# COLLISION REPAIR INFORMATION

### FOR THE COLLISION REPAIR PROFESSIONAL

TITLE: COLLISION DAMAGE REPAIR PRECAUTIONS

SECTION: STRUCTURAL BULLETIN # 161

MODELS: ALL TOYOTA, LEXUS, and SCION

DATE: JANUARY 2008 PAGE 1 OF 2

The following collection of precautions is intended to reinforce Toyota's position on some key collision repair topics, and should not be considered all inclusive or a substitute for training. For more information on these and other important collision repair and refinish topics plan to attend Collision Repair & Refinish Training. Visit the CR&R website (<a href="www.crrtraining.com">www.crrtraining.com</a>) for schedule and registration information.



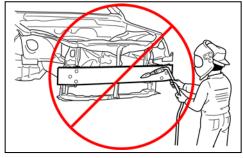
## HEAT REPAIR FOR BODY AND FRAME COMPONENTS IS PROHIBITED

High strength sheet steel is used for structural body, and frame components. If these components are repaired with heat the crystalline structure changes, causing a significant decrease in strength. Heat also damages the zinc coating reducing corrosion resistant properties.



#### INTRUSION BEAM REPAIR IS PROHIBITED

Intrusion beams are designed to absorb, channel, and dissipate collision energy and perform at 100% strength in their original shape. However, if they are damaged and repaired they will no longer perform as intended. Damaged intrusion beams require complete door replacement.



### BUMPER REINFORCEMENT REPAIR IS PROHIBITED

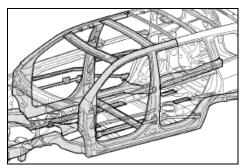
Bumper reinforcements are designed to absorb, channel, and dissipate collision energy and perform at 100% strength in their original shape. However if they are damaged and repaired, they will no longer perform as intended. Damaged bumper reinforcements require replacement.

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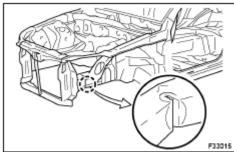






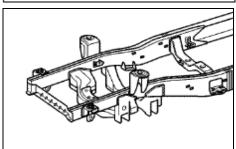
#### HIGH STRENGTH & ULTRA HIGH STRENGTH STEEL (HSS & UHSS) OCCUPANT CABIN REINFORCEMENT REPAIR IS PROHIBITED

HSS & UHSS occupant cabin reinforcements are designed to absorb, channel, and dissipate collision energy and perform at 100% strength in their original shape. However if they are damaged and repaired, they will no longer perform as intended. Damaged HSS cabin reinforcements require replacement.



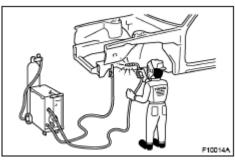
### WHEN TO REPLACE DAMAGED BODY AND FRAME COMPONENTS

Body and frame deformations that cannot be returned to original shape by pushing, pulling, or hammering (known as cold straightening) are classified as 'kinks'. Kinks require component replacement. Deformations that can be returned to original shape by cold straightening methods are classified as 'bends'.



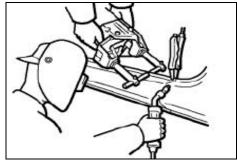
## FRAME COMPONENT REPLACEMENT IS LIMITED TO NEW GENUINE OE SERVICE PARTS ONLY

Welded components may be installed using Gas Metal Arc Welding/Metal Inert Gas (MIG) techniques. Use ER70S3 welding wire. Ensure proper weld settings and penetration with practice welds. Do not weld over factory weld beads. Be sure to clean effected repair surfaces and apply epoxy primer and matching topcoat.



# BUTT JOINT WITHOUT BACKING IS THE APPROVED CUT AND JOIN WELDING METHOD

Sleeves and inserts will have a negative effect on crash energy management designs. Therefore, butt joint without backing is the only approved welding method unless otherwise specified. Ensure proper root-gap, weld settings, and penetration with practice welds. Adhere to specified cut and join locations.



# ALWAYS OBSERVE THE FOLLOWING ELECTRIC WELDING PRECAUTIONS

Before performing any electric welding, turn off the ignition, disconnect the negative terminal of the 12V battery, remove any ECU's within 18 inches of weld sites, and disconnect the main SRS computer connector, waiting 90 seconds before start of welding.

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