



TECHNICAL BULLETIN 119

Subject: Surface Mounted Expansion Joint Cover Challenges
(POSTING DATE: 10/10/12)

Surface mounted expansion joint covers are not considered as good as recessed systems - why?

Surface mounted expansion joint slide plate covers are subjected to repeated vehicular impact loads that are significantly more severe than systems that are recessed flush with the concrete deck surface. The photos below illustrate how surface mounted covers tend to exhibit premature wear and in some cases complete failure due to the blunt force direct impact on the cover itself and associated system components such as anchors and centering bars.



**Anchor Bolt Failure
with Missing Covers**



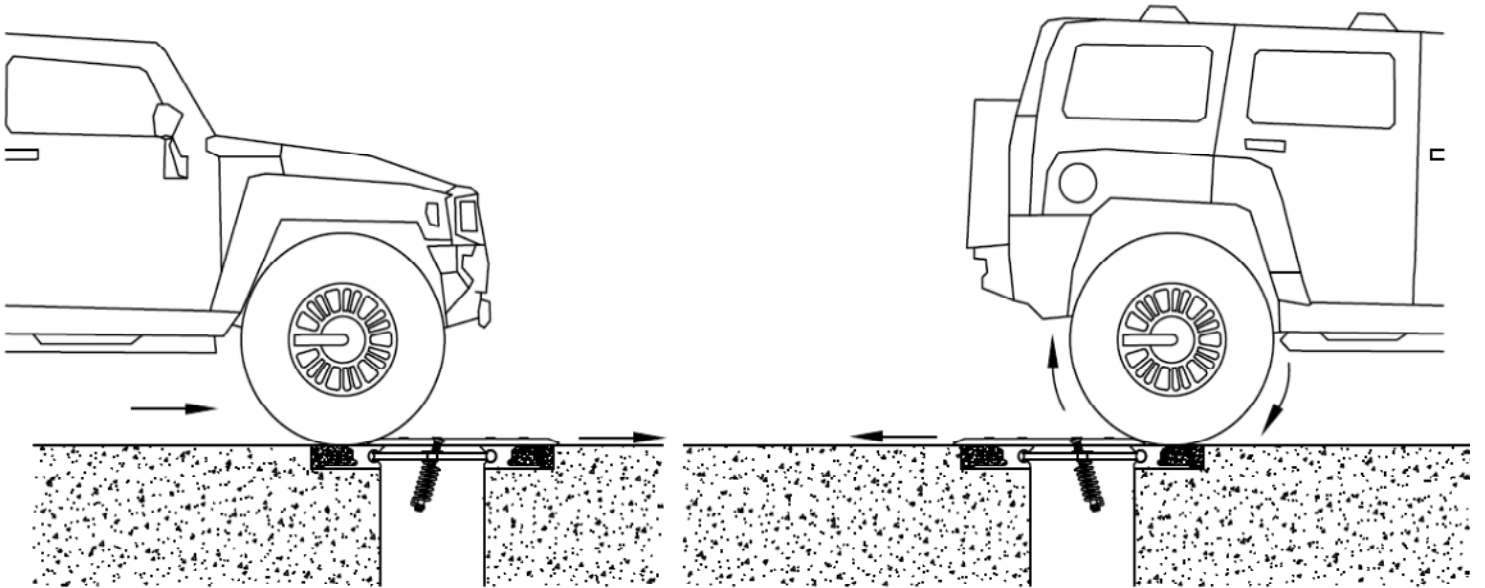
**Complete Cover Plate Failure
with Public Safety Concerns**



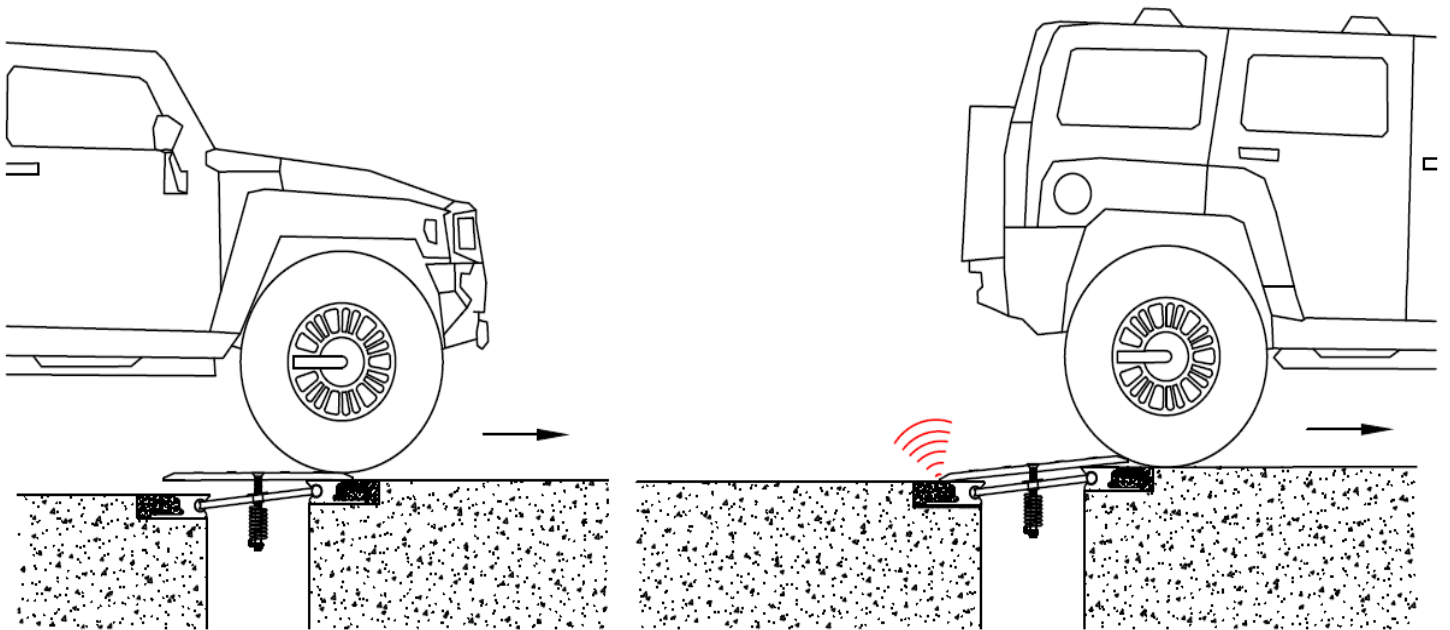
**Centering Bar Failure
with Side Anchors Added**

The illustrations on page 3 provides a clear representation of why failure occurs and how to remedy the situation by selecting expansion joint systems as shown on page 4 that are engineered to accommodate the service conditions and vehicular impact loads.

SURFACE MOUNTED EXPANSION JOINT COVER CHALLENGES

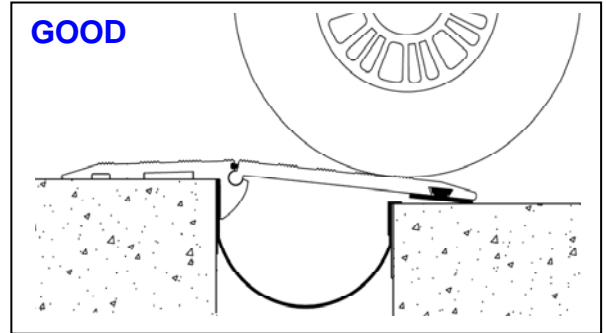
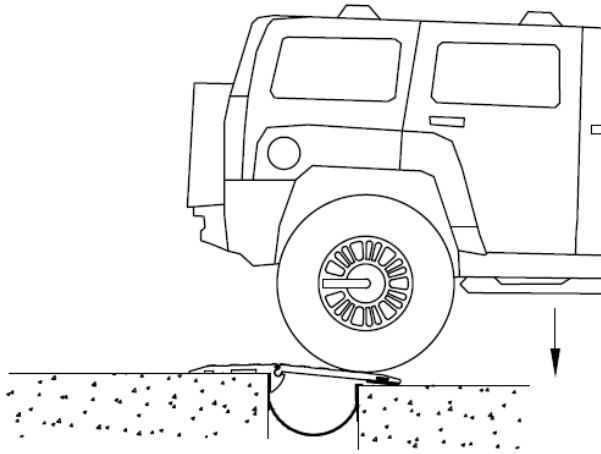


Automobile Impact Loads Cause Component Fatigue & Premature Failure



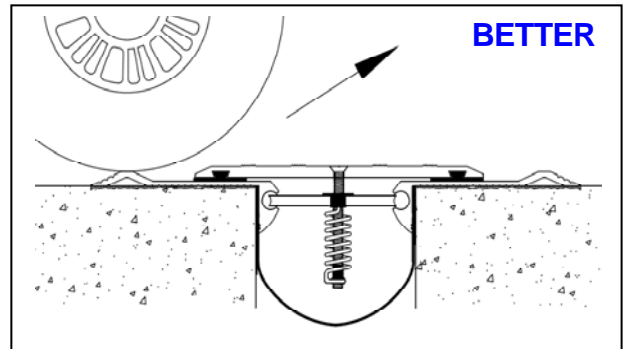
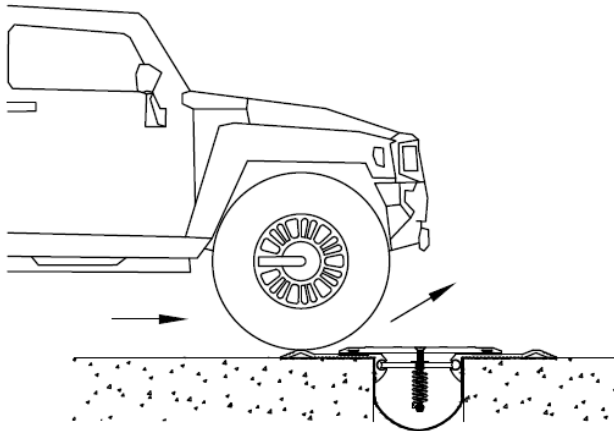
Deck Elevation Variances Lead to Loud Clanging & Fatigue on Surface Covers

EXPANSION JOINT COVERS ENGINEERED FOR VEHICULAR IMPACT LOADS



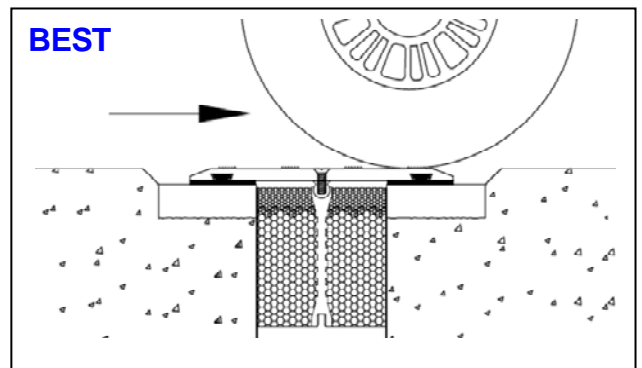
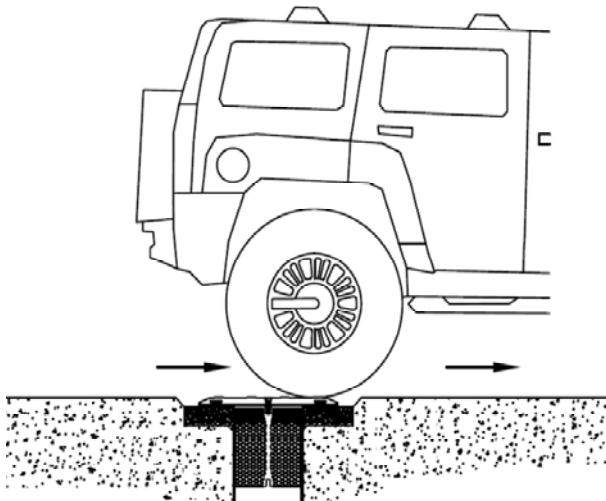
GOOD

Hinged Safety Covers accommodate Vertical Deck Deflection (HSC & RSC Series)



BETTER

Tire Impact Deflectors Protect Slide Plate Covers (SMS Series)



BEST

Recessed Systems Provide Quiet Ride utilizing Rubber Impact Dampers (SHD, SSP, SSS Series)

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