## MODIFIED MODEL "A" BECAME MOBILE MACHINE GUN UNIT

# Deere's "Armored Tractor" Built During World War II

Few people know that Deere and Co. made armored tractors designed for use in World War II.

Two-Cylinder magazine, a publication for two-cylinder tractor enthusiasts, recently dug out photos from Deere's archives to show how the company converted a general purpose Model "A" into an Armored Tractor, or Mobile Machine Gun Unit. Development began in 1940, and testing to determine the tractor's military suitability was conducted during the winter of 1941.

Tests showed that the armored tractor held the most promise as a transport vehicle or as a trainer for tank operators and gunners. As a combat unit, it apparently couldn't compete with built-from-the-ground-up fighting machines. The tractor was never used in the war, and all prototype machines were reportedly destroyed.

The armored tractor was equipped with steel plate and had two hydraulic powered machine gun turrets, one on each side of the tractor. Each machine gun operator sat on a seat facing backward. A set of steellugged skeleton "duals" mounted alongside each of the 12 by 38 rear tires to provide extra traction in soft ground.

Firing tests showed that driver visibility was hampered by the turret-rotation mechanism. And, while the steel-lugged duals did help on soft ground, they caused a rough ride on irregular hard surfaces. Several other problems were discovered. The tractor's silhouette and center of gravity was too high, and the two-cylinder engine was found unacceptable for a combat vehicle, with power too low at 7 hp per ton. Instead of the conventional narrow front end, a full-width front axle and larger tires were recommended for better maneuverability across obstacles.

The tractor was rebuilt with a lower center of gravity and a wide front axle. The intake and exhaust stacks were removed and better tires with more aggressive tread were



This front view shows the right side turret facing outward (turrets could also be rotated to face backward). Note skeleton wheels inside tractor's rear tires.

added. The steel-lug duals were eliminated and the tractor's height reduced several inches.

However, by the time the project was finished in the spring of 1941, the division at Deere Tractor Works in Waterloo, Iowa, that had been working on the armored tractor had begun manufacturing transmissions and final drive assemblies for armored tanks.

The Armored "A" was put on the back burner.

According to Two Cylinder magazine, "it's unlikely, due to scrap drive efforts, that so much as a fragment of an Armored "A" is still in existence - and it is now up to some dedicated enthusiast to replicate the historic war wagon to preserve its place in history."

# Railroad Hand Car Great Fun For Kids Illinois tinkerer Tom Belusko has a lot of

Illinois tinkerer Tom Belusko has a lot of fun putting together one-of-a-kind "toys" for himself and his kids.

One of the most unusual is a copy of old-time railroad hand cars that he made using four 16-in. bicycle wheels and other bike parts. The pump handle is made out of water pipe. It "teeter totters" up and down on a triangular frame. A pipe goes down through floor of the hand car to a bicycle crank that chain-drives the wheels.

"I put the name Buda Foundry on the side because that's the company that originally made real hand cars. It's steered by turning a handle at center that's connected to a pipe that goes down through the center mast.

"We spent only about \$20 on wood and \$16 on paint. Everything else came from junkyards, including the trailer running lights on the front and rear," says Tom.

He also made a powered tandem bike with a 22cc gas motor that direct drives the front wheel. "I used a junkyard 3-speed for the front bike and a girl's bike for the rear half. The bike is 9 1/2 ft. long and runs at speeds up to 12 mph. We have two of these bike motors built in 1979 but they're no longer on the market. The other one is on a Western Flyer single bike that runs up to 15 mph."

Belusko also built an "Easy Rider" type chopped BMX bike with a sidecar. He did it by adding 11 in. to the front fork and a "raked" front end. He also added 11 in. to the center frame and 8 in. to the rear fork. The pedals were moved up about 15 in. and hi-rise bars were added. "The wheel base is the same as on my Harley Sportster motorcycle," he notes.

The sidecar goes on and off in about 15 min. and is made of electrical conduit and 1/4-in. plywood

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Rusty can't use his front left leg at all, but he can use his back left leg, now only a stump, to catch his balance.

#### "AFTER TWO MAJOR ACCIDENTS, HE STILL HAS A STRONG WILL TO LIVE"

### 2-Legged Dog Survives Another Bad Accident

"He's back on his feet again," says Bill Davis, Greenfield, Iowa, about his dog "Rusty" who was featured in FARM SHOW four years ago when he lost two legs in a farm accident (Vol. 14, No. 1).

The 9-year-old Australian red healer recently had another accident, breaking one of his remaining good legs when he was run over by a pickup.

The first accident happened while Davis was mowing hay. Rusty was lying on the ground out of the way. Then for some reason he got up and ran right in front of the mower. By the time Davis could stop the tractor, the mower had completely cut off half of Rusty's left front leg. The back left leg was just dangling. Davis stopped the bleeding as much as possible and rushed the dog to the vet, then helped Rusty recuperate.

Rusty had to learn how to walk and run all over again. Eventually he even learned how to jump into the pickup using only his two right legs. He can't use his left front leg at all, but he can use his back left leg, now only a stump, to catch his balance.

The most recent accident happened on a hot day when Davis and a neighbor were making hay. They stopped to take a break, and Davis put some ice cubes on the ground so Rusty could cool off. He laid the ice cubes next to the dog - and to the pickup tire. As the neighbor moved the truck, Rusty's good right rear leg was run over and broke in three places below the knee. Davis took the dog to a small-animal orthopedic surgeon at Iowa State University, who installed four pins crisscross through the leg to hold the bones together.

Davis got lots of cards and letters, some containing money to meet Rusty's vet bill. Some people even sent along dog treats.

Rusty eventually recovered nicely from his second accident. "He can still outrun me at about 10 to 12 mph," says Davis, noting that he recently mated Rusty to a purebred blue healer and he's now the proud father of healthy pups.

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