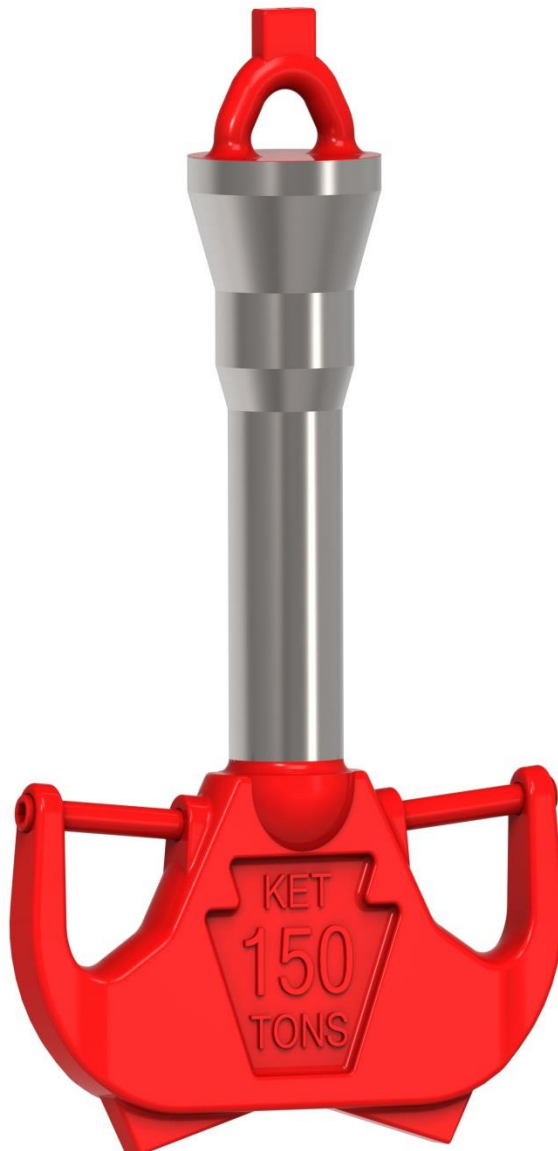




LIFT BECKET

OPERATING PROCEDURE MANUAL



BECKET

SAFETY INSTRUCTIONS

⚠️ WARNING



To reduce the risk of injury, everyone using, installing, performing maintenance, changing accessories on, or working near this tool must read and understand these instructions before performing any such task.

The most important safety device for this tool is **YOU**. Your good judgment is the best protection against injury.

Operating Hazards

- ⚠️ Do not overload the becket and or bails. Overloading the recommended rating could cause serious injury or death.
- ⚠️ Secure the Lock Pins. Failure to secure the Pin when picking up or laying down pipe could cause serious injury or death.
- ⚠️ Always insure that the proper elevator and code are correct for the tubular and becket it is used on. Failure to use the proper elevator and bore code could result in injury or death.
- ⚠️ Insure that the tool joint or collar O.D. of the pipe is correct. Failure to maintain adequate contact area could result in injury or death.
- ⚠️ Do not use oversized pipe. Using oversized pipe could make it difficult or impossible to properly latch the elevator
- ⚠️ Do not use undersized pipe. Using undersized pipe could cause an inadequate load bearing area and uneven stress distribution. Both of which may result in injury or death.
- ⚠️ Do not use the becket & bails if the lock pins are not properly secured. Malfunctioning, or loose lock pins may result in injury or death.

Workplace Hazards

- ⚠️ Keep hands / fingers clear when installing.
- ⚠️ Always use the proper tools and wear eye, head, and hand protection when servicing this tool.
- ⚠️ Maintain a balanced body position and secure footing.
- ⚠️ For professional use only.

Maintenance Hazards

- ⚠️ Use only Keystone Energy Tools parts.
- ⚠️ KET equipment is made of cast alloy heat treated steel and should never be welded on in the field. Improper welding can cause cracks or brittleness in the casting which could result in drastic weakening or failure of the equipment. Any welding or machining must be performed by an authorized KET or API Certified Repair Center
- ⚠️ Improper welding and/or re-machining of cast alloy heat treated steel can cause personal injury, property damage or death.

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1.0 Introduction

This manual contains operation and maintenance instructions for the Keystone Energy Tools (KET) “DC” series becket provides instruction for its proper field use, disassembly and repair; including a complete parts breakdown.

(KET) “DC” becket are designed for handling different sizes of tubulars without having to change out the rigs elevators from the links.

NOTE: WARNING labels have been installed at critical areas on the tool. Familiarize yourself with their message and locations before proceeding to operate equipment.



| Model | Short Ton | Metric Ton | Range |
|---------|-----------|------------|-------------|
| 120-124 | 150 | 136 | 3 1/2" – 5" |
| 123-740 | 150 | 136 | 5" – 6 5/8" |

NOTE: WARNING labels have been installed at critical areas on the tool. Familiarize yourself with their message and locations before proceeding to operate equipment.

See Safety Instructions Page 4

⚠WARNING: During use, the elevator should never be run into the tool joints or couplings inducing any type of shock load into the equipment. Shock loads are an impact-type force applied over a short instant of time. In shock loading, the energy of the applied force is ultimately absorbed, or transferred, to the elevator designed to resist the force. The application of shock loads to an elevator can cause shock/fatigue stress loading potentially resulting in premature stress/fatigue failure.

2.0 Operation

As with any lifting device, the becket is easily installed by the user

- ▶ Remove the Allen screw and take out the retainer pins.
- ▶ Attach the perfection link over the lifting eye on the Becket and replace the retainer pins & Allen screws.
- ▶ Repeat the process for the opposite lifting eye..

3.0 Recommended Maintenance

To ensure optimum performance, perform the below-listed checks.

Lubricate the Allen screw every time perfection links are removed.. Use an extreme pressure, multi-purpose, lithium base grease of No. 1 or No. 2 consistency or a lubricant that meets MIL-SPEC-A907E.

Category I Inspection:

Is a daily inspection while in use. Visual examination for cracks, loose fits or connections, elongation of parts, and other signs of wear.

Category II Inspection:

On a weekly basis a further visual inspection for corrosion, deformation, loose or missing components, deterioration, proper lubrication, and visual external cracks.

Category III Inspection:

Every 6 months NDT of critical areas which may involve some disassembly to access specific components to identify wear that exceeds allowable tolerances.

Category IV:

Every 12 months a complete disassembly and NDT is performed of all primary load carrying components. Inspections of excessive wear, cracks, flaws, and deformations shall be done. Corrections shall be made following Keystones Manufacturing Recommendations.

* Note – This is not required to be followed just recommended by Keystone Manufacturing Guidelines.

| Tool Maintenance | | |
|------------------|-----------|------|
| ACTION | FREQUENCY | FIG. |
| Category I | Daily | |
| Category II | Weekly | |
| Category III | 6 Months | |
| Category IV | 12 Months | |



Figure 3

4.0 Repair

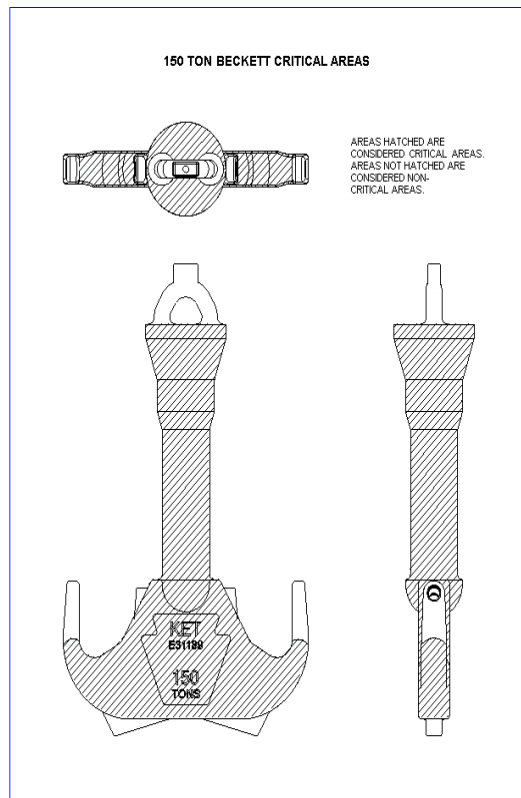
The DC series becket requires minimum attention.

- ▶ To remove the Retainer Pin, first remove the Allen screw. Then remove the retainer pin.

We have identified those areas considered critical to tool performance and functionality. These should be examined for repair or replacement.

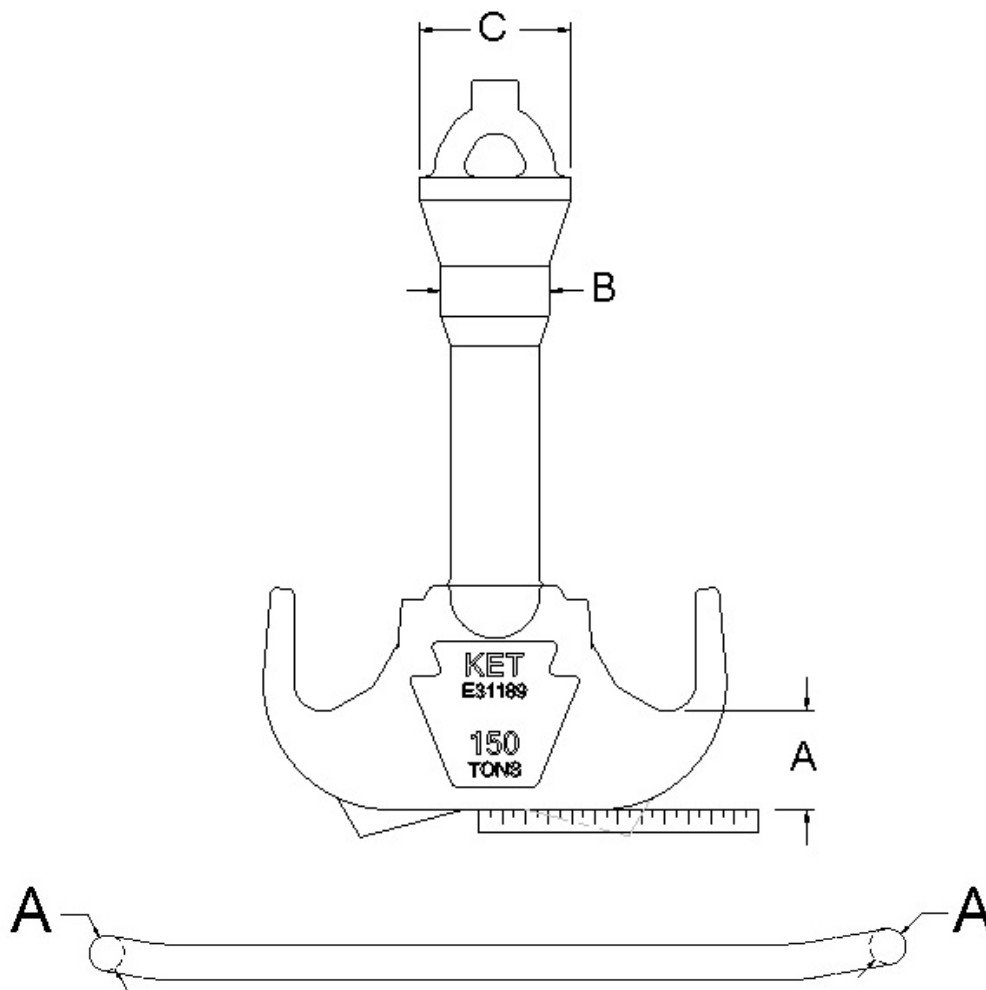
(See Figure 5)

Illustrated below are the critical and non-critical areas associated with the subject tool. Critical areas are identified by the shaded areas. All non-shaded areas are considered to be non-critical.



5.0 Wear Data

| Part Number | Rating | A New | A Worn | B New | B Worn | C New | C Worn |
|-----------------|---------|----------|-----------|----------------|-----------|----------------|-----------|
| E311859-120-124 | 150 Ton | 4.195 | 4.170 | 4.656 +/- .050 | 4.200 | 6.500 +/- .050 | 5.800 |
| E31189-123-740 | 150 Ton | 4.195 | 4.170 | 6.906 +/- .050 | 6.650 | 8.250 +/- .050 | 7.650 |
| E70508-1036 | 100 Ton | 1.875 | 1.750 | | | | |
| E70508-1042 | 100 Ton | 1.875 | 1.750 | | | | |
| E70508-1542-F | 150 Ton | 2.375 | 2.150 | | | | |



CERTIFICATE OF WARRANTY AND GUARANTEE OF QUALITY

KET warrants all materials and products manufactured to be free from defects in material and workmanship, under normal use and service, when installed, used, and serviced in the manner provided and intended by the seller for a period of twelve (12) months after delivery. Seller's obligation under this warranty is expressly limited to repair or replacement, at its option, of any materials or products, returned to the seller's plant in New Iberia, Louisiana and which are determined by the seller to be defective. All freight charges for return and reshipment shall be paid by the customer. A new warranty period shall not be established for repaired or replaced material or products; such items shall remain under warranty only for the remainder of the warranty period on the original materials or products. This is the sole warranty of the seller and no other warranty is either expressed or implied, in fact or by law, including any warranty at to the merchantability or fitness for a particular use or purpose.

In case of goods or parts not wholly of seller's manufacture, seller shall make available to the customer whatever warranty or guarantee is extended to seller for such goods or parts by the supplier or manufacturer thereof.

Seller will not assume responsibility or liability for any repairs, rebuilding, welding or heat treating done to its material or products outside of seller's plant, such work shall void all warranties. All parts used in the manufacture and /or final assembly of seller's materials or products are necessary for both safety and operational performance. Omission of any part or failure to replace any worn part may result in the malfunction and a consequent safety hazard for which seller disclaims any responsibility or liability for injuries or damage as a result thereof.

Buyer's sole and only remedy in regard to any defective materials or products shall be the repair or replacement thereof as herein provided, and seller shall not be liable for any consequential, special, incidental or punitive damages resulting from or caused by any defective materials, products or supplies.



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Revision History

| Rev | Date | Changes | By |
|-----|------------|-----------------------------------|---------|
| 04 | 04/21/2021 | Added revision history | Cody H. |
| 05 | 07/12/2021 | Updated format | Cody H. |
| 06 | 07/19/2022 | Updated address | Cody H. |
| 07 | 04/08/2024 | Added warning about shock loading | Cody H. |