "JJ" refers to the year (e.g. 13 for 2013) and "xxxx" is the unique category number.

5. Storage

Store the lashing point after it has been cleaned, dried and protected against corrosion (e.g. lightly oiled). During storage or transportation, make sure the product is not exposed to corrosive, thermal or mechanical influences. This information applies to both before and after welding on the final product.

6. Decommissioning

This product is made of metal and is 100 % recyclable. At the end of its service life, the product should be recycled as scrap metal.

7. Manufacturers declaration

Herewith we declare that the product mentioned in this document complies with all appropriate, basic requirements of safety and health of the corresponding European Union standards

Applied standards in particular:
EN 1677-1, EN ISO 12100

It is a precondition to put the product into service that the instruction for use has been read and understood. This declaration becomes invalid with every modification of the product not approved by pewag or if the product is not used in a way described within the user manual.

Kapfenberg, 01-11-2021

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