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From filtering out the funky flavours, to repairing ruptures from rocky roads,

we run the tap on all there is to know on water tank care in this episode of the Snowys Camping Show.

Get to know the most trusted tanks for your travel, considerations for cleaning, and how to treat that tainted taste in your drinking water. Settle in with Ben, Lauren, and Kevin from the Snowys warehouse, as they filter out the folly and talk Water Tanks 101 for caravans, RVs and motorhomes.

Short Cuts

- 00:00 - Intro
- 02:07 - What is a Water Tank
- 02:35 - Installing Another Tank
- 04:20 - Advantages of Additional Tanks
- 06:30 - Water Tank Protection
- 07:37 - Water Tank Materials
- 11:18 - Filling Your Tank
- 14:00 - Tips for New Tanks
- 15:30 - Repairing Your Tank
- 17:13 - Algae in Water Tanks
- 21:33 - Water Treatment and Cleaning
- 29:50 - Filtering
- 31:40 - Optimising Your Tank's Lifespan
- 35:12 - Hot Water Tanks
- 39:49 - Questions from Our Listeners

Mentioned in this Episode

Blogs:

[Guide to Handling Corrugations in your 4WD](#)

Products:

[Jerry can](#)

[Food-grade hose](#)

[Water bladder](#)

[Tank cleaner](#)

[Tank sanitiser](#)

Filters

Inline filter

Carbon filter

4.3L/pm pump

Handpump

Sacrificial magnesium anode

Wastewater tank cleaner

Greywater hose

Podcasts:

Ep14 – Water Source Options for Camping

Ep28 – Caravans for Beginners

Other:

Emma Shaw And Husband Thom Lap Australia In Vintage Caravan, Write A Book – Veronica Matheson

What is a Water Tank?

In the context of camping or touring, a water tank is suspended beneath a camper van or trailer. Some motorhomes also have them inbuilt.

Usually, caravan water tanks are plastic and available in several sizes. Depending on their vehicle's weight rating and capacity, some travellers keep up to two tanks while others hold three. In most cases, one water tank is already built into a caravan or motorhome – though some like to install a second.

Installing Another Tank

When fixing an additional water tank to your vehicle, it's worth considering where it would best be placed. Depending on its position, the sheer weight of a tank can upset the balance of a camper or towing vehicle.

Kevin recommends seeking professional advice first, particularly when considering a large tank in respect to a smaller van. There will need to be regard for when the tank is empty, partly filled, and full – so revisiting either your caravan's manufacturer or a service centre will ensure these weight variations are considered. While mounting the tank in the centre should be adequate, there is always the possibility of affecting the Aggregate Trailer Mass (ATM). For example, a 90L tank adds 90kg to your load – and even if it can only realistically be installed towards the back, this could affect how it's towed.

Advantages of Additional Tanks

In most caravans, water tank sizes can range from 60L to 90L. Some vans with showers hold two 90L tanks, and often a third in larger vans as a consideration within their design. The benefits that come with more than one water tank depend on the volume of water one may require.

A 60L tank can often be too small, where some campers feel the need to transport extra water in jerry cans. As lifting a full jerry is a hefty task, it's recommended to simply install a

second tank as opposed to storing additional water in multiple small water containers or cans - provided the additional tank sits within the caravan's weight rating. That said, some prefer to carry additional containers within their vehicle in the case of a leak in their main water tank. Lauren and Ben elaborate on this approach throughout [Ep14 - Water Storage Options for Camping](#).

Water Tank Protection

Despite a durable construction from hard plastic, it remains likely for a water tank fastened underneath your vehicle to cop damage from a rock - especially off-road on rougher terrain. Standard inclusions of a caravan water tank are stone guards fixed around the front, sides, and bottom of the tank. While these offer some protection, the [hose](#) connection at the rear remains exposed to potential damage. Knocking a fitting can mean losing your water supply entirely, so Kevin recommends ensuring all components are tucked away and protected.

Water Tank Materials

Most water tanks are black and manufactured from food-grade plastic, the latter assisting in preventing the plastic-like, artificial flavour. A tank made from food-grade plastic is also best used with accessories alike. For example, a regular garden hose without a food-grade feature can defeat the purpose of pleasant-tasting water sitting in a food-grade plastic tank, as the hose then taints the flavour of the water passing through. Considering this, those wondering why their water may have an unpleasant taste should first assess the features of their hose. [Food-grade hoses](#) are often white and blue in colour.

The flavour of your water can also be determined by where you're filling your tank from. Water flavour tends to vary from town to town - for example, that sourced from a city reservoir will differ to tap water from a remote town like Alice Springs. Generally, water should be safe to drink from a town - however that from a bore or an external shower block tap should first be checked if it's fit for human consumption. Based on his personal experience too, Ben suggests that water's flavour can be determined by how its mineral composition reacts with the materials of your water tank or [bladder](#).

Filling Your Tank

Topping up your tank can be done at most caravan parks, although this isn't the case in more remote areas where the water (for example, from a bore) needs treating. Coober Pedy is home to a desalination plant and charges campers for any water tank refills due to the high expense of the process.

In light of this, Kevin recommends researching, planning ahead of your road trip, and being considerate of the realistic water resources (or lack thereof) available within various towns and communities. Alternatively, [water bladders](#) and boxed water from supermarkets are a reasonable option when keeping drinking water separate from that of other uses - especially when water is scarce. For example, filling your tank with bore water is an unpleasant drinking option, and depending on where you pull up on your trip there may be limited points at which you can rinse and refill again. Ultimately, it's wise to adopt a forward-thinking approach,



establish what's available, and only take what you need from eligible sites.

Tips for New Tanks

Usually, additional preparation of your newly installed tank is unnecessary before it is first filled. The tank should have already been tested for leaks, topped up with water, and the van itself serviced.

Contrary to what some may presume, plastic particles and dust often found in new plastic containers are not an issue in the case of caravan water tanks. The tanks described in this podcast are blow-moulded, a process that forms hollow plastics leaving no machinery-made marks or debris behind.

If the flavour of the water is a concern, Kevin suggests draining the tank first and taking it back to the supplier if it continues to taste unpleasant. Otherwise - your water tank should be road-trip ready!

Repairing Your Tank

While most water tanks are made from food-grade plastic, others manufactured from stainless steel are more expensive and can pose more issues if damaged. For example, a simple leak involves removing and welding the tank - a somewhat complicated and timely task.

On the other hand, repairing a plastic tank can be far less of a concern. Instead of using the flame of a cigarette lighter to melt the plastic and seal the hole (sorry Ben!), Kevin recommends simply inserting a screw to block the cavity. For larger holes, emergency repair methods include patching the rupture using silicone - though this offers only a temporary fix, and campers should be aware of how it may subsequently affect the water's flavour.

Algae in Water Tanks

When it comes to algae build-up, owning a black tank often means we naturally follow the 'out-of-sight-out-of-mind' theory...until we notice small brown particles floating freely in our bottles, or taste a funny swamp flavour with every mouthful. Sometimes, getting on our knees with a basin of hot water and a scrubbing brush is all we feel we can do to achieve a clean tank. That aside - how does algae slime its way into our water containers to begin with?!

Algae is a type of fungus that begins as spores in the atmosphere. In this form, algae can exist for a substantial length of time before it's activated by a blend of sunlight, oxygen and moisture. Considering this, a cause of algae build-up can be that its initial spores already existed in the water source you filled your tank from.

Another potential explanation is the use of a clear filler hose. Less common nowadays, these hoses tend not to include food-grade features and their transparency allows sunlight to react with both moisture and oxygen within the walls. When the algae dehydrates, it peels away from the walls of the hose, washes into the tank, and subsequently contaminates the water. Most water tanks tend to be black, which aids the prevention of algae growth. Without sunlight permeating the tank, algae lacks the third element it requires to grow. While some



types of algae may still grow in dark environments, most variants shouldn't in a black water tank. Algae presence ultimately depends on the water source a tank is filled from, as well as how a tank's overall condition is maintained.

With either option viable, some campers either keep water inside their tank ongoing or periodically drain it away. While there are no more benefits to one approach over the other, Kevin's personal method is to always keep his water tank full. In doing so, he follows the theory that with less water comes more oxygen, leading to algae peeling away from the filler hose and back into the tank. While emptying a tank every now and again can be necessary, keeping it filled also allows peace of mind that you are consuming water from where you last filled your tank before reaching a lesser quality water source.

Water Treatment and Cleaning

From standard chlorine to silver ions, there are products available that help treat contaminated water. That said, Kevin's approach is to refrain from adding chemicals to his water tank but insists on ensuring it remains colourless. Where chlorine can potentially affect the water's flavour, decent, food-grade hoses and a quality filter is often all that's necessary. As touched on earlier, the flavour is determined by the source from which you have filled the tank, how the water has been treated, and how the water then reacts with the tank's materials.

Cleaning your tank should occur at the point you notice a change in taste or an algae build-up. The most efficient, thorough way to do so is by filling and draining the container repeatedly, flushing away any unwanted contaminants. Bioproducts for [tank cleaning](#) and [sanitising](#) options such as Milton, vinegar, or a mild solution bleach are also available, though removing the flavour they leave behind will require thorough rinsing and constant flushing. Cleaning a water tank beneath a motorhome or caravan is difficult, so Kevin recommends completely detaching it and devoting the time and energy it truly requires. In that, be thorough in and around the baffles.

Baffles are the inner features that work by preventing water sloshing within the tank. In dispersing the wave energy, they moderate the surge effect typical within unbaffled tanks. While some [smaller water containers](#) (like Lauren's chook drinker at home) can be cleaned using an aggregate such as gravel to scratch away at algae, this process is less viable for a larger caravan water tank. Instead, more appropriate methods include a high-pressure hose, or [tank cleaners](#) containing a sterilizing compound. The latter works best when applied and left to soak overnight, then rinsed from the tank the following day. Oh, and yes Ben...a giant bottlebrush would also work well enough!

While there will usually be a solution to every water worry, there are likewise prevention strategies. These include avoiding algae where possible and, in that, filling your water tank with clean water from the beginning.

Filtering

With chemicals and sanitisers, [filters](#) are another method of eliminating algae. Micro [inline filters](#) have even smaller holes for the purpose of sifting out the more minuscule particles - a classic example being the desalination process. Other effective filter systems include [carbon](#)

cylinders, which work by binding to the heavy metals in water.

In essence, how you choose to filter your water can depend on how susceptible you are to the algae toxins, which can affect some more than others. Nonetheless, as algae isn't entirely avoidable, the most cost-efficient, effective strategy to filter the fungus is via an inline filter. That said, it's often asked whether a filter is equally as functional without the pressure of a main water source. As an inline filter is designed for use with a pressure hose, those without access can instead connect the filter to their van and pump the water through using either a hand or pressure pump. Where handheld types require a little more gusto, an electric pump with a higher PSI is a more efficient alternative.

Ultimately, using the appropriate tanks and complimentary hoses is the most no-fuss strategy in preventing algae build-up and water contamination on your camping trip.

Optimising Your Tank's Lifespan

Nothing lasts forever - but with enough care and consideration, most things can get close. As mentioned earlier, your water tank is susceptible to damage beneath your van or motorhome. Positioned far enough from the ground, the risk of rocks flicking up from the more rugged roads remains just as high, and it's for this reason that off-road vans should provide stone guards as standard protective equipment.

Nonetheless, it remains true that the rear of the tank - where the hose fitting protrudes - is exposed. While most long-road vans are unlikely to stray from the radius, it's not unheard of to occasionally be signposted down a dusty dirt track. A tank guard is highly recommended to keep your tank from potential damage on tougher terrain - regardless of your route. Better still, keep all joints tight and ensure all hoses are tucked away high, fixed to the underside of your van to avoid flapping. Undergo a visual inspection for drips, and ask a friend to work the pump for any issues here too.

Just like a bed wetter only days after graduating from nappies, a leaking tank is best identified by the wet patches left behind. That said, don't mistake a leak for the breather holes simply doing their job - when water gushes out of these openings, this is an indication that the tank is full. Eventually, the running water should cease.

Regarding pumps, there is little maintenance required - for example, 12V impeller pumps for showers and kitchen use. Impeller pumps aren't self-priming, usually fixed down the outside of the tank and often attached to a small outlet or handpump. It's important to operate these with a substantial level of water sitting above, as it can be damaging to continue to run them while dry. Aside from obvious leaking, any water spouting from the top of a handpump often indicates damaged seals.

Diaphragm or pressure pumps are more efficient and pump to a higher PSI. Water pipes are maintained under consistent pressure to allow immediate water flow, though losing pressure over time has pressure pumps automatically turning on and off. When this happens unnecessarily, or they show signs of leaking, your pressure pump may need attention. Ultimately, pump maintenance can mostly be determined by visual inspection.

Hot Water Tanks

Most hot water tanks fall under the umbrella of 'pressure tanks', with pressure-release valves to prevent the tank from splitting or exploding. When the tap or lever on top of the tank is lifted to activate the valve, water under pressure begins to dribble out. It's important to ensure nothing is gumming or blocking the mechanism of the valve, as this will cause a build-up of pressure and consequently blow a hose off - or in worst-case scenarios, rupture the tank.

While stainless steel tanks don't require sacrificial magnesium anodes, steel tanks prone to rusting have protective lining that will nonetheless break down over time. An anode, measuring roughly 30cm long and 1.5cm in diameter, is screwed into the inside of the tank and works by attracting corrosive compounds in the water away from the walls of the tank. This leaves a white, chalk-like substance at the bottom of the tank that eventually requires rinsing away. It's recommended to change a sacrificial anode every six months.



Pictured left: a used sacrificial anode, half corroded away

Pictured right: an unused sacrificial anode

Most caravans hold a storage vessel for hot water. While there was once a period when one could enjoy continuously flowing hot water, gas regulations were soon introduced that ordered for hot water systems to be outside, mounted within an enclosure, and with adequate ventilation. Given that the structure of caravans didn't compliment this criteria, storage heaters were established.

Questions from Our Listeners

With so many keen campers tuning in, Lauren and Ben are eager to answer some of the questions that were posed ahead of the recording of this podcast.

One listener asked whether it's possible to build a water filter system that erases the unpleasant taste from water in inland Australia - namely Charleville in Queensland.

Kevin's recommendation is to see a filter specialist and advise them of what you hope to sift out. For example, some filters available can eradicate both smells and flavours. From there, the filter can be built into your caravan's system, where any water coming in from the tank will flow through it and into your taps.

Honestly, if they can achieve drinkable sewage water - what can't they do?!

Another query is on how iron precipitation in the tank from bore water can be prevented.

While we don't seem to have a simple answer to this unique question, Kevin simply suggests using a decent filter. Some filters include ceramic and, as previously noted, charcoal. Both remove the heavy metals and minerals found in water sources, such as bores. Ultimately, seeking professional advice and using multi-stage filters is an appropriate point to start.

Lastly, a listener asks whether a greywater tank is recommended - and if so, how they're best cleaned. Kevin advocates for a greywater system, but the most classic problem is the wastewater flowing out from the caravan and onto the ground. Greywater often consists of food particles and dirty dish water which, if left out in the open, can then attract flies about the campsite.

Some caravan parks provide drains nearby, where greywater can alternatively be directed



via a long hose. Occasionally though, lengthy hoses can slow down the flow of the drainage. A greywater tank is a viable alternative, but can nonetheless be a space invader and eventually require emptying via a hose anyway.

Kevin's greywater draining system works by keeping a bucket underneath as a catcher, with a hose attached to the bottom allowing the water to run straight into the drain. When bush camping, the alternative is to run the hose off towards the base of a tree. If your dishwashing liquid is biodegradable, this shouldn't harm the tree or surrounding plant life. Cleaning the system is as simple as using a tank cleaner and flushing the water back out beneath the tree.

Thanks for listening, tune in again for next week's episode!

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If you have any questions for Ben and Lauren, make sure you head over to our Facebook group and let us know as we'd love to hear from you.

Catch you out there!