

Installation Instructions

Kit components:

- (1) Stainless steel cam-lock sleeve w/ o-ring
- (1) Cast iron cam-lock nut
- (1) Cast iron cam
- (1) Stainless steel bolt, machined
- (2) Stainless steel flat washers
- (1) Wave washer
- (1) Cotter pin

Required Tools:

- #495117 Cam-lock installation tool (sold separately by Emco)
- Pliers
- Hammer
- Punch
- Thread locker, removable, medium strength (such as Vibra-Tite #12125)
- Gun grease (for lubricating bolt)



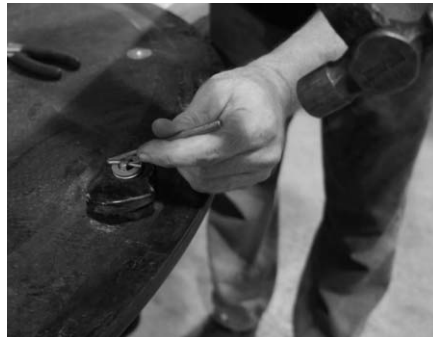
L to R: cam-lock nut, cam

L to R, flat washers, cam-lock sleeve, bolt, wave washer, cotter pin

Step 1: Remove manhole lid from manhole. Place lid upside down on work surface, with damaged (existing) cam-lock assembly extending over edge, so that both top and bottom are accessible.



Step 2: Using pliers, punch and hammer, remove cotter pin from existing cam-lock assembly and discard.



Step 3: Remove the existing flat washers, wave washer and cam and discard.

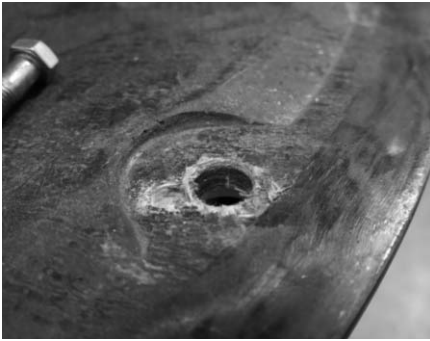


Step 4: Tap the existing bolt out of the lid using the punch and hammer and discard.

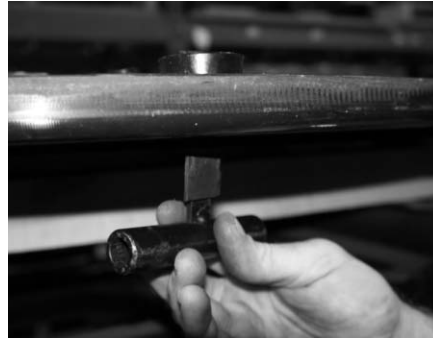
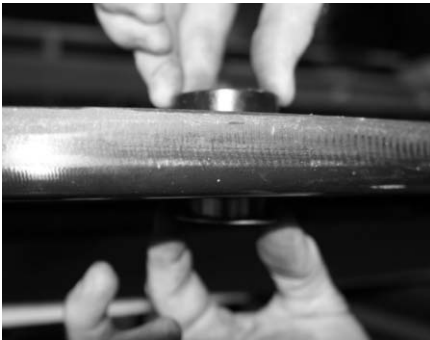


Step 5: Insert #495117 cam-lock installation tool into slot on top surface of cam-lock sleeve. Turn tool to unscrew cam-lock sleeve from the cam-lock nut. Discard existing cam-lock nut and sleeve.





Step 6: Install new cam-lock nut in bottom surface of lid. **Important: rounded boss on cam-lock nut must be placed in existing machined hole in bottom surface of lid. This maintains proper cam-lock alignment. Apply 5-8 drops of the thread locker to the threaded portion of the cam lock sleeve.**



Step 7: Holding cam-lock nut in place, screw threaded portion of cam-lock sleeve through the lid into the cam-lock nut. Insert #495117 cam-lock installation tool into slot on top surface of cam-lock sleeve. Hold tool in place while tightening cam-lock nut into threaded portion of sleeve. Do not over-tighten.



Step 8: Apply a small amount of gun grease to shoulder of machined bolt. Insert bolt into sleeve with threads pointing upward (toward bottom surface of lid). Press bolt in until it bottoms out in sleeve.



Step 9: Install cam with counter bored surface pointing up. Note that half-moon hole in cam must align with the machined bolt for proper installation.



Step 10: Place wave washer over bolt. Next, place the (2) flat washers over the wave washer.



Step 11: While pressing down on the flat washers, insert the cotter pin into the hole in the machined bolt. Using pliers, bend tabs of cotter pin outward.

**Installation of cam-lock assembly is now complete.
Turn lid over and place back in manhole and turn each cam to lock down lid.**