

Q&A Report: Bridge Bearing Maintenance

Last Name	First Name	Question Asked	Answer Given	Answerer
Afrooz	Parviz	Any maintenance options for Isolation bearings?	Isolation bearings probably come with a maintenance manual.	Jason DeRuyver
Chen	Zhang	Can you compare a steel extension with a concrete pedestal?	Steel versus concrete pedestal could be driven by the substructure design	Jason DeRuyver
Clark	Lana	how long will last the elastomeric bearing pads?	Elastomeric Bearings should last the life of the structure.	
Espinoza Lopez	Raul	how difficult was to install the reinforcement for the concrete pedestal on the last example? vertical bars		
Hanna	Dahlia	Can the roller bearing every slide out?	The non-nested could under seismic. Over time, and kind of sliding bearing could also come out. I have seen sliding plates come out too.	Jason DeRuyver
Hooks	Hunter	Are there any special topics to consider when working on a pier of a continuous span? Particularly when access to the pier can only come from the bridge itself.		
Lanzone	Michael	Reach out to the anchor bolt manufacturer if bolts are bent.		
Marchegiani	Justin	Has stainless steel ever been used for masonry/bearing plates to eliminate corrosion?	Stainless is used with sliding plates. New bearings are elastomeric which do not corrode	Jason DeRuyver
Parker	Isaac	You have to lift the entire super structure at once? Is there a guide to calculating the thickness of elastomeric bearing plates	AASHTO s[ecofocations address bearing design, pad height, reinforcing and layers. Based on rotation and translation and vertical loads.	
Ringelstetter	David	What paint should I use?	Zinc rich primer will provide good protection	
Sakoutis	Larisa	If anchor bolts incounter rebar on existing Pier during bearing replacement. Can shorter anchor bolts be used?	Depends on the anchor bolt. If rebar is encountered, the engineer that sized the diameter and depth of the rebar would need to check.	Jason DeRuyver
Sakoutis	Larisa	New bearing are so much bigger than existing.		
Sakoutis	Larisa	There is maximum height a bridge can be jacked up. Do you need 2 dimentions to position new bearing?		
Sarayloo	Mehdi	What do you do for the anchor bolts that are bent if you don't want to replace them? Is it possible to make them straight? what about having anchor bolts short (not enough to have anchor bolt project beyond the nut) and again don't want to replace them.	Heat to straighten, extend by qualified weld	

Sarayloo	Mehdi	What do you do for an anchor bolt with damaged threads if you need to replace the anchor nut?	if possible run a thread chaser or build up extend with qualified weld and thread.	
Smith	Justin	Thanks		
Thomsen	Anna Karina	What is the maximum height a bridge can be jacked up?	Bearing maintenance only needs 1/16 inch to 1/8 inch.	Jason DeRuyver
Thomsen	Anna Karina	What is the approximate time needed to replace 10 bearing and bearing plates?	Lots of variables to consider. Material lead time. What type of temp supports need to be installed. Crew size. Probably once you have material and temp supports in place, a couple of days.	Jason DeRuyver
Vandermeer	Drew	Bridge repairs are priority, but traffic is definitely a huge factor, if decision for no traffic control, how do you dictate repair practices since time is an unknown factor. Case by case I imagine, or what argument for "proper" techniques. How often does traffic control your work.	Traffic is significant factor. Performing work on bearings under traffic has inherent risk that must be considered.	
Walker	Norman	How did you prevent the elastomeric bearings from floating. May vibrate excessively.	For floating bearings jacking and shimming is recommended.	
Yanez Sanchez	Daniel	The elastomeric pads could walk out even without seismic events. We had some of those cases in Nova Scotia (not a seismic zone).	Yes. Thank you for sharing	Jason DeRuyver
olague	jose	Can you torch out the existing anchor bolt and epoxy a new one in?		
truchement	thomas	How do you replace the middle PTFE spherical bearing in a bridge hinge where access is limited? (Only Access from the side)		
truchement	thomas	How do you replace the middle PTFE spherical bearing in a bridge hinge where access is limited? (Only Access from the side)		