

Photographic & Measurement Comparison

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

This material (MATL) was first encountered several years ago in a depot in Afghanistan and thought to have been purged from the system. The MATL was then of obvious inferior construction and quite recognizable as a substitute for the real thing. Today the product is very difficult to distinguish from the C-A-tourniquet® down to duplicate markings and symbols. Although there is no direct evidence against these duplicate products, several reports indicate that they are of inferior design and may cause serious injury or death.

## 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.
5. They were designed to look, feel and act like a CAT (GEN III).
6. They ARE a counterfeit tourniquet.

### How can you tell the difference?

1. 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).

# Executive Summary

## Differences on the Windlass:

1. The CAT (GEN VI) with the thicker windlass is much easier to identify and differentiate between the CAT GEN VI and the E-CAT.
2. 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:
3. The E-CAT windlass will fold back on itself without breaking; however, you cannot tighten the tourniquet with it.
4. 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.
5. 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:

1. 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.
4. 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)
6. Mold marks:
  1. On the back of the chassis there are four mold marks on both units.
  2. On the back of the CAT (GEN III) the mold marks are all 5mm in diameter.
  3. On the back of the E-CAT the mold marks are 4mm in diameter

# Executive Summary

## 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.
3. The E-CAT has slightly squared corners on the buckle.
4. 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.
5. The CAT (GEN III) is more rounded on the corners of the buckle.
6. 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:

1. 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.
3. The E-CAT is stitched all around.
4. The E-CAT does not use any heat welding (appear as "dots" on the webbing)
5. The CAT (GEN III) is stitched, but also relies on heat welding in some spots.
6. The CAT (GEN III) has a date (M/D/Y) stamped in white toward the tip of the tourniquet (nylon).
7. The adjustment webbing is identical width and length for both tourniquets.

## How to find the FAKE CAT:

1. 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.
6. 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

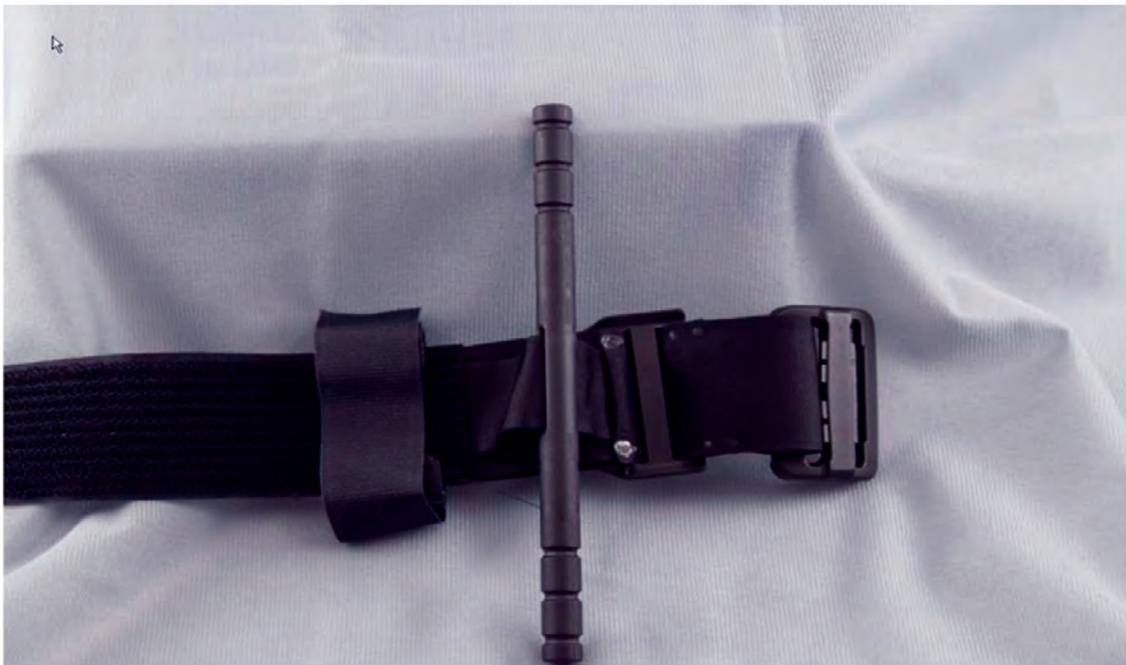
\*Note: there is no measurable difference between

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)



# CAT (GEN III) vs. E-CAT

## Package Comparison

### CAT (GEN III) vs. E-CAT

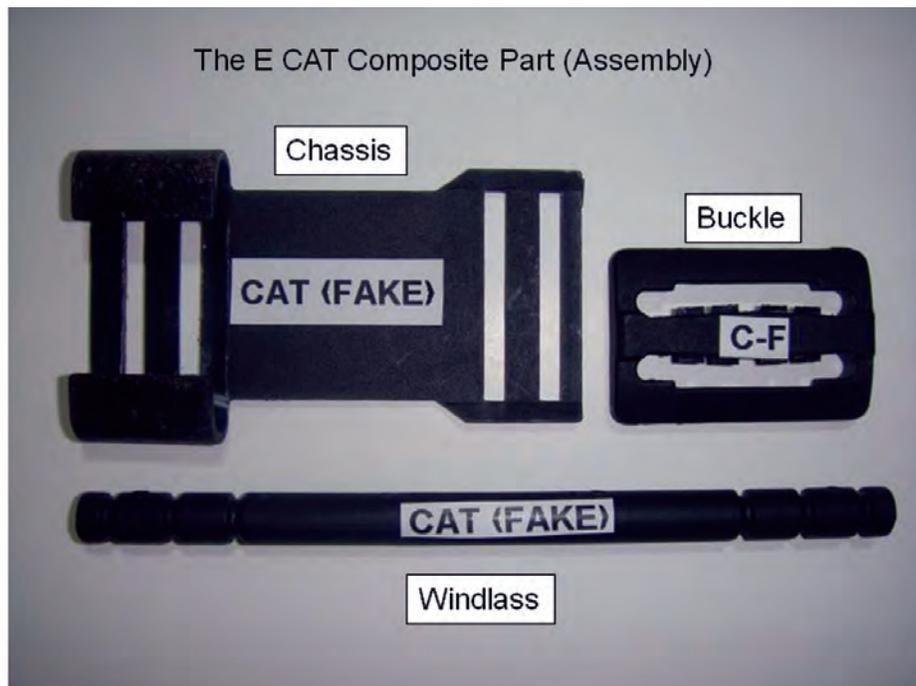
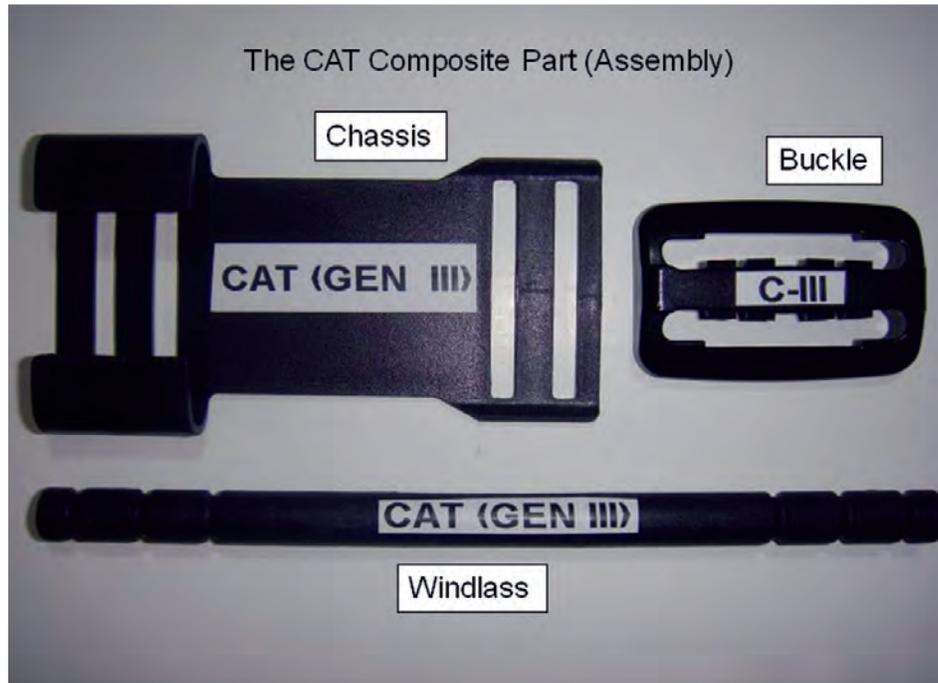
**CAT (GEN III)**  
Package from NARP, Inc.  
Looks nothing like the E-CAT package.

**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.



CAT (GEN III) vs. E-CAT

# Chassis Comparison

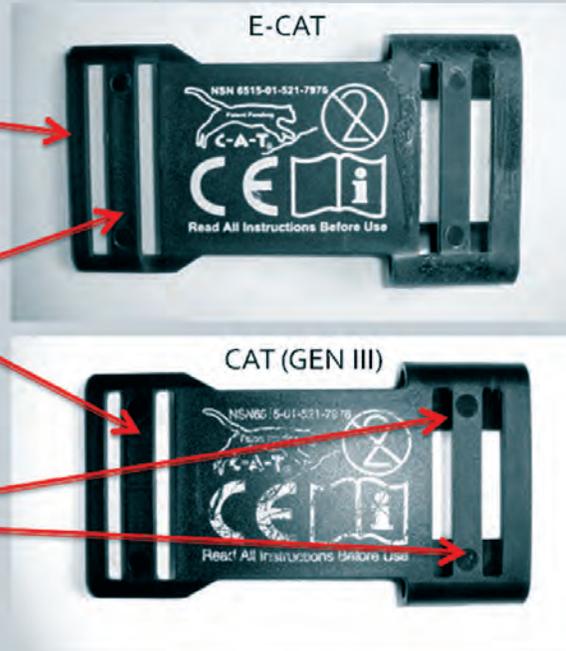


# CAT (GEN III) vs. E-CAT

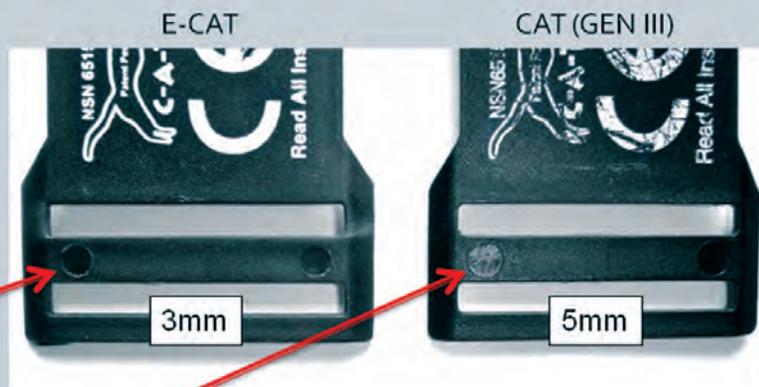
Front bars are the same

Back bars are the same

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



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



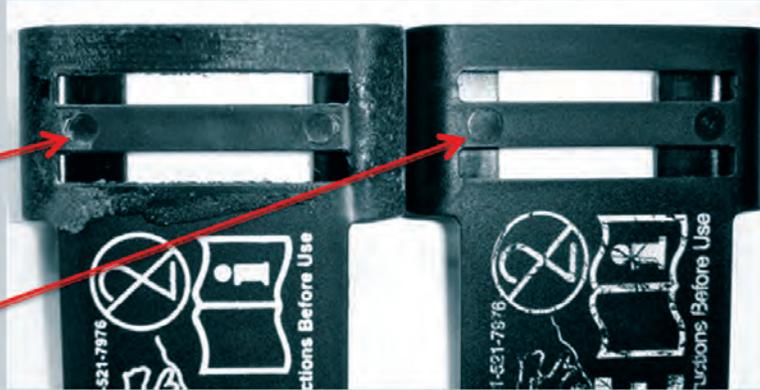
CAT (GEN III) vs. E-CAT

Notice mold marks (again)

3mm on E-CAT

5mm on CAT (GEN III)

Notice E-CAT windlass lock is misshapen and slightly thinner.



E-CAT

CAT (GEN III)



E-CAT

Slightly misshapen, weaker composite.

CAT (GEN III)

Stronger more uniform composite.

Windlass Lock (End view)

E-CAT

CAT (GEN III)



# Chassis Comparison

Windlass Lock (end view)

E-CAT

CAT (GEN VI)

CAT (GEN III)



CAT GEN III vs. E-CAT

# Buckle Comparison

CAT (GEN III) vs. E-CAT

CAT (GEN III)  
Buckle (Back)



CAT (GEN III)  
Buckle (Front)



E-CAT  
Buckle  
(Back)



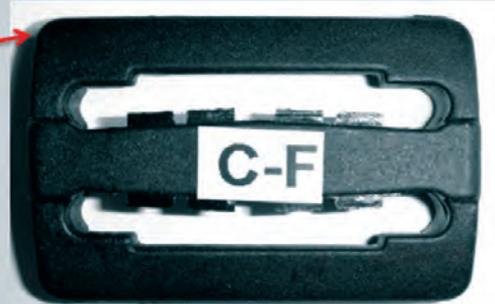
Buckle  
(Front)



CAT (GEN III) vs. E-CAT

E-CAT

Different composite (more grainy). Slightly squared corners.



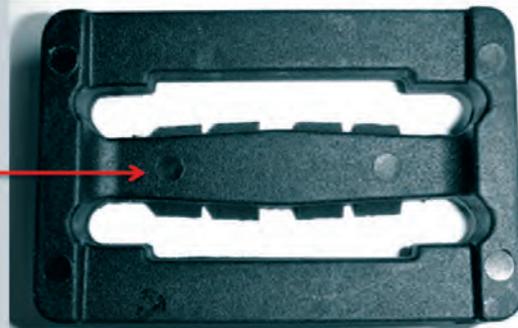
CAT (GEN III)

Different composite (more shiny). 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.



CAT (GEN III) vs. E-CAT

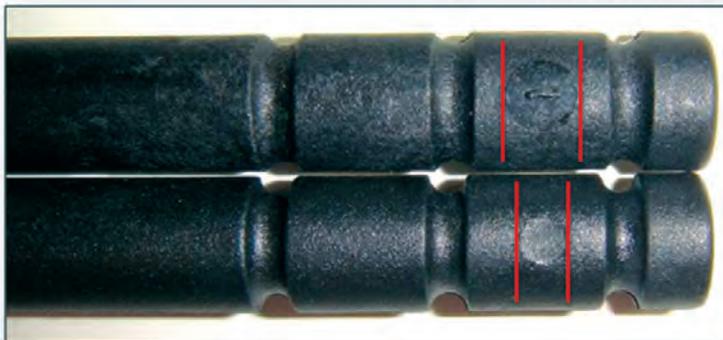
# Windlass Comparison

Identical to the casual observer



Linear mold marks from core and cavity (mold) are identical on both tourniquets.

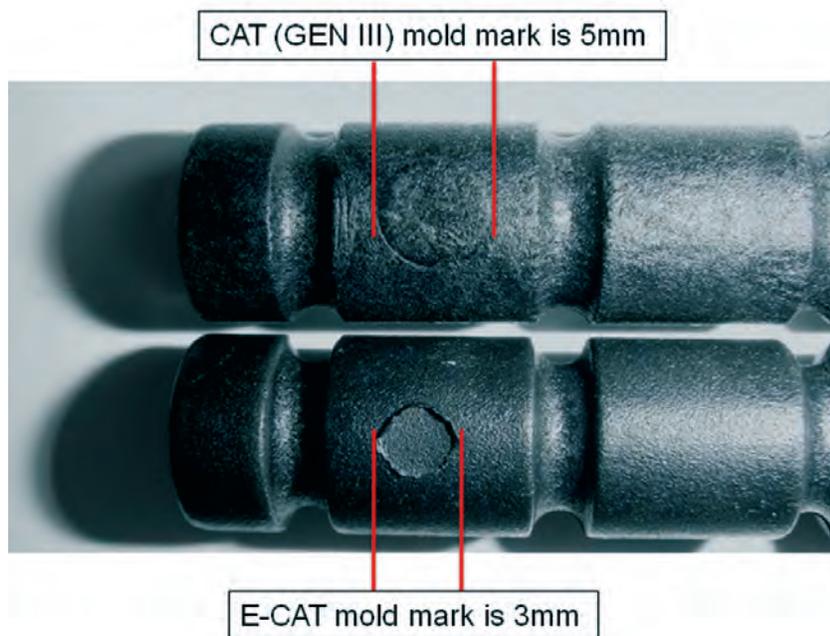
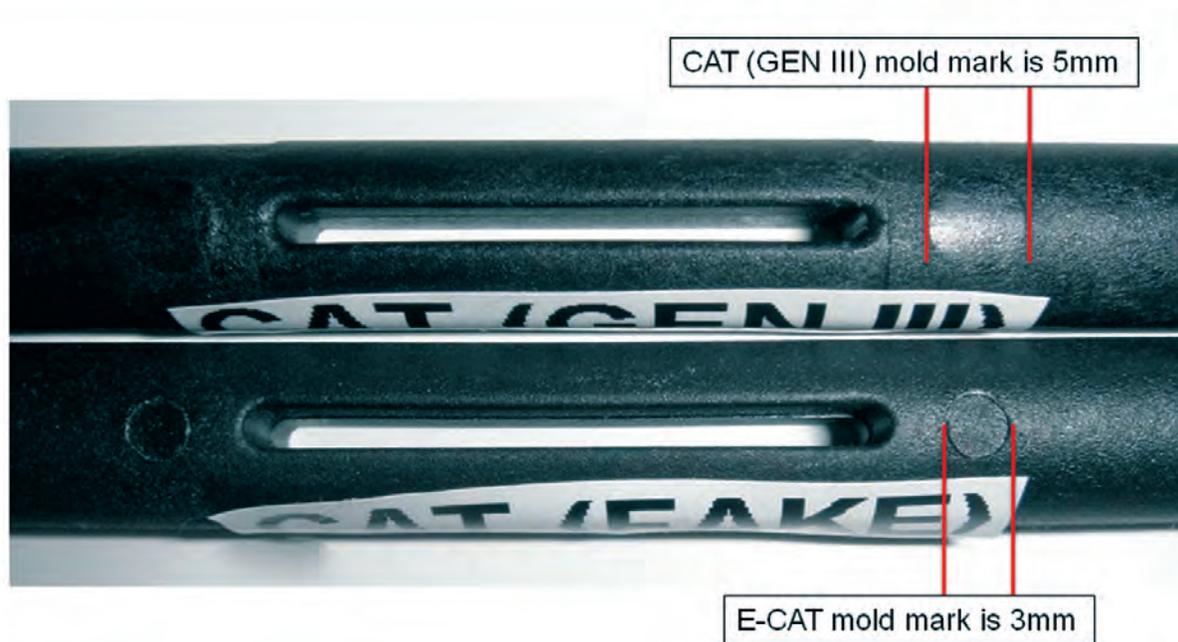
**\*Notice Mold Marks**



CAT (GEN III)  
5mm

E-CAT  
3mm

# Windlass Comparison



# Windlass Comparison

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



E-CAT

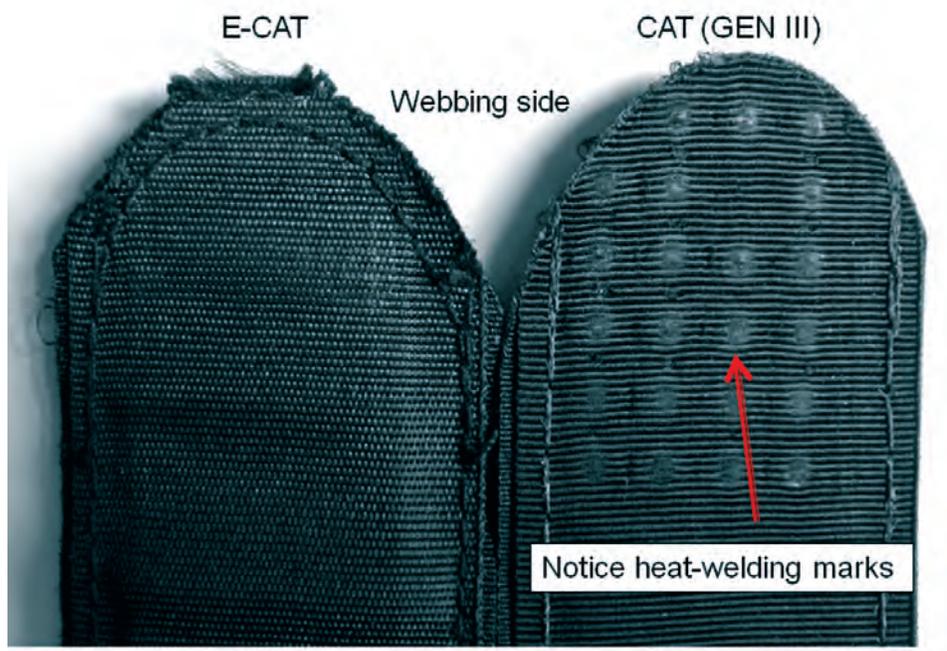
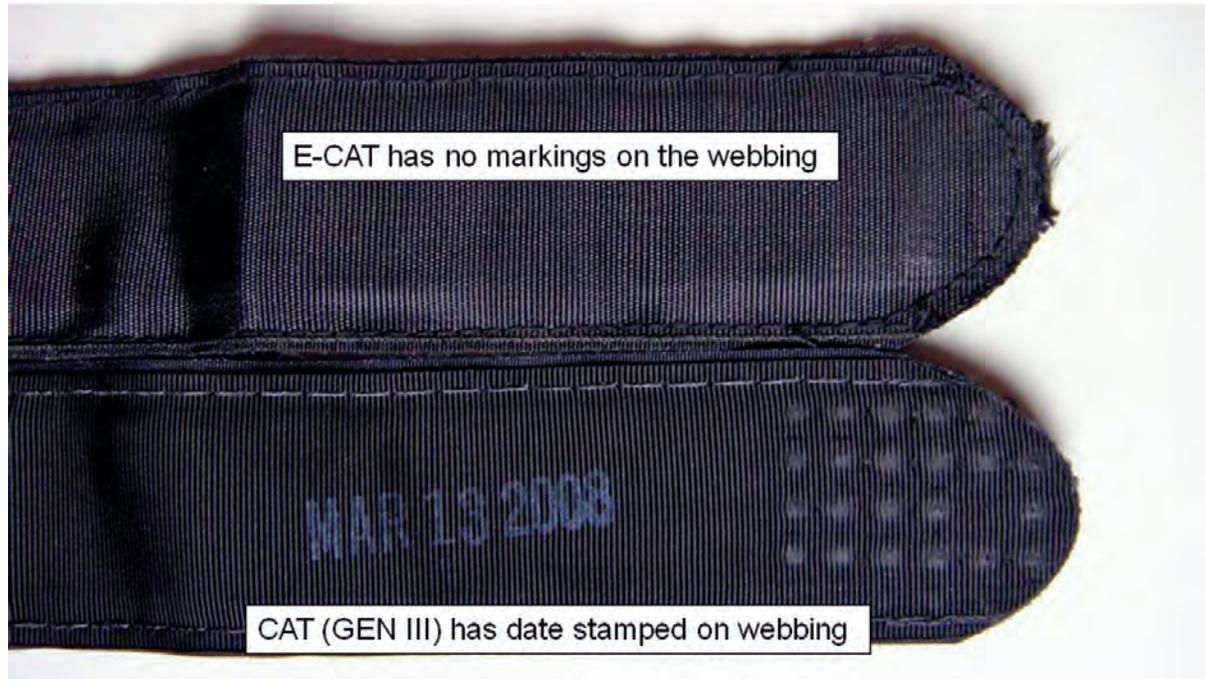


CAT (GEN III)

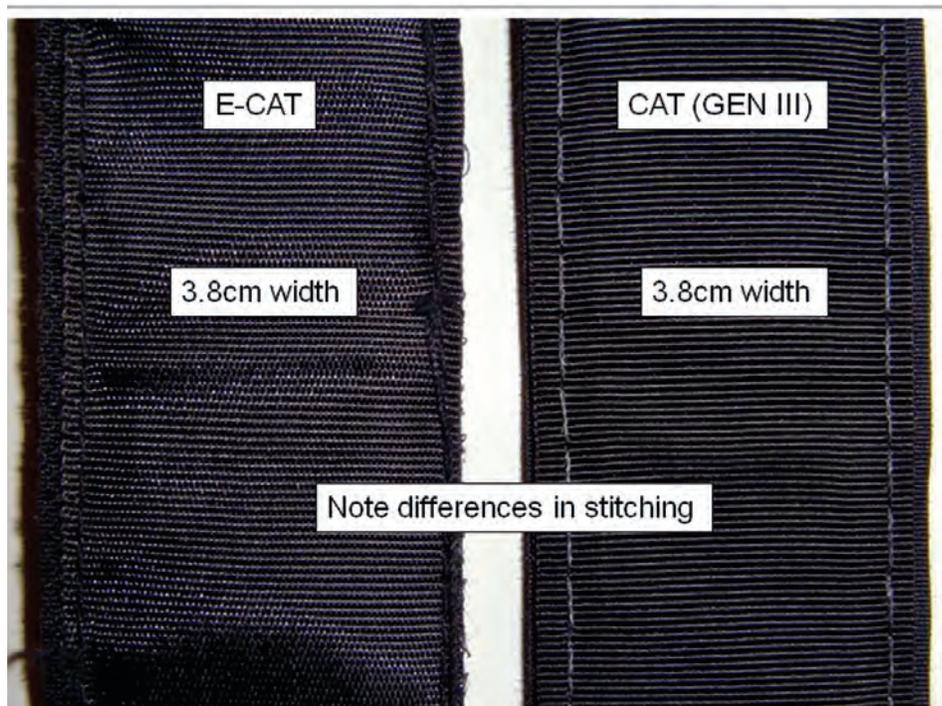
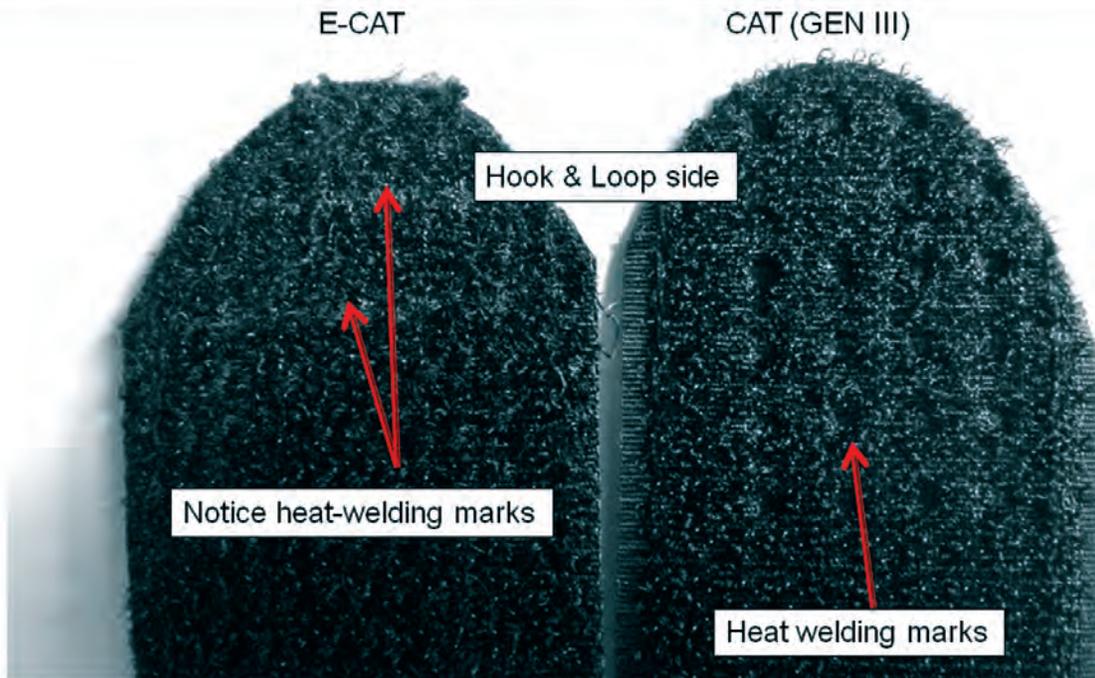


CAT (GEN III) vs. E-CAT

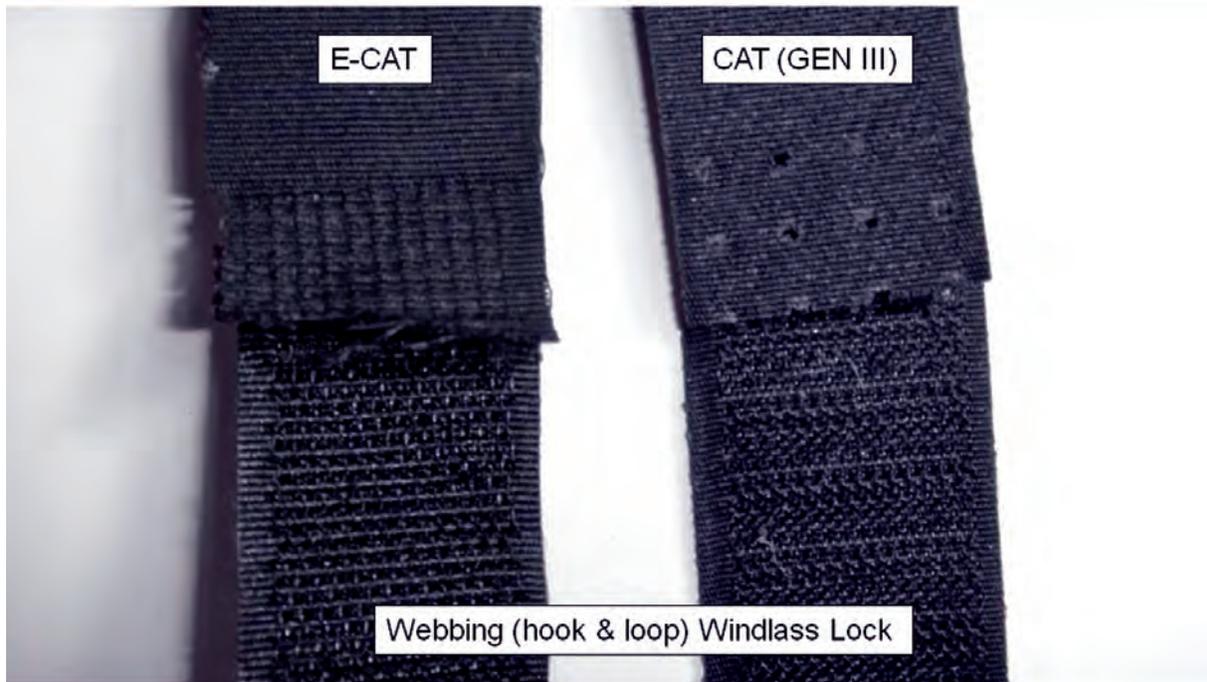
# Stitching Comparison



# Stitching Comparison

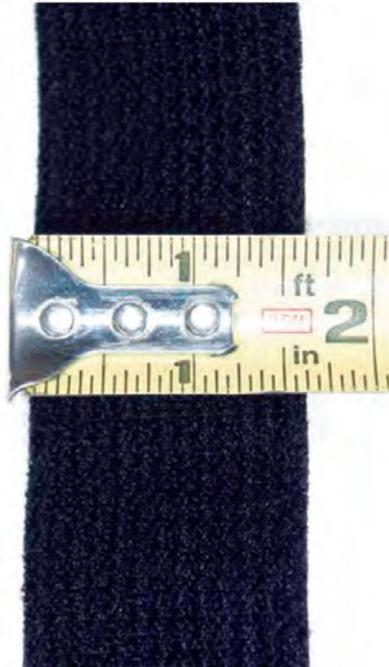


# Stitching Comparison



CAT (GEN III) vs. E-CAT

# Webbing Comparison



# E-CAT Packaging



**(Manufacturer)**

[www.world-element.com](http://www.world-element.com)

**(Nomenclature)**

Combat Application Tourniquet

**(National Stock Number)**

NSN 6515-01-521-7976