“B” Pillar Replacement

Technical Committee

Chicago, Illinois

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Front Car Crash
What happens if the air bag timing is changed by a few milliseconds.
Roll Over Crash Test
Side Impact Crash Test
The Affect of Heat on Advanced Steels.

Use Of Heat Demonstration
Heat Affected Zone
FMVSS 216 Roll Over Testing

Figure 1. Test Device Orientation
Removal Process taken from TIS (Toyota Information Service)
OEM Data

METHODS NOT RECOMMENDED
- Weld-On Pulling Arms
- Stress Relief Holes of Accessory Windows
- Seating at Non-Specified Locations
- But Joint VAV Bypassing (Slavens)
- Insulating Genuine LCM Pass
- Adhesive Use Where Not Specified
- Panel Bending and Weld Bending

Instructor facilitated hands-on training information is available at www.techinfo.toyota.com. All permanent collision repair specifications and precautions are covered in-depth during the following training courses:
- Course #961 Non-Structural Body Repair Training
- Course #460 Structural Body Repair Training

Collision Repair Information Bulletins can be accessed at www.techinfo.toyota.com. Refer to the following bulletins for more detailed information on approach collision repair topics and precautions:
- CRB #122 Full Body Sectioning
- CRB #156 Body & Frame Sectioning
- CRB #157 Collision Parts Position Statement
- CRB #158 Panel Adhesive
- CRB #161 Collision Damage Repair Precautions
- CRB #172 Bumper Component Repair
- CRB #174 Welding Prefs. UHSS
- CRB #175 HSS & UHSS Occupant Cabin Reinforcement Repair & Replacement

PLEASE ROUTE THIS BULLETIN TO YOUR COLLISION REPAIR CENTER MANAGER AND COLLISION REPAIR TECHNICIANS
2009 Toyota Camry
2009 Toyota Camry with doors removed
A 3 Dimension electronic measuring system is set utilized to determine extent of side damage to rocker.
Dimensions after pulling to correct structural misalignment
Upper body measurements are taken to determine position of “B” pillar.
What is this notch on the "B" Pillar?

Answer: It is a reference point to measure the width of the vehicle.
Replacement part is fitted to the vehicle and its position is marked.
Location for access window is marked.
Cut the roof panel and center post, drill out spot welds & remove. Remember to save this part.
The upper “B” pillar reinforcement is now exposed.

Note: location of Urethane foam
Factory Spot Welds to be removed as per the repair manual are marked & cleaned.
Drill out the spot welds and separate the panels.
Remove spot welds from outer rocker reinforcement & separate to 2 panels.
The repair manual needs a little more detail for the removal process of the outer rocker reinforcement. The “B” pillar should have been removed with the rocker intact.

These 4 welds are only accessible if the outer Rocker reinforcement is also removed.
The E-Coat is removed from all mating surfaces.
Weld Thru primer is applied to all mating surfaces as per Toyota Repair Manual.
The thickness of the metal was taken to properly set the resistance spot welder.
A practice weld was performed, but failed the destructive test.
The amperage was increased and a good tear out was achieved as per the factory repair manual.

Note: The same thickness metal with weld thru primer was used.
Install inner “B” panel reinforcement.

Test fit the inner “B” panel reinforcement.

Weld inner “B” panel to the outer rocker Reinforcement.

Apply epoxy primer to the bare metal on the inner “B” panel.

Weld upper “B” panel to the roof.
Outer Rocker Reinforcement Installation.

Weld seam with an open butt weld.

Dress all the welds.

Apply Epoxy primer To all bare metal.

Make a test MIG spot weld & destructive test.

Plug weld lower rocker panel in flange area.
Set “B” pillar reinforcement in place, mark plug weld locations, and measure according to Toyota Repair Manual.
MIG Weld & Resistance Spot Weld as outlined in the Toyota Repair Manual
Apply Weld Thru Primer & Foam as outlined in the Toyota Repair Manual.
The original roof access panel is installed & welded using an open butt joint weld (no backer).
Outer Rocker & “B” Pillar installation.
Outer Panel Cut & Join Method
Tack Weld outer panel together.
Final Repair Process Procedures.

- Resistance spot weld outer “B” & reinforcement panel to vehicle
- Dress welds
- Apply epoxy primer to all bare metal.
- Apply body filler
- Refinish