

IART 045
**Heat-Straightening Repair of Damaged Steel Bridge Girders: Fatigue and Fracture
Performance – NCHRP Project 10-63**

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Abstract

The objectives of this study are to: (1) determine the relative effects of damage and subsequent heat-straightening on the fatigue and fracture performance of steel girders; (2) identify and quantify the material and process parameters that may affect the fatigue and fracture performance of heat-straightened steel girders; and (3) establish guidelines, including limits on initial damage and critical process parameters, to minimize the potential for fracture and fatigue problems in heat-straightened steel girders. Partner organizations include High Steel Structures (PA), PennDOT (PA), and NJDOT (NJ).