

Wheeled Grout Box

SALINE COUNTY

Entry Submitted by: Saline County Highway Superintendent Bruce Filipi

Problem Statement: Saline County constructs many of their bridge structures using pre cast deck panels also referred to as slab deck bridges in Nebraska. After the pre cast panels are set into place there is a construction joint between each panel that has to be grouted (filled). Grouting the length of joints were labor intensive using a wheel borrow, shovels, and hand floating each joint.

Solution: Realizing the need to make grouting slab joints easier; Saline county employee designed and built the grout box. It is fabricated from scrap steel and the only purchases were the 4 – 10” pneumatic utility tires from Northern Tool and Equipment. The hopper box is approximately 24” X 18” X 13” deep with a 4” outlet. Behind the outlet is a 6” V strike to spread and smooth the laid grout.

Labor, Equipment and Materials: Employee time about 12 hours in fabrication. Most all steel for project was scrap and on hand material including the 1 and ¼ tubing. Hopper box material was bent and rolled at an employees home shop. 4.10 X 350 tires @ \$15.00 each. Estimated project was well under \$100.00 plus labor.

Savings & Benefits: The Grout Box has been utilized on many newly constructed bridges since it has been fabricated, it fills and smoothes the joints quite neatly basically eliminating any hand troweling or cleanup. The Grout Box has reduced labor hours as well as physical labor in slab grouting.

If you wish to have more pictures or would like more information contact Nebraska LTAP Bob Hyberger.

