

ARMORED CAR

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When is a half-track not a half-track? The answer to this question is when the half-track is assigned to Washington, D.C., let me explain.

Over a period of years I have heard that a special modified half-track had been seen in the Washington D.C. area in the mid-to-late 1940's. It is only recently that I have been able to obtain specific information on this vehicle.

The vehicles in question were four (4) "Carrier, Personnel, Half-Track, M3" with a winch, normally referred to as the M3 Half-track. These vehicles had been modified by removing their rear tracks and replacing them with two axles on which dual rims and tires were mounted. In effect these vehicles became a wheeled armored personnel carrier. They looked very similar to the M3A1 4x4 Scout Car except for

When is a Half-track not a Half-track?

by Lt Col. James W. Loop, USA (Ret)

the extra rear axle.

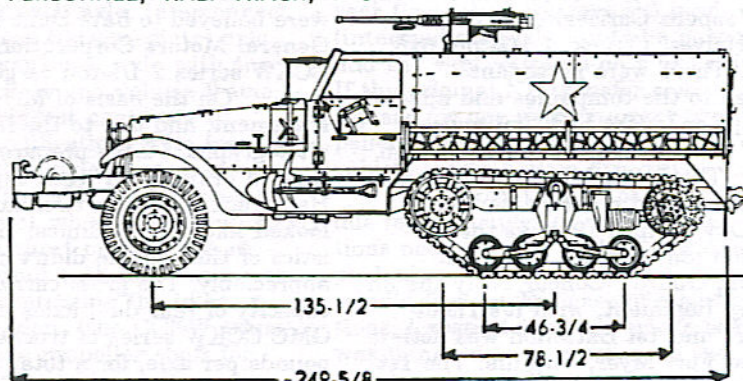
Mr. George J. Phillips, of Taylor, Michigan, which is located south of Detroit, provided the eyewitness information I was looking for. Mr. Phillips was stationed at Fort Lesley J. McNair during the period of August 1947 through September 1948

in Company C, 712th Military Police (MP) Battalion. Fort McNair is located at 4th and P Streets, South West, on an elm-shaded, 200 acre plot of land on the peninsula between the Potomac and Anacostia Rivers, in the heart of Washington D.C.

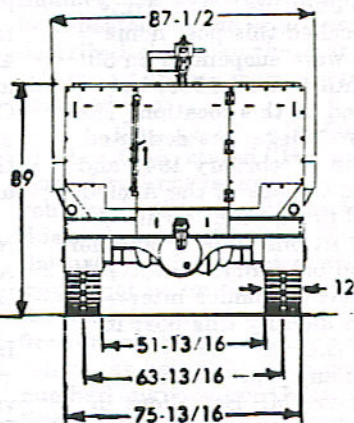
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COMPARISON OF M3 HALF-TRACK AND POSTULATED M3 WITH REAR WHEELS

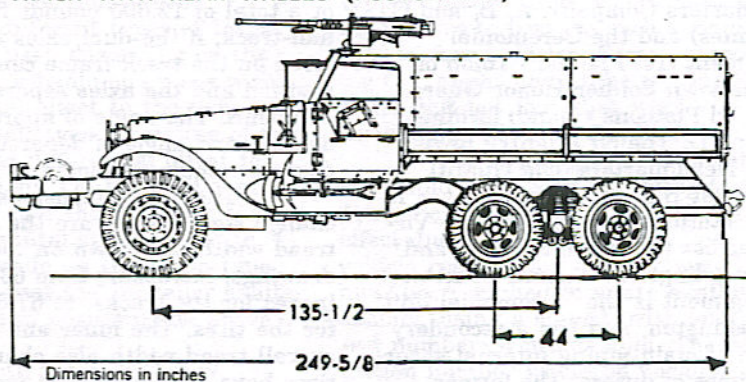
CARRIER, PERSONNEL, HALF-TRACK, M-3



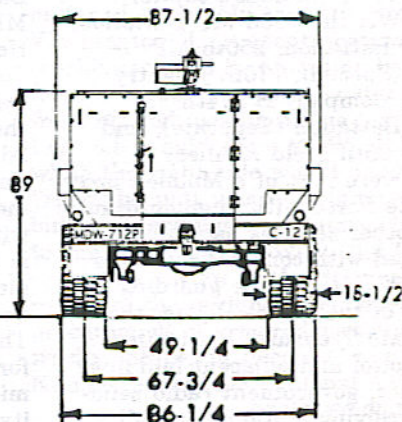
Dimensions in inches

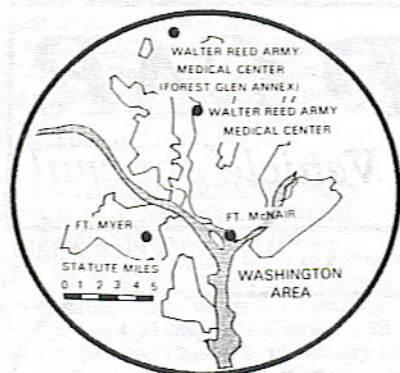


M3 HALF-TRACK WITH REAR WHEELS (POSTULATED)



Dimensions in inches





This post is accessible to key governmental facilities in the Washington area in a matter of minutes.

Fort McNair's location has been a US Army post since 1797, when it was known as Washington Arsenal, and later redesignated Washington Barracks. In 1935 it was renamed Fort Humphries in honor of Major General Andrew A. Humphries, a Gettysburg veteran and once Chief of Engineers, whose name was removed from Camp Humphries in Virginia, when it was renamed Fort Belvoir in 1935. Not satisfied with its current name, the area was named Army War College on 1 October 1939 and retained this name until 13 January 1948, when it was named in honor of Lt. General Lesley J. McNair, who was killed by allied bombing fratricide in Normandy, France on 25 July 1944. The Army War College called this post home when classes were suspended on 30 June 1940 until 1 April 1950, but never returned to this location. The National War College was activated on this post on 1 February 1946 and the Industrial College of the Armed Forces moved to Fort McNair in August 1946. At one time or another, references and old-timers will use the current or previous names interchangeably to identify this post in Washington, D.C.

For many years there has been one or more MP Battalions in proximity of the nation's capital. During WWII the 703d MP Battalion, 804th MP Battalion, 250th MP Company (Special), 176th Infantry Regiment, Company B 374th Engineer Battalion (Separate), and Battery C 55th Field Artillery Battalion were part of a Mobile Force. The Mobile Force with augmentation from the other services as required, was charged with constant guarding of the President and the guarding and patrolling of the White House, the United State Treasury, the United States Capitol and adjacent buildings and utilities, government radio sending and receiving stations, and all

bridges across the Potomac and Anacostia Rivers. After WWII this mission was somewhat reduced, with the 703d MP Battalion and the now assigned 712th MP Battalion, now responsible to counter civil disturbances, riots, agitation and other commotions. The 703d MP Battalion along with the 712th MP Battalion were in effect the post-World War II era "Palace Guard" for the District of Columbia. As late as 1978 an MP unit was stationed at Fort Belvoir, Virginia only 17 miles southwest of Washington, and was equipped with a number of M706 (V-100) series Commando Light Armored Cars.

The 712th MP Battalion was assigned to the Military District of Washington (MDW) and organized under a standard MP Table of Organization and Equipment (T.O. & E.) for that period. The Battalion consisted of a Headquarters Company and three lettered companies: Company A, B, and C. each lettered company and Headquarters Company was issued one (1) of the modified M3 Half-tracks with a Cal. .50 Browning Machinegun, M2 on a partial skate mount. The only other armament carried was the individual small arms of the crew. The Company C modified half-track driver was named Olgelby (?), from Baltimore, Maryland. Other vehicles in the battalion included the normal compliment of 1/4-ton Jeeps (Truck, 1/4-ton, 4x4, Command), 3/4-ton Weapons Carriers (Truck, 3/4-ton, 4x4, Weapons Carrier) and "Deuce-and-a-Halves" (Truck, 1 1/2-ton, 6x6, Cargo). There were no sedans assigned to the companies and none of the jeeps or trucks had "improvised armor" or any other added protection.

The 712th MP Battalion was reorganized and redesignated, on Army Day, 6 April 1948, as the 2d Battalion, 3d Infantry Regiment, "The Old Guard". Concurrently the 3d Infantry Regiment, with it's Headquarters and 1st Battalion was activated at Fort Myer, Virginia. The 1st Battalion was formed from the 703d MP Battalion, (new Headquarters and Headquarters Company, A, B, and C Companies) and the Ceremonial Detachment (1st Platoon - Tomb of the Unknown Soldier Honor Guard, 2d and 3d Platoons - Band) forming Company D. The 3d Infantry Regimental Headquarters (Old Guard) with its 1st Battalion was then, as it is now, stationed at Fort Meyer, Virginia, across the Potomac River and next to Arlington National Cemetery. This regiment is the "ceremonial unit" for Washington, and has a secondary mission of maintaining internal security in times of duress. The former

companies of the 712th MP Battalion were redesignated as Headquarters and Headquarters Company, E, F and G Companies of the new 2d Battalion. There was no change of location and the redesignated unit remained in its old quarters in the converted horse stables at Fort McNair. The MP functions were retained, but the T. O. & E. and duties were gradually changed with the MP duties eventually being assumed by a Joint Armed Forces Police group in 1949. The 2d Battalion was reorganized and redesignated on 1 July 1957 as Headquarters and Headquarters Company, 2d Battle Group, 3d Infantry Regiment and concurrently constituted and activated with the 7th Infantry Division in Korea.

Mr. Phillips recalls that the basic vehicles were M3 Half-Track Personnel Carriers. The WWII production records for M3 Half-tracks indicate that Autocar Company built 3,665, Diamond T Motor Car Company built 8,573 and White Motor Company built 153 and converted 108 more to M3 standards from T30, 75mm Howitzer Motor Carriages. A total of 12,449 M3 Half-tracks were produced from the period 1941 through October 1943, when production terminated. The use of a half, or front only skate mount for the Cal. .50 machinegun is an interesting modification. The M3 came originally with a pedestal mount behind the center seat of the driver's compartment. The dual rear axles were believed to have come from General Motors Corporation (GMC) CCKW series 2 1/2-ton cargo trucks.

On the basis of Mr. Phillips statement, and due to the lack of photographs, I have prepared a postulated drawing on what this M3 Half-track with rear tires might have looked like. The technical characteristics of this vehicle didn't change appreciably. The gross carrying capacity of rear dual axles on the GMC CCKW series of trucks is 8,090 pounds per axle, for a total of 16,180 pounds. This is well within the gross single track load limit of 6,300 pounds, or a total of 12,600 pounds for the half-track, if the dual axles are centered on the track frame center position and the axles separated by 44-inches. The angle of approach of 32 degrees and angle of departure of 35 degrees remain the same.

The only dimensions to change significantly are the rear tread width, as shown on the drawings, increasing from 63-13/16 inches for the tracks, to 67-3/4 inches for the tires. The inner and outside overall tread width also changed. The tires have a total of 1-1/4 inches

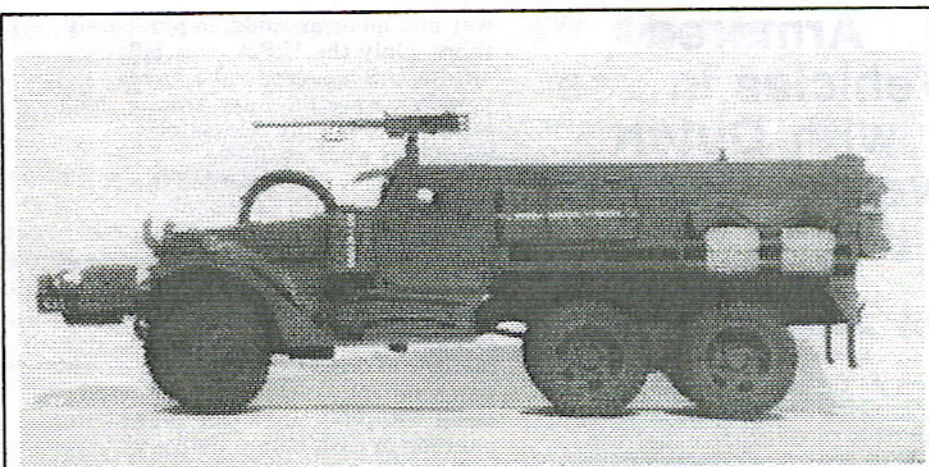
overall overhang beyond the armored sides, but this is not critical as the side mounted mine racks would act as surrogate fenders if still attached. The vehicle has non-directional combat tread tires with tubes, the half-track had 12-ply, 8:25 x 20 tires on the front, while the rear tires on the modified M3 are 8-ply, 7:50 x 20 tires. The front tires being of the side ring type rims (CV Type) with bead lock tires, while the rear tires are mounted on lock ring type rims (RH Type).

The wheeled CCKW rear driving unit is a centrally supported unit consisting of two single-reduction spiral-beveled driving axles. Each axle is attached to the frame by three independent torque rods. Both driving and braking loads are transferred directly to the chassis frame by these rods. Two types of axles are used, the banjo type and the split type. The split or two-piece type is made in two pieces, bolted together at the differential. The banjo type housing is of one-piece construction.

The rear spring suspension consists of thirteen inverted semi-elliptic springs on each side, mounted on roller bearing spring seats and retained with U-bolts. Slipper type spring ends are located in guide brackets on each rear axle. The end of the springs are free to slide forward or backward to permit the springs to lengthen and retract under load compression and rebound action. Torque rods, three at each axle, interconnect the forward rear (intermediate) axle and the rearward rear axle with the trunnion brackets and vehicle frame.

The biggest challenge in making the modifications from tracks to wheels is the transfer case and drive shafts. The M3 transfer case has the normal front wheel drive propeller shaft and one short propeller shaft going to the front tack drive sprocket, the rear sprocket being the idler or non-drive sprocket. The CCKW transfer case has one propeller shaft for front wheel drive and two rear propeller shafts, one for each rear axle. To complicate the modification further, two different types of transfer cases are used depending on the type of axles, a banjo one piece with the differential offset to the vehicle left, or the split type consisting of two pieces and the differential offset to the vehicle right. On the split type axle transfer case the propeller shafts are in a horizontal straight line to each other, while on the banjo type axle transfer case the propeller shafts are in a vertical position, one above the other.

In both types of CCKW



1/35th scale model the 6x6 half-track.

Model: John Cloyd. Photo: Dave Haugh

transfer cases, the power is transmitted from the transfer case to the forward rear (intermediate) axle by a single propeller shaft. Power to the rearward rear axle is transferred from the transfer case to a pillow block attached to the top of the forward rear (intermediate) axle and thence to the rearward axle by another propeller shaft. The banjo type axle has a wheel tread of 67-1/2 inches while the split type axle has a tread width of 67-3/4 inches for a difference of 1/4-inch overall.

If the original M3 transfer case was used and assuming that CCKW type axles were used for the rear tires, then the forward rear (intermediate) axle would be powered and the vehicle would be a 6x4 drive. If the original M3 transfer case was replaced for one with two rear propeller shafts, then the modified vehicle would have a 6x6 drive.

The conversion of these M3s, due to its complexity and modifications needed, were probably accomplished at the factory or a US Army rebuild facility. For ease of modifications, I suspect the rear armor body was removed to give access to the frame and transfer case. I don't believe that organizational or direct support maintenance would have the capabilities to perform such a modification on four vehicles. Some enterprising G.I. might undertake one modification but not four that were assigned to Washington, D.C.

The markings of this modified M3 would have been according to Army Regulation 850-5 (AR 850-5) in effect during 1947 and 1948. The vehicle registration number would have been applied in white synthetic enamel, using a stencil, with letters and numbers 4-inches high. The registration number would be parallel to

the top of the slanted hood, not with the ground, with U.S.A. centered above the number, which for half-track personnel carriers would start with 40----. This number wouldn't have changed even though the vehicle was modified. The letter "S" would have been used to designate the vehicle had been suppressed to eliminate radio interference caused by the vehicle's electrical system, over the frequency range required by the military characteristics of the vehicle. This "S" would have been placed one space, after the vehicle registration number. The registration number will be repeated, in the same manner described above, on the rear door, centered 4 inches from the top of the armored door.

Change 4 to AR 850-4, dated 21 May 1946, stated "The national symbol will not be applied to motor vehicles in the zone of the interior." this includes half-tracks. Therefore the national five-pointed white star would not be on this vehicle during the time in question. Unit identification markings would identify this vehicle as being the 12th vehicle (real number unknown) of Company C, 712th Military Police Battalion, assigned to the Military District of Washington. Unit identification markings would be placed on both the front and rear bumpers, as standing in front of, and looking at the bumpers. Left side would show MDW-712P, while the right side would be C-12. When the unit was redesignated, the bumper markings would have changed to the following: MDW-31 and G-12.

A review of the documented record of the design, development and procurement of armored cars and half-tracks, located in Record Group Number 156 of the National Archives,

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Armored Vehicles in use with Dutch Overseas Forces during WWII

by Hans Heesakkers

At the end of the 1930's the government of the Netherlands East Indies (N.E.I.) concluded that the Koninklyk Nederlands Indisch Leger (K.N.I.L. = Royal Dutch Indies Army) would not be able to withstand an attack from the outside by an enemy nation (at that time a very real threat).

With the greatest priority the Dutch military staff looked for a solution. The answer was found in 1940 in the form of the so called "Brigade Plan". This plan consisted of the total reorganization of the Dutch East Indies Army. After the proposed reorganization the army would consist of four to six motorized brigades, each with a strength of 5,000 men; based on the main Dutch East Indies island of Java.

Each brigade would contain motorized infantry, artillery, and cavalry units as well as supporting and logistic assets. It seems clear that an awful lot of equipment would have been needed. However, Europe was at

war and no arms could be purchased there. Only the U.S.A. was left; official U.S. government sources however, were too busy arming their own forces, so only commercial producers were available.

Some years earlier the N.E.I. had contacts with Marmon-Herrington (who had also built several military vehicles and armored cars for Persia and other countries). So one of the biggest deals in Dutch procurement was made. A large number of trucks (in several different versions) and tractors were ordered, along with 600 tanks (the tanks being paid for in cash before delivery).

The first order was to have been ready in May of 1941 but deliveries didn't start until much later.

Three types of tanks were purchased:

- 1) CTLS - 4TAY and 4TAC
- 2) CTMS - 1TB1 (Dutch three man tank)
- 3) MTLs - 1G14 (Dutch four man tank)

As it worked out, only 25 of the above tanks (all CTLS versions) were delivered in time for operations, just before the Japanese occupied the territories. Only seven of the 25 new tanks became operational in time to fight the Japanese. Together with the V.C.L. M-1936 Dutchman, Marmon-Herrington Mk III armored cars from South Africa, and a single M3A1 White armored car, they served in the "Mobiele Eenheid" (mobile force) on

the island of Java.

(According to South African sources, a total of 49 Marmon-Herrington Mk III MFFs were supplied to the Dutch East Indies prior to the Japanese invasion -ed)

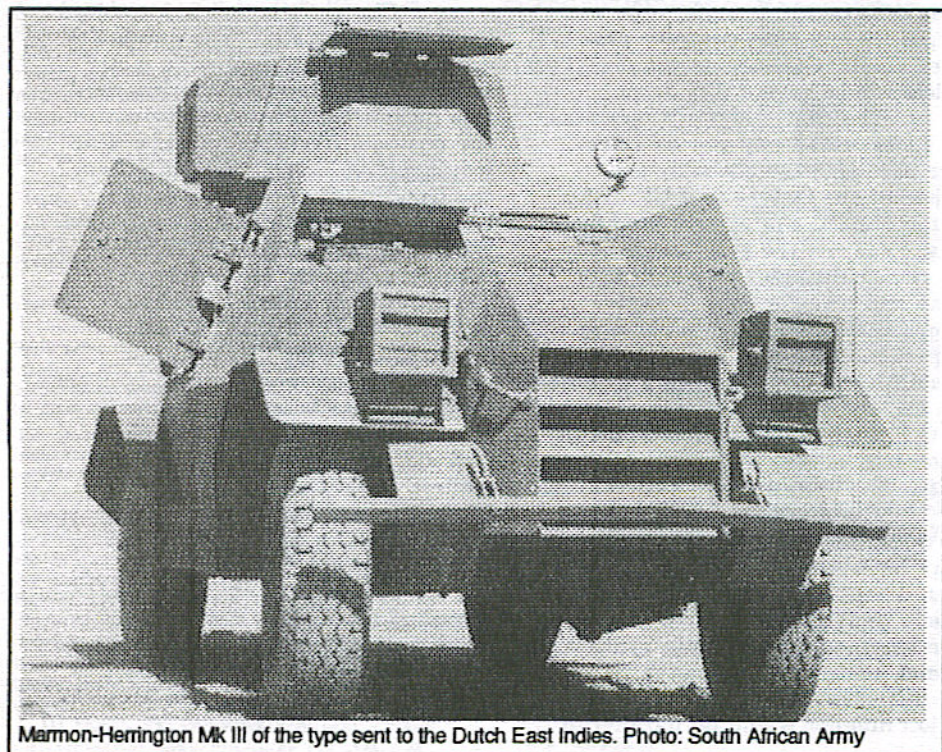
On 2 March 1942, at 0815 in the morning the "Mobiele Eenheid" started a counter attack on the occupied city of Soebang. The Japanese were surprised and at first the attack was a success. The light tanks with only machineguns for armament penetrated into the heart of the city, losses were high however and fighting became difficult because of strong Japanese forces hiding in the city buildings. The armored advance needed the support of friendly forces, but the infantry hadn't been able to keep up with the the rapid advance of the armor, and had become bogged down in battle with by-passed Japanese troops. Casualties became so high that the remaining Dutch forces had to withdraw at 12:20 that afternoon. Regrouping a few kilometers south of the city it was found that eight out of the 24 tanks committed had been destroyed, and out of the remaining 16 barely nine were still operational. K.N.I.L. headquarters then gave the order to return to base. Six days later on 8 March 1942 the N.E.I. capitulated.

Organization of "Mobiele Eenheid"

- Tank Squadron
 - 17 VCL "Dutchman"
 - 7 CTLS 4TA
- Motorized Infantry Company
 - 16 Overvalwagen Type B (APC 4x2)
 - 150 men
- Recce Unit
 - 3 Marmon-Herrington Mk III MFF 4x4
 - 1 M3A1 White Scoutcar
- Motorized Anti-tank Gun Section
 - Unknown number of Böhler M35 47mm guns mounted on 4x2 trucks
- Artillery Battery
 - 4 Bofors 75mm Mountain guns

After the fall of the Dutch East Indies, some of the remaining Marmon-Herrington tanks on order were delivered to the Dutch territories in South America; Suriname (Dutch Guyana) and the Dutch Antilles (only the island of Curacao received CTLS 4TA tanks).

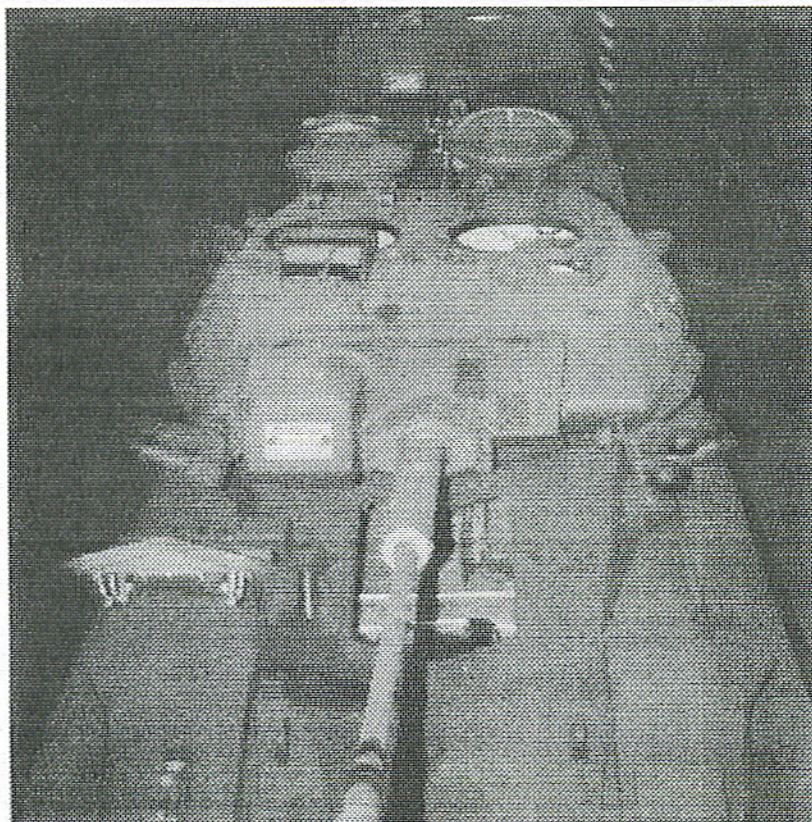
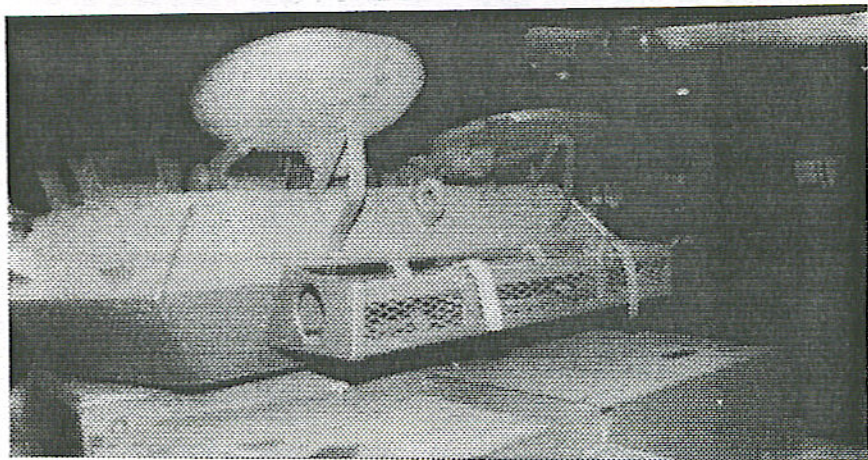
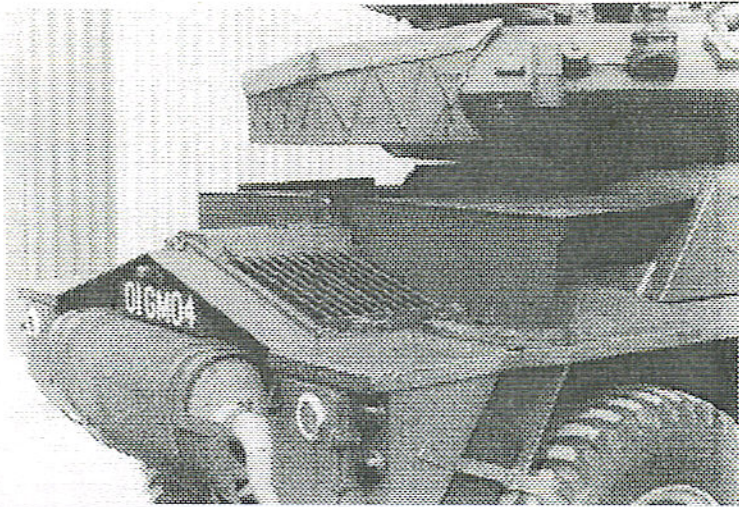
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Marmon-Herrington Mk III of the type sent to the Dutch East Indies. Photo: South African Army

Foxes and their cubs

by Peter Brown



Mention was made in AC#17 about the British plan to modify its armored car fleet. The Fox has been in service since 1969, alongside the older Ferrets of 1950s vintage. Fox was a more powerful vehicle, with a 30mm RARDEN L21 cannon. This weapon is capable of taking on other vehicles in the same class, and is useful against APCs and low-flying helicopters. It fires from an unusual three-round clip, the usual fire mode is single-shot (a British Army favorite, especially for rifle fire) but can fire six shots in full auto. Spent cases are ejected out of the turret, so no brasses or fumes to cause problems for the crew. Apart from the driver...

The British Army has 350, but Fox never enjoyed export success. A few were bought by Malawi (18), Nigeria (50) and Saudi Arabia (50) but compared to earlier types it was a poor seller. At the time Fox was introduced, it was planned to replace the Ferret with a mix of 30mm Foxes and a less capable version, but still useful for escort and low-intensity operations. This was the Vixen, basically a Fox with a wider hull and a small turret mounting a 7.62mm machine gun. This project was cancelled under defence cuts - yes, we had them even then!

While Fox was developed by the Fighting Vehicles Research and Development Establishment and prototypes were built by Daimler, series production was at the Royal Ordnance Factory in Leeds, then government owned. When ROF Leeds was sold to Vickers Defence Systems in 1968, production rights for Fox included. New versions of Fox with a variety of turrets were produced, including one with a Hughes (McDonnell Douglas Helicopters) 25mm Chain Gun and also 7.62mm Chain Gun and missile launchers.

Reverting to the Vixen ideal, Panga was developed with one-man Peak Engineering turret with a 0.50" M2 Browning on a basic Fox hull. Further work resulted in a revised stowage including a spare wheel on the left hand side, and a Helio FVT800 turret mounting the same Browning and a coaxial 7.62mm L37A2, a version of the widely used FN MAG known as GPMG (General Purpose Machine Gun) in the UK.

...continued on page 6

Trials in Malaysia did not result in sales.

Meanwhile Fox served on in the British Army, basically unmodified. The ammunition for the RARDEN was improved, and according to my sources it was common practice to replace the small tray on the turret rear with a larger and more waterproof box. Other extra stowage was added, and many units cut small steps in the sides, just in from the wheel arches. This is very common, and in fact used on the experimental versions. One problem was the high centre of gravity of the car, which led to accidents as they could turn over.

As well as regular units, the Fox was issued to the Territorial Army, Britain's part-time volunteer force. Units of the Royal Yeomanry, locally based and formed from various earlier horse cavalry regiments, operated them to provide recon and support for infantry divisions. One friend of mine had been a Territorial for some time, but despite being an armored car enthusiast and owner of a Dingo which is on loan to the Tank Museum at Bovington, he was not part of the Yeomanry. A change of job and location allowed a transfer to them, alas after they had been re-equipped with Land-Rovers!

With the cutback in forces under the Options for Change plan, it was planned to withdraw the Fox and use the turrets on the CVR(T)

Scorpion as the 76mm gun was to be taken out of use. This would, albeit belatedly, correct the commonly written remark that the 30mm armed CVR(T) light tank, the Scimitar, used the same turret as Fox. In fact, Scimitar has a similar eight sided turret to Scorpion, while the Fox is four-sided, albeit with curved sides. Some Fox hulls would get a machine gun turret for liaison and escort use, in effect Vixen revived.

On a recent visit arranged through the Friends of the Tank Museum to the Central Vehicle Sub Depot at Ludgershall, where many Army vehicles are stored, repaired and generally readied for issue or re-issue, one shed contained a large number of Foxes, stored appropriately enough next to Scorpions. At first sight they looked odd, until my Yeoman friend pointed out that they were fitted with the Michelin tyres with their distinctive square block tread arrangement, and not the 'usual' Dunlop Trak-Grip. Large numbers of Michelins are fitted within the British Army, although cheaper they do not seem to give as long a life as the Dunlop ones. A case of false economy perhaps?

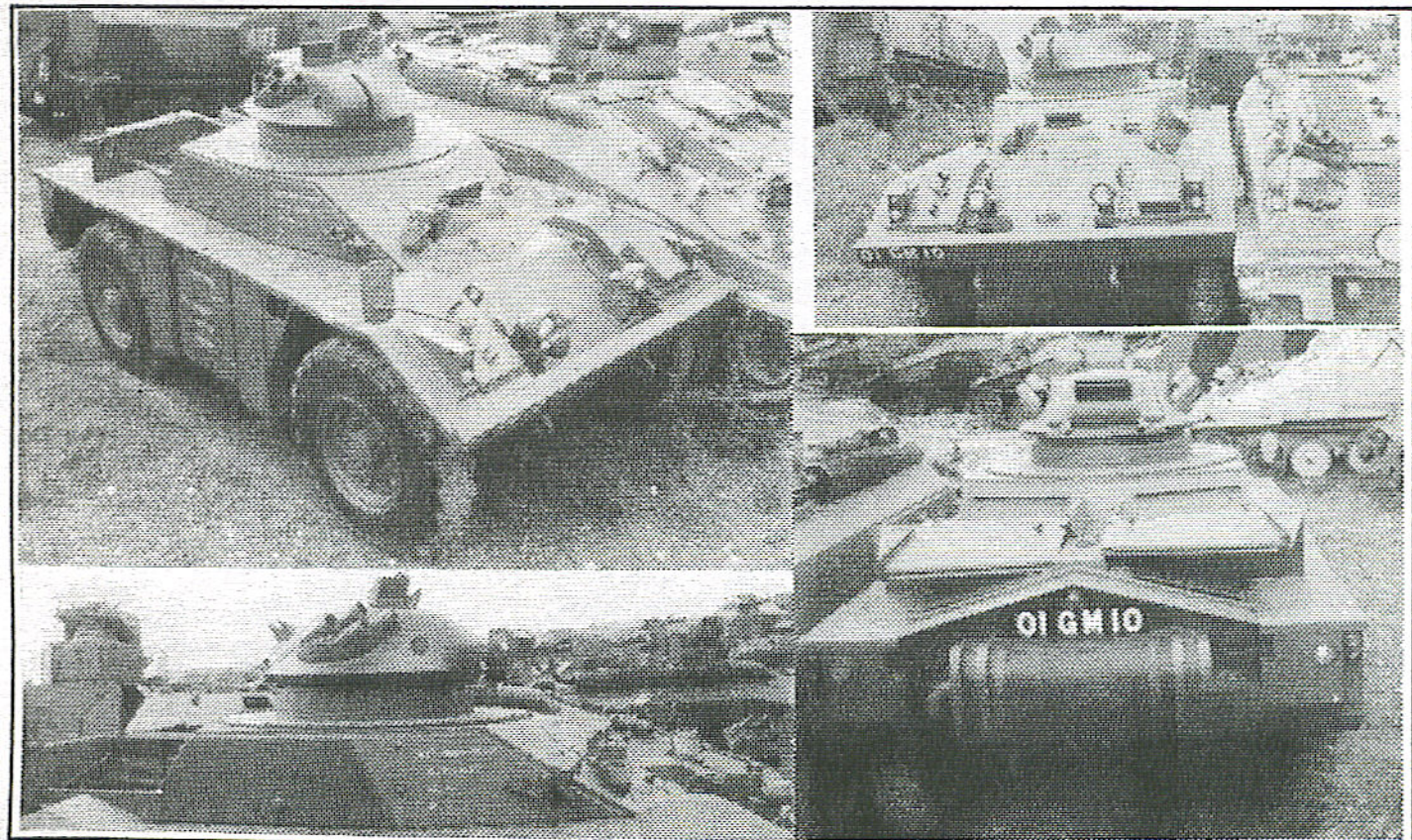
Part of the visit was a look at the 'back lot' where vehicles are stored out of doors. Among common types, some now being scrapped as they are withdrawn or replaced, were a few oddities. I was drawn to some

FV432 APCs with the small Peak Engineering turret with GPMG as planned for Vixen, a type I had not seen in the flesh. After photographing and admiring the unusual and complex casting I looked about for a way back to the ground, and saw a Fox with the same turret as the one I had been photographing.

A closer look revealed it was not a Panga or a Vixen. The top of the hull had been sealed off by a flat plate bolted down, and the new turret fitted to a small collar or extension. One of the party with me, Geoff Fletcher, has long been researching vehicle serials and other markings. Stencilled on the car was data relating to its receipt at Ludgershall, which was only early in 1993. Against type was a code which said, in effect, 'we cannot identify this vehicle'. He identified the serial number as from a Fox batch, as it was not an SP series one as would be expected for a purpose-built prototype. Our guide was also unable to tell us much about it, of course to him it was another vehicle out of many hundreds.

So here in a field, awaiting an unknown fate, was another piece of British Armoured Car history. As and when these vehicles enter service, I will try to bring an update till then it may well be one of a kind, but hopefully not the last of one.

All photos below: © Peter Brown



Morton

A Harrisburg Built Armored Car

by David W. Houseal

Morton's Beginnings

Between 1911 and 1916 the Morton family through their company Morton Truck and Tractor, produced heavy trucks, 4-wheel drive tractors and fire apparatus in Harrisburg, Pennsylvania. With the advent of WWI, their attention turned to the possibility of producing an armored vehicle for export.

During the fall of 1914 and into that winter the British government set a liaison with key industries in the United States to produce the necessary machines of war. The Morton's received the go ahead to produce two prototype vehicles under the eye of a British observer.

The Harrisburg paper Star Independent, on February 3rd, 1915 proudly and boldly proclaimed what was to happen:

WAR AUTOS MADE HERE FOR USE OF BRITAINS

Morton Company Ships Armored Truck and Tractor and Heads of Local Concern Summoned by English Government. Will Sell Tomorrow With Assurance That They Will Land Large Contract for Local Plant.

Representatives from Morton took with them samples of an armored truck and a 4-wheel drive tractor. The truck as demonstrated was covered with five-eight inch armor plate and had a carrying capacity of 6 tons. It was also equipped to mount two rapid fire guns.

The tractor was rated at 20 ton capacity, meeting the British requirement and was intended for use as an artillery tractor, besides 4-wheel drive the Morton tractor also offered steering of both the front and rear axle. These vehicles were demonstrated in England during early 1915.

Meanwhile back in Harrisburg, an order for 300 of the 4-wheel drive Morton tractor had been received from Russia. These tractors were to be armored and have a 120 horsepower engine. The Russian tractors were to be shipped at the rate of fifty a month, the total contract being worth some \$1,500,000. This price of \$5,000 per tractor may have contributed to the later demise of the Morton Company, since the base vehicle had a list price of \$9,000 at that time.

The Morton's visit to England also seems to have been successful, an order for 116 commercial trucks of three and five ton capacity was placed with a total price of some \$400,000. It appears that these trucks were not the armored version.

At the end of March the British truck order was followed by an additional order for 94 additional trucks at some \$270,000. Work was to begin within two weeks and the trucks were to be furnished "at once". Morton's already over extended production facilities were beginning to feel the stretch. Simply put - the Morton Truck and Tractor Company was growing too big, too fast.

From February through April of 1915, the officials of both the Morton firm and the Harrisburg Boiler and Manufacturing Company (the Morton's partners in production) were hurriedly securing machinery and increasing their inventories of parts to begin production. On May 1st, 1915 production commenced on the Russian order.

Robert L. Morton returned from his trip to London on June 8th, 1915. In his briefcase he held contracts totaling over \$5,000,000 for 1,000 vehicles of various makes and types.

Slowly production dragged on. The officials on the company must have been becoming increasingly worried. By June 21st only eight of the Russian tractors had been completed, and a month later

(the end of July) on 31 had been completed.

Still the Morton's continued to demonstrate their wares to anyone interested. On July 27th, a series of exhaustive tests were conducted under the supervision of several U.S. Army officers. The rigs seem to have stood up to the tests well because the army officers expressed satisfaction.

The Morton Armored Car

The plants were now in full production steadily cranking out tractors for Russia. When Robert L. Morton came up with a new item as evidenced by the following article from the Harrisburg Patriot of August 16, 1915:

MORTON COMPANY WORK MAKES HIT IN WAR CIRCLES

Armored Trucks Prove Most Popular and Practical of Any Made to Date

USING PENNSYLVANIA STEEL

"Following tests with a number of special steels of both foreign and American plants, the Morton Company of this city finally adopted a special heat-treated steel made by the Pennsylvania Steel Company (later Bethlehem) as the most satisfactory for use on the 75 armored trucks which are now being built at the local plant.

"In tests of American made steel plates expert marksmen at the Morton plant used Springfield and German Mauser rifles and nickel bullets and the Pennsylvania Steel company plates proved by far the most satisfactory steel tested. The Steeltown made plates withstood 14 shots in a three inch circle, only showing dents where the bullets struck while other steels including the makes of some of the most prominent steel plants in this country were either pierced or cracked in the tests.

"The armored trucks (armored cars) which are now in course of construction are made with a 6 cylinder engine with a rating of 125 horsepower, the armored car was designed by Robert L. Morton following suggestions made by representatives of foreign countries during his trip abroad in the fall.

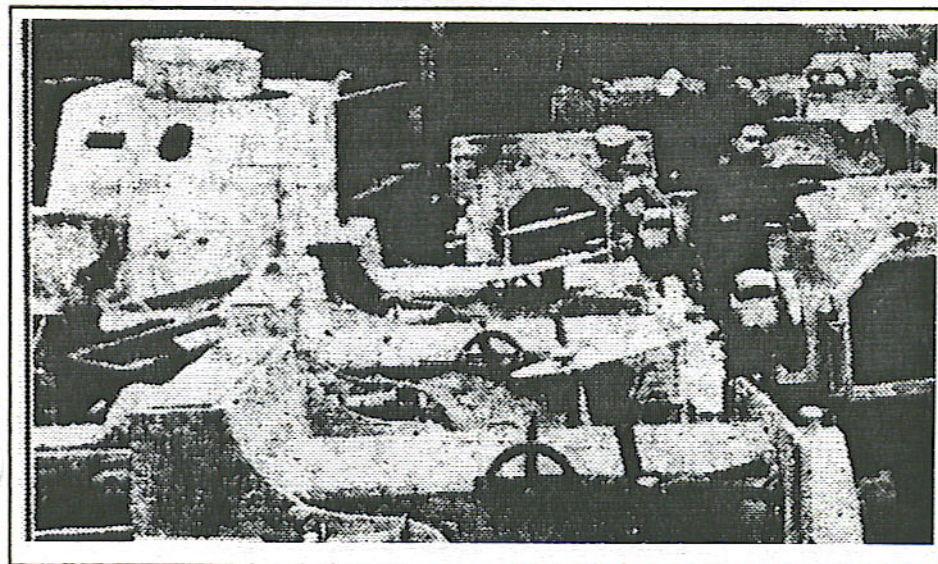
"The cars will carry two machineguns, mounted on revolving turrets with a firing radius of 320 degrees in either turret. Each car will carry fifty rounds of ammunition for each gun and the necessary amount of spare parts. The cars will be manned by a driver and officer and two gunners with two assistants.

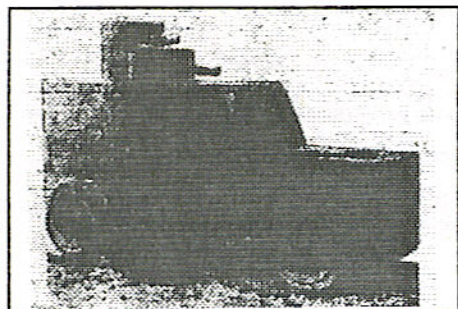
The January 21st, 1916 issue of the Harrisburg Telegraph shows a shipment of trucks for the Russian army. In the corner sits what may be the first Morton armored car, mounting two small offset turrets. Four months later the Harrisburg Patriot on Thursday, April 6, 1916 had a photo of a small box shaped armored car still mounting two turrets, but now with the rear turret offset to the right (instead of left) and raised to clear the forward turret. Either the first machine was reworked, or there were at least two examples.

In the contracts which were awarded to the company was an order for 75 armored cars (Most likely for the Russians). It is known that at least one was finished as a photo of it was found in the Patriot of April 6, 1916. The caption stated,

"The most war-like vehicle ever turned out at a local munitions factory has just been completed by the Morton... Company. In a trial spin through the city it created a real sensation yesterday. It has a speed of 50 miles per hour and is equipped with two revolving turrets and two guns. There is space inside for the driver, two gunners, two assistants and a lieutenant."

...continued on page 8





Based on the most likely chassis, the Morton 2-ton commercial truck, some guess to size, weight and power for this vehicle can be made.

Motor: Continental 4-cylinder 4-cycle vertical "L" head water cooled gasoline engine of 55 hp.
Fuel capacity: 20 gallons.
Ignition: Bosch.
Transmission: Cotta, (3) speed forward (1) reverse, manual shift.
Suspension: Semi-elliptical springs front and rear.
Brakes: Manual 17-inch drums on rear wheels.
Wheel base: 140 inches.
Tread: 60 1/4 inches.
Fuel capacity: 20 gallons.

The End of Morton

By the beginning of December 1915, the war in Europe was still raging with no end in sight, the Morton family continued doggedly cranking out trucks for the Russian government. The complete lack of company records leads to a lot of confusion as to how many vehicles and what types were actually constructed. Most of the newspaper articles deal with orders instead of construction.

It is also interesting to note that no more mention is made of the British or the U.S. Army. In the Harrisburg Telegraph of December 16, a small article appeared about a suit which was filed by a Warwick Wright, head of the Sheffield Simplex Company of Sheffield, England against the Henry G. Burford of Burford & Company of New York. Apparently Mr. Burford was the agent for the Morton Company in obtaining war orders and Mr. Wright was acting as an agent through Burford. The suit listed an unpaid commission for almost \$100,000, for \$6 million in war orders for the Russian government.

By January 1916, something seemed to be amiss. Morton had apparently fallen way behind on the tight schedules that Great Britain and Russia had specified no doubt due to the lack of large scale production facilities.

On March 2, 1916 the last major shipment of 61 tractors for Russia headed west. Their destination was Seattle, Washington and then by ship to Vladivostok. These tractors had actually been sub-contracted and constructed at the Baldwin Locomotive Works in Philadelphia.

By summer 1916 production had either ceased or was severely curtailed. Ads in the local papers found auto dealers selling heavy Morton trucks as over production for the British government. Two trucks were given to the Pennsylvania National Guard for use at the Mt. Gretna training grounds. Since Pancho Villa had attacked Columbus, New Mexico, early in 1916, the United States was activating its armed forces for a punitive expedition into Mexico, and the Pennsylvania National Guard was to take part. It was also hoped that the state would see the merits of the four wheel drive trucks and purchase a number.

On December 12th, 1916 the Morton Truck and Tractor Company filed for involuntary bankruptcy in the United States Court at Scranton,

inability to meet a list of canceled war orders was said to be the cause of failure.

(Morton also made a wide range of fire fighting apparatus. Morton A History of a Harrisburg Built Truck 1911-1916 by David W. Houseal is available from MORTON, Pennsylvania Pump Primers, P.O. Box 3785, Harrisburg PA, 17105 for \$10 plus \$2 shipping and handling. Proceeds from the sale of MORTON benefit the Pennsylvania Pump Primers - the Central Penns Chapter of the Society for the Preservation and Appreciation of Antique Motor Fire Apparatus of America.)

New Items at the Munster Museum by Thomas Anderson

A museum is as good as the treasures it can show. Thus military museums, too, are eager to expand their collection. While most of the big collections seem to have fallen asleep, while others are active. The Munster Tank Museum, headed by Lt. Col. Reimar Grundies, certainly belongs to the latter group. Although the budget is low (too low) the museum is always looking to find, buy, swap or recover military vehicles all over the world. Unfortunately this doesn't work every time, as money is short.

Never the less, during the last 12 months Lt. Col. Grundies managed to get six tanks or military vehicles which will be repaired or reconstructed gradually. The last lot included an early German tank development; the LK II, an armored personnel carrier, the "Schupo-Sonderwagen" from the 1920's; and an SdKfz 11/2 "mittlerer Entgiftungswagen" medium decontamination vehicle. All these vehicles are currently under restoration in the Bundeswehr workshop, due to the short budget most technical work is done by apprentices of the Bundeswehr tank school.

The Schupo-Sonderwagen

The Treaty of Versailles did not allow the German army (Reichswehr) to hold armored vehicles, never the less the Reichswehr evaluated and tested such techniques and tactics in secret.

The Schutzpolizei (protection police), a paramilitary police troop was excluded from this ban. So the "Schupo" ordered armored cars from different firms. One of these developments was the Schupo-Sonderwagen VP-21, a heavy armored car built by Benz in 1921. A small number were used by the police until the early thirties.

Apparently all Schupo-Sonderwagen were scrapped, except one,

which should pass through an adventurous way. While the armored super-structure was dismantled and dis-played in a military collection, the chassis disappeared. Both components finally found their way to different scrap yards. The superstructure was discovered in the eighties and subsequently bought by the Munster Museum, where it was put on display. When the magazine Wheels and Tracks printed information on the relic, a private collector in Vienna, Austria phoned to Munster. This man had found the missing chassis in a scrap yard in the 1960's. Thanks to this unbelievable coincidence the chassis was offered to the Museum.

At the moment the Munster workshop is working on assembly of both parts (see photo). Hopefully the Schupo-Sonderwagen will be on display soon.

SdKfz 11/2 mittlerer Entgiftungswagen (medium decontamination vehicle)

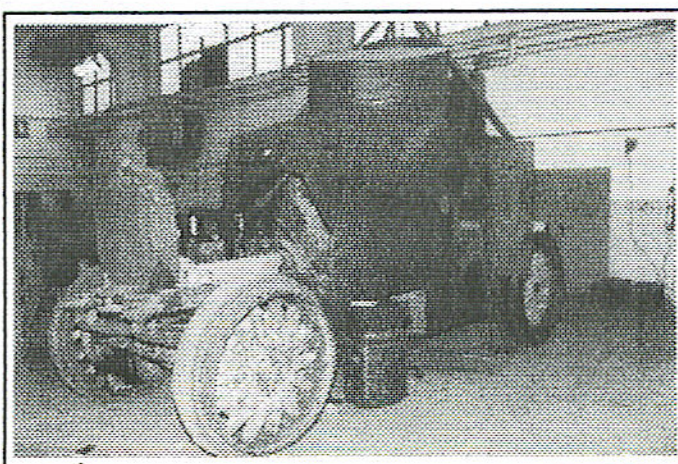
With the development of half-track prime movers in the thirties, a share of these vehicles were delivered as specialized vehicles. A good example is the mittlerer Entgiftungswagen. This was part of the secret "Nebeltruppe" which originally was intended and trained for chemical warfare.

The 3 ton half-track carried an open body at the rear instead of the standard crew compartment. Here approximately nine barrels of chemicals were stowed. This active agent was used to neutralize contaminated areas. The contents of the drums was filled into a sprinkler at the rear of the vehicle, from which the agent was then dispersed.

Fortunately no fighting nation ever used chemical Kampstoffe during WWII, and so most of the vehicles were reworked as standard prime movers. However, this Entgiftungswagen survived the war and the next fifty years. It is now under reconstruction in the Munster workshop.

(A photo of an SdKfz 11/2 Entgiftungswagen is on page 10 of German Army Semi-Tracks 1939-45 Part 1 Prime Movers and Self Propelled Carriages by P. Chamberlain and H.L. Doyle - ed)

Below, VP-21. Photo: Thomas Anderson



Also seen at Ludgershall...

Photos & text
Peter Brown

Below are photos of the Internal Security version of the Saxon APC. These vehicles have been modified

with extra guards over the vision devices as protection against stones, fitted with extended mesh sheets on the lower hull to prevent stones bouncing under the vehicle and a cover over the radiator air intake to keep out burning petrol from petrol bombs. Typical police type loudspeaker in a cage on the right hand side, flashing light on a pillar on the turret, extra

searchlights and a wire-cutting bar are all factory standard. These vehicles are now in service in Northern Ireland, the old Humber Pigs are well past the end of their useful lives.

Some of the SPURFUCHS NBC Recce vehicles donated by the German government for use in the Gulf are also in storage (see photo bottom). They have been repainted in green and black, although there seem to be no plans to deploy them in the British Army. No one seems to know what will become of them, I understand the Germans do not want them back and there is no British requirement for them. From what was said on a visit to the Royal Military College of Science at Shrivenham, vehicle cost is £3,000,000 mainly due to the analysis gear fitted.

KIT REVIEWS

Maschinengewehr/ Funkkraftwagen

(Adler Standard 6) Kfz 13/14

Mfr: Oddballs Armour & Artillery Scale: 1/72nd
Matl: Resin (18 pieces)

The name of this vehicle is almost bigger than the model itself. Being used to 1/35th scale stuff, I got eye strain just thinking about building this little smoker.

Enough parts are supplied with the kit to make either the Kfz 13 - machine gun - version, or the Kfz 14 - radio car. I chose the former, but trimmed all the parts to get a feel for what others would come up against if they decided on the radio car.

The quality of the casting is excellent with only a few tiny air bubbles. There were several "blowouts" where excess resin bubbled up in corners or around raised details, but these protrusions are easily removed and tended to break away flush. There was a small spot on the hood of the vehicle that appeared to not have completely cured. A little scraping in this region seemed to solve the problem.

The resin was quite a bit more flexible than what I have seen in the past. This made trimming the finer parts, such as the radio antenna and stand-offs much easier than expected. I have to believe this is intentional, since any breakage in these parts will cause you to revert to the machine gun car.

There were no instructions with the model, but once all the parts are trimmed it is reasonably obvious what things are and where they must go. In order to properly position the front axle, I had to trim out a slab of resin on the bottom of the car between the fenders. Again, the nature of the resin used made this very easy to do.

The wheels were a bit too big, so I sanded/ground out the rear wheel wells and front fenders until everything looked okay. Then I attached the rear wheels, front axle and front wheels with fast-setting crazy glue. Next I turned to the crew cabin, installing the steering wheel and driver's seat. The upper and lower hull halves needed just a bit of sanding (mainly at the rear) before gluing them together. I filled the seams with crazy glue and sanded them down after allowing 48 hours of drying time.

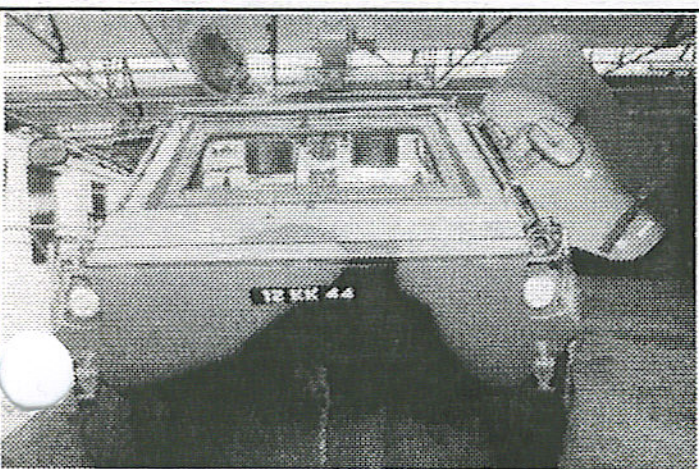
I put the shield on the machine gun, then put the whole thing into the car. At this point I should mention that the machine gun is the single most impressive resin cast piece I have ever seen. It is extremely small and delicate, yet very tough during trimming. A real beauty.

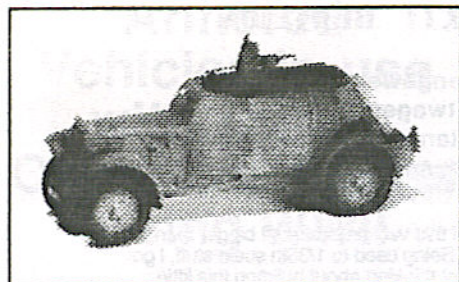
After a bath in warm soapy water, and a clear cool water rinse (the model, not the builder) it was ready for painting. I painted it overall with a 60:40 blend of Testors Model Masters Euro Gray (FS36081) and Non Specular Sea Blue (FS35042). The tires are flat black, the machine gun Dark Iron (Gunze Sangyo) and the rear spare cover and machine gunner's seat Flat Military Brown.

I painted the front and rear license plates Flat White with (very poorly) hand painted vehicle number in Flat Black. There is a small insignia on the front beside the driver's vision block. I painted this in Flat White to match the only reference photo I had on the vehicle.

Weathering was done with various shades of grey pastels, followed by some black details. I added a few rusty spots just to give it some colour. With the finished vehicle only two inches long and less than an inch wide, it didn't take too much rust to add the colour I was after.

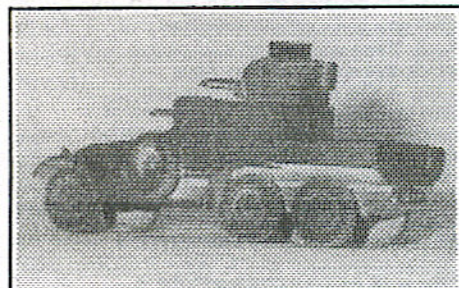
All in all this was a fun little project. The kit was well made, and went together with only minor problems (and these were few). It painted well and looks pretty good, if your eyes are good enough to make out the details. The down side for those wanting to build the radio version - the roof





Above, completed Kfz 13. Photo: Paul Bird.

panel with three moulded on radios was way too big to fit properly in to the upper hull of my kit. Patience and a good deal of sanding could rectify the problem, and I'm sure the end result would look great.



Above, Atkins' Lanchester ready for finishing. Photo: Dave Haugh.

Lanchester Mk. II Armored Car in 1/76th scale from C.A. Atkins. by Dave Haugh

Background:

The first purpose built armored car ordered for the British Army, the vehicle was designed in the mid-1920s using the experience gained from operating armored cars during WWI. Its design owed much to the Rolls-Royce with a rectangular body, round turret and flat cargo area at the rear. The Lanchester Mk. I entered service in 1928 and was the most numerous with 18 vehicles, followed by the Mk. Ia which mounted a radio, the Mk. II (seven were built) with a larger turret mounting a .5 inch Vickers machinegun as well as a .303 and the Mk. Ila with a No. 9 Radio set. The cars were used mainly for policing the Empire and for training. A few seeing service in WWII when they were sent to Malaya in 1940 where they were destroyed during the Japanese invasion.

The Kit:

I really liked this kit. The thirty pewter parts were well cast, required a minimum of clean-up, and made up into a very presentable 1/76th scale version of the Mk. II Lanchester. The kit captures the angularity of the 1920/30 armored car. Construction was straight forward with a four page instruction sheet consisting of a written explanation about pewter and the best way to approach assembly, a four view drawing, brief three paragraph sequence of instruction and a short history of the vehicle. Three things that weren't quite clear is that the small box with the slanted top goes on the right hand side of the fighting compartment, while the box with the 'U' shaped channel fits across the rear of the vehicle between the two sides. Also, the small piece that looks like a suspension spring, isn't! It's part of the towing pintle arrangement at the rear of the vehicle.

Tommy suggests using epoxy rather than superglue during assembly. I ignored that

suggestion and plunged straight ahead. Superglue works, but there is one problem, get it right the first time because you won't get another chance. I think next time I'll use epoxy. If I were to build this kit again I'd also spend more time on filing and seam preparation. Unlike resin, pewter takes a little bit of effort to file and your not as likely to remove too much material as you are working on resin. The pewter also takes paint well (although a fine model could be made just polishing the pewter and leaving bare metal showing) holding a smooth even coat. This kit will be very popular with fans of the 1920/30 era, highly recommended.

References:

A Photo History of Armoured Car in Two World Wars, G. Forty, Blandford, 1984.

Armour on Wheels to 1942, B. Vanderveen, Warne, 1976.

British Armoured Cars 1914-1945, B.T. White, Ian Allan, 1964.

British Tank Markings and Names 1914-1945, B.T. White, Squadron/Signal, 1978.

Armored Cars at the Royal Tournament, P. Brown, *ARMORED CAR #7*, 1991.

Lanchester Six Wheel Armored Cars, R. Suriemont, *ARMORED CAR #10*, 1992.

Source:

Price for the Lanchester is £8.00 (Approx. \$12.75) plus 20% postage and handling. Write to C.A. Atkins, 17 Ashbourne Avenue, Bridlington, YO16 4PE, GREAT BRITAIN. Tel. 0262 670811

Airfix Military Vehicle Kits by Peter Brown

After a couple of beers with a friend I got reminiscing about old Airfix kits, and to sort out some details I consulted my copy of 'The Model World of Airfix' by Authur Ward, produced as an extra to a gift pack by Airfix in 1984. I was surprised to see how old some of the kits were, and you may be too! As several are or will be re-released their original production dates may be useful...

- 1952 - First Airfix kit - a farm tractor
- 1960 - Bristol Bloodhound (with Short Wheelbase Land-Rover)
- 1961 - Sherman, Churchill, Panther
- 1962 - 75mm Assault Gun (StuG III), Stalin 3, Scammell Tank Transporter
- 1963 - 25 Pdr Gun (with Morris Quad)
- 1964 - Tiger, Bren Gun Carrier (with 6pdr), German Armoured Car (SdKfz 234/4), Centurion
- 1965 - DUKW, Buffalo & Jeep, LCM III & Sherman
- 1966 - Half Track Personnel Carrier (US M5), Matador and 5.5" gun, Old Bill Bus 1/32 (the B Type Bus came out in 1962, Old Bill was a variant with different figures and markings)
- 1967 - WWI Tank (Heavy Mk I), 88mm Gun and Tractor (SdKfz 7)
- 1968 - T34
- 1969 - Lee/Grant, RAF Emergency Set
- 1970 - Leopard, RAF Refueling Set

- 1971 - Chieftain, Panzer IV, Crusader
- 1972 - Sheridan, Monty's Humber 1/32
- 1973 - SAM Guideline Missile, RAF Recovery Set, Matilda
- 1974 - Scorpion, Chi-Ha, German Recce Set (SdKfz 222 and Kubelwagen)
- 1975 - Rommel's Halftrack 1/32 (SdKfz 250), Crusader 1/32, Multipose 8th Army and Afrika Korps figures
- 1976 - Multipose German and US Marine figures
- 1977 - Bofors 40mm Gun and Tractor, Lee 1/32, Grant 1/32, Multipose Japanese figures
- 1978 - Multipose British and US Europe, US Army Cargo Truck (no idea what that was..)
- 1979 - Opel Blitz and PAK40
- 1980 - 17 pdr Gun 1/32

HO/OO figures are not recorded, neither are the ex-Max kits of the Bedford QL and CMP trucks. Of great interest in the book-let is a short section on planned kits of the 1970s. 1/32 Bren Carrier, Jeep, WWI Rolls-Royce Armoured Car (a favorite with me at least!) plus mounted Lawrence of Arabia, Valentine, Bishop...

But then it all went sour. Now we see reissues and even 1956 vintage 1/32 veteran cars in the shops. Still, we have other manufacturers and (for those of us also of 1956 vintage) memories.

...Half-track continued from page 3

did not reveal information on the conversion of any half-tracks to rear wheel vehicles. A search of the US Army Photographic Library, when it was in the Pentagon, and later as part of Defense Audio Visual Agency, Bolling Air Force Base, D.C. has failed to reveal any official photographs. If any reader has photographs and/or any additional information on these vehicles please contact the editor.

Acknowledgements: I wish to thank George J. Phillips for sharing his observations while stationed at Fort McNair and providing critical information I needed on the modified half-track. To Mr. Robert M. McDonald for his time and effort in locating Mr. Phillips and interviewing him for me. Mr. Peter A. Frandsen for his research help over the years in Washington, D.C. Lastly, thanks to Mr. John A. Loop for copying support and reference research.

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Ellis, Chris and Peter Chamberlain, American Half-Tracks of World War 2, Bellona Publications, Watford, Herts, Great Britain, ISBN 0-85242-581-3, 1978.

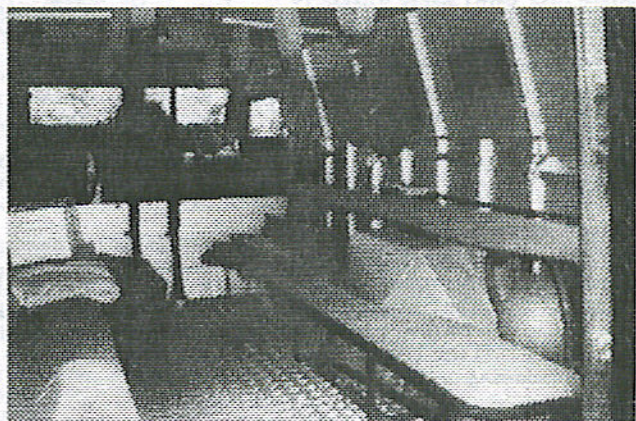
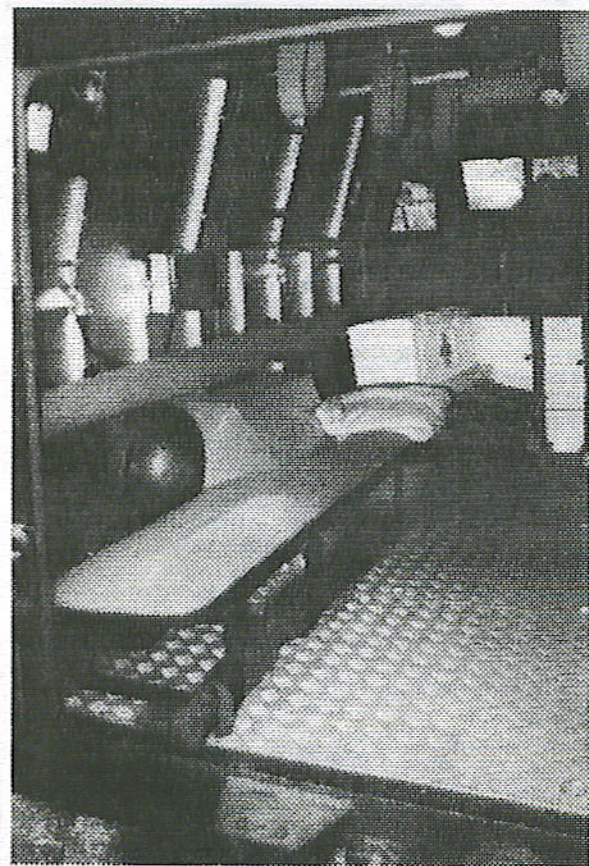
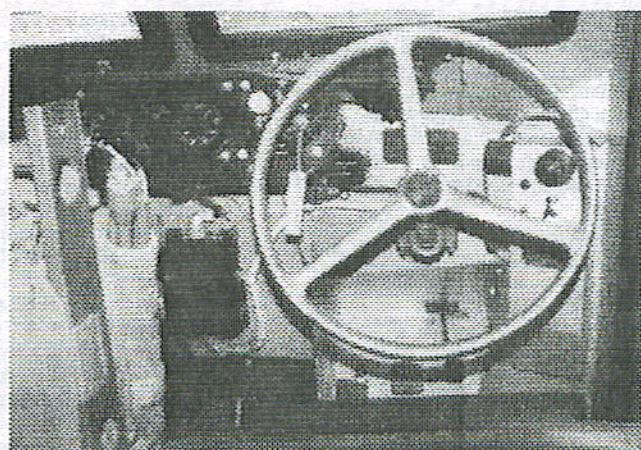
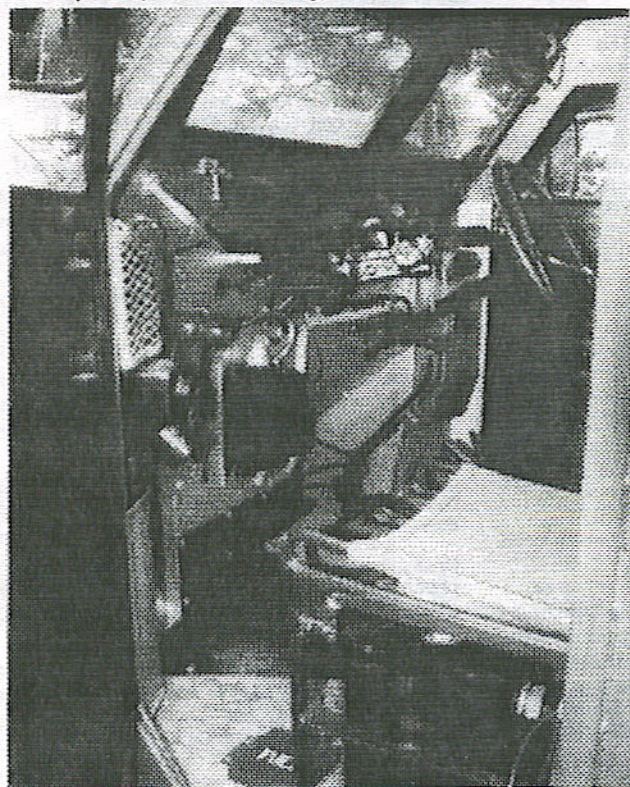
Mahon, John K., and Romana Danysh, Army Lineage Series. INFANTRY, Part I: Regular Army, Office of the Chief of Military History, US Army, Washington, D.C., 1972.

Russell, Young G., Editor, The Army Almanac, 2d Edition (Revised), Stockpole Company, Harrisburg, PA. 1959. This is a commercial revised edition of the US Army published "The Army Almanac" of 29 September 1950.

...continued on page 12

The Reference Page: A Humber 'Pig' Interior

Below left: Firewall thru passenger side door. Below left lower: Left side of troop compartment looking forward. Below right top: Driver's steering wheel and gauges. Below right middle: Top of troop compartment looking forward. Below right bottom: Right side of troop compartment looking forward.



The Humber 'Pig' in these photos is owned by Erwin Verrijt of Belgium. The photos were taken in August of 1992 at Grobbendonk, Belgium during the 'BOAR 92' meeting of the Belgian AFV (Authentic Fighting Veterans) Club. Photos are from the collection of Jochen Vollert

Photos © Jochen Vollert 1993.

...Halftrack continued from page 4.
US Army, AMC Pamphlet 706-356 (AMCP 706-356), Engineering Design Handbook, Automotive Series, Automotive Suspensions, HQ, US Army Material Command, Washington, D.C., 14 April 1967.

US Army, AR 850-5, Army Regulation, Miscellaneous, Marking of Clothing, Equipment, Vehicles and Property, War Department, Washington, D.C., 15 February 1945, with Change 1, 17 May 1945; Change 2, 24 September 1945; Change 3, 7 February 1946; Change 4, 21 May 1946; Change 5, 23 January 1948; and Change 6, 18 January 1949.

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US Army, TM 9-2800, Department of the Army Technical Manual, Military Vehicles, Department of the Army, Washington, D.C., 27 October 1947.

US Army, TM 9-2800, Department of the Army, Technical Manual, Standard Military Motor Vehicles, War Department, Washington, D.C., 1 September 1943.

US Army, TM 9-2800-1, Department of the Army Technical Manual, Military Vehicles (Ordnance Corps Responsibility), Department of the Army, Washington, D.C., 13 February 1953, with Change 2 dated 12 January 1956.

...Dutch Forces continued from page 4.

The forces in Suriname received the following types and numbers of Marmon-Herrington tanks:

CTLS - 4TAC and TAY	26
CTMS - 1TB1	28
MTLS - 1G14	20

These vehicles for the "Batalion Vechtwagens van de Gemengde Gemotoriseerde Brigade" Tank Battalion of the Mixed Motorized Brigade), according to original plans dating from 1941 this brigade was to consist of the following units:

- "Expeditionaire Macht" [Expeditionary Force] (1) Infantry Battalion of ±850 men in (3) rifle companies and (1) heavy wpns co
- "Territoriale Troepen" [Territorial Troops] (1) Battalion of guards ±1,100 men in (1) "Mobile Colonne" [Mobile Troops] which included (1) company of tanks and (1) company of motorized infantry of 375 men

• Coastal Artillery (1) Battery of 3 (US) 4 inch guns (1) Battery of 6 (US) 6 inch guns

• Wireless unit of 130 men

• Support unit

• "Korps Stads en Pandwachten" (Home Guard) of 650 men

• "Urouwen Hulp Korps" (Women's Auxiliary Corps) of 220 women
To complete the plan, needed was a total of 4,885 men and women, however in August of 1942 only 1,941 men were available not including 677 U.S. Army and 323 U.S. Army Air Force troops (in the area).

The tanks had several technical problems, partly due to lack of maintenance facilities and a shortage of manpower. On 14 February 1945 (none of the tanks had been operational for some time) the decision was made to sell the tanks as scrap. However due to the War of Independence underway in the Netherlands East Indies (Indonesia as it was called by the Indonesian freedom fighters) it was decided in 1946 to ship some of the CTLS 4TA tanks to Java. When they arrived the Royal Dutch Army and K.N.I.L. troops decided not to use them. Unfortunately none of these vehicles have survived.

Anyone who has photographs or pictures, or information about the Dutch Marmon-Herrington tanks, or other armored vehicles used in the Dutch East Indies, is invited to write the author: **Hans Heesakkers, Terburghtweg 119, NL-5061 LD Oisterwijk, THE NETHERLANDS.**

Editorial, Comments and Plugs

Here it is, *ARMORED CAR* #19, the beginning of a fourth year of publication. And as usual with such milestones, I have good news and bad news.

For the good news, *AC* is now bigger and I hope better. I've increased the size 50% and tried to include a variety of articles with more illustrations and photos. The reason for the increase in size was two-fold.

First, I wanted to be able to print more articles each issue (thus letting contributors see their work in print sooner).

Second, I wanted to be able to include modeling information without reducing the amount of historical material. The winning argument for more reviews and hobby information is the spiraling cost of the hobby. Many times a lot of money is invested in a kit sight unseen.

Now for the bad news, the price of a subscription to *ARMORED CAR* is going up as of this issue. The new price will be \$18 a year (\$3 an issue) for everywhere in the world. I managed to hold off a raise for three years but costs (postage and production) have gotten out of hand. The policy of extending a contributor's subscription by an issue for each time their work is used in *AC* will continue.

Even with twelve pages I've run out of room to fit everything I would have liked to put in this issue, so I'll just make some quick comments on the mail I've received recently.

New to me, International Kit Exchange, c/o P.E.T. Littlewood, 11 Moss Close, Caversham, Reading, Berks RG4 0HH, GREAT BRITAIN. An English publication similar to *Kit Collector's Clearing-*

house. If you like *AC* ought to write and ask for a copy of IKX.

E.D. Models, 64 Stratford Rd, Shirley, Solihull, West Midlands B90 3LP, GREAT BRITAIN, sent their new Airwaves catalog and a sample of an etched brass conversion for the Sdkfz 251/9. I'll try to get in a review for the next issue. In the meantime I recommend you write for a copy of their catalog. M.M.D. 115 Crowley Dr, Carrollton TX 75011-5010 is their U.S. distributor.

For those that like to scratch build their models, Model Transport, Gibbons Brook, Sellindge, N Ashford, Kent TN25 6HL, GREAT BRITAIN has a catalog with a new series of 1/35th scale tires and wheels as well as other vehicle accessories. It would be well worth dropping them a line.

I also received a new list from Ravensthorpe Miniatures for their 20mm range. They can be reached at: 2 Bygot Lane, Cherry Burton, Beverley, N Humberside HU17 7RN, GREAT BRITAIN.

For readers here in the U.S., you don't have to write all the way to Europe to get metal barrels for your models. Michael R. Dobiesz, 249 Greenbriar Townhouse Way, Las Vegas NV 89121 just sent me a new flyer for his line of brass barrels. His latest set is for the DML 'Maus'. I have several of his barrels and their great! If you haven't already done so it would be worth writing for his latest list.

Finally I had a chance to talk to Ted Paris on the phone recently. Ted's company The Commander's has been probably the biggest single producer of new 1/35th armored car kits over the last year or so, and he promises more to come. I'll try to get a review of Ted's operation and photos of his range in an upcoming issue soon. In the meantime if you don't have a copy of his latest catalog write: The Commander's, 551 Wegman Road, Rochester NY 14624.

Best to all, Dave Haugh, Editor

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