

AHEAD OF THE CURVE

WITH JKs ONLY LOOKING TO GET MORE POPULAR AMONG OFF-ROADERS, STU NEEDED AN EXAMPLE THAT WAS GOING TO RAISE THE BAR

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It's only a matter of time before JK Wranglers gather a cult following in Australia. Already overwhelmingly in demand stateside, they're one of the only new 4WDs left on the market that are aimed towards real off-roaders. Sporting rigid axles at either end, coil springs, a range of seating capacities and wheelbases, gutsy turbo diesel and petrol engines and with an aftermarket following that's probably the biggest and best in the world. It's not too difficult to see why they're popular now, and will continue to convert people over to the American brand in years to come.

One bloke who doesn't need to be told any of this is Stuart Murchison, who owns and operates Brisbane based Jeep specialists Murchison Products. These guys supply just about every mod under the sun for the seven-slot-grille brigade and even sell gear to Canadian and American Jeep owners! You might think that a guy who runs such a workshop would have a long list of previously owned JKs, but interestingly, despite owning a string of TJs and a fair few different models of Cherokee - this is Stuart's first of the late-model Wranglers with his name on the rego papers. "Even though I started the business

over six years ago, I held off on buying one," he explains. "I wasn't fussed on the old 3.8L V6 mill and four-speed auto in the early JK models. Plus the interior in the 2011-2012 models is much nicer. It essentially has the same appointments you'd find in a Grand Cherokee and they're just a pleasure to drive." It goes without saying that the owner of a Jeep shop that prides itself on its quality of workmanship wasn't going to leave his chariot wearing factory pants for too long. And given that Stu's a premium dealer for American Expedition Vehicles (AEV) as well as several other well known US brands, having the Jeep as a testament to what his crew is capable of makes a lot of sense.

However we suspect that using it as a promotional tool is only the excuse he uses to justify building yet another tough 4WD. He's currently building up an Off Road Evolution spec JK with King coil-overs, bypass shocks and an ultra-trick cantilever rear five-link suspension system, but let's be honest. If we had the skills, machinery and industry contacts this guy does, we'd be doing exactly the same thing! Let's take a look at this very well put together JK and show you why we reckon this one's only the tip of the iceberg in terms of highly capable Aussie off-road JK creations.



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IF WE HAD THE SKILLS, MACHINERY AND INDUSTRY CONTACTS THIS GUY DOES, WE'D BE DOING EXACTLY THE SAME THING!

1 This is the engine that Stu was holding out for before he pulled the trigger on a JK. The Pentastar V6 is a far superior motor than the 3.8L it replaced. "The V6 engine has an extra 80hp from 200c less capacity," Stuart tells us, "and it doesn't suffer from the same fuel consumption as the old minivan motor. On a recent camping trip I got 11.5L/100km on 37s and 4.54 diff gears while loaded up with camping gear." Cooling is aided by an AEV hood which increases engine bay air flow

2 The extra power from the engine is transmitted through to the new five-speed auto which is a much smoother shifting unit than the previous four-speed. It's also as over-engineered as they come. The WSAS50 transmission is a Mercedes sourced unit that's capable of handling up to 780NM of torque. "Stu says, 'so I won't need to change it over when I swap in a 6.4L V8', which will be done in conjunction with Mopar Australia in the near future."

3 The front end wears an AEV Premium winchbar that has its cradle filled



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with a Warn 9.5cti-5 electric winch which is specially designed to accept synthetic rope. There's also a Rigid Industries 20in LED lightbar connected to the bar's hoop that match the Dualy amber LEDs mounted up on the windscreen surround. To complete the package another Dualy flood light is mounted above the rear wheel carrier to prevent anything sneaking unseen up behind the Jeep

4 Being a four-door model with a longer wheelbase, roll protection is a must on any vehicle that's going to lose out on a rampover angle. Stu has bolted up a set of PureJeep Rock Rails that not only allow the JK to slide over any obstacles it can't clear. Constructed from steel tube and featuring a bunch of structural support, these sliders are considered to be among the best on the market for the Wranglers. Note the speed holes on the step have been dimple died with the dimpled section pointing upwards. Just the thing for scraping mud off your boots before you climb into the cab!

5 The back end wears AEV Rear Corner Guards for a little extra protection and there's a steel rear bar from the same company that features a swing-away spare carrier, water tanks, shovel holder, and a trick fuel caddy that conforms to the shape of the spare and slots in between it and the body, holding 46L of fuel. More than two full-to-the-brim standard jerry cans. Talk about maximising the available space



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6 When it came time to select his rolling stock, Stu knew exactly what he was after. AEV alloy Pintler beadlock rims measuring in at 17x8.5 were bolted to the hubs right after being attached to a set of the wildly popular BFG KM2 mudties that stretch the lugs to 37x12.5x17 and work well over any terrain that Stu points his Jeep at

7 Ok, as most of us know, there are very few 4WDs on the market that can accommodate 37s straight off the showroom floor and the JK is no different. With that said, Stu didn't rush out and fit any old lift to his bus. An AEV 4.5in Remote Canister Suspension System was fitted along with a high steer kit to get the steering links up and out of the way. "I like to do it once and do it right," says Stu. "We see a lot of 'internet built' vehicles that have just been built the wrong way with cheap online parts. They often come to us on the back of a tilt tray and we spend a lot of time fixing mistakes"

8 The rear suspension was raised to match the front as part of the same kit. Both ends have been fitted with rebuildable remote canister Bilstein shocks that have been frequency tuned by AEV to give the best possible ride and articulation. Interestingly, the suspension system incorporates roll centre correction, meaning the handling characteristics remain unchanged. "The attention to detail and R&D on this kit is world leading," Stu points out. "It's undeniably the best all-rounder kit available. Big wheel travel, excellent road manners, no bump steer, and strong"

9 Stock Jeep diffs and axles are by no means weak, but once you start adding hefty tyres and throwing more power at them it's not uncommon for them to let go. To prevent this from happening, Stu has built up a super Dana 30 from and super Dana 44 rear. He started by replacing the axle shafts with chromoly Nitro 4.56 gears that drop the final drive ratio to compensate for the bigger rubber. While the diffs were apart, ARB Air Lockers were added to both ends to maximise traction. The front D30 has also had Nitro sleeves and gussets welded on to the axle housing. "The whole set-up is strong and reliable," says Stu. "It's all easy to install and the warranty on these parts is excellent"

10 Inside the JK, the mods have been kept to a minimum as the late models received an upgrade that makes the cabin a pretty comfy place to spend a few hours. A switch panel has been included for the compressor, lockers, lights and winch and is situated within easy reach of the driver's right hand. There's also an upgraded Eclipse sound system and front and rear cameras that are switchable on the fly which is equally handy for negotiating tricky sections of track or the Woolies carpark

11 So what's next for this Wrangler? The previously mentioned 6.4L V8 swap will happen sooner rather than later and Stu is working in on expanding his business with a heap more new products and some exciting, if hush-hush, plans in the works. Watch this space!



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TECH SPECS

VEHICLE: 2012 Jeep JK Wrangler
ENGINE: Chrysler Pentastar V6 3.6L V6 Petrol
4WD ACTIVATION: Part time, shift on the fly
SUSPENSION: Front - AEV 4.5in

Premium Remote Canister Suspension System, Rear - AEV 4.5in Premium Remote Canister Suspension System with Roll Centre correction geometry
WHEELS: Alloy 17x8.5 AEV

Pintler Beadlocks
TYRES: 37x12.5x17 BFG KM2
OTHER GOOD GEAR: AEV Premium winchbar, PureJeep rock rails, AEV rear bar, Warn 9500lb synthetic line contact

winch, Twin Rigid Industries LED light bars, front and rear cameras, front and rear chromo axle shafts, Nitro 4.56 diff gears, dual ARB Air Lockers, AEV High Steer kit



MODIFICATION OPTIONS

BULLETPROOF YOUR DIFF INTERNALS

CARRIER
The diff carrier is the part of the assembly that your crownwheel and internal gears are attached to. Usually a cast part they are often retained when auto lockers are added to the front diff, and can become a casualty when big tyres and heavy right boots are introduced into the equation. By fitting a locker that includes a full replacement carrier, such as

a selectable locker or Detroit auto unit, you're increasing the strength of the carrier significantly...

AXLES
This now introduces increased pressure to the axle shafts. Again, most factory axles are cast and can be brittle when subjected to extreme off-road conditions. The most common remedy for this is to fit replacement aftermarket chromoly ones which is a steel alloy that is much harder than

STEERING JOINTS

With your axles and diffs sorted, the next weak link that needs attending to is the steering joints, which are commonly CV joints in Japanese and European trucks and Universal joints in American vehicles like Stu's JK. Chromoly aftermarket replacements are readily available for most popular makes of vehicle and are a worthwhile investment if you're planning on

HUBS

Last but not least are your locking hubs. Some people prefer manual, others prefer auto, and others still prefer drive flanges. Whichever flavour you choose to run, upgrading the internal gears or flange material is common among those who like to be able to beat on their diffs like it owes them money and not have them throw in the towel in the middle of nowhere.