

North Fork Bridge
(KY 539 Bridge)
Spanning North Fork of Licking River
Milford Vicinity, Kentucky
Bracken County

HAER No. KY-2

HAER
KY
12-MILF.V,
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

HISTORIC AMERICAN ENGINEERING RECORD

NORTH FORK BRIDGE
(KY 539 Bridge)
HAER KY-2

HAER
KY
12-MILEV
1-

Date: 1883

Location: Spanning the North Fork of the Locking
River near Milford, Kentucky

Built by: Smith Bridge Company of Toledo, Ohio

Owner: Kentucky Transportation Cabinet
Frankfort, Kentucky

Significance: The North Fork Bridge is the oldest dated
Pratt through truss bridge in Kentucky,
and one of two built by the Smith Bridge
Company in the state of Kentucky.

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Transmitted by: Monica E. Hawley, Historian. 1984

KY 539 BRIDGE OVER NORTH FORK LICKING RIVER

The KY 539 highway bridge crosses the North Fork of the Licking River in Bracken County, Kentucky and has been determined eligible to the National Register of Historic Places (9/30/82). Bracken County is located in north-central Kentucky with the Ohio River forming its northern boundary. KY 539 is a two-lane rural secondary road and the Licking River is a major drainage basin in northeast Kentucky.

The KY 539 bridge is a one-lane metal truss bridge. The structural configuration of this truss identifies it as 115 feet in length and 16 feet in width. This bridge was constructed in 1883 by the Smith Bridge Company of Toledo, Ohio.

The KY 539 bridge is located in a serene rural setting of rolling terrain and broad alluvial plains of the Licking River. This one-lane structure has a vertical clearance of 15 feet and is posted for a 4-ton load limit.

The KY 539 Bracken County bridge has end posts and top chords that are constructed of 2 channels, cover plate, and stay bars. The compression posts are two channels and two sets of lacing bars. The tension members are less rigid bars with eyes for pin-connected panel points and are referred to as eyebars. The main tension members on the

KY 539 bridge are as follows: bottom chords are 2 rectangular die-forged eyebars, hip verticals are 1 loop-welded round eyebar, diagonals are 2 square loop-welded eyebars, and the counters are single round loop-welded eyebars with sleeve-nuts for field adjustment.

The floor system of the KY 539 bridge has riveted girder floor beams with floor beam hangers at each panel point. Stringers between the floor beams are wood beams measuring 1 foot by 4 inches. The deck rests on the stringers and the bituminous roadway surface covers a corrugated metal base. The substructure of the bridge consists of two stuccoed stone abutments with concrete caps.

Due to the pre-1885 construction date for this structure, the metal members are probably wrought iron. A stamp on the channels of some compression members identifies the Carnegie foundry as a supplier of materials for bridge construction.

The "Survey of Truss, Suspension, and Arch Bridges in Kentucky" completed in January, 1982, located 134 Pratt through truss bridges in the state. Seventy-eight percent of these structures, including the KY 539 bridge, are pin-connected. Most of the Pratt through trusses were constructed before 1920. Sixty of these trusses have identifying builder/date plates representing the work of 12 separate bridge builders or companies. The Smith Bridge Company of Toledo, Ohio built two extant Pratt through trusses in

Kentucky. Constructed in 1883 by the Smith Bridge Company, the KY 539 Bracken County span is the oldest dated Pratt through truss in Kentucky.