BOX STAND SUPPORT DEVELOPMENT FOR MULTIPURPOSE PICK UP TRUCK

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Abstract

Multipurpose pick up truck is a vehicle that can be combined with four multi purpose boxes, which function can described as passengers carrier, harvest goods transporter, market transaction, and as a rice paddy processor’s transporter. The multi purpose box’s prototype was made by PT. Karya Tugas Anda has been moved to final installment process, but by evaluation stage it’s still need to refined. The box is too heavy so it’s mounting are not stable enough to hold it. So by that cause, it’s still need to be refined. Research’s step to be done are doing field inspection to get the problem, and then make list of requirement and after that doing the development of box stands. By doing so, it can be taken is it enough to have the already altered dimension of parts or it’s still need to refined again. Conclution was taken after the research finished. From study or research of box stand support for multi purpose pick up truck vehicle the thickness of box stand holder need to be added 4,5mm, diameter of locking bolt 20 mm, and added supporting parts in v shape that can be split and closed in the middle of box. V support parts can decrease the equivalent stress up to 35,59% so that the plan was safe for initial set up. The maximum deflection are decreased up to 87,87% from initial condition and doing the redesign for box and rematerializing using mild steel can decrease the weight by 10,91%.
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