

# FARM TRACTORS

Bill Holder and John D. Farquhar



Foreword by  
**Robert J. Ratliff**  
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Bill Holder and John D. Farquhar



**Crescent Books**

New York/Avenel, New Jersey

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All photographs are by John Farquhar and Bill Holder except for the following:

AGCO: 1, 2, 18(bottom), 37(top), 38, 45, 51(top).  
Ken Hawkins: 37(bottom).  
Midwest Old Threshers Museum: 44(top).  
Andrew Morland: 25(top), 33, 46(top), 47(bottom), 52(top), 53, 54(top).  
Collection of C.H. Wendel: 35(upper right inset).

Page 1: A modern White 6085 tractor prepares for the work ahead.

Previous pages: This 5680 AGCO Allis tractor is in the process of doing some heavy mowing.

Right: The Cockshutt 40 was one of the real workhorses during its day. It was produced during the years the company was owned by the Oliver Division of White Motor Corporation.



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# Foreword

To any farmer who tills the soil for a living, it's easy to see why the sight of a muddy tractor, old but reliable, is a thing of real beauty.

For the rest of us, the beauty of a tractor might not be so readily apparent. Yet, as we travel on the highways, we are fascinated by the sight of a red Massey-Ferguson tractor, looking like an oversized child's toy chugging away on a vast field.

Perhaps it's because the farm is one of the few places left where we can still find a sense of continuity. Indeed, AGCO was founded in 1990 because we and our customers shared a deep faith in the endurance of the farm equipment business.

As AGCO has grown to become a global force in the agricultural industry, we have remained dedicated to farm equipment. Through our focus on this incredible industry, we now sell more than a dozen trusted brands of farm equipment and we have built the largest network of farm equipment dealers and distributors in the world.

The farm equipment of today and the new technology powering it makes it possible to feed more people than ever before. As the world's population continues to increase, the demands placed on these tractors will become even greater. Agriculture, perhaps the oldest industry in the world, is once again increasing in importance.

In a time when technology moves at a rapid pace and design can become obsolete so quickly, where can true beauty be found? I believe the answer is that beauty can be found in those things that endure. I believe the answer can be found, in some part, on these next pages.

**Robert J. Ratliff**  
*Chairman, President, CEO*  
*AGCO Corporation*

The tremendous advances made in the mechanization of agriculture over the past century have played a significant role in sustaining the industry's ability to provide an ever-increasing population with food and fiber. No single product has had greater impact on this mechanization than the farm tractor, the machine that has removed much of the backbreaking labors of farming. New Holland is proud of the contributions made by its Ford tractors, and we look forward to making even more contributions with our tractors in the future as a core business of the Fiat Group.

New Holland celebrated its 100th birthday in 1995. The company began a century ago as a small machine shop in New Holland, Pennsylvania, with only a couple of products, a grain mill, and a gasoline engine. Now, a century later, as the largest manufacturer of agricultural tractors in the world, New Holland has its vision fixed on even greater advances, with technology such as robotics and global positioning, as we move into the 21st century.

So enjoy the past and look forward to the future as you turn these pages. As the needs of agriculture continue to be more demanding, the machines being designed today will be ready to meet the challenges.

**W. T. Kennedy**  
*Chief Operating Officer*  
*New Holland North America, Inc.*

# Introduction

**T**he farm tractor is largely a product of the 20th century. The development, advances and refinements of the motorized workhorse have followed the growth of America. Companies have come and gone, both blooming and withering, in their attempt to build the ultimate farm tractor. Without the tractor, America certainly could never have grown as it has.

Farm tractors today compete in an ever-changing world market. Companies are subject to corporate mergers, and as in other industries have also been subject to the current trend toward downsizing. The tractor industry through the years has been particularly fluid. Interestingly, the tractor industry never seemed to adopt the technological advances made by the growing automotive industry. The tractor companies always thought their ways were best, and that was the direction they took.

Today's high-tech farm tractor can trace its roots to the

late 19th century. From the invention of steam traction engines and portable gas engines, the tractor began a slow, awkward growth. While the advent of gas-powered tractors gave birth to several new companies like Huber, International Harvester, Hart-Parr, Advance-Rumely, and others, many of the steam tractor builders began to switch to gas. This was the era of single gear machines which were low, often extremely low, on power.

By the 1920s, the tractor market boomed with several hundred factories competing for the farmer's dollar. It is interesting to note that there have been over 900 manufacturers of farm tractors in the United States in the 20th century. With so much competition, many companies failed. Other companies boasted better performance than their machines were capable of in order to attempt to survive. Today, there are only five corporations marketing American-built farm tractors.









Page 7: The grandfathers of today's tractors were the steam-driven machines of the late 19th and early 20th century, which are now only seen at antique tractor shows.

Previous pages: The C.M. Russell Co. of Massillon, Ohio, produced steam traction engines through the mid-1920s.

Left: The A. D. Baker Company of Swanton, Ohio, first produced steam-powered machines, but then turned to gas tractors (like this one) in the 1920s. These early gas tractors produced from 22 to 67 horsepower. The company ended production during World War II.

Opposite: Over 56,000 Advance-Rumely tractors were built between 1904 and 1931. The most popular was the powerful OilPull series, which began production in 1910. This particular model was built in the 1920s and featured a solid flywheel. The company was bought by Allis-Chalmers in 1931.

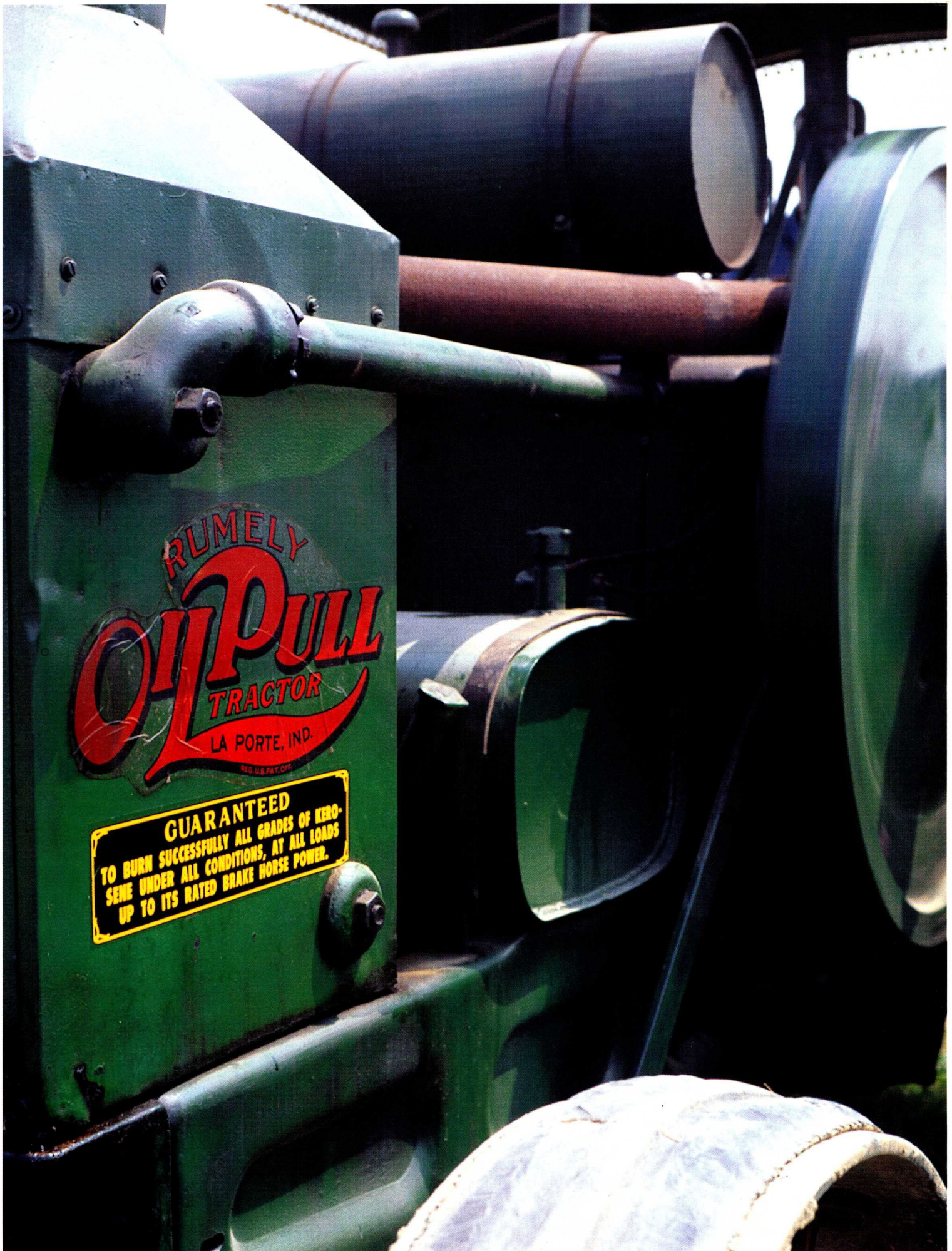
In 1920, the state of Nebraska passed into law the Nebraska Tractor Test. A company wanting to sell tractors in the state first had to have its product tested. This was perhaps one of the first "Truth in Advertising" laws in the country. Although various forms of tests had been done since 1908, the Nebraska tests were more uniform. Updated over the years, the Nebraska tests have remained the guide for true tractor performance.

The 1920s also saw growth in horsepower, and kerosene-powered machines began to give way to those fueled by gasoline. The ranks of manufacturers began to thin out.

The 1930s saw certain aspects of tractor manufacture become more standardized, such as drawbar height. Tractors

also began to look more like today's machines. Pneumatic tires were introduced in 1932 as an option, while steel wheels were still favored by many until the end of World War II. This decade also brought the Depression, which had a great effect on tractor production – 70,000 were built in 1931, but just over 18,000 were manufactured in 1932. The number of companies producing tractors dropped to about 20, with only the strong surviving. Improvements came in power take-offs and driveshafts, and the diesel engine was introduced. Also, the first enclosed cab was introduced by Minneapolis-Moline, but did not immediately gain acceptance by frugal farmers.

The 1930s closed with the introduction of the Ford 9N,



which resulted from an agreement between Harry Ferguson and Henry Ford. The little Ford, with its innovative three-point hitch system developed by Ferguson, and its offspring became possibly the most popular tractors in history.

The 1940s brought several new models from John Deere, Massey-Harris, J.I. Case, and Minneapolis-Moline, but the outbreak of World War II in 1941 brought farm tractor production to a near standstill. Many companies were converted to the war effort. Even the Nebraska tests were terminated, and did not resume until 1946.

When the war was over, there was a worldwide demand for tractors. However, it took over a year to convert back to civilian production. Many new companies jumped into the open market, as demand far exceeded the supply. Even Willys-Overland, builders of the famed Jeep, got into the act with the Universal Jeep: Changes in gearing, transmission, and the addition of a three-point hitch put it into the farm tractor market. Dodge also offered farmers a similar version of its Power Wagon. By 1948, production had surged to over three quarters of a million tractors. This included standard, track-driven and an assortment of walk-behinds and garden tractors.

From 20 companies in 1932, the field grew to over 140 by 1950. Some were short-lived ventures, while others were later absorbed by larger companies. The 1950s were also marked by many new models and the drive was on for better performance, more horsepower, and increased reliability. Designers also began to address such issues as safety and operator comfort. Diesel power became the rule and kerosene tractors were phased out.

**Below:** The Duplex Machine Company of Battle Creek, Michigan, began producing Co-op tractors in 1936. The high-quality machines, built from stock parts, were sold through several distributors. This Co-op E-4, probably built by Cockshutt, is of a 1940s vintage. The name would vanish shortly thereafter.

**Right:** This McCormick-Deering tractor is typical of the thousands of similar tractors built from 1923 until 1939. Pneumatic tires were an option on this tractor, as was a power take-off shaft.

**Overleaf:** Wards Twin-Row tractors were offered via mail order catalog during the early 1940s. A number of different manufacturers produced this model, selling it under the Wards name as well as other names.



