

A Triad Relationship to Making A Hobby Safer

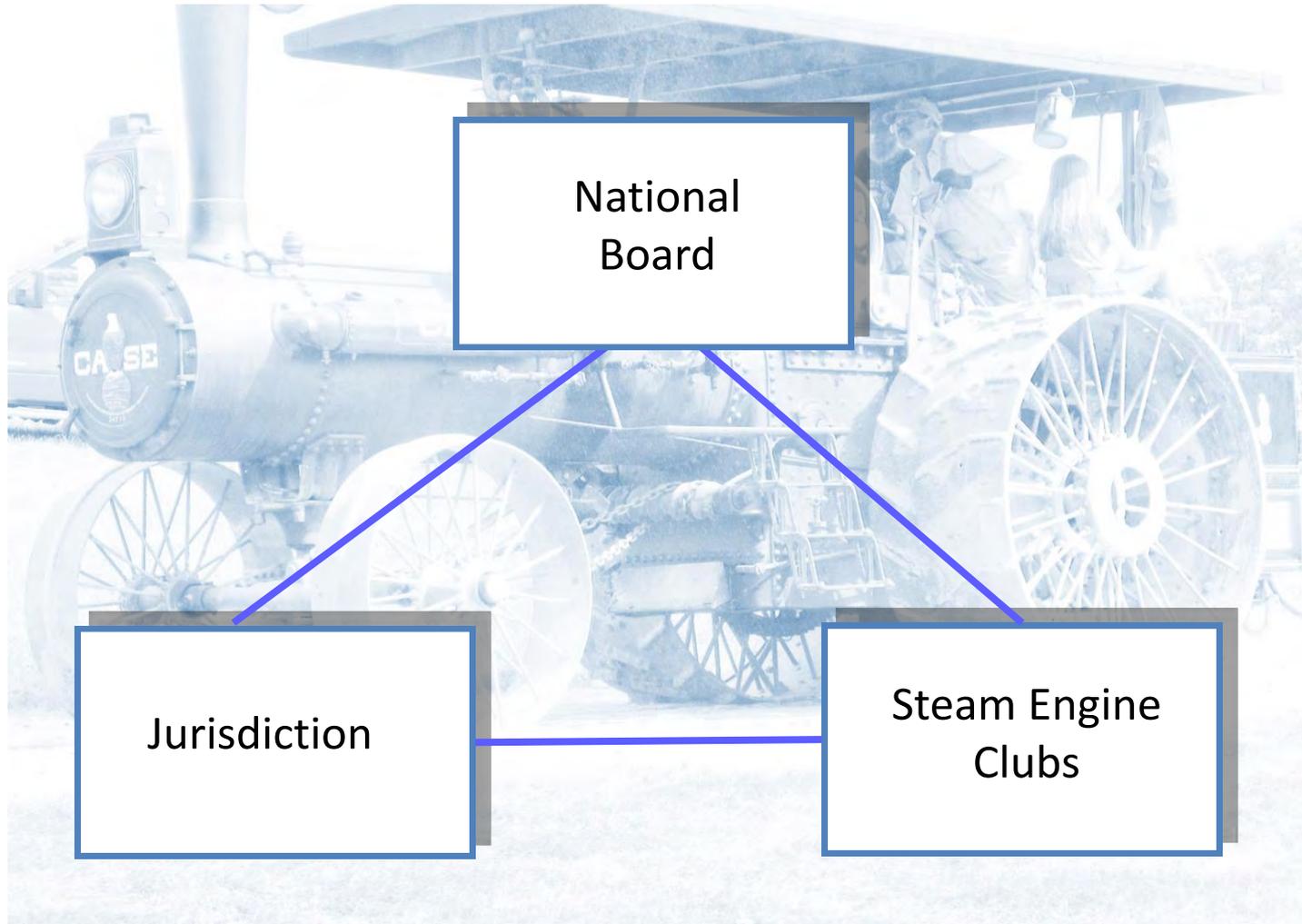
May 8th, 2017

Jon Wolf, Sr. Risk Engineering Consultant

Zurich Risk Engineering



Triad Relationship



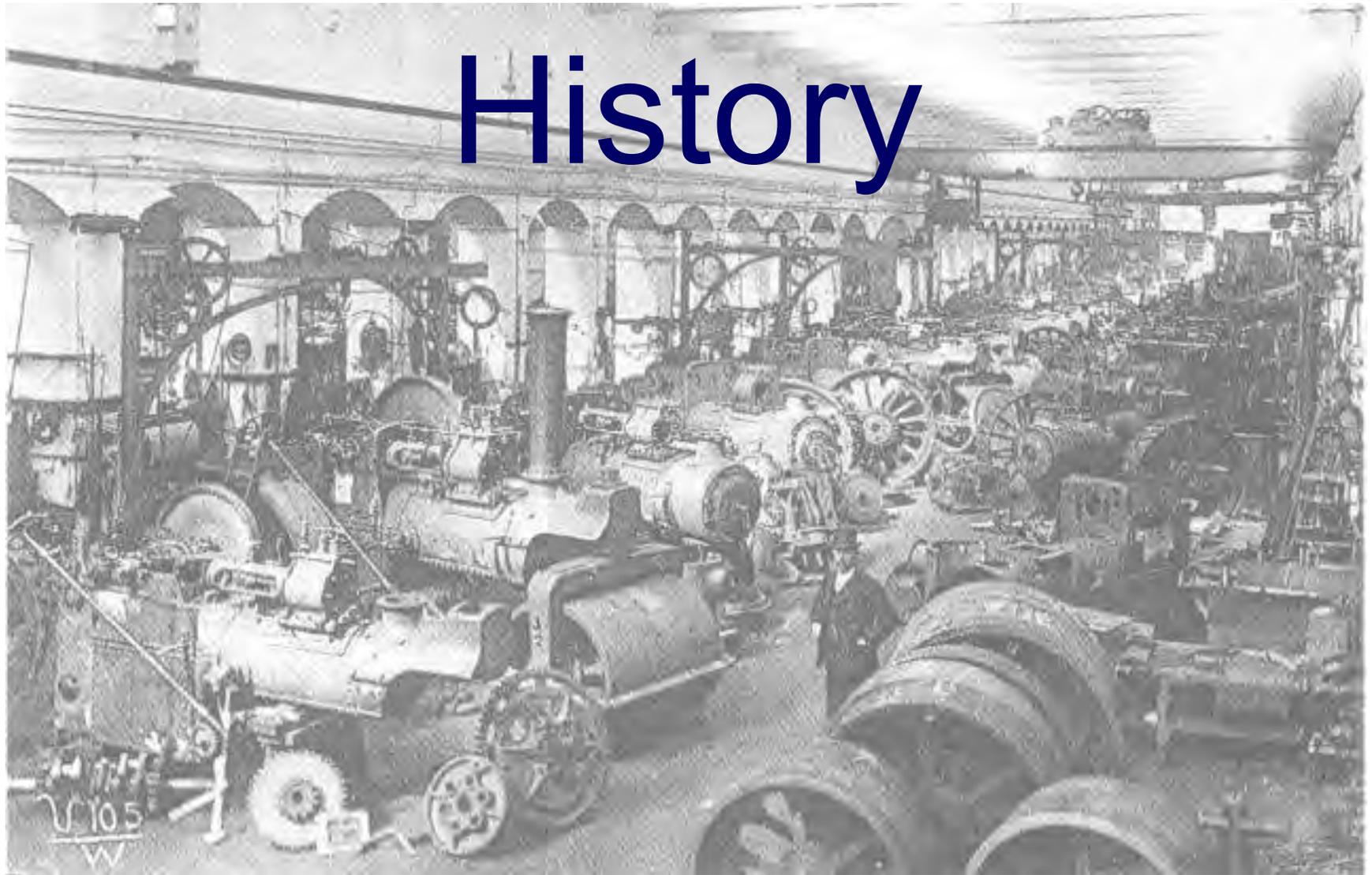


History

Preservationist Clubs

Jurisdiction

National Board



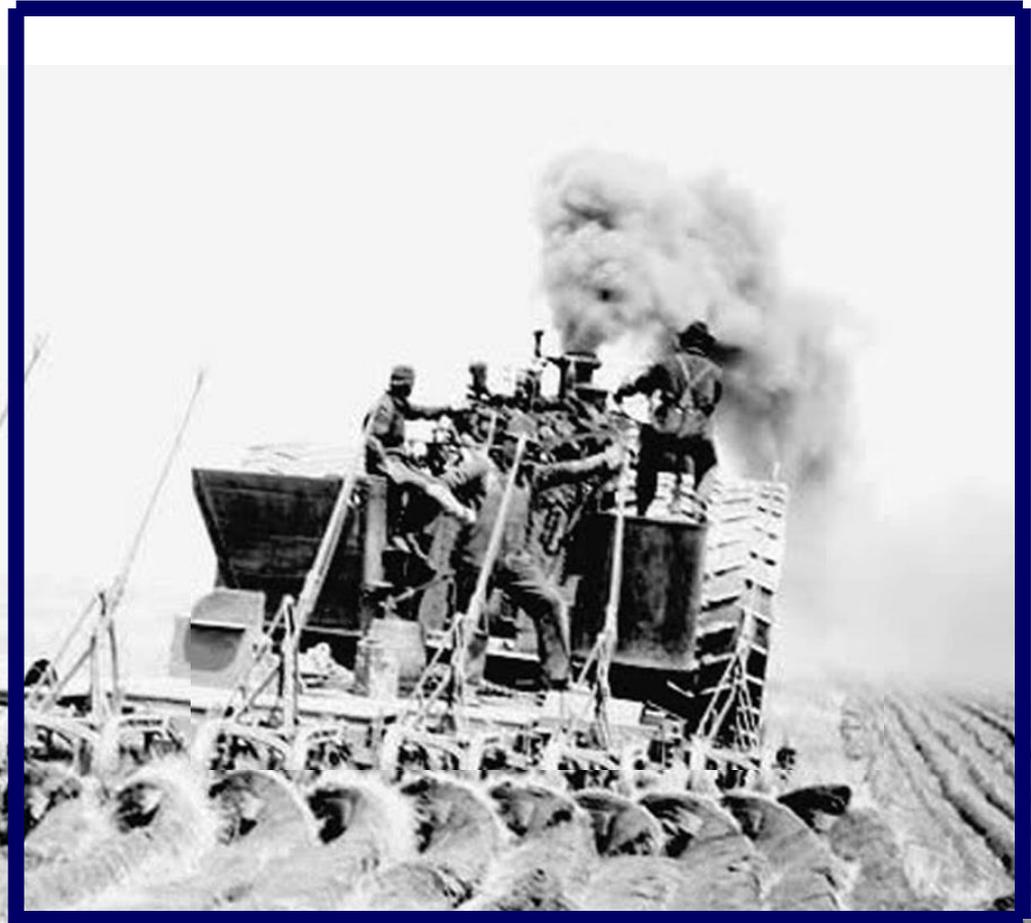
Industrial Age of Agriculture

There was no bigger jump in agriculture than animal power to steam power



Virgin Soil Being Tilled

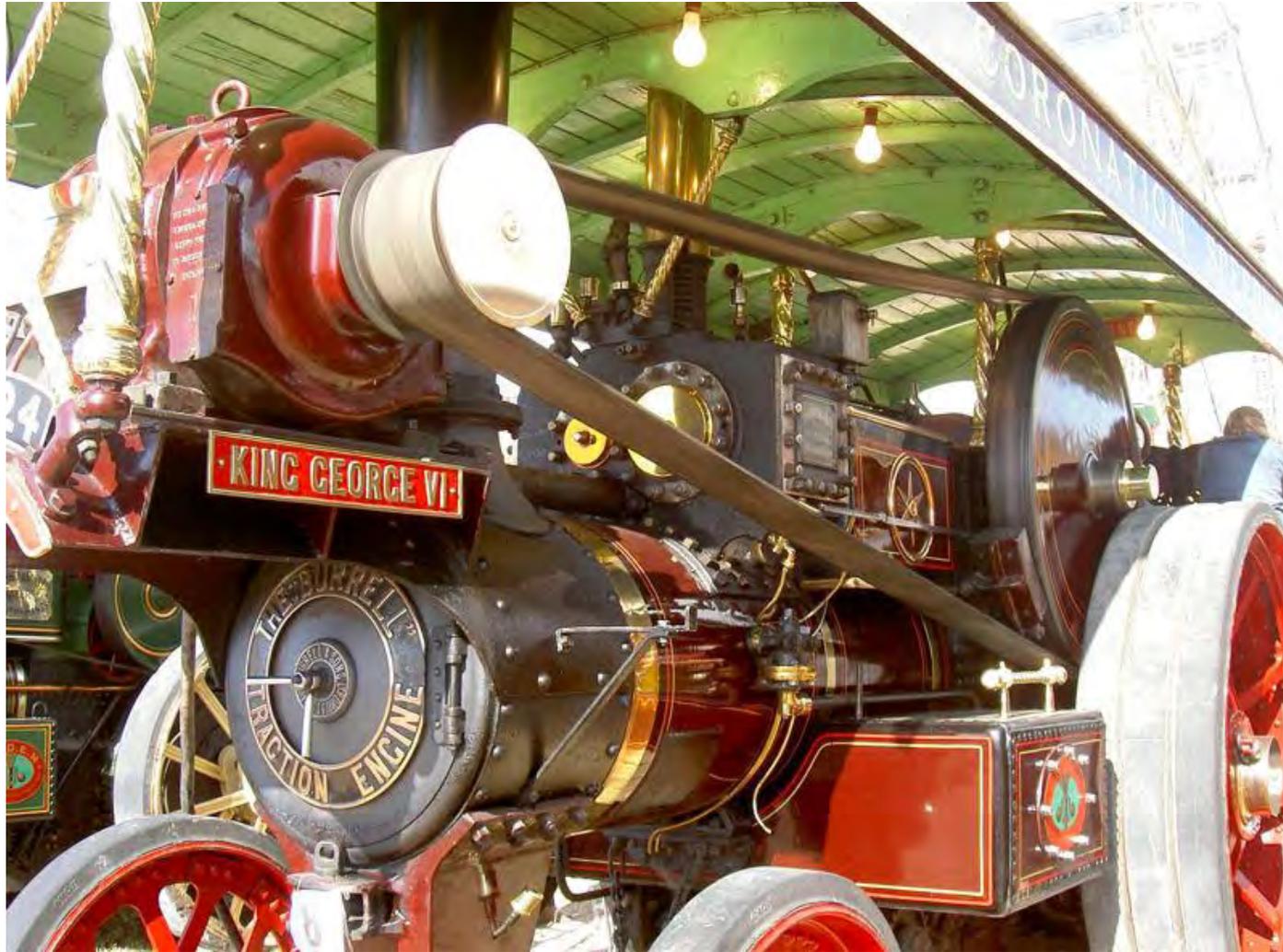
Fullerton, ND 1910 circa



© Z

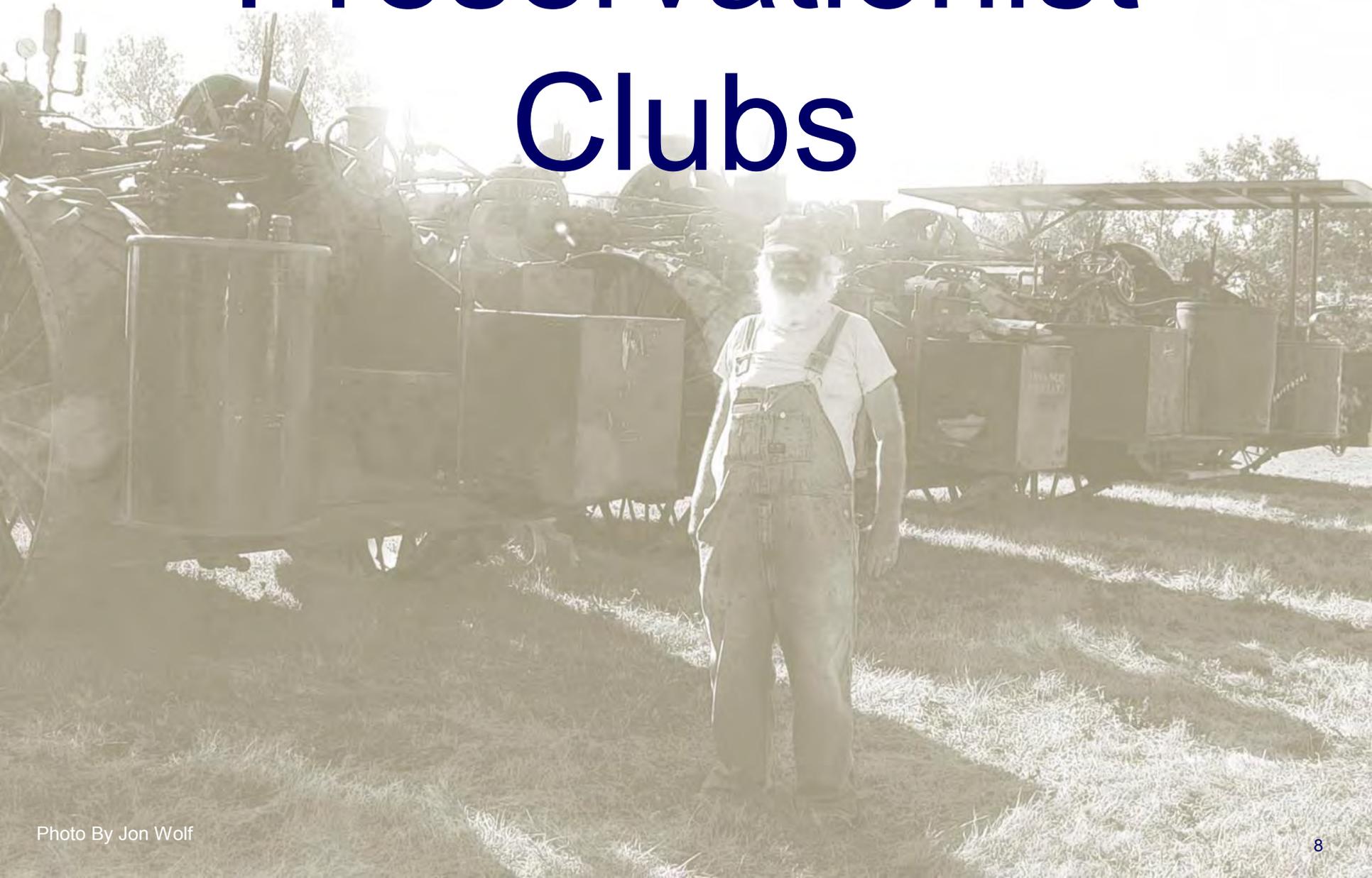
Tools of Leisure

Dynamo



David Collidge Steam Scenes.org

Preservationist Clubs



Museum that comes to life



Photo Courtesy Charlie Hendrickson

Mid-sized Event

Baraboo, WI



Powering the Saw Mill



Steam Driven Pile Driver



Photo by Dan Hegyi

Steam School

Classes Teach Students to Handle Traction Engines



Photo By Jon Wolf

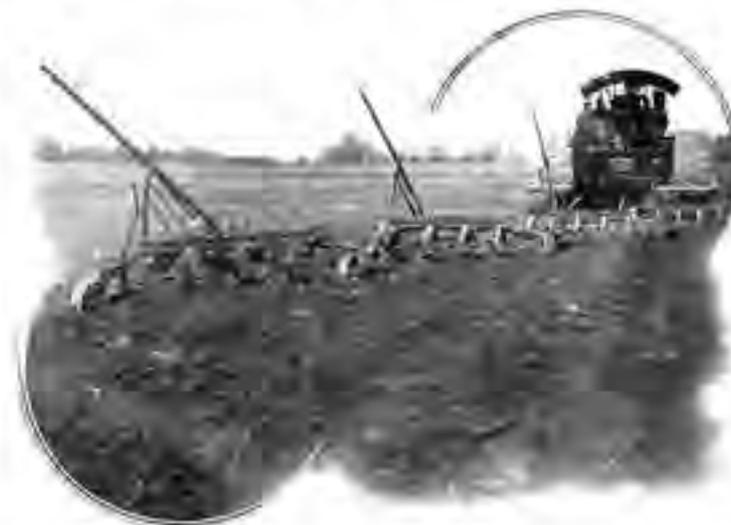
Four Million Acres More OF WHEAT PUT IN LAST FALL THAN EVER BEFORE

This big increase in winter wheat acreage was made possible only by the use of the traction engine. Hundreds of outfits were busy day and night. With a largely increased acreage this spring the demand for the traction engines is going to be very heavy. This will be a tractor year from plowing and seeding time to harvest time.

This demand for the traction engine has increased the demand for competent engineers. Can you fill the bill? Do you measure up to the requirements? Are you familiar with the different kinds of engines and boilers, pumps, etc., and relative advantages of each? Are you able to test an engine or boiler for capacity and durability? And, above all, are you able to develop, through successful operation, the greatest amount of power with the least expenditure of money, time and labor?

THE CLARKE SCHOOL

The Clarke School of Traction Engineering by Correspondence has helped hundreds of young men to a better understanding of the traction engine. Hundreds of others



studying traction engineering? It will pay you and pay you well.

are now taking the course while many more are enrolling every day. It is without exception the most complete course of its kind that has ever been prepared. It is a voluminous work, and represents the labor and experience of nearly half a century. In fact, it is the gathering together of nearly all the available information, both theoretical and practical, regarding steam power, especially that part which is applied to the traction engine. The course contains more than seven hundred pages of text, and more than three hundred specially designed illustrations. Nothing has been left undone that would tend to make the work more complete and thorough, and within the several lessons is to be found information that cannot be obtained from any other course.

If you want to improve your time and fit yourself for a good position, why not put in your spare moments

Write for a Copy of the Clarke School prospectus and look it over.

It is free. Address

The Clarke School of Traction Engineering, Madison, Wis.

Steam School

No Substitute for Experience



Photo By Jon Wolf

Hands on Training

Steam School 2016 (Rock River Threshere)



Photo By Jon Wolf

“You may own the Engine - But after you strike that match, it owns you”

Charlie Hendrickson



Photo By Jon Wolf



Jurisdiction

Medina, OH

Five people were killed when a Case 110 steam traction engine exploded.



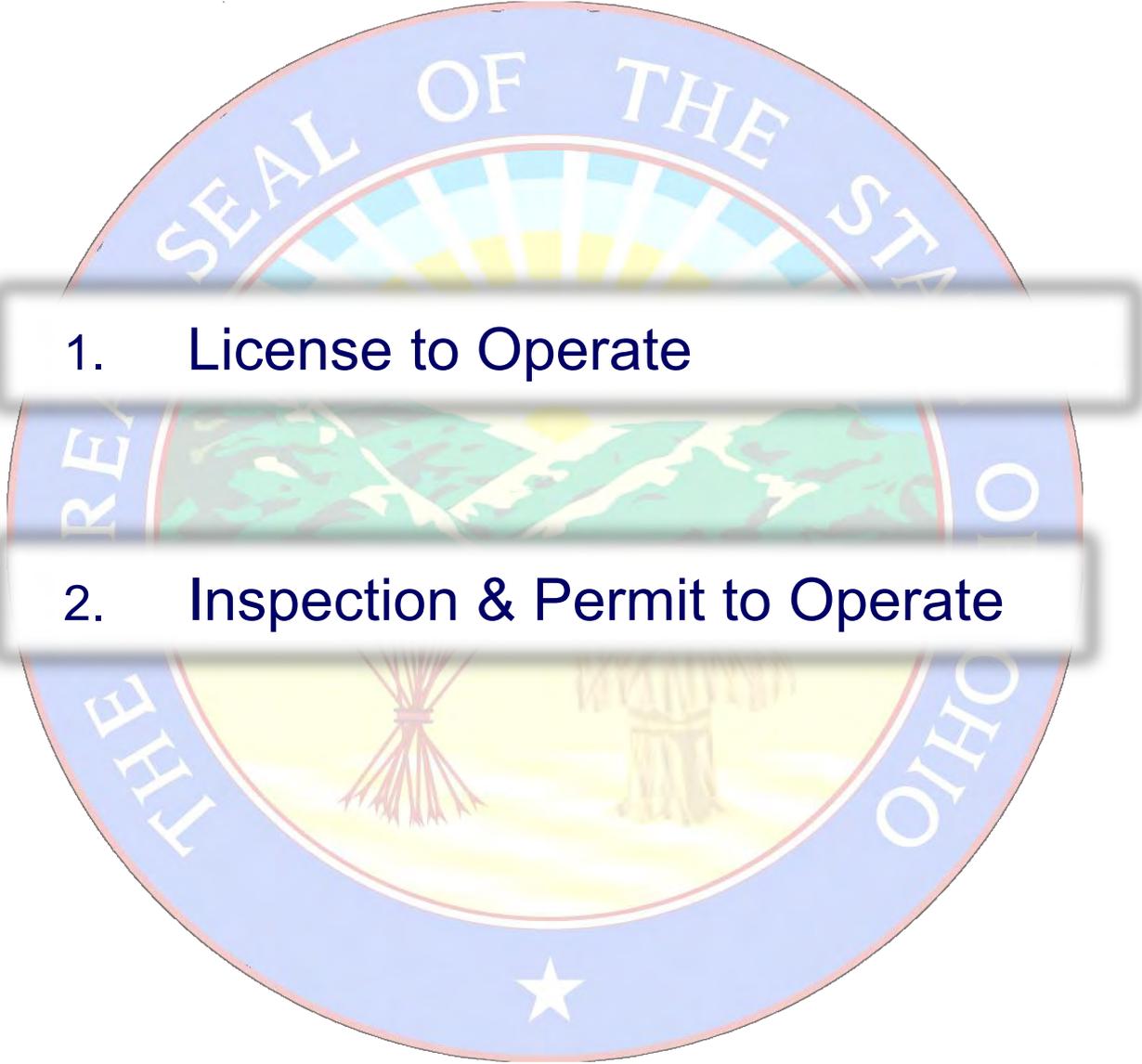


- Non Code Repairs
- Operator Error



Jurisdictional Action

Ohio expands their “Administrative Rules” to include Historic Steam Engines



1. License to Operate

2. Inspection & Permit to Operate

Inspection Line-Up



Photo By Jon Wolf

Success Story

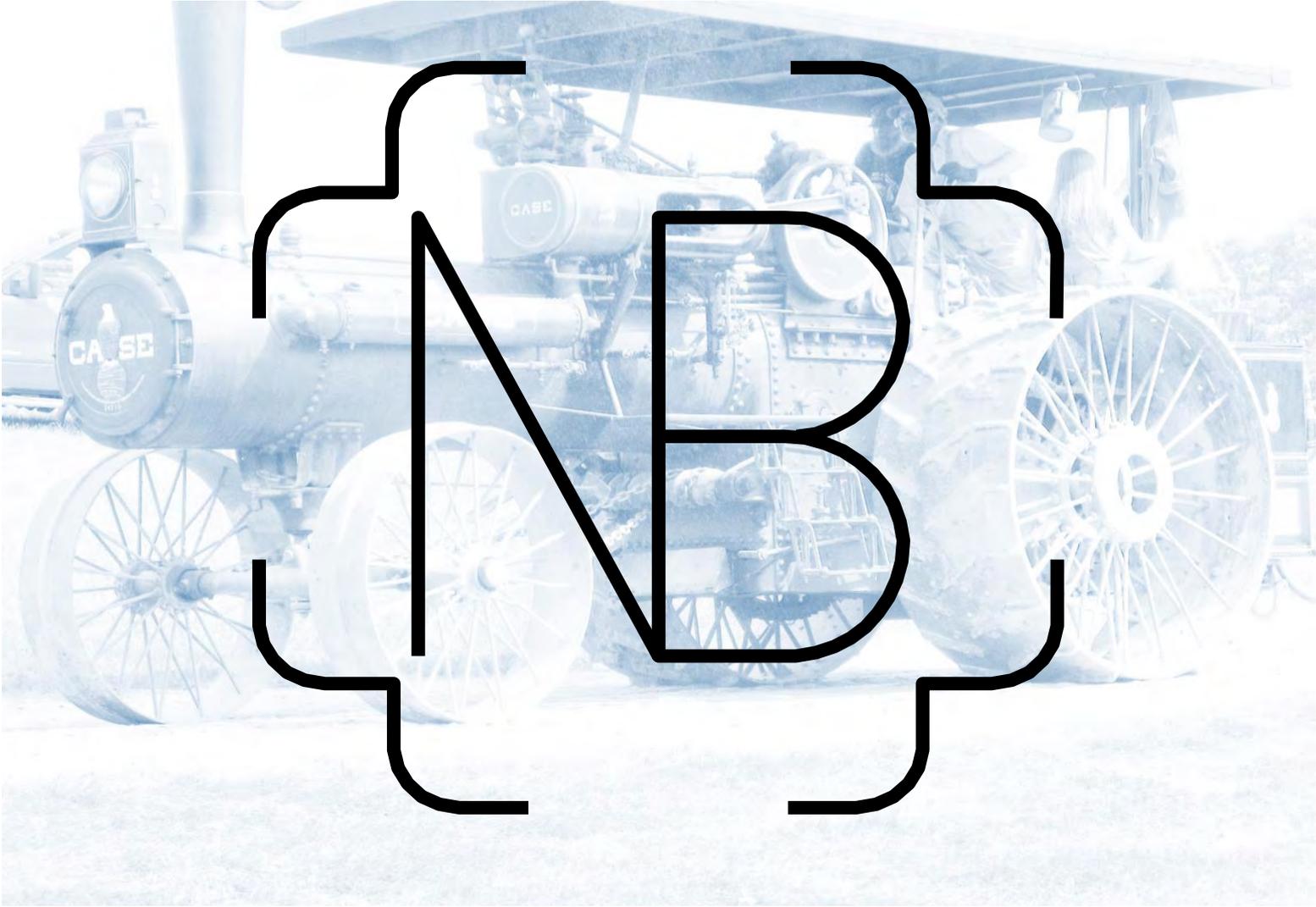


Photo By Jon Wolf

2015 National Board



PART 3 REPAIRS AND ALTERATIONS Section 6 - Supplement 2 - Historical Boilers



Corroded Rivets

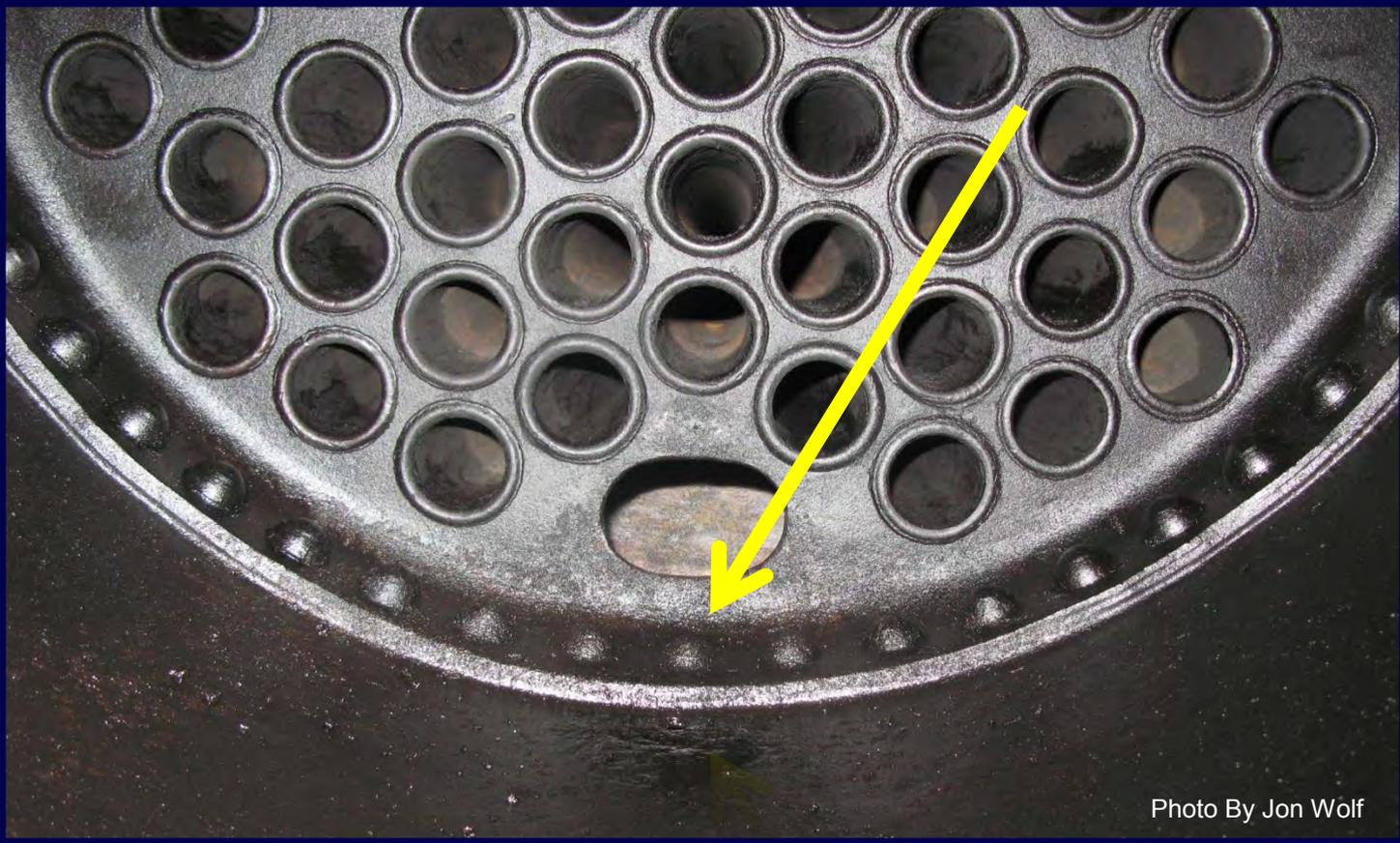


Photo By Jon Wolf

Photo By Jon Wolf

S2.10.2.2 INSPECTION OF CORRODED RIVETS

d) Allowable corrosion:

- 1) For rivets in pure shear load, the amount of measured head deterioration shall not exceed 80% of their total head volume. Where rivets have countersunk heads, the head diameter must be equal

to or greater than 65% of the original head diameter. Severe head corrosion shall require further evaluation of the condition and thickness of the plate at the joint.

- 2) For rivets in pure tension, the amount of measured head deterioration shall not exceed 35% of

equal deterioration

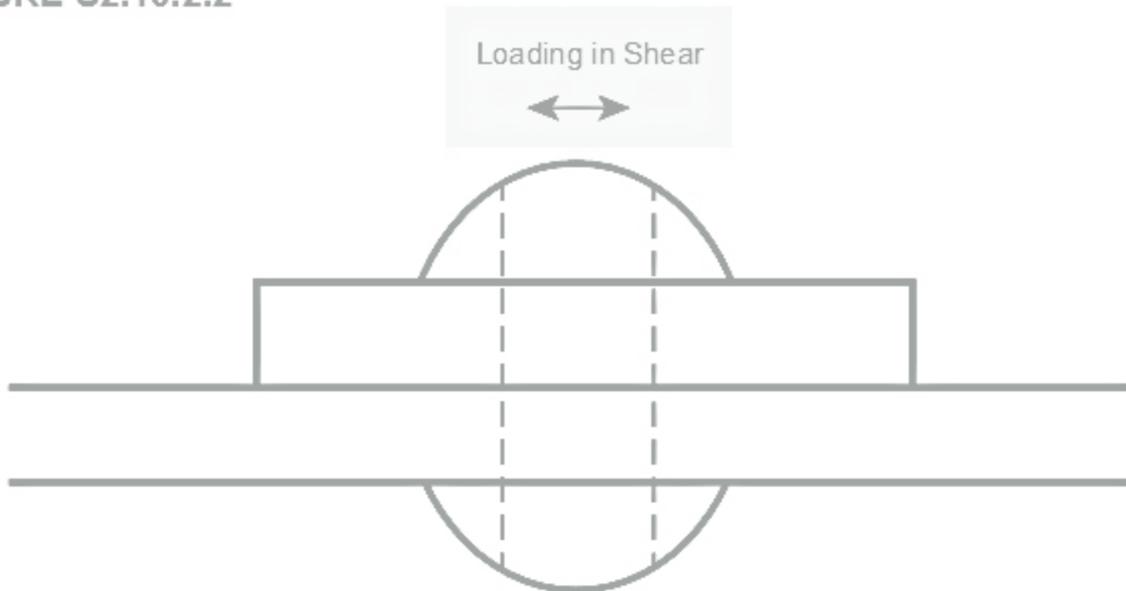
FIGURE S2.10.2.2

head

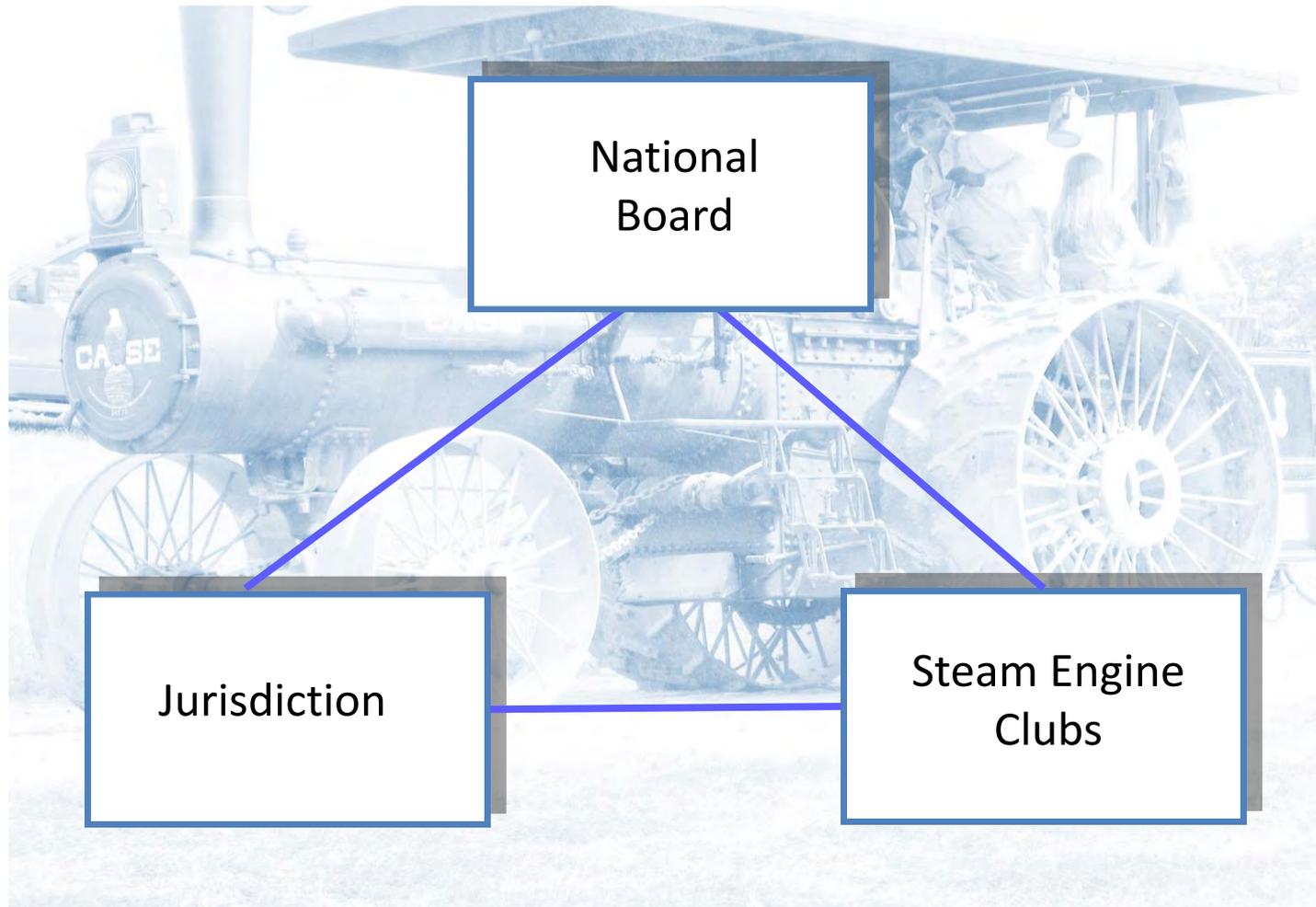
- 3) F head nk

plication showing

nd the



Conclusion



Thank You

Photo By Jon Wolf

Credits

- Rock River Thresheree
- Farm Collector
- NDSU Institute for Regional Studies

Risk Engineering

www.zurichna.com

The information in this publication was compiled by The Zurich Services Corporation from sources believed to be reliable for informational purposes only. All sample policies and procedures herein should serve as a guideline, which you can use to create your own policies and procedures. We trust that you will customize these samples to reflect your own operations and believe that these samples may serve as a helpful platform for this endeavor. Any and all information contained herein is not intended to constitute advice (particularly not legal advice). Accordingly, persons requiring advice should consult independent advisors when developing programs and policies. We do not guarantee the accuracy of this information or any results and further assume no liability in connection with this publication and sample policies and procedures, including any information, methods or safety suggestions contained herein. We undertake no obligation to publicly update or revise any of this information, whether to reflect new information, future developments, events or circumstances or otherwise. Moreover, Zurich reminds you that this cannot be assumed to contain every acceptable safety and compliance procedure or that additional procedures might not be appropriate under the circumstances. The subject matter of this publication is not tied to any specific insurance product nor will adopting these policies and procedures ensure coverage under any insurance policy. Risk Engineering services are provided by The Zurich Services Corporation.