



4WDs lead to a whole new world of places to explore; that's one of the reasons why they are so popular. However, before you head off to enjoy some of those spectacular spots, you need to know how to safely and correctly recover a bogged 4WD.

For those who have been doing this for many years, you'll know there are a variety of ways to get a stuck 4WD moving again and, hopefully, the risks associated with each method. In this post, we are going to cover everything you need to know when recovering a bogged 4WD.



It's essential to know how to safely recover your vehicle. Image: Aaron Schubert

4WD Recoveries are High-Risk

Let's start with the most important factor; safety. Yes, we live in a world where safety is constantly shoved in our faces, but it's easy to be complacent and not heed the advice when out on our own time having fun. However, I will make a statement here that will hopefully encourage you to take the time to perform 4WD recoveries carefully and safely.

Since 2003, at least 7 Australians have been killed in 4WD recoveries gone wrong. In several cases, they were innocent people who stopped to offer assistance to someone they didn't even know.

Think about that for a minute. Recovering a bogged 4WD can result in some extreme forces, and if something breaks the results are catastrophic. No 4WD trip is worth your life. The good news is that with a basic understanding of the right techniques, your chances of being injured or killed in a 4WD recovery are extremely low.



The right tyre pressures will ensure you don't get bogged. Image: Aaron Schubert

Why do 4WDs Get Bogged?

4WDs become bogged for a number of reasons, but the most common is incorrect tyre pressures. When heading off-road, you should be reducing the amount of air in each tyre. This helps to cushion the ride, look after your 4WD, and increase both flotation and traction. Particularly on beaches, tyre pressures that are too high are a guaranteed recipe for a bogged 4WD.

The other common reason is simply related to clearance. If you drive over something taller than the undercarriage of your 4WD, it's going to grab – and you won't be going anywhere. Understanding why the 4WD is stuck in the first place is the key to setting up the right 4WD recovery. If you don't know why the 4WD is bogged in the first place, it's hard to pick the right recovery technique.



Traction and flotation are key when 4wding. Image: Aaron Schubert

If You're Stuck – Don't Make it Harder

One of the worst things you can do if your 4WD comes to a grinding halt is to accelerate and hope to spin your way out. Yes, you can very slowly turn your wheels forward or reverse while turning the steering wheel back and forth – but spinning the wheels quickly has your



4WD sinking even further, and a simple recovery can turn into one that takes a long time!



Stuck on a beach using Maxtrax to recover the 4WD. Image: Aaron Schubert

How to Recover a Bogged 4WD

There are many methods for recovering a 4WD, but one of the most common is by using a snatch strap. If applied properly, these are useful tools – but this method is also by far the riskiest of 4WD recovery, and shouldn't be your first option.

Other ways to recover a 4WD include using a winch, traction aids, reducing tyre pressures, digging around the vehicle, jacking the vehicle up to place sticks or rocks under the wheels, and asking a few people to assist in pushing the 4WD (where safe to do so).

4WD expert Aaron Schubert tells an intense tale of when he once became bogged in salt lake sand. Read how he went about this sticky – and stinky – situation [here](#).



A 4WD winch is a great way to recover 4WDs. Image: Aaron Schubert

4WD Recovery Order

Once you understand the risks of 4WD recoveries, the order in which you do each recovery becomes fairly obvious. Start with the options that are safest, such as reducing tyre pressures, using a shovel to clear the way, and traction aids to drive out. If that doesn't work, a winch is the next safest option, with a snatch strap following as the least safe. In many cases, the fastest, easiest, and safest way to recover a 4WD is using traction aids.

Find a list of the must-haves for your 4WD recovery kit [here](#), or check out what we have available on our [website](#).

High-Force 4WD Recoveries

There is a time and a place for high-force recoveries – and it's not every time. High-force recoveries generally refer to the use of snatch straps, but they can also include winching.



High force recoveries are dangerous. Image: Aaron Schubert

Snatch Straps

As mentioned above, the humble snatch strap is one of the most common ways to recover a 4WD. This is because they are cheap, lightweight, most people own them, and they seem simple enough to use.

In theory, a snatch strap is relatively simple to use – it's a special-rated strap that stretches up to 30% in length when pulled. This allows a recovery vehicle a bit of a 'run-up' before the towing starts to take place. Instead of one harsh yank like chains or a normal tow rope would require, a snatch strap stretches and builds up energy, then releases that energy gently.



Snatch straps should be used carefully. Image: Aaron Schubert



However, when we talk about recovering 4WDs up to 3.5 tonnes in weight, the forces can be immense. If anything breaks during a snatch recovery, the object will flick through the air at speeds of up to 400km/h. A small piece of steel suddenly becomes a deadly object – as it has been several times in the past.

When using a snatch strap, ensure it is suited to the weight of your vehicle. You want a breaking strain of around 2-3 times the weight of the lightest vehicle involved in the recovery. They should never be used in recoveries where a 4WD is very severely stuck. This mainly applies to mud, as the suction is too much to break in just a quick pull. In these situations, winching is a far better option.

That said, let's look at 10 ways to safely use your snatch strap:

1. Positioning

First, ensure the towing vehicle can become close enough to the bogged vehicle without getting bogged itself! Try to be positioned in as straight a line as possible, and ensure both vehicles have straight wheels (i.e. don't snatch a vehicle on a corner).

If the bogged vehicle is in deep ruts, ensure it has its front wheels aligned with the direction of the ruts.

Position the towing vehicle close enough to the bogged vehicle, so that both can be attached to the snatch strap without the snatch strap lifting off the ground in the middle.

2. Towing Points

Ensure the snatch strap is attached to rated recovery points on both vehicles.

Attaching the snatch strap to other parts of the vehicle including bull bars, rear tyre carriers, or even axels can be extremely dangerous, and could cause a lot of damage to your vehicle.

A tow ball is NOT a good place to attach the snatch strap; it's usually only rated to approximately 200kg in a straight-line pull. They're designed for towing, not for being shock-loaded in a 4WD recovery. They have a nasty tendency to shear off, and a shiny ball of steel is a very, very frightening object to have hurling through the air!

Use rated D-shackles to secure your snatch strap to other rated tow points.

Quick tip: If you have a 2-inch towing receiver – take out your tow ball hitch, place one loop end of the snatch strap into the receiver. Then place the Hitch Pin into position, sliding it through the loop on the snatch strap. The Hitch Pin will make a strong recovery point.



Never recover from a tow ball. Image: Aaron Schubert

3. Use a 'Dead Weight' / 'Dampener' on the Strap

Now that both vehicles are attached to the snatch strap, ensure you apply a 'dead weight' in the middle of the strap. This can be in the form of a heavy towel, or rag. Some snatch strap recovery kits come with a safety bag that can Velcro around the strap, with pockets for adding weight such as sand or dirt. You can purchase these items separately.

However you choose to do it, adding a dead weight is very important. If the snatch strap was to snap, it will recoil like a broken rubber band and could cause a lot of damage to any vehicle or person in its way. On the other hand, if the snatch strap snaps with a dead weight attached, the energy in the strap will be absorbed by the 'dead weight' and fall quickly to the ground.

4. GET OUT OF THE WAY!

While watching a vehicle being recovered with a snatch strap is interesting, ensure *all* bystanders – especially children – are well away from both vehicles and the snatch strap. When vehicles are under load as much as in a recovery situation, things can go wrong very quickly.

Well and truly bogged, with water coming in! Image: Aaron Schubert

5. Communication

A UHF is a very handy piece of equipment in this situation, as the drivers of both vehicles need to be able to communicate with each other. When using the UHF, try to use short, easy-to-understand words to minimise confusion. Using words like ‘ready’, ‘drive’, and ‘stop’ are great – but remember that yelling ‘no, no, no’ into a UHF can sound an awful lot like ‘go, go, go’!

If you don’t have a UHF radio, it is handy to use a 3rd person for communication – but this person should be well clear and use hand signals from a safe distance to signal ‘drive’ and ‘stop’.

6. Gear Selection

Recovering a 4WD puts a huge strain on both vehicles involved. Therefore, maximum torque and little speed should be applied. Almost all situations involving a snatch strap should be tackled with the towing vehicle in 2nd ‘low’, and the bogged vehicle in 1st ‘low’.

Snatch straps shouldn’t be used when a 4WD is very severely stuck – this mainly applies to mud, as the suction is too much to break in a quick pull. Image: Aaron Schubert

7. Pull Them Out!

When you are ready, both vehicles will need to quickly drive forward. The clutch should be completely out on manual vehicles by the time the snatch strap grabs – and in most situations, both vehicles will be at full power.

Before taking off, ensure the strap has approximately 1/3 of its length left in slack. At this point, both vehicles can appropriately accelerate as you would from a green traffic light. By leaving the slack between the vehicles, the strap will act as a rubber band when tensioned, ‘snatching’ the bogged vehicle out. If the vehicle is not freed the first time, try to clear the wheels of the bogged vehicle as much as possible before trying again.

8. Keep Going!

Remember – don’t stop until the vehicle is pulled completely out of the bog and onto solid ground. In some cases, this could be after several hundred metres.

When the bogged vehicle is safely on solid ground and capable of driving forwards under its own power, the towing vehicle should slowly brake while the once-bogged vehicle allows the snatch strap to fall loose before coming to a stop.

Disconnect the snatch strap, put it away, and continue on your way!

Trying to get to our recovery gear! Image: Aaron Schubert

9. Don’t Run Over the Strap

Whoever is driving the bogged vehicle needs to be very careful not to run over the strap and



catch up to the towing vehicle. This could cause many things to happen – the most likely being the snatch strap snapping and thus damaging either vehicle.

10. Joining Two Snatch Straps

In some cases, you may need to join two snatch straps together to acquire the length you need between the bogged vehicle and the towing vehicle.

The snatch straps should NOT be joined by a D-shackle; if something breaks, it will become a missile. Here's how to join them:

1. Take the loop of the first strap and pass it *through* the loop of the second.
2. Take the same loop of the first strap and place it over the second loop at the other end of the second strap.
3. When you pull the straps tight, they will be joined by the two loops in the style of a 'reef knot'. Don't tie two straps together with a knot, as the knot may fail and you may never manage to undo it again! Also, never join a static strap or rope to the snatch in an attempt to add length.



The strap will act as a rubber band when tensioned, 'snatching' the bogged vehicle out.

Image: Aaron Schubert

Imperative Safety Practices: Winch or Snatch Strap

If you're choosing a high-force 4WD recovery, there are a number of things you absolutely must do. The first is to ensure your tyre pressures are correct for the terrain you are driving on. Especially on beaches, you need to release a substantial volume of air. The general rule of thumb is somewhere between 12 and 20 PSI, depending on the vehicle's weight. From there, you'll need to reduce the force required on the recovery. This means spending 5 minutes on a shovel digging around the tyres and under the chassis (if it's belied out).



Letting air out of tyres. Image: Aaron Schubert

After that, you must use rated equipment – in good condition. This means it has a tag or stamp with a safe working load (SWL) or Minimum Breaking Strength (MBS). Never, ever attach a snatch strap or winch to a point on a vehicle that is not stamped and rated.

Everything – from the recovery point, to the shackles used, to the strap or cable – need to be rated, and in good working order.

The next step is to use recovery dampeners over the snatch strap or winch cable. These sit over the strap (preferably in two places!) and are filled with sand. If something does break, they stop the strap or cable from flicking through the air at enormous speeds.



Yellow-rated recovery points on a Ford Ranger. Image: Aaron Schubert

When you're ready for the recovery, everyone except the two drivers needs to be at least 1.5 times the length of the strap/cable away from both vehicles (in case something breaks).

Communicate between the two drivers and proceed with the recovery. If using a snatch strap, use the right gears (normally 2nd low for the vehicle recovering, and 1st low for the vehicle being recovered), and start with a gentle pull.



Pay careful attention to the amount of effort you are needing to apply to get the vehicle moving; if it's significant, you may need to establish a new recovery method.



Work as a team to set up a 4WD recovery. Image: Aaron Schubert

More to Know About 4WD Recoveries

4WD recoveries can be high-stress situations. The reality is, unless you have the tide rolling in on your 4WD, there's no need to move quickly. Don't rush, as this is when mistakes are commonly made. Work as a team – talk to each other, and ensure you are all on the same page with what's going on.

Do not add any further items than required into a 4WD recovery. Snatch straps should never be joined with shackles – and if you can get away without having a shackle at all, do so. If something does break, it means there are fewer missiles involved that could hurt or kill someone.

Lastly, a quality 4WD course is worth its weight in gold. You will be taught how to drive a 4WD, what to do when stuck, and how to recover a 4WD safely so you leave knowing all the right techniques. Snowys blogger and keen adventurer Sputnik details what he learned by taking a course in [this blog](#).



Prevention is better than cure. Image: Aaron Schubert

Avoid Getting Bugged in the First Place!

For those who have been driving 4WDs for a long time, you'll know that prevention is better than cure. Adjust your tyre pressures, drive where your vehicle is suited to, and avoid getting bogged from the get-go! It may be a bit of fun the first few times... but after that, it gets old pretty quickly.

There's nothing new or wrong with getting bogged in a 4WD. It happens hundreds of times every week. However, take the time to recover your 4WD safely; there have been enough accidents already!

Has your 4WD ever been bogged?