

PRODUCT GUIDE



SUSPENSION

*Make your adventure just a little more comfortable.
Equip the best 4x4 suspension for your vehicle at
Opposite Lock.*







OFFROAD SUSPENSION

Australian designed and engineered, with much of the range still made in Australia. Opposite Lock's Offroad Suspension has you covered on the road, whether it's sealed, dirt or the unexplored.

The Opposite Lock Offroad Suspension program is the culmination of many years of technical design, started with the goal of providing a versatile and reliable on and offroad experience.

Offroad suspension has been fabricated with focus on stabilised road driving, softening bumps and reducing body roll whilst cornering.

The goal was to making a truly great offroad suspension range with a selected focus on improving driving conditions for towing,

targeting the stresses placed on the rear of the vehicle under load and instability at higher speeds.

Lifted, strengthened and redesigned from the ground up, Opposite Lock Offroad Suspension was made to make life on the bitumen more comfortable, but designed to give you a reliable and next level offroad experience.



SHOCK ABSORBERS



Opposite Lock Offroad Suspension utilises both Gas Charged Shocks and Foam Cell Shocks, depending on what's the best application for the vehicle model.



GAS SHOCK ABSORBER

Opposite Lock's gas charged shock absorbers are a rugged multipurpose design, they've been developed with diverse Australian conditions in mind. Proving to be a serious all-rounder that can perform both on and off the road for most lighter vehicles.

With a large 35mm bore tube, heavy-duty twin tube construction and reinforced double welded mountings, they keep heavy 4x4 suspension systems under control and maintain a comfortable ride with precise handling.

FOAM CELL SHOCK ABSORBER

For harsh and unrelenting conditions, foam cell shock absorbers are the ideal choice. Foam cell shocks are great for tricky offroad driving or heavier loads that requires a bit more fortitude from your suspension.

The foam cell technology virtually eliminates shock fade, which is the result of oil and air mixing inside the shock, and can dramatically reduce the performance of the part.

For the ultimate offroad ride that won't give out or bounce your head into the roof, consider foam cell shocks.

SUSPENSION



OL LEAF SPRINGS



Australian made and designed, Opposite Lock's Leaf Spring Packs are engineered for brute strength and performance.

Opposite Lock replacement leaf spring packs are durable whilst providing improved vehicle control and stability due to the fact they feature redesigned spring rates.

Certain applications have a two stage design, which provides a comfortable ride when unladen and maintains extra height when a load is applied.

Full replacement leaf spring packs are available, featuring inter-leaf friction pads and metallised sleeves to minimise binding and noise.



OL HEAVY DUTY COIL SPRING

Australian made and tough as nails, the Opposite Lock Heavy Duty Coil Spring range is made to last.

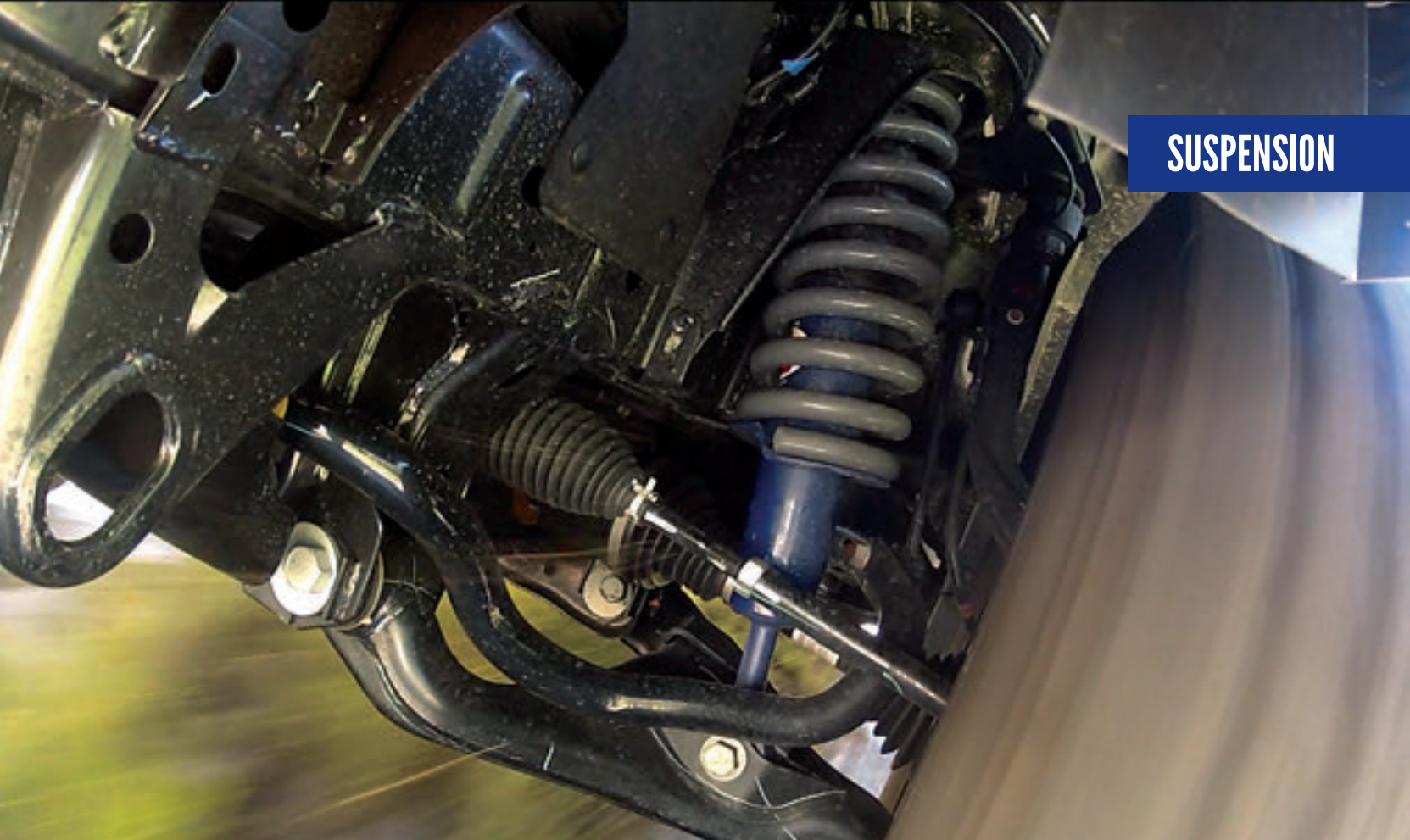
Produced to a strictly controlled design, manufacturing and testing process, Opposite Lock heavy duty coil springs are made this way to ensure they exceed the original coil tolerances and are equal to or exceed the best in the world in consistency of rate, loaded height and reliability.

Raised height coils for extra ground clearance are available for most vehicles, and higher rated coils can be used to compensate for the extra weight of a bullbar, winch, rear step or to improve load carrying or towing ability.

A properly matched coil will also dramatically reduce body roll and rolling pitch, limit body dive when braking and improve overall handling, traction and comfort on and off the road.

Heavy duty coils can also help reduce uneven tyre wear and extend the life of your shocks and bushes.





TORSION BARS



Opposite Lock torsion bars are made from the highest quality alloy spring steel and are manufactured according to a strict production procedure.

They are fully heat treated for high durability, hardness and consistency.

Opposite Lock torsion bars are made to a larger diameter than most original bars, providing a stronger rate for greater control, stability and improved load carrying ability.

GREASABLE SHACKLES



Opposite Lock's greasable shackle kits have heavier side plates.

Where applicable, some feature anti-inversion brackets as standard to avoid the potential problem of over extension of a raised leaf spring.

Opposite Lock greasable shackle kits are anodised and designed as a bolt-on replacement for most leaf sprung four wheel drive vehicles.

URETHANE BUSHES



Opposite Lock urethane bushes are the superior material choice for when high levels of suspension control and durability are required.

They are particularly suited to applications requiring heavy load carrying ability, firm suspension control, or where regular exposure to corrosive materials is expected.

Opposite Lock's urethane bushes also incorporate a special cross hatch dimple profile on the working surface to enhance grease retention.



AIRBAGS & AIR SUSPENSION
Designers & Manufacturers



A close-up photograph of the front left corner of a white car. The headlight is illuminated, showing its internal components. The car's grille with horizontal slats is visible to the right of the headlight. The car is parked on a dark, textured surface.

THE STORY

Airbag Man is proudly Australian owned and operated since 1995. In that time the company has been built on producing high quality, well designed products and has grown in popularity mainly by word of mouth from many satisfied customers.

These days many companies look to overseas manufacturing to reduce the cost of manufacture offering cheap prices but without a service network throughout the country; but at what expense to our economy and Australian jobs?

We use airbags imported from long standing, high quality overseas manufacturers such as Firestone and Dunlop. However, the airbag is only one component in our manufacturing process and it is most definitely our company philosophy to design and manufacture as many other components right here in Australia to ensure they are the highest quality for our customers needs and to ensure they perform their function long term in our harsh environment.

This policy is also very important to keep profits here for local investment and help to secure the future of Australian jobs.

We are currently processing many of our products formerly via the Australian Made process.

Richard Clamp
Managing Director

LEVELLING CONTROL FOR VEHICLES TOWING OR CARRYING LOAD



COIL-RITE™



Firestone

HELPER FOR COIL Firestone Coil-Rite airbags are designed to fit inside existing coil springs to provide levelling control to a vehicle when under load. This enables a vehicle to "level up", front-to-rear and side-to-side when carrying varied loads or when towing caravans, boats and trailers.

RIDE-RITE™



Firestone

HELPER FOR LEAF Firestone Ride-Rite airbags are designed to fit between a vehicle's chassis and the axle / leaf spring to provide levelling control, front-to-rear and side-to-side, when carrying loads or towing. Ideal for tradesman's vans and utes carrying heavy or varied loads.



HELPER FOR SPRINGS At the heart of the Load-Up kit is our microcellular polyurethane spring. The load carrying and shock minimising capabilities of the Load-Up product improves the safety and handling of your vehicle under load whilst being extremely durable.



FULL AIR COIL REPLACEMENT On-Air is full air suspension applied to vehicles with coil spring suspension. The coil springs are removed totally and are replaced with airbags. You can adjust for varying loads and road conditions by simply inflating or deflating.



SYSTEMS & COMPONENTS Airbag Man Air Control kits and components with manual, fingertip or automatic control options, provide an instant air source for all air suspension kits and products to allow quick inflation and deflation for various road and load conditions.





As the preferred premium suspension brand for Opposite Lock, TOUGH DOG have the knowledge and experience to create the right product for every user.



Setting up a 4WD suspension system isn't all about the added gains on the tape measure. Tough Dog products are specifically designed and engineered to deliver a complete suspension solution, not only for off road clearance, but for ride quality, handling and load carrying capabilities as well.

Tough Dog suspension products provide the ability to create a tailored suspension package that can transform your vehicle, regardless of how you use it. Tough Dog have developed

a product to suit just about every possible application. In most vehicles, they offer multiple shock and spring options to fine tune every aspect of a particular package as well as a range of other specialised and optional accessories.

Setting up your vehicle's suspension can be a mine-field of pitfalls, misinformation and wrong turns. The largest consideration is always the weight carried and accessories fitted. It's often the undoing of a well put together vehicle.

Opposite Lock dealers have a wealth of knowledge, backed by the 30 years of experience carried in the Tough Dog brand.

If you want to get the best out of your vehicle, gear up with the toughest suspension on the market, and get out there and enjoy it.

STEERING DAMPERS

Eliminate harshness from your steering with a TOUGH DOG steering damper. There is an option for every vehicle, at every height.

Steering feel and response is critical to vehicle stability and can play a huge factor in driver fatigue. If you are fighting to keep your vehicle on track throughout the whole journey, fatigue will take its toll much sooner in your journey.

Tough Dog steering dampers are specifically designed to combat wander and jarring through the steering, giving you back control, feeling and confidence in your steering system.

The EXT damper is a heavy duty replacement damper designed as a direct replacement of your vehicle's original unit. For light duty applications, or a replacement of worn parts, this damper is a fantastic option. Tough Dog also pioneered the RTC (Return To Centre) damper in Australia. The spring acts to keep the steering on centre over bumps and potholes, giving you superior steering control.

Our signature 'SV' damper is the only one of its kind on the market. The 9 stages of adjustment let you tune steering feel to eliminate wheel wobble. This damper is especially effective for vehicles fitted with oversized or aggressive tread tyres.



THE RIGHT GEAR FOR YOUR VEHICLE

Getting the right gear is just as important as getting good quality gear...

Choosing the suspension that is right for you can be a daunting prospect. Specialist advisers can help take the hard work out of getting the right gear under your vehicle.

Suspension is all about supporting, and controlling weight. So naturally the weight on your vehicle plays a huge roll in what needs to be fitted. The suspension that is right for a heavily loaded vehicle won't work correctly on a standard vehicle used for some offroading, holidays and towing the family boat.

Make sure you are getting the right spring for what is fitted to your vehicle. Overspringing a vehicle is one of the greatest causes of premature equipment failure.





TRADE

If you're in a trade, chances are you rely on your vehicle every day of the week. Your needs are very specific, and so they should be. Tough Dog have a product to cover just about every application, to carry just about any load.

Original equipment springs are a compromise, a "one size fits all" approach. The reality is that one spring cannot be made to do all jobs effectively.

Tough Dog leaf springs are specifically designed to cater for the load you carry around every day, regardless of what that is. Tough Dog offer comfort, constant 300kg and constant 500kg springs for most vehicles, picking the right one comes down to calculating the load that you always carry.



TOURING

Australia is amongst some of the luckiest countries in the world. The national anthem tells us "Our land abounds in nature's gifts of beauty rich and rare," And we would be mad not to get out there and experience all that this great brown land has to offer.

Australia is a big, big place, and getting across it can mean hours behind the wheel, sometimes on the roughest of roads, riddled with bumps and corrugations.

Tough Dog's foam cell technology, present in the 41mm, the 40mm adjustable and the 45mm big bore adjustable are tough enough to withstand the harsh Australian outback time and time again.

The Tough Dog steering dampers also help to take the fight out of the steering, reducing driver fatigue.



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TOUGH PLAY

There is nothing quite like conquering a tough rock step to get the adrenaline pumping.

Nothing really changes as people grow up, the only difference is that the toys inevitably get bigger and more expensive.

If you love to face the challenges a tough offroad track can dish out, the Tough Dog range of big lift solutions is the answer.

Everything from our 45mm big bore adjustable shocks, our solid steel adjustable panhard rods right through to our caster correction kits are built to last, and designed and made using only the best quality components and technology available.

Tough Dog offer a huge range of lift kits to suit every application.



NITRO GAS SHOCKS

Tough Dog Nitrogen Gas shock absorbers have been designed with control and comfort in mind. Nitro gas shocks are built with multi stage velocity sensitive valving to ensure the shock is capable of performing at any speed.

As the shock moves faster to absorb small bumps in the road like corrugations, the valving in the shock responds to maintain the ride control characteristics.



41MM FOAM CELL SHOCKS

Tough Dog's Award winning Foam Cell shock is our best selling shock for all round performance. The 'Foam Cell' that makes all the difference is a micro-cellular foam insert that helps to drastically reduce the effects of shock fade, allowing your shocks to perform better for longer, even on the harshest of corrugations.

The Foam Cell insert, with its trapped gas micro cells eliminates the possibility of bubbles forming, giving the shock unparalleled resistance to shock fade.



40MM ADJUSTABLE

The 40mm Adjustable shock offers 9 different stages of adjustment to fine tune the ride characteristics. In reality, very few vehicles serve only one purpose. We demand so much of our vehicles, and every situation will need something just a little bit different.

As well as being fully adjustable, these shocks are equipped with our Foam Cell technology, minimising aeration and cavitation to maximise the shocks ability to resist fade.



INTO THE SPRING OF THINGS

SUSPENSION

Tough Dog coil springs are designed and manufactured in Australia to exacting standards to stand up to some of the harshest conditions found anywhere in the world. Made from German X5K spring steel, Tough Dog coils can be designed with less material without compromising on quality. The spring retains its original memory even after heavy loading.

The result? A lighter, tougher coil that can handle just about anything you can throw at it.

Tough Dog's Leaf springs offer a spring pack for just about any application you might require. Our springs are a proven performer in any situation. ToughDog Leaf springs are a truly progressive rate leaf spring. Each leaf is set slightly higher than the leaf above so there is contact along the whole length of the leaf. There are single stage and two stage springs available for different applications.



COMPLETED STRUTS

Modern IFS vehicles require very high spring rates compared to traditional live axle type springs. The traditional hand held spring compressors simply cannot hold up to these huge pressures. Most IFS problems can be attributed to incorrect strut assembly.

Tough Dog assembled strut units take the hassle out of replacing the front end suspension in your IFS vehicle. These units are a direct bolt in replacement & come in a range of different spring rates to suit different vehicle and accessory packages.



45MM BIG BORE ADJUSTABLE

These Tough puppies are the largest bore externally adjustable shocks available on the market. There is nothing that can compare to the 45mm bore in a 70mm outer casing. The 9 stages of adjustment mean you can control the firmness of your shocks easily, and adapt to the conditions as required.

45mm big bore adjustable are designed for big lift applications up to six inches over factory in some vehicles.

Our Big Bore shocks also have a DU bushing fitted internally to protect the seals from damage caused by side load at full extension.



53MM 'RALPH' SHOCKS

The Tough Dog 'Ralph' shock is the largest 4WD shock on the market. We redesigned shocks originally intended for prime movers to suit 4WD applications.

The Ralph shock has a massive 53mm bore and 22mm chrome piston rod, all housed in a 70mm casing.

These big dogs carry so much oil, they will run cool over even the toughest of terrain. If you drive a fully laden off road tourer, these are the shocks for you.



GREASABLE PINS & SHACKLES

Greasable pins and shackles help protect the bushes from premature wear because of the ingress of dirt and grit. Applying grease through the nipple forces grease through the joint and out, taking with it foreign objects.

Greasable components are particularly important to vehicles exposed to outback dust, or high salt environments like boat ramps and beach driving.



URETHANE BUSHINGS

Leaf spring based suspension set ups generally have a bias leaning towards load carrying capability over ride quality. The design and composition of the shackle hanger and bushing material can make all the difference to your ride quality. This assembly is the spring's first part to move in response to uneven terrain and bumps in the road. Tough Dog urethane is stronger than rubber components and has greater longevity, and resistance to deterioration from chemical exposure. Urethane bushes respond well to greasing during operation and are created to retain flexibility for ride comfort.

When required, steel tubes in the centre of the bush are hardened and chemically treated to resist corrosion. All of this will keep your leaf sprung vehicle in positive contact with the road surface and give you better tyre and suspension component life.



HEAVY DUTY TORSION BARS

Tough Dog Performance 4WD Torsion Bars offer a spring rate that is approximately 30% higher than OEM bars.

This dynamic increase in spring rate eliminates hard bottoming out when traveling offroad and gives better handling in street applications. They can be installed with a moderate pre-load to raise the vehicle for better clearance off road, or to revitalise the handling characteristics at the standard height.

These performance-proven, easy-to-install bars are especially beneficial when oversize tyres or frontal accessories are installed.



STRUT TOPS

Apart from being available in the complete assembled strut units, Tough Dog replacement strut hats are available for all IFS strut vehicles, and can be used as a direct replacement for OEM equipment.

IFS front end vehicles rely heavily on the top and bottom bushings to support the front of the vehicle. The quality of these components is integral in maintaining vehicle height and quality ride control.



BIG LIFT SOLUTIONS

*Creating a serious off-road weapon?
Tough Dog has the answer for your big lift
requirements in live axle vehicles.*



ADJUSTABLE PANHARD RODS

Adjustable panhard rods allow the axle to be re-centred under the vehicle after the height has been modified.

Tough Dog panhard rods are bent from a single solid bar for strength, and are adjustable to cover a broad range of vehicles heights.



CASTER CORRECTION

Castor is the angle to which the steering pivot axis is tilted forward or rearward from vertical. When a vehicle is lifted, the castor angle is adversely affected because of the change in the angles of the front radius arms.

Tough Dog provide a range of products to adjust camber to suit any lift height to ensure a reliable straight steering feel is maintained.



BRAKE HOSES

Extended brake lines become a requirement for larger lift vehicles to prevent damage from stretching the existing lines.

Tough Dog offer a brake line solution in both a tradition rubber style as well as a steel braided line for improved brake pedal response and feel.

SUSPENSION





TUFF TRUCK
CHALLENGE



TUFFTRUCK 2015



17th - 19th April 2015

PLAN NO WEDDINGS

NO OVERSEAS TRIP

NO EXCUSES!

Put the date in your Diary now!
Tell your boss you want the Friday off ASAP



WWW.TUFFTRUCK.COM.AU

HUNTER VALLEY, NSW

ABOUT TUFF TRUCK

The Tuff Truck Challenge began in 2001 in a hidden valley in the picturesque Hunter Valley wine country in New South Wales - just two and a half hours north of Sydney. Initially organised by a community 4WD club made up of some real offroad competition enthusiasts that wanted an event to test highly modified four wheel drives. The original competition format set the standard for all future short-course 4WD events by combining easily accessible spectator courses in close proximity to camping for a full weekend of up-close and personal motorsport. With the desire to push vehicles to new levels of traction, flex and safety, courses have continued to be built with bigger obstacles, steeper inclines, tighter turns and slipperier surfaces.

Teams from all over Australia arrive prior to the Friday morning 8am opening when spectators flood the entrance and seek out the best available camp site for their 3 day stay before seeing the latest on offer and some show specials from a variety of industry vendors in the **Exhibitors Alley**. In the afternoon the teams and trucks are lined up for a no-barricade inspection of the amazing mechanical modifications that go into these extreme vehicles.

After some camp supper or a bite from the onsite catering options, everybody encircles the Mudrats Revenge, a man-made mudpit full of challenging bolder piles, fallen telegraph poles and enormous speed humps shaped from the huge tyres off mining trucks. With only 8 minutes on the clock, teams have to keep momentum to make it to the finish line and score full points - only a small few ever do.



Tuff Truck "hidden valley" from the air.

Over the next 2 days, teams are challenged with **9 different stages** each with their own variety of tricky obstacles. One is a narrow sandy creek bed, another has a dusty off-camber slippery slope, another has a 1.5 metre vertical rock face to conquer and each is surrounded by cheering fans and vocal critics surveying the competitors every moves. This is a tough competition for both driver+navigator and their custom built vehicle. Over the course of the weekend many trucks will not be tuff enough resulting in all-night repairs or a disappointing DNF.

A unique aspect of Tuff Truck is it's focus on families and especially kids - on offer for them is a mass of activities such as face painting, drawing competitions, wall climbing, jumping castle, reverse bungee jumping, dodgem cars even a Mini Tuff Truck remote control competition and helicopter joy flights over the Hunter Valley. Saturday night see's the valley light up with a huge fireworks show and continue with a disco.

Each year a professional media team cover the event for the Australian fans and content distribution to 4WD enthusiasts in New Zealand, USA, Singapore, Malaysia who are eager each year to see who wins the crowned Tough Dog Tuff Truck Challenge Champion.

Over the last decade the event has grown exponentially not only in terms of attendance, merchandise sales, sponsor partnerships and new competitors, but also in recognition as a unique event that must be attended to truly see why over 80% of attendees come back each year. From humble beginnings with only 33 competitors, to the 67 teams seen at the 2014 event, the Tough Dog Tuff Truck Challenge has become one of the biggest and most widely attended events on the Australian 4WD event calendar, quite simply because it can offer something for everyone.

Preparations for 2015 are in full swing with all sponsors locked in (including *Opposite Lock*) and the release of tickets sales: Visit www.tufftruck.com.au for more details and to secure your ticket to this one a year event.



3 DAYS OF EXTREME 4X4 ACTION

FLEET FITOUTS

Opposite Lock are specialists in mine compliant and commercial vehicle fitouts. With a wide range of quality products combined with local knowledge and nationwide support we are the best choice for preparing your 4x4 vehicles for the tough work ahead.



1800 624 444

80 - 81

ROADsafe™ 4WD

DRAG LINKS AND TRACK RODS

*Comp Spec – SC4140 Chromoly Steel – Solid!
38mm OD with female ends for extra strength.*

Standard from RRP \$245

Comp Spec from RRP \$345 (for Patrols & Cruisers)

TRAILING ARMS

Heavy Duty Lowers for Patrols & Cruisers with 42mm OD Adjustable & Heavy Duty Uppers with 34mm OD All featuring at least 5.5mm wall thickness A massive upgrade on the genuine 2.5mm wall thickness. Standard & Extended lengths to suit a variety of Lifts.

From RRP \$145

PATROL DROP BOXES AND RADIUS ARM SPACERS

Fix up your caster geometry or simply relocate your Front diff after a lift so the tyres don't rub on the guards!

From RRP \$150

PATROL EXTENDED SWAY BAR LINKS

Adjustable to suit lifts from 2-8" on the GQ-GU Patrol 16mm Heavy Duty Rod for extra strength & designed with Extra stud articulation in mind.

From RRP \$69

TOW POINTS

SS41 Carbon Steel Plate. Between 10-12mm plate thickness. Destruction tested during development to establish Working Load Limits.

From RRP \$75

HILUX DROPPED DRAG LINK

Correct misalignment in the steering geometry on your 2"+ lifted Hilux

From RRP \$250



**For these products and many more,
visit your nearest Opposite Lock store.**

**Check out the website
for more great products.**

*To find out more scan the QR
code with your QR reader on
you mobile device*





Roothy

ROOTHY'S CAPE YORK TRIP

When Opposite Lock HQ rang up and asked me if I'd be interested in testing their new range of Aussie made suspension I figured their timing couldn't have been better! We had a family trip to Cape York only a few weeks away and the 76 Series Toyota was still running standard springs and shocks. Original stuff does a decent job of holding the chassis off the ground but that's about it. Add a couple of years and the difference between what your truck came with and the good stuff can be incredible.

The first trick in selecting suspension is that 'Australian made' ticket. If it's not made from local steel, it's not going to last the distance given our local conditions. And sticking overcomplicated stuff under a four wheel drive might be OK for competition work but it doesn't handle the constant pounding of corrugated tracks. No, what works best in Australia is quality simple suspension. The springs need to be soft enough to allow the vehicle to flex through the rough stuff and give your passengers a decent ride all day long. And the shock absorbers need to be matched to the springs - controlling compression and rebound without dominating either. If they do, they'll overheat and fade out.

Forty years of experience fitting and servicing all the major brands of suspension here in Australia means that Opposite Lock start with a big advantage. They've seen what goes wrong right around the country and they know what's required to go where us Aussies want to go!

After helping with the fitting - spanners, I can't help it! - I was really impressed with the greasable shackles on the rear leaves, an incredible improvement over the standard stuff in both strength and flexibility. New

polyurethane bushes went in all around as part of the kit and when we measured her up the 76 had grown 53mm at the rear and 51 up front. Perfect!

Extra clearance off-road is always good but the ride home was even better. That's the thing about good suspension, you notice it straight away and every day. The ride in our 76 had smoothed right out, even those gutter glitches turned into glides!

Despite being further off the ground our truck cornered so much better it wasn't funny with minimal body roll and that lovely secure feeling of well damped spring movement. Thanks to Opposite Lock's Nation-wide warranty and support network we were able to get our initial checkup - an essential part of any good suspension fitment - done in Rockhampton on the way north.

New suspension has a habit of working itself in and loosening up a bit so a quick run over with the spanners after the first 500km is always a good idea.

Perfect, as was its performance over the next 6500km as the Cape dished out everything it had from miles of corrugations to the tough stuff on the Telegraph. No fade, no flattening of the bushes, nothing except reliable, supple suspension that handled everything we threw at it. Even the Handbrake was impressed and that's really saying something!

Now, several months later, our OL branded suspension is still making the family 76 Series feel like a sedan every day. Good suspension is the best money you can spend on a four wheel drive and Opposite Lock's own brand is the best value quality suspension I've used.