



ABACO MACHINES

OPERATION MANUAL

ABACO LITTLE GIANT LIFTER (ALG40)



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**APPLICABLE MODEL
of this LITTLE GIANT LIFTER:
ALG40**

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General Safety Operation Manual Instructions Summary:

It is essential to review carefully and understand this Operation Manual before operating the equipment. Failing to read and understand this entire manual may cause injury or death to personnel, or damage to the equipment and the products that are being handled by this equipment if not properly followed.

This safety summary includes general safety precautions and instructions that must be understood and applied before, during, and after operations, as well as maintenance to ensure personnel safety and protection of this equipment. Prior to performing any task, the contents included in this manual should be reviewed and fully understood.

This manual explains some essential operating or maintenance procedures, practices, conditions, statements, etc. that if those are not strictly followed, it could result in injury, or death by chance in the worst case. And there might be some chances of damaging or destructing materials or machine component itself. In order to avoid or eradicate such worst coincidences and happenings, it is essential to read through this manual and follow accordingly. It is also important to comprehend the functions of this equipment thoroughly for your safe and efficient operations.

For any question, please contact your local dealer or distributor.

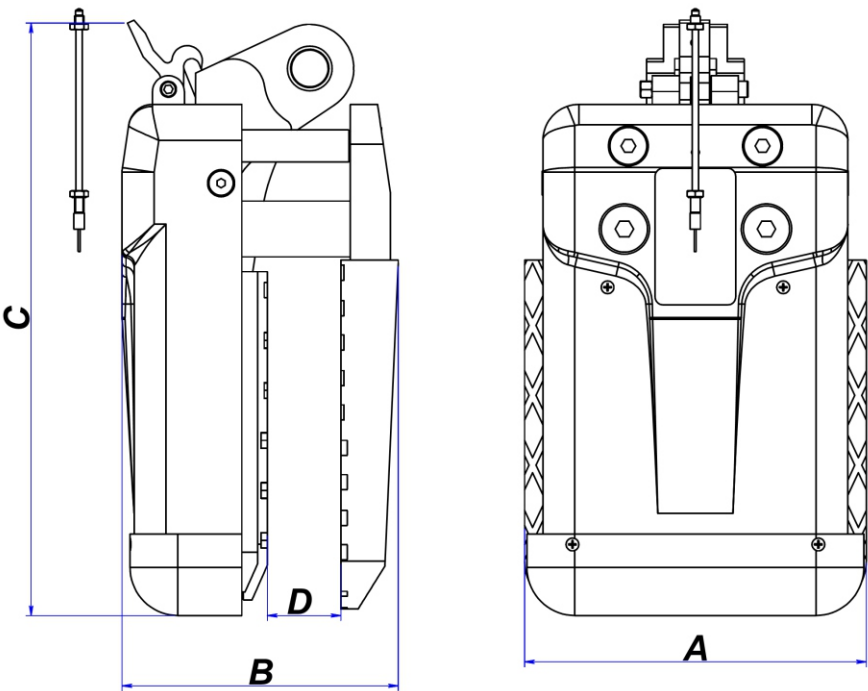
I. EQUIPMENT GENERAL INFORMATION:

- The Little Giant Lifter (ALG40) is the best optimal choice for clamping and moving stone slabs at factories, construction sites.
- The surface of clamp plates is covered with rubber pads with high friction and elasticity. It clamps tightly and protects the stone slab from damage.
- It is suitable for both natural and artificial stones in various thicknesses ranging from $\frac{3}{8}$ " (10 mm) to $1\frac{9}{16}$ " (40 mm).
- The lifter help to ensure safety for users and increase productivity as well.

II. TECHNICAL SPECIFICATIONS:

- The Little Giant Lifter is mainly made of aluminum so it is sturdy, lightweight, and durable in the harsh & impact environment.
- The Little Giant Lifter combines with a hoist (or forklift truck) to clamp, lift and transport the stone slab.
- The lifter comes with a specialized swivel shackle, which makes the lifter and the material to rotate 360° easily.

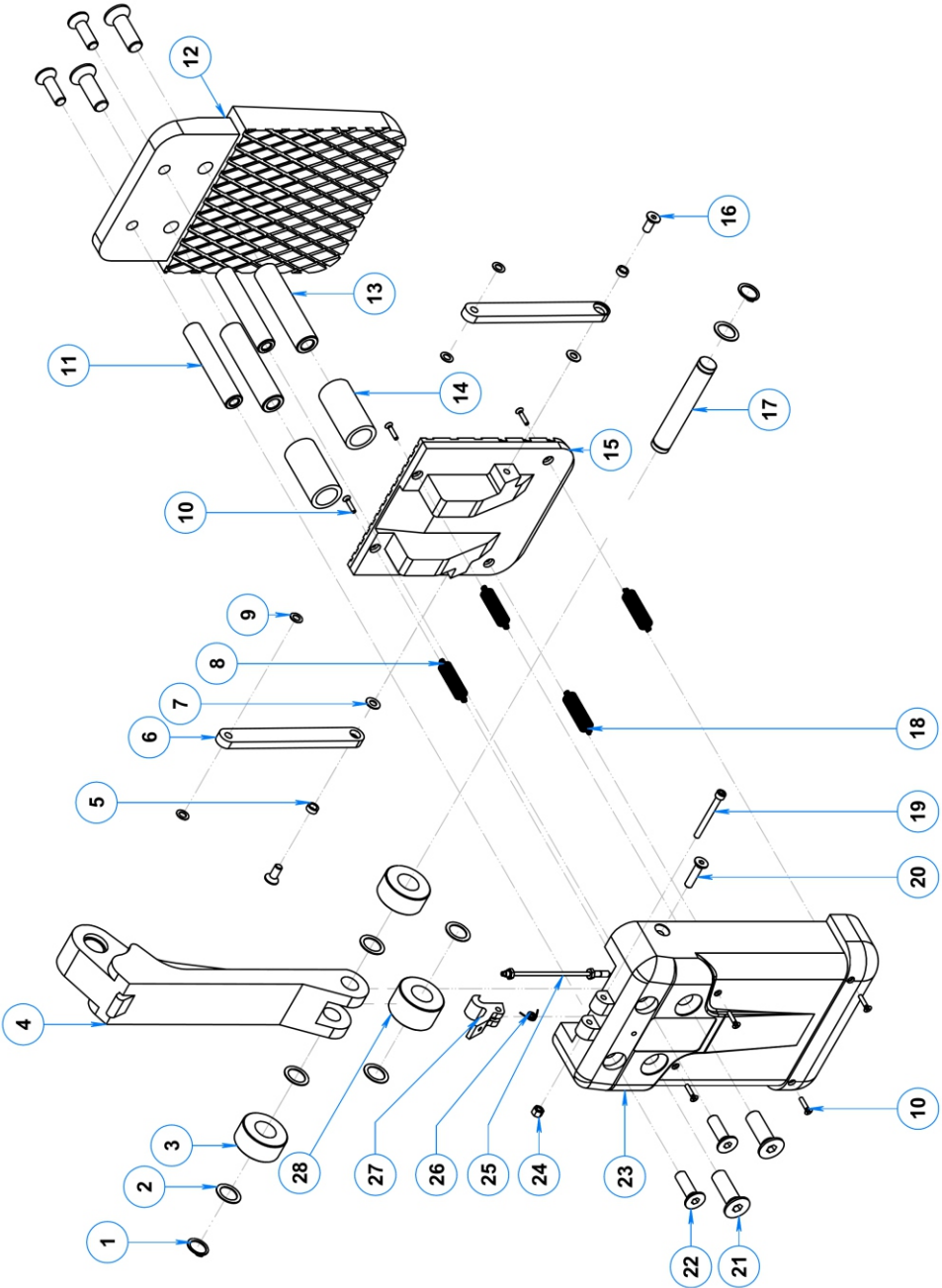
1. Dimensions:



Length (A) inches (mm)	Width (B) inches (mm)	Height (C) inches (mm)	Grip Range (D) inches (mm)	WLL* lbs (kg)
8 ⁵ / ₁₆ (211)	6 ¹³ / ₁₆ (173)	14 ⁹ / ₁₆ (370)	³ / ₈ ~ 1 ⁹ / ₁₆ (10 ~ 40)	2860 (1300)

** WLL: Work Load Limit*

2. Spare part list:



SPARE PART LIST

DESCRIPTION	PART NUMBER	QTY.
Circlip ø20	ALG40-01	2
Brass washer ø20	ALG40-02	6
Outer roller	ALG40-03	2
Lifting	ALG40-04	1
Bushing	ALG40-05	2
Linker	ALG40-06	2
Washer ø8 x ø16 x 1	ALG40-07	2
Top extension spring	ALG40-08	2
Washer ø8 x ø14 x 0.8	ALG40-09	4
Screw M4 x 20	ALG40-10	8
Top pin	ALG40-11	2
Clamp back plate	ALG40-12	1
Bottom pin	ALG40-13	2
Rubber tube	ALG40-14	2
Clamp center plate	ALG40-15	1
Hexagon socket countersunk head cap screw M8 x 30	ALG40-16	2
Shaft	ALG40-17	1
Bottom extension spring	ALG40-18	2
Hexagon socket head cap screw M6 x 60	ALG40-19	1

DESCRIPTION	PART NUMBER	QTY.
Hexagon socket countersunk head cap screw M8 x 40	ALG40-20	2
Hexagon socket countersunk head cap screw M16 x 50	ALG40-21	4
Hexagon socket countersunk head cap screw M12 x 40	ALG40-22	4
Main housing	ALG40-23	1
Lock nut M6	ALG40-24	1
Release string	ALG40-25	1
Spring	ALG40-26	1
Locking latch	ALG40-27	1
Inner roller	ALG40-28	1

III. SAFETY INSTRUCTIONS:

1. General Warnings, Cautions and Notes:

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 the Little Giant Lifter:

Cautions:

- Carefully consider and follow all the safety regulations and applicable laws in your country for the operations.
- It is strongly recommended that only employees who are highly trained or experienced are allowed to operate this device. Safety rules and regulations must be strictly respected and followed.
- Lift up the slab slowly. If the slab is not balanced, lower the lifter, adjust the alignment and lift again.
- Before lifting, the Swivel Shackle should be carefully inspected for its wear, any damage, cotter/snap pins loosening/lost, or nut loosening. If the Shackle gets any damage, it should not be used until repaired or replaced.

WARNINGS:

- Inspect the lifter carefully and thoroughly. If the rubber pads of clamp plates are worn-out or damaged, do not use them.
- This Little Giant Lifter is designed for lifting slabs ranging from $\frac{3}{8}$ " (10 mm) to $1 \frac{1}{16}$ " (40 mm). Determine the weight of the slab to be lifted. Do not exceed the W.L.L (Work Load Limit) shown on page 2.
- All employees must stand within a safe area while slabs are being lifted or moved.
- Make sure to check the rubber pads are free from dirt, grease and other substances may reduce their effectiveness. Clean the rubber pad surfaces with water. Then wait till dry and use the device after.

- Do not lift wet slabs. The grip depends on friction. Lifting wet slab may cause the rubber pads to lose their grips.
- No more than one piece should be lifted at any time.
- Position the lifter at the center of the slab to be lifted, so that the load is balanced.
- Make sure that the slab is inserted to the full depth into the opening of the lifter.
- Light-colored slabs are not recommended to be clamped by a black rubber clamp plate (due to marking the dirt on surfaces).

b. General Safety Instructions:

Cautions:

- In order to protect from any accident, it is important to follow safety rules and regulations.
- Read the operation manual carefully before using it.
- Make sure that the operation manual is always available beside the place where the lifter is used.
- Give permissions to operate the Little Giant Lifter only to persons who are well-trained and competent to work.
- Use appropriate PPE (Personal Protective Equipment) such as helmet, gloves, safety boots, etc.
- Make sure the equipment has no damaged and that all functions are correct and in safe working condition.
- Repairs and checks are to be made only by qualified persons.
- If any part is worn-out, replace it with a new one or contact the manufacturer.
- Before operating this device, check the swivel shackle that nuts are not loosened and cotter and snap pins are all in order. Be aware that Swivel Shackles can be worn-out from time to time. Periodical lubrication can reduce wear. If worn-out, replace it with a new one.

- Clean the device thoroughly after each use.
- Store the lifter in a well-ventilated place, avoid places with high heat or humidity.

Warnings:

- Never leave a lifted load unsupervised.
- Never allow yourself or anybody to go under the lifted slab.
- Be sure to check the lifter and its accessories duly and periodically, that there should be no damage or loosening of fasteners or any irregular unfunctional sound, also before using reconfirm those points once again, then use the lifter for your safe operations.

2. Device usage:

Preliminary Safety Checks:

“Competent Person” shall check the following before each use.

WARNING:

- The Little Giant Lifter is correctly installed/hung in the right way and is to be operated in safe working conditions.
- The swivel shackle is correctly and securely installed and tightened accordingly.

Step 1: Hook the Little Giant Lifter to a forklift boom (Figure 1.1).

Warning: Place the device at a safe place, then crane hook or Forklift boom has to approach the lifter for installation. Avoid lifting the lifter by hands in order to avoid dropping the lifter unintentionally.

Note: Do not stoop to pick up the device alone, the Little Giant Lifter must be picked up by 2 people.

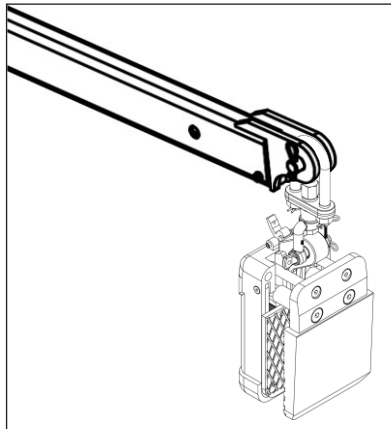
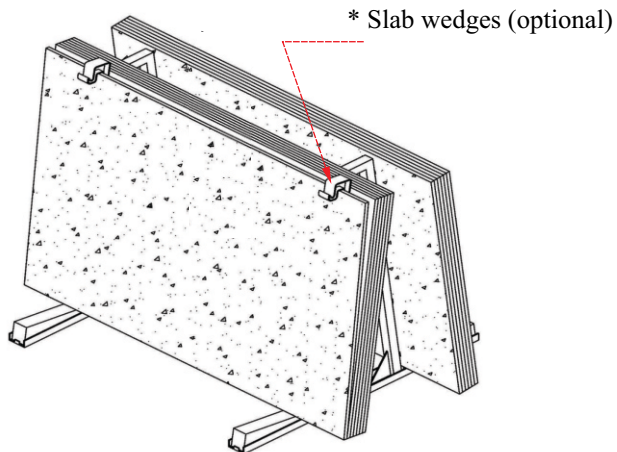


Figure 1.1

Step 2: Use slab wedges* to make a gap between the outer slab and the inner slab (Figure 2.1).



* Slab wedges (optional)

Figure 2.1

Step 3: Clamp the slab

- Lowering the lifter to be perpendicular to the slab and place at the center of the slab. (Figure 3.1)

Note: Position the lifter securely at the center of the slab so that the load is balanced. Make sure that the slab is inserted in full depth to the opening of the lifter.

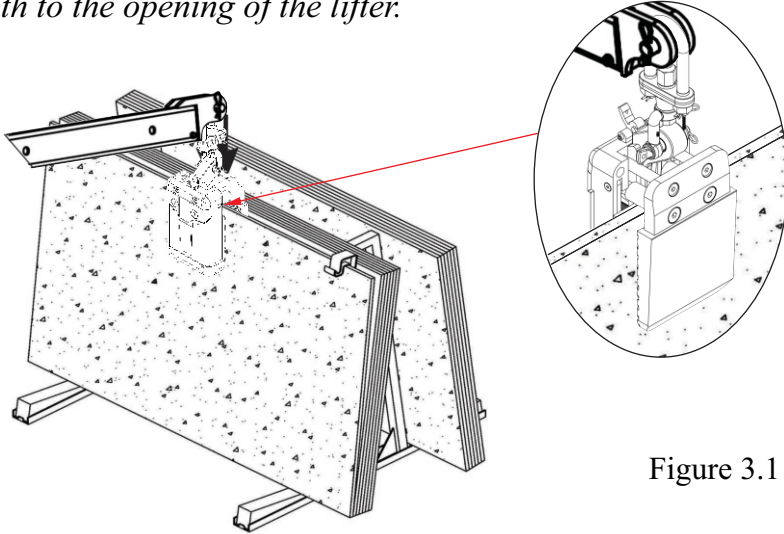


Figure 3.1

- Unlock the locking latch (Figure 3.2), pull the lifting at the same time (Figure 3.3) to clamp the stone slab tightly.

Note: When pulling the lifting, pull at a slow speed until the device clamps the stone slab securely.



Figure 3.2

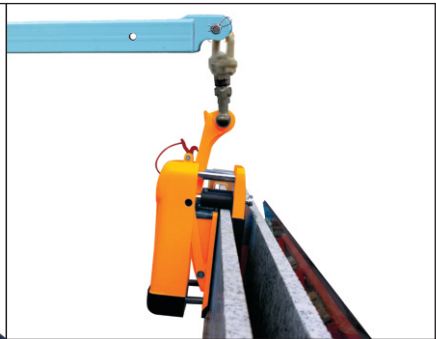


Figure 3.3

Step 4: Move the stone slab to the desired location (Figure 4.1).

Warning: *All the people who are not obligated must stand within safety area while slab is being lifted or moved. Do not allow yourself or anybody to go under the lifted slab.*

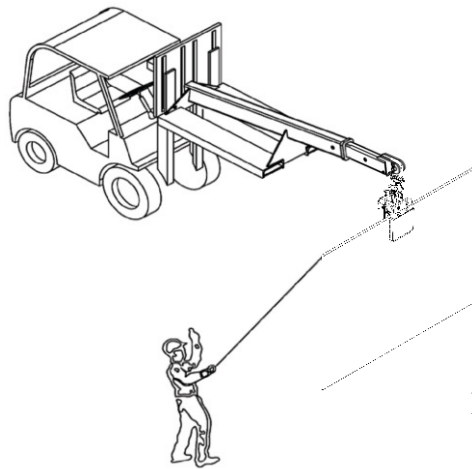


Figure 4.1

- Move the stone slab to the desired position. After that, lower the stone slab gently until the locking latch lock the lifting. Try to keep the clamp always in the open situation. Then move the lifter away from the slab (Figure 4.2).

Cautions:

- Before lowering the slab to the stand or rack, make sure that there are no obstacles to interfere.

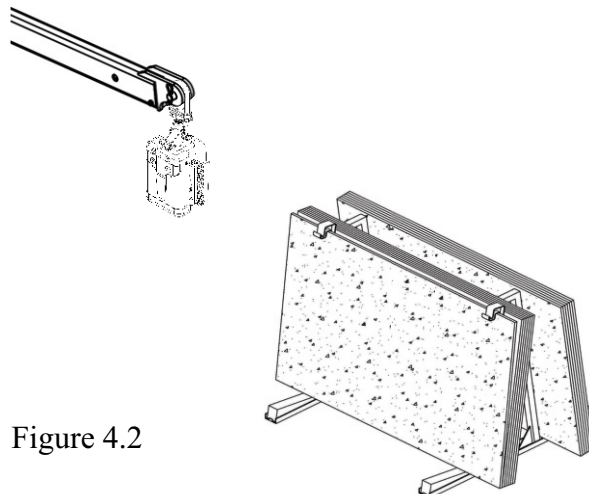
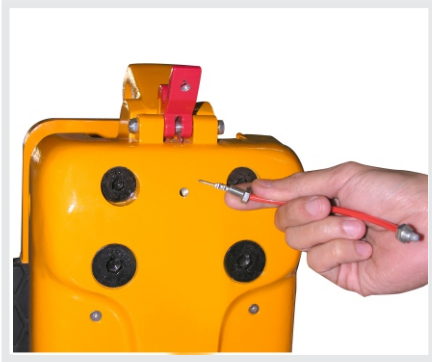


Figure 4.2

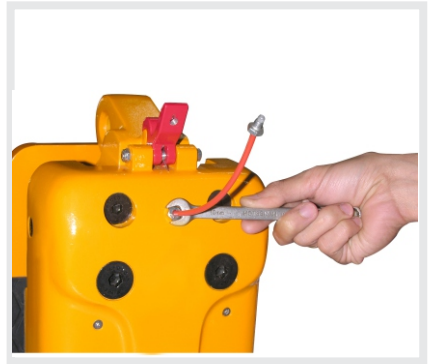
IV. APPENDIX:

1. 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.



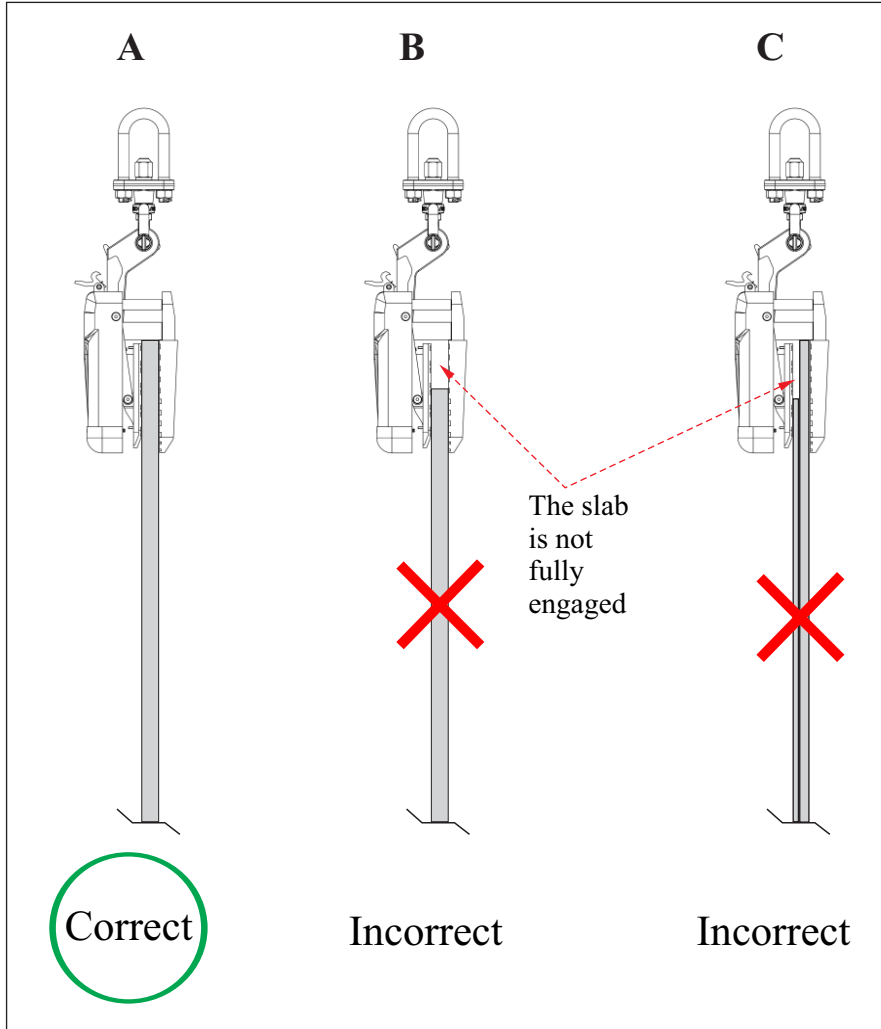
STEP 4:

- Use a wrench to tighten the bolt by clockwise.

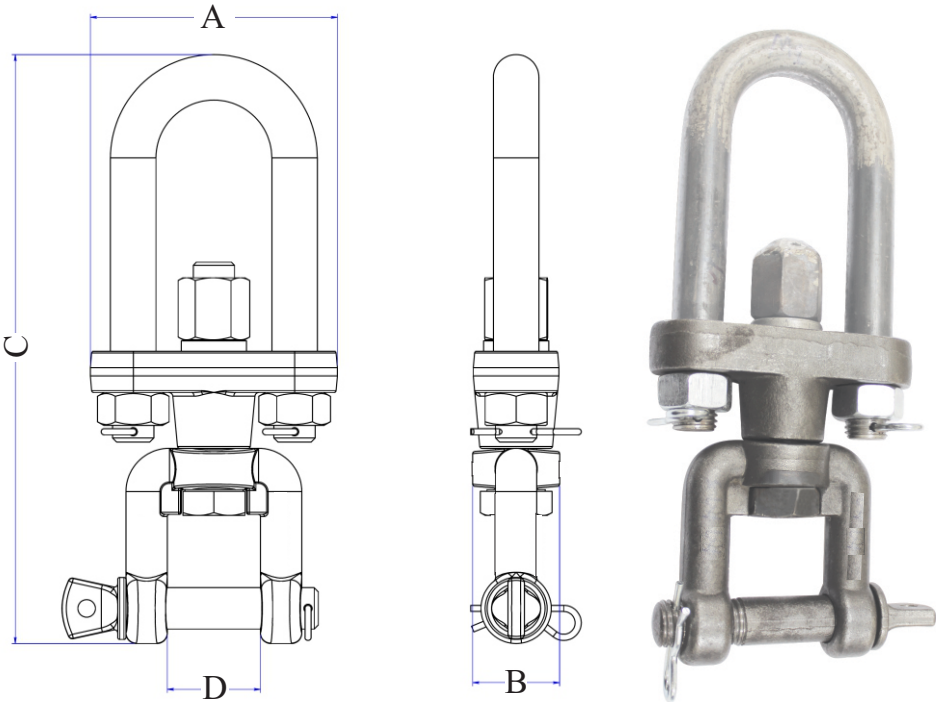
2. Correct and incorrect methods of clamping slab:

WARNING

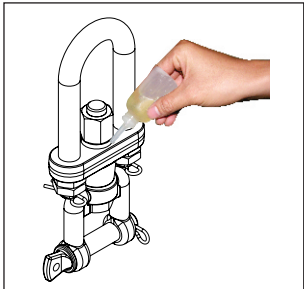
- Do not exceed W.L.L (Work Load Limit, page 2).
- Slab thickness must be within G.R. (Grip Range, page 2).
- Inspect and replace the Swivel Shackle as needed due to ware.



3. Swivel shackle:



Length (A) inch (mm)	Width (B) inch (mm)	Height (C) inch (mm)	Distance (D) inch (mm)
4 ⁵ / ₈ (118)	1 ⁵ / ₈ (42)	11 ¹ / ₄ (285)	1 ³ / ₄ (45)



-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.

4. Instructions for clamping multiple slabs:

- Using the Multi Slab Safeguard Sling to clamp multiple slabs at the same time (Figure 5.1).



Figure 5.1

- After the lifter lift the stone slabs out of the frame (Figure 5.2), install the Multi Slab Safeguard Sling to the lifter (Figure 5.3).

Note: Pull down the strap and rotate the turn-knob clockwise to fix the ratchet strap clamping tightly to the slabs.

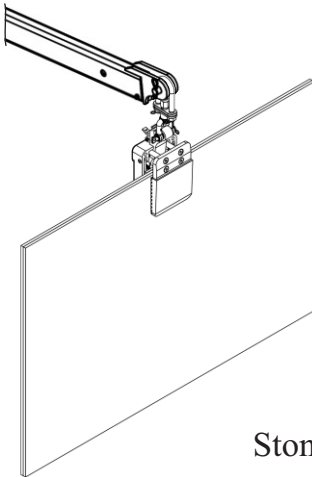
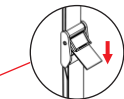
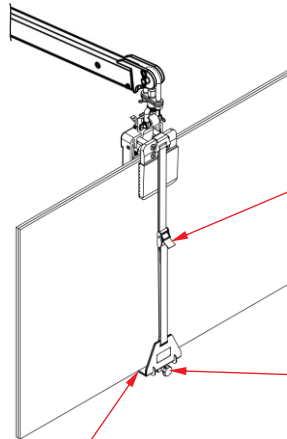


Figure 5.2



Pull down the strap to fix the ratchet strap clamping tightly to the slabs.



Rotate the turn-knob

Stone slabs

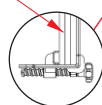
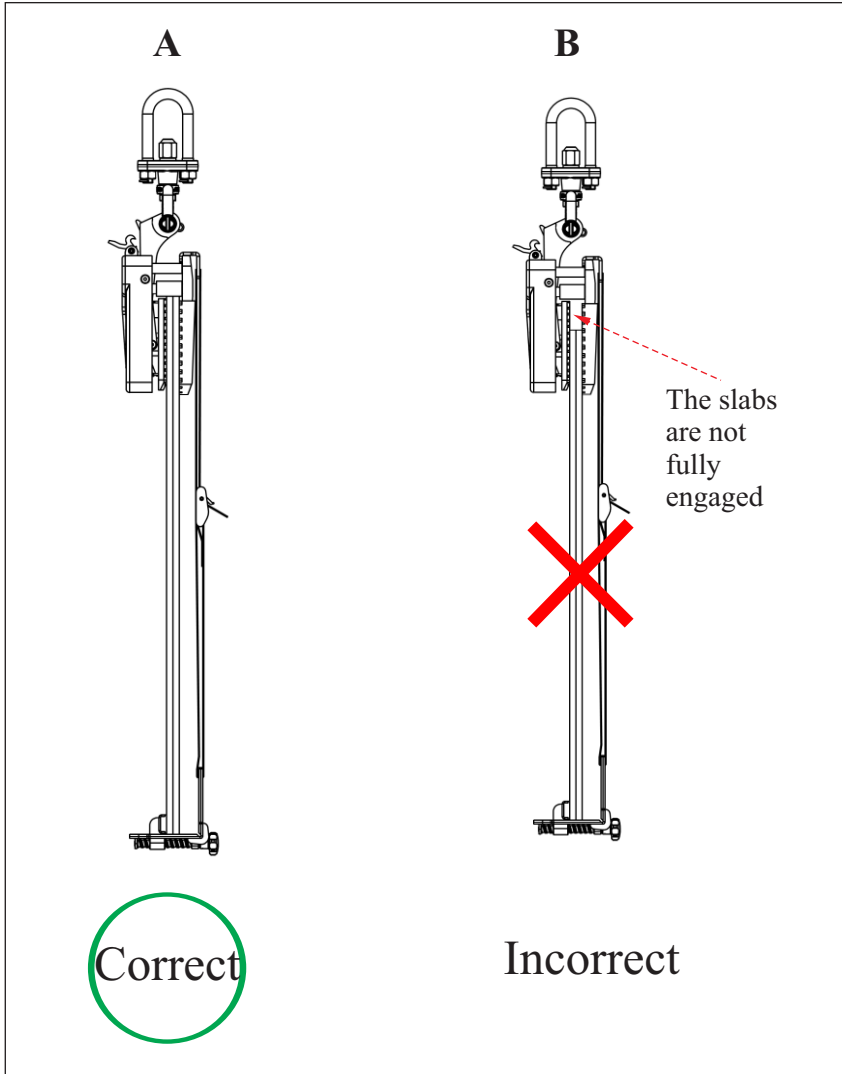


Figure 5.3

Correct and incorrect methods of clamping multiple slabs:



V. TECHNICAL PROBLEMS & SOLUTIONS:

Technical Problem	Cause	Solution
The lifting pin does not return to the original position	Lifting pin is stuck, or the tension spring gets distorted	Clean the shafts, bearings or replace with the new spring

VI. INSPECTION & MAINTENANCE:

- Schedule periodic maintenance for the lifter, especially for the rubber pads of clamp plates, and roller.
- Operator is recommended to keep necessary spare parts on hand always for immediate maintenance or repair purposes.
- Regularly check the tightening conditions of all the bolts and nuts.
- Always keep the lifter clean and away from grease or other substances as they may reduce the effectiveness of the rubber pads and cause them lose their grip.
- Store the lifter in a well-ventilated place, avoid places with high heat or humidity.

VII. WARRANTY POLICY:

At the time of delivery, it is necessary to inspect the **Little Giant Lifter (ALG40)** to make sure that it has not been damaged during shipment. The product at the time of dispatch is warranted to be free of defects in material or workmanship.

Claims for errors, shortages, defects, or nonconformities ascertainable upon inspection must be made in writing within eight business days from the date of product delivery. Claims not made as provided above and within the applicable time period will be barred and no other claims will be considered.

We provide a one (1) year warranty on the **Little Giant Lifter (ALG40)** from the date of purchase.

During warranty period, we will provide the replacement parts at no charge (Please note: shipping and handling fees may apply).

Warranty coverage is void if:

- The operator failed to comply with the instructions in the manual.
- The specifications are not followed.
- Damage is due to inadequate maintenance and inspections.
- Damage is due to improper storage and/or usage.
- Modification and repairs made to the equipment were performed by the user/operator without the manufacture's knowledge and agreement.
- Aftermarket or none genuine spare parts were used for repair installation.
- Modification and repair installations were conducted by uncertified individual.

WARRANTY CERTIFICATE

You are kindly requested to read the following carefully.

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 misuse or abuse of the product after purchase and/or caused by negligence from the content of this manual.

In an event of equipment failure to operate the machine and/or requiring technical support, operator/user is requested to contact with our Customer Support Department. Our member will inform you (operator/user) of the appropriate procedures accordingly and how to file warranty claim and advise you to your nearest approved service center.

EXCLUSIONS

Warranty does not apply for damages or failures caused by:

Misuses, errors in transportation, incorrect handling or failing to maintain the equipment appropriately.

Use of non-genuine parts/accessories, or of incorrect specifications.

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