



# **ABACO MACHINES**

## **OPERATION MANUAL**

# **LITTLE GIANT LIFTER (ALG)**



**ABACO MACHINES (USA)**

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**APPLICABLE MODELs  
of this LITTLE GIANT LIFTER:**

**ALG-40, ALG-50**

**ALG-60, ALG-75**

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## I. Safety Instructions :

**WARNING: Before using your lifter, please confirm the surfaces of the slab to be lifted are flat, smooth, and free from dust, oil, or any kind of such harmful substances which allow slipping.**

### *a) For Little Giant Lifter :*

- 1) **Caution:** Carefully consider all safety regulations and existing standards and codes in your region and country for hoisting operations.
- 2) **Caution:** Permission to work with the Little Giant Lifter should only be given to persons who are suitably trained, competent and acquainted with this operating manual and safety regulations.
- 3) **WARNING:** Inspect clamps. If the clamp is worn or damaged, do not use.
- 4) **WARNING:** Select proper size clamps for the job. Determine the weight of the slab to be lifted. Do not exceed W.L.L. (Working Load Limit) shown on the clamp (Refer to page 13). Slab thickness must be within grip range specified by the Manufacturer.
- 5) **WARNING:** All personnel must stand clear of the load while it is being lifted or moved.
- 6) **WARNING:** The grip depends on friction. Check that the rubber pads are free from dirt, grease and other substances that may reduce their effectiveness.
- 7) **WARNING:** Do not lift wet slabs. The grip depends on friction. Lifting wet slabs may cause the rubber pads to lose their grip.

- 8) **WARNING:** No more than one piece should be lifted at any time.
- 9) **WARNING:** Position the clamp at the center of the slab to be lifted, so that the load is balanced.
- 10) **WARNING:** Make sure that slab is inserted to the full depth into the opening of the clamp (Figure available at page 13).
- 11) **Caution:** Lift up the slab slowly. A trial tension of the load will usually indicate proper balancing, if not try from 9) Positioning again.
- 12) **WARNING:** Do not lower the clamp onto other slabs or material while lowering slab on racks, as clamp will release its load.
- 13) **Caution:** Before lifting any product, the Swivel Shackle should be carefully inspected for its wear, any damage, cotter/snap pins loosening / lost, or nut loosening. If wear is evident the SHACKLE should be replaced and not used until replaced.

***(b) General Safety Instructions for Hoisting Accessories***

**Caution:** In order to protect people from any incident, it is important to follow some general safety directions while using hoisting accessories.

- 1) **Caution:** Read the operating manual carefully before you use hoisting accessories.
- 2) **Caution:** Make sure that the operating manual is always available beside the place where the hoisting accessories are used.
- 3) **Caution:** Give permissions only to persons who are suitably trained and competent to work with those hoisting accessories.

- 4) **Caution:** Wear safety equipment, like helmet, gloves and safety boots.
- 5) **WARNING:** Never leave a lifted load unsupervised.
- 6) **Caution:** Ensure that the Little Giant Lifter has No Damage and Functionally everything is all right and in safe working conditions.
- 7) **Caution:** Lift a load only as much as really required.
- 8) **WARNING:** Do not allow yourself and anybody to go under the lifted slab.
- 9) **WARNING:** Be sure to check the Hoist and its Accessories are duly periodically inspected and have no damage or loosening of fasteners and functional sound, also before using reconfirm those points once again, then use the lifter.
- 10) **WARNING:** Hoisting accessories must be stored in a place where they are protected against weather conditions and aggressive substances.
- 11) **Caution:** Repairs and checks are to be made only by qualified persons.
- 12) **Caution:** Avoid turning under a load as much as possible, Each before use check the Swivel Shackle for wear and loosening of fasteners and cotter and snap pins. This Shackle is considered as a wearable item.

## II. Instructions for Use:

### Preliminary Safety Checks

“Competent Person” shall check the following before each use of Abaco Little Giant Lifter :

#### WARNING:

- \* That the Abaco Little Giant Lifter is correctly installed and in a safe working conditions.
- \* That the swivel shackle is correctly and securely installed and tightened to an Abaco Little Giant Lifter.
- \* That all locating pins on the forklift boom are correctly positioned and in a safe working order and safety clipped.

**Caution:** While moving the slab, the clamps may open then the slab slides out from the lifter due to vibration or other shock generating influences. To avoid any unexpected occurrence, Safety Lock system can help holding the slab in place, for securing safety further.

- 1) Clamp the top part of a slab at the center from the pack of slabs using pinch bar and/or wedge, allowing enough room for back plate of clamp to pass between slab and pack of slabs. Try lifting the slab a little, to see the slab is lifted horizontally.



- 2) **WARNING:** Position the clamp squarely and in the centre of the slab so that the load is balanced. Make sure that the slab is inserted full depth into the opening of the clamps.

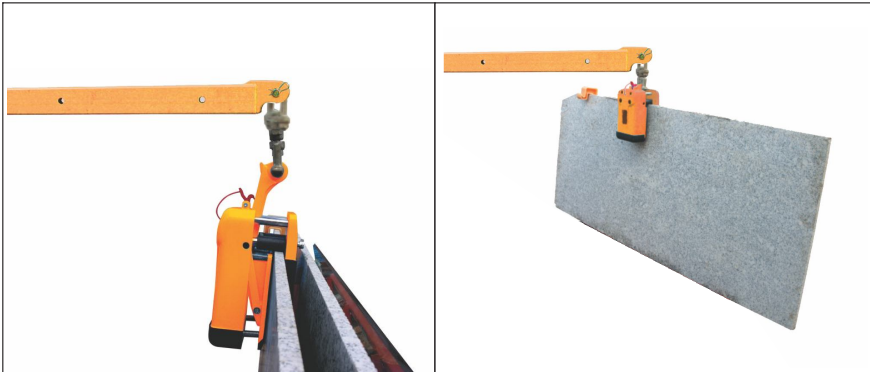




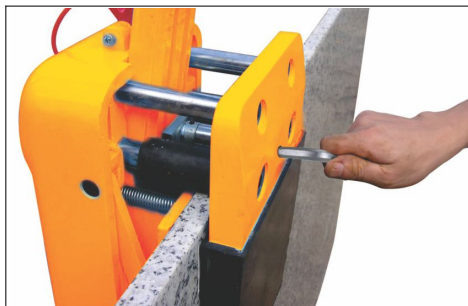
- 3) Unlock the locking latch so that the jaws will lock the slab when the lifting pin is raised through Swivel Shackle.



- 4) Lift the slab slowly to ensure load is balanced. Moving the slab out from a stand, lower the slab and keep a distance of about 10cm from the base.



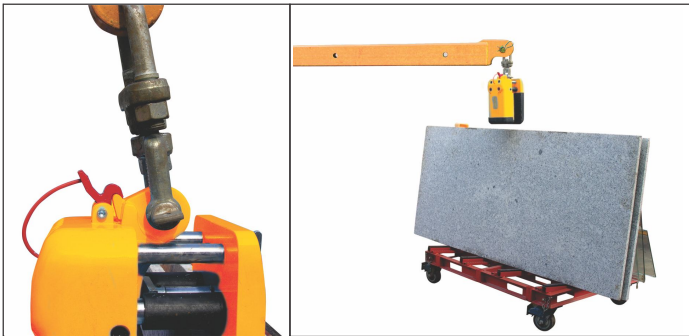
- 5) Tighten the safety lock to ensure a safe operation (turn the safety lock clockwise to engage the lock).



- 6) Before moving the slab to the desired position, move the slab close to the stand, lower the slab and keep a distance of about 10cm from the base, then unlock the safety lock (twist the safety lock anti-clockwise).



- 7) Before lowering the slab, make sure that there are no obstructions to disturb the slab to touch down on the stand.



**TIPS: Caution:**

- 1/The lifter works the best in a temperature range of -10 to 45 degree C.
- 2/Do not use the lifter in pickling baths, or in any acidity atmosphere.
- 3/Do not use the lifter for dangerous goods. (e.g. molten materials, radioactive materials, etc.)
- 4/Ensure no obstacles where slabs move.
- 5/Inspect and clean the rubber surface before and after use.

### **III. Warranty**

At the time of delivery it is necessary to check that the clamp has not been damaged during shipment. Any claims must be presented within 8 days of the date of delivery of the product.

We grant you twelve (12) months warranty on the Little Giant Lifter countered from the day of purchase.

The warranty coverage is not applicable....Whenever the clamp is handled incorrectly during manoeuvring.

Whenever the operator fails to comply with the instructions in this booklet.

Whenever the clamp's maximum permissible capacity is exceeded.

Whenever the specifications for slab thickness are not followed.

When damages are due to inadequate maintenance and inspections.

When damage is due to improper storage.

Whenever repairs were performed by the user without our permission.

Whenever non-original spare parts were used.

The SHACKLE is separate from the lifter and is considered a ware item and must be inspected after every use. This is not part of this or any Warranty, unless Defective. At that time the SHACKLE and Lifter need to be returned to the supplier for inspection and evaluation.

### **IV. Inspection, Maintenance & Repair**

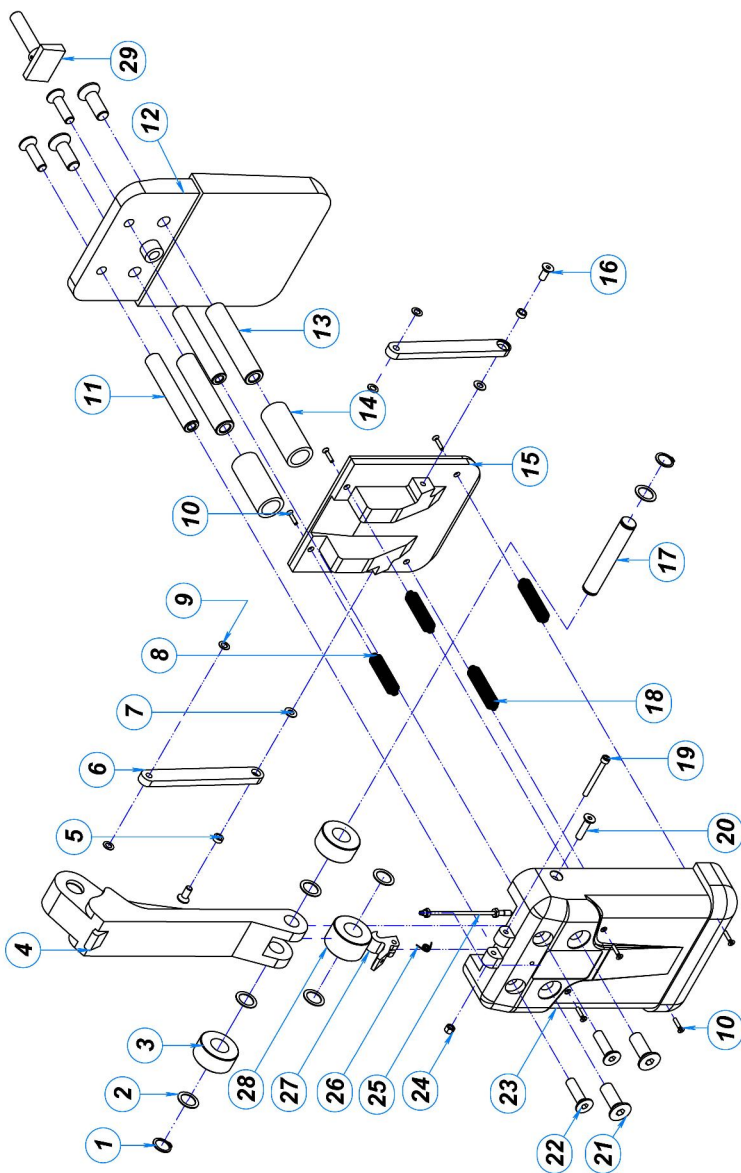
It is important to establish a regular procedure for clamp & Shackle inspection. Frequency of inspection will depend upon the amount of use the clamp receives.

You may wish to maintain a written record, indicating inspection dates, condition of the clamp on each of those dates, and any repairs made. Inspection records should be reviewed periodically.

Lubricate the bearing once a month to ensure smooth operation.

Always use original spare parts when carrying out repairs or maintenance.

Important: Carefully observe the Safety Instructions supplied with the lifting clamp.



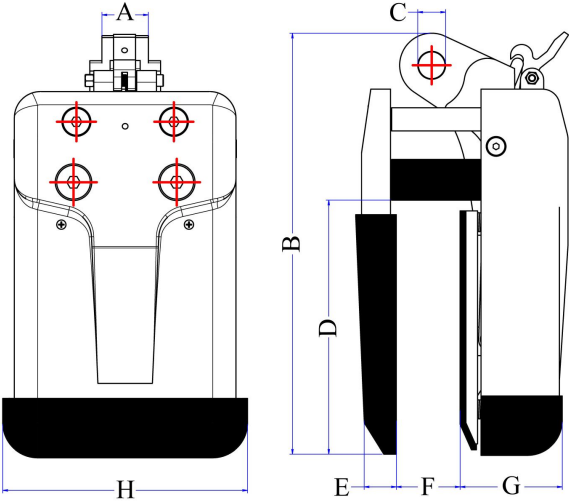
SPARE PARTS LIST

| Code    | Pos. | Description                  | Qty. |
|---------|------|------------------------------|------|
| ALG-001 | 1    | External circlip             | 2    |
| ALG-002 | 2    | Ø20 x Ø28 x 0.5 Brass washer | 6    |
| ALG-003 | 3    | Outer pressure wheel         | 2    |
| ALG-004 | 4    | Lifting pin                  | 1    |
| ALG-005 | 5    | Spacer                       | 2    |
| ALG-006 | 6    | Linker                       | 2    |
| ALG-007 | 7    | Ø8 x Ø16 x 1 washer          | 2    |
| ALG-008 | 8    | Top extension spring         | 2    |
| ALG-009 | 9    | Ø8 x Ø16 x 0.8 Washer        | 4    |
| ALG-010 | 10   | Metal screw                  | 8    |
| ALG-011 | 11   | Top pin                      | 2    |
| ALG-012 | 12   | Clamp back plate             | 1    |
| ALG-013 | 13   | Bottom pin                   | 2    |
| ALG-014 | 14   | Rubber tube                  | 2    |

| Code    | Pos. | Description                  | Qty. |
|---------|------|------------------------------|------|
| ALG-015 | 15   | Clamp center plate           | 1    |
| ALG-016 | 16   | M8x20 Counter sink cap screw | 2    |
| ALG-017 | 17   | Shaft                        | 1    |
| ALG-018 | 18   | Bottom extension spring      | 2    |
| ALG-019 | 19   | M6x60 Cap screw              | 1    |
| ALG-020 | 20   | M8x40 Counter sink cap screw | 2    |
| ALG-021 | 21   | M16 Counter sink c/s         | 4    |
| ALG-022 | 22   | M12 Counter sink c/s         | 4    |
| ALG-023 | 23   | Main housing                 | 1    |
| ALG-024 | 24   | M6 nut                       | 1    |
| ALG-025 | 25   | Release string               | 1    |
| ALG-026 | 26   | Torsion spring               | 1    |
| ALG-027 | 27   | Locking latch                | 1    |
| ALG-028 | 28   | Inner pressure wheel         | 1    |
| ALG-029 | 29   | Safety lock                  | 1    |

WHEN ORDERING, PLEASE GIVE NUMBER OF SPARE-PART (CODE NUMBER) PLUS TYPE OF  
ABACO LITTLE GIANT LIFTER (40-75)  
Example : LIFTER 50 ALG-001 QTY1  
                  LIFTER 75 ALG-007 QTY2

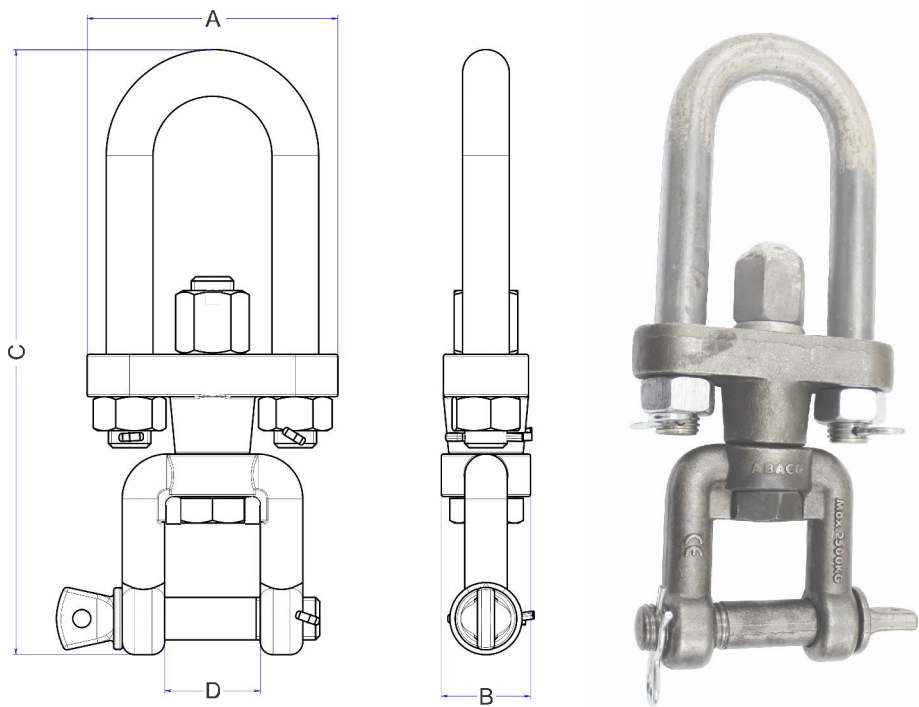
# V. Technical Specifications



| MODEL  | DIMENSIONS IN INCH (MM) |                |                |                |                |                |                |                |
|--------|-------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|        | A<br>inch (mm)          | B<br>inch (mm) | C<br>inch (mm) | D<br>inch (mm) | E<br>inch (mm) | F<br>inch (mm) | G<br>inch (mm) | H<br>inch (mm) |
| ALG 40 | 1 ½<br>(40)             | 14 ⅛<br>(360)  | ⅞<br>(22)      | 8 ½<br>(218)   | ⅞<br>(22)      | 1 ¾<br>(46)    | 3 ⅜<br>(86)    | 8 ½<br>(214)   |
| ALG 50 | 1 ½<br>(40)             | 14 ⅛<br>(360)  | ⅞<br>(22)      | 8 ½<br>(218)   | ⅞<br>(22)      | 2 ⅛<br>(56)    | 3 ⅜<br>(86)    | 8 ½<br>(214)   |
| ALG 60 | 1 ½<br>(40)             | 15 ¼<br>(387)  | ⅞<br>(22)      | 10 ¼<br>(260)  | ⅞<br>(22)      | 2 ½<br>(65)    | 3 ¾<br>(95)    | 8 ½<br>(214)   |
| ALG 75 | 1 ½<br>(40)             | 15 ¼<br>(387)  | ⅞<br>(22)      | 10 ¼<br>(260)  | ⅞<br>(22)      | 3<br>(76)      | 3 ¾<br>(95)    | 8 ½<br>(214)   |

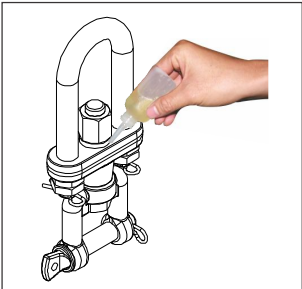
| MODEL  | GRIP RANGE<br>inch (mm) | NET WEIGHT<br>lbs (kg) | W.L.L.<br>lbs (kg) |
|--------|-------------------------|------------------------|--------------------|
| ALG 40 | ⅜ - 1 ⅜ (10 - 40)       | 49 (22.4)              | 2860 (1300)        |
| ALG 50 | ⅜ - 1 ⅝ (10 - 50)       | 49.5 (22.5)            | 2860 (1300)        |
| ALG 60 | 1⅜ - 2 ⅜ (20 - 60)      | 60 (27.4)              | 3300 (1500)        |
| ALG 75 | 1 ⅜ - 2 ⅝ (30 - 75)     | 60.5 (27.5)            | 3300 (1500)        |

# SWIVEL SHACKLE



| Length (A)<br>inches (mm) | Width (B)<br>inches (mm) | Height (C)<br>inches (mm) | Distance (D)<br>inches (mm) | Net Weight<br>lbs (kg) |
|---------------------------|--------------------------|---------------------------|-----------------------------|------------------------|
| 4 5/8 (118)               | 1 5/8 (42)               | 11 1/4 (285)              | 1 3/4 (45)                  | 7.3 (3.3)              |

**Note: THE SWIVEL SHACKLE is designed to use for lifters only**



-Step 1: Check the lubricating oil of shackle.

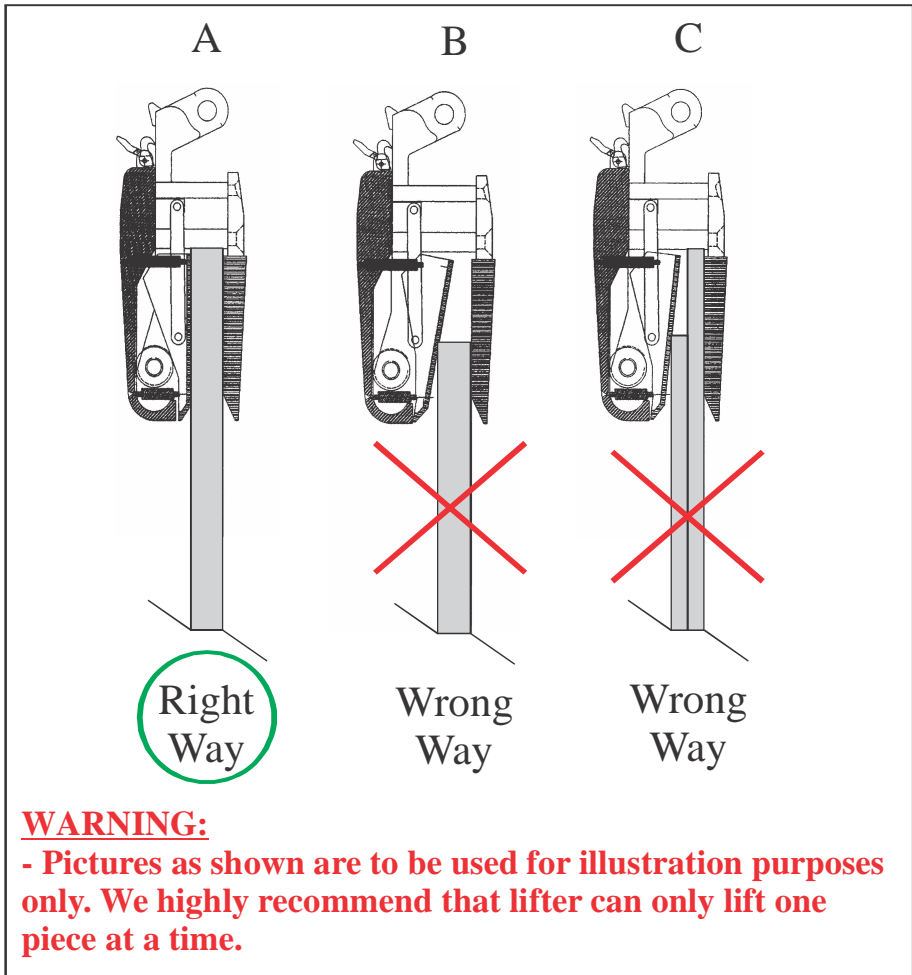
-Step 2: Lubricator Hydraulic Oil into lining.

Note: Lubricator once a week.  
Lubricator all around the lining.

## WARNING

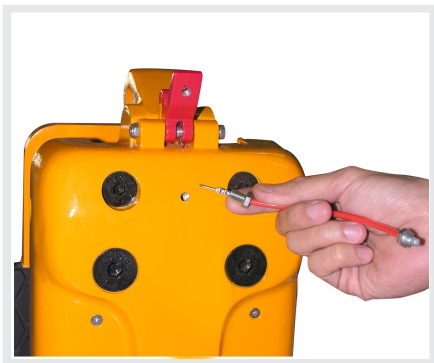
- Select proper size clamp for the job.
- Determine the weight of the slab to be lifted and  
**Do Not Exceed Lifting Capacity Of Lifter**
- Do not exceed W.L.L (Working Load Limit) show on clamp.
- Slab thickness must be within G.R. (Grip Range) shown clamp
  - Inspect and replace of the Shackle as needed due to ware

**Examples: Correct and incorrect methods of gripping slabs**



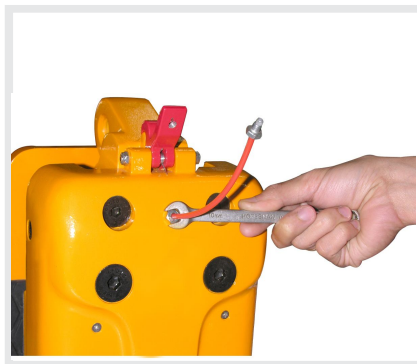


## STEPS for REPLACING RELEASE-STRING



### **STEP 1:**

Insert a release string into the hole in main housing.



### **STEP 2:**

Use an Open-end wrench to tighten the Bolt clockwise .



### **STEP 3:**

Insert the other end of the release string into the hole on locking latch.



### **STEP 4:**

Use a wrench to tighten the bolt by clockwise.

# WARRANTY CERTIFICATE

In order to validate the warranty, it is mandatory please read carefully the following:

## PERIOD

The warranty starts from the date of purchase (date on distributors invoice).

Warranty is valid for a period of twelve (12) months.

## WARRANTY

This warranty is limited only to provide replacements of the parts recognized by the Company as defective (excluding worn-outs and consumables.)

The Company is not responsible for any damages caused by persons after purchase and/or caused by negligence from the content of this manual.

In case of failure of the machine, our After-Sales Service Department will inform you of the appropriate methods of dealing with your claim and advise you of your nearest approved service center.

## EXCLUSIONS

Warranty does not apply for damages or failures caused by:

Incorrect use, misuse, error in transportation, in handling or in maintenance.

Items which can be worn-out, such as the SHACKLE are not covered unless proven defective.

Use of non-genuine parts/accessories, or of incorrect specs., i.e. Slabs not used in the covered range of thicknesses, etc.

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