Photographic & Measurement Comparison

# Combat Application Tourniquet (GEN III vs. E-CAT)

# **Executive Summary**

### Introduction:

- 1. The Element Cat (E-CAT) is a very carefully made counterfeit CAT tourniquet.
- 2. It is manufactured in Hong Kong for \$8.50 (USD) per item.
- 3. There are no limits to the number that can be purchased.
- 4. They are available on the internet, and anyone can purchase them.
- They were designed to look, feel and act like a CAT (GEN III).
- They ARE a counterfeit tourniquet.

### How can you tell the difference?

- Once you know what to look for, it is easy to tell the difference between the two tourniquets.
- 2. However, a novice would easily mistake the "Fake" for the real CAT (GEN III).

### Differences on the Windlass:

- The CAT (GEN VI) with the thicker windlass is much easier to identify and differentiate between the CAT GEN VI and the E-CAT.
- The CAT (GEN III) windlass looks exactly like the E-CAT windlass. They are the exact length, nearly the same thickness at all measurable points:
- The E-CAT windlass will fold back on itself without breaking; however, you cannot tighten the tourniquet with it.
- The CAT (GEN III) cannot be flexed. The composite used in its manufacturing is ridged, and will break with excessive force. However, it will tighten the tourniquet.
- Mold marks on the E-CAT are 2mm windlass are smaller than on the (CAT GEN III) windlass at 5mm. (Photo Slides follow)

### Differences on the Chassis:

- The CAT (GEN III) and the E-CAT have identical dimension chassis and component parts.
- 2. There are only slight differences in the thickness of the composite material.
- 3. The composite material on the E-CAT is very soft and pliable.
- The composite on the CAT (GEN III) will flex, but it is more rigid, and durable.
   It can fail when stress too far.
- 5. The marking on the counterfeit (E-CAT) are identical to the CAT (GEN III)
- Mold marks:
  - On the back of the chassis there are four mold marks on both units.
  - On the back of the CAT (GEN III) the mold marks are all 5mm in diameter.
  - On the back of the E-CAT the mold marks are 4mm in diameter

### Differences on the Buckle:

- 1. The CAT (GEN III) and the E-CAT have nearly identical dimension buckles.
- 2. See the photographs (following) to illustrate the subtle differences.
- The E-CAT has slightly squared corners on the buckle.
- The E-CAT has (6) mold marks on the back of the buckle. (2) on the center bar, and (2) on each of two outside bars.
- The CAT (GEN III) is more rounded on the corners of the buckle.
- The CAT (GEN III) has (6) mold marks on the back of the buckle. (3) on each of the outside bars.

### Differences in the Webbing material:

- The CAT (GEN III) and the E-CAT have nearly identical width and thickness of nylon webbing.
- 2. See the photographs (following) to illustrate the subtle differences.
- The E-CAT is stitched all around.
- The E-CAT does not use any heat welding (appear as "dots" on the webbing)
- The CAT (GEN III) is stitched, but also relies on heat welding in some spots.
- The CAT (GEN III) has a date (M/D/Y) stamped in white toward the tip of the tourniquet (nylon).
- The adjustment webbing is identical width and length for both tourniquets.

### How to find the FAKE CAT:

- Stitching only (no heat welding spots)
- 2. Back of buckle has (6) 3mm mold marks:
  - a. 2 on the lateral bar.
  - b. 2 on the center bar.
  - c. 2 on the (other) lateral bar.
- 3. No markings (M/D/Y) on the tourniquet.
- 4. Mold marks on windlass are small, only 3mm.
- 5. Windlass is very flexible, bends and then snaps back.
- The hook and loop used to secure the windlass into the windlass lock will likely drop off the windlass lock—the glue is dry and does not hold.

### Measurements

	Chassis (Thickness)	C-Buckle Width (1 <sup>st</sup> ) bar	C-Buckle Width (2 <sup>nd</sup> ) bar	Windlass Hook (Bottom)	Windlass Hook (Left)	Windlass Hook (Right)	Windlass (Center)	Windlass (L-End)	Windlass (R-End)	Front Buckle (Center)	Thread Tear (ft lbs)
GEN III CAT	1.70mm	3.6mm	6.1mm	1.71mm	1.75mm	1.73mm	9.09mm	9.27mm	9.36mm	1.67mm	11.9 lbs
E-CAT	1.68mm	3.92mm	6.20mm	1.73mm	1.92mm	1.93mm	9.01mm	9.17mm	9.28mm	1.75mm	28 lbs
GEN VI CAT	1.73mm	3.77mm	3.83mm	2.25mm	2.38mm	2.37mm	11.33mm	9.34mm	9.32mm	1.71mm	12.5 lbs

\*Note: there is no measurable difference between

- 1. The length of the windlass for (GEN III and E-CAT), both are 14.8cm.
- 2. Chassis length is 9.0cm for both.
- 3. Chassis width is 3.8cm for both
- 4. Length of the tourniquets are the same.
- 5. Width of the nylon webbing is 3.8cm for both.
- 6. Width of the adjustment webbing is 2.5cm for both.

### E-CAT



# CAT (GEN III)



# **Package Comparison**

### CAT (GEN III)

Package from NARP, Inc. Looks nothing like the F-CAT package.

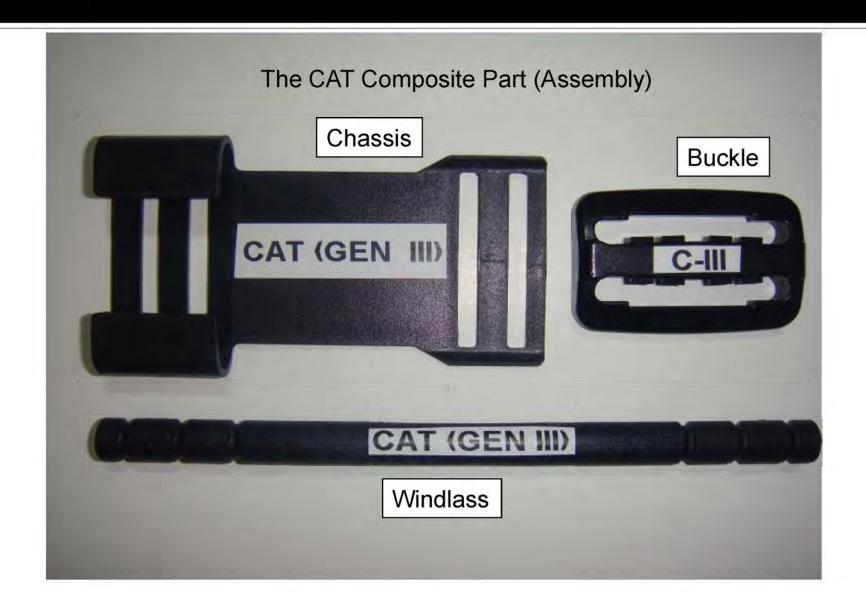
### E-CAT:

Packaged in plastic bag with paper top.

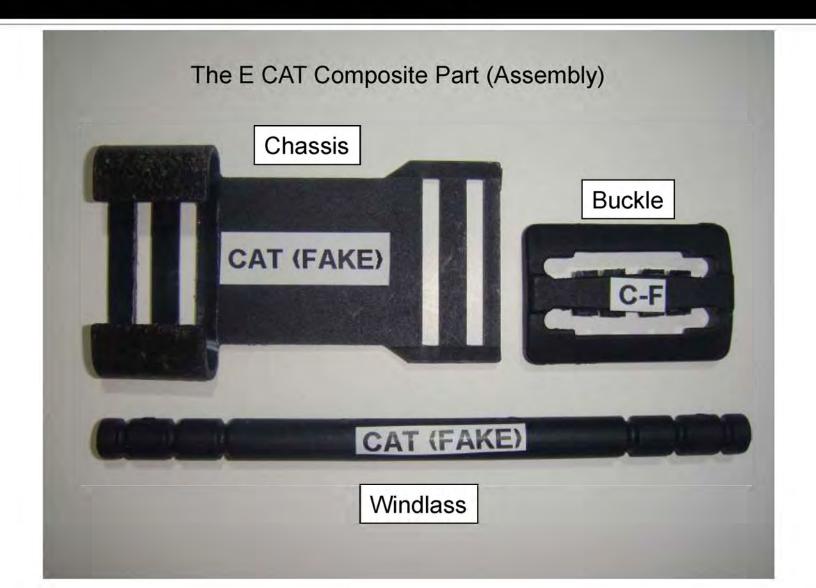
The sticker on the bag call the tourniquet the "Combat Application Tourniquet" and lists the NSN assigned to NARP.

# **Chassis Comparison**

# **Chassis Comparison**



# **Chassis Comparison**



Front bars are the same

Back bars are the same

Mold marks on CAT (GEN III) are 5mm in diameter

E-CAT Solver Market Ma

Notice the only discriminator is the size of the mold marks on the back of chassis

Notice mold marks (again)

3mm on E-CAT



E-CAT

Slightly misshapen, weaker composite.

CAT (GEN III)

Stronger more uniform composite.

### **Chassis Comparison**

Windlass Lock (end view)



# **Buckle Comparison**

CAT (GEN III) Buckle (Back)

CAT (GEN III) Buckle (Front)

F-CAT Buckle (Back)

Buckle (Front)

### E-CAT

Different composite (more grainy). Slightly squared corners.

### CAT (GEN III)

Different composite (more shinny). Slightly rounded corners.

E-CAT

Slightly more squared corners and mold marks on center bar.

CAT (GEN III)

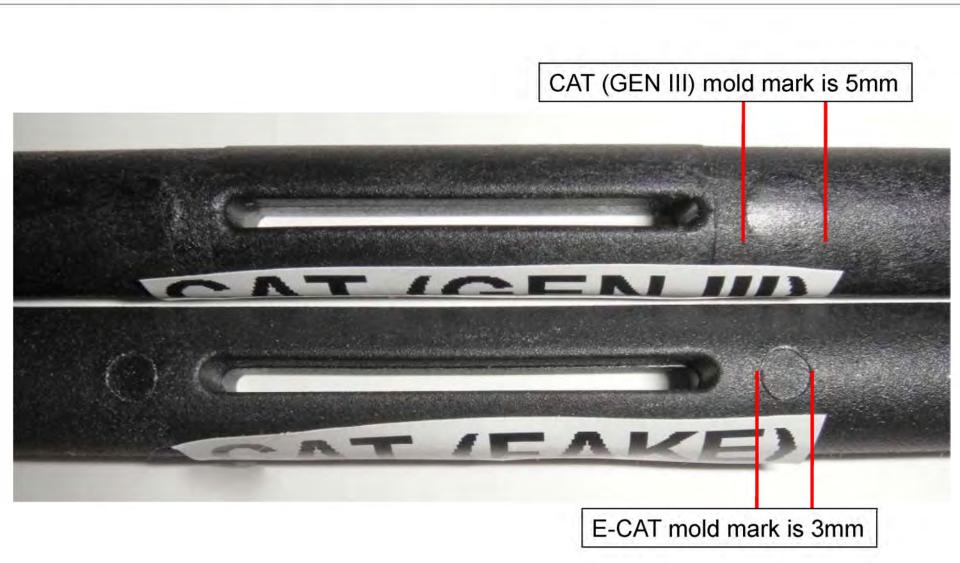
Notice slightly more rounded — corners and ALL mold marks on the outside.

# **Windlass Comparison**

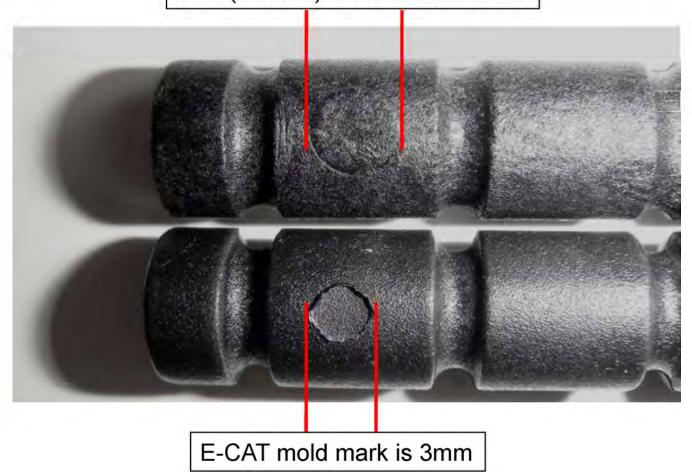
Identical to the casual observer



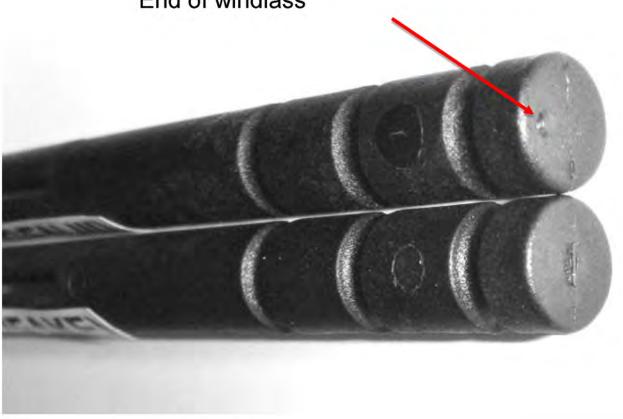




CAT (GEN III) mold mark is 5mm



Small 2mm mold mark on CAT (GEN III) End of windlass



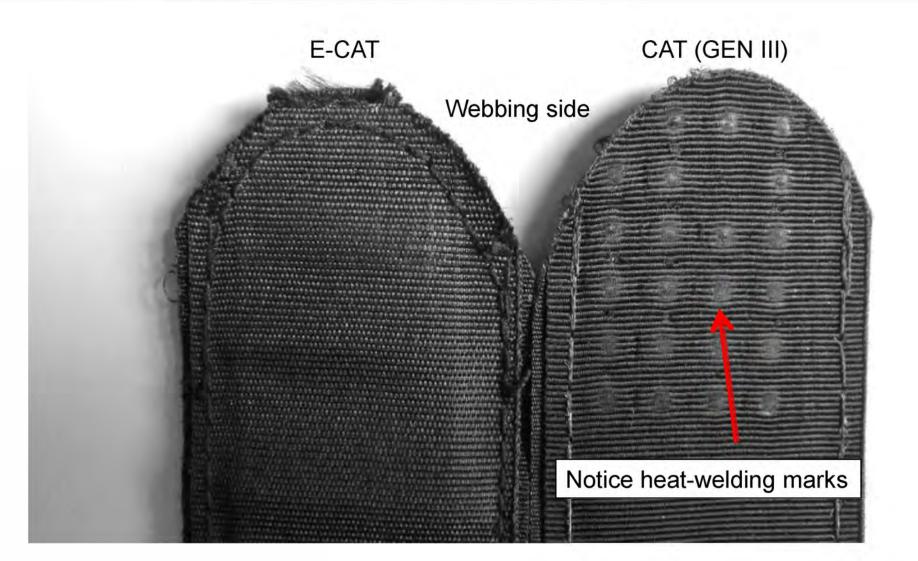
E-CAT

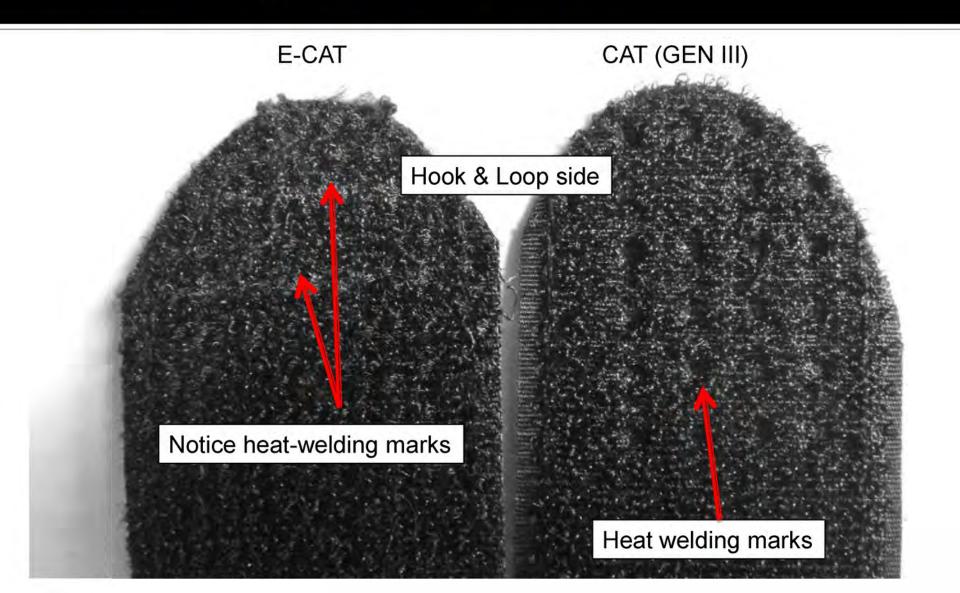


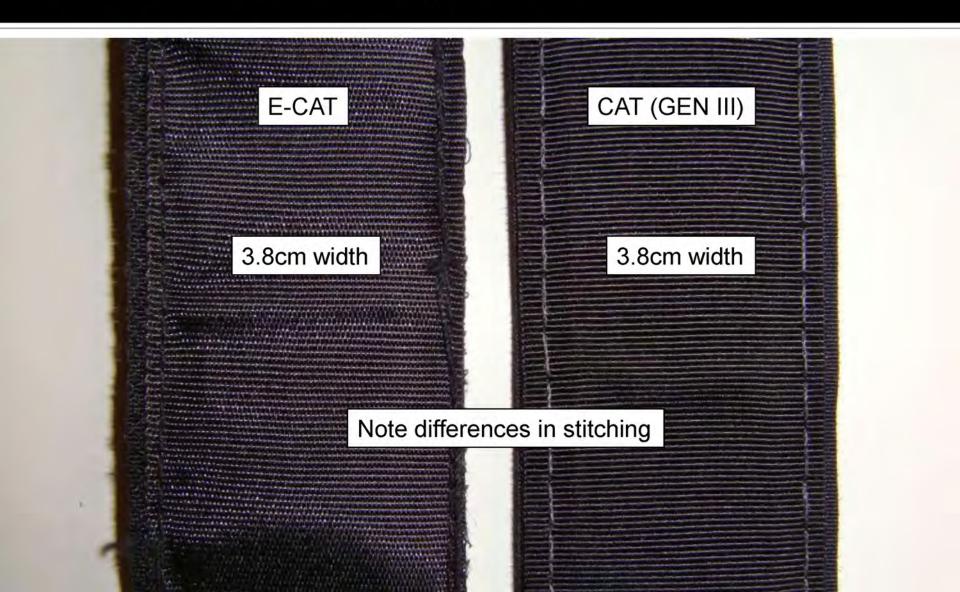
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# **Webbing Comparison**

# **Webbing Compar**



# Webbing Comparison





# E-CAT Packaging





# **E-CAT Packaging**

(Manufacturer)

www.world-element.com

(Nomenclature)

Combat Application Tourniquet

(National Stock Number)

NSN 6515-01-521-7976