PLATE LIFTING CLAMPS
Operational Instruction Manual

Universal Plate Clamp
Model: UPC-1

Horizontal Plate Clamp
Model: HPC-1
Horizontal Plate Clamp  Model: HPC-1

The AUSTLIFT model HPC-1 Clamp is used for horizontal lifting and transfer of steel plates. It is particularly suited to this application due to the thin pressure pad and buffer cams which facilitate easy insertion and removal under the plate being lifted. Also fitted is an open jaw lock feature which aids for easy positioning before lifting. Jaw is spring loaded to prevent slippage of the load before lifting. It can also be used hanging vertically under a spreader beam.

The AUSTLIFT model HPC-1 Clamp is light weight relative to their lifting capacity. Please note that the work load limit of these horizontal clamps is based on a pair or more. The clamp is suited to steel a surface hardness of up to 37 RC.

<table>
<thead>
<tr>
<th>CODE</th>
<th>WLL</th>
<th>JAW OPENING</th>
<th>Wt.</th>
<th>EYE HEIGHT</th>
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APPLICATION:
- Building construction sites
- Ship building yards
- Metal production workshops
- Civil engineering construction
- Railway construction sites

FEATURES:
- High strength and durable.
- Identification tag with serial number
- Proof tested to 2 x WLL with certificate.
- Minimum Safety factor of 5:1
- Spare parts are available

Warning: New operator must be trained prior to use!

AUSTLIFT model HPC-1 Clamp is used for horizontal lifting and transfer of steel plates. It is particularly suited to this application due to the thin pressure pad and buffer cams which facilitate easy insertion and removal under the plate being lifted. Also fitted is an open jaw lock feature which aids for easy positioning before lifting. Jaw is spring loaded to prevent slippage of the load before lifting. It can also be used hanging vertically under a spreader beam. The AUSTLIFT model HPC-1 Clamp is light weight relative to their lifting capacity. Please note that the work load limit of these horizontal clamps is based on a pair or more. The clamp is suited to steel a surface hardness of up to 37 RC.
HOW TO USE

Push the spring loaded gripping arm (A) downward until the lock pin (B) is engaged. Place the clamp over the plate to be lifted making sure the plate sits all the way in the back of the jaw. Push lock button (B) and let the spring loaded cam push down on the plate ensuring both pressure pad (C) and grip cam (A) are in full contact to steel plate. Ensure rated shackle is used in the eye of clamp and sling is connected to shackle.

Disassembly & Reassembly of Cam
Disconnect spring and punch out roll pin and remove the shaft and the cam. When cam is detached, reassemble in reverse order.

Disassembly & Reassembly of Pad
Remove bolt and nut with socket wrench and Phillips head screw driver, then the pad may be easily disassembled or reassembled.

Universal Plate Clamp

The AUSTLIFT model UPC-1 Clamp is designed for a wide range of uses for vertical lifting and is particularly suited for lifting and turning of steel plates of up to 180º. This clamp can be applied to a wide range of applications such as ship sections and the extraction of pile sheets which maintains a structure for safety against ground touching shocks of the loads.

The AUSTLIFT model UPC-1 Clamps are fitted with a hinged hoisting eye to allow movement in all directions. The clamp is fitted with a safety lock device by which the lock will not disengage even if the lifting sling has been slackened, this guarantees the clamp will not disengage in both open as well as closed positions. The clamp is suited to steel surface hardness of up to 37 RC.

Model: UPC-1

<table>
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<tr>
<th>MODEL</th>
<th>WLL</th>
<th>JAW</th>
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<th>EYE</th>
<th>HEIGHT</th>
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</table>
Warning: New operator must be trained prior to use!

**FEATURES:**
- High strength and durable.
- Identification tag with serial number
- Proof tested to 2 x WLL with certificate.
- Minimum Safety factor of 5:1
- Spare parts are available

**APPLICATION:**
- Building construction sites
- Ship building yards
- Metal production workshops
- Civil engineering construction
- Railway construction sites

**HOW TO USE**
Push the spring loaded safety lock arm (A) downwards, this will neutralize the gripping jaw (B). Place the clamp over the plate to be lifted making sure the plate sits all the way in the back of the jaw and the safety latch sits upward from horizontal position. Re-engage the safety lock arm (A) and let the spring loaded cam push down on the plate ensuring both pressure pad (C) and grip cam (B) are in full contact to steel plate. To remove clamp first ensure the plate is safely on the ground then place one hand on body of clamp and push down the safety lock arm (A) and push down hoisting eye (D) to release gripping cam.

**Disassembly & Reassembly of Cam**
Disconnect spring and punch out roll pin of shaft and remove the shaft, then the cam may be removed when the pendulum pin is located at body hole it can be punched through the cam can come out. When cam is detached, reassemble in reverse order.

**Disassembly & Reassembly of Pad**
Remove bolt and nut with socket wrench and Allen key, then the pad may be easily disassembled and reassembled in reverse order.
LIFTING METHODS OF HORIZONTAL PLATE CLAMPS

- STEEL GIRDERS
- STEEL PIPES
- PLATE WITH 3 CLAMPS
- FABRICATED OBJECTS
- PLATE USING SPREADER BAR
- PLATE WITH 4 CLAMPS

LIFTING METHODS OF UNIVERSAL PLATE CLAMPS

- STEEL PLATE WITH 2 CLAMPS
- STEEL GIRDERS
- FABRICATED OBJECTS

OBSERVE THESE NOTES FOR PLATE CLAMPS

- Ensure the steel plate is to the full depth of the clamp.
- Make sure the clamps are positioned to the centre of gravity of steel plate.
- With long steel objects a spreader beam shall be used.
- Ensure the gripping jaws are in full contact to steel plate.
- Full work load limit of clamps do not exceed sling angles more than 60°.
- Reduction of plate clamps work load limits at 90° = 75% of WLL & 120° = 50% of WLL
DANGER: Incorrect Application for Horizontal Clamps

**DANGER**
Superficial Gripping

**DANGER**
Sling Angle Exceeds 60°

**DANGER**
Lifting Two Plates Simultaneously

**DANGER**
Lifting Two different size plates simultaneously

**DANGER**
One Side Lifting

**DANGER**
Two point lifting using one sling

Ensure clamps are inspected prior to use

**DO NOT USE IT**

If the clamp is damaged it should be taken out of service until it is repaired and certified by an authorised person for reuse, and always use genuine Austlift parts.

If any of the gripping jaws show more than two teeth missing DO NOT USE IT!

If the tooth wear exceed (see below) to limit (A)
- WLL 0.75t – 1.5t = 0.8mm
- WLL 2.50t – 5.0t = 1.0mm
- WLL 5.00t – 16t = 1.2mm
DO NOT USE IT!

If the main shaft pin is worn more than 5% of its original diameter DO NOT USE IT!

If the main shaft pin is bent more than 1.5mm (S) over 100mm of length of the main shaft pin DO NOT USE IT!
Warning: New operator must be trained prior to use!

<table>
<thead>
<tr>
<th>WLL</th>
<th>Horizontal Clamp</th>
<th>Universal Clamp</th>
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Horizontal Clamp Full Repair Kit  Universal Clamp Full Repair Kit
When you choose Austlift™
You choose quality.

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