

MILITARY VEHICLES

MAGAZINE

Get Connected with
Militar-E-News
details inside

Reconstruction

When the History's Lost

MIGHTY FORD
The GAA Engine



HOW LOW CAN YOU GO?
Transfer Case Basics

4 Pages of Classifieds

COMPLETE 2011 MV SHOW CALENDAR

US \$5.00
CAN \$5.99

0894-6460

Display until August 22, 2011



An American ambulance near Reims, France, poses for a picture. Shrapnel holes from artillery can be seen in the side panel and the water tank.

Tin Lizzie Hospital Wagon

+ WWI ambulance recreated +

by David L. O'Neal

The time of the First World War is one of the few periods in history where huge advances in technology are readily apparent. In the years leading up to the war, the industrial revolution was overtaking 1800s technologies. Photographs from that period show that it was commonplace to see horses being utilized alongside cars and trucks.

The significance, of course, is that the horse was replaced by the car and truck. If one looks closely at photographs from WWI, many technological struggles are apparent. For example, kerosene lanterns used with a light bulb hanging in the room, telegraph operators set up next to field telephones or airplanes flying over horse-mounted cavalry all reflect the changes occurring as nations struggled for survival.

Over the years of collecting I have always wanted to obtain a large artifact for my WWI collection, such as a cannon, tank or airplane. Then I came across a photograph of a U.S. Army 1917 ambulance in a bombed out village in France. That's when I got the idea that I wanted one of these vehicles in my collection!

THE SEARCH BEGINS

I started a search for an original M1917 ambulance and after several months, I concluded that no original U.S. M1917 ambulances have survived from the Great War. I did discover, however, that there are a handful of M1917 ambulances in museums around the country. In my now "expert" opinion, I concluded that all are re-creations using original Ford Model T chassis from various years of manufacture.

I decided that I, too, could make an exact recreation of the M1917 ambulance, and so began my search for a suitable chassis. I wanted to get a 1917 chassis to keep the project as original as possible, but instead, found a 1920 chassis on a farm in eastern Kansas that was a good candidate for the project. The cosmetic differences from 1917 to 1920 are very minor and, in my opinion, only a Ford Model T enthusiast can determine the difference.

As we towed the "Tin Lizzy" through country towns and on the highways, I could see people take notice of the rusty old machine. Looking behind us in the rear view mirror, the old Model T happily bounced on her spring suspension. It almost seemed like the car was smiling, happy to be saved from the earth, happy

to have another chance to live in this century.

THE VISION

It was June, 2009, when I pushed the rusty old 1920 Ford Model T chassis into my garage. Through my eyes, I could see a WWI ambulance, but I think everybody else had trouble seeing the same potential. You can't blame them; the car looked pretty rough.

My background is in Aircraft Mechanics and Engineering, however. I had never worked on a Model T before so I had a little



The Ford Model T project car off the trailer and rolled into the garage ready for disassembly.

learning to do. I contacted the online Model T parts houses for free catalogs, and I searched the Internet for information on the Model T Ford. I found some great websites for Model T Clubs and Organizations. The best site for Ford Model T information is the Model T Ford Club of America (MTFCA) at www.mtfca.com. I cannot begin to tell you how much I relied on the information from the members of this organization!

WORK BEGINS

The first order of business was to disassemble the vehicle,



Stripped car chassis with engine still installed. With the removal of the steering column and firewall, the chassis was headed to the sandblaster shop.

STRUCK-KIT.

MINI-BEEP. AMPHIBIOUS ART.

The FIRST & ONLY... Amphibious OFF-ROAD TRUCK you "home-build" from a KIT!

DRIVES like a truck... FLOATS like a boat!

BUILD IT YOURSELF!
Your PARTS... or Our KITS... or a little of both!

The MINI-BEEPe is like nothing else! Pulls trailers and implements, bulldozes sand, gravel and snow, drives off-road, and goes almost anywhere, it's a 4/5 scale version of a WWII JEEPe ...and it's AMPHIBIOUS!

FREE Info!

C. F. STRUCK CORP
Box 307 Dept: MV811
Cedarburg, WI 53012

Get grandkids? Building the MINI-BEEP with you is time they'll never forget... and you won't, either!

JEEP is a registered trademark of Chrysler LLC

See VIDEO: www.Struck-Kit.com
Phone: (262) 377-3300

© 2011

KAISER WILLYS AUTO SUPPLY, LLC

★ jeep parts and accessories ★

NEW!! 2009 CATALOG

100's of NEW ITEMS!
CALL or E-MAIL TODAY For a FREE Catalog!
1-888-848-4823 • 9am-5pm EST (Mon-Fri)
www.kaiserwillys.com

Now Offering a full range of parts for:
MB/GPW | CJ4A | CJ5A | CJ5B | CJ6 | CJ7
MB2 | MB2-A1 | Willys Truck | Willys Station Wagon
Jeepster | Kaiser Troopcar | Henry J | Darrin
Willys Sedan Delivery | JC150 | JC170

Dedicated to Providing Quality Parts and Accessories for All 1941-2011 Willys and Jeep Vehicles Offering 7,000 parts, fast, friendly service, and a staff who truly understand what it means to own a Jeep!

evaluate the parts and then create a shopping list for what parts needed to be replaced. Then I created another list of parts that I could restore and reuse.

It requires patience to take an old Model T apart, considering it probably had been sitting for 70 years. You need a lot of penetrating oil and a good wire brush to clean rusty bolt threads. A torch and a cut-off wheel work for the stubborn bolts that are too far gone. Eventually, I had the entire car stripped down to the frame and engine.

I turned the engine over with the hand crank; it rotated freely—it wasn't frozen! At least the engine was not blown. There would be a chance that it could be rebuilt.

Removing the engine head, I planned to inspect the valves and pistons for carbon build up. What I found was that a squirrel had made a winter nest inside many years ago. I also found a nice cache of acorn and walnut shells with some soft bedding inside the head—he had a good winter. He must have gotten in where the hoses had rotted away long ago, leaving an open door for the little guy to come and go as he pleased.

With the head off, I was amazed at how clean the engine was inside (except for the nut shells in the water jacket). There was no rust and very little carbon. I decided I would try to start the engine without an overhaul.

As I removed parts, the frame became exposed and the mechanical portions of the car were very accessible. Everything on this car was going to need some level of restoration.

I called a tow truck and hauled the naked Model T to the sandblasting shop, while carting all the other parts in my pick-up truck. I had the freshly sandblasted car back in my workshop the next day. All the bare metal was light gray in color and I had to spray primer immediately to protect the freshly-sanded parts from flash rusting because of humidity.

Though I suspected that the engine was in good enough condition to run on its own, I had to do a partial tear-down to replace all the seals. I cleaned the inside of the engine and then installed a new seal kit.

While the engine was out it was time to paint the frame its military color. I used reproduction military paint "Khaki Olive



The engine appears to be amazingly clean inside. The vehicle was left for dead about 70 years ago. I suspect an ignition or fuel issue made the owners walk away during the Great Depression.



The author making final adjustments prior to the first engine start. The rear wheels are on jack stands for the initial engine runs.



NUTS! A critter's winter stash was found inside the engine. No telling how long ago he was there, but he ate all the nuts and left the shells.



The LH and RH main sills are temporarily fitted using clamps. The sills are made of hardwood (ash) and will support the weight of the ambulance body.

Green” (It is a pre-WWII shade). The entire car was painted by hand with a brush. That was how the car was painted on dock when they were delivered to France in 1917.

My sights were now set on restoring components like the kerosene lanterns, the steering wheel, the coil box and the head lights. As I finished restoring these items, I stored them in a safe place so I could use them as new parts when I was ready to install them. I also used the new replacement parts that included a gas tank, brakes, wood transmission bands, radiator hoses, wheels and tires. I sent the carburetor, radiator and coil out for rebuilding.

Soon, new parts began to arrive. The UPS guy was cutting a path to my front door almost every other day. The carburetor was back, as well as the coils. I was able to install the wires and spark plugs. And last, but not least, my radiator was done. The WWI Model T ambulance was coming starting to take shape. The engine went back together and installed back on the frame.

By my estimate, this car had been last started sometime back in the 1930s when it was driven into or towed into a field and abandoned, left for dead. It was now time to try and start the old “Tin Lizzy” and bring her to life in the next century, 70 years later. It took about 10 hand cranks and the “Tin Lizzy” coughed, sputtered a little and smoothed right out. After a successful test drive of the chassis, construction of the ambulance body began.

NOT JUST ANOTHER MODEL T

After months of research and correspondence, I determined the original 1917 ambulance body drawings no longer existed. In my research, I did turn up a set of drawings for the later 1918 version, but that was not the subject of my project. Using dimensions and detailed photographs from some of the 1917 ambulances in museums, I was able to create a set of working drawings. After 10 months of extensive woodwork, the ambulance body was nearly finished. Everything was complete except the markings. Again, more research was required to investigate the military ambulance sections that used the M1917 ambulance during WWI.



The completed U.S. Army M1917 ambulance showing the RH Side. The upper storage box was used to hold ambulance records and the driver's personal items.

During this project, I read anything I could get my hands on about the U.S. Army Ambulance Service (USAAS). It wasn't long before I began to understand how these ambulances were utilized on the Western Front. The unit histories and personal accounts of U.S. military actions painted a vivid and bloody picture of the day-to-day operations.

Some of the bloodiest days for the 2nd Division U.S. Marine Corps took place at Belleau Wood in France during the summer of 1918. I decided to apply unit markings to my ambulance to represent a unit in support of the 2nd Division. Based on my research, I chose to mark my ambulance representing SSU 502 (Sanitary Squad Unit) because of its impeccable combat record.

SSU 502

Sanitary Squad Unit sailed on the Cunard liner *Carmania*, disembarking at Liverpool, England, on Jan. 23, 1918. They spent some time in England before going to St. Nazaire, France, where they assembled their ambulances. The Section was assigned to serve American divisions while they were working with the French Army.



The completed U.S. Army M1917 ambulance showing the LH Side. The square water tank can be accessed by a spigot inside the lower storage box.

Their record shows that they first served with the 42nd U.S. Division, the 2nd Division and the 28th Division, all working as part of the French Army operation in the defensive at the Aisne River Sector from May 25 to June 5, 1918. The Section then moved to serve the 26th U.S. Division and the 79th Division at Chateau-Thierry from June 5 to July 9, 1918. They received a 2nd Division citation here.

SSU 502 was in the thick of the action in the Aisne-Marne offensive from July 18 to Aug. 6, 1918. It was during this engagement that the Section lost some men, killed or wounded. They went into a rest period for several weeks for car repairs and personnel replacements. Section 502 was then involved in the Meuse-Argonne offensive, from Sept. 26 to Oct. 1, 1918, and in the Woevre Sector offensive, from Oct. 8-18, 1918. Their casualties numbered three killed and 16 wounded (including gas cases).

The Section was included in the orders of Major General John A. LeJeun, USMC, Commanding, 2nd Division, France, Oct. 11, 1918, as follows:

“Your heroism and the heroism of our comrades who died in battle will live in history forever, and will be emulated by the young men of our country for generations to come.”

“To be able to say when this war is finished, ‘I served with the 2nd Division at the Battle of Blanc Mont Ridge’ will be the highest honor that can come to any man.”

PLANS FOR RECREATED AMBULANCE

Future plans for this old “Tin Lizzy” are to take her to a few



The completed U.S. Army M1917 ambulance showing the Tail Gate. The square canvas pouches allowed the stretcher handles to pass through the tail gate.

car shows and then possibly give her a place in a war museum for future generations to see. I have to say it was a real joy exploring Henry Ford’s automotive triumph, learning the simplicity of the design and the genius that was the Model T Ford.

While this project wraps up, I have already started the search for parts for my next WWI project. I will attempt to build a 1917 Indian or Harley Davidson WWI dispatch rider motorcycle. If I can find enough parts to start the project remains to be seen. If you have any comments or would like to see more photographs of the WWI Ambulance Project, please visit my website. www.wwl1history.com ☺

★★★ We ship your order in 24 hours or less ★★★

MILITARY TIRES

SIZE	TREAD STYLE	LOAD RANGE
700-16	NDCC	C
600-16	NDT	B
800-16	HDT	C
700-16	NDCC	C
700-16	HDT	C
750-16	NDT	D
800-16	HDT	D
750-20	NDT	E
750-10	MILITARY MULE	N/A
1100-16	MILITARY DUNLOP	G
825-20	NDT	F
800-60	NDCC	D

MILITARY MULE



825-20



900-20






NON DIRECTIONAL TREAD | NON DIRECTIONAL CROSS COUNTRY

- ★ Made in the USA ★ Original equipment brand for many collector military vehicles ★ Correct sidewall engravings
- ★ Available in NDT and NDCC tread designs



1-800-922-3886

cokertire.com