

PH 0699756

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

SEE INSTRUCTIONS IN HOW TO COMPLETE NATIONAL REGISTER FORMS
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC

Corliss Steam Engine

AND/OR COMMON

2 LOCATION

STREET & NUMBER

Pawnee County Fairgrounds

— NOT FOR PUBLICATION

CITY, TOWN

Pawnee

— VICINITY OF

CONGRESSIONAL DISTRICT

No. 1

STATE

Oklahoma

CODE

40

COUNTY

Pawnee

CODE

117

3 CLASSIFICATION

CATEGORY

- DISTRICT
- BUILDING(S)
- STRUCTURE
- SITE
- OBJECT

OWNERSHIP

- PUBLIC
- PRIVATE
- BOTH
- PUBLIC ACQUISITION**
- IN PROCESS
- BEING CONSIDERED

STATUS

- OCCUPIED
- UNOCCUPIED
- WORK IN PROGRESS
- ACCESSIBLE**
- YES: RESTRICTED
- YES: UNRESTRICTED
- NO

PRESENT USE

- AGRICULTURE
- MUSEUM
- COMMERCIAL
- PARK
- EDUCATIONAL
- PRIVATE RESIDENCE
- ENTERTAINMENT
- RELIGIOUS
- GOVERNMENT
- SCIENTIFIC
- INDUSTRIAL
- TRANSPORTATION
- MILITARY
- OTHER:

4 OWNER OF PROPERTY

NAME

Oklahoma Steam Thresher Association ✓

STREET & NUMBER

CITY, TOWN

Pawnee

— VICINITY OF

STATE

Oklahoma

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE,
REGISTRY OF DEEDS, ETC.

Office of the County Clerk

STREET & NUMBER

Pawnee County Courthouse

CITY, TOWN

Pawnee

STATE

Oklahoma

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

Oklahoma Comprehensive Survey

DATE

1978

— FEDERAL STATE — COUNTY — LOCAL

DEPOSITORY FOR
SURVEY RECORDS

Oklahoma Historical Society, Preservation Office

CITY, TOWN

Oklahoma City

STATE

Oklahoma

7 DESCRIPTION

CONDITION

EXCELLENT
 GOOD
 FAIR
 DETERIORATED
 RUINS
 UNEXPOSED

CHECK ONE

UNALTERED
 ALTERED

CHECK ONE

ORIGINAL SITE
 MOVED DATE 1974

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Allis Chalmers Corliss steam electric generating plant appears today much as it did when built about 1912, except for the changed surroundings. A massive - and impressive - mass of black metal, the Corliss is approximately 25 feet long and 18 feet wide, weighs some 110 tons. Its flywheel alone is 12 feet in diameter and weighs ten tons. Its cylinder has a 20-inch bore with a 36-inch stroke.

The Corliss uses a "Reynolds" trip gear, perhaps the oldest and most widely used gear of its kind. A spring triggers the engagement of the hook and catch plate. An unusual feature of the Corliss is its use of a separate valve for steam and exhaust, providing for a natural system of drainage. There is also a space between the outer surface of the steam regulator and the inner surface of the boiler to prevent sudden and unequal pressure build-ups. The nuts and bolts of the Corliss are larger than a man's hand and must be adjusted with special tools. A large boiler provides the power to get the massive machine moving. It is still in good operating condition.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input checked="" type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)
		<input checked="" type="checkbox"/> INVENTION		

SPECIFIC DATES circa 1913

BUILDER/ARCHITECT G. H. Corliss, inventor

STATEMENT OF SIGNIFICANCE

"An athlete of steel and iron with not a superfluous ounce of metal on it!" exclaimed William Dean Howells before the centerpiece of Philadelphia's International Exhibition celebrating our nation's 100 birthday.

He was inspired to these words by the gigantic 700-ton Corliss steam engine that towered over Machinery Hall. When President Ulysses S. Grant and Emperor Dom Pedro of Brazil turned the levers on May 10, 1876, a festive crowd cheered as the engine set in motion a wonderful assortment of machines - pumping water, combing wool, spinning cotton, tearing hemp, printing newspapers, lithographing wallpaper, sewing cloth, folding envelopes, sawing logs, shaping wood, making shoes - 8,000 machines spread over 13 acres.

The monster steam engine was an appropriate symbol of the American future, for it heralded the dawn of what Daniel J. Boorstin, Librarian of Congress, has called (in a Bicentennial Essay, Time, January 17, 1977) "the Republic of Technology." Corliss engines were built to convert heat energy into mechanical work. Invented by G. H. Corliss in 1850, the Corliss proved so much more efficient than all previously built engines that it has been called the "Eighth Wonder of the World" and referred to as "the most significant advance in steam power since the era of James Watt."

Significance of the Corliss Steam Engine in Pawnee would seem therefore to be three-fold: (1) its position of pre-eminence in the history of American technology, (2) its role in the industrial development of Oklahoma, and (3) its survival as one of the country's few remaining functional Corliss Engines.

Direct from the factory the Pawnee Corliss was placed in the zinc smelter at nearby Blackwell, powering most of its electrically operated machinery. There it remained in service until 1973 when the plant - the city's biggest employer with some 1,000 workers - finally closed. The engine was disassembled and given to the Oklahoma Steam Thresher Association, which reassembled it - with the help of the original blueprints - in its

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Interview: Ted "Pappy" Crocker, Pawnee, OK, (8-25-78).
 Croft, Terrell, ed. Steam-Engine Principles and Practice. (New York: McGraw-Hill Book Publishing Co., Inc., 1922).
 Ripper, William. Steam-Engine Theory and Practice. (London: Green and Co., 1905)
 Patent Records: # 200,8148,8253.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY under one acre

QUADRANGLE NAME Pawnee, Oklahoma

QUADRANGLE SCALE 7.5 min.

UTM REFERENCES

A	1	3	7	1	1	9	0	0	4	0	1	8	3	0	0
	ZONE	EASTING		NORTHING			ZONE	EASTING		NORTHING					
C	1	4	6	9	7	9	5	0	4	0	2	4	4	5	0
E															
G															

VERBAL BOUNDARY DESCRIPTION

N/A

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
N/A			

11 FORM PREPARED BY

NAME / TITLE

Diane Everman

Kent Ruth, editor

ORGANIZATION

Oklahoma Historic Preservation

DATE

9/78

STREET & NUMBER

Oklahoma State University

TELEPHONE

405/884-5456

CITY OR TOWN

Stillwater

STATE

Oklahoma

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL

STATE

LOCAL

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

Larry E. Deupree M.D.

TITLE

DATE

2-20-79

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

5-7-79

ATTEST:

KEEPER OF THE NATIONAL REGISTER

DATE

May 7, 1979

CHIEF OF REGISTRATION

UNITED STATES DEPARTMENT OF THE INTERIOR
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CONTINUATION SHEET

ITEM NUMBER 8 PAGE 1

own building at the Pawnee County Fairgrounds.

The Pawnee Corliss no longer powers a battery of machines, as it once did. But it is fully operable. Each year at the Steam Thresher Show, it is started as a crowd pleasing demonstration. It still produces electricity and, given a large enough boiler, could once again take on the many chores for which ^{it} was built some 65 years ago.