

BUYING A JEEP

Pat Ware takes a look at the pleasures and potential pitfalls involved in buying a Jeep

So, you think you'd like to buy a Jeep. Good choice... a Jeep is a genuine motoring icon, fun to drive, easily maintained, well supported by dealers, and small enough for any lock-up. Although, with prices for the very best examples regularly exceeding £20,000, you'll need relatively deep pockets. However, looking on the bright side, Jeep prices will almost certainly continue to rise for as long as demand outstrips supply. And, of course, they aren't making any more of them.

In this guide we're focussing on the original WW2 Jeep – the standardised Willys MB, the Ford GPW, and also the licence-built Hotchkiss M201. Pre-standardised Jeeps, in the form of the Willys MA, the Ford GP, and the Bantam BRC-40, or the early Hotchkiss 'licence MB 6V', are sufficiently rare to create their own market.

The difficulty is in knowing where to begin the search. If you are intent on owning a genuine WW2 vehicle, then your choice is between the Willys MB and the Ford GPW, with little to choose between them. If you are not hung up on the WW2 original, you might also want to consider the Hotchkiss M201, a licence-built version of the Willys MB that was constructed in France during the fifties and sixties, and which included some useful updates making what many consider to be a more usable machine.

ORIGINAL OR NOT?

The days of finding a Jeep fresh from military service are long gone and, unless it's a genuine barn find that has remained untouched since the Army disposed of it decades ago, any vehicle offered for sale these days will almost certainly have

passed through civilian hands. This means that, inevitably, it will have been 'restored' to some degree – an expression that conceals a multitude of sins. At the very least it will have had parts removed or replaced, either because of wear and tear or as part of a 'civilianisation' process. As soon as this process begins, the vehicle can no longer be honestly described as 'original', and this presents you with your first dilemma... are you looking for a carefully restored vehicle that will require very little further work – what might be described as a 'generic Jeep' – or a project that will enable you to do all of the work yourself? If the latter is the

case, don't underestimate the cost of buying all of the little bits and pieces that have gone missing over the years. Alternatively, if you are buying a restored vehicle be sure that you are happy with it. Too many people pay a high price for a vehicle that has had a lot of work done... and then proceed to do it all again!

However, unless you are an absolute perfectionist, there will never be a problem keeping a Jeep on the road. Almost every part you are likely to need is available, including replacement engines, gearboxes, axles and body parts. Some parts can still be found in the original mint in box WW2 packaging, others are modern pattern parts. Ford parts will fit Willys Jeeps, and vice-versa; and unless you are looking at French-made electrical components, Hotchkiss parts will also fit both Willys and Ford Jeeps and vice-versa.



Let's just deal with that name first. There are many fanciful stories explaining the origins of the word 'Jeep'. Unfortunately, the only true story remains lost in the mists of time. So, that aside, let's take a look at what makes the military Jeep so popular.

MODEL DIFFERENCES

There are those who are avid enthusiasts of the Ford GPW but, in truth, the differences between this and the Willys MB are minimal. Aside from the radiator cross-member (tubular on the MB, inverted 'U' shape on the GPW), any differences are generally confined to changes made to simplify production. Yes, when they left the factory, Ford GPWs were held together with large numbers of bolts that were marked with an 'F' script... and components such as the blackout-light support, the water pump, and the handbrake handle were similarly marked. The presence of these marks makes no practical difference to the vehicle, but, if you are the sort of person that cares deeply about such things – and remember the Army didn't – then you must be prepared to devote your life to a search for the 'correct' 'F' marked components. Good luck with that!

The Hotchkiss M201 most closely resembles the Willys MB, although, with its 24V radio-screened electrical system, the two are easy to tell apart. The M201 has the same tubular cross-member under the

radiator as the MB, but the chassis has additional reinforcements in the channels between the radiator cross-member and the bumper. Other differences include the shape of the body reinforcing channels ahead of the door cut-outs, the use of one-piece wheels shod with radial tyres, metric instruments, electric windscreen wipers, a dash-mounted starter button, and windscreen rests fitted to the windscreen itself rather than the engine cover.

Problems arise with M201s that have been 'Americanised'. It is relatively easy to replace all of the French parts with US originals, creating a hybrid Jeep that is neither one thing nor the other. But, remember, it will never be an 'original' US-built Jeep no matter what you do to it, and it will be surprisingly difficult, and expensive, to get it back to how it was built since many of the exclusively-French components are actually harder to find than the US equivalents.

ENGINE

All three Jeeps are fitted with what is essentially the same engine – the Willys 'Go-Devil' Type 441 or 442, a side-valve (flat head) four-cylinder unit producing 65bhp from 2199cc.

There are no particular weaknesses in the engine, but look under the distributor-drive housing on Ford-built units where frost damage can cause a crack to develop.

Right: US Navy Jeeps were painted in flat grey although under-surfaces often showed traces of the original green.



Below: British-marked Jeep showing how the front blackout lights can be converted into flashing indicators. Note also accessories such as the windscreen cover and large wooden stowage box.





The engine should start readily and idle quietly, sometimes exhibiting a slight 'chuffing' sound, and a Jeep should be lively to drive, with excellent low-down torque. A worn engine will be down on power and will probably exhibit low oil

pressure and a smoky exhaust. There is no timing chain tensioner and a worn chain may make its presence felt by rattling when idling. It is worth noting that the later version of the engine (Type 442) fitted to the very last wartime Jeeps and to the M201

has no chain for the valve gear, instead using a gear train, and is noticeably quieter.

The wartime Jeeps were fitted with a Carter carburettor, while the M201 has a French-built Solex; but the two are interchangeable.



The distinctive two-piece combat wheel was fitted to all Willys MB Jeeps after serial number MB120700 and all Ford GPWs.



Ford-built engines were originally painted a semi-gloss grey.



Above: British Number 19 wireless set fitted to the right-hand rear mudguard.

Right: A period-correct WW2 radio set is a popular Jeep accessory; typical sets include US Signal Corps radio stations SCR-510 or SCR-610, but there are many others. The photograph shows the so-called 'angry 9', a man-pack transmitter/receiver that was used during the Korean War.



Above: Instrument panel of the M201 showing metric-calibrated Jaeger instruments. The button above the speedometer is the starter and usually has a rubber cover.

Right: In order to accommodate the twin 12V batteries, the air intake/filter and the voltage regulator are installed in different positions under the engine cover of the M201. Note also the distinctive reinforcing channel welded inside the channel of the main chassis member.



TRANSMISSION AND DRIVE-LINE

Power from the engine is transmitted to the wheels via a three-speed gearbox and two-speed transfer case. The gearbox lacks synchromesh on first gear and, when the vehicle is stationary, will sometimes need to be put into second before first can be engaged. On the move, a worn gearbox may balk at the upward change from first to second, and may jump out of second gear on the overrun. Check that the front-drive selector operates correctly; long-term neglect can cause the levers to seize.

Wear in the clutch should be apparent through slippage or excessive pedal

travel. Check also for excessive wear in the propeller shaft universal joints and splined couplings.

SUSPENSION

Although the Jeep is astonishingly robust, neglect of any of the 30 or so grease points will result in excessive wear. Look for wear

in the spring hanger bushes, the multiple joints of the complex steering linkage, the steering box itself, and check for excessive play in the wheel bearings, the king pins, and the constant-velocity joints. The dampers do very little work since there

BRAKES

The hydraulic service brakes are surprisingly powerful and should be able to pull the vehicle up in a straight line. It is important to check the level of the hydraulic

fluid level regularly, albeit the reservoir is under the floor

and hard to get at.

The handbrake is not especially effective, and can be difficult to operate. Its efficiency is often made worse by oil leaking onto the shoes from the seal at the rear of the transfer case.

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“On the move, a worn gearbox may balk at the upward change”





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Above: The Jeep vehicle data plates are riveted to the glovebox lid. This photograph shows the correct plates for a Ford GPW.

Right: Ford or Willys instrument panel showing the speedometer and secondary gauges for fuel level, oil pressure, dynamo output, and water temperature. The domed projections at the top are instrument panel lights and the lever to the right is the handbrake. The small square tooling cut-out at the top edge is distinctive to WW2 Jeeps.



WHEELS AND TYRES

Except for very early examples, WW2 Jeeps are fitted with two-piece so-called combat rims, fitted with mud and snow bar-grip pattern cross-ply tyres. Be wary of very rusty wheels; they will almost certainly be difficult to dismantle. The M201 was fitted with


larger-section (7.00-16 rather than 6.50-16) radial tyres on conventional one-piece rims, giving a slightly more comfortable ride.

BODYWORK

To modern eyes, the bodywork of the Jeep is simple and utilitarian. The largely

flat panels are crudely pressed, with spot welds apparent in various places, and the paintwork is often indifferently applied. This is all part of the Jeep's charm.

On the plus side, there is little scope for concealing rust in the body panels, since

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Below: A wire cutter was often fitted to the front bumper to protect Jeep crews from being decapitated by wires stretched between trees across roads in previously enemy-held territory.



WHAT THE EXPERTS SAY...

Don't just take our word for it, here's what the Jeep experts we spoke to at War and Peace Revival had to say about buying a Jeep...

Graham Lycett – Jeeparts UK (01743 762266, www.jeeparts.co.uk)

"Look at what's not there rather than what is there," is Graham Lycett's golden nugget of advice for would-be Jeep buyers. "Ask yourself if it's got the correct air cleaner and generator fitted, has it got the right engine and axles?" Once you've made an initial assessment of what's missing, go over the bodywork and check out the interior, he advises. "The more complete it is the better, basically. If you start having to find parts and swap things like incorrect seats it all starts to add up."



Cliff Harris – Universal Jeep Supplies

(01483 860403, www.universaljeepsupplies.co.uk)

"Don't buy a Jeep without looking at it," warns Cliff from Universal Jeep Supplies. "Too many people are buying Jeeps from photographs and spending money on vehicles that end up being nothing like their descriptions. You need to go and see it and drive it."

Apart from making sure everything's as it should be, Cliff says the condition of the gearbox should play an important part in any buying decisions you make, seeing as he reckons a good rebuild could be £1200.

Cliff obviously loves the wartime Jeeps, but is complimentary about the Hotchkiss, seeing it as the ideal entry level vehicle. "They're reliable, nicer to drive and never a lot of money to buy."



Nick Jeffrey – Jeffrey Engineering Ltd (01233 770007, www.jeffreyeng.com)

To make a successful Jeep purchase, prospective Jeep owners should find out what they are looking at, recommends Nick Jeffrey. "You need to do your homework, speak to owners and specialists to find out what's right and what's wrong and how much it's likely to cost correcting things."

Nick warns of buying anything that's been modified, or at least Jeeps being sold as original when they are anything but. "The term 'restored' is a much over-used phrase," he says. "There are lots of examples in the classifieds that are described as being fully restored, but have duff engines, axles and gearboxes. They've done a cosmetic makeover, but not touched the important bits."

Nick accepts that much of the work can be done by the enthusiast to keep maintenance and restoration costs down, but adds a caveat. "You need to be realistic about your skillset. If you end up having to farm lots of stuff out, a project can quickly become very expensive."

Again, Nick heaps praise on the Hotchkiss, the fact that it's just that bit younger making it nicer to drive and generally more reliable.





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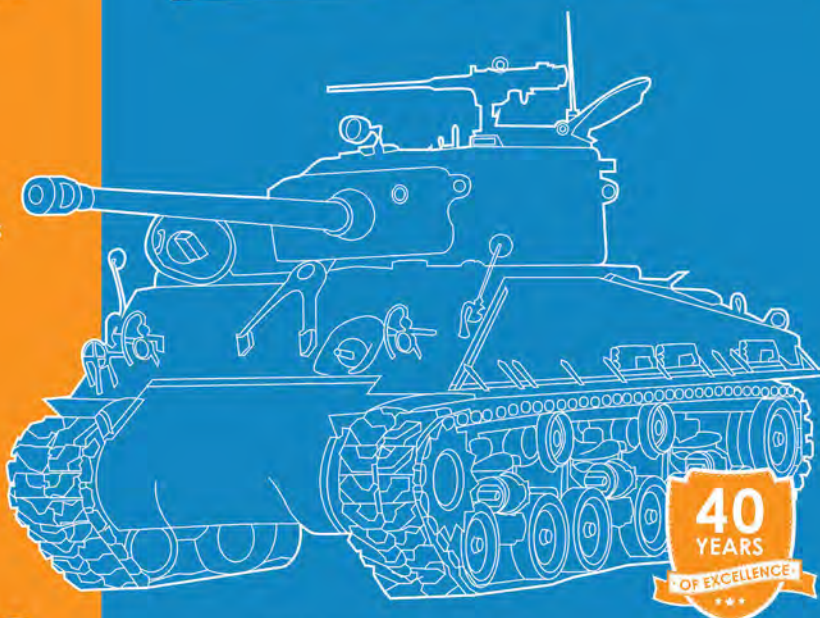
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Above: The M201 was fitted with conventional well-base drop rims; the original radial tyres on this example have been replaced by 6.00-16 bar-grips. Right: Lightly-Americanised Hotchkiss M201 up for sale at the recent War & Peace Revival.



the lack of any kind of internal trim means that almost everything is on show – you can see both sides of most panels and what you see is generally what you get. Common rust spots include the reinforcing

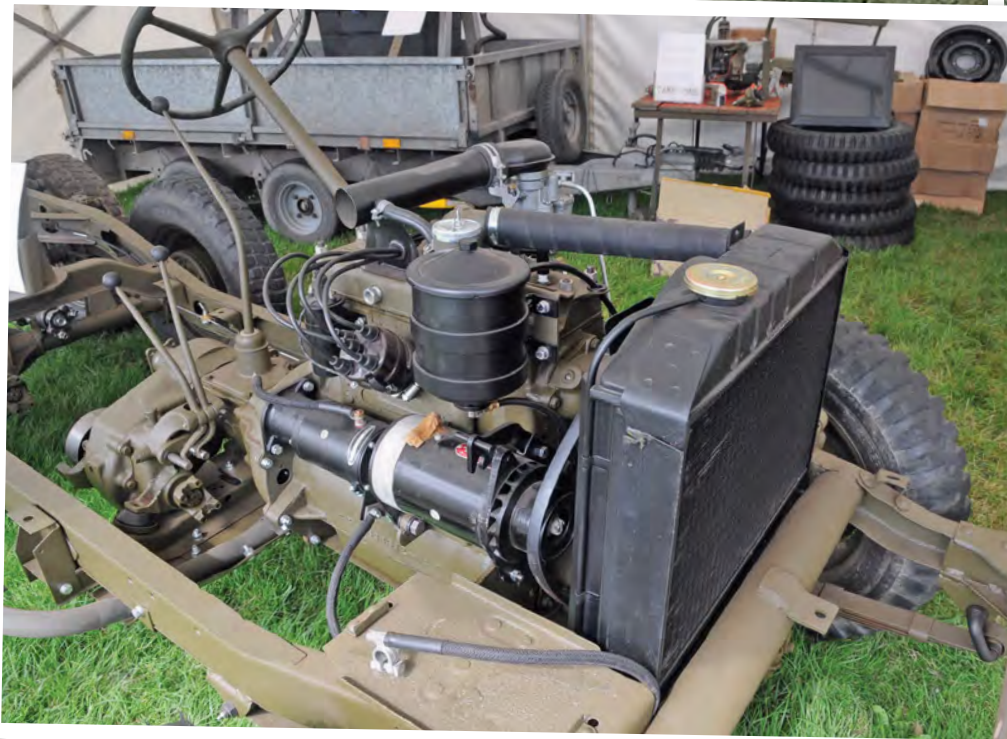
channels under the floor, the front bumper gussets which, in the past, were often very poorly repaired, and the edges of the floor, where it meets the body sides. The tool boxes in the rear compartment are

also prone to rust, and there is a small mud trap where the flat top of the front mudguards meets the angled rear panel. The windscreen frame also rusts in several places where water becomes trapped, as



Below: Jeep that has been modified to resemble the machines used by the Long Range Desert Group and the SAS in the Western Desert. Collecting all of the components required for the conversion can become something of an obsession.





Above: Restored Willys MB chassis showing the engine, radiator and transmission. Willys engines were painted olive drab during assembly. Right: Nicely-restored Ford GPW radio, showing typical items of kit that might be stowed on or in a Jeep, including a camouflage net, recovery rope, trophy helmet, hand grenades, and bags containing the crew's personal items.



THE DEVELOPMENT OF THE JEEP

Work on what became the Jeep started in 1940 when American Bantam and Willys-Overland entered a bidding process for the construction of a small all-wheel drive reconnaissance vehicle for the US Army. Of the 135 companies approached by the Army, only Bantam and Willys showed any interest. Neither company was in good financial shape and, hedging its bets, the Army subsequently persuaded the mighty Ford Motor Company also to become involved.

Bantam put together a small team led by Karl Probst and, using off-the shelf components wherever possible, had their paperwork and a working prototype, described as the Bantam BRC-60, ready in September, within the allowed 75-day timescale. Powered by a Continental engine, the prototype was driven to Camp Holabird and successfully demonstrated to the Army, leaving Bantam free to construct the other 69 vehicles.

Although officially disqualified from the competition, Willys, nevertheless, had its own prototype, designated Quad, ready for testing in November. The Army was quick to realise that the powerful Willys' Go-Devil engine gave a superior level of performance when compared to the Bantam. Meanwhile, Ford's Pygmy prototype was also delivered during November, this machine powered by the Ford NNA tractor engine.

All three vehicles were impressive in their own way and the Army seemed unable to decide which to select for production. After considerable deliberation, all three manufacturers were asked to construct 1500 vehicles for troop trials, with deliveries starting in December 1940. The vehicles were now being described as the Bantam BRC-40, the Willys MA, and the Ford GP. By February the following year, the decision was taken to standardise on the Willys version, now designated MB following some minor modifications. However, before the end of the year it had become apparent that Willys was unable to assemble the quantities required and the US government persuaded Ford to join the fray, building what was effectively the Willys MB under licence... but there were to be no more Jeeps produced by poor old Bantam.

Production of the wartime Jeep ended in August 1945, by which time a total of 639,245 vehicles had been constructed, 361,349 by Willys and 277,896 by Ford. Willys turned its production lines over to producing the civilian CJ2A, and Ford simply shut down its Jeep line.

However, this was not the end of the wartime Jeep because in 1956, the French Hotchkiss company constructed some 1000 examples of what was described as the 'licence MB 6V', essentially the Willys MB that used French components wherever possible. A year later, production switched to an improved version described as the Hotchkiss M201. Again, this was essentially an MB produced under licence using local components, but now incorporating a 24V electrical system and detail changes to the electrical system. Altogether, more than 28,000 M201s were constructed, with the line finally being shut down in 1966. Many remained in service until the 1990s.

does the fuel tank where mud can pack underneath it.

Body panels, repair panels and even complete body tubs are readily available at reasonable cost... but, of course, at the price of originality.

UPHOLSTERY

If a Jeep has one serious drawback it is the relative lack of comfort. The combination

Below: The Jeep is well-served by dealers, with most parts easily available. The photograph shows the original Autolite distributor (left-hand side) compared to a modern electronic distributor which obviates the often-troublesome contact-breaker points; 6V, 12V and 24V versions are available.





IT'S MY JEEP

Tim Wood owns this '43 Jeep. It was imported from the US in 2002 and he's since carried out a full restoration. William Galliers restored the body and Tony Sudds rebuilt the gearbox – but otherwise, Tim's done everything else himself. Extra kit includes an M1 Garand rifle, M1 carbine, M1 A1 Thompson sub machine gun, M3 'Grease Gun' sub machine gun, 1911 Colt 0.45 pistol, grenades, fighting knives, personal kit and webbing and a GRC 9 radio set.

of thin and poorly-sprung seat cushions, cart-spring suspension and stiff-walled tyres ensures occupants feel every bump in the road. Worse still, the seats are small

and have no adjustment, resulting in a curious splay-legged driving position. Ford and Willys Jeeps should have canvas seat covers, whilst the M201, which often has

slightly-thicker seat cushions, will usually have plastic-coated cloth covers, at least on the front seats.

Worn or damaged seat covers are very



Left: Close-up view of the driver's position. The steering wheel sits very close to the driver's chest, and the lack of any adjustment on the driver's seat leads to a curious splay-legged stance which is not especially comfortable for those of above-average height.


easily replaced but there is little that can be done about the comfort levels.

CANVAS TOP

Unless the Jeep you are looking at has the optional side curtains and doors, the minimal top offers little protection against bad weather. If you are unfortunate enough to get caught in really heavy rain, you will find that both sides of the windscreen will get wet, the inside catching spray kicked up from the front wheels and from passing traffic. Bear in mind that most WW2 Jeeps have nothing more than hand-operated wipers.

Don't be put off by a worn or damaged top, pattern replacements are cheap enough and easy to fit.

ELECTRICAL EQUIPMENT

Aside from the fact that the M201 has electrical windscreen wipers, and most examples were retro-fitted with flashing indicators, the on-board electrical equipment is more or less the same across the models. The big difference between the models in this respect is the WW2 originals are wired with a 6V electrical system, which can make starting difficult in very cold weather, whilst the M201 has a 24V system requiring two batteries. 

Below: Whilst the acquisition of military items such as a radio set, personal weapons, spare ammunition, grenades, etc, helps to create the illusion of a vehicle that is about to enter a combat zone, these items do rather restrict the practicality of using the Jeep from day-to-day... but, the choice is yours of course!

WHAT TO PAY?

Although prices for the M201 still generally lag behind the WW2 originals, Jeep prices continue to rise, with the best now regularly advertised at well over £20,000. As you would expect, dealer prices tend to be higher than private sales, but the dealer has to carry the cost of various legal obligations to protect the consumer. Although you can still find a Jeep at less than £10,000, real fixer-uppers or project vehicles are increasingly rare and don't underestimate the cost of restoration.

While writing this piece, I took a quick look at the Jeeps for sale on Milweb (www.milweb.net) and on Classic Cars for Sale (www.carandclassic.co.uk). Here's a summary of what was on offer:

- Ford GPW: six examples for sale, the lowest at £8000, the highest at £23,500.
- Willys MB: eight vehicles for sale, from £7000 to more than £28,000.
- Hotchkiss M201: five examples for sale, ranging from just over £9000 to just under £20,000.

PARTS

As regards parts, here's an idea of what you might expect to pay but obviously the price will vary between dealers. Unless stated, all of the prices quoted are for NOS or pattern parts:

BODYWORK

- Chassis: £1500
- Complete new body tub: from £1200
- Windscreen assembly: £225
- Front mudguard: £115
- Fuel tank: £210
- Upholstery set: £200
- Canvas top: £200

ENGINE AND TRANSMISSION

- Rebuilt engine (ex French Army reserve): from £4000
- Rebuild own engine (price from Jeffrey Engineering, 01233 770007): £2000
- Complete engine rebuild kit: £1200
- Set of inlet and exhaust valves, springs and guides: £175
- Carburettor rebuild kit: £50
- Rebuilt gearbox: from £1200

ELECTRICAL

- Dynamo: £250
- Starter motor: £400
- Wiring loom: £350

BRAKES

- Master cylinder: £70
- Set of brake cylinders: £100
- Set of brake shoes: £50

SUSPENSION AND STEERING

- Set of suspension bushes: £150
- Spring: £100 each
- Shock absorber: £45
- Steering box: £300
- Set of track rod ends: £70

