

New Jeeps in CRATES

Every Collector's Dream

England 1943

By **W. Stirling Parkerson**, #174L, Laurel, Mississippi.

Photographs and illustrations provided by

W. Stirling Parkerson and Lloyd White, Oregon City, Oregon

Yes they did exist, brand new Willys jeeps fresh from Toledo, in crates, in England during September 1943 at U.S. Army Ordnance Depot #Q640, Tidworth, Wiltshire. The vehicles were of June 1943 production, complete with blue lusterless hood numbers, later to be white with white stars and surrounds.

The detailed instruction sheets advise in step by step fashion how American troops were to uncrate and assemble them right down to *ready to roll* condition. White hood numbers, stars and unit designations on bumpers were added later by the depot or by assigned military users. Gas detection paint, in the surround outlining the hood star, was also added usually by front line groups.

Jeeps issued to our unit in England in February 1944 were all November and December 1943 production and all were Ford GPWs. One of these was *Oxford Express* a Ford GPW, serial number 150303, registration number USA 20419771, which is still running and beautifully restored. It's currently owned by Dr. Didier Poulain of France and has been in his family since the end of WWII. The story of this jeep appears in *Army Motors* #96, page 4 titled *True Veteran Jeep – Oxford Express*.

My unit along with others frequently salvaged wrecked or war damaged vehicles. Once we had repaired them we used our units' white U.S. Army registration numbers from our operational rolling stock. We did this in the interest of preventing later claims, after our platoon had repaired the vehicles, by the original unit to which the equipment was first issued. We wound up the war with *many* extra vehicles.

JEEP ASSEMBLY LINE

Ordnance Depot Q 640 Tidworth, Wiltshire, England, September 1943.

Vehicles shown are Willys jeeps produced June 1943.



Export Crated Jeep Vehicles

Export crates of partly assembled jeeps just received from the U.S. are lifted onto the start of the assembly line at the depot. A completed jeep can be driven away under its own power every three minutes.

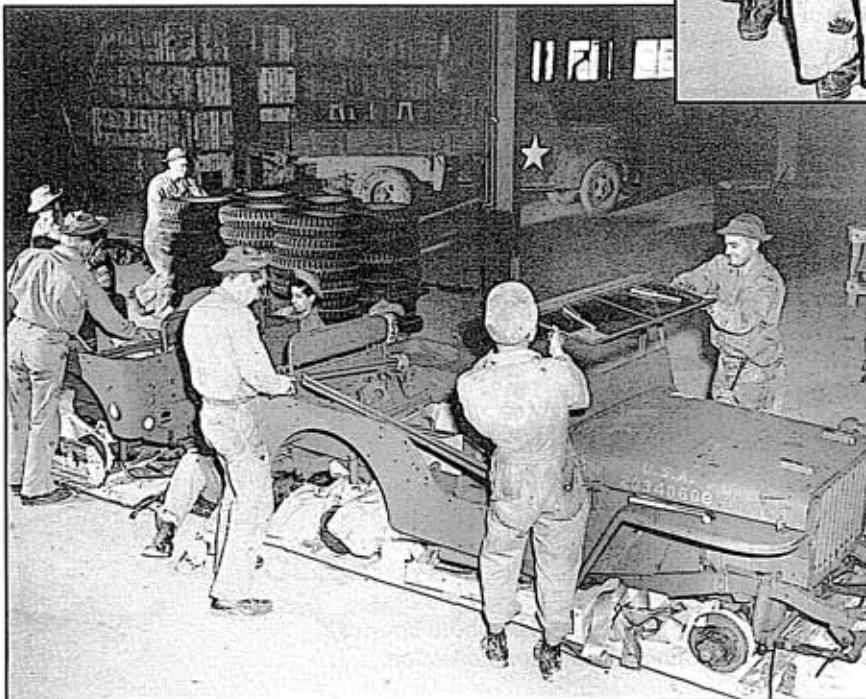
U.S. Army Signal Corps photo courtesy of W. Stirling Parkerson collection.



The first operation is the uncrating of the export boxed jeep in which the body, the top, wheels, and other parts are packed.

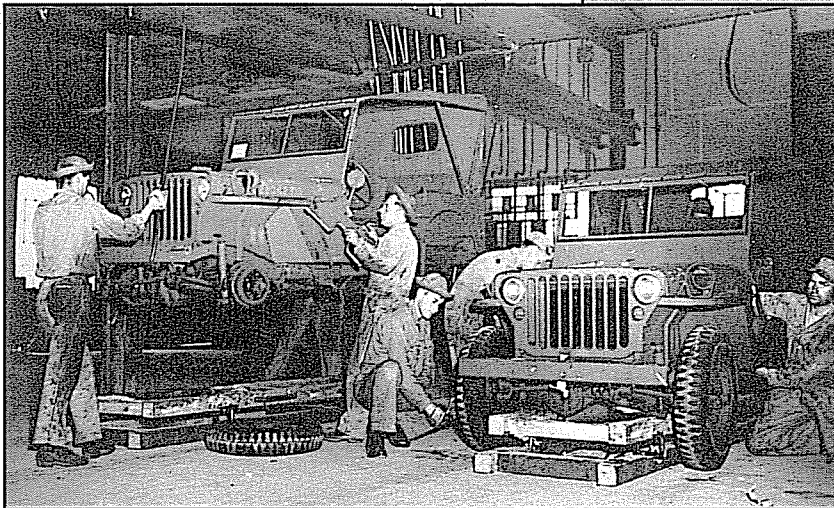
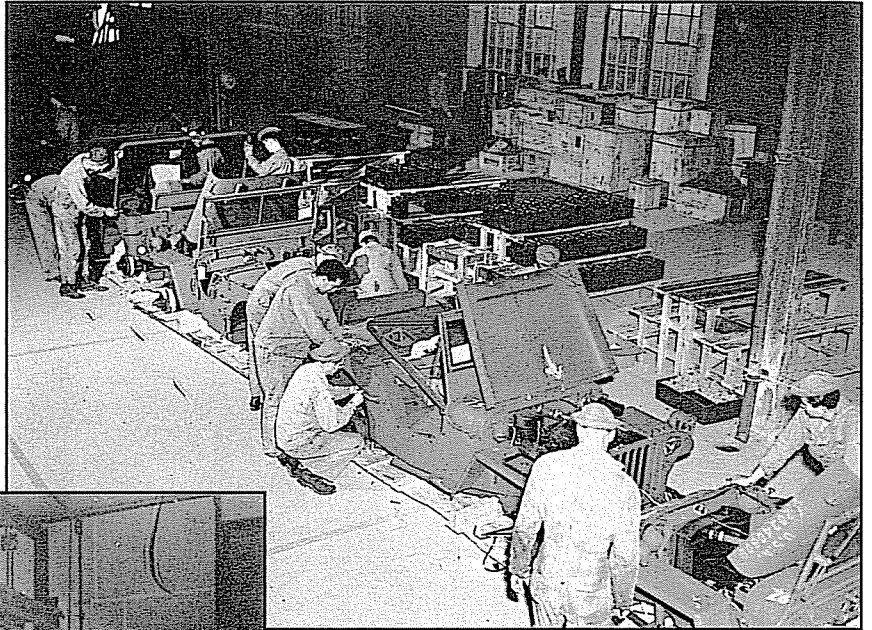
U.S. Army Signal Corps photo courtesy of W. Stirling Parkerson collection.

A group of mechanics adjust the engine of a newly assembled jeep. Each man has a definite part of the work to do.
U.S. Army Signal Corps photo courtesy of W. Stirling Parkerson collection.



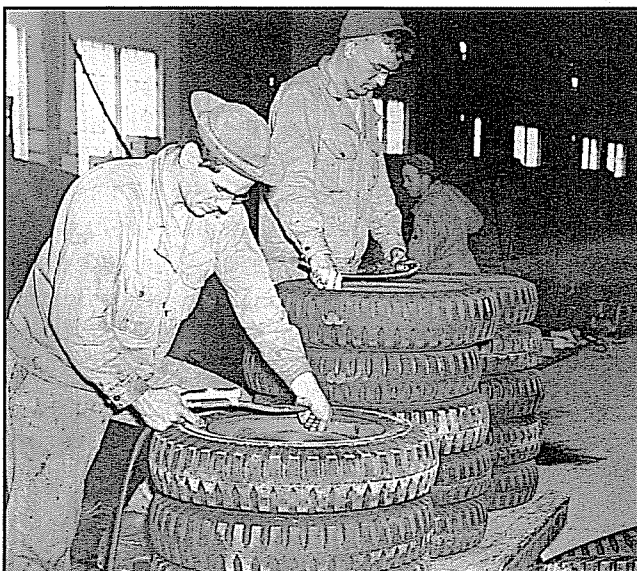
The windshield is first fastened into place, after which the other parts are put on and the engine adjusted. The soldier in the background is trucking wheels and tires from the first of the line where they were removed from the body, to the final assembly point.
U.S. Army Signal Corps photo courtesy of W. Stirling Parkerson collection.

View of assembly line. The hood number on the jeep in the bottom right hand corner of the photograph is USA 20340608 which indicates its date of delivery (DoD) was between July 1 to July 7, 1943. The serial number of this Willys MB jeep would be (within 999 numbers) 248???. U.S. Army Signal Corps photo courtesy of W. Stirling Parkerson collection.

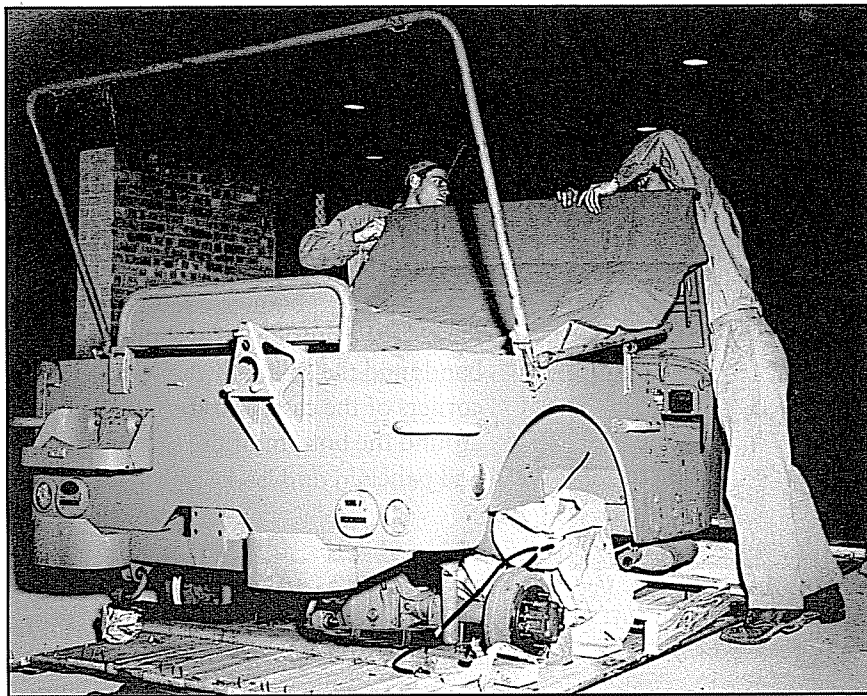


GIs, wearing the earlier style fatigue clothing and hats, use a quick lift rig attached to the jeep's bumpers to install tires. The hood number of the jeep on the lift is USA 20342518 which indicates its date of delivery (DoD) was between July 7 to July 14, 1943. The serial number of this Willys MB jeep would be (within 999 numbers) 250???. U.S. Army Signal Corps photo courtesy of W. Stirling Parkerson collection.

Filling station point, filling radiator. U.S. Army Signal Corps photo courtesy of W. Stirling Parkerson collection.



After the wheels are unstrapped from the interior of the body, they are brought to this point for inflation of the tires. U.S. Army Signal Corps photo courtesy of W. Stirling Parkerson collection.



Top being fastened into position on body of jeep. Note 3-bolt spare tire carrier in this photograph. U.S. Army Signal Corps photo courtesy of W. Stirling Parkerson collection.

CRATING OF JEEP VEHICLES

Two distinct methods of crating jeep vehicles have been identified. The material following illustrates what was known officially as MKD (Medium knock-down) and covers the unpacking and assembly of the boxed vehicle. This process was likely used for domestic purposes and was not as involved as the *Export* method. These crates used 148 cubic feet of shipping space and considerably less wood. Both Willys MBs and Ford GPWs were shipped by this method.

The *Export* method was more secure in the way the vehicle was protected from the elements when shipping by sea. This method utilized 201 cubic feet of shipping space and the gross weight of the container with jeep was 3,285 lbs (1,490 kg). The construction of the shipping crates and the method of packing were covered in *Army Motors* #102. The photographs on pages 30 through 33 show jeeps being unpacked and assembled from *Export* crates. Ford packing instructions called this shipping method *Fully Sheathed*.

INSTRUCTIONS FOR UNPACKING AND ASSEMBLY OF VEHICLE

Uncrating Vehicle

Before the vehicle is packed in the wooden case, certain parts and assemblies are removed from the chassis and body in order to reduce the cubic contents as much as possible.

The parts or assemblies removed are securely strapped in place or packed in a carton securely strapped to the bottom of the case.

WILLYS TRUCK

**1/4 TON 4X4
MODEL MB**

INSTRUCTIONS

FOR

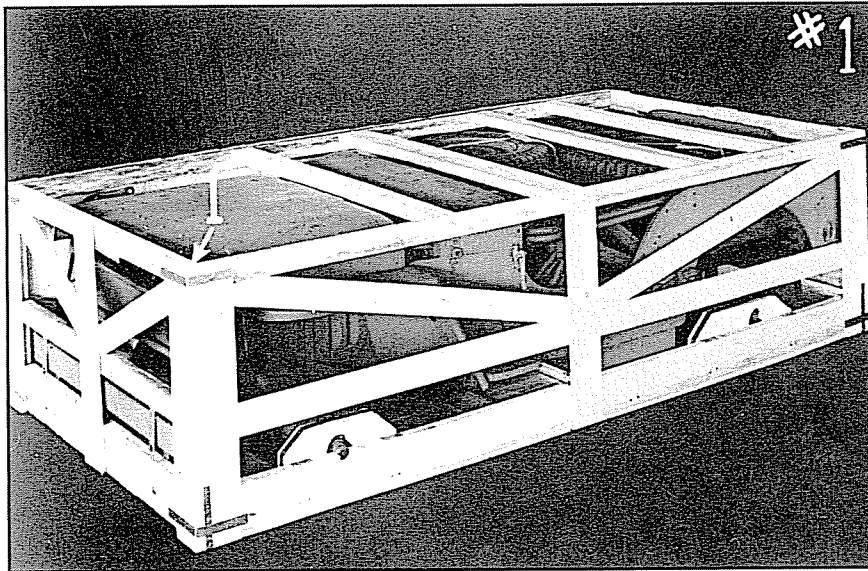
UNPACKING & ASSEMBLY

OF BOXED

VEHICLE

MKD (Medium Knock-down) 148 Cubic Feet

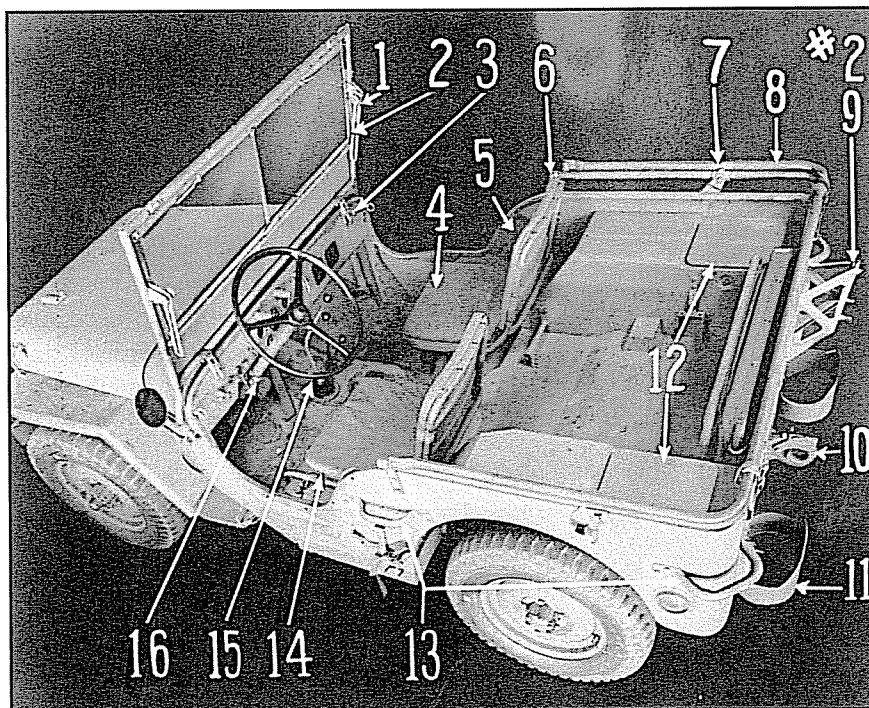
**WILLYS-OVERLAND MOTORS, INC.
TOLEDO, OHIO, U.S.A.**



Instruction #1

This photograph shows what a MKD (Medium knock-down) jeep looked like in a crate.

Illustration from 'Willys Truck' manual courtesy of Lloyd White collection.



Instruction #2

This photograph shows the location where to attach parts.

Illustration from 'Willys Truck' manual courtesy of Lloyd White collection.

Editor's note:

Careful reading of the assembly instructions in this article will answer some of the interesting and unique questions about jeep equipment, parts and location.

- To open the case, remove nails from the top boards with a nail puller and remove boards individually.
- Remove waterproof paper and slats, then the four top joists by pulling the nails through the sides of the case, out of the ends of the four joists.
- Remove the outside corner metal bands and the spikes through the corners of the case, also the nails around the bottom of the side and end panels.

Packing Sheets

- Remove the packing sheets in envelope attached to left front corner of case #1-1. When all parts and assemblies have been removed from boxes #3-3 and 7 and accessories from tool compartments located in the right and left rear corners of body #2-12, check parts as listed on packing sheets.

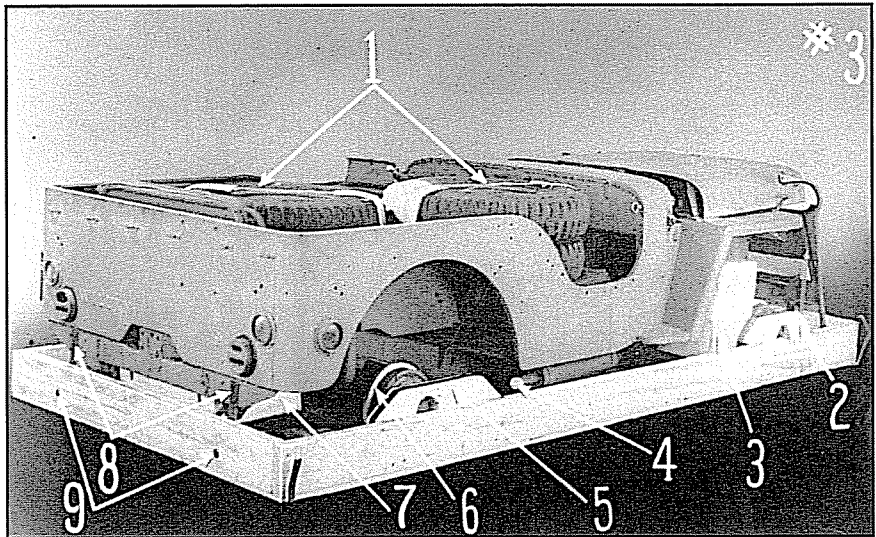
Removal of Vehicle from Case

- Remove No. 1 carton #3-3 which is strapped to the bottom of the case under the right front fender just to the rear of the front axle.

Number 1 carton contains parts removed from the body and chassis #2-11 rear bumperettes; 10 pintle hook; 9 spare wheel carrier bracket; 5 body side crash pads; 13 body outside handles, air cleaner elbow and hose, horn steering post bracket and bolts and nuts in separate bags.

- Remove metal straps #3-1 holding the five wheels and steering wheel in the vehicle body and remove wheels. Cut wires and straps holding top bows and front seat assemblies.
- Remove assemblies and canvas top. (Side curtains and hoods for windshield and head lamps folded in top.)

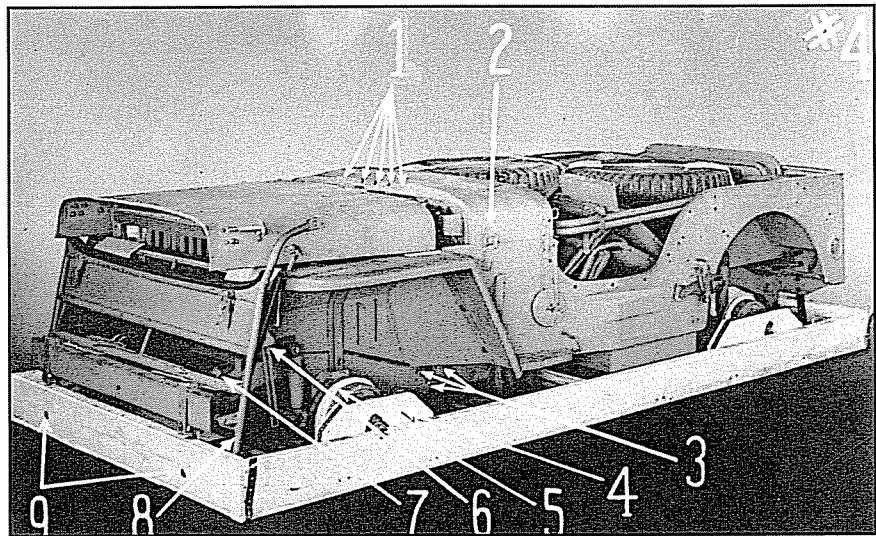
- Cut wires and straps holding windshield to case flooring and radiator grille. Remove windshield glass and frame assembly #4-6. The outside windshield frame #4-8 cannot be removed until vehicle front wheels have been installed.
- Remove wires and straps holding hood in place. Remove hood.
- Remove rear wheel hub blocking and metal straps, #3-5.
- Remove front wheel hub blocking and metal straps, #3-2.
- Remove rear lower chassis hold-down strap bolts and nuts #3-9, from the cross joist on case flooring and the bolts and nuts #3-8, from frame rear cross member.



Instruction #3

This photograph shows the jeep ready to have the various parts attached. Illustration from 'Willys Truck' manual courtesy of Lloyd White collection.

- Raise rear end of vehicle about two feet which will release strain on front chassis hold down straps. Remove the two bolts and nuts #4-9 from the cross joists on case flooring and slide straps off the bumper.
- Cut metal straps holding wooden box #3-7 to case flooring and remove box. This box contains vehicle tools and emergency parts for the first echelon.
- Remove sealing tape from brake drums #3-6 and install rear wheels (hub bolt nuts in place on hub bolts. Left hand threaded nuts have groove around hexagon head and are used on wheel hub bolts on left side of vehicle.)

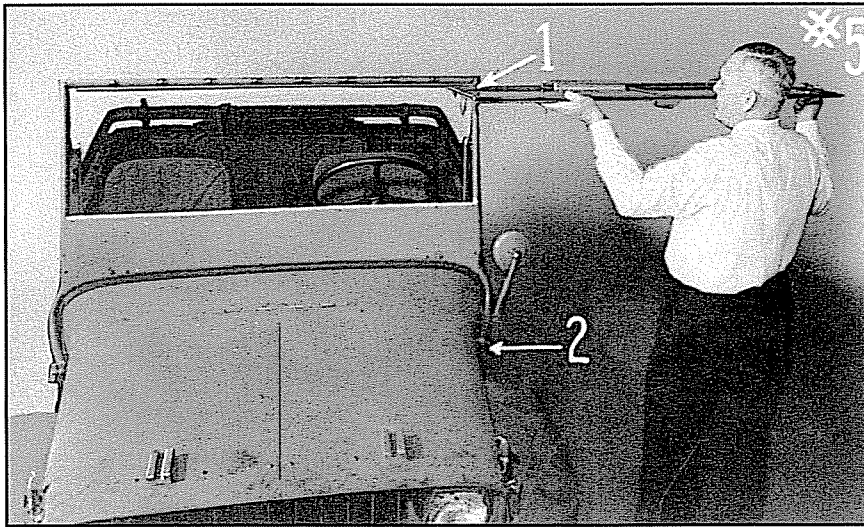


Instruction #4

This photograph shows the jeep sitting on the MKD pallet. Illustration from 'Willys Truck' manual courtesy of Lloyd White collection.

- Raise front end of vehicle. Remove sealing tape from brake drums #4-5, install front wheels and remove windshield outer frame #4-8 from front bumper. Remove vehicle from case.

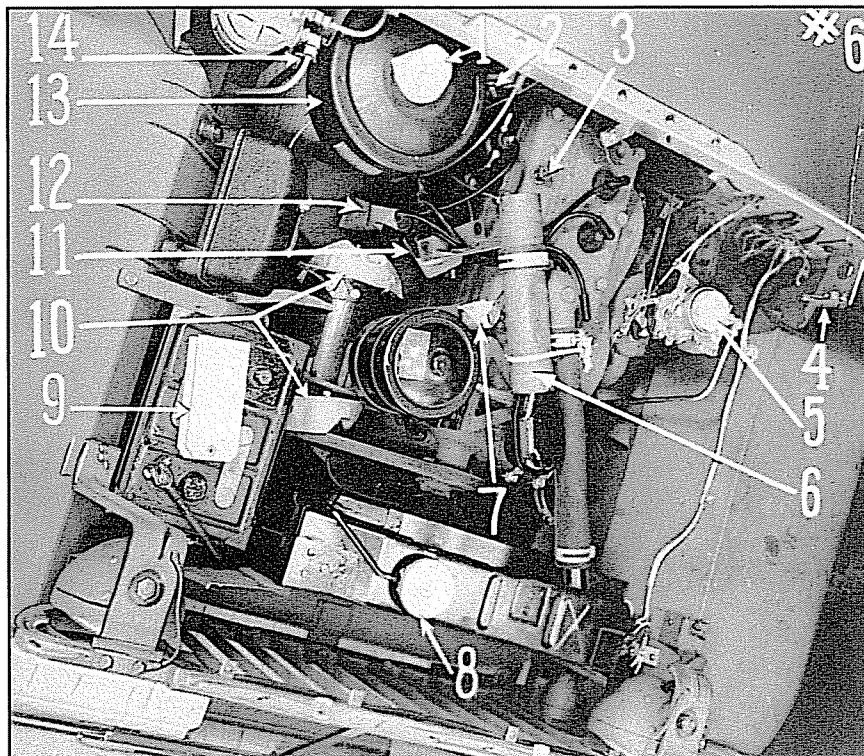
Thanks to Lloyd White's very impressive and detailed computer-based vehicle registration database, perhaps the largest in the world, we are able to identify vehicle serial number ranges, U.S. Army registration numbers and dates of delivery. It is highly important that MVPA members continue to contribute this data to Lloyd White to ensure the growth and accuracy of the data on all vehicles for future publications. Please send your vehicle data, on all vehicles, to him at 16652 Springwater Road, Oregon City, Oregon, U.S.A. 97045 or by fax to (503) 631-2239.



Instruction #5

This shows the installation of the windshield.

Illustration from 'Willys Truck' manual courtesy of Lloyd White collection.



Instruction #6

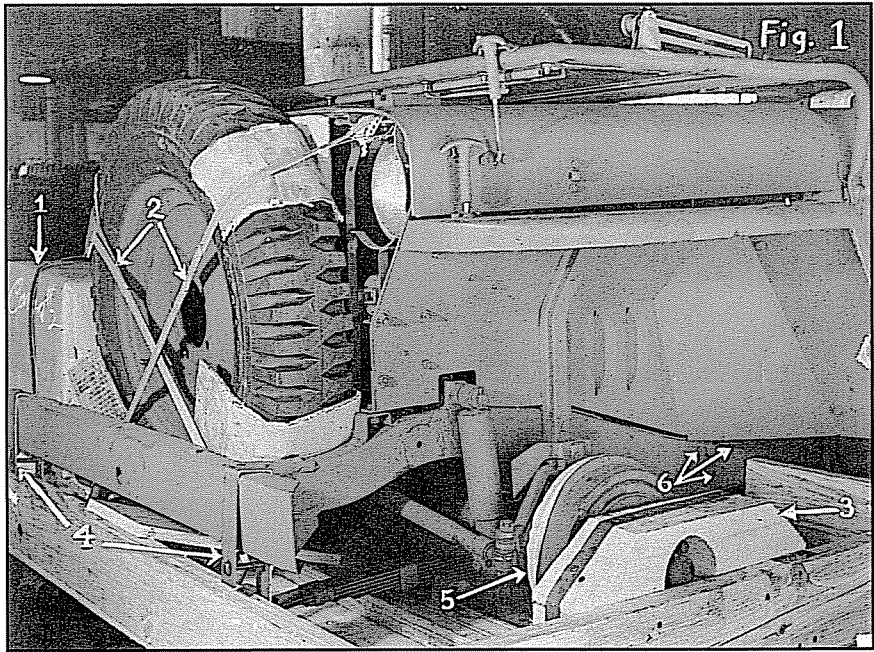
The numbers indicate to the assembler areas that need to be serviced or where the miscellaneous parts are attached.

Illustration from 'Willys Truck' manual courtesy of Lloyd White collection.

Assembly

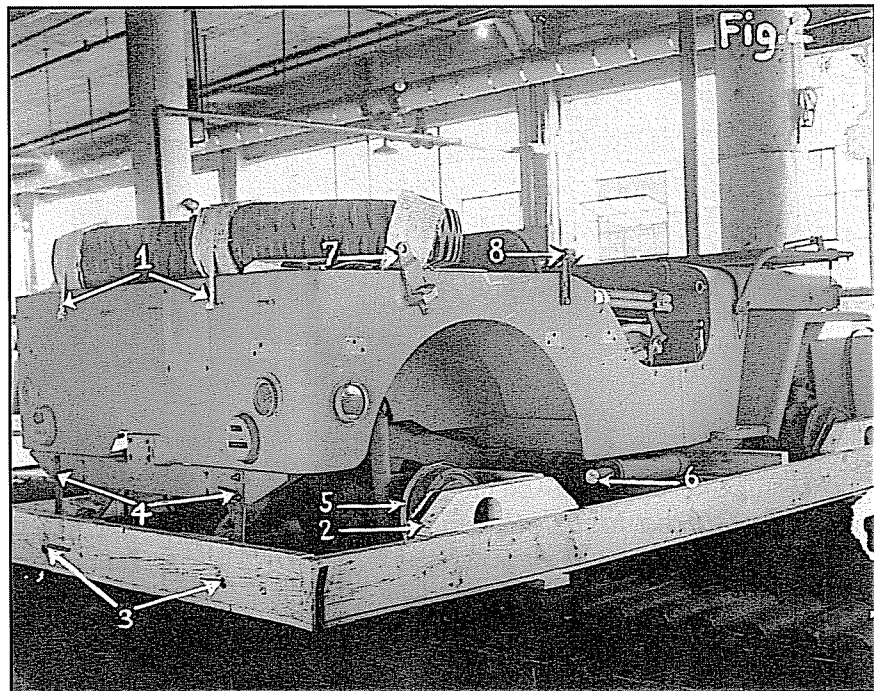
- Install front and rear body outside handles #2-13 (bolts and nuts in handles).
- Install spare wheel carrier to back of body #2-9 (bolts and nuts in place on carrier).
- Install rear bumperettes #2-11 (attaching bolts and nuts in bumperettes).
- Install pintle hook on rear cross member #2-10. The backing plate goes inside of frame, (bolts and nuts in pintle hook).
- Install top bow brackets.
- Install top bow assembly #2-8 by placing ends in front brackets #2-6, and install top bow pivots in rear bracket, #2-7.
- Install right and left front seat body side crash pads #2-5, (attaching screws in pads.)
- Remove wires and straps holding steering gear assembly to frame.
- Place steering gear in position on frame and install the three bolts #4-3, leave nuts loose. Raise steering post to instrument panel and install bracket #2-16, then tighten steering gear to frame.
- Set front wheels in straight ahead position by placing a straight edge from rear wheel to front wheel so that it touches the tires at front and rear of each wheel.
- Install steering wheel to steering post tube so that one spoke points toward driver's seat #2-15 and is in line with steering post. Steering wheel nut and horn button are in bag with the ignition keys in carton #3-3. Attach horn wire to terminal on steering column.

- Install horn on bracket #6-4. Attach black wire with red tracer to terminal nearest engine. The black wire with white tracer attaches to the other terminal.
- Install driver's seat #2-14 and passenger seat #2-4. Attaching bolts in bag in number 1 carton. Fasten with the straps provided under passenger seat the following equipment: canvas top, side curtains, windshield and head lamp hoods under passenger seat.
- Install windshield outer frame assembly #4-8 on cowl bracket #4-2 with thumb screws #5-2. Hook windshield clamps #2-3 to instrument panel.
- Remove windshield glass adjusting arms #2-2 from frame.
- Hold windshield assembly as shown in #5. Line up hinge and slide assembly toward the right side of vehicle and bend up lip on left end of hinge #5-1.
- Attach adjusting arms to windshield glass frame and to outer tubular frame #2-2 with screws and knobs.
- Remove plug in carburetor air horn #6-5.
- Install air cleaner tube and bracket assembly #6-6 on carburetor air horn and cylinder head studs #6-3.
- Remove hood hinge cap screws #4-1 from cowl. Install hood in place on cowl and install cap screws.



Export Crated Instruction Fig. 1

This illustration from the unpacking instructions for Export crated jeep vehicles clearly shows one of the wheels shipped in front of the grille. In the MKD crates all the wheels were shipped in the jeep body (see Instruction #3 and #4) and the jeep windshield was shipped in front of the grille (see Instruction # 4). Photo courtesy of Lloyd White collection.

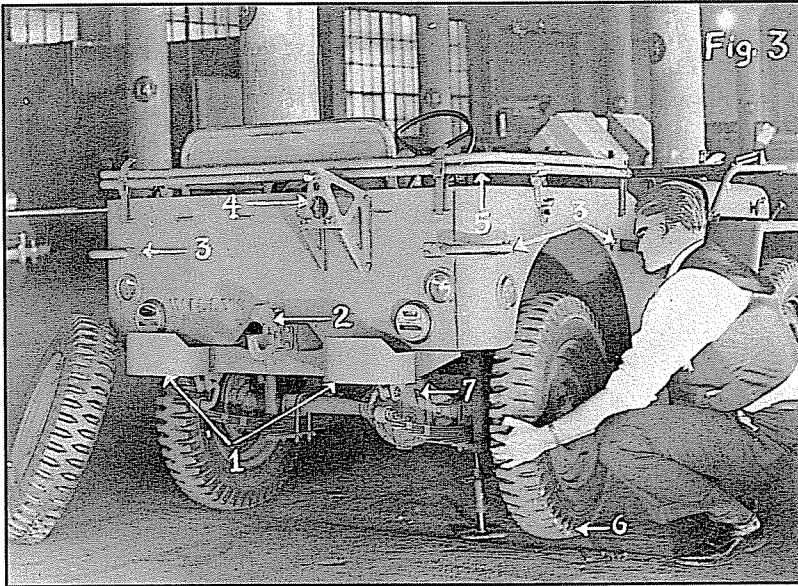


Export Crated Instruction Fig. 2

This three quarter rear right photograph illustrates those areas at the rear of the jeep to which export instructions for unpacking and assembly apply. Photo courtesy of Lloyd White collection.

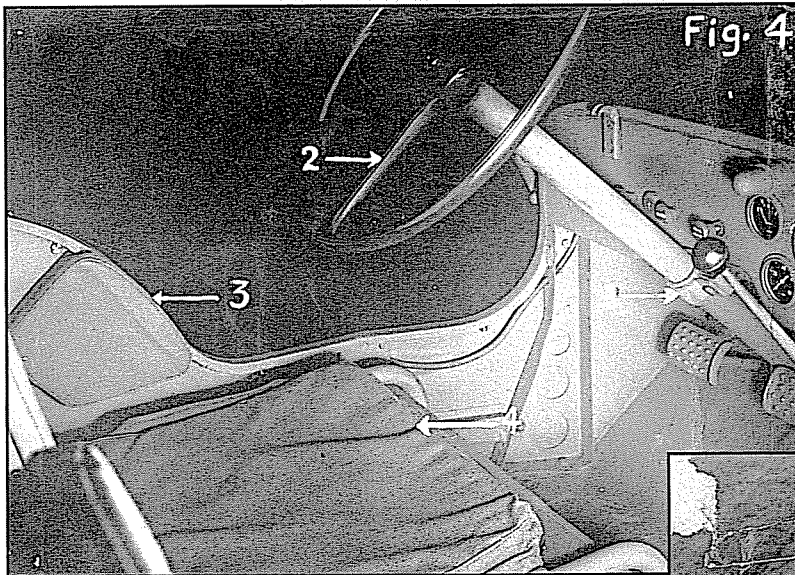
Important

Remove sealing tape and plugs from the following units; Instruction #6, 1-air cleaner, 7-oil filler tube, 10-generator, 12-starter; 11-distributor, 9-battery filler caps, -engine ventilator tube, (left side of engine at valve cover plate), master cylinder filler cap, transfer case vent, Instruction #4-7 front and rear axle vents, and Instruction #3-4 muffler tail pipe.



Export Crated Instruction Fig. 3

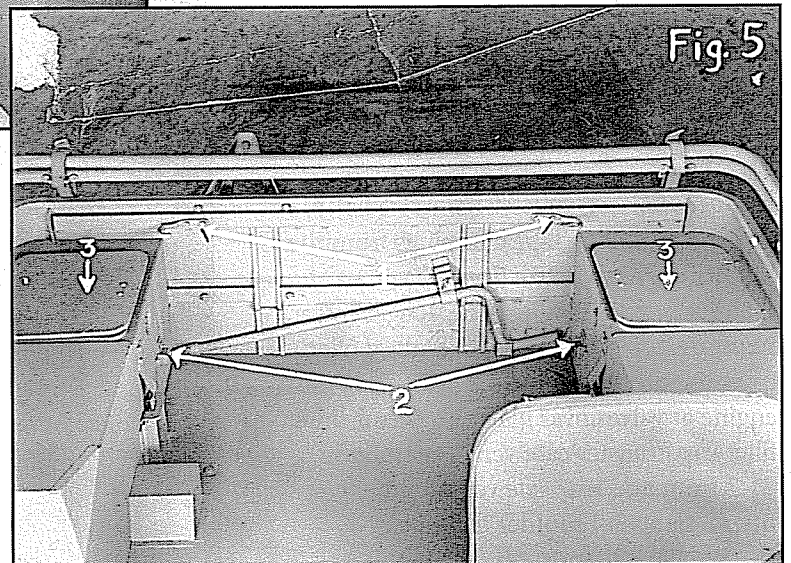
The installer has unfastened and removed the jeep from the bottom of the export shipping platform, mounted the rear bumperettes, top bows, steering wheel, spare tire carrier, installed the rear seat and is in the process of installing the last wheel.
Photo courtesy of Lloyd White collection.



Export Crated Instruction Fig. 4

This photograph illustrates the installation of the steering wheel and the driver's crash pad.
Photo courtesy of Lloyd White collection.

Export Crated Instruction Fig. 5
This photograph concerns instructions regarding the installation of the rear seat attachments and points out the tool storage lockers.
Photo courtesy of Lloyd White collection.



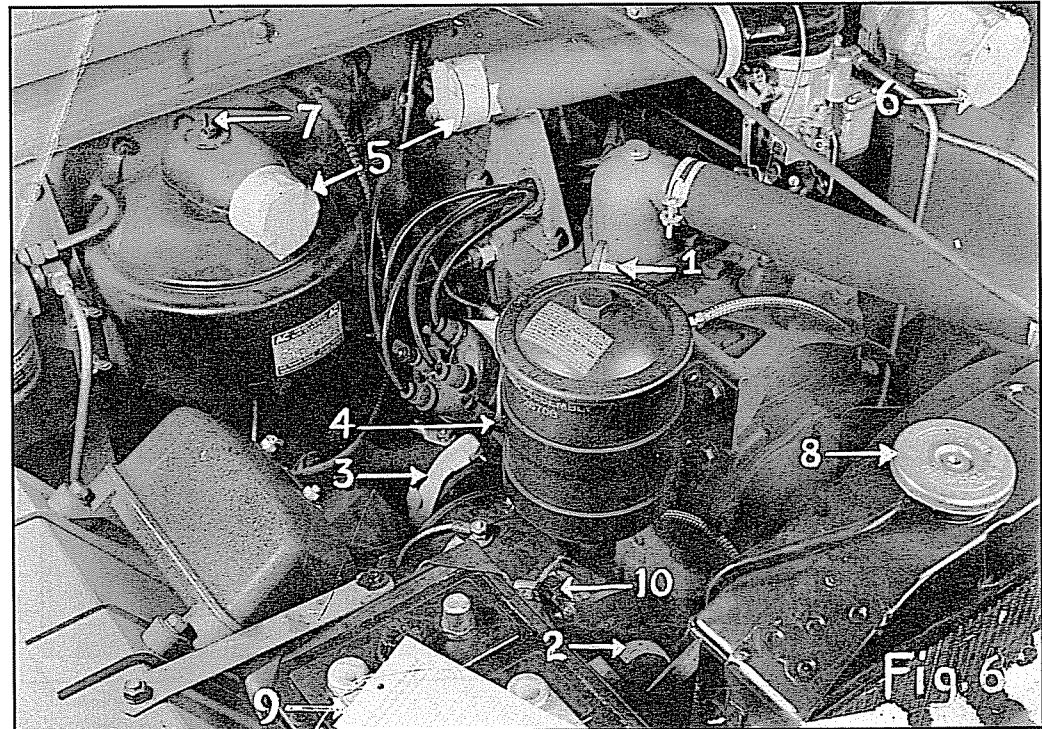
Conditioning the Vehicle

- Connect starter cable to large battery terminal and ground cable to small battery terminal.
- Remove the air cleaner #6-13 by removing the two wing nuts #6-14, loosen the two wing nuts #6-2 on other side. Swing assembly toward radiator so as to clear studs and out toward right front fender, then slide assembly off studs #6-2.
- To remove base from cover assembly use a wood block or hammer handle inserted through top and tap sharply on base. Place one pint of heavy engine oil in base, place cover assembly over base and press down, locking cover to base. Install assembly to brackets on dash.
- Install air cleaner outlet and hose to air cleaner tube and bracket assembly, #6-6.
- Fill radiator #6-8 with water, capacity eleven quarts. Use anti-freeze if necessary.
- Fill engine with four quarts of motor oil through oil filler tube #6-7.
- Fill fuel tank through filler opening under driver's seat cushion. Replace cap turning to locked position. Prime carburetor by operating the priming lever (located on rear side of fuel pump body) up and down. This operates the fuel pump diaphragm manually and pumps the fuel from the fuel tank, filling the filter and carburetor bowl.

To Prepare Battery for Use

Dry-charged storage Battery Type TSR-2-15.

1. Remove sealing discs, located on top or under vent plugs, and make certain vent holds in all plugs are open.
2. Fill cells 3/8" above separators with electrolyte of not warmer than room temperature of 80°F.
3. Let battery stand one hour, then if liquid level has fallen, add electrolyte to restore level. Screw vent plugs in place. Wipe off any spillage. Battery can then be placed in service.
4. When time and equipment permit, an initial charge for 16 to 20 hours at 8 amperes is recommended before placing in service. Use series charging (never constant potential) for this initial charging. See instruction card #6-9.



Export Crated Instruction Fig. 6

The close up detail of the engine compartment is to guide the assembler in installing miscellaneous engine components and servicing the engine systems.

Photo courtesy of Lloyd White collection.

Uncharged, unfilled storage Battery TS-2-15— Identified by yellow paint on cell terminal bar.

For Tropical Climates: Remove vent plugs and immediately pour in electrolyte of 1.245 specific gravity (28.5°Baume) until it rises to 3/8" (10mm) above the tops of the separators.

For Temperate Climates: Remove vent plugs and immediately pour in electrolyte of 1.300 specific gravity (33.3° Baume) until it rises to 3/8" (10 mm) above the tops of the separators.

Next place the battery on charge at the rate of one ampere for each positive plate in a cell. For example: 13 plates per cell - 6 positives per cell, charge at 6 amperes. Occasionally take the temperature of the center cell and if this exceeds 125°F (52°C) in tropical climates or 110°F (43°C) in temperate climates, reduce charging current or stop charging if necessary until temperature falls. Charging should require 40 hours.

Regardless of the length of time required, continue the charge until all cells are gassing (bubbling) freely, and the gravity of all cells has shown no further rise during three hours. The battery is then fully charged.

When fully charged specific gravity of the electrolyte should be 1.225 (26.5°Baume) for tropical climates or 1.285 (32° Baume) for temperate climates. If the specific gravity is more than 10 points higher or lower than the specified specific gravity then draw off the electrolyte down to the top of the separators and either add water to lower or add acid to increase specific gravity as the condition requires. Charge for three hours to thoroughly mix and again check specific gravity. Continue this process until correct readings are obtained. See instruction card #6-9.

Note: This vehicle should be serviced in accordance with instructions given in Maintenance Manual under heading *Pre-Operation Instructions* page 01-4 before being placed in service.

Missing from this article are the original *Instructions for Unpacking & Assembly of Export Crated Jeep Vehicles* although the photographs for them have been included on pages 37 through 39 (Fig. 1 through Fig. 6).

If any MVPA member has an original set, please forward a copy to the *Army Motors* editor. Thank you.



Export Crated Vehicles

Tires for 4x4s and 6x6s are uncrated and assembled in Cheltenham, England, February 15, 1944. U.S. Army Signal Corps SC 295214. Photo courtesy of Lloyd White collection.

Export Crated Jeeps

Jeeps are uncrated and assembled at Cheltenham, England, February 15, 1944. U.S. Army Signal Corps SC 295213. Photo courtesy of Lloyd White collection.

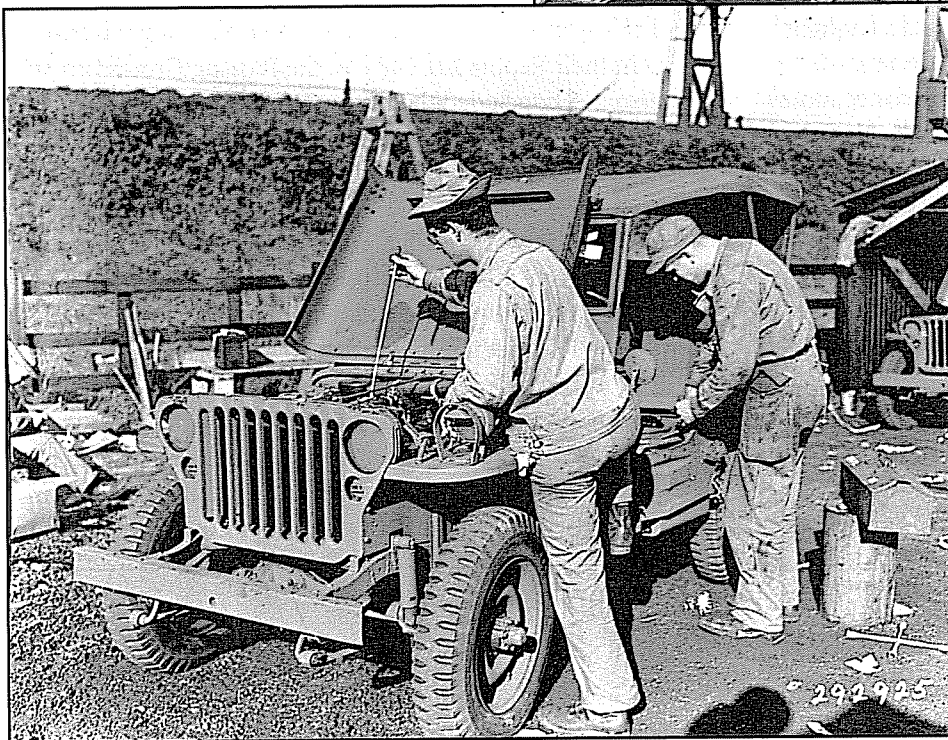
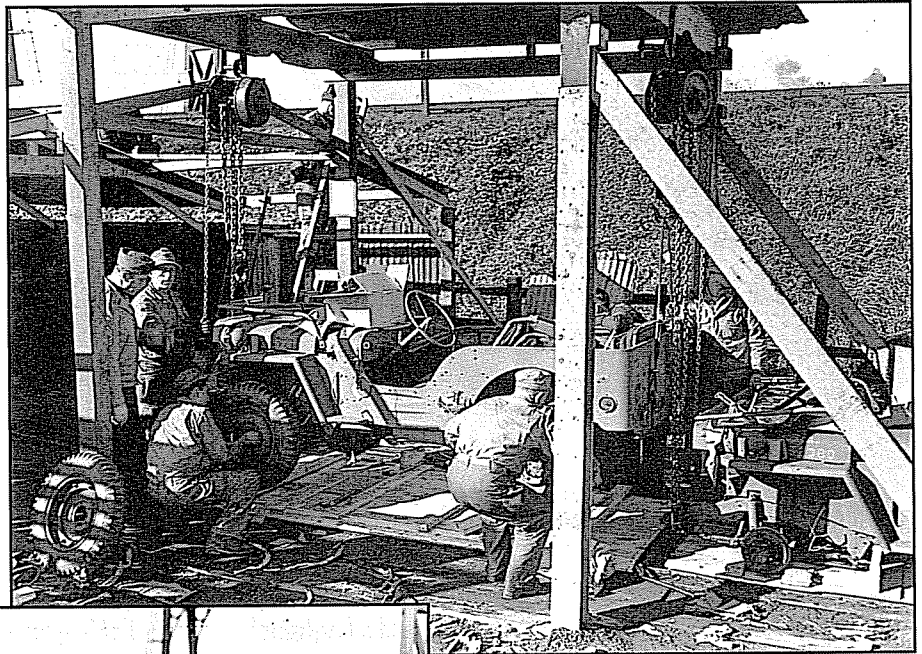


Outdoor Assembly Line

Outside U.S. Army 1/4-ton 4x4 assembly line at Depot 0-63?, Arrowe Park, England, January 7, 1944. U.S. Army Signal Corps SC 276514. Photo courtesy of Lloyd White collection.

Outdoor Assembly Line

American soldiers assemble a jeep at Depot 0-629, in Aintree near Liverpool, England, October 7, 1943. U.S. Army Signal Corps SC 292924. Photo courtesy of Lloyd White collection.



Outdoor Assembly Line

A GI from Yonkers, New York, in the 457th Evacuation Unit, checks the oil in the final stages of assembling a jeep at Depot 0-629, in Aintree, October 7, 1943. U.S. Army Signal Corps SC 292925. Photo courtesy of Lloyd White collection.



Outdoor Assembly Line

A GI from Detroit, Michigan in the 457th Evacuation Unit, drives a newly assembled jeep off the assembly line. Depot 0-629 Aintree near Liverpool, England, October 7, 1943. U.S. Army Signal Corps SC 292926. Photo courtesy of Lloyd White collection.