

The Pipe Hook

Self Leveling pipe handling device

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 Self Leveling Pipe Hook highway median barrier wall handling system. The Self Leveling Pipe Hook System provides the ultimate in below the hook concrete highway barrier handling versatility. The Self Leveling Pipe Hook 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 Self Leveling Pipe Hook system.**

This manual should be made available to all persons who may use or maintain the Self Leveling Pipe Hook 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 Self Leveling Pipe Hook operation that are in force in your area.
2. Before operating the KENCO Self Leveling Pipe Hook, 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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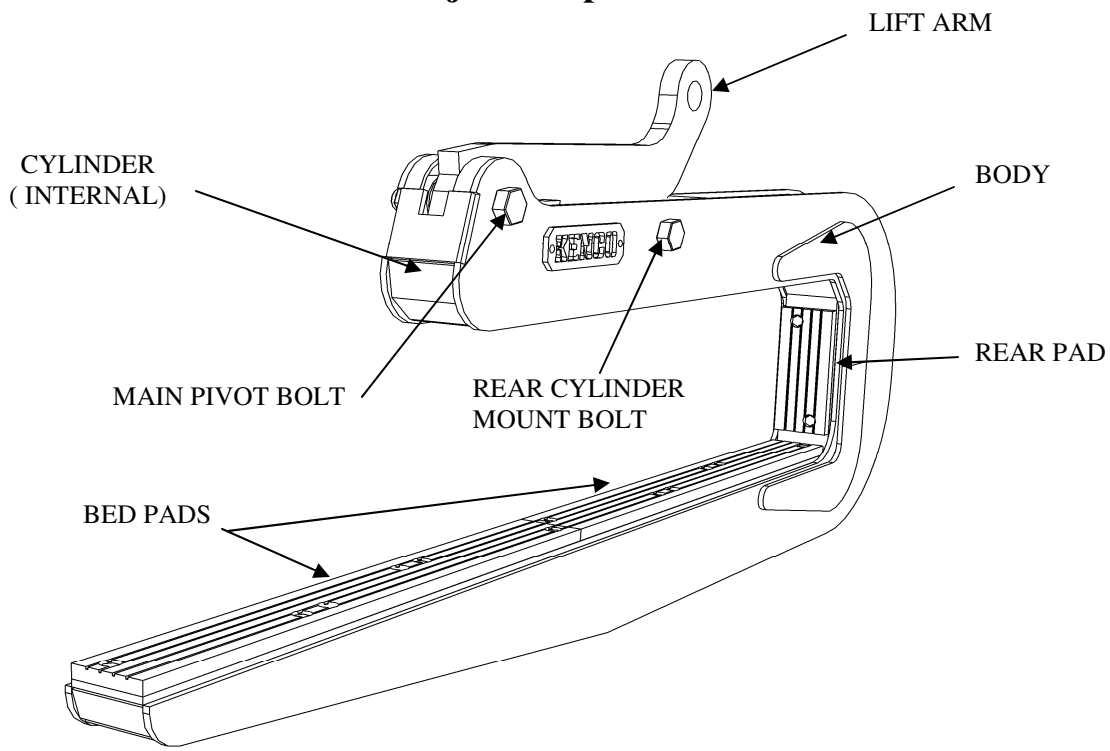
B. Personal Safety

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 Self Leveling Pipe Hook or rigging hardware.
3. Keep hands, feet, and any other appendages clear of Self Leveling Pipe Hook while in operation.

C. Operation Safety.

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

Section III. Identification of Major Components



Section IV. Setup.

- A. Check Self Leveling Pipe Hook for any signs of damage incurred during shipping.
- B. Record model, and serial # of assembly and components.
- C. Check that all pad bolts are tight.
- D. **Check that main pivot bolt and rear cylinder mount bolt are snug.**
- E. Check that all identification and warning labels are present.



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F. Attach Self Leveling Pipe Hook to hoist.

1. Use the least amount of rigging components that still provide for the necessary degrees of freedom.



DANGER

**Never attach Self Leveling Pipe Hook directly to a bucket
D-ring or Coupler.**

2. The Kenco Rigmax system is the recommended method of attachment when attaching to any machine other than a crane.
3. **ALL RIGGING COMPONENTS MUST HAVE A WORKING LOAD LIMIT THAT IS EQUAL TO OR GREATER THAN THE COMBINED WEIGHT OF INTENDED LOAD PLUS THE PIPE HOOK.**
4. **UNDER NO CIRCUMSTANCES SHOULD ANY COMPONENT USED AS RIGGING TO PIPE HOOK HAVE A RATED CAPACITY LESS THAN THAT OF THE PIPE HOOK PLUS THE WEIGHT OF THE UNIT.**
5. **DO NOT RIG UNPROTECTED NYLON SLINGS OR WIRE ROPE DIRECTLY THROUGH LIFT BAIL.**
6. **IF USING EQUIPMENT OTHER THAN A CRANE: USE RIGGING OF SUFFICIENT LENGTH TO PREVENT CONTACT BETWEEN PIPE HOOK EQUIPMENT.**

Section V. Operation.



DANGER

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



DANGER

*Manipulation of the Self Leveling Pipe Hook by ground personnel for the purpose of alignment with load shall only be done with Pipe Hook suspended outside of the pipe. **KEEP ALL HANDS AWAY FROM PIPE HOOK DURING OPERATION.***



DANGER

*Surfaces of the load that come into contact with the pad surfaces **MUST BE CLEAN** and free of any foreign material or coating that could compromise the grip.*

A. Automatic operation:

1. Ensure that the Hook's capacity and range are appropriate to the Pipe to be handled.
2. Insert Self Leveling Pipe into the pipe.
3. Slowly Raise Hook and Pipe, taking care to minimize impact.
4. Ensure that all persons are clear of Self Leveling Pipe Hook and Pipe.
5. Lift and Position pipe at intended location
6. Release tension on lift cable until lift bed is clear of pipe
7. Remove Lifter from pipe in smooth motion, do not "jerk".

Tip: The majority of wear on the Pipe Hook pads, and associated components results from shock loading, impacting, and poor alignment of the Self Leveling Pipe Hook with the load. Minimizing these incidents will greatly extend the life of the Pipe Hook^{and} consumables.



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- B. Avoid Jarring, swinging, and otherwise unnecessary manipulation of the load.**
- C. Never use Pipe Hook to handle pipe that are longer than the Hook is intended for.**
- D. DO NOT USE THE Self Leveling Pipe Hook TO PICK MULTIPLES OF ITEMS IN A SINGLE PICK.**
- E. Observe all safety practices associated with operation of hoist machinery.**
- F. DO NOT USE PIPE HOOK TO DRAG LOADS/PIPE.**
- G. DO NOT ALLOW LOAD (PIPE) OR LIFTER TO CONTACT ANY SURFACE/OBJECT WHILE BEING HANDLED.**

Section VI. Maintenance

A. Daily:

1. Visually inspect Self Leveling Pipe Hook for signs of stress and wear.
2. Check that bolts and nuts are snug.
3. Ensure free movement of all components.
4. Ensure that all warning labels are present and readable.
5. Perform a test lift.
6. Lubricate all moving mechanisms with penetrating oil.
7. For Pads:
 - a. Check that all pad mounting bolts and nuts are tight.
 - b. Ensure that pad material is sound, and not de-laminated from backing plates.
 - c. Ensure that pad mounting bolt heads are min. 3/32" below the surface of the pad.



DANGER

**THE INTERNAL MOVING COMPONENTS OF THE
SELF LEVELING PIPE HOOK ARE PRELOADED BY
THE GAS CYLINDER. UTMOST CARE MUST BE
TAKEN WHEN DISASSEMBLING.**

B. Annually*

1. Remove only one pivot bolt at a time.
 - a. With lifter on its side, drive out bolt with a suitable drift, gently remove drift.
 - b. Inspect holes, pins, bolts etc. for wear. See sect VII for criteria.
 - c. Using a suitable brush or dowel, generously coat internal faces of holes with grease.
 - d. Coat bolt generously with grease and replace, using drift to help re-align holes.

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

Section VII. Inspection Criteria

THE SELF LEVELING PIPE HOOK 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:

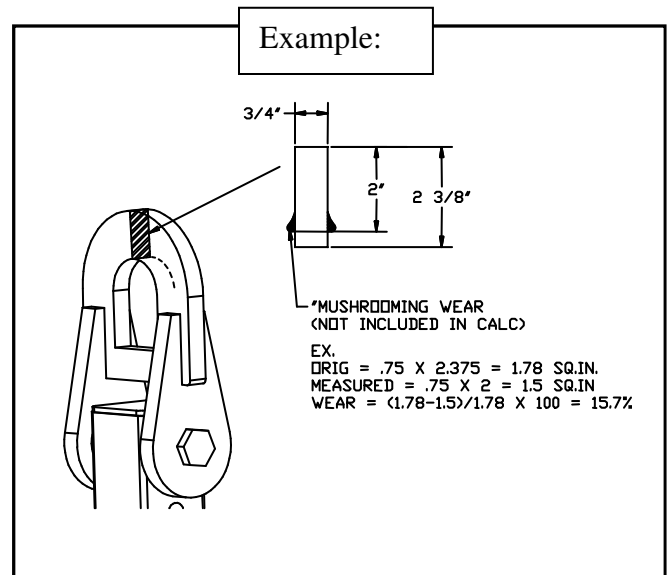
A. General

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.

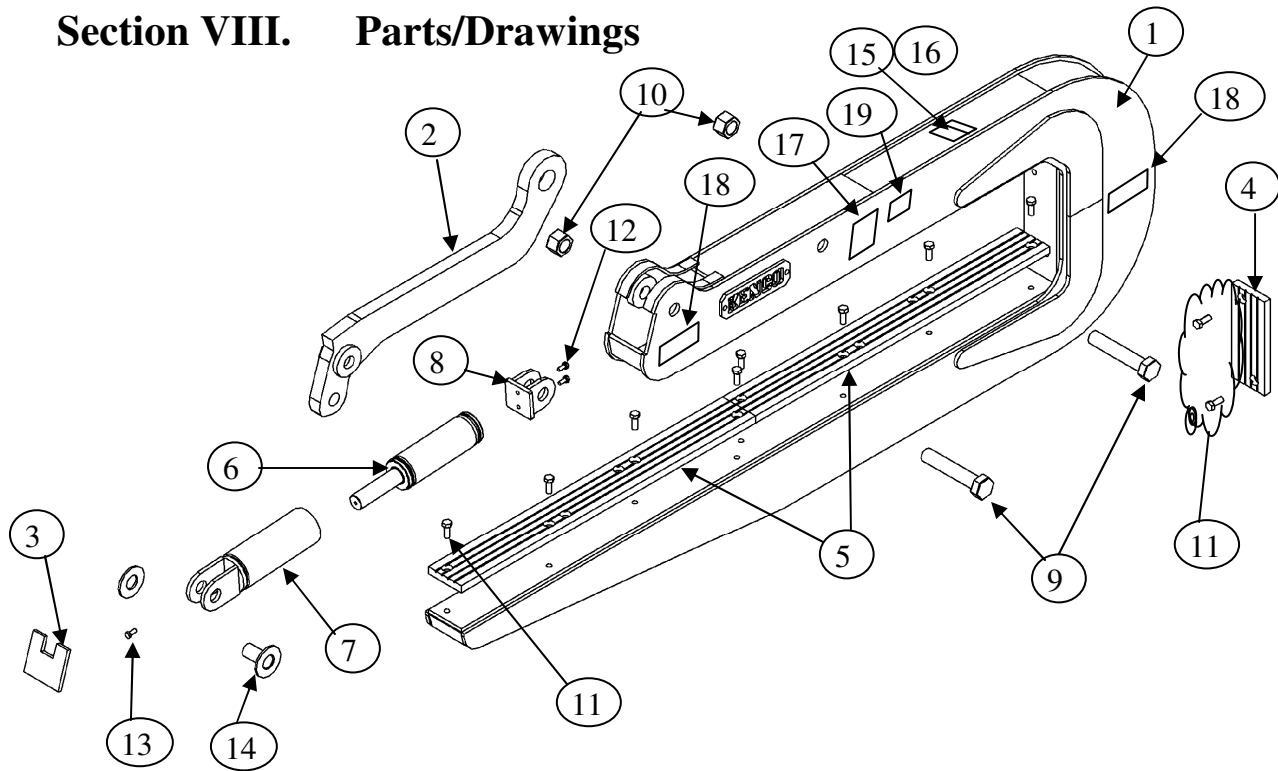
3. Pins/Bolts.

- 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



PART NO.	QTY.	PART
1	1	BODY
2	1	LIFT ARM
3	1	NOSE CAP
4	1	REAR PAD
5	2	BED PADS
6	1	GAS CYLINDER
7	1	OUTER CYLINDER CARRIER
8	1	CYLINDER BASE
9	2	PIVOT BOLT
10	2	NYLOCK NUT
11	10	PAD BOLT
12	2	CYLINDER BASE BOLTS
13	1	CYLINDER SHAFT BOLT
14	1	FULCRUM PIN
15	1	I.D. TAG
16	1	BTH TAG
17	1	WARNING LABEL 1
18	4	DANGER LABEL
19	1	WARNING LABEL 2

15

KENCO CORPORATION
877-4ATTACH

MODEL

USAGE


CAPACITY WT.

SERIAL NO.

16

THIS LIFTER IS DESIGNED TO ASME BTH-1
DESIGN CATEGORY SERVICE CLASS

17

 **WARNING**

DO NOT exceed the rated load capacity of the lifter.

DO NOT attempt to operate a malfunctioning or damaged unit.

DO NOT allow unit or load to pass over any part of a person.

DO NOT leave a suspended load unattended.

DO NOT remove or obscure any labels or markings.

DO NOT operate or service without first having read and understood the operating manual.

DO NOT lift loads higher than necessary.

DO NOT alter or modify this equipment.

DO NOT use lifter for other than designated purposes.

DO NOT lift unbalanced loads.


DO NOT allow load to contact other objects while suspended.


INSPECT LIFTER PRIOR TO EACH USE.

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DANGER
DO NOT STAND UNDER OR NEAR
WHILE MACHINE IS OPERATING

19

 **WARNING**



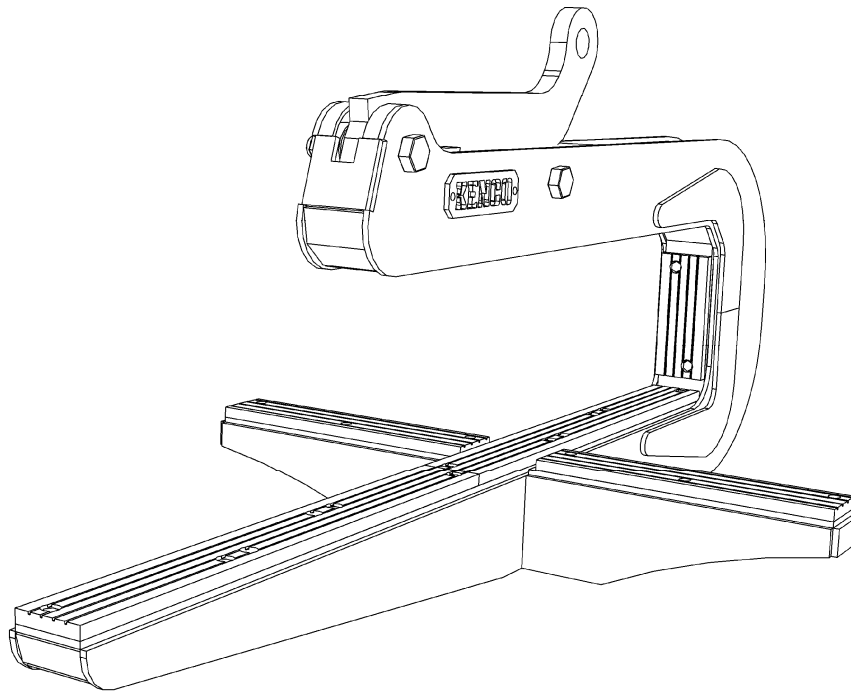
Read and understand operator's manual before using this equipment.

Failure to follow operating and maintenance procedures could result in death or serious injury.

Section IX. Available Options

A. Culvert wings

1. Kenco provides an optional weld on removable wings to facilitate easier handling of culvert box sections. Contact your Kenco representative for details.



Contact Kenco For pricing on these items.



Section X. Warranty

B. Policy

1. KENCO Corporation (KENCO) warrants the KENCO Self Leveling Pipe Hook 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.

C. 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.