

CAPSTONE LIFTER

CSL12C24T26

Operators Manual

Conforms to ASME B 30.20, BTH-1

Design Category B, Service Class 3



170 State Route 271
Ligonier, PA 15658
1-800-653-6069

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RECORD INFORMATION HERE

FOR REFERENCE

| | |
|---------------------------|--|
| MODEL | |
| BODY SERIAL NUMBER | |
| Notes: | |
| | |



Section I. General Information.

May we take this opportunity to thank you for purchasing the Kenco Capstone Lifter. The Capstone Lifter provides the ultimate in below the hook Block handling versatility. The Capstone Lifter is quality engineered to provide years of trouble free, low maintenance performance. **Please read and fully understand this manual and any additional attached documentation before attempting to setup, operate or maintain the Capstone Lifter system.**

This manual should be made available to all persons who may use or maintain the Capstone Lifter system. For additional information, please feel free to contact the service department at Kenco at 1-800-653-6069

Section II. Safety

A. General

1. Safety practices described in this manual are intended as guidelines for safe operation under most conditions and are supplementary to any and all rules and/or laws governing any aspect of the Kenco Capstone Lifter operation that are in force in your area.
2. Before operating the Kenco Capstone Lifter, you should have a clear understanding of said laws and regulations to ensure compliance.
3. Throughout this manual there are parts tagged with one or more of the following safety warnings. Particular care must be exercised with regard to these statements.



This warning is used where there is a high probability of death or serious injury if the instructions are not followed correctly.



This warning is used where there is a possibility of injury to yourself or others if the instructions are not followed correctly.



This warning is used where there is a possibility of damage to the machine if the instructions are not followed correctly.



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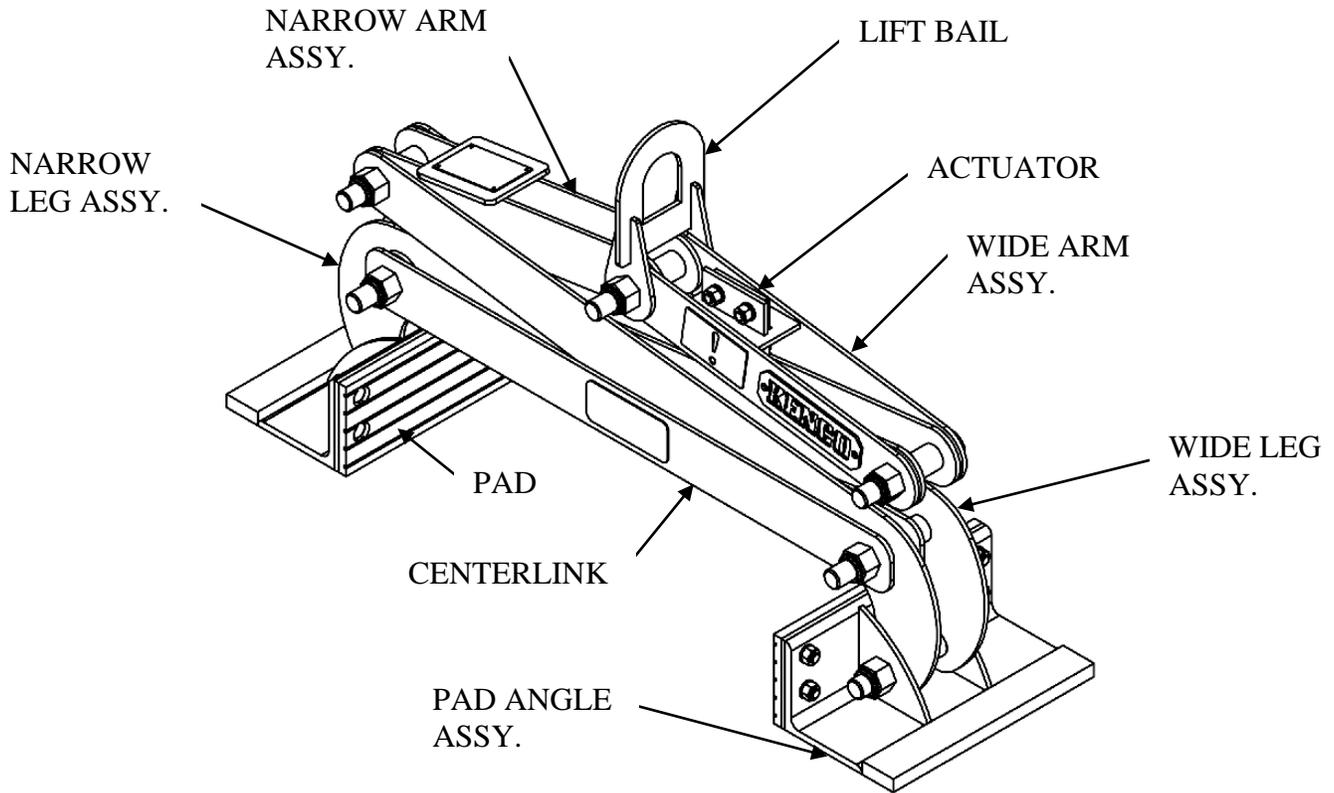
B. Personal Safety

1. Wear appropriate protective clothing and related safety equipment including protective glasses, hardhat, gloves, protective shoes, hearing protection, and any other equipment/devices dictated by job conditions.
2. Do not wear loose clothing, jewelry, or hairstyles that could become entangled in the Kenco Capstone Lifter or rigging hardware.
3. Keep hands, feet, and any other appendages clear of the Capstone Lifter while in operation.

C. Operation Safety.

1. **DO NOT ATTEMPT TO OPERATE OR PERFORM MAINTENANCE ON THE CAPSTONE LIFTER UNTIL READING AND FULLY UNDERSTANDING THIS MANUAL**
2. **MAINTAIN SAFE DISTANCE FROM LOAD - NEVER ALLOW THE CAPSTONE LIFTER OR LOAD TO PASS OVER ANY PART OF A PERSON.**
3. **DO NOT USE A KENCO CAPSTONE LIFTER THAT HAS BEEN ALTERED ACCIDENTALLY OR INTENTIONALLY, IN ANY WAY WITHOUT INSPECTION BY QUALIFIED PERSONNEL.**
4. **DO NOT USE A KENCO CAPSTONE LIFTER FOR ANY TASK OTHER THAN THE INTENDED PURPOSE OF THE DESIGN.**

Section III. Identification of Major Components



Section IV. Setup.

- A. Check the Capstone Lifter for any signs of damage incurred during shipping.
- B. Record model and serial # of assembly and components.
- C. Attach the Capstone Lifter to hoist.
 1. Use as few rigging components (shackles, slings, chain, etc.) as possible.
 2. **ALL RIGGING COMPONENTS MUST HAVE A WORKING LOAD LIMIT THAT IS EQUAL TO OR GREATER THAN THE COMBINED WEIGHT OF INTENDED LOAD PLUS THE CAPSTONE LIFTER.**
 3. **UNDER NO CIRCUMSTANCES SHOULD ANY COMPONENT USED AS RIGGING TO THE CAPSTONE LIFTER BE OF A RATED CAPACITY LESS THAN THAT OF THE CAPSTONE LIFTER.**



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4. **DO NOT RIG UNPROTECTED NYLON SLINGS OR WIRE ROPE DIRECTLY THROUGH LIFT BAIL.**

5. **IF USING EQUIPMENT OTHER THAN A CRANE: USE RIGGING OF SUFFICIENT LENGTH TO PREVENT CONTACT BETWEEN CAPSTONE LIFTER AND EQUIPMENT.**



Section V. Operation.



Before attempting to use the Capstone Lifter device **ALWAYS** perform a test lift on the intended object(s) to confirm proper operation. **DO NOT** use a Capstone Lifter to handle objects beyond the rated capacity or range.



Manipulation of the Capstone lifter by ground personnel for the purpose of alignment with load shall only be done with Capstone lifter suspended above the block. **KEEP ALL HANDS AWAY FROM THE CAPSTONE LIFTER DURING OPERATION.**

A. Automatic operation:

1. Ensure that the Capstone Lifter's capacity and range are appropriate to the block to be handled.
2. Position Capstone Lifter at or near center of object to be lifted.
3. Lower Capstone Lifter onto object, taking care to minimize impact.
4. Ensure that all persons are clear of Capstone Lifter and Block.
5. Release tension on lift cable to cycle the actuator.
6. Raise Capstone Lifter and load in a smooth motion. Do not "jerk".
7. Deposit at desired location.
8. Release tension on lift cable to cycle the actuator. (Note: avoid undue slamming of the Capstone Lifter into open position to prolong actuator life.)
9. Remove Capstone Lifter (Capstone Lift is latched in open position automatically)

Tip: The majority of wear on the Capstone lifter and associated components results from shock loading, impacting, and poor alignment of the Capstone lifter with the load. Minimizing these incidents will greatly extend the life of the Capstone lifter and consumables.

B. Avoid Jarring, swinging, and otherwise unnecessary manipulation of the load.

C. Avoid handling of loads off center.

D. DO NOT USE THE CAPSTONE LIFTER TO PICK MULTIPLES OF ITEMS IN A SINGLE PICK.

E. Observe all safety practices associated with operation of hoist machinery.



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F. DO NOT USE CAPSTONE LIFTER TO DRAG LOADS.

G. DO NOT ALLOW LOAD (BLOCK) TO CONTACT ANY SURFACE/OBJECT WHILE BEING HANDLED.



*The Capstone Lifter handling device produces grip **proportional to and dependent on** the weight of the load. It is for this reason that while in operation the Capstone Lifter and load **NEVER** be allowed to contact other items.*



Section VI. Maintenance

A. Daily:

1. Visually inspect Capstone Lifter for signs of stress and wear.
2. Check that bolts and nuts are snug.
3. Check that key-way area of the attachment and lift body are properly seated.
4. Ensure free movement of all components.
5. Ensure that all warning labels are present and readable.
6. Check that the actuator mounting screws are snug and seated.
7. Lubricate all moving mechanisms with penetrating oil.
8. **LUBRICATE ACTUATOR WITH LIGHT PENETRATING OIL ONLY (WD40™)**

B. Annually*

1. Remove pivot bolts and coat with grease.
2. Inspect holes, pins, bolts etc. for wear. See sect VII for criteria.
3. Remove actuator, clean and lubricate with light penetrating oil – check for signs of wear, replace if necessary.

* *Frequency depends on usage, environmental conditions, etc.*

Section VII. Inspection Criteria

THE CAPSTONE LIFTER UNIT AND ALL OF ITS ASSOCIATED COMPONENTS SHALL BE REMOVED FROM SERVICE AND TAGGED APPROPRIATELY UNTIL RECERTIFICATION BY A QUALIFIED INDIVIDUAL IN ANY OF THE FOLLOWING CONDITIONS:

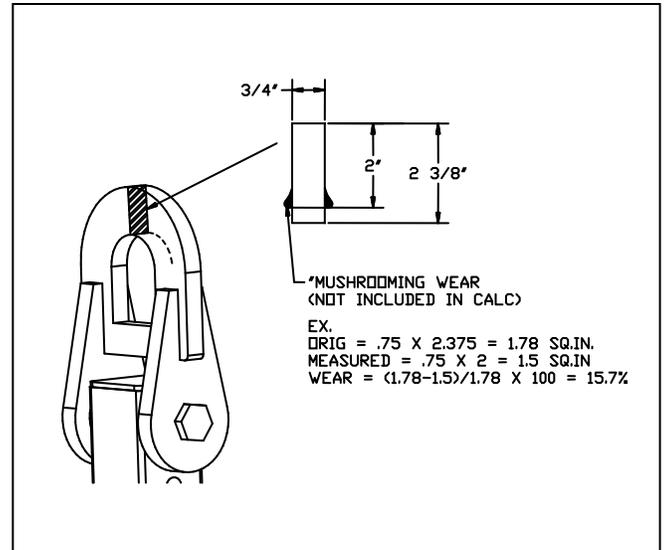
A. General

1. Cracking in any component or member.
2. Cracking in any weld.
3. Visible distortion in any member.
4. Visible distortion in any Bolt/Pin/Shaft.

B. Specific

1. Lift Bail

- a. The lift bail shall be replaced if a 20% loss in cross-sectional area from the original member(s) can be demonstrated. Note: cross section of welds, “mushroomed” wear faces, and burrs are not accounted for as cross-sectional area. (See ill.)



2. Holes.

- a. Any members through which bolted or pinned connections pass shall be replaced if a 10% loss in cross-sectional area from the original member(s) can be demonstrated. Note: cross section of welds, “mushroomed” wear faces, and burrs are not accounted for as cross-sectional area.

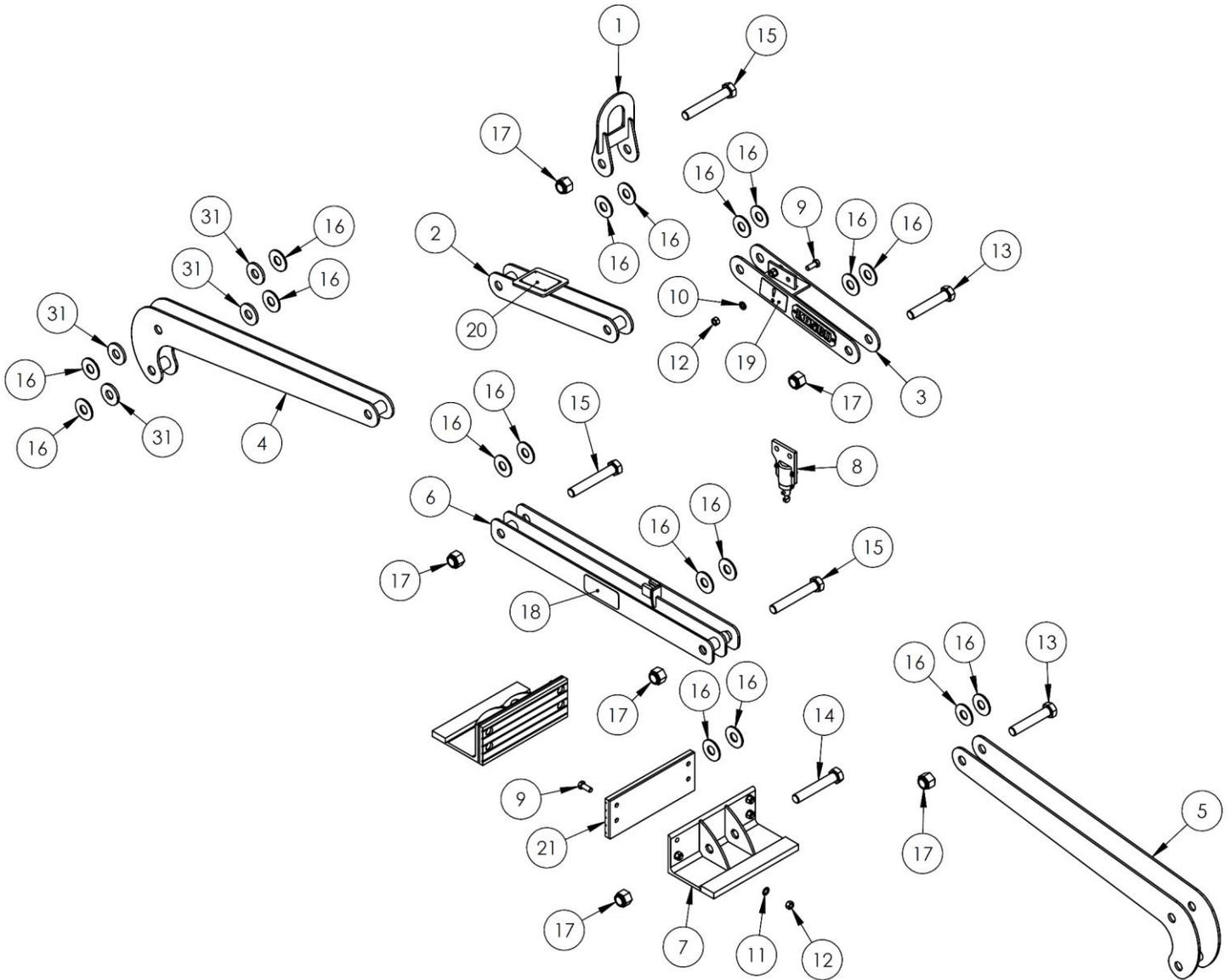
3. Pins/Bolts.

- a. Any visible deformation of a pin, shaft or bolt shall require replacement of that part.

4. Pads – Replace if:

- a. For units utilizing urethane gripping pads, if surface of any given mounting bolt is not at least 3/32” below the surface of the pad,.
- b. Any de-lamination of the pad from the backing plate.
- c. Any scarring, chunking, or missing pad material constituting a total combined loss of surface area greater than 3 sq. in. per pad.
- d. Any single scar, chunk, or missing pad face that is greater than 1 sq. in per pad.

Section VIII. Parts/Drawings



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DANGER
DO NOT STAND UNDER OR NEAR
WHILE MACHINE IS OPERATING

19

| | |
|--|--|
|  | WARNING |
|  | <p>Read and understand operator's manual before using this equipment.</p> <p>Failure to follow operating and maintenance procedures could result in death or serious injury.</p> |

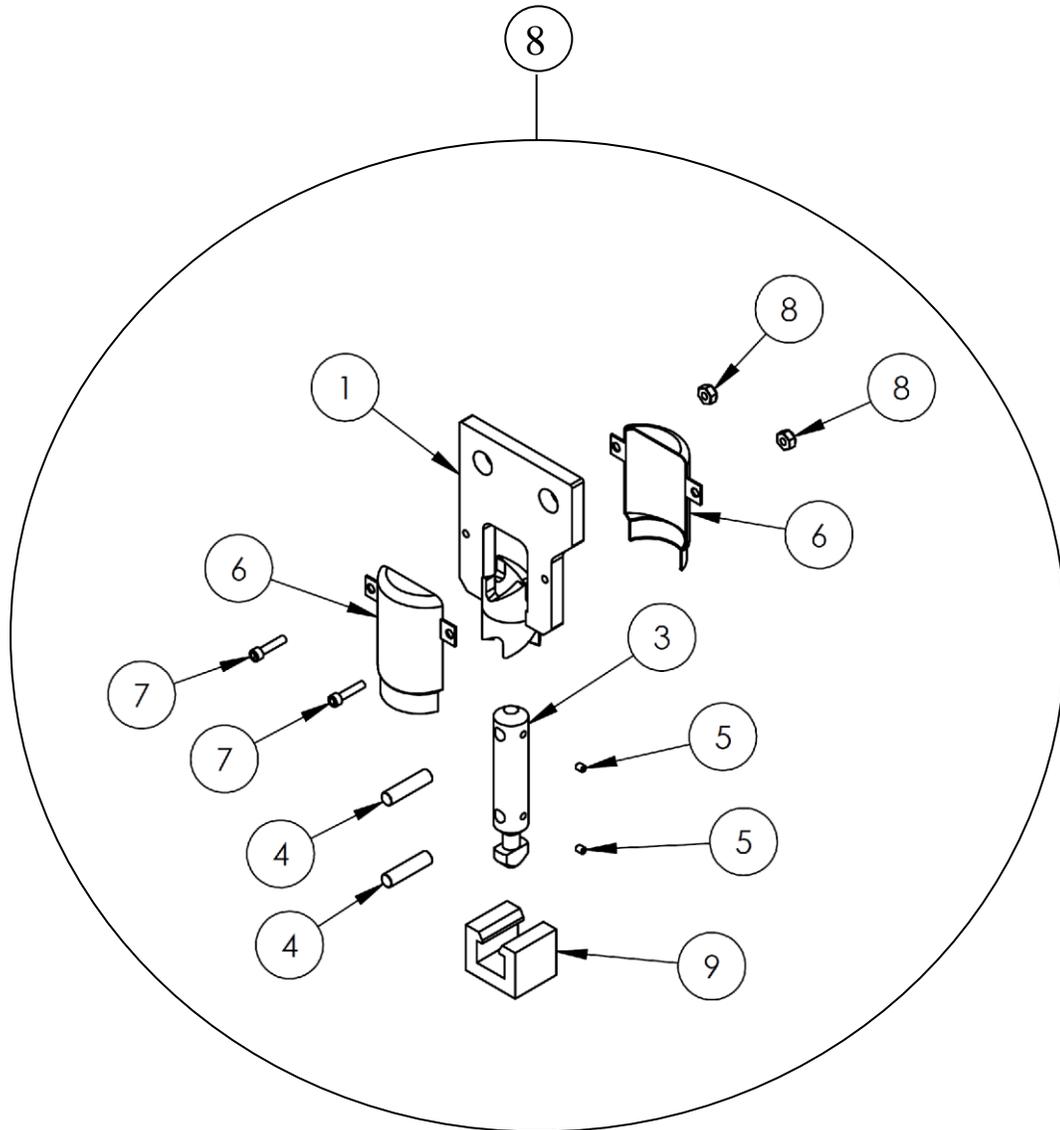
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| | |
|--------------------------|--|
| KENCO CORPORATION | |
| 877-4ATTACH | |
| MODEL | <input style="width: 100%; height: 15px;" type="text"/> |
| USAGE | <input style="width: 100%; height: 15px;" type="text"/> |
| CAPACITY | <input style="width: 45%; height: 15px;" type="text"/> WT. |
| SERIAL NO. | <input style="width: 100%; height: 15px;" type="text"/> |



NOTE: MODEL AND SERIAL NUMBER OF LIFTER MUST ACCOMPANY PART ORDERS.

| ITEM NO. | QTY. | PART NAME |
|----------|------|---|
| 1 | 1 | CSL12C24T26 Lifteye Assy. |
| 2 | 1 | CSL12C24T26 Arm Assy. Narrow |
| 3 | 1 | CSL12C24T26 Arm Assy. Wide |
| 4 | 1 | CSL12C24T26 Leg Assy. Narrow |
| 5 | 1 | CSL12C24T26 Leg Assy. Wide |
| 6 | 1 | CSL12C24T26 Centerlink Assy. |
| 7 | 2 | CSL12C24T26 Pad Assy. |
| 8 | 1 | Small Actuator Assy. |
| 9 | 10 | 1/2"NCx1-1/4" Grade 8 Hex Head Capscrew |
| 10 | 2 | 1/2" Lock Washer |
| 11 | 8 | 1/2" Internal Tooth Lock Washer |
| 12 | 10 | 1/2"NC Hex Nut |
| 13 | 2 | 1"NCx5-1/2" Grade 8 Hex Head Capscrew |
| 14 | 2 | 1"NCx6" Grade 8 Hex Head Capscrew |
| 15 | 3 | 1"NCx6-1/2" Grade 8 Hex Head Capscrew |
| 16 | 20 | 1" Flat Washer |
| 17 | 7 | 1"NC Nylock Nut |
| 18 | 2 | Danger Sticker |
| 19 | 1 | Small Warning Sticker |
| 20 | 1 | Kenco ID Tag |
| 21 | 2 | CSL12C24T26 Pad 5x13 |



| ITEM NO. | QTY. | PART NAME |
|----------|------|-------------------------|
| 1 | 1 | Small KL Act. Body |
| 2 | 1 | Small KL Act Cam |
| 3 | 1 | Small KL Act Shaft |
| 4 | 2 | Small KL Act Pin |
| 5 | 2 | Small Act. Set Screw |
| 6 | 2 | Small Act Cover |
| 7 | 2 | Small Act. Cover Screw |
| 8 | 2 | Small Act. Cover Nut |
| 9 | 1 | Small KL Receiver Block |



Section IX. Warranty

A. Policy

1. KENCO Corporation (KENCO) warrants the Kenco Capstone Lifter lifting device (not including pads or consumable items) sold by KENCO to be free from proven defects in material and workmanship for a period of six (6) months from the delivery date to the original customer.
2. Warranty is limited to replacement of parts and/or assemblies, which upon inspection by KENCO are deemed to be defective in material, workmanship, or both.
3. Warranty shall not extend to products that have been altered or repaired in any way without the express written consent of KENCO.
4. Warranty shall not extend to any product that has been misused, abused, or improperly applied or any defect resulting thereof.
5. Defects and corrosion that are the result of improper storage and/or maintenance are not warrantable.
6. Wear items such as Pads, Pins or Lifting bails etc. are not considered for warranty claims.

B. Disclaimer

1. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER REPRESENTATIONS AND WARRANTIES EXPRESSED OR IMPLIED, AND KENCO EXPLICITLY DISCLAIMS AND EXCLUDES ANY IMPLIED WARRANTY OF MERCHANTABILITY FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL THE END USER BE ENTITLED TO ANY CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES OF ANY KIND ARISING OUT OF BREACH OF CONTRACT, WARRANTY (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORIES OF LAW, WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY KENCO, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO.