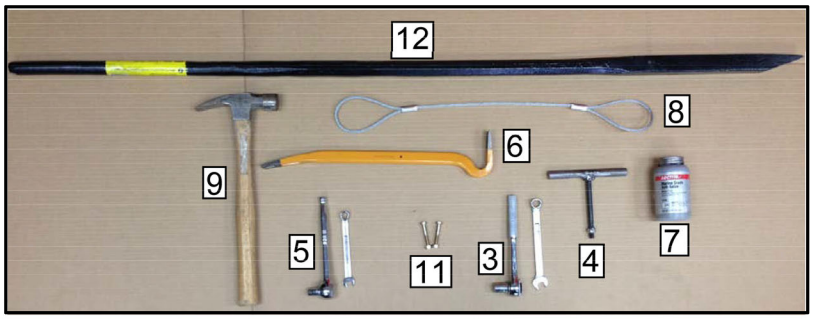
SMART CUSHION®
Reset Guide

Tool List for Smart Cushion Resets



1. One – 20' long, 1/2" chain with slip hook and safety latch, and 1/2" chain hook.
2. One – 2' length of wire or large tie straps
3. Two – 9/16" socket wrenches or open-end wrenches
4. One – T handle with 3/8" course thread, Grade 8 anti-rotation pin pulling tool (part number 273994)
5. Two – 7/16" socket wrenches or open-end wrenches
6. One - 90º tight crow's foot pry bar (part number 238247)
7. One – bottle of marine grade anti-seize
8. One – cable release cable (part number 275224)
9. One – hammer
10. Four – ¼" x 20 hex-head bolts, 3" long with nylon lock nuts for replacement of front delineation panel hardware if original hardware is misplaced or damaged
11. Two – ¼" x 20 hex-head Grade 8 bolts & Two – ¼" x 20 hex nuts (part number 270683)
12. One – large round ended pry bar

Not shown: #'s 1, 2, 10, 12 and One – front delineator panel (to replace the existing front delineator panel if damaged beyond repair during the impact)
Note: Additional tools may be necessary after an above-design-criteria impact.

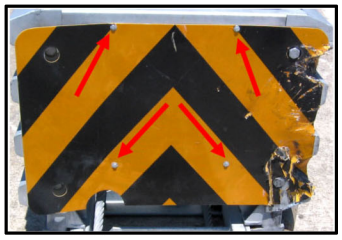
SCI Reset Video

Scan this QR code to view the step-by-step reset video

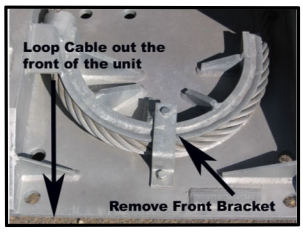
www.HillandSmith.com

Steps before Main Frame Pullout

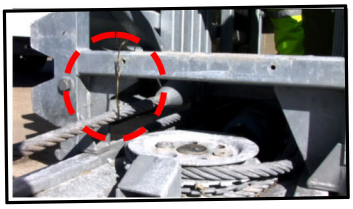
1 Remove the front delineator panel. (Use a 7/16" socket wrench or open-end wrench)



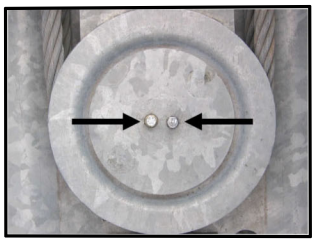
2 Remove the front cable keeper attached to the front fixed sheave. (Use a 9/16" socket wrench or open-end wrench)



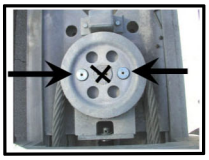
3 Wire up the cable and spelter socket so they won't catch on any cross bracing during the pullout.

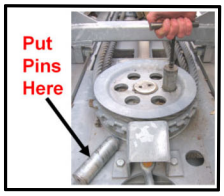


4 Remove the front and rear sheave cover plates as soon as you have access. (Use 9/16" socket wrench)

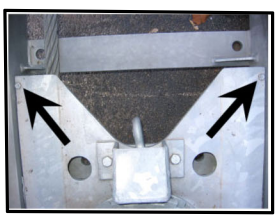


5 Remove the anti-rotation pins as soon as you have access with tool. They are different lengths so leave at front and rear during reset.





6 Remove the broken shear bolts as soon as you have access. (Use a 90º tight crow's foot pry bar)



Pull #1 - Main Frame Pullout

7 • Only perform this after the front delineator panel, front cable keeper and broken shear bolts have all been removed.

• **Attach a 25' long chain or strap to the bottom brace of the sled.**

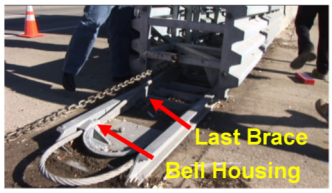
• **Attach the other end of the chain or strap to a pullout vehicle (such as a one ton truck or larger capacity vehicle), and pull out the main frame slowly in 1-2 foot increments. It is important to keep the length of chain or strap and the direction of the pull "in line" with the attenuator keeping the chain or strap fairly level to help assure an unrestricted pullout.**

8 • Make sure that any slack in the cable is feeding out in front of the attenuator during this phase of the pullout.

Note: On a hard impact, the cable may weld itself to the front fixed sheave. Use our Cable Release cable to break this weld free. Wrap cable around attenuator cable behind cable hold down plate and feed thru to front. Using a bar in the loops, slowly work your way around the entire semi-circle in order to loosen this tack weld.

9 • When you pass the last cross brace, **before the main frame is completely pulled out,** remove the wire that is holding up the cable and spelter socket to allow the spelter socket to feed smoothly into the bell housing.

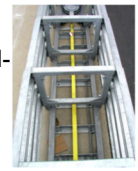
• Finish the Main Frame Pullout and remove the chain or strap from the bottom brace of the sled.



Preparation for Cylinder & Mobile Sheave Pullout

10 • Run the chain beneath the mobile frames and back to the mobile sheave coupler and attach to the mobile sheave coupler. Straps stretch and do not work well. Recommended Chain strength is 1/2 x 20' Grade 100.

• Double check that the anti-rotation pins and broken shear bolts are removed before you begin this pullout.



Pull #2 - Cylinder & Mobile Sheave Pullout

11 • Pull **slowly** and make sure that as the slack in the cable is taken up, you guide the cable so that it wraps into place around the front fixed sheave. You do not want the cable to ride up over the front fixed sheave.

• Continue to exert tension until the mobile sheave approaches the end of the mobile sheave guides then relax the tension on the chain or strap but do not remove it.

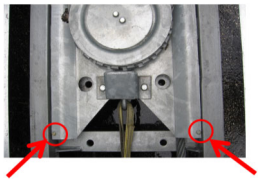
12 • Realign the mobile sheaves and replace the anti-rotation pins.(Use large round ended pry bar)

Pull #3 - Cylinder and Mobile Sheave Pullout

13 • Re-tension the chain or strap, pulling the mobile sheave so that it is just past the end of the mobile sheave guides and install the new ¼"-20, **GRADE 8,** 1 ¾" long shear bolts .

• Remove the chain or strap

•Fasten the ¼"-20 hex nuts to new shear bolts and hand tighten.



Final Steps

14 • Apply Marine Grade Anti-Seize to the four 3/8"x 16 hex-head bolts and refasten the sheave cover plates.

15 • Replace the front cable keeper. (Use a 9/16" socket wrench or open-end wrench)

• Replace the front delineator panel. (Use a 7/16" socket wrench or open-end wrench)

• Make final inspection of side panels, cable, hardware, etc.

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