

ABSTRACT

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THE PROCESS OF MAKING TRUSTLE BAILEY LOCK PINS USING AISI 4340 MATERIAL AT CV. SUTECHINDO JAYA PRESISI

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(xiii + 37 + Attachment)

Steel frame bridge (Bailey Bridge) is a high quality light steel bridge that can be easily moved (moved) as needed, and basically used for temporary emergency bridges. This steel bridge structure has a system length of 3 to 4 meters per panel and the bridge span is a multiple of the length of each bridge panel. This steel bridge (Bailey Bridge) is also very important to support the construction of the Lau Simeme Dam. One of the components on the steel bridge is the Trustle Bailey Lock Pin. The function of the Trustle Bailey Lock Pin is to connect between panels on the bridge. The manufacture of this Trustle Bailey Lock Pin uses AISI 4340 material. AISI 4340 steel is a low alloy steel with a carbon content of 0.42 – 0.50%. The process of making a Lock Pin Trustle Bailey first prepares the material before doing the work. The manufacture of the Bailey Trustle Lock Pin uses AISI 4340 Steel material which includes low alloy steel. The process of infeeding the workpiece with carbon steel material where the workpiece is carried out is the cutting process, namely cutting from the initial length of 12 m to 213 mm. After that, the turning process, namely the machining process for the infeed process of the workpiece where the incision is made by rotating the workpiece, in this process a lathe is carried out from an initial length of 213 mm and an initial diameter width of 70 mm, turned to 60 mm, 48.6 mm and 40.6 mm. Where there are also calculations, namely the lathe rotation speed of 77.34 rpm, the speed of the tool shift is 15.46 mm/minute, and the turning time is 13.13 minutes. Milling process where this process makes holes that can be done with drill rods with hole diameters of 25 mm and 6 mm. The grinding process is part of the finishing process which is used to remove parts of the workpiece that are uneven. And finally, Quality Control is carried out to visually check and measure using a caliper, whether or not an item is produced.

Bibliography (2018 to 2022)