



# Heartland Science

Ohio's Legacy of Discovery & Innovation



## Transportation

From the Soapbox Derby to the Jeep

### The Jeep

In 1940-1941, Delmar Roos and a team of engineers at the Willys-Overland Company (now the DaimlerChrysler Corporation) designed the famous Jeep in Toledo, Ohio. The four-wheel-drive vehicle, built for rough use, helped The Allies win World War II and has been called the most important piece of military equipment used in the war. General Dwight D. Eisenhower reportedly said that America could not have won World War II without it. In 1940, the Army put together a list of specifications for a new vehicle that could handle rough terrain and challenging weather conditions. 135 automotive companies were invited to try to design the new vehicle - but they had to do it within 49 days. The original specifications were printed in the Quartermaster Corps, on July 7, 1940. The specs required:



- A driving front axle with 2-speed transfer case including provisions for disengaging the front axle drive
- A body of rectangular design with a folding windshield and 3 bucket seats
- Increased engine power
- Means for towing
- 30-caliber machine gun mount
- Blackout lighting
- Oil-bath air cleaner
- Hydraulic brakes
- Full floating axles
- Wheelbase of 80"
- Maximum height of 40"
- Maximum weight of 1275 lbs.
- Approach and departure angles of 45 and 40 degrees, respectively
- Must reach 50 mph on hard surface
- Special bracing for a pintle hook setup
- No aluminum to be used for cylinder head
- At least 4 cylinders
- 8 of the 70 vehicles to be made had to be four-wheel-steer



The Bantam Company delivered its model on September 23, 1940, but it was 730 pounds overweight. Willys Overland provided two versions of its model called "the Quad" on November 11. Ford had their model, "the Pigmy" in by November 23. Both the Willys-Overland and the Ford models incorporated some of the Bantam designs -- which was understandable as they were each given free access to Bantam's blueprints. The Army liked all three design and ordered 1500 of each. Testing led to modifications on all three, and the final versions were called the Bantam 40 BRC, the Willys MA and the Ford GP (G for Government, P for 80" wheelbase).

In 1941 the War Department narrowed production to one model, the Willys-Overland, because it met the task and was lower priced than the others. The single model was manufactured by both Willys-Overland and Ford under the name GPW - with the W representing "Willys." Willys-Overland and Ford produced more than 637,000 Jeeps between 1941 and 1945. The basic model was later modified to make military amphibious vehicles, ambulances, tractors, and mail delivery vehicles.

### What's a Jeep?

The word "Jeep" was first coined during WWI. Major E.P. Hogan wrote a history of Jeep development for the Army's Quartermaster review in 1941. In it, he explained that the word "Jeep" "is an old Army grease monkey term that dates back to WWI and was used by shop mechanics in referring to any new motor vehicle received for a test." Jeep also likely was derived from the coding GP (G for Government, P for 80" wheelbase).



### What About Popeye?

In 1936, the popular comic strip Popeye introduced the word Jeep with its character "Eugene the Jeep." Eugene could say the words "Jeep, Jeep."

### Find out more...

- [DaimlerChrysler Jeep](http://www.jeep.com)  
([www.jeep.com](http://www.jeep.com))
- [The Jeep, A Real American Hero](http://www.off-road.com/jeep/jeephist.html)  
([www.off-road.com/jeep/jeephist.html](http://www.off-road.com/jeep/jeephist.html))
- [Eugene the Jeep](http://members.tripod.com/HoboJeepers/eugene.htm)  
(<http://members.tripod.com/HoboJeepers/eugene.htm>)