ABSTRACT

AN ANALYSIS OF STEEL-TRUSS ARCH BRIDGE’S CONSTRUCTION TYPE A-HALF THROUGH ARCH

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Indonesia is an archipelago country, thus bridge has an important role to bridge islands. It needs artistic long-extending with light materials bridges; therefore the arc steel truss bridge can be an alternative to solve the problem. This research, the writer focused on arch bridge type a half through arc.

The bridge is design 120 m, span and 12 m, height with a transverse dimension of the vehicle floor complete with sidewalk is 11 m to 2 lanes 2-way with pavement width of 1 m. Loading calculations used in the planning of the bridge is based on the regulation BMS 1992 and RSNI T - 02-2005 and calculation of the power structure refers to RSNI T - 03-2005 and SNI 03-1729-2002.

The results of the study are obtained composite vehicle floor plates, with a reinforced concrete slab thickness of 250 mm. Transverse girder and longitudinal girder using iwf.900.300.28.16 iwf.400.200.8.13 with BJ 55. The connection between the transverse girder and longitudinal girder using bolts with A325 quality with a diameter of 25 mm with 10 mm thick plate BJ 34. The main structure of the arc in the form iwf.400.400.13.21. The main structure connection using bolts with A325 quality with a diameter of 30 mm with 25 mm thick plate BJ 50.

Keywords: bridge, A-Half Through Arch, steel