



## REVERSE ENGINEERING WITH A BANG! WE RESTORED THIS 1891 WW1 GERMAN KRUPP CANNON TO BE BACK ON DISPLAY IN HENRY COUNTY MEMORIAL PARK WHERE IT HAD BEEN FOR NEARLY 100 YEARS...

**Client:** Henry County Historical Society, **Contact:** Gene Ingram

**Project:** Restoration of 1891 220 millimeter German Krupp Cannon that was originally built for the Belgian army, then captured during World War 1 and brought to the US. It was presented to Henry County Park upon opening, to be featured permanently.

**Objective:** To repair, restore, and replace materials on cannon where necessary to recreate structural integrity with an authentic-original appearance.

### PROJECT SUMMARY

In March of 2014, Henry County Historical Society's Gene Ingram noted extensive deterioration of 1891 German Krupp Cannon, and the group had it removed from the hillside of Henry County Memorial Park (where it had sat for nearly 100 years).

**Our team was asked to assist with a solution for repairing the cannon.** 100 years of weather had taken its toll on the historic cannon, and under the leadership of a committee consisting of Gene Ingram, Randy Neal and Kirk Robbins, Magna Machine and Tool agreed to provide the labor, equipment, time and materials for necessary repairs.

**On August 11, 2015, the wheels (each weighing approximately 2,000 lbs.) were delivered to Magna.**



#### Steps and processes implemented to restore the cannon's wheels included:

- Initial cleaning to assess needs of cannon's wheels. Careful sandblasting of wheels was performed by Randy's Sand Blasting (Mechanicsburg, Indiana).
- After discovering the "hot riveting" used originally on the wheels, **our design team was challenged** to provide a viable solution for replicating the look of the process without actually hot riveting the wheels. **Our solution was to weld a "button" on to the wheel. This achieved the hot-riveted appearance.**
- Angle iron and channel steel were among the materials used to recreate the wheels. Waterjet cutting was implemented to cut the curvature pattern for the heating and bending of layered sheet steel, matching the original thickness of the wheels.

*(cont'd on next page)*

### MACHINING

*CNC Machining*

*Manual Machining*

*Wire EDM*

*3D Printing*

### DESIGN

*Automated Equipment  
Design & Manufacturing*

*Turnkey General Design  
& Manufacturing*





# RESTORE, REBUILD, REFINISH, REPLACE: 1891 WW1 GERMAN KRUPP CANNON TO BE BACK ON DISPLAY IN HENRY COUNTY MEMORIAL PARK WHERE IT HAD BEEN FOR NEARLY 100 YEARS... (cont'd)

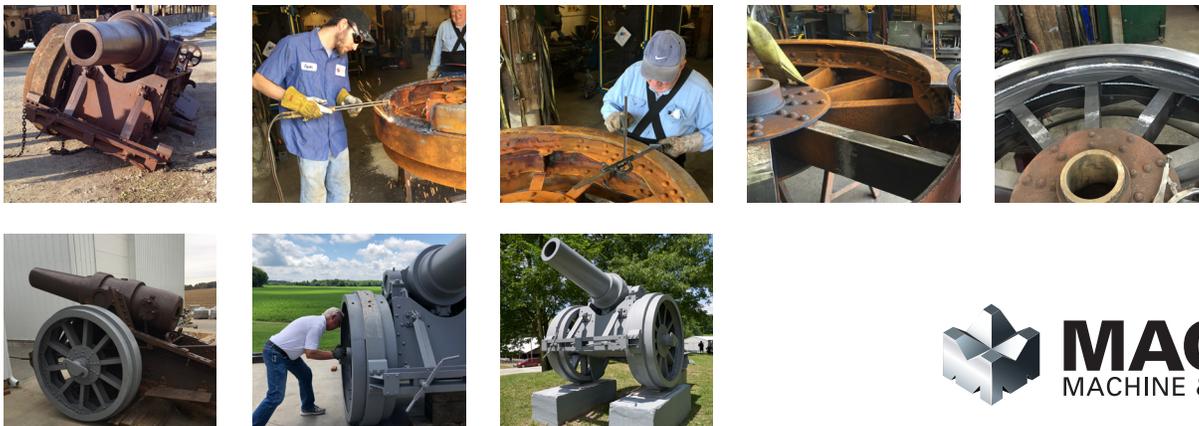
**Other key facts about this historic cannon restoration project:**

- In the Spring of 2017, the cannon body was delivered to Magna
- From March through July, 2017, Magna sandblasted, cut and repaired with the objective of restoring the cannon's original appearance.
- The inside of the cannon barrel was cleaned with a goal of removing enough debris to make it operational again.
- The original fuse hole was filled with rust and unable to be used.
- The Magna team drilled a new fuse hole at the top of the cannon.

*On June 27th, 2018 the cannon was fired again, for the first time in nearly 100 years at Magna Machine and Tool's facility in New Castle, Indiana. This firing actually cleaned out the original fuse hole, to make it functional again.*



*On July 4th, 2018, the cannon was fired again at its rededication in Henry County Memorial Park!*



**MACHINING**

- CNC Machining*
- Manual Machining*
- Wire EDM*
- 3D Printing*

**DESIGN**

- Automated Equipment Design & Manufacturing*
- Turnkey General Design & Manufacturing*