



Controlled by a model airplane radio remote, the mini 3020 is powered by a Yanmar diesel.

## TRACTORS, COMBINES, PLOWS

# 1/2-Scale Farm Machinery Built "Just Like Real Thing"

"I make my half-scale farm machinery as detailed as possible. They look and sound just like the real thing," says Ken Peterman, Webster City, Iowa.

Peterman, who restores antique tractors for a living, started building his half-scale farm machinery several years ago. So far he has built a remote-controlled Deere 3020 tractor fitted with a 3-bottom moldboard plow; two steel-wheeled Deere GP tractors; and a Massey Harris 44 tractor hooked up to a pto-driven Clipper pull-type combine.

"I enjoy the challenge of trying to match the original as close as possible. There are no oversize seats or steering wheels on my tractors just so that someone can ride on them. They're a big hit at antique tractor shows and parades. In parades I'll sometimes walk alongside a tractor to drive it. Most of the time, though, I haul the tractors on a trailer."

The Deere 3020 is powered by a 16 hp, 3-cyl. Yanmar diesel engine. The engine is connected to the transmission off a Cub Cadet riding mower. Peterman used round steel tubing to make the axles and mounted 7.00 by 16 wheels on back and 8.00 by 4 wheels on front. He used steel pipe to make the steering wheel and made his own seat. The 3-pt. hitch, steering, and starting and stopping ability are all electric powered and can be remote controlled using a model airplane radio control unit.

"My wife Pat built a dummy driver that sits in the seat and holds onto the steering wheel. It really gets the attention of people when they see the dummy driving the tractor," says Peterman. "The tractor has a Roll-A-Matic front end which Deere used on the real tractor for years. Whenever the front end goes over an obstacle one wheel goes up in the air while the other one stays on the ground."

"The 810 moldboard plow has 14-in. moldboards and is built from aluminum which makes it lighter and easier to lift. I think it could actually plow but I've never used it for that. The tractor and plow took a total of 2,500 hours to build."

Peterman's half-size 1931 steel-wheeled Deere GP is powered by a 2-cyl., 10 hp LUC gas engine off a Deere 12A combine. The engine is tipped over sideways to resemble the tractor's original "flathead" engine. The transmission is from a Deere 45 combine. To make the seat he scaled down an actual full-size seat.

The lugs, rear wheels, and wheel spokes



Peterman equipped the mini Deere with a home-built 3-bottom plow.



Peterman with his steel-wheeled Deere GP, Massey Harris 44 and Clipper combine.

on the tractor were all hand made. The wheel spokes are made from strap iron and are hand riveted to the hub and welded to the rim.

"Deere GP models were built from 1929 to 1935. The flathead engine was the only horizontal 'L' head engine Deere ever built. The real tractor was made for 3-row equipment which is why it never became very popular."

The 1952 Massey Harris 44 is powered by a 14 hp Kubota 3-cyl. diesel engine. It's a "Wheatland Standard" model equipped with a wide front end. The engine is connected to the transmission off a Cub Cadet riding mower.

The Clipper combine has a 3-ft. dia. wooden reel and a 3-ft. wide conveyor. To build it Peterman took the real combine apart and scaled all the parts down - except for the sieves and other threshing components which are full-size.

"The Clipper combine was very popular in the late 1940s," says Peterman. "The sieve holes on mine are sized to handle oats, so if I wanted I could use the combine to harvest oats. However, I've never used it for that because the unloading augers and other parts are so small that it would be difficult to clean all the material out of them."

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Sim's village is 4-ft. wide by 6-ft. long. Most buildings were built to a 1:87 scale.

## TURN-OF-THE-CENTURY VILLAGE HAS 60 TINY LOG AND STUCCO BUILDINGS

# Farmer Preserves Past By Building "Mini Village"

"Almost all my little buildings have a history behind them," says Cliff Sim, Edmonton, Alberta, about the stunning turn-of-the-century "mini village" he created by constructing 60 tiny log and stucco buildings modeled after Alberta landmarks.

Sim's village measures 4 ft. wide by 6 ft. long. Most of the buildings were made to a 1:87 scale. There are versions of several local buildings, grain elevators, and even his own family homestead. Other buildings, such as a federal log building with a clock tower, are fictional pieces.

All the streets are graveled (fine sand) and all the yards have lawns, some flowers, and many trees. Tiny flower boxes brim with colorful flowers, handmade carriages are parked on the street, and threshing machines work in fields dotted with small sheaves of wheat made from shredded string. A binder, mower, and hay rake are also at work.

He substituted 3/16-in. dia. dowels for logs and used an exacto knife to cut them to size, notching the corners just like real log buildings. He used ordinary glue to fasten the logs

together before adding windows and doors. Shingles were made from shaved cedar.

"I built it in my spare time over a 5-year period. It's a fun hobby," says Sim. "I've always had a keen interest in log buildings and their history because I grew up in a log home on our farm in Alberta. I modeled most of the buildings after photos in magazines. When we're traveling, if I see anything a little odd, I take a photo of it."

"I used a magnifying glass to do most of the fine work. There's a lot of detail that doesn't show well in the photos, such as objects on some teepees, the horseshoe pits beside the general store, the swinging doors on the saloon, and many others. There are a few buildings that aren't of log construction but instead are made from frame and stucco. For stucco I used polyfil and decorated it using a woman's eye shadow applicator."

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A magnifying glass was used when adding detail, such as the horseshoe pits by the general store.