



# Holden Grate-Lock™ Chock Inspection and Repair Standards: Procedure and Examples (April 2016)

This document is the property of Holden America IL, LLC, and should only be used in connection with the Holden Grate-Lock™ Chock vehicle securement system. The use of this document for any other purpose is strictly prohibited. Any modifications, reproductions, or alterations to this document without the express written permission of Holden America IL, LLC is strictly prohibited.

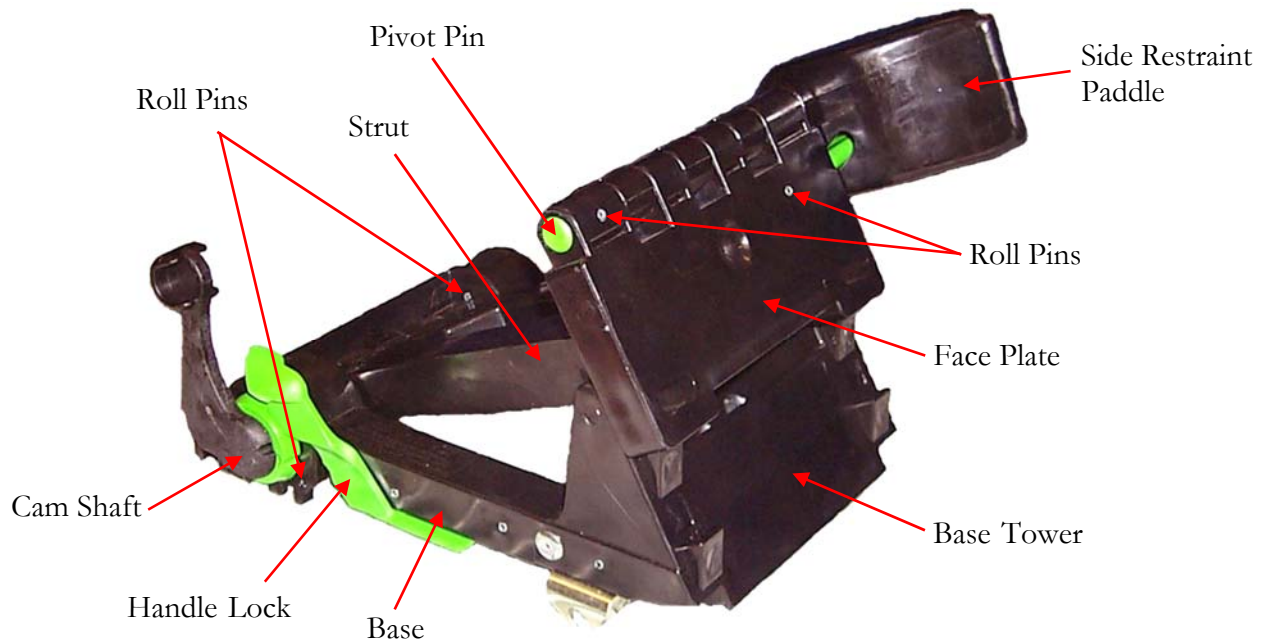
Please be advised that the use of non-OEM-approved parts, or the failure to follow the OEM-approved inspection and repair procedures as outlined in this document may result in disabling or diminishing the Grate-Lock™ Chock's ability to restrain vehicles and may result in death, personal harm or injury to personnel who handle, use, operate, apply and/or remove the Grate-Lock™ Chocks during normal use. Furthermore, such use of non-OEM-approved parts or failure to follow the OEM-approved inspection and repair procedures outlined in this document will invalidate the terms and conditions of the Holden America IL, LLC warranty.

Holden America IL, LLC, is not responsible for death or personal injury claims, including, but not limited to, death or personal injury to operating and/or inspection personnel, or for damage to property, including, but not limited to, vehicles, resulting from, arising out of or relating to the use of non-OEM-approved parts, or the failure to follow the OEM-approved Grate-Lock™ Chock inspection and repair procedures as outlined in this document.

©2015 Holden America IL, LLC. All rights reserved.

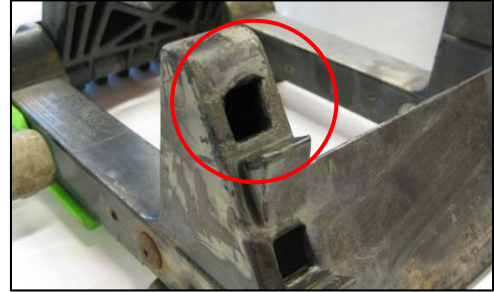
## A. Upperside Components

All major plastic chock components, namely the Base, Strut, and Face Plate should be examined for cracks, fractures, and visible deformations like strain whitening marks. (See Figure 1 for component nomenclature). If defects are found, then the chock is considered to be non-functional and must be repaired or replaced as outlined in the following sections.



**Figure 1: Upperside Component Nomenclature**

- a) The tab engagement holes, found on the Base tower front faces, should be checked for elongation. If the holes are elongated (see Figure 2), the chock is considered to be non-functional and must be replaced.



**Figure 2: Elongated Tab Engagement Holes**

- b) If the tower part of the Base has been pushed forward or is distorted, the Face Plate may not sit properly against the Base. If the Face Plate does not sit properly in any height setting, the chock is considered to be non-functional and must be replaced.

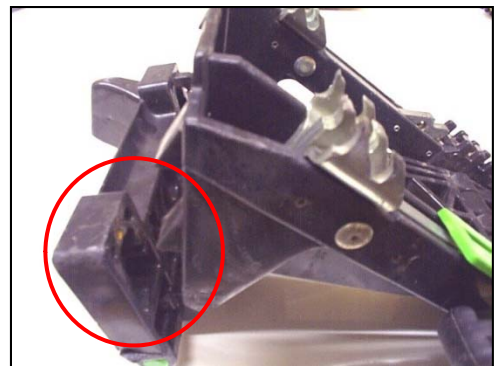
- c) Deformation of the cross web on the top side of the chock Base or strain whitening marks found in the corners of the cross web indicate a weakened structural component. (See Figure 3). In both cases, the chock is considered to be non-functional and must be replaced.



**Figure 3: Deformed Cross Web on Base**

- d) If the Side Restraint Paddle is deformed, bent or cracked where the paddle arm meets the main body of the Strut or if hairline cracks are found in the webbing of the underside of the Strut, the chock is considered to be non-functional and must be replaced.

- e) The Face Plate tabs should be checked to ensure that they are neither missing (see Figure 4), nor bent, nor have a hairline crack where they meet the Face Plate. In the latter case, the chock may still appear to be fully functional. However, in all cases the chock is considered to be non-functional and must be replaced.

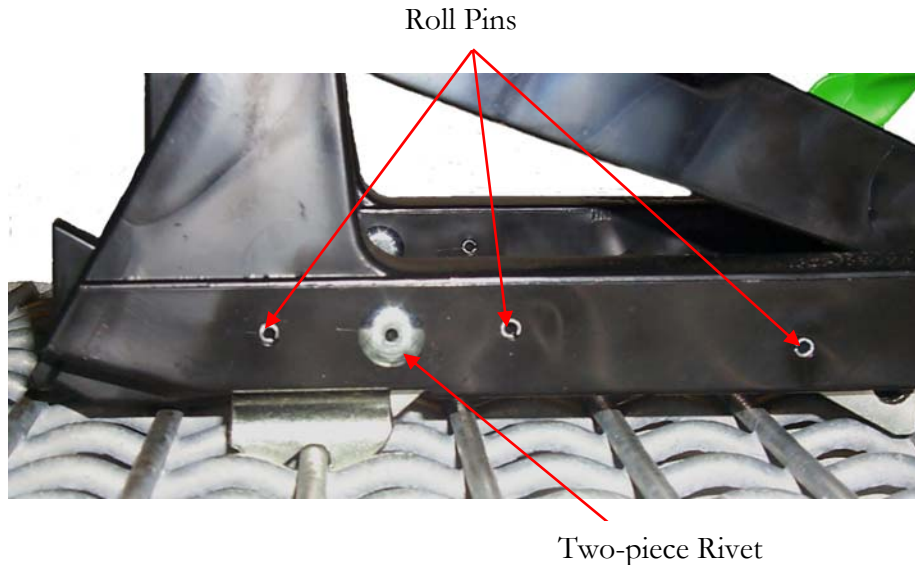


**Figure 4: Missing Face Plate Tabs**

- f) Ensure that the Operating Handle has not broken off of the Cam Shaft. In addition, check that it rotates with some resistance. If there is no resistance, the Cam Lifters are excessively worn. In both cases, the chock is considered to be non-functional and must be replaced.

- g) Check that the Handle Lock is not missing or broken. If it is, the chock is considered to be non-functional and a new Handle Lock must be replaced in kind. This repair can be performed in the field.

## B. Side View Components

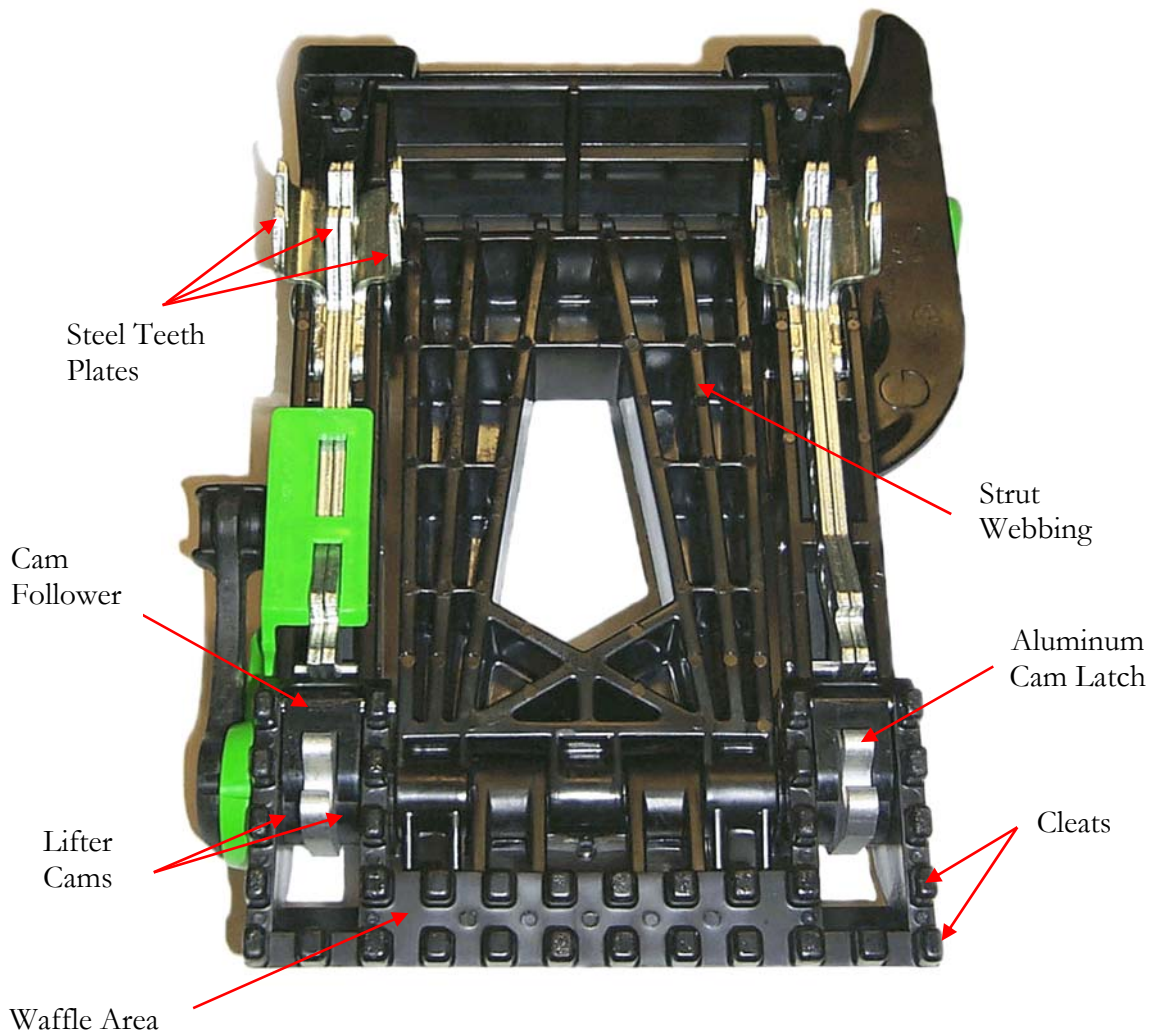


**Figure 5: Side View Component Nomenclature**

- a) The Roll Pins in the Chock Base (12) and in the Face Plate (2) should not be missing or protruding. (See Figures 1 and 5). If any pin is missing, the chock is considered to be non-functional and a new Roll Pin must be replaced in kind. If any pin is protruding by 1/8" or more, it must be **lightly** hammered in until flush with Base surface. These repairs can be performed in the field.
- b) Both Two-piece Rivets should be present and tight up to the Chock Base without any play. If any is missing or not tight, the chock is considered to be non-functional and a new Two-piece Rivet must be replaced in kind. This repair can be performed in the field.

### C. Underside Components

All components of the chock should be checked to ensure they are not missing, and have not been deformed or otherwise damaged. (See Figure 6).



**Figure 6: Underside Component Nomenclature**

- a) Verify that the left, the right, and the center Steel Teeth Plates are all present and not damaged. If any Steel Teeth Plate is missing or adjacent Tooth tips are bent (see Figure 7), the chock is considered to be non-functional and must be replaced.



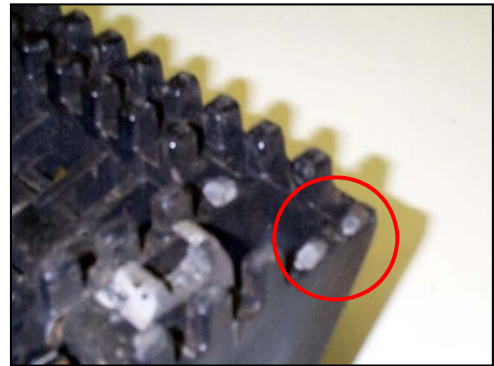
**Figure 7: Bent Adjacent Tooth Tips**

- b) The Aluminum Cam Latches must be checked for distortion or elongation. If any latch tooth is deformed or broken off (see Figure 8), the chock is considered to be non-functional and must be replaced.



**Figure 8: Broken Cam Latch**

- c) All the cleats in the “waffle area” found on the chock underside should be straight. If two adjacent cleats or more than three cleats over the entire waffle area are missing (see Figure 9), the chock is considered to be non-functional and must be replaced.



**Figure 9: Missing Cleats on Waffle Area**



## HOLDEN GRATE-LOCK™ CHOCK REPAIR DECISION MATRIX

Chock Side	Article	Component	Defect Found	Is Chock Functional?	Recommended Repair Decision	Comments
A. Upperside Components	General	Any of the major plastic components	Cracks, fractures or visible deformations	No	Send for Reconditioning	
	a)	Base Tower Tab Engagement Holes	Elongated	No	Send for Reconditioning	
	b)	Base Tower	Face Plate does not sit properly	No	Send for Reconditioning	
	c)	Base Cross Web	Strain whitening marks in corners or visible deformation	No	Send for Reconditioning	
	d)	Strut Side Restraint Paddle	Deformed, bent or cracked near main body	No	Send for Reconditioning	
			Hairline cracks in webbing			
	e)	Face Plate Tabs	Missing, deformed or hairline crack	No	Send for Reconditioning	
	f)	Cam Shaft Operating Handle	Broken	No	Send for Reconditioning	
			Rotates without any resistance	No	Send for Reconditioning	
g)	Handle Lock	Broken or missing	No	Repair in the Field	Order OEM Part	



## HOLDEN GRATE-LOCK™ CHOCK REPAIR DECISION MATRIX

Chock Side	Article	Component	Defect Found	Is Chock Functional?	Recommended Repair Decision	Comments
B. Side View Components	a)	Roll Pins	Protruding by more than 1/8" or missing	No	Repair in the Field	Lightly hammer Roll Pin until it is flush with Base. Order OEM Parts.
	b)	Two-piece Rivets	Not tight or missing	No	Repair in the Field	Remove by drilling through rivet. Order OEM Parts.

C. Underside Components	a)	Steel Teeth Plates	Missing Plates or Adjacent Tooth tips bent	No	Send for Reconditioning	
	b)	Grating Latch Teeth	Deformed or broken	No	Send for Reconditioning	
	c)	Base Cleats	Two adjacent or three cleats over entire waffle area broken or missing	No	Send for Reconditioning	
			Any two non-adjacent cleats over entire waffle area broken	Yes	Repair in the Field	Grip the cleat firmly with pliers and bend away from the Base until it breaks off. Use a file to remove any residual shards.