Tool and Equipment First-Round Winner

Innovations Challenge

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Prepared by Transportation Planning Missouri Department of Transportation

TMA Bed Pin Holders for Tailgate Mounted TMA's





Description

The TMA bed pin holder consists of two brackets on either side of the lift cylinder on the bed. A hole is simply drilled through the bracket and the bracket of the lift cylinder, and a pin is inserted to hold the bed down after mounting the TMA. (See design plans on the back of this page)

Benefit

The TMA bed pin holders increases safety in this area by not having anything in the bed moving around or potentially fly out, in case the TMA were to be struck while protecting the work zone. It also saves having to climb in and out of the bed thus reducing slips, trips and falls. It saves the equipment from damage. Another way we have tied the bed down was wrapping a chain over top of bed rails and chaining it to the frame of the truck. This caused the chain to dig into the bed rails and allowed rust to form and eventually decay the bed. These pin holders allow us to do away with the chain completely and increases the life of the bed. Safety without this chain also increases. The chain does loosen over periods of time allowing the bed to rise slightly, causing the rear of the TMA to potentially dig into the ground causing damage to it. The chain could have loosened enough and fly off striking passing cars, or wrapping around the driveline causing serious damage to the truck.

Materials and Labor

The cost of materials is \$19.70 and total amount of time is about 4 hours.

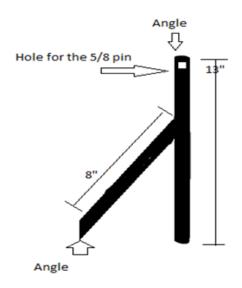
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Additional information, photos or videos can be seen by accessing Innovations Challenge SharePoint page at: http://sharepoint/systemdelivery/TP/Documents/InnovationsChallenge.aspx



SHOP DRAWING





Bracket that mounts on lift cylinder frame