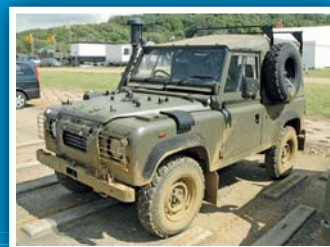


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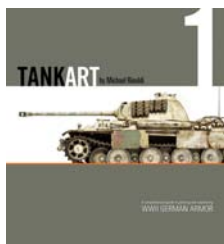


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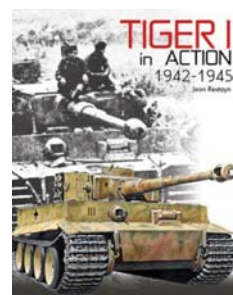
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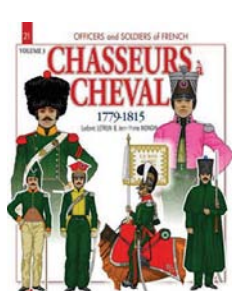
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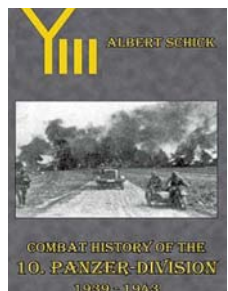
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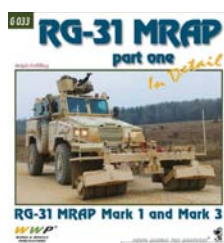
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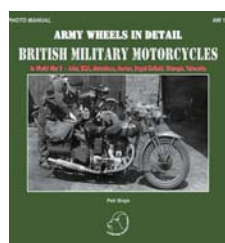
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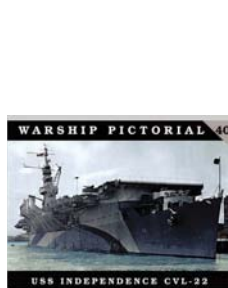
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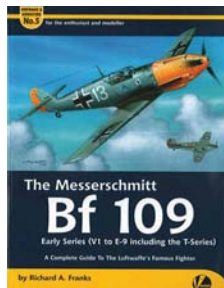
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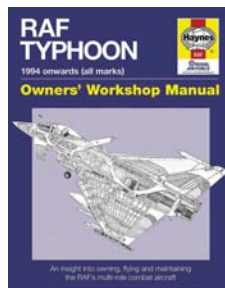
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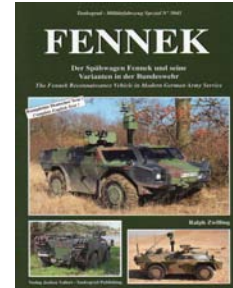
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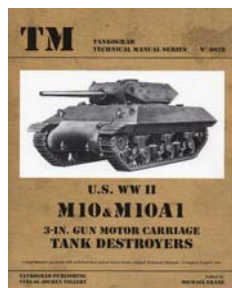
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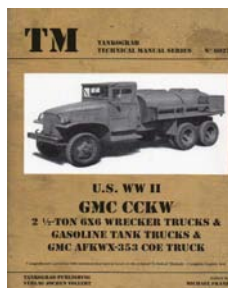
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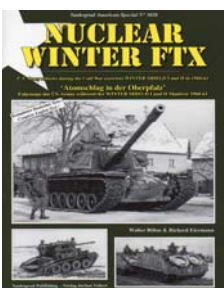
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# EDITORIAL

I have had an interest in military vehicles since I was a young boy, which was no doubt helped along by regular visits to the Bovington Tank Museum whilst holidaying in nearby Swanage. I've now been involved in publishing for over twenty years and owned military vehicles for most of them and in that time I've read countless books and met numerous people involved with military vehicles from right around the world, so imagine my surprise when I came across a vehicle I'd never heard of before!

The vehicle in question is the Centurion Driver Training Tank shown here and featured in this issue. Owned by Australian Tim Vibert (shown here), the tank is one of just three tanks to be converted by the Australian Army and is a perfect illustration of the fact that no matter how long you've been involved with military vehicles there's always something new to learn. I hope you enjoy Mike Cecil's article on page 14 as much as I did, and hopefully you'll enjoy the rest of this issue too! I'll be back next month - Ed.



*Ian Young*

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Editor



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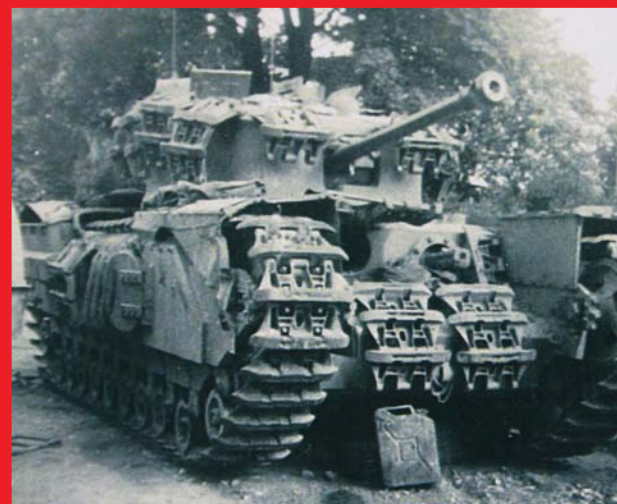
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# UP FRONT

## NEWS and REVIEWS...

### Double Trouble at Tankfest 2013

Visitors to Tankfest this year were treated to seeing not one, but two Rolls-Royce Armoured Cars on display. The museum's own Rolls has been a familiar sight at the event since it was restored some years ago, but this year it was joined by another recently restored Rolls-Royce Armoured Car, brought along to the show by the Irish Army.

Regular readers of MMI may recall Colin Stone's article on "Sliabh na mBan", which now forms part of the collection at the Curragh Military Museum, in our August 2012 issue, and Tankfest offered visitors a chance to see these two rare Roll-Royces side by side. Unfortunately the value of these two magnificent machines meant that they spent most of their time behind ropes, however, we managed to get hold of a couple of photos from one of the men who brought the Rolls along to the show via our contributor Colin Stone.

Our thanks go to Sgt Declan Downey for giving us permission to publish these photos, which thankfully were taken prior to the general public being let into the show and before the ropes were put in place. I'm sure you'll agree with me when I say it's a fantastic sight to see two such magnificent and rare machines together. Many thanks declan - Ed.



Photo Courtesy - Sgt Declan Downey



Photo Courtesy - Sgt Declan Downey

### Stalin's Organ in the South African Sun...



I recently received an email from Wilfred E. Mole of the Sandstone Estates in the Eastern Free State of South Africa, home to the 'Stars of Sandstone' event (a show report will be appearing soon), to congratulate us on our recent 'Russian Military Special'. Wilf also sent us a photo of the Russian Stalin Organ in his collection of military vehicles to share with readers. Our thanks to Wilf for sending in the photo and keep an eye out for the show report from the Stars of Sandstone show in a future issue of MMI - Ed.

Dear Ian,

I thought your action packed special edition on Russian Military equipment was outstanding. We are fortunate enough to have a Stalin Organ (see attached), which reminds us how formidable and effective these Russian military vehicles really are. The only snag is the fuel consumption, which is absolutely mind-boggling.

With kind regards - *Wilfred E. Mole*



## Rare Rolls-Royce Under the Hammer

A Rolls-Royce used as a frontline Dental Surgery during WW1 estimated to sell for around £600,000 at Bonhams was auctioned off at a sale held in early July at this year's Bonhams Goodwood Festival of Speed Sale on 12th July.

The 1913 Rolls-Royce 45/50hp 'Silver Ghost' London-to-Edinburgh Tourer (estimate £600,000 - £800,000) was bought by a wealthy Englishman for £1,016 (approximately £100,000 in today's money) in September 1913, before passing to its second owner Auguste Charles Valadier in October 1915. A wealthy French-American living in Paris, Valadier would become instrumental in pioneering the development of maxillofacial re-constructive surgery to treat service personnel injured during The Great War.

On the outbreak of hostilities in 1914 Valadier had been keen to help the war effort in some way. He volunteered his services to the British Red Cross Society in Paris, who accepted him for duty in October that year. Valadier established the first unit dedicated to the treatment of facial injuries, which helped facilitate the later progress of plastic surgery and facial reconstruction. By the end of 1916 he was stationed at Boulogne and the Rolls-Royce – then bodied in limousine style – had been modified to incorporate a dentist's chair in the rear. A colleague who worked alongside Valadier at the time noted: "In Boulogne there was a great fat man with sandy hair and a florid face, who had equipped his Rolls-Royce with a dental chair, drills and the necessary heavy metals. The name of this man... was Charles Valadier." Valadier would serve throughout the war, attaining the Chevalier of the Legion of Honour in 1919 and being knighted in 1921, having been granted British citizenship the previous year.

After Valadier's ownership, the Rolls-Royce was returned to limousine coachwork and later served as a breakdown vehicle, complete with jib crane at the rear. The car was purchased by the current owner's father Denis Flather in 1965 and rallied extensively both at home and abroad over a 25-year period. Mr Flather was a wealthy industrialist in charge of the family's steel company in Sheffield. His grandfather William Thomas Flather had been a pioneer Sheffield steel maker and processor who developed new grades of steel to create tougher materials.

The London-to-Edinburgh model draws its name from Ernest W. Hives's legendary journey between the two cities in September 1911. Hives completed the 400-mile trip using top gear only, averaging a remarkable 24.32 miles to the gallon. Thereafter the factory was flooded with requests for replica models, and genuine London-to-Edinburgh Silver Ghosts remain today among the most coveted of all of the model variants. The car was offered for sale by Bonhams with an extensive history file including a copy of the army record of Auguste Charles Valadier and exceeded estimates, selling for £718,300 including buyers' premium.



## MMI Needs You!

For some unknown reason the flow of news items into the Editorial Office has slowed up in recent months so we here at MMI would like to invite readers to send in topical items for inclusion in 'Up Front'. We are looking for items on readers' vehicles, perhaps the discovery of an old military vehicle, or maybe your latest project, especially if you're in need of information relating to the new vehicle, and while show reports are all well and good, we don't want to get too bogged down with them, so not too many please and we would prefer to hear about smaller events and club outings.

If you have a suitable item that you want to share with fellow MMI readers you can either post them to us, or simply email the information (and photos where applicable) to the Editorial Office address, which you'll find on page 3.

So go on, dig up some news items and get involved with your favourite military vehicle magazine, after all it's a free service we offer to all readers so make the most of it.

While we extend this service to all readers, we're also able to cater for businesses and are willing and able to feature new products from time to time, when they're applicable to the hobby. However, please remember that we, like you, are a business and in exchange for editorial space we may ask for some advertising support on your part, so if you have something you would like to promote in MMI please contact our advertising sales department to see what we can do for you, and rest assured we will do our best to help where we can – Ed.

## Hot Dog!

I recently attended the Yorkshire Wartime Experience show and while most visitors basked in the glorious sunshine, it was a little too hot for some of our furry friends. I spotted this 'Hot Dog' amongst the trade stands and just had to include a photo of his military attire, although with a hat and sunglasses like that I suppose you could say that he was 'Cool Dawg' – Ed.





# Irish Army Simplex Train



After seeing the items in the previous issue on Lincolnshire Light Railways, Colin Stone, reader and contributor, sent along some photos of another that lives in the Emerald Isle. This is what Colin had to say, and thanks once again for sending in some fascinating material – Ed.

Howya lan,

Just having a browse through the latest edition and saw the article on the Lincolnshire Coast Light Railway and thought that you might like to know that its brother railway and Simplex motor exists here in the Emerald Isle. I doubt that the lads who volunteer at the railway ever even knew that the Irish Army has a railway because most of the troops in the Irish Army don't even know of its existence either! Mossad and the KGB would be proud of the cloak of invisibility that this Irish Simplex train has within its own army and the country as a whole.

The story goes that the Simplex was bought back in 1945 for an extension that was planned for the Irish Air Corps runway in Baldonnell, which lies just outside Dublin. The train was probably delivered to the Army in the Curragh Camp, which the Air Corps were subordinate to for onward shipment, but it seems to have never left the Curragh Camp - some Air Corps Quartermaster is probably still looking for his train to this day! The cost was a whopping £353, 18 shillings and 5 and 1/2 pence. The Army was also charged 2 pence for rivets according to records. The train was set up to run from a shed at the side of the numerous ranges to the butts where it would drop off four-foot targets.

Legend has it that during the filming of Mel Gibson's Braveheart, which was filmed in the Curragh Camp, horsebox's traversing the tracks caused buckling and the train could only use a small part of its intended

line. The fact of the matter is a little more down to earth. The new Military Museum in the Curragh Camp was to have used the train to give tours of the historic camp, but for whatever reason, it never materialised. The train is still in the camp but it awaits a decision as to how best it can be displayed. I am doing a bit of research on the train for the Irish Defence Forces magazine and if anybody out there has any information on the Curragh train, I would be only be too delighted to hear from them through the editorial channels.

The pictures included here show the train in use back in the 70's, and as she is today. One of the carriages is also shown (below) and it currently is used in the carpenters shop as a bench.

It would only take a few minutes to get her up and running. The only thing wrong with the train is an air block in the engine, but other than that she is still running.

(Please be aware that if published this message will self-destruct in five seconds, we don't want the secret of the Curragh Train getting out there).

Cheers - Colin Stone





## Revell 1/72 Sherman M4A1 Tank



Revell have recently released this 1/72 scale model of a World War Two American M4A1 Sherman tank (Ref. 03196). The kit is moulded in the familiar dark green plastic, with parts contained on three sprues, plus a small waterslide decal sheet. The parts are well moulded for such a small model and the

tracks are provided in the 'Link & Length' style, which I must say I prefer on models of this scale as they tend to give a more realistic effect. Painting details are included on the easy to read instruction sheet and paint codes are provided for the Revell Colour paint range.

This new release and the rest of the tanks, AFVs and military models and figures available in the Revell Model Kit range are available from all good toy and model retailers.

For further information visit the Revell website at: [www.revell.eu](http://www.revell.eu)

## LSV DIY Expert

Colin Scott is not a man to take no for an answer, and when he decided that he wanted a Light Strike Vehicle, as used by the SAS, he set about trying to find one. That's when I first made contact with Colin, who rang me some years ago when I owned an ex-SAS LSV Mk2, however, when Colin couldn't find an LSV for sale he decided that he would build his own!

Over the coming years I did my best to help Colin with any information and photos and put him in touch with other owners of LSVs who had also helped me when I got mine. We kept in contact, meeting up from time to time to discuss the progress of the build and Colin kept me fed with photos of the framework as it progressed.

True to his word Colin finally completed his DIY Light Strike Vehicle earlier this year and at the recent Yorkshire Wartime Experience held near Leeds I had

my first opportunity to take a closer look at Colin's creation for myself and what a stunner it is.

While I'm not always a great fan of replicas, they do have their place and when a vehicle simply isn't available you can either go without or do what Colin has done and build your own. I have to congratulate Colin on his attention to detail, and while he's built the later model, not the earlier Mk2 model I owned, I know enough about the later diesel powered types to know that he's done a fabulous job in creating this replica Light Strike Vehicle.

Camera shy Colin is shown here beside his LSV (after a little persuasion on my part), and also shown here by way of comparison are some of the existing LSVs in private ownership that were photographed at the Duxford military vehicle show a couple of years ago.





# Defence Vehicle Dynamics 2013 Preview



The long awaited Terrier Engineer Vehicle, replacement for the Combat Engineer Tractor was finally rolled out for the press at the show.



Before Shaun Connors brings us his usual in-depth report on this year's Defence Vehicle Dynamics show, held at the regular venue of Millbrook Proving Ground in Bedfordshire earlier this year, we thought we would gather together a small selection of photos from the event showing some of the many interesting newcomers we spotted.

Despite the winding down of operations in Afghanistan there were still a number of new vehicles to be found, although it has to be said that the show wasn't as big as it usually is, however, Shaun will be taking a closer look at the cream of the crop very soon in MMI, so keep an eye out for his feature. In meantime please enjoy the photo montage here that show some of the highlights of what was this year, a very sunny show, unlike last year!

A number of companies are now concentrating on mine clearing equipment as troops prepare to leave Afghanistan.





New Patrol variant of the recently introduced Foxhound.



Recovery variant of the in-service Husky. This example is also fitted with Tarian add-on armour.



Ricardo are specialists in Light Strike Vehicles and the HDT Storm SRTV was exhibited on their stand.





## Haywood Charity Show...

MMI reader Andrew Taylor sent along a selection of photo he took whilst attending the Yesteryear Festival in aid of the Springhill Hospice over the weekend of the 29th and 30th of June this year at Collop Gate Farm, Manchester Road, Haywood, which just happened to coincide with his 18th birthday. From what I can see there was an interesting collection of vehicles in attendance at the show, so thanks go to Andrew for sending them in and I hope other readers will enjoy seeing them too – Ed.





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# Rare Centurion

**MICHAEL K. CECIL LOOKS AT A RARE  
AUSTRALIAN DRIVER TRAINING  
CENTURION TANK IN PRIVATE HANDS**

The Centurion Driver Training Tank (DTT), is owned and was restored by Tim Vibert of Wangaratta, Victoria. The DTT was a configuration unique to the Australian Army.







**ABOVE...**

Rear left three-quarter view, showing the armoured rear fuel tank with the Infantry Tank Telephone attached to the left side.

**BELOW...**

Front view of lightweight superstructure that kept out the worst of the weather, but afforded no roll over protection.

**BOTTOM...**

The sides of the superstructure were equipped with canvas blinds with clear panels secured by lift-dot fasteners.

**T**raining Centurion tank drivers at the Royal Australian Armoured Corps' Armoured Centre at Puckapunyal, Victoria, was carried out using a standard gun tank for the majority of the type's service career, but the maximum number of trainees that could be comfortably and safely carried was only three. These occupied the normal crew positions, with the instructor as the crew commander. The use of a fully equipped gun tank just for driver training was not ideal, but as there was no dedicated variant, it was the only option available.

By 1973, a replacement for the Centurion was under consideration, and a new fleet of modern armoured vehicles was within the foreseeable future. There was also a surplus of Centurions tanks for peace-time requirements. Indeed, there was no urgency to undertake the base overhaul of all the tanks that had been returned from South Vietnam in September 1971, with several of those still held in storage in the same state as they had arrived back in Australia.

The opportunity was taken to modify three Centurion Mk.5/1 tanks – one Control and two Gun tanks, to Driver Training Tanks (DTTs). The conversion was designed to satisfy the driver training requirements of the Driving and Servicing Wing of the Armoured Centre.

## CONVERSION WORK

The conversion was carried out by 4 Base Workshop Battalion at Bandiana, Victoria and consisted of removing the turret, turret ring and all internal fittings (above the floor bins) from the interior of the fighting compartment, including the 20-round main armament stowage bin. The underfloor main armament ammunition bin lids were mostly retained in place, and openings such as the former Rotary Base Junction position were plated over with removable sheet steel. Two padded bench seats were manufactured and





## DRIVER TRAINING TANK

1. The cavity left by the removal of the 20-round main armament ammunition bin and the fresh water tank was used to house the single SW C42 wireless set. The JD-9 junction distribution box and an intercom box were mounted on the driver's compartment wall.

2. The rear of the fighting compartment, with the Auxiliary Generator control panel and air cleaner. Wireless junction boxes have been installed to allow the instructor to communicate with trainees.

3. Instrumentation for the trainee driver was a little more comprehensive, consisting of a complete panel, as shown here.

4. Instrumentation within the former fighting compartment was minimal, with a speedometer/odometer in the lower position, and a rev counter in the upper position. Next to the rev counter was the windscreen wiper switch.

5. View looking down into the driver's compartment showing the open hatches, raised driver windscreen and some of the instrumentation within the compartment.





fitted across the turret opening. A tachometer and speedometer were mounted centrally at the front of the compartment at turret ring level.

A Station Wireless C42, together with a JD9 were mounted in the space where the 20-round main armament stowage bin had been. The wireless, power supply and Aerial Tuning Unit were mounted on a very basic steel bench, while the JD-9 and intercommunication switch boxes were mounted on the adjacent partition wall. The wireless aerial, normally mounted on the turret, was moved to the top of the hull, left of the driver's hatch. Intercom boxes were attached to the hull walls to provide the instructor with the ability to communicate with both the trainee driver and the other trainees seated in the former fighting compartment.

The large hole created by the turret's removal had a simple superstructure built over it with a frame made from square steel tubing and a sheet steel roof. The front and

rear were covered with steel sheet with two large square windscreens – the front pair being Triplex glass, and the rear, Perspex. Each front windscreen was fitted with an electric wiper controlled by a switch adjacent to the tachometer. The superstructure was open on both sides, with roll-up canvas blinds attached along the top edges. These could be rolled down and attached to the superstructure frame by lift-dot fasteners during inclement weather. The driving compartment was left in the standard configuration.

### RARE TANK

Only three tanks were converted to DTTs, and contrary to popular belief, these were not all veterans of the war in South Vietnam, and had not suffered battle damage to their turrets.

The first to be completed was Australian Army Registered Number (ARN) 169032, which commenced



#### ABOVE & BELOW...

The interior of the DTT was spartan, with bench seats front and rear (seating three at the rear) for the instructor and trainees. The seats included a side rest that followed the shape of the turret ring, and lap-type seat belts for all occupants.



**"...Intercom boxes were attached to the hull walls to provide the instructor with the ability to communicate with both the trainee driver and the other trainees..."**



#### LEFT...

Various views of Centurion Driver Training Tank ARN 169083 showing various Australian modifications in common with gun and control tanks. The modification of the upper hull plate to carry two lengths of two track links was introduced in July 1970. These displaced the Drivers Hood and Windscreen Bin, which was discarded. The modification to carry a single spare road wheel mounting on the left of the glacis plate was introduced in 1973, and was a revision of the previous modification to carry two spare road wheels officially introduced in June 1970. Also introduced in 1973 was the single, white-light headlamp with a removable IR hood, mounted centrally on the glacis plate. Unique to the DTT is the mounting of the wireless aerial on the hull roof in place of the water tank access cover.





## RARE CENTURION

### RIGHT...

The Centurion DTT is owned by Tim Vibert and was a configuration unique to the Australians.

### BELOW...

Rear view with the Army Registration number 169083 painted on the lower edge of the armoured rear fuel tank.

### FAR RIGHT...

The tank still has its overhaul record plate, however, instead of the normal cast Aluminium plate, it has a replacement brass plate manufactured by 4th Base Workshop.



base overhaul in July 1973. This tank had been used for training by 1st Armoured Regiment at Puckapunyal for most of its service career, except when either being overhauled or in storage at 1st Central Ordnance Depot. It was delivered to Australia in 1952 as a Mk.3, and was upgraded to Mk.5 in the late 1950s, then further upgraded to Mk.5/1 in the mid-1960s.

The overhaul and conversion to a DTT was completed in May 1974, when it then issued to the Armoured Centre.

The next to be completed was 169083. This tank had served in South Vietnam, but had not sustained any appreciable damage, and had been in storage since arriving back in Australia in late 1971. The base overhaul and conversion to a DTT commenced at the end of October 1973, and was completed on 19 May 1975. It was issued to the Armoured Centre on 12 June 1975, and arrived there on 16 June.

The last was 169090, a Control Tank that had seen service in South Vietnam on two occasions. After being returned to Australia in late 1971 and placed into storage, the turret was removed in 1972. Already turret-less, it was an obvious choice for conversion to a DTT in 1975. The conversion was completed on 18 June, and it was taken on charge at Armoured Centre on 28 July 1975.

## OPERATION

The DTTs were comparatively economical vehicles to operate. They

169083				
CLASS OF REPAIR	DATE	WKSP NO	WKSP	
BASE O/HAUL	30-8-63	82	B.A.W	
BASE O/HAUL	7-5-75	250	4 B.W.	

could carry six trainees and remain out on the training area for longer between student change overs. At 40.64-tonnes (including the auxiliary armoured fuel tank), they were also appreciably lighter than a gun tank, which made them ride higher on the suspension and have significantly better automotive performance.

The Armoured Centre ceased using the DTTs at the end of September 1976, and they were transported to Bandiana and placed into long-term storage shortly afterwards. Although somewhat crude in their construction and basic in their appointments, the DTTs were a very useful addition to the Armoured Centre's training fleet for the last few years of the Centurion's service. They were also unique to the Australian Army. Of the three converted, ARN 169032 is on display at the Army Tank Museum, while ARN 169090, with the superstructure removed and a turret re-mounted, is an historical monument. The well-restored example featured here (ARN 169083) is privately owned by Tim Vibert, of Wangarratta, Victoria.

## Tim Vibert

Tim Vibert is a legend amongst military vehicle enthusiasts. Interested in military vehicles in general, and the Centurion AFV family in particular, it was his enthusiasm and entrepreneurial spirit that led to the creation of Combat Vehicles Australia Pty Ltd in 1989 and its successful tender to purchase 105 surplus Australian Army Centurion tanks and over 2,500 tonnes of spare parts. He also imported vehicles from several sources into Australia during the 1990s, including Ferrets, Saracens, FV432s and a couple of Chieftains. Tim is the owner/operator of Empire Trading and Disposals – THE place for British vehicle spares in Australia. He lives in Wangarratta, Victoria, with his wife, Suzanne.





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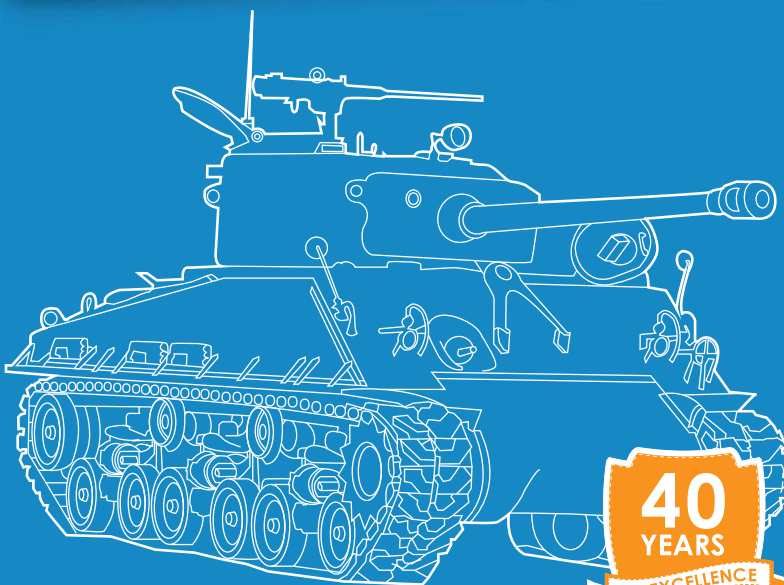
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# Exercise First View

ROLAND GROOM REPORTS **FROM AN EXERCISE HELD ON SALISBURY PLAIN**

**T**he Land Warfare Centre (LWC) Armoured Division trained with Challenger tanks on the Salisbury Plain Training Area East in May of this year, and having been tipped off by Andy Brend of 'Plain Military' web site fame, I obtained a copy of the training area newsletter, and consulted Ordnance Survey map 184 to locate a suitable photographic site to record the action. This promised to be far more interesting than observing driver training at Bovington and the odd display by the ATDU.

Having visited the area a few times on invited media days I calculated the most likely spot to see some action and duly arrived and parked up safely off the highway, north of Tidworth Camp, and waited for the action to come my way and cross the road.

I had hardly any time to assemble my camera with a telephoto lens when a Warrior Recovery vehicle (MRRV) ran down a very dusty track, parked up by the crossroads, the crew debussed. They were members of the REME up

from Warminster Camp on rescue and recovery duties on the exercise along with manning an official tank crossing to keep the public safe from a possible accident and not long after a CRAARV (Challenger Repair & Recovery Vehicle) known as Rhino trundled in as well, also from Warminster.

The crews on both vehicles were 'cammed up' and looking tired, having been up all night, and duly waited for the arrival of some eighteen Challenger 2's.







#### ABOVE & TOP..

It's an impressive sight to see these 60-tonne monsters thundering across Salisbury Plain. Many of the Challenger 2 MBTs taking part in the exercise were finished in a green and sand BATUS-style camouflage scheme.

#### RIGHT..

A long lens is a necessity when trying to photograph tanks on Salisbury Plain as the public are not allowed to get too close for obvious reasons!

#### BELOW..

Challenger 2 'Aphrodyte' wears the Chinese Eye of 1 RTR (seen at the lower front edge of the turret) and was one of the few Challengers taking part in the exercise to be painted in what looked to be an overall green camouflage scheme, but the tank was so dusty from the exercise it could well have been green and black.







Just like the classic army saying 'hurry up and wait', we waited and then the first Challenger 2 - DT23AA, with a green and yellow livery came over the brow, ranged on our group, reversed back out of sight, only to come out somewhere different and advanced to our position. As this tank approached several others from this troop appeared from woods and dusty tracks and started converging on the crossing point. All the drivers were hatches down, but commander and one machine gunner, were visible on the turrets. Several of the Challengers I recognised from my home base at Bovington Camp.

I was sporting a 200mm lens on my camera at the time, but wanted to switch to a longer one, unfortunately that was in the boot of the car! With tanks everywhere I was hard pressed to know which one to focus on, plus it

was very sunny and I had to shoot into the light and dust and make do with conditions and in the end I didn't have time to swap lenses as the second troop came into view. In all my years I never have experienced so many battle tanks spread over such a large area, all at the same time, so I photographed what I thought was interesting, and then came a real disappointment, all the tanks reversed their turrets to cross the highway, apparently a 'health & safety' requirement!

With hindsight I would have relocated nearer the woods, but that would be trespassing on MoD land, so I took pictures of the Challengers passing from the rear to compare stowage etc. as they passed. Having crossed the road the tanks dispersed over the hill, and spread out between Everleigh Down, Badens Clump, Longstreet Down and Coombe Down.

## LEFT..

All of the tanks involved were in standard guise and hadn't been fitted with any additional armour packages. Seeing one of these Challenger 2 tanks is impressive enough, but to see a troop travelling at speed across rough terrain is something you never forget.

## BELOW..

Note the various additional brackets on the side of the turret and hull that show that this Challenger has been, or could be, fitted with the additional add-on armour packages designed for the Challenger 2.

## BOTTOM..

The Challenger-based armoured recovery vehicle is the CRAARV, and is based on a Challenger 1, whereas the newer Trojan is Challenger 2-based.

Thankfully the third troop was delayed so I had time to quickly change lenses to my 400mm and while I was now happy, with life easier thanks to the longer lens, the dust was now blowing everywhere! Most of the tanks were painted in a fairly standard green & yellow camouflage scheme, with some just plain green, and all complete with call sign numbers and all sporting the 'Chinese Eye' of 1 RTR. I did notice the name 'Aphrodite' on one green Chally, but most were very grubby, even number plates were almost indistinct. I also noticed that some of the gun barrels sported rings similar to those found on the German tanks in WW2 claiming kills.

Out of all the 18 Challenger 2's only one failed to make it to the crossing, but the recovery crew were not required, and they moved off towards Coombe Down. I observed some vehicles at Beaches Plantation from the highway, and assumed that the convoy would appear at another tank crossing on the A345 at Netheravon, but unfortunately I never saw them again, but then I have never trained in tactics, so perhaps I took the route an assumed enemy would have plotted to ambush the troops and got it wrong. Either way it was a fun day out that did at least give me the chance to get up close and personal with some of my favourite pieces of British armour and hopefully you'll enjoy the photos featured in this article.





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# Jeep Rebuild

Ever thought about restoring a **WW2 JEEP?** We give you some pointers...



**T**he wartime Jeep is undoubtedly as popular today as it's ever been, but rising prices of fully restored examples, which are creeping ever closer to the £20,000 barrier, means that more than ever an older example in need of complete restoration is the only way many collectors can get hold of one.

The road to restoration is paved with potential problems for newcomers, and in this series of features we will be following the rebuild and restoration of a wartime Jeep with typical problems. The restorer, Bob James, has been involved with the hobby for many years, and by pure coincidence this was the 50th Jeep Bob has restored since being involved with the hobby!

In this first article I'm simply going to point out some of the potential areas of trouble you may encounter, and with the body removed from the chassis it's all the easier to see what needs doing.

While the removal of the entire body may seem drastic, it's not as hard as you may imagine, and can be removed by one man with a decent engine crane and suitable straps or chains. By removing the body you'll have much better access to the engine and drivetrain, as well as the axles, plus it will show up any hidden corrosion between the chassis and body. You can leave the body in place but from experience it will speed up the restoration process if you can remove it from the chassis.



# Starting Point - Strip Down ...



1.

You don't need a vehicle as big as this to remove the body, and with the bonnet, screen and wings removed the remainder of the body can be lifted in one piece.

2.

It's perfectly normal for civilian owners to add things to Jeeps, and these extra brackets on the front bumper were welded on for a towing frame. They can either be cut off, or if money is no object simply purchase a replacement from one of the many dealers in Jeep parts.

3.

This is a view of the underside of the body showing one of the box section stiffeners, which is prone to corrosion when moisture and mud gets trapped. Replacements are available, but the old one will need to be carefully removed and the new one welded in place. This is best done by an expert.

4.

Another common area for rust is the panel beneath the fuel tank, which can collect moisture and set up corrosion. This is pretty good with just a few pin holes.

5.

The size of the Jeep means that you don't necessarily need a huge workshop to do a rebuild and it can be done in a normal garage with a bit of juggling!

6.

Bent and damaged rear crossmembers are another common problem. This one's not bad, with just the ends bent and twisted. They can be easily knocked back into shape, but new ones are available.



2



3



4



5



6



**7.**

Once stripped down to a rolling chassis just one man (or woman) can easily push the unit around the workshop because there's very little weight in it. Although the axles will need to be removed or disconnected at some point, it's best to leave the chassis mobile for as long as possible for convenience.

**8.**

With the cylinder head removed a lot will be revealed about the state of the engine. In this case the engine was seized, but the water in the pots is coolant that dropped in when the head was removed and wasn't originally there, which as we all know can be a bad sign in an engine!

**9.**

A stand for the engine once removed will make life easier when assessing and rebuilding it (assuming you're going to do it yourself), and Bob has done so many rebuilds over the years he has a purpose-built frame on hand.

**10.**

Leaking oil seals on the hubs are a common, but easily fixed problem on a Jeep, but cracked and perished flexible brake hoses are far more important as they can cause a sudden loss of the brakes if they split. For what little they cost it's always a sensible precaution to change all the flexible hoses, regardless of condition.



**7**

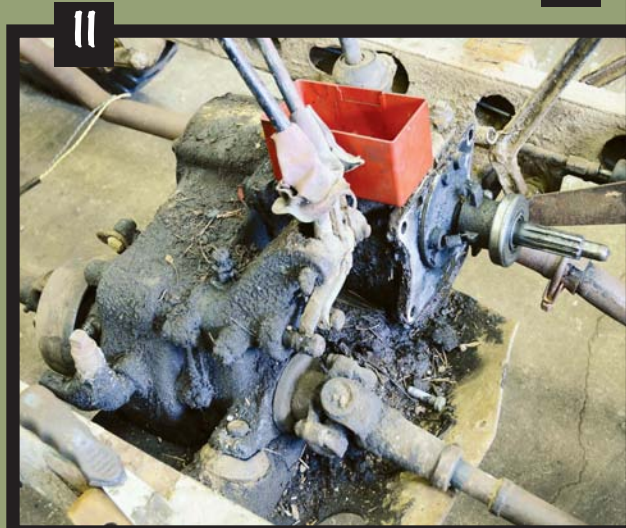
## "The road to restoration for a wartime Jeep



**10**



**12**



**11**



**13**



8



9



## is paved with potential problems for newcomers..."

11.

It may look a bit drastic, but this amount of encrusted

oil on the gearbox and transmission is fairly normal for a seventy year old Jeep. There can be a number of reasons for there being so much oil in this area, it could be years of drips when topping up the oil levels, which hasn't been cleaned and then combined with dust and mud, but it's more likely to be caused by leaking seals and that's something you won't be able to find out until the old oil has been cleaned off. It could be steam cleaned, but if you're limited by your equipment a can of Gunk degreaser and a paint scraper will remove the worst of the sludge and the rest can be cleaned up with more degreaser and plenty of elbow grease. Before stripping down the unit it sometimes pays to top up the oil and then leave the cleaned unit for a week or so to see if any seeps develop, which will pinpoint the problem areas. Failing that it will mean a strip down and replacement of all the gaskets.

12.

The condition of the chassis will depend on a number of factors,

but if at all possible try and avoid a chassis that has been bent or distorted because it may require the services of a specialist to re-jig it to ensure that it's completely square. Replacement chassis parts are easy to source, with everything from new cross members to spring hangers available, but the spring hangers, rear crossmember and bumper mounting plates are the most commonly damaged items on a Jeep chassis. All of these items will require welding or rivetting to the chassis (or both if you want to cheat) so if a chassis is too badly damaged it may actually be more cost effective to simply buy a complete replacement chassis. A variety of replacements are now available, including both Ford and Willys chassis, which are different, and nowadays these reproduction parts are extremely well made and should provide a direct replacement with very little, if any, modifications.

13.

Here we can see the transmission brake forward of the transfer

box, however, like many wartime Jeeps in need of restoration, it is missing the actual friction plates and some of the mechanism. I don't know why, or at least I have a theory, but many older Jeeps have had the transmission brake removed, and my theory is that they become clogged with mud and inoperable so the owners remove them rather than fix them. Either way it is something that needs to be addressed before it can be driven on the road, and like almost everything else of the Jeep, the parts are available as replacements.

Also shown here is one of the four propshaft universal joints. These are often the source of slack in the drivetrain, which can manifest as clunks when driving, but the problem is easily fixed by fitting new UJs, and because they're not too expensive to buy, it's good policy to replace them unless new ones have already been fitted by a previous owner.

14.

Thankfully brakes as corroded as these are very rare, and in this

case there would be absolutely no point in wasting time trying to clean them up, just bin them and get some replacements, after all the brakes are one of the key items on the vehicle so you shouldn't scrimp on such important items.

With the body removed you'll have much more access to the engine, which can then be removed, and after removing a few bolts the body can be lifted from the chassis. A little tip is to keep a note of the position and number of rectangular fibre packing pieces for each of the body mounting bolts, this may seem unnecessary, but quite often the body tubs were twisted a little and packed to ensure that everything lined up, and the only way to ensure that it goes back in exactly the same place, is to make sure you use the correct number of packers in the right locations. Trust me, it can save a lot of heartache further down the line when trying to fit the rest of the components such as the wings.

With the body off you'll be able to have a good look at the state of the chassis. I have to say that a great many wartime Jeep chassis are

in excellent condition considering they're seventy years old, in fact I've seen more corrosion on a ten year old Land Rover at times! The main problems usually encountered are bent and damaged areas, but these can normally be repaired or replaced quite easily.

The removal of the body also means you can get a good look at the gearbox and transmission, and assess whether or not it's likely to need a rebuild or replacement. A replacement gearbox can be expensive, so a rebuild is probably the cheaper option if you can find the right person to do the work. Now that the Jeep is part stripped a thorough examination of the components can be made, and next month we'll be stripping down the chassis still further and showing the areas in need of refurbishment and bringing you more hints and tips along the way.



14



# Great War Restorations

Tim Gosling concludes his article on the **restoration of WW1 trucks** with a few pointers to anyone considering buying a restoration project

## IN PRESERVATION..

Right: the Pierce Arrow owned by the Grundon Company is well known and regularly makes appearances at War and Peace. This is another one that returned from France.





# Part 2

The restoration of a Great War vehicle does not have to be expensive or difficult, although in all probability if it is not one then it will be the other. The factors which have the greatest affect upon the overall cost and length of time it takes to complete the restoration is what you have to start with and your ability to do the work yourself. If you have to pay someone else to do machining work for you then a restoration will prove to be very expensive.

The price of a rolling chassis is generally cheap and they turn up quite frequently, but finding the correct engine, gearbox and other ancillaries

## LEFT...

I don't know much about this Model T Ford ambulance although it appears to be very original.



for it is going to be a difficult and time consuming task. In the long term it is probably better value to pay more for a complete truck than it is to pay for an incomplete one and search for parts, unless you have a lot of time on your hands.

I certainly would not want to put anybody off the idea of taking on the restoration of a vehicle from the Great War, in fact I would do whatever I could to encourage a restoration to be undertaken. Within the military vehicle hobby there has been little interest in these early vehicles although it seems that in recent years and with the approach of the Great War centenary this does appear to be changing. The reason for this apparent lack of interest is that the veterans who drove them are all long gone, the few trucks that do exist are rarely taken out (providing little opportunity for people to study them) and there is very little published information about them.

It is very difficult to get enthusiastic about a type of military vehicle which you can't examine, on which there is nothing written and you are unable or talk to anybody who drove one during the war, but saying that, we have on several occasions been approached by someone at a showground carrying a faded photograph of their distant relation standing in front of a truck like one of ours. On these occasions we have only been too happy to take him for a drive. As for the lack of information on Great War vehicles, I have been trying to redress this with my ongoing series of articles on the subject, which Ian has kindly published within MMI and I am informed that they are generally well received so I do hope that I have managed to pass on some knowledge and enthusiasm on the subject.

As I stated in the previous installment, un-restored examples do occasionally come up for sale but before any prospective purchasers goes out and gets one and embarks upon a restoration there are several things that they should consider.

## PARTS AVAILABILITY

With the restoration of any military vehicle the hunt for parts is considered by some to be all part of the fun. This fun is somewhat diminished for those who are desperately looking for components that simply no longer exist. The owners of most WW2 American vehicles really are spoilt for choice as they can usually select which supplier to buy parts from! In fact I could find bits for my 1944 Jeep quicker than I can for my everyday car.

Unfortunately parts availability for any vehicle dating from the Great War is almost zero and in reality your best chance of finding anything is to become friendly with someone who already owns a vehicle of the same model and see if they can put you onto any leads, or may have some spare parts that they will pass on to you themselves. The owners of trucks from the Great War generally all know of each other and are usually able to help each other source components or jointly fund the manufacture of new items.

e-Bay is usually a good source for parts (especially for those vehicles made in the United States) as are auto-jumbles, but before going you really must have a good idea of what you are looking for. Three of us spent all day at Beaulieu autojumble and came away with just one original greaser for a WW1 Peerless - not a great haul but a good find nonetheless, but still leaves us with another twenty to locate!

## ABOVE..

As far as we know this is the only survivor of the 460 Autocar UF21 trucks purchased by the British War Department. It owes its existence to a French collector who saved it.

## MAIN PHOTO LEFT...

The Dennis was rebuilt using the correct parts from many different locations including the chassis from a garage roof, the engine from a fire pump and the differential from a Cornish beach.





Now fully restored, this Daimler "Y" type was purchased at the sale of a private collection.

## BELOW LEFT..

Probably the best known of all the surviving Crossleys is the one at Hendon. It has a replica body dating from the 1970's and is currently undergoing a restoration to return it to driving condition.

## BOTTOM LEFT...

Only two of these Hallford trucks appear to have survived into preservation.

## BOTTOM CENTRE...

The Fiat 15 TER at Duxford is another well-known survivor. When restored there were enough chassis and parts left over to do two more although I have since lost track of them.

## BOTTOM RIGHT...

This Locomobile owes its survival to its final driver/owner who on retirement covered it in timber and galvanised iron and lived in it up until the 1960's.



Some parts such as carburettor or magneto are common to other vehicles so your chances of finding these items are improved. To find an engine or gearbox you really have to be very lucky, but these items do occasionally turn up at farm auctions, both in the UK and overseas. Many ex military vehicles were exported to Australia and New Zealand after the war and due to the distances involved it was not worth scrapping them. I am aware of several instances where engines, gearboxes and differentials have been brought back to the UK from the Southern Hemisphere.

Generally the parts that do survive are in a poor condition and will need a great deal of work to bring back to life, so having a variety of experience in metal working skills and a well equipped workshop really is going to be crucial if you hope to keep the costs down. Another problem is that many

of the skills used in building these lorries are no longer widely used and it can be difficult or expensive in finding someone ready to tackle the task of making replacement wooden wheels or making a new worm and wheel for the differential.

Finding solid tyres for a Great War truck is another headache. The tyres usually last in the region of 10,000 miles although this figure can be significantly reduced due to driving style and the nature of the roads driven on. The tyres are manufactured on a metal band, which is pressed on to the wheel. If rust gets in to the band then the tyre will separate from it and it will need replacing. This problem is commonly found on trucks which have been sitting for extended periods on damp ground, and although the tyre looks to have many years of wear left in it, any build up of rust will make it fall off the wheel when driven. The last





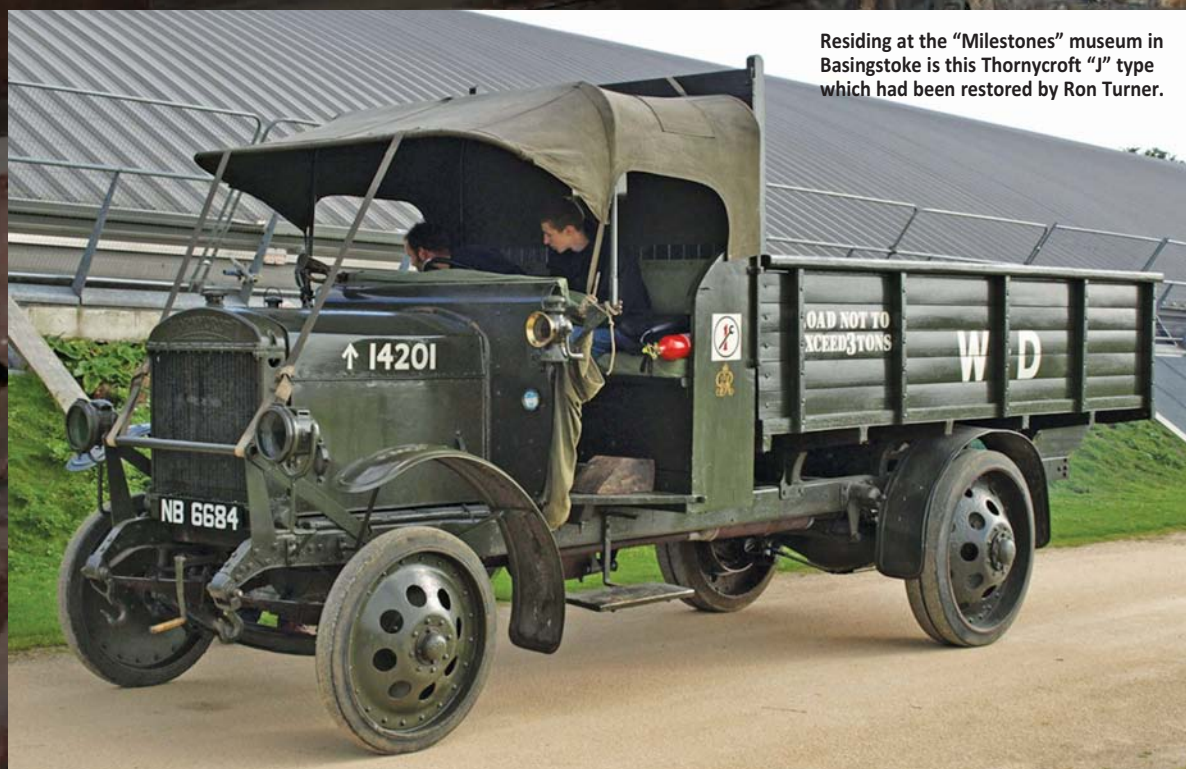
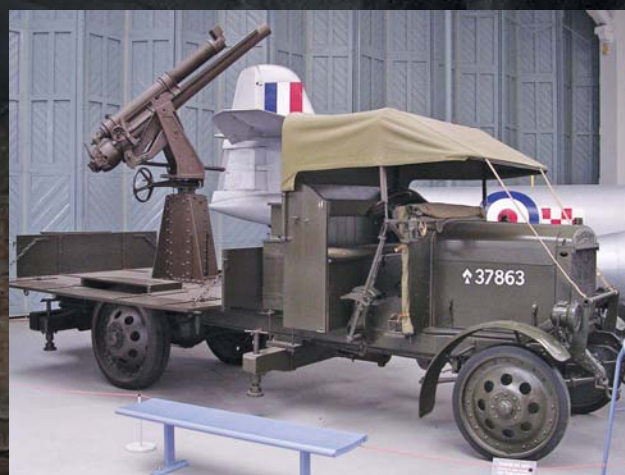


“...finding solid tyres for a Great War truck is another headache. The tyres usually only last somewhere in the region of 10,000 miles depending on use...”

commercial manufacturer of solid tyres in the UK made their final ones and disposed of their entire remaining stock in the 1980's. New old stock ones do occasionally turn up and can be found from anything between a reasonable and exorbitant price. Specialist firms can make new tyres out of a rubber-impregnated bandage, but the price makes this an expensive option. Thankfully we have found a very workable alternative in making new tyres out of the Polyurethane used on forklift tyres and the cost works out at about just one tenth of a new rubber tyre. We have been using them without any problems for two years now, but admittedly they don't get a lot of use.

### LACK OF INFORMATION

The lack of detailed information on trucks from the Great War can make a restoration quite difficult. Parts books and manuals for the British built trucks are as rare as the proverbial hens teeth and vary significantly in the detail of information they contain. For American built trucks it seems to be the opposite as these books are exceptionally well detailed and turn up much more frequently. A variety of books written on the subject of truck operation and maintenance were written and published just after the war and one that I would recommend was written by an Officer of the Army Service Corps



Residing at the "Milestones" museum in Basingstoke is this Thornycroft "J" type which had been restored by Ron Turner.

### TOP LEFT..

Both of these US Army FWD Model b trucks were recovered from French scrap yards. With their restoration completed they both undertook the London to Brighton road run.

### TOP RIGHT..

Believed to have been built just after the end of the war this Crossley is very original and one of seven survivors that have a military heritage.

### ABOVE RIGHT...

The Thornycroft anti-aircraft gun truck currently displayed at Imperial War Museum Duxford was rescued in very poor condition after having been parked outside the Thornycroft factory for over 20 years.



### RIGHT..

This US Army Packard was built by collector Dave Lockard using an identical post-war chassis as an original was simply not available.

### BOTTOM RIGHT...

The Foden steam lorry shown here (which has previously appeared in MMI) was saved by the same French collector who saved the Autocar from being scrapped.

### BOTTOM LEFT...

Following a lead we managed to track down and purchase this Thornycroft "J" type chassis, which had been converted into a shepherd's hut. As is so often the case with these sorts of finds, part of the deal was that we had to dismantle the hut and clear away the lumber and metal work for the owner!



**"The key to owning and restoring a Great War Truck is having the patience to see the job through..."**

## Thornycroft Update...

Previously I've mentioned the Thornycroft J Type truck purchased by my brother Steve 24 years ago. Since then a second chassis was recovered from woodland, the gearbox has been rebuilt, new springs, half shafts and the radiator shell have been made. We have also been given a back axle complete with differential by a collector in New Zealand, and the reconstruction of an engine from the remains of two is currently under way. We are now directing all of our efforts into this one restoration and hopefully it will be ready for 2018. Perhaps the one piece of advice I would give any potential restorer of a truck from the Great War is to be very, very patient.



under the title "Motors in a Nutshell" by Captain S. Bramley Moore. Although not specific to any make of vehicle the level of detail in his explanation of their construction and operation is very useful and as the books was reprinted several times it can be found for a very reasonable price.

Being able to examine a surviving example is always a great help to any restorer but these are few and far between and in many instances there are no known examples at all. Period

photographs are another good source of information and we have certainly learned a great deal by collecting and examining these in fine detail, but much like the manuals, good photos don't turn up very often.

The key to owning and restoring a Great War Truck is having the patience to see the job through, which may take many more years to complete than a more mainstream restoration project, plus having enthusiasm for the Great War period of history, which will encourage you to seek out those hard to find parts. Admittedly the number of projects to be found is diminishing, but they do turn up from time to time so in the words of Shaw Taylor (for those who remember!) "Keep em peeled".





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# Thornycroft Nubian

If You Go Down To The Woods Today . . .

Shaun Connors recently discovered something of interest lurking in the undergrowth



I moved house earlier this year, and while that move was more tens of miles (24 miles in fact) than hundreds, until I first saw the house I'd move into to, I'd been near to but never actually to the village I now live in... Or so I believed...

Max (SWMBO) and I often enjoy a walk in the early evening or at the weekend, and while we most definitely do not fall into the category of litter-dropping ramblers or of the overly energetic type that hike up and down Ben Nevis for fun... our walks have been known to be of sufficient length to generate blisters.

For our first post-move walk we headed off into some of the many nearby woods, with no real sense of direction, or plan for that matter, but within an hour of following what appeared to be a path, albeit a little-used path, we had started to come across the occasional old car or lorry gently decaying in the undergrowth. Max's level of enthusiasm for these 'finds' in no way equalled mine, and so when I stumbled across the subject of this article, she looked on in despair as I reacted like a small child let loose in a sweet shop – at Easter...

As regular readers of my material will know, I am more of a modern vehicles man and while I have an active interest in most things military, an expert on aged airfield crash tenders I most definitely am not... And so while I didn't need the Thornycroft badge on the front of the vehicle to identify the manufacturer, identifying it as probably a Nubian was about as far as I could get without help...

I am quite adept with Google (other search engines are available...), and while I successfully located a few random images of this particular wreck through the ages, nobody seemed to know much about it beyond the obvious Thornycroft Nubian and Royal Navy, the latter doubtless thanks to the wording that remained on the rear bodywork, however, a quick email to Simon Longden at the Thornycroft Register and help was at hand. Considerable Google time then followed, but despite my best efforts, little more in the way of specifics could be located. I did uncover numerous



in the woods nearby...

images of very similar RAF and civil vehicles, but nothing specific to the Royal Navy could be found.

Now fortunately I'm from a generation that can use reference books (although I seldom do nowadays...), so I blew the dust of Pat Ware's A Directory of Post-War British Military Vehicles (Military Vehicle Design And The FVRDE 1946-1981) and bingo, on page 128 I found an entry for the FV14161, Truck, 5-ton, fire-crash, RN, Thornycroft as exhibited in 1962 at the FVRDE exhibition. The accompanying catalogue and technical data reproduced here gives the following information, although I'll add my suspicions that Pat may have

elected to substitute some metric figures for the then standard imperial:

*"Dual-purpose fire-crash tender developed for the Admiralty for use on Royal Naval air stations. The vehicle has a water tank capacity of 4500 litres, together with a 225-litre foam tank. The pump is driven by a Rolls Royce B60 petrol engine, and is capable of discharging water at a pressure of 70,000kgf/m<sup>2</sup>, and foam at a rate of 50,000kgf/m<sup>2</sup>. Crew compartment provides weather protection for five."*



"Now fortunately I belong to a generation that can use reference books, although I seldom do nowadays..."

#### ABOVE..

After some considerable searching on the internet, images of an FV14161 languishing in L W Vass's scrapyard were located on the Thornycroft Register's website.

#### FAR LEFT..

VXN 866 as she is today... If my Google skills are worth their salt, when VXN 866 was scrapped by Lasham Airfield she was purchased by her current owner and now resides at Brooklands...

#### BOTTOM LEFT..

This image was taken at Dublin Airport in 1999.

#### LEFT...

VXN 866 before it was the recipient of a considerable amount of TLC...



#### TECHNICAL DATA...

**Chassis:** Transport Equipment (Thornycroft) Ltd; Model name, Nubian.

**Body:** Sun Engineering (Richmond) Ltd.

**Dimensions:** Height, 3170mm; length, 6830mm; width, 2270mm. Track, front 1860mm, rear 1960mm; wheelbase, 3734mm.

**Weight:** 12,254kg laden, 7264kg unladen.

**Engine:** Rolls Royce B81, 8-cylinder, ioe valve configuration, 6520cc; power output 215bhp at 3750rpm

**Transmission:** twin plate dry clutch; four-speed constant mesh gearbox; two-speed transfer box; worm axles rear, bevel front.

**Steering:** Cam-and-double roller.

**Suspension:** semi-elliptical springs and live axles.

**Electrical system:** 24V.

**Wheels and tyres:** 8.00 x 20in divided-disc rims, with 12.00x20 cross-country tyres





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"...on a roll, I then blew the dust  
of the Observers Military Vehicle

### RUST IN PEACE...

Two more shots of a 'retired' FV14161 at L W Vass' scrapyard, these images courtesy of Andy Ballisat.







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## MORE CLUES

Sharing page 128 of A Directory of Post-War British Military Vehicles with the FV14161, was the FV14151 Truck, 5-ton, fire-crash-foam, GS, 6x6, Thornycroft as exhibited in 1956. Also fitted with a Sun Engineering body, the FV14151 was developed for the Ministry of Aviation and civil aviation authorities for dealing with aircraft fires. The rear body is configured differently to the FV14161, however, the front end is very similar, although the roofline is slightly higher and the cab (which has a different door arrangement) slightly longer. It's this model, which was definitely produced



ABOVE..

The only image I could find of an FV14161 in Royal Navy service.

## A Brief History...

The Thornycroft name was associated with UK shipbuilding, marine engineering and other activities for over a century. The company even made a brief appearance in car manufacturing between 1903 and 1912, when the firm produced high quality cars at the Basingstoke factory. The Thornycroft story begins in 1862, when John Isaac Thornycroft designed a steam car. Two years later, he formed the Steam Carriage and Wagon Company, with works at Chiswick, London. However, the project stopped because of over-zealous legislation for road vehicles, and Thornycroft took up shipbuilding, also at Chiswick.

The company took up road vehicle work again in 1895, whilst continuing with the shipbuilding and marine engineering business, and built his first steam vehicle at the Chiswick works, this powered by a marine engine with chain drive to the front wheels, tiller operated steering acting on the rear wheels. The Thornycroft Steam Wagon Company of Chiswick put steam lorries and vans into production, and a new factory was set up at Basingstoke, Hampshire in 1898, to meet demand. The following year, Thornycroft steam wagons were supplied to the Army for the first time and London's first powered bus was a Thornycroft steam double decker.

World War One saw a significant increase in truck production when the firm's J type 3-ton War Office Subsidy models appeared, and some 5000 were built. During World War Two Thornycroft built 13,000 trucks for the military, plus 2000 civilian models for essential users.

Thornycroft models were built almost entirely from in-house components, which meant developing new models was expensive, and by 1960 the company was beginning to focus more on heavy-duty specialised trucks for military and export use. However, in a declining market Thornycroft struggled to keep its large works productive and in 1961 the company was taken over by the ACV Group, the parent company of AEC. Very soon trucks that competed with AEC models were phased out and production turned to highly specialised models such as the Nubian and Antar. ACV was itself taken over by Leyland in 1962. Leyland already owned Scammell which it considered its specialist vehicles division, so it was almost inevitable that the Thornycroft and Scammell ranges would be rationalised, and with the to-be-expected results...

The last Thornycroft's were actually built at Leyland's Watford plant, the Basingstoke site (now a supermarket...) having been sold off in 1969.

Thornycroft continued in shipbuilding until 2009, when VT Group (previously known as Vosper Thornycroft, the 1966 merger of Vosper Limited and J I Thornycroft) sold its 45% share of the Shipbuilding Joint Venture company BVT Surface Fleet to BAE Systems. The remainder of the VT Group plc was acquired by Babcock International Group in 2010, Babcock absorbing its operational functions in the UK and leaving VT Group to operate in the US. In July 2012, The Resolute Fund II, L.P., and affiliate of the private equity firm The Jordan Company, acquired VT Group from Babcock. The company continues to trade as VT Group. <http://www.vt-group.com/>

(and several dead spiders) off my copy  
es Directory from 1945 ..."

in greater numbers, that regularly popped up to confuse me during my Google searches...

On a roll, I then blew even more dust (and several dead and dried spiders) off The Observer's Military Vehicles Directory from 1945, this presented to Swot Connors at Fakenham Secondary School's Prize Giving and Speech Day 1974 for excellent work in 4th year social studies. Those were the days... days when you could reward pupils for doing well, and not having to worry more about not upsetting the woolly-minded parents of the thick ones that didn't do quite as well... Anyway, success and on page 210, and with the slightly differing title, I found the Truck, 5-ton, 6x6, Fire Crash Foam, FV14161 (Thornycroft TFA/B81 Nubian/Sun). Accompanying text confirmed the FV14161 was developed for the Admiralty for use on RN Air Stations, although the only additional



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**BELOW..**

There should be a Rolls Royce B81 engine buried in there somewhere...

**BELOW RIGHT..**

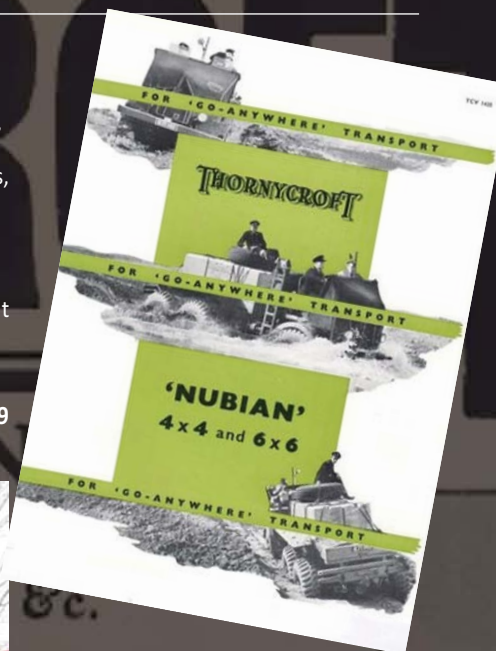
For Sale (I assume...) one never-used 12.00R 20 bar-grip, surprisingly still fitted to the truck!

information provided was a maximum road speed of 60 mph, and a date of circa 1958.

Armed with the FV14161 number I returned to Google, but this didn't really help much, and the only thing I turned up of interest was two images... Not being one to accept defeat, I then Googled images again, and this time a broad 'Thornycroft', and bingo... a group of photos of a sad-looking FV14161 and Vass's scrap yard, these on the Thornycroft Register's website.

And on Trucks Planet as an 'unknown', what appears to be an in-service FV14161, but to further confuse things, and because I can, on the FV14161 image in the The Observer's Military Vehicles Directory from 1945, I could clearly read the 47 RN 40 registration number, however, when I Googled that number it appears the same registration number was applied to a RN Snow Cat...

[http://www.forumsforums.com/3\\_9/archive/index.php/t-7908.html](http://www.forumsforums.com/3_9/archive/index.php/t-7908.html)



**RIGHT..**

The remnants of the scrapyard are slowly being cleared, so anybody who fancies a 'project vehicle' should get in fast...

**BELOW LEFT..**

I've been unable to ascertain how many FV14161 were delivered to the Royal Navy, and would love to know...

**BELOW RIGHT..**

A sad end for what is a rare vehicle...



**ANYWAY, TO CLOSE...**

You'll recall I said at the start of this piece that before moving to it, I'd never been to the village I now live in... Well I was wrong... After photographing the Thornycroft FV14161 I continued on through the woods, following the footpath it sat beside to its logical end... It turns out I wandered way off course and wasn't anywhere near where I expected to be, instead I was in the remnants of a scrap yard that I remember visiting way back in 70s to get spares for my Ford Cortina Mk2... And in those days, you took your own tools and climbed over, under and in stacked wrecks to remove whatever it was you were after... What would the Health & safety man make of all that...

**SOURCES:**

Various sources were used during the research for this piece, and these should be credited accordingly; they included...

- A Directory of Post-War British Military Vehicles (Military Vehicle Design And The FVRDE 1946-1981) (Pat Ware)
- The Observer's Military Vehicles Directory from 1945
- The World Encyclopedia of Trucks (Peter J. Davies)
- The Thornycroft Register <http://www.thornycroft.org.uk/>
- Austin7nut (image via internet)
- Andy Ballisat (images via Thornycroft Register)
- Nick's 999 Photography (image via internet)
- Trucks Planet (image via internet)
- [www.gracesguide.co.uk](http://www.gracesguide.co.uk)

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# TANK TIMES

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## BRITAIN AT WAR<sup>TM</sup> SHOW

21 SEPTEMBER 2013



### VEHICLES & VETERANS WANTED FOR NEW EVENT

The Tank Museum and Britain At War Magazine have teamed up to present a new event for 2013.

Museum Event Manager Vicki Pol said; "This new September event will allow us to examine a specific aspect of the British wartime experience. We're starting by looking at the National Service years."

National Service, effectively conscription, was in place between 1939 and 1960 with the last conscripted soldiers leaving the service fifty years ago. From 1949, males aged 17-21 years were expected to serve in the armed forces for 18 months and conscripted National Servicemen saw active service in Korea and during the Suez Crisis.

British Forces supported the UN response in defence of South Korea in a conflict which began in 1950 and ended in 1953 - sixty years ago this year.

"The Korean War is often overlooked when we examine our military history, so on this sixty year anniversary it is fitting that we shine a light on it", said Vicki. "As a result, we are really keen to hear from any Korean and National Service Veterans - particularly those that served in tanks - as we put



Korean Campaign Medals

together the programme for the event."

The show will feature period vehicles from The Tank Museum collection - such as the Soviet T34 and British built Centurion tanks. The Museum is also inviting owners of National Service era vehicles to exhibit their vehicles and take part in arena displays.

There will be talks from veterans on the vehicles they served in, along with a range of other family activities and a variety of stalls to browse.

Normal admission prices will apply, and Annual Pass holders will be admitted free - but MVT members and Britain At War subscribers will be able to save over 30% on the normal admission price.

If you have an appropriate military vehicle you would like to exhibit, please contact us on: 01929 405096 x211 or [eventsmgr@tankmuseum.org](mailto:eventsmgr@tankmuseum.org).

The Tank Museum wants to hear from Royal Armoured Corps National Service Veterans about their experiences if they have photographs of their service. These can be brought in to the event or copies e-mailed in advance to: [memories@tankmuseum.org](mailto:memories@tankmuseum.org)



### INSIDE...

- THE T34
- WHAT'S ON
- VCC UPDATE
- TANKFEST PICS
- TANKS FOR THE MEMORIES



### FROM THE OUTREACH OFFICER



Felicity Wood

Building the Vehicle Conservation Centre doesn't just mean we get a new building in which to store our vehicle collections. The Heritage Lottery Fund has also given us the opportunity to build links with the local community.

As Learning and Exhibitions Assistant, I facilitate visits by groups of school children and help to create displays in the Museum. However, the focus of my job is working in partnership with local groups across the County. I'm developing projects that will engage the community with the work we do at the Museum and inspire them with the topics of our future exhibitions.

The Museum's new outreach programme is now well underway, with lots of interesting projects starting to get off the ground. The theme of each project is linked to the forthcoming exhibitions 'War Horse to Horsepower', which opens in 2014 and 'Making Tanks', opening in 2015.

Outreach work often means bringing the Museum to people who wouldn't otherwise be able to visit. For example I've been working with an Age UK Day Centre in Dorchester, talking to their visitors about how horses have been used in both war and peace time. I brought along some horse related equipment from our collection to spark discussion. Many of the day centre visitors had ridden or worked with horses, and we had some great conversations about their experiences.

Continued on page 2...



## FROM THE OUTREACH OFFICER CONTINUED...



Greeting cards

It's also exciting to have the opportunity to tell Museum visitors about the good work community organisations carry out. We've created a new 'Community Exhibition Space' in the Museum, to host displays created by local groups. First to be featured are Muntys from Weymouth, a group for adults with additional needs. Their ladies craft group has created some handmade greetings cards inspired by those made by First World War soldiers for their loved ones.

I'm also keen to find out what activities the Museum could offer local families. I've visited Bovitots and the Sure Start Children's Centre, to help out with activities for mums



Sure Start

and toddlers. I'm also planning a family opinion day in July, as I'd love to get local people's views on the events and activities we're planning to offer.

You can get the latest updates on the Museum's community work as it happens by following me on twitter @TankMuseumCF. There will be regular updates on our website, linked to the articles on the progress of the Vehicle Conservation Centre. In addition, if you'd like to find out more information about project work at the Museum, please email me: felicityw@tankmuseum.org

*Felicity Wood*

Felicity Wood  
Learning &  
Exhibitions Assistant




The T-54 taking part in the mock battle

## ANOTHER RECORD TANKFEST!

It was another record breaking TANKFEST, with visitor numbers crossing the 11,000 barrier for the first time.

There were more vehicles than ever taking part in arena displays and the weather was again superb for the weekend spectacular.

TANKFEST 2014 is taking place on the weekend of the 28 & 29 June. Tickets are available now from The Tank Museum website –and if you buy before September, you'll get your tickets at the 2013 price! 



Above: The Irish Defence Force proudly displaying their Rolls Royce Armoured Car. Deputy Chief of the Defence Staff, Lt. Gen. James Everard welcomes them.



The British Army display included a combat recovery scenario.

Below: The Royal Engineers build a bridge against the clock.



Below: The newly restored Pak L43/41, towed by a guest SdKfz 7.




Leopards open the show.



The Tank Museum, has launched a new beer in association with the Dorset Brewing Company.

"Landship" is a pale gold, clean tasting and medium bodied ale which has been launched to commemorate the centenary of the First World War and the invention of the tank.

"Landship" is now available to buy from The Tank Museum gift shop, price £3.50 per bottle. 



The artist with his work

An original oil painting depicting Tiger 131's final moments in military service was sold for £10,000 at a fundraising auction during TANKFEST.


"Panzer Marsch" was painted by Nicolas Trudgian and donated to The Tank Museum. It was sold to military vehicle collector and Tank Museum Appeal Board member Bruce Crompton. The money will be used to ensure that Tiger 131 remains a running exhibit for generations to come.

3'x2' prints of the painting are also being sold to raise funds for the Museum's most famous exhibit costing £90 from the Museum shop.



**WARGAMING.NET**  
LET'S BATTLE

Wargaming.net, developers of the popular 'World of Tanks' computer game, has sponsored the development of an Education Centre at The Tank Museum.

A grant of £80,000 has allowed a previously unused room to be transformed into a contemporary, state-of-the-art classroom with a modern AV system and a suite of 20 high spec computers. 



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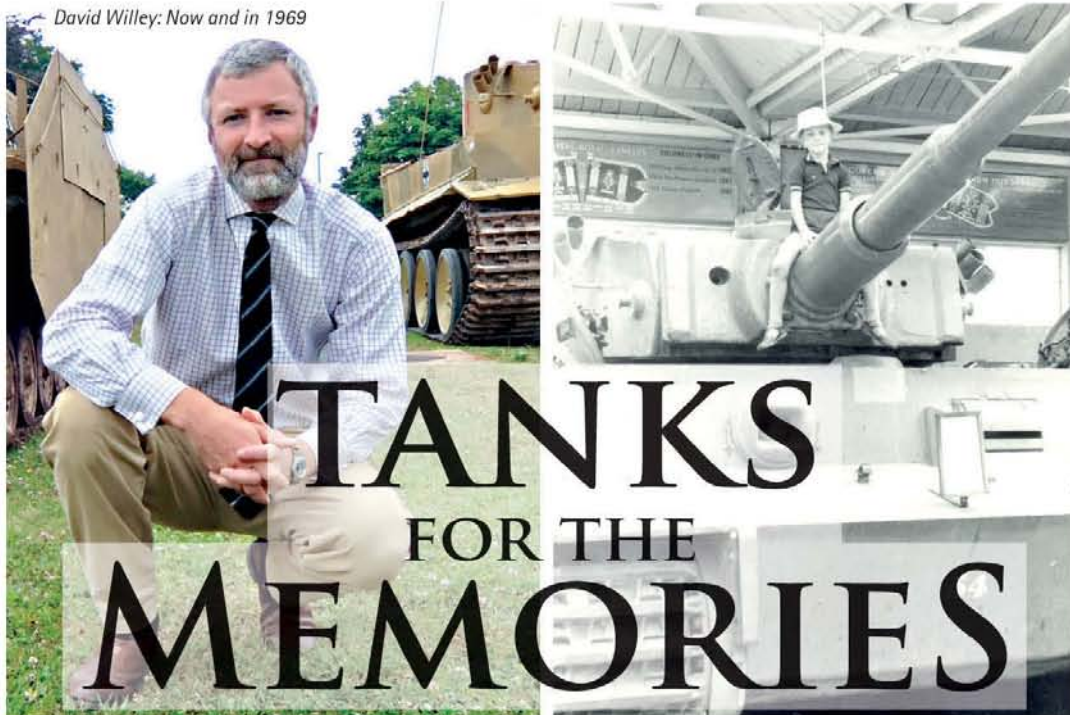
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David Willey: Now and in 1969



We all have fond memories of days out and family holidays – and now The Tank Museum wants to capture the recollections and photos of past visitors.

"The Tank Museum has been welcoming visitors since the 1920's and since then, thousands upon thousands of people have passed through the doors – all of them leaving with powerful memories and often photographs of their visit," said Project Volunteer Phoebe Myles.

"These photographs are of particular interest – because in capturing that moment in time they have reinforced individual memories and captured a moment in the history of The Tank Museum itself," she said. "We want our past visitors to share their photos with us, along with a caption that tells us when the image was taken and what made the visit memorable."

The Tank Museum was founded primarily as a military teaching collection after World War One. It was in the 1950's that The Tank Museum became a popular destination for tourists as increased car ownership made the Dorset countryside more

accessible. In the fifties and early sixties, admission was free and many visitors still fondly recall how they were able to climb on the exhibits in the days before Health and Safety legislation put a stop to it. The submitted images will be posted in an on-line exhibition to be hosted on the image sharing website flickr. Specifically, Phoebe is looking for images taken before 2000.

Current members of staff have been among the first to submit their images to the project. Curator David Willey has supplied a black and white snap that was taken in 1969, when as a six year old he visited The Tank Museum with his father.

He said; "I still remember the sights and smells to this day – as a child it was brilliant to come and see the tanks. One of the best things about working here is seeing other families making the same kind of memories I did all those years ago."

If the project is successful, The Tank Museum will create an exhibition of the photographs and the memories of previous visitors. **T**

**SUBMIT YOUR PICS:** [memories@tankmuseum.org](mailto:memories@tankmuseum.org)

## YOUR MEMORIES....



**Robin Chandler** was on his first Scout Camp when he visited The Tank Museum in 1947. He can be seen in this photograph on the bottom row, 1st right. Robin became a pilot in the RAF; but his fascination with tanks increased when in 1956 he went on detachment to the 9th Lancers and was given experience crewing the Centurion tank. Robin revisited the Museum in 2012 and brought his photo with him. He was photographed by the same Mark II tank that his Purley Scout troop had stood beside in 1947.



**Richard Smith**, Director of The Tank Museum, first visited in 1974 at the age of two (pictured here on the left). He was on a traditional seventies 'bucket and spade' holiday a time when the things-to-do list consisted of; the beach, Corfe castle, and The Tank Museum. Whilst very young, something about the Museum must have stuck in his mind. He returned to the Museum to complete his undergraduate dissertation on the Battle of Cambrai before returning to take over the reins of the Museum in 2006.



**Mark Turner** first visited The Tank Museum whilst on a coach holiday with his family in 1973. Mark clearly remembers having his picture taken with the Panzer IV, having been fascinated by German tanks thanks to films like Kellys Heroes. He remembers he was very disappointed to discover the stay at the Tank Museum only lasted an hour! Mark returned to The Tank Museum to take this photograph at Tiger Day in 2013.



Our Vehicle Conservation Centre (VCC) is now complete, with the finishing touches to the outside of the building having been made just before TANKFEST.

As part of a wider programme of developments at The Tank Museum, the VCC provides 40,000 sq. foot of publicly accessible and environmentally controlled storage. Over one hundred vehicles will ultimately be stored in the facility, allowing the Museum to continue collecting and creating new exhibitions in the currently overcrowded halls. It will also mean that for the first time in many years, rarer items that have been off display in poor storage conditions will be housed in a suitable space for the public to view.

There is still much work to be done before the building will be ready for Museum visitors. Whilst the Workshop team is busily moving tanks into the new building, the Exhibitions team is working to create a new Conservation in Action exhibition. The Vehicle Conservation Centre will be open to the public in time for the Britain at War show on 21 September 2013. **T**



## ARMORTEK

WIN an ARMORTEK 1/6th scale Centurion model worth £6,000!

The leading model manufacturers have donated the prize for the Museum's latest fundraising raffle.

The prize is ready to run, finished in bronze green and fitted with High Efficiency Motion Pack, Sound System and remote control unit.

If you receive your *Tank Times* by post, you will find your tickets included in the envelope. If you would like to take part, please contact us using the details on the back page.

The draw will take place during The Armortek Show here on 28.9.13. **T**



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## FROM THE EDITOR



This is the 20th edition of *Tank Times*, and it is with some sadness I must announce that this edition is to be my last.

I've worked on *Tank Times* since the first edition in January 2008, when we reported on the appearance of our Mark IV tank in the Lord Mayors Show and carried an update on the progress in building what is now The Tank Story exhibition hall. We printed around 1,000 copies of that first edition.

Five years and six months on, we have well over 15,000 readers. Despite continuing economic uncertainty, we've had the strongest start to the year ever. We have another record breaking TANKFEST under our belts, are looking forward to opening the Vehicle Conservation Centre in September and launching the *War Horse to Horse Power* exhibition in April. The Tank Museum has come a very long way since 2008 and will continue to push the boundaries in the future, with more exciting plans surrounding the World War One centenaries still to be announced.

Thanks must go to our friends at Key Publishing, producers of *Britain at War* and *Military Machines International* magazine, who have helped bring our humble newsletter to an even wider audience.

It's been an exciting five years, and there is still so much to look forward too. This is what will ensure that *Tank Times* continues to be a compelling read in a further twenty editions time - whatever format we will be delivering it in to you by then!

I promise I will be leaving it in good hands - but now is as good a time as any to give us your feedback on *Tank Times* - The Tank Museum's free quarterly newsletter. [tanktimes@tankmuseum.org](mailto:tanktimes@tankmuseum.org) T

*N. Wyness*  
Nik Wyness  
Editor

## THE T34

DAVID FLETCHER  
EXAMINES THE MOST  
FAMOUS RUSSIAN TANK OF  
WORLD WAR TWO

Although built in the Soviet era when military construction had top priority, the T-34 was an outstanding tank by any standards.

Not only was it tough and simple to operate (so long as you were strong yourself), it was built in prodigious numbers. During the war about 65,000 of both models, the T-34/76 and T-34/85, were built and effectively outnumbered any other type of tank built anywhere in the world.

The T-34 had some interesting features. It was powered by a rugged V-12 diesel engine rated at 450 hp and ran on a toughened up version of the American Christie suspension. But the thing most people talk about in respect of the T-34 is its sloped armour which, in theory, renders armour that much thicker and encourages incoming rounds to be deflected.

One thing that will strike you if you look closely at a T-34 is the crudity of the welding where the armour plates join, and the rough finish of the castings on the turret, for instance. This has led many people to denigrate Russian workmanship although in fact, where a close fit and good surfaces matter, it is just as good as anywhere else. The difference is that the Russians were not interested in a smart external finish for their tanks. They simply wanted to win a war with them.

Another thing you should notice on the T-34 is how far forward the turret is. It comes up virtually to the top edge of the glacis plate and leaves no room at

all for hatches above the heads of the driver and hull machine-gunner, such as you will find on most other tanks.

Instead the two men who occupy the front of the hull are expected to enter through a large hatch in the sloping front plate of the hull. This not only leads to a very undignified method of getting in, it also means that it is a lot more dangerous getting out in a hurry in the face of the enemy.

Incidentally, the opening in the front of the hull is not a very good idea, even if it is covered by a heavily armoured hatch. It spoils the integrity of the armour on the hull front.

Inside, the tank is spartan indeed. There are very few padded areas to protect the heads of the crew. Rather each man, or sometimes woman in this case, is given a padded hat to wear. Most of the ammunition for the main armament is kept in steel boxes which form the floor of the tank so after an intense action, when many of these are empty, the floor itself becomes quite uneven.

On the other hand, towards the end of 1943 a new version of the T-34 fitted with a powerful 85mm gun was ready to enter service. The new gun required an enlarged turret which in turn enabled an extra crew member to be included. Now at least the tank commander did not also have to load the gun, as he did in the T-34/76. This gave the tank the firepower to match some of the later German tanks, which it already outnumbered anyway. ■



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The office is open Mon - Fri 9.00am - 5.00pm.



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Summer Displays 25/7/13 - 4/9/13

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Tonnes to see and do; free talks, tours and family activities. *Tank Action Displays* (1pm, weekdays only)  
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Saturday 28/9/13

### The Armortek Show

Meet the world's leading manufacturers of 1/6th scale armour kits and see the biggest display of Armortek models ever assembled.



Saturday 28/9/13 - £10

### Evening Lecture - David Render

A World War Two tank commander and troop leader shares his personal experiences of battle with the Sherwood Rangers Yeomanry.



Wednesday 23/10/13 - £10

### Evening Lecture - Jack Sheldon

Examining The German response to the Tank in World War One; from Beute Panzers, the A7V tank and anti-tank weapons and tactics.



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### The Tank Banks

To promote the sale of Government War Bonds and War Savings Certificates, in 1917 and 1918 six Mark IV tanks toured the UK.

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In the latest installment, we detail the actions of Sergeant Bruch Ogden-Smith DCM, MM.

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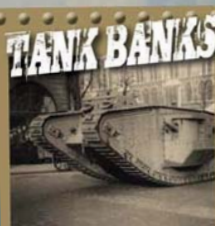
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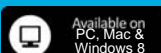


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# LAND ROVER BUYERS' GU

WITH THE LAND ROVER TAKING OVER FROM THE JEEP AS THE VEHICLE OF CHOICE FOR NEWCOMERS TO THE MILITARY VEHICLE HOBBY, WE TAKE A LOOK AT WHAT'S AVAILABLE...



Land Rover 90...



Land Rover 110...



Land Rover 127/130...



Land Rover Wolf...



Exotica...

Last month I discussed the various Series and military-specific Land Rovers available to collectors and continuing on this theme, this month I'm going to take a look at the various coil sprung Land Rovers to have been used by the military, plus some of the more exotic species to have been produced over the years.

Like the earlier leaf sprung Land Rovers, the later 90 and 110 coil sprung Land Rovers were available in a wide variety of types, from long and short wheelbases (90-inch, 110-inch, 127-inch and 130-inch) and a number of styles, such as hard and soft tops, so there's plenty of choice to be had from one of the many specialist dealers or indeed private sales.

The choice of which vehicle you go for will probably depend on a number of factors, including price and physical size, but use may come into the equation too. If you're simply looking for a runaround then a standard 90 or 110 Land Rover will probably fit the bill, and if you want a little more flexibility a soft top would probably be the most useful version to have.

On the other hand if you want something that will perform a specific task then there's an equally good choice, and the 127 or 130 ambulance is a popular choice with those who want to use them as campers, either in standard guise or modified to include a few more creature comforts.

If you have the budget and fancy something a little different there are plenty of 'exotic' Land Rovers to choose from, although it has to be said that some are a little harder to come by due to their rarity value.

The Series IIa Pink Panther is a good example of the more exotic types, and while the ex-SAS label and pink colour scheme appeals to some, the practicality of owning such a vehicle, coupled with the high asking prices these rare vehicles can often command, may well deter others, but there are still plenty of other exotic Land Rovers to choose from.





# IDE



The introduction of the Land Rover Wolf XD, and subsequent disposal by the MoD has provided private owners with a very useful and very capable military Land Rover. Unfortunately the majority of those to be released so far have been the short wheelbase Wolf 90, and it may be a few years yet before the Wolf 110 is released in any great numbers. This example belongs to the well-known Dunsfold Collection and was photographed at their recent Open Weekend, see this issue for further details.



## LAND ROVER 90



*Left:* the standard Land Rover 90 is a very useful little Land Rover, I know I owned one for many years! It's available as standard as a soft or hard top (as shown here), but a number of specialist variants were also built.

*Below:* At first glance this looks to be a standard soft top Land Rover 90, however, closer examination will reveal a tell-tale shut line on the rear wing, which identifies this as a rare air portable version used by the Pathfinders in small numbers. In service they would be stripped of the doors and roof, and fitted with additional gun mounts and stowage baskets.



## COIL SPRUNG MODELS

There are some Land Rover enthusiasts that will tell you that the coil sprung Land Rovers are inferior to the earlier leaf sprung models, and in some ways they are correct in what they say. The leaf sprung models were quite stiffly sprung and as such produced very little roll when cornering, whereas the coil sprung models are more softly sprung and tend to roll a little more, especially when cornering hard, however, they do give a smoother ride and if you're contemplating using the vehicle on a regular basis for long journeys I would go for a coil sprung model every day of the week!

The release of the 90 and 110 models also saw the introduction of a new range of engines and while some were only available on civilian models, some were also carried over to the military-specific models too.

The standard engine found is the 2.5-litre normally aspirated diesel. As an engine it is pretty robust and easily fixed, but does lack the power you might expect from a modern turbodiesel, something not addressed until the introduction of the 300Tdi engine with the launch of the later Wolf XD (Xtra Duty) Land Rovers.

Some very early 90 and 110s were fitted with a 2.5-litre petrol engine, and some models were fitted with a militarised version of the ubiquitous Rover 3.5-litre petrol engine.

## LAND ROVER 110

### BUYERS' GUIDE Part Two



*Above:* the regular ex-MoD Tender Sales and various specialist ex-military Land Rover dealers are a good place to pick up a second hand, ex-military 90 or 110, and there's usually a good choice, but sooner or later the supply will run out, so if you want one make sure you get one while there are still plenty around.

*Right:* like the Series Land Rovers, the later 90 and 110 are available in a wide number of variants. This is a civilian specification 110 station wagon powered by the more powerful 300Tdi turbodiesel engine not introduced on military models as standard until the introduction of the Land Rover Wolf XD. As a useful vehicle the 110 station wagon is high on the list, having plenty of seating, plus rear storage and the convenience of four doors, making it ideal as a day-to-day runaround.







*Left:* the 110 Land Rover was later renamed the 110 Defender, but with exception of the badging and some minor changes, was largely unchanged from the original long wheelbase coil sprung Land Rovers introduced in the late 80s. Like the shorter wheelbase 90s, the 110 is available in both soft and hard tops, but also benefits from a pair of stowage lockers that can carry spare fuel or water cans. This is an FFR (Fitted For Radio) variant, as witnessed by the aerial mount on the side above the locker.

*Right:* later in service life the Army decided to extend the service life of the 110 Land Rover and refurbished a large number of existing Land Rover 110s under project 'Tithonus'. The vehicles were completely refurbished, which included the refurbishment of all major components and the engines where appropriate. It also saw the Wolf hard top being fitted and the addition of an external roll over hoop over the cab area. Unfortunately the standard 2.5-litre naturally aspirated was fitted (some wags call this engine the 'naturally asthmatic' engine because of its lack of performance) rather than upgrading to the more powerful 300Tdi as used in the Wolf, but as a relatively 'new' Land Rover they're good value for money and generally in good condition.



### BELOW...

The Land Rover 110 has long been a favourite of enthusiasts and collectors and there's no shortage of them to be found on the open market, but beware of early, rusty examples as they can cost a lot to fix if you're unable to do the work yourself.





# BUYERS' GUIDE Part Two

## RIGHT...

The coil sprung Land Rover was also available in long wheelbase form, either on the 127-inch or 130-inch chassis. This is a Rapier missile system tow vehicle and as standard they were fitted with the Rover V8 petrol engine. Some, but not all, were also fitted with a front mounted winch, but in recent years they're become hard to find.

## BELOW RIGHT...

The Land Rover variant was available in two wheelbases with bodies built by two different manufacturers, but all were fitted with the Rover V8 petrol engine.

## BELOW...

With the exception of a small number of 110 vehicles, the Wolf to date has mainly been available in the short wheelbase 90 guise.

## LAND ROVER 127/130



Some years ago a number of 110 Land Rovers underwent a mid-life refurbishment programme under Project Tithonus. The refurbishment aimed to rebuild the vehicles to an almost new condition, with all major components either refurbished or replaced. At the same time a number of additions were made, such as the introduction of the Wolf hard top and an external roll over cage for the cab. As such these Tithonus 110s are in much better condition than many other standard 110 Land Rovers, but do command higher prices.

## NEW BOY

The introduction of a new kid on the block in the form of the Wolf Xtra Duty Land Rover saw the performance of military Land Rovers come on in leaps and bounds. The use of the then standard 300Tdi turbodiesel engine instead of the 2.5 NA engine meant that the Wolf could comfortably cruise at 70+ mph on the road, and now the Wolf is being released in relatively large numbers, albeit mainly in the short wheelbase 90 form.

Admittedly they're not as cheap to purchase as the standard 90 and 110, and while a good, used 90 will cost around the £5,000 mark and 110 a little more, a 90-inch Wolf XD in reasonable condition is likely to be around the £8,000 mark, which is not that dissimilar to the cost of a Tithonus 110, and has the advantage of the more powerful engine.

Obviously there are many variants of the Wolf, as there were with the original 90 and 110, and the WMIK (Weapon Mount Installation Kit) 'gun ship' variant is much sought after, even though none have been released complete. The majority, if not all of those WMIKs currently in private hands, have been rebuilt on a 110 Wolf base vehicle and had the WMIK kit added, which is pretty much what happened in service. They're not everyone's cup of tea, but do have the option of a full weather proofing kit to keep the worst of the elements out - if you can find the kit of course - but before you place an order, the WMIK is probably best described as falling in the 'Exotica' class because there are very few in existence and even if one of those that are around came up for sale you would probably be looking at an asking price of £25,000+.

A more 'standard' Wolf is the 130 ambulance, also known as the 'Pulse', which is also available in small numbers but again their rarity reflects their high retail values, with prices upwards of £20,000 for fully restored, ready to go examples, which makes for a very expensive camper van!

## LAND ROVER WOLF







### LEFT..

The introduction of the new Land Rover Wolf also saw a new style of 'plastic' hard top being used to replace the older, multi-section aluminium roof used previously. This is the long wheelbase 110 hard top version of the Wolf and other distinguishing features between this and the earlier 110 include the new style locker doors, and side mounted spare wheel.

### BELOW LEFT...

Another distinguishing feature of the Wolf is the plastic moulded air intake on the right hand wing panel.

### BOTTOM LEFT...

Pair of 90-inch Wolf XDs. The spare wheel was moved to the side of the vehicle from the bonnet for 'Health & Safety' reasons, being deemed as too heavy when on the bonnet!

### BELOW RIGHT...

The ambulance version of the Wolf is known as the 'Pulse' and is an excellent candidate for a camper, but they're not easy to find and can be very expensive to buy in the first place.

## MILITARY EXOTICA

The final group of military Land Rovers that I want to discuss are what I would term as military 'exotica' or the more unusual and specialist Land Rovers, of which there are many. One of the most basic, and most recently available vehicles to fall into this category is the Land Rover Snatch armoured patrol vehicle. These were released in large numbers in various states of repair and at fairly sensible prices, but they're not for everyone as they can be hard to work on, have no wind up windows (don't try and go into a car park!) and are heavy too.

Other armoured Land Rovers can be found, and while they appeal to some, they may not suit everyone's needs due to their complexity and weight.





### EXOTICA

#### RIGHT..

The Snatch armoured Land Rover was released in large numbers, but most have now found new homes, however, they do still appear for sale. They have their problems, but do fall into the 'something different' category and as such a number are now appearing at shows. The Snatch wasn't the only type of armoured Land Rover to be produced, so other types do turn up from time to time, but be aware that spares may be hard to source.



#### ABOVE & RIGHT...

Prototype Land Rovers sometimes come up for sale, and while they may be unique, may be problematic in terms of maintenance and sourcing spares, but new Land Rovers are still being trialled by the military!



Foreign-built models also fall into this category, mainly because they tend to be fewer in number in the UK, and with countries such as Holland, Belgium, Australia, Spain and many others using the Land Rover in addition to Britain, there are a number to choose from, especially if you look further afield or know what you're looking for when trawling the internet.

A good example of this was the recently restored ex-Australian Army workshop vehicle (shown below right), which was converted to a camper, but spotted in an advert by an enthusiast in the UK who recognised what it was and subsequently returned it to its original specification.

Some vehicles simply don't come up for sale very often, and some don't come up at all, and ex-SAS Land Rovers would qualify here. Because they were built in small numbers, and in some cases were never released onto the

open market, they're much sought after and can command very high prices - if they ever come up for sale, which isn't very often, so if you see one and can afford it, grab it while you can!

Finally we have prototypes, and you would be surprised how many of these exist in private hands. Unfortunately these are normally disposed of by word of mouth and it's generally a case of knowing the right people at the right time, but they can be interesting (and usually rare) vehicles, and don't always cost a fortune to buy if they're surplus to requirements.

Well that's it for now, hopefully having read these articles you will now have a better idea of what's available to you should you decide that an ex-military Land Rover, and who knows, it may well introduce a whole new generation of vehicle collectors to the ex-military Land Rover?





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# Tank V Anti-Tank-

DICK TAYLOR CONCLUDES HIS FEATURE ON THE **BRITISH TANK VERSUS** GERMAN ANTI-TANK WEAPONS



**Above & main image:**  
the American-built Sherman tank was particularly vulnerable to German anti-tank weapons of the time due to the comparatively thin armour and the shot traps around the front glacis plate area.

One of the first pieces of work done in NWE after D-Day was a study by the Armour Branch of DTD of 45 Sherman tanks from the British 2nd Army, knocked out during June and July 1944.

In this study, the first and headline figure noted was that of 65 hits recorded, only three had failed to penetrate! These three were all 75mm, and all on turrets; twelve out of twelve 88mm hits had got through. It was estimated from this that it took on average 1.63 hits to knock out a Sherman, and nearly two-thirds of hits on a Sherman tank would be enough to KO it.

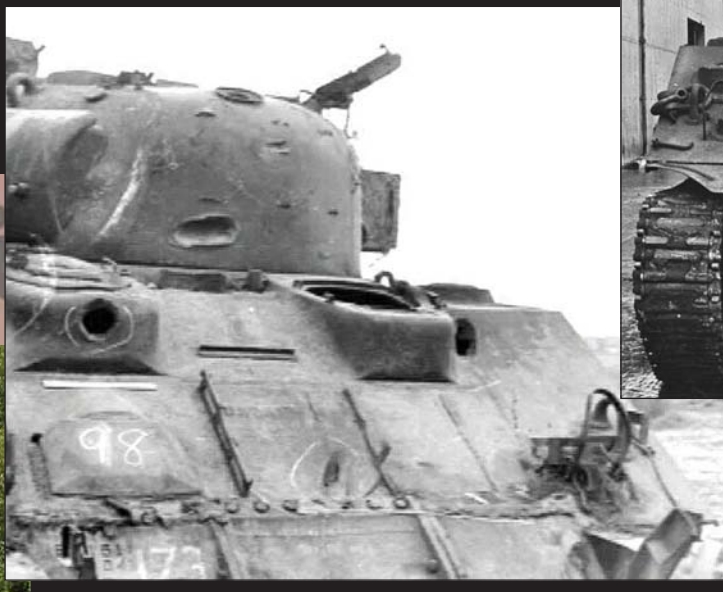
The breakdown looked like this:  
**Total KO'd tanks analysed**

45 KO'd by AP shot  
40 (89%) of which 'brewed up' 33 (73%) KO'd by mines  
4 (9%) of which 'brewed up'  
3 (7%) KO'd by unidentified means  
1 (2%) of which 'brewed up'

90% of Shermans were being penetrated by the first or second hit – the Sherman simply wasn't very good at keeping out German AP. A comment that is almost an aside in one of the other reports noted that the author could not find one single instance where the additional appliqué armour



# Pt.2



## LEFT..

The hoods on Shermans, with their vertical front plates, were assessed to be shot traps. The gouge in the turret cheek would be recorded as a 'scoop' by the ORG.  
(Photo - Tank Museum)

## ABOVE RIGHT...

This image shows a Sherman with the one half coated in AMCO, the Allied equivalent to the German Zimmerit anti-magnetic mine paste.  
(Photo - Tank Museum)

## LEFT..

The cast hull variant of the Sherman tank fared little better against German anti-tank guns.



Crews would often adorn their tanks with additional track links in an effort to beef up the protection levels, in actual fact it had little effect.

fitted to Shermans had prevented a penetration by AP. The bulges caused by the driver's and co-driver's hoods were also considered to be shot traps, the poor design assisting incoming projectiles to hit at near normal, or 90°, making penetration much easier.

A concern was also raised that some Shermans that had been knocked out and 'partly burnt out' had been refurbished (to an unspecified degree) and put back into the fight with new crews. The argument was not made on moral grounds, but rather that the intensity of the fire would have damaged the effectiveness of the armour to an unknown degree. The rule





of thumb meant to be followed - as there was no better way of doing it - was to only return to service those tanks on which "the paint on the outside of the turrets and hulls was not scorched."

The proportion of hits on different aspects of the tanks were noted, each side receiving on average 22%, the front 44%, and the remaining 12% in the rear. This suggested that in many ways the most useful way of distributing the available armour budget was to make the sides as thick as the front, as the two sides together were being hit with exactly the same regularity as the front. However, it was then noted that to do this on a Sherman would simply leave everywhere with less than the bare minimum of 3" required, so that not

one of the Shermans knocked out could have, in reality, been saved by a more even distribution.

The recommendation made by the report therefore took a different approach: to use all available additional weight to mount a much more powerful gun than the 75mm, both in order to knock out the enemy threat more efficiently, and also to increase the range at which the enemy would be forced to open fire, which would reduce the number of hits and therefore penetrations.

In a similar vein, as a rule of thumb the ORG reckoned that in some circumstances both sides of a tank could be reckoned to take twice as many hits as the front, so even providing all-round armour of nearly 4" would only have saved a few of them if



#### TOP LEFT..

The appliqué armour plates often seen welded to the exterior of the Sherman's hull unwittingly provided the German gunners with an aiming point!

#### TOP RIGHT...

The appliqué armour plates were supplied as kits to allow them to be attached by workshops with only limited facilities - basically just a competent welder! The shape of the hull of the M4A1 meant that the plates had to be in two parts, to allow for the curvature.

#### ABOVE RIGHT..

Typical shell gouge in the turret of a Sherman. The size and direction of shot have been recorded for future use. A great deal of attention was paid to damaged and destroyed tanks in an effort to counter the effects of German weapons. (Photo - Tank Museum)

hit with 75mm APCBC. The amount of armour required to just about ensure saving them all would have needed 5.5" all-round! And this would not have stopped the 88mm. To do this on the Churchill front plate would require 150mm if vertical, and some consideration was given to fitting a 550 sloped glacis 85mm thick on to a Churchill VII. This goes to show that it is impossible to make a tank or other AFV invulnerable, a lesson certain media types should re-learn today. As one report states: 'However good the armour, it could never hope to resist this weight of attack.'

It was reckoned that of the anti-tank guns used by the Germans, despite what war diaries claim and veterans recall, that around 80% of the guns used in Normandy were 75mm PAK, either on a field carriage or vehicle mounted. This phenomenon was clearly recognised at the time: 'Estimates by fighting soldiers were found to be unreliable since many reported they had been knocked out by 88mm, when in fact it had been 75mm shot, while the reverse mistake has not yet been discovered.'

## CASUALTIES

The Army Operational Research Group Memorandum No 262 was produced in March 1944, and was entitled Observations on Tank Casualties. A



Later models of the Sherman saw the hoods in the glacis plate removed to eliminate shell traps.



much larger work drew on this post-war, when Capt B Wright RAMC wrote up his Survey of Tank Casualties in March 1947. These reports discussed 1600 British tank casualties, broken down as 1300 from NWE, and 100 each from Italy, Africa, and Burma. As NWE was so well represented, it tended to attract the most comment.

The reports looked at where tanks were hit, and what hit them, as well as the types of casualties caused amongst the crew. In NWE and Italy, between 40 and 50% of casualties were caused by AP shot, the remainder caused by HE (artillery and mortars, as well as HE direct fire), mines, and small arms. In all theatres mines caused around 20% of casualties, although generally not, it seems, the most serious ones. In all theatres except Burma about two-thirds of shots hit the hull, and half impacted on the turret. On Burma, for some reason, 82% of shots hit the hull; this may simply reflect the preponderance of M3 Lees and Grants being used, with their much smaller turrets. Of the shots hitting the tank, whether on the hull or turret, about 40% hit the frontal aspect.

Individual tank types were examined. The Churchill, not surprisingly, did pretty well, with about half of the AP hits failing to penetrate; particularly it seems those that struck the thick driver's vertical front plate. On the Sherman, 70% of AP strikes did penetrate. Another report agreed with these figures, again estimating that only about half of AP strikes on Churchills were likely to penetrate; on Sherman the figure was closer to two-thirds. The same piece noted tellingly that both types readily caught fire, but on Churchill 'the crew usually escapes'. On Sherman 'the crew or part of the crew is usually trapped.' Interestingly, the ORG noted that around 50% of the tanks they examined had been abandoned after a single strike, even when not penetrated, indicating the not-unsurprising readiness of the crews to get out quickly when hit. About 60% of damaged tanks were capable of being repaired and put back into service; 80% of these had suffered mine damage and only 40% AP (and some therefore both). There is something to be said for the old army adages: Always cover a minefield with fire, and keep shooting at it until it burns!

It is well known that for the tank crewman, like the sailor, fire is his greatest enemy and dread. About 40% of the tank crew casualties were burned as they escaped, often with other wounds. This was not surprising at 45% of turret penetrations and 60% of hull penetrations caused a fire, generally in the ammunition. The



#### ABOVE..

Track links were generally spot-welded in place in the most convenient and simple manner; here the links provide a little extra "stand-off" from the hull, useful when countering hollow-charge weapons, however, it's not clear if this effect was known at the time.

#### BELOW...

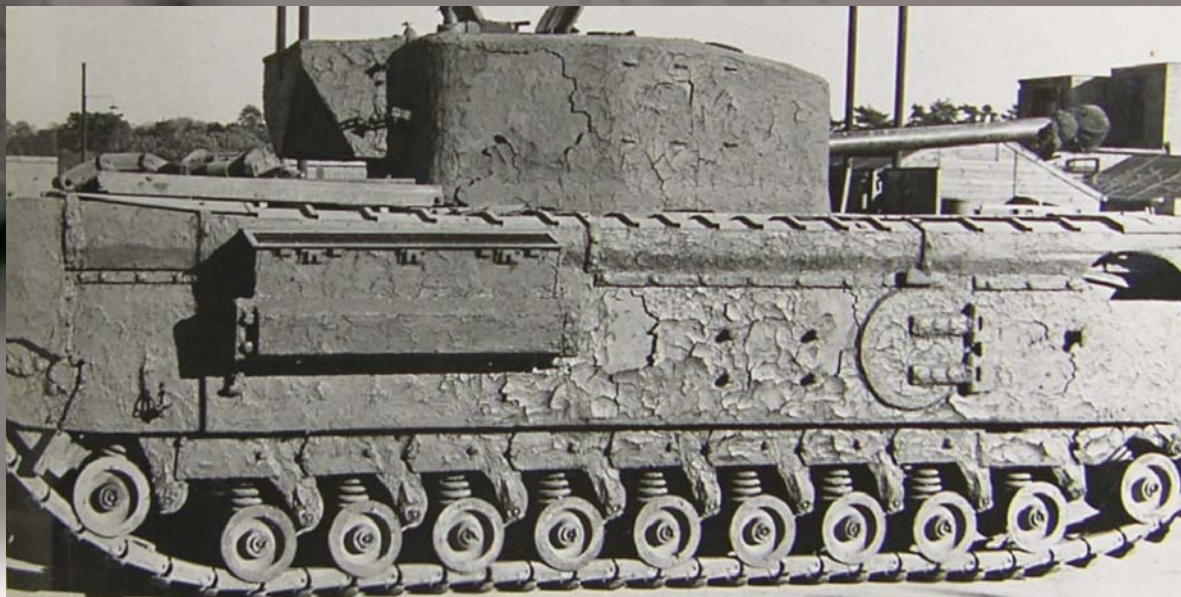
A typical Sherman V covered in over 100 additional track links, which added an awful lot of weight for, in reality, not much added protection. (Photo - Tank Museum)





**RIGHT..**

T252107H coated in AMCO 2, and showing how the coating cracked badly as it dried. Sadly the colour was not recorded.  
(Photo - Tank Museum)



British had realised this during the North African campaign, quashing the old myth that the fires were started by petrol tanks. Mostly, they weren't, although once the ammunition caught, the fuel would follow shortly afterwards.

One thought was that a petrol-engined Sherman crew might only have 5 or 6 seconds to get out, whilst his diesel-engined friend might have twice as long (Try counting out loud as you exit your car, it isn't long!) As a result the British started to fit 3mm steel bins for the ammunition to be stowed in, helping to prevent fires caused by flying fragments. In a survey of tank casualties, the 1st Bn Coldstream Guards in 5th Guards Tank Brigade put down their lack of fires to

their insistence in stowing ammunition only inside the armoured bins, and not stacking extra ammunition loose inside the turrets as the other units in the brigade did. Another report also referred to problems caused by ammunition stored in external bins exploding.

**APPLIQUÉ ARMOURS**

By 1943 it was quite clear to everyone that the Sherman was penetrated very easily, and ammunition fires were the likely consequence. In time, the ammunition inside the tank would be shielded in water-jacketed containers, the so-called 'wet hull' configuration. Until that could be introduced into production, as an interim but official

measure appliqué armour kits were made for the hulls and turrets. The plates on the turret 'cheeks' were 1 1/2" thick, and the three plates welded onto the hull sides – two on the right, one on the left – were all 1" thick. There were different kits for the rolled and cast armour Shermans, and the kits were mainly seen on the 'small hatch' tanks with the 570 glacis, however, as recorded above, there was little evidence that these extra plates kept anything out.

It was common practice for crews to attempt to add their own versions of appliqué armour, and probably the most common was the practice of welding sections of track on the hull and turret. In truth, this did very little good, merely adding weight that had to be carried around making breakdowns more likely and adding to fuel consumption, as well as slowing rates of traverse when used on the turrets, but it may have done some good if only from morale considerations. The ORG investigating British tanks in NWE in 1944 commented with a degree of surprise how many of the tanks they investigated had adopted this practice, with many Churchills carrying over 80 links. In one case a Churchill that the ORG investigated had been penetrated but with little damage other than the hole, and the REME had simply welded a single link directly over the hole, which would at least have stopped daylight showing through! Cromwell crews had been noted gluing sheets and strips of rubber matting over the armour, which was presumed to be an attempt to stop magnetic mines sticking. The comment also confirms that this practice was unofficial; the 2nd Northants Yeomanry certainly practiced this, there may have been others.

**BELOW...**

Another familiar sight – a Churchill fitted with additional track links. Note though how haphazardly the links have been welded on, this certainly looks like a rush job and thus possibly a replacement tank modified quickly overnight.  
(Photo - Tank Museum)







## AMERICAN EXPERIENCE

Although it was a British series of reports that I have been referring to so far, mention can be made for comparative purposes of a US report detailing 646 tanks, which became casualties in the US First Army, from June to December 1944. By type it broke down as: M4 series 75mm 67%; M4 series 76mm 9.5%; M4 105mm 2%; M4A3E2 2%; M5A1 12%, and 7.5% various. The numbers were:

Light Tank M5A1	77
Medium M4 75mm	236
Medium M4A1 75mm	150
Medium M4A1 76mm	69
Medium M4A1 105mm	6
Medium M4A3 75mm	47
Medium M4A3 76mm	33
Medium M4A3 105mm	4
Medium M4A3E2 75mm	13
Medium M4A4 75mm	6
M8 HMC 75mm	2
Tank Dozer	2

Casualties were caused by:

AP shot	42%
HE shell	10%
Mines	19%
Bazookas	11%
Others/Unknown	18%

However, unlike the British experience when about 40% of shots were taken on the frontal aspect of the tank, here only 27% of shots were taken in this manner. It is not immediately clear why this should be so, other than to speculate about tactics (own and enemy), tactical situations, opposition faced, or terrain. Within the 646 tanks there were 3150 men, of whom 662 (21%) became casualties – on average, only one man per tank. However, if serving on a Light Tank (M5), one had almost twice the likelihood of becoming a casualty if hit than if crewing an M4. Worse still, on a Light Tank 40% of total

casualties were killed, whereas on a Sherman it was 26%. On both types – and this did reflect exactly the general British experience – all crew positions seemed to have an almost exactly equal chance of being killed – ignoring the impact of snipers deliberately targeting commanders.

The exception in British service was in the Churchill, where there was a definite order, from worst to best: commander, then gunner and loader equal, and lastly driver and co-driver equal. This may reflect, in large part, the really good level of protection employed on the front plate.

## A NEW THREAT

One of the files notes that the British belief was that the Germans had decided to introduce “Shaped Charge” or “Hollow Charge” (SC and HC) weapons only after they had captured a stock of British grenades in early 1942. This is unlikely, particularly as the Germans had employed shaped charges against Eben Emael in 1940, and I’m sure we have at least one reader who knows the whole story and can enlighten us...but however they came upon the idea, once the Germans realised there was an opportunity for realistic man-portable anti-tank defence for the infantryman, they exploited its potential with their typical vigour.

The result was a rise in the use of the weapons, and which for the British became really worrying towards the end of the war. There are a number of suggestions why the figures might have increased so dramatically. Desperation on the part of the user; more of the weapons available due to their ease of manufacture; less anti-tank guns; better understanding of the weapon; increased range with the later models. The truth is probably an amalgam of all of these factors, but the effects were that it made the advance into Germany

## EXPERIMENTS...

Rare photos showing a Churchill mocked up with wooden ‘Anti-Panzerfaust’ plates around the hull and turret. Experiments continued using frames and mesh panels that stood off from the hull and turret, as shown left. (Photos - Tank Museum)





## PANZERFAUST

Shown here are two versions of Panzerfaust aide memoirs, lodged in the reference files used - the 1943 version refers to a range of 30m, whereas the 1944 version quotes an 80m range.

slower than it might have been – one report estimated that a small and determined team with Panzerfausts could slow up an armoured advance for 12 – 24 hours.

Once the threat being posed by the Panzerfaust became known, it was reasonable for the British to examine side skirts to defeat the threat – after all, that is what the Germans were already employing! A Churchill Mk VII, T252107H, was arranged to be fitted with plywood plates on both the turret and the hull. The designers found it very difficult to arrange the plates in such a way that the tank could still be used. This meant that the crew had to be able to see through the episcopes; the hatches and engine doors opened; the gun depressed fully; and all-round traverse maintained without fouling. These design criteria meant that the plates had to be extended away from the vehicle, and that there was an 11" gap between the hull and turret screens.

In November/December 1944, a Sherman was also fitted with a similar set of side skirts; these were made of 6mm plates rather than plywood and were mounted to the lower hull side below the sponson, and spaced 15" away from the hull. In an associated development, the same Churchill was subsequently used by FVPE for a trial of AMCO, an Anti-Magnetic Mine Coating (British zimmerit!) made by the paint manufacturers Jensen & Nicholson; the trial documents do not give a date, but I suspect it to be just post-war.

In another trial to keep out HC weapons, a Comet was fitted with a 6" thick slab of what was described as "gravel or plastic armour" and a 3" Bullet Proof skirt, which must have weighed (more than) a ton. This so-called plastic armour was in fact something known as PPP. This stood for Plastic Protective Plating, and by 1944 was in the Mk III form. (A Matilda had been used for the early trials of PPP for use on tanks, from May until August 1942. The Matilda was chosen because of its "spaced hull side armour consisting of an outer 25mm plate which is sat 17" away from the main side armour plate 40mm thick." At least some of the modified plates were mounted on spring-loaded rotating arms, designed to be folded back close to the sides when the tank had to cross a Bailey Bridge, or which could be pushed back by obstacles that the device might foul whilst operating in close country.) PPP was made for the military by the Road Research Laboratory, near the site of the current

Heathrow airport. Stones or gravel were placed in a bituminous matrix, held in a steel tray.

Although this mix showed promise against many types of anti-tank weapons, the whole thing was simply too heavy to be practical, it was much more efficient to simply put on more Rolled Homogenous Armour (RHA), which was (and remains) the best overall performer against a full range of attacks from different projectiles. For example, it was realised that to employ a coating of PPP which would give complete immunity from Panzerfaust would require a Comet turret to be made with 13" thick sides, which would otherwise be achieved by simply (simply he says!) adding another 3" of side armour; a Sherman with its thin armour required an additional 4".

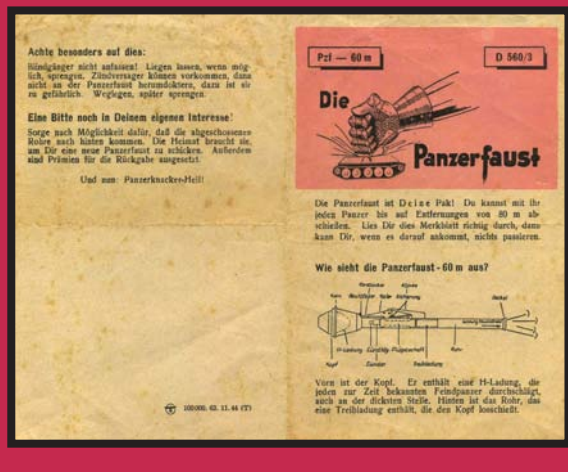
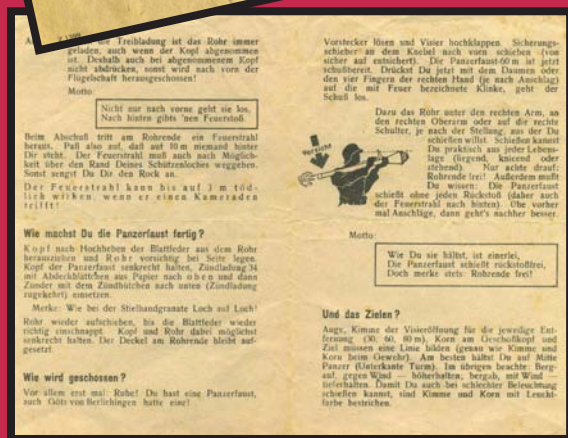
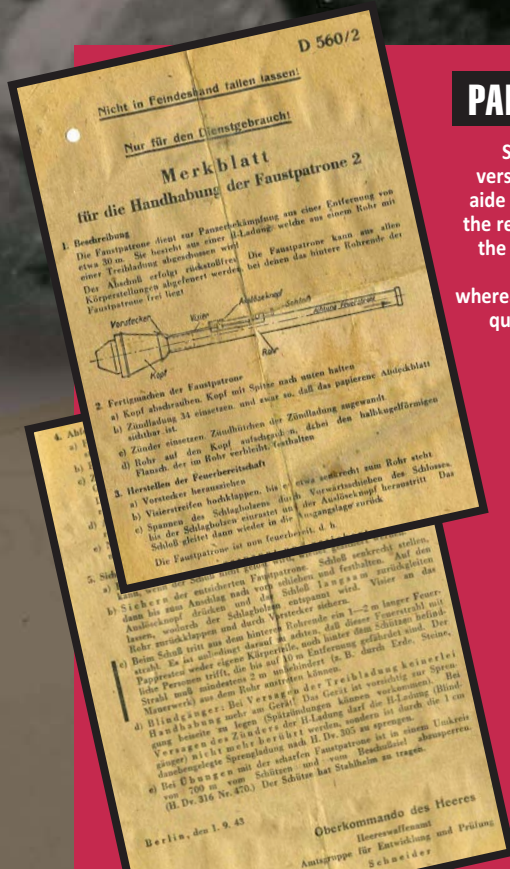
Screen type skirts were also trialled, similar to those used on German tanks. 10 Gauge wire screens were favoured, as they were a lot lighter than solid steel plate. Other screen types tried included: 1" square mesh on 10/11 gauge wire, mounted on 4" springs; interlocking helical springs of 11 gauge wire; sheet rubber 1/16" and 3/16" thick; sheet 14 gauge aluminium; and lastly a double layer of Sommerfeld track, a steel net used to make temporary runways.

Plywood sheets were used both as a surrogate for metal in mock-ups, and were also tried as an armour in its own right. Indeed, one file tells the story of great excitement caused by the interrogation of a German POW, who claimed that sheets of plywood and asbestos sandwiched together made excellent armour against HC, but almost needless to say, the subsequent trials failed to prove this.

## CONCLUSION

So there is the story, I hope you agree that it made interesting and educational reading. I also rather hope that some of the more adventurous model builders out there might be tempted to model some of the variants mentioned here, and also possibly achieve more realistic looking shot holes in their wrecks than I used to do as a boy with a red-hot screwdriver!

*Thanks must go to Lt Col (Retd) Geoffrey Vesey Holt MBE RTR and Mr Brian Shrubshall OBE of Dstl for putting me into intimate contact with the reports referred to, and which have now been deposited safely in the Bovington Tank Museum archive.*





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# OVERLORD - 2013

The Solent Overlord Executive Military Collectors Club put on **a great show at Denmead** over a sunny Bank Holiday - Simon Thomson reports



**Above:** Owen Perry's Windsor Carrier takes the obstacles in the arena in its stride, no match for the excellent all-terrain capabilities.

**Below:** this magnificent example of the British Morris-Commercial C4 Truck is a regular attendee at the Overlord show.

The non-profit status of the Solent Overlord Military Collectors Club enables profits to be donated to local and national charities and this year they supported the "Hounds for Hero's" charity that helps our boys and girls who have suffered in action.

The Denmead site allows re-enactors to have a large field to themselves, with British, Australian, French, German and Soviet troops present, a variety of bunkers and a wide range of equipment on display there. One American living history group even constructed a Glider fuselage depicting its crash and use as

a place of refuge. Amongst the new groups was one that has taken to depicting French forces post-war, whilst another is covering the British Malaya campaign with vehicles and equipment, but all groups demonstrated to the public a very high standard of display.

For the 2013 show well over a hundred vehicles arrived to a well laid out site with all the amenities that we have now come to expect at shows. Vehicles from pre-war into the 2000's were displayed and driven around the arena, but for me one of the surprises was the arrival of four, pre-war Morris lorries, namely CS8's, C4 and CDSW Light Recovery, all entered by members of the SOE Club. All were restored to the highest standard, but my favourite had to be the Morris C4 Wireless vehicle. Superbly restored to an ex-factory standard, it is unique and a real credit to the owner.







Amongst the many other wartime and pre-war British trucks found at Overlord this year was a fine example of a Bedford MWT and a Bedford OXC Tractor unit, both recently restored and making their first appearance at Overlord.

Alvis Stalwarts "played" in the arena as only Stalwarts can, whilst a Saracen from the same six-wheeled Alvis fighting vehicle family became airborne briefly when leaving one of the vehicle pits in the arena!

German and Soviet vehicles made an interesting contrast to the large selection of Land Rovers with contrasting vehicles from Soviet and Warsaw Pact countries offering an interesting comparison as to how other



#### ABOVE..

The Alvis Stalwart is a very capable vehicle off road, and the owner of this example made light work of the arena.

#### LEFT...

This Mk5 Saracen APC was giving the crowds a spirited performance and was even leaving the ground at times!

#### BOTTOM LEFT...

This magnificent 1939 Morris-Commercial CS8 Wireless Truck was owned by Bob Edgeley. It is fitted with a No.1 MkII wooden rear body.

#### LEFT...

CMP or Canadian Military Pattern vehicles are still very sought after, especially vehicles like the Heavy Utility vehicle.

#### LEFT...

Another of the CMP trucks at Overlord was this 1942 Ford F60L, owned by Stephen Perry.





**JEEPS...**

*Right: there were a great many Jeeps at the show, but these three stood out from the crowd for me, namely a Ford GTB, a Mobile Dental Unit Jeep, and an M201 Hotchkiss in French Army colours.*



**RUSSIAN...**



countries tackle the same design brief. The static show also included a number of interesting Eastern Bloc vehicles, along with some more commonly seen types such as a superb Canadian Windsor carrier and a magnificent Champ that had been restored within an inch of its life!

All in all the public was given a wide range of vehicles to look at this year and would not have been disappointed, and as if that wasn't enough there was also a large village of

trade stalls that enabled collectors to find items of interest, with several vehicle owners spotted walking away with prized spares.

As usual the show was very well run and it's obvious that it has a good organising team behind it. Overlord 2013 opened this year's show season in the south with a bang and also managed to ensure we had three days of sun for a change, which was all the more unusual for being a British Bank Holiday!



*Above left: of the Warsaw Pact vehicles at the show, this Zil 131 was one of the biggest, but this little UAZ-452 was one of the cutest there!*

*Above right: as you can see there was a wide variety of vehicles to be found at the show this year, and the great weather only added to my enjoyment.*

*Right: Bedfords tend to turn up at shows on a regular basis, but this Bedford OXC belonging to Barry Ring and nearing the end of a long restoration was a welcome sight at this year's show.*





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# DUNSFOLD - 2013

## MMI ATTENDED ONE OF THE **MUST SEE** EVENTS ON THE LAND ROVER ENTHUSIASTS CALENDAR

**T**he Dunsfold Open Weekend provides Land Rover enthusiasts with a rare opportunity to see the world-famous collection of Land Rover belonging to the Dunsfold Collection, which includes many rare prototypes and hard to find types. The collection was started back in 1993, as a progression of Brian Bashall's own private collection that started back in 1968. Today the collection continues under the watchful eye of one of his Brian's sons, Philip and in the years since the collection was started the number of Land Rovers has grown to include around ninety vehicles, with more being added each year. Brian's incredible, encyclopedic knowledge has been being sought by writers and historians from around the world, but nowadays this role is mainly

taken on by Philip, who is internationally known and respected as a Land Rover 'Guru'.

The aim of the Collection is to preserve some of the more interesting and unusual vehicles from Land Rover heritage and the present collection ranges from the Series One, through to the Freelander and Evoque, but includes many rare prototype, pre-production and one off vehicles, and perhaps more importantly for readers of MMI, a great many rare military vehicles and military prototypes. With such a fine collection and the opportunity to see them outdoors for a change, it was a case of packing the camera, diving in the car and heading south to the show.

### THE SHOW

Twenty years ago the very first Dunsfold Open Day was held on Saturday 24th October 1993. At the time the event was in its infancy and was only held over the one day in a field in Dunsfold, but as the collection grew so did the length of the show, which expanded to include an entire weekend, albeit held on a bi-annual basis, and with it came yet more vehicles and a need for a larger venue. The present venue for what is now know as the 'Dunsfold Open Weekend', is the Springbok Estate, close to DLR's premises, and has been home to the last few events, including this year's show, held over the weekend of the 15th and 16th of June.

### BELOW..

Amongst the various 101 Forward Control Land Rovers attending the show was this rare Vampire version.







#### LEFT..

One of the more recent additions to the Dunsfold Collection is this prototype 110 patrol vehicle by Birst.

#### BELOW RIGHT...

Another of the Dunsfold Land Rovers was this 90 'Gun Ship', designed to carry a recoilless rifle.

#### BOTTOM LEFT..

I counted no less than eight Wolf WMIKs at the show this year, this privately owned example has had just one careful lady owner!

#### BOTTOM LEFT..

Australian Perentie 6x6 Land Rover, powered by a 3.0-litre Isuzu diesel engine.

As usual there were a great many privately owned Land Rovers in attendance, from individual vehicles to entire collections, including many rare ex-military vehicles and Barry Pocock made a welcome return to the show, bringing with him his many ex-SAS Land Rovers. For many years there has been a long-standing close relationship with the REME Museum collection, and this year Roger Jones brought along an interesting collection of Land Rovers

that aren't normally available to the general public, including a Pink Panther (although it was almost purple!) that brought the total of Pink Panthers at the event up to four, as well as several other ex-Special Forces vehicles.

#### EX-MILITARY

Amongst the many ex-military Land Rovers at the show were some unusual types, and one of the prototypes on





**"As usual there were a great many privately owned Land Rovers in attendance, from individual vehicles to entire collections, including many rare ex-military vehicles..."**

**RIGHT..**

It was good to see Barry Pococks impressive collection of military and special forces Land Rovers at the show this year. There are two 110 DPVs, two Pink Panthers and four WMiKs pictured in this line up!



## SAS PINK PANTHERS

1. Pink Panthers were painted with hand mixed paint and the shades can vary, this one from the REME collection is almost lilac!
2. Another regular at the show is Alan Bucknell and his Pinky, which he brought down from Herefordshire.
3. The of the Pink Panthers from Barry Pococks collection, including a rare, late model finished in green and black camo.



display was the fibreglass-bodied, 110-based special forces vehicle prototype built for a potential contract with the Malaysian Army by a company called Birst. The V8 powered truck never went any further than the prototype, which now forms part of the Dunsfold Collection.

The WMiK is a popular vehicle with military Land Rover enthusiasts and in total I counted eight at the event, some privately owned and some brought along by Ricardo, which included the very latest incarnation currently serving in Afghanistan.

Other ex-military Land Rovers included a selection of more run-of-the-mill types, plus some specialist 101 Forward Controls such as the Vampire, and a number of armoured Land Rovers, including a recently restored CAV 100 Snatch and an ex-Northern Ireland Shorland.

Although easily overlooked or dismissed as a standard high capacity Land Rover 110, closer inspection of the vehicle (and the information sheet) revealed it to be a rebuilt prototype used for trials by the SAS

## TEMPO LAND ROVERS

Two very different examples of the East German Tempo, as used by the Border Police. No doubt the 'project' vehicle will reappear in a few years fully restored like the other.





## ARMoured...

A fine selection of ex-military Land Rovers, including the recently released armoured CAV 100 Snatch shown left, an ex-Northern Ireland Shorland Patrol Car (shown centre), and an unarmoured, but rare prototype SAS 110 DPV used for evaluation prior to the building of the DPVs.



prior to the building of the 110-based Desert Patrol Vehicles, illustrating that appearances can be deceptive, especially where vehicles belonging to the Dunsfold Collection are concerned.

One final vehicle that is worthy of mention is the stripped down Series 1 rolling chassis, which according to the information sheet accompanying it, was used until very recently by the Army as a training aid, which makes you wonder what other treasures are secreted away on army bases around the country?

While the Land Rover is known for being a great British marque, it was also built under licence by a great many foreign countries around the world, and it came as no great surprise that the show attracted a number of examples of foreign-built Land Rovers. Amongst them was a Belgian Minerva Series I Ambulance, with an interesting, but unused spare

wheel mounting arrangement on the front bumper similar to that used on the SAS variant of the Belgian Minerva, and I also spotted not one, but two examples of the East German Tempo, albeit at opposite ends of the restoration scale, with one fully restored and one, semi-complete example on a trailer awaiting complete restoration.

### GREAT DAY OUT

There's no doubting that the Dunsfold Open Weekend is a great show for anyone interested in Land Rovers, military or otherwise, and the esteem in which this show is held was born out by the amount of exhibitors and visitors to the event this year. If you want to find out more about the Dunsfold Collection check out their website, which you'll find at:

[www.dunsfoldcollection.co.uk](http://www.dunsfoldcollection.co.uk)

### LEFT..

Until very recently this Series 1 rolling chassis was being used as a training aid by the MoD. It makes you wonder what else is out there waiting to be discovered?



### ABOVE & LEFT..

The show was full of surprises and while it would be exciting to find one example of an ex-SAS Series 1 Patrol Vehicle, I was astounded to find two. The one shown to the left was part of the collection of vehicles brought along to the event by Roger Jones of the REME collection.





# Witham's Tender

MMI reports from the latest MoD Tender Sale held at Witham Specialist Vehicles



## ARMOUR

### CVR(W) FOX... 1

**ABOVE RIGHT:** this CVR(W) Fox was something of a surprise, it's been a good few years since I last saw one come up for sale.

### CHIEFTAIN... 2

**RIGHT:** the biggest vehicle in the June sale (in terms of weight if not physical size) was this ex-Cold War Reserve Stock Chieftain Mk10 Main Battle Tank with just 1500 miles on the clock, needless to say it attracted a lot of attention in the sales yard. Interestingly the 120mm main gun was still live, being sold with the caveat that it would be deactivated unless purchased by a licence holder.

### CET... 3

**FAR RIGHT TOP:** amongst the armoured vehicles were a pair of Combat Engineer Tractors, which still seem to be regularly appearing in the sales.

### SHIELDER... 4

**FAR RIGHT CENTRE:** this Shielder finished in a sand and green camouflage scheme, was also listed in the last sale back in February, obviously it didn't find a home last time!

### SAMSON... 5

**FAR RIGHT BOTTOM:** another CVR(T), this time a Samson recovery variant, but not in such good condition having sat outdoors somewhere for a long time judging by the appearance.

1

CVR(W) FOX...





PINZGAUER 6X6...



FODEN 6X6...



JCB FASTRAC...



The latest MoD Tender Sale was held at Witham Specialist Vehicles at the end of June and while I was unable to get along to the last sale, this time I made the trip up to the sale in Lincolnshire myself. Once again there was a varied collection of vehicles listed in the catalogue, including a number of armoured vehicles, trucks, softskins in a variety of conditions, ranging from good used condition to those in need of a complete rebuild. The site was busy when I arrived, but to be fair these sales always seems to attract plenty of potential bidders.

## HEAVY ARMOUR

One of the largest armoured vehicles in the sale was the Mk 10 Chieftain Main Battle Tank, which always seemed to have a crowd around it. With just 1500 miles on the clock and in what looked to be very complete condition, I'm sure it would have found a home, even with a guide price of £44,000!

Of the other armoured vehicles in the sale there were a number of CVR(T)s, including Samson, Sabre, Spartan, Striker and Shielder, but most of them looked to have been languishing outdoors for some time.

Another pair of Combat Engineer Tractors turned up, and if there are any left they're likely to be disposed of soon now that the new Terrier is entering service, effectively replacing the older CET.

## OTHER VEHICLES

There was an interesting mix of softskin vehicles in the catalogue, from a pair of EPS Springer ATVs to Foden heavy wreckers, Bedford 4x4 trucks and another example of the ex-RAF Pinzgauer 6x6 ambulance with a not inconsiderable guide price of £22,000!

## SOFTSKINS

**TOP LEFT:** another ex-RAF 6x6 Pinzgauer ambulance was up for grabs at the June sale. Described as having low mileage it had a guide price of £22,000.

**ABOVE CENTRE:** the Foden heavy wreckers having been leaving service now the new MAN 8x8 wreckers are coming on stream.

**ABOVE RIGHT:** another carry over from the last sale in February, namely a JCB Fastrac.

## CHIEFTAIN MK10 MBT...

2



3

CET...



4

SHIELDER...



5

SAMSON...





## VEHICLES...

**RIGHT:** yet more Land Rover Wolf 90s were listed in the June sale catalogue, but no sign of any Wolf 110s yet.

**FAR RIGHT:** another pair of Springer ATVs showed up, neither in pristine condition and missing parts, but neither had seen much use either.



**LAND ROVER WOLF...**



**SPRINGER ATV...**



## Roush 6x6 EOD ATV

**LEFT:** with a low top speed, open cab and comparatively hefty asking price, the ex-EOD (Explosive Ordnance Disposal) Roush Harewood 6x6 diesel ATVs may have been hard to find a home for, or at least with a collector, as despite the ruggedness of their design and the fact that they're comparatively new, having entered service around 2006, they can't compete with smaller farm-type ATVs in terms of cost and availability.

Of the various odds and sods was a batch of Bombardier Ski-Doods, another ex-EOD Roush 6x6 ATV, and an interesting Groves AT 422 20-tonne crane. There also seemed to have been a clear out of Rover V8 petrol engines, which I must presume have either been taken out of, or were spares for the Snatch Land Rovers that went through Witham's sales over the previous couple of years.

All in all there was another interesting collection of vehicles to see at the June sale, and while no date had been set for the next MoD Tender Sale at the time of writing, keep an eye out for Witham Specialist Vehicles' adverts in MMI or check out their website for further details, which you can find by logging on to: [www.mod-sales.com](http://www.mod-sales.com)

## ODDS & SODS...



**SKI-DOOS.....**

## GROVES CRANE

**RIGHT:** this Groves AT 422 E, 20-tonne 4x4 fully slewing, telescopic crane was bound to find a new user in civvy street.

**BELOW:** not all vehicles are in good condition, this Bedford MJ had a badly damaged cab.

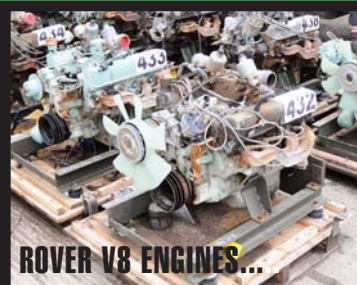
**BELOW RIGHT:** the Foden heavy wreckers are a great favourite with recovery firms.



## BEDFORD MJ 4X4...



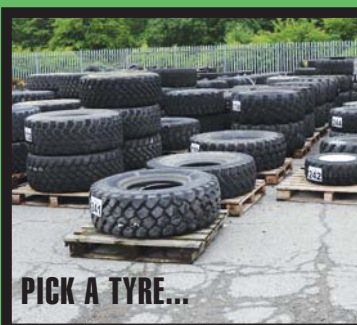
## FODEN HEAVY WRECKER...



**ROVER V8 ENGINES...**



**LAND ROVER ENGINE...**



**PICK A TYRE...**



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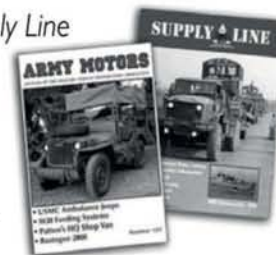
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## U.S. GMC CCKW 6x6 wreckers and tanker trucks in technical detail

The first book this month is the latest release to come from the highly popular Tankograd Technical Manual Series of books (Ref. 6027) and deals with the American World War Two GMC CCKW 2.5-ton 6x6 trucks, and more specifically the 6x6 wrecker and 6x6 fuel tanker variants, plus the forward control GMC AFKWX-353 COE trucks. The 48-page, A4 format softback book follows the familiar layout for this series and includes numerous black and white

archive images of the various vehicles in question, as well as extracts from the appropriate technical manuals relating to the vehicles. As such this is a book that is packed with very useful information that could be of use to both vehicle enthusiasts or owners of these vehicles, but could be of equal interest to model makers seeking detailed information. At £9.99 the book is good value for money and is readily available from many good specialist book sellers.

**Title:** GMC CCKW

**By:** Michael Franz

**ISBN:** N/A

**Price:** £9.99

**Format:** Softback

**Available From:**  
Bookworld Wholesale Ltd.  
[www.bookworldws.co.uk](http://www.bookworldws.co.uk)

## U.S. WW2 M10 & M10A1 Tank Destroyers in technical detail

**Title:** M10 & M10A1 GMC Tank Destroyers

**By:** Michael Franz

**ISBN:** N/A

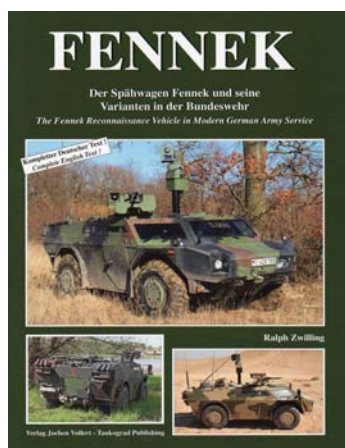
**Price:** £9.99

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[www.bookworldws.co.uk](http://www.bookworldws.co.uk)

The second release this month in the Tankograd Technical Manual Series of books (Ref. 6028) deals with another World War Two American subject, namely the M10 and M10A1 3" Gun Motor Carriage Tank Destroyers. While there are likely to be fewer owners of these vehicles for this book to appeal to, there will be many model makers who will find the detailed information and many photographs contained within the book of

great interest, especially those that describe the interior and the engine compartment, which are typically areas of vehicles that are hard to find information on. There are numerous wartime images within the book, but for me the most impressive one shows an M10 GMC parked at the foot of the leaning tower of Pisa, in 1944, a truly bizarre image! All in all this is another very useful reference source that is sure to be popular.



## Fennek Reconnaissance Vehicle in German Army Service

The latest modern German Army vehicle to get the Tankograd treatment is the relatively new Fennek armoured reconnaissance vehicle. The 72-page softback book provides a comprehensive overview of the Fennek, with numerous colour images of early and prototype vehicles, as well as current in-service vehicles, including a number showing various types of Fennek whilst on operations in Afghanistan.

There won't be any of these vehicles in private hands, but the book will appeal to those with an interest in modern, wheeled armour, and with a number of model kits of the Fennek now available, the book will certainly be of use to model makers. Amongst the many photos within the book are some showing the interior, exterior details and weaponry, all of which combine to provide the reader with an excellent insight into the Fennek.

**Title:** Fennek

**By:** Ralph Zwilling

**ISBN:** N/A

**Price:** £13.99

**Format:** Softback

**Available From:**  
Bookworld Wholesale Ltd.  
[www.bookworldws.co.uk](http://www.bookworldws.co.uk)

## US Army Vehicles on exercise during the Cold War

**Title:** Nuclear Winter FTX

**By:** Walter Böhm & Richard Eirmann

**ISBN:** N/A

**Price:** £13.99

**Format:** Softback

**Available From:**  
Bookworld Wholesale Ltd.  
[www.bookworldws.co.uk](http://www.bookworldws.co.uk)

It was anticipated that in the event of the so-called Cold War heating up, the invading Russians would cross Germany and Europe. As such the Western allies played out numerous 'War Games' in Germany, practicing for a potential Russian invasion and this new 64-page book from Tankograd looks at the vehicles of the US Army taking part in the Cold War Exercises Winter Shield I and II in 1960 and 1961. The vast majority of

the images within this book are black and white, with a small number of colour images on the covers, but all feature a great many interesting armoured and softskin vehicles dating from the period, vehicles that are often overlooked in favour of newer or older types. The book will also appeal to model makers with some great ideas for unusual camouflage schemes adopted for these winter exercises.







## Topical military vehicle news and features from around the world

The latest issue of Militar Fahrzeug brings the reader another interesting collection of the articles covering a variety of vehicles and periods of history. Sadly Militar Fahrzeug is now printed entirely in German, with no English summary or captions, which may spoil some readers' enjoyment, but as a photo reference source it is still a valid publication and if you read German all the better! This issue includes some unusual items, such as wartime

photos of vehicle-mounted snow clearing/blowing equipment in use with the German Army, including some mounted on a Panzer IV, Sd.Kfz. 8 and an RSO, which makes for an interesting feature and a look at the new, futuristic looking Leopard tank destined for the Indonesian Army. Other articles include a look at the Bedford MJ cargo truck, the Canadian Army Trophy and the modern German Hatra earth mover. All in all a fascinating collection.

**Title:** Militar Fahrzeug 3/2013

**By:** Jochen Vollert

**ISBN:** N/A

**Price:** £9.99

**Format:** Softback

**Available From:**  
Bookworld Wholesale Ltd.  
[www.bookworldws.co.uk](http://www.bookworldws.co.uk)

## Nebelwerfer and Panzer und Vielfachwerfer in detail

**Title:** Nuts & Bolts 30

**By:** Heiner F. Duske

**ISBN:** N/A

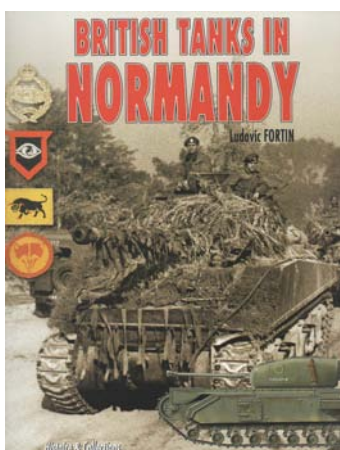
**Price:** £25.15

**Format:** Softback

**Available From:**  
Historex Agents Ltd.  
[www.historexagents.com](http://www.historexagents.com)

The latest addition to the very popular Nuts & Bolts series of books is this one that looks at the WW2 German Nebelwerfer and the various vehicle-mounted equivalents. As is usual for these books, the text and captions are provided in both German and English, and the 208-page softback book is crammed with wartime images of the Nebelwerfer in action, as well as colour images of preserved examples, scale models and a series of scale

drawings and illustrations. The book covers towed Nebelwerfers, trailer-mounted types and vehicle-mounted Nebelwerfer systems, all of which will no doubt be of enormous interest to military model makers. The quantity, quality and variety of photos and information packed within this book makes a terrific addition to the series and good value-for-money into the bargain. Available from Historex Agents in the UK.



## Detailed account of the British Armoured Division in Normandy

Anyone with an interest in British tanks, and more specifically those used by the British Armoured Divisions and various Independent Armoured Brigades during the fighting in and around Normandy, is bound to like this new book from French publishers Histoire & Collections. The 176-page softback book is full of archive images from the time, and combined with the many colour illustrations depicting many of the tanks, make this a great

reference source. The text is in English, as are the captions, and the range of vehicles covered within the book makes for a fascinating and informative read. The book will appeal to historians, vehicle enthusiasts and model makers alike, and the quality of photos and illustrations coupled with the amount and variety of information makes this book excellent value-for-money. The book is widely available from all good book stores.

**Title:** British Tanks in Normandy

**By:** Ludovic Fortin

**ISBN:** 9782352502043

**Price:** £26.00

**Format:** Softback

**Available From:**  
Casemate UK Ltd.  
[www.casematepublishing.co.uk](http://www.casematepublishing.co.uk)

## An illustrated history of the German WW2 Panzer Legend

**Title:** Tiger 1 in Action

**By:** Jean Restayn

**ISBN:** 9782352502944

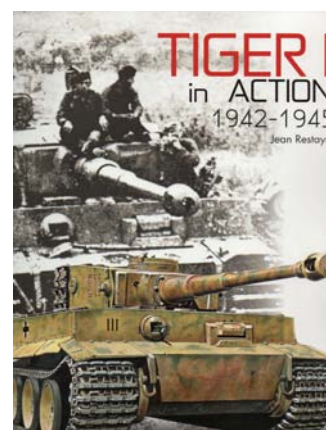
**Price:** £34.00

**Format:** Softback

**Available From:**  
Casemate UK Ltd.  
[www.casematepublishing.co.uk](http://www.casematepublishing.co.uk)

Some might argue that the Tiger 1 has been done to death in terms of books published on the subject, and yet there's still a desire for more information on this iconic German tank. This new 288-page book from Histoire & Collections will no doubt duplicate some information in other books already published, and those who already have an extensive collection of titles on the Tiger may find little in the book of use, but for those seeking a

well rounded book on the subject with a wide selection of wartime images, combined with the many colour illustrations showing various camouflage schemes adopted by the Tiger, makes for a very attractive book. The cover price may deter some, but given the amount of photos and illustrations crammed between the covers it's actually good value-for-money. The book is available from all good book stores.





# MISSION BRIEFING

## DATES FOR YOUR DIARY

### AUGUST 2013

**Sunday 11 August 2013:** **Panshanger 1930 & 1940s Day:** held at Panshanger Airfield, Herts. This popular one-day show features classic military vehicles, classic cars, motorcycles and a classic aircraft fly in, plus live music. For details or to book in call: Tel: 01707 3971791  
[www.northlondonflyingschool.com](http://www.northlondonflyingschool.com)

**Saturday 17 Sunday 18 August 2013:** **Cobbaton Combat VJ Weekend:** military vehicle show, stalls, living history, held at famous Cobbaton Combat Collection. The museum is located in Chittlehampton, N. Devon, EX37 9RZ. For further details or to book in contact: Tel: 01769 540740  
[info@cobbatoncombat.co.uk](mailto:info@cobbatoncombat.co.uk)  
[www.cobbatoncombat.co.uk](http://www.cobbatoncombat.co.uk)

**Saturday 17 Sunday 18 August 2013:** **Wings & Wheels:** the South West Airfield Heritage Trust Wings & Wheels show held at Dunkeswell Airfield, nr Honiton, Devon. Meet cast members from H.B.O's Band of Brothers, plus military vehicles, re-enactors, planes, and much more. For further details contact Dave Bunney on: Tel: 01404 890174

**Saturday 17 Sunday 18 August 2013:** **Lacock at War, Codename Bolero:** Military Vehicle & Re-Enactment Show, held in Lacock Village near Chippenham, Wiltshire, Sat Nav SN15 2LQ. For details contact, John Wardle on: Tel: 01373 300384  
[westwiltsmvt@yahoo.co.uk](mailto:westwiltsmvt@yahoo.co.uk)  
[www.westwiltsmvt.co.uk](http://www.westwiltsmvt.co.uk)

**Saturday 17 Sunday 18 August 2013:** **Ramsey 1940s Weekend:** held at The Camp, Ramsey, Cambs, PE26 2XB. Attractions include living history displays, period re-enactors, vintage motor vehicles, BBMF, trade stands and tank rides. For details call: Tel: 07881 730047  
[Ramsey1940s@gmail.com](mailto:Ramsey1940s@gmail.com)  
[www.ramsey1940sweekend.org](http://www.ramsey1940sweekend.org)

### AUGUST 2013

**Saturday 24 to Monday 26 August 2013:** **Tanks, Trucks & Firepower:** organised by the Alvis Fighting Vehicle Society and the Birmingham & West Midlands Area MVT. Situated 1 mile from Dunchurch in Warwickshire on the A426 Southam Rd, 5 miles from Rugby. For details see: [www.tankstrucksandfirepower.com](http://www.tankstrucksandfirepower.com)

**Saturday 24 to Monday 26 August 2013:** **Military Odyssey 2013:** held at the Kent County Showground, Detling, Kent, ME14 3JF. Now the world's largest multi-period history event, the closest you'll get to history short of a time machine! For details contact: Tel: 01268 772448  
[info@military-odyssey.com](mailto:info@military-odyssey.com)  
[www.military-odyssey.com](http://www.military-odyssey.com)

**Saturday 24 to Monday 26 August 2013:** **Cornwall Area MVT Show:** held at Mount Edgcombe Country Park, Cremyll, Cornwall. Exhibitors are invited to bring along military vehicles (of any era), military or living history displays welcome. For further info on vehicle and living history entries please call Gwen Jenkins: Tel: 01872 561653  
[gwenjen@talktalk.net](mailto:gwenjen@talktalk.net)

**Saturday 24 to Monday 26 August 2013:** **Rauceby War Years Weekend 2013:** The Mid Lincs Military Vehicle Trust is holding their 5th War Years Weekend. We are a non-profit making event so any monies raised after expenses will go to the Air Ambulance, Royal British Legion and Marie Curie Cancer Care. Tel: 01529 488354  
[www.raucebywarweekend.co.uk](http://www.raucebywarweekend.co.uk)

**Saturday 31 August Sunday 1 September 2013:** **70th Anniversary of the Assault Training Center,** held in Woolacombe, North Devon, living history displays, beach invasion re-enactment, vehicle run on beach, wreath laying. For further details please see the website: [www.assaulttrainingcenter.com](http://www.assaulttrainingcenter.com)

### SEPTEMBER 2013

**Sunday 1 September 2013:** **Jeep & Cheerful day:** this popular one-day vehicle show returns, offering a Free day out for anyone with a Military Jeep, or Military Vehicle, held at the regular venue of South Yorkshire Aircraft Museum 'AeroVenture'. For more call Mark Askew on: Tel: 01302 739000  
[info@jeepworld.co.uk](mailto:info@jeepworld.co.uk)  
[www.jeepworld.co.uk](http://www.jeepworld.co.uk)

**Friday 6 to Sunday 8 September 2013:** **The Victory Show:** the largest WWII experience extravaganza in the UK, held at Foxlands Farm, Cosby, Leicestershire, LE9 1SG. Featuring military vehicles, tanks and artillery, plus living history displays, trade stands and lots more. General contact Steve Pepper: Tel: 07711430472  
[Sjpepper229@btinternet.com](mailto:Sjpepper229@btinternet.com)  
Vehicles/Re-enactors call Dave Pratt on: Tel: 07954 620728  
[thevictoryshowreenactors@yahoo.co.uk](mailto:thevictoryshowreenactors@yahoo.co.uk)  
[www.thevictoryshow.co.uk](http://www.thevictoryshow.co.uk)

**Saturday 7 September 2013:** **Peopleton Autumn Show:** held at Peopleton Village Playing Fields, Peopleton, Worcs. Featuring Classic Cars, Military Vehicles, stalls, food and entertainment throughout the day. Open from 12.00 noon till 6.00pm. For further details call John Sargeant: Tel: 01905 840155  
[sarg-37@outlook.com](mailto:sarg-37@outlook.com)

### SEPTEMBER 2013

**Saturday 14 Sunday 15 September 2013:** **Birkenhead Park Festival of Transport Show:** now in its sixth year and held at the popular venue of Birkenhead Park, on the Wirral. Featuring traction engines, classic cars, classic motorbikes, historic fire engines and military vehicles plus living history groups, radio control boats, cars and tanks. BBMF Flypast (subject to operational circumstances). A great show with something for all the family. For further details check out the show website at: [www.bheadtransportfest.com](http://www.bheadtransportfest.com)

**Saturday 21 Sunday 22 September 2013:** **Bagillt Military Vehicle Show:** a new late summer show on the Bettisfield Beacon Headland overlooking the Dee estuary, CH6 6HE. Vehicles limited to a 9ft 8" height restriction. For further details contact Jayne on: Tel: 01352 713560  
[jayneatvalkor@aol.com](mailto:jayneatvalkor@aol.com)

**Sunday 29 September 2013:** **Stoneleigh Mini Militaria 2013:** Blackdown Buildings, The Exhibition Centre, Stoneleigh Park, Coventry, Warks. CV8 2LZ. Round off the show season with this new event and grab those bargains ready for the winter rebuilds. For details or to book in please contact Amanda on: Tel: 01743 762266  
[amanda@jeeparts.co.uk](mailto:amanda@jeeparts.co.uk)  
[www.militaryconvention.com](http://www.militaryconvention.com)





## SEPTEMBER 2013

### Saturday 28 Sunday 29 September 2013: **Railway At War:**

Recreating the 1940s experience of life on the Home Front during WW2. Held by the Northampton & Lamport Railway, Pitsford and Brampton Station, Pitsford Road, Chapel Brampton, Northampton, NN6 8BA. Featuring civilian and military vehicles, 1940s music and entertainment, trade stalls, re-enactors and living history displays. For details please contact the appropriate person: Colin Haddon  
Tel: 01604458521 (Vehicles)  
Tel: 07756 200213 (General)  
[info@railwayatwar.org.uk](mailto:info@railwayatwar.org.uk)

## OCTOBER 2013

### Friday 4 to Sunday 6 October 2013: **Military Revival:**

new show in alliance with Bunker Bash, and in collaboration with Old Buckenham Airfield and Battlefront; The East England Military Museum. In addition to military vehicles we will have military campsites presenting a living history displays plus mock battles, tank rides, militaria and other trade stalls and air displays from military aircraft. Contact Touchdown Aero Centre:  
Tel: 01953 860 806  
[airfield@oldbuck.com](mailto:airfield@oldbuck.com)

## OCTOBER 2013

### Saturday 5 Sunday 6 October 2013: **Holme 1940's Weekend:**

held in association with Holmewood Hall and Holme Village. Located near Peterborough, PE7 3PA. Featuring tank rides, vintage vehicles, vintage ploughing, stalls and displays. Re-enactors welcome. For details call: Tel: 07887 817031  
[chriscardell@googlemail.com](mailto:chriscardell@googlemail.com)  
[www.holmewoodhall.co.uk](http://www.holmewoodhall.co.uk)

### Sunday 6 October 2013: **Hack Green Secret Nuclear Bunker Rally:**

French Lane, Nantwich, Cheshire, CW5 8BL. Come along on buy (or sell) your items of militaria and at the same time take in the fascinating Hack Green Secret Nuclear Bunker museum while you're there. For further details call the organiser Rod:  
Tel: 01270 623353  
[coldwar@hackgreen.co.uk](mailto:coldwar@hackgreen.co.uk)

### Friday 11 to Sunday 13 October 2013: **Wartime Weekend:**

held in Pickering, North Yorkshire and featuring steam trains, trade stands and re-enactors. A great day out. For further details about the show visit the website at:  
[www.nrmr.co.uk](http://www.nrmr.co.uk)  
details about the trading area at:  
[www.jeepworld.co.uk/pickering/war timeweekend.htm](http://www.jeepworld.co.uk/pickering/war timeweekend.htm)



## NOVEMBER 2013

### Sunday 3 November 2013: **Northern Military Expo:**

popular indoor show held at the Newark Country Show Ground, Notts, 2 minutes off the A1M (NG24 2NY). For details contact Mark Askew on:  
Tel: 01302 739000  
or check out the website at:  
[www.northernmilitaryexpo.co.uk](http://www.northernmilitaryexpo.co.uk)

### Sunday 17 November 2013: **Malvern Militaria Fair:**

large, indoor militaria event held at the Three Counties Showground, Wye Hall, Malvern, Worcs, WR13 6NW. For details contact Amanda at:  
Tel: 01743 762266  
[amanda@jeeparts.co.uk](mailto:amanda@jeeparts.co.uk)  
[www.militaryconvention.com](http://www.militaryconvention.com)

## DECEMBER 2013

### Sunday 15 December 2013: **Bromsgrove, Militaria, Medal & Arms Collectors Fair:**

held at the Spadesbourne Suite, The Council House, Burcot Lane, Bromsgrove, Worcs, B60 1AA. For further information and dealers booking forms contact James Brown at:  
Tel: 07980 608211  
[fairs@RZMilitaria.com](mailto:fairs@RZMilitaria.com)  
[www.RZMilitaria.com](http://www.RZMilitaria.com)

## APRIL 2014

### Saturday 12 to Monday 21 April 2014: **Sandstone Estates Easter Festival:**

held at the Sandstone Heritage Trust, Eastern Free State, South Africa. Annual open festival featuring the many military vehicles, agricultural equipment, vintage cars and narrow gauge steam railway. The Sandstone Heritage Trust works closely with South Africa's Armour Museum and boasts an impressive collection of military equipment from a Sherman tank to modern day South African Defence Force armoured vehicles. For more information check out the website at:  
[www.sandstone-estates.com](http://www.sandstone-estates.com)

**Are you a show organiser? Don't delay, and email your show & event details direct to the Editor at:**

[ian.young@keypublishing.com](mailto:ian.young@keypublishing.com)

**or if you prefer you can post them to the Editorial Office - details can be found on page 3**



If travelling long distances to events we would advise people to check for cancellations before leaving home, MMI cannot be held responsible for any errors, omissions or cancellations. Submissions for Mission Briefing should be sent at least two months prior to the event and we would also ask that event organisers notify us of any changes as soon as possible.







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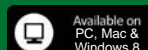
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# Next Month...

On Sale 5th September



## COLD WAR LEVIATHANS

Jim Kinnear delves into the history behind Russian mobile ICBM launchers

## UNDERWATER WRECKS

Simon Brown brings us a stunning collection of military vehicle images

## MILITRACKS 2013

Siete Meeter brings us all the action from the 2013 Mitracks event



## ARGENTINE SHERMANS

Juan Carlos Cicales takes a look at Argentinian Army Sherman tanks



## DVD 2013

Shaun Connors reports from the Defence Vehicle Dynamics Show

## CENTENARY MAN

We reveal a recently restored Albion A10 WD military truck



Content may be subject to change



# MILITARY ODYSSEY

## KENT SHOWGROUND

SATURDAY 24TH, SUNDAY 25TH AND MONDAY 26TH AUGUST 2013



2 ARENAS + BATTLEFIELDS

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9.30AM TO 5.30PM

WITH ARENA EVENTS STARTING AT 10.00AM



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**OR TICKETS CAN BE PURCHASED ON ANY OF THE DAYS AT THE GATE**





# Important Firearms Auction

October 14 & 15, 2013 in Fairfield, Maine USA

Our March 2013 auction was another resounding success. At approximately \$13.5 Million it is the third highest grossing firearms auction in history (the first and second highest grossing sales were conducted by our firm in 2012). Our Fall sale, however, should be a truly historic auction for the record books. This sale will include Session 1 of the Geoffrey Sturgess collection of self-loading pistols. The Sturgess collection is believed to be the finest and most comprehensive collection of its type currently in private hands. Approx. 50 years in the making, it is the subject of the recently published three volume treatise, "The Borchardt & Luger Automatic Pistols". This sale will include a spectacular array of best quality sporting arms, the Joe Schroeder collection of Bergmann and Mauser pistols, the Woody Frey collection of rare Winchesters and Kentucky rifles, the Class III collection of Carl "Bill" Morrison (approximately 70 years in the making from Maine's oldest gunsmith), a superb offering of 20th century military, the Marlan Polhemus collection of Smith & Wessons, rare deringers, important Civil War, truly outstanding Colts including Sess. 1 of the extraordinary Michael Leff collection of rare cased Colts, and much, much more.

**We are the world's leading auctioneers of rare, high-grade, quality firearms. We do not sell the greatest number of firearms in a year, we sell the greatest number of expensive firearms in a year. 0% Seller's Commission on Expensive Items.**

## Recently Consigned to our Upcoming Fall Auction



Rare WW II Era German "Kubelwagen" captured from Rommel's Afrika Korps in Egypt 1941. It was this very Kubelwagen that was used by U.S. Intelligence to develop Tech Manual E9-803. Fully documented and remarkably preserved!

### The Historic and Prodigious Collection of Dr. Geoffrey Sturgess



(left) The finest private collection of semi-automatics ever assembled. Sess. 1 will include the earliest known Loewe Borchardt C93 prototype, serial no 6, cased with full accessories -Superb! ; Original DWM Luger 1899/00 from UK Trials ; 1900 Chilean Prototype ; Near mint presentation Mauser C96, gold & ivory, Spectacular! ; Mauser C98 semi-auto rifle for GPK Small Caliber Trials of 1898- 1 of only 4 known; 1903/4 Transitional French trials prototype 90A Luger. This is only a tiny sampling!!!



Ex. rare genuine SS Nazi officer's hats incl. ultra rare white version ID'd to Emil Bihler of the Allgemeine SS, later of the Waffen SS Handschar Division

**Contact:** Wes Dillon or Josh Loewensteiner **Email:** [firearms@jamesdjulia.com](mailto:firearms@jamesdjulia.com) **Tel:** 1-207-453-7125

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