

Grey Water Tote

Article 1

Information memo on Self Contained Vehicle Policy and Grey Water Totes

CMCA has been very proactive in recent times on the topic of self-containment, the implications for our members and the promotion of environmentally responsible camping and overnighting.

“In creating a Self-contained Vehicle Policy, the Campervan & Motorhome Club of Australia Limited recognises community concerns regarding the impact of indiscriminate disposal of waste and waste water on the environment and public health. Without the proper containment of waste and waste water, the environmental impact of RV tourists using free or low cost camping grounds will become unacceptable, resulting in councils and State governments placing restrictions on access to these facilities”.

The direction the club is taking on this topic was vindicated in research by Colmar Brunton early 2016, when approximately 90% of members surveyed thought that it was important for CMCA to take a leadership role in promoting environmentally sustainable RV tourism.

Over the last few months the club has revised its Self-Contained Vehicle policy, Leave No Trace Code of Conduct and more recently the Bush Camping Code of Conduct. Along the way we have received feedback on various issues and adjusted the policies where warranted.

On the issue of self-containment our research once again told us that 87% of members consider their vehicles fully self-contained and at least 93% of vehicles have the potential to meet the CMCA Self-Contained Vehicle Policy, which includes a plumbed sink and on-board toilet. With that sort of reach one could question as to why the need to make more changes.

The revamp was undertaken with a view to being as inclusive as possible for the proportion of members with a vehicle that may not have met the previous criteria, but wanted to use facilities that were designated as “self-contained vehicles only”, by either CMCA (at CMCA RV Parks) or other controlling authorities. Members may not see an immediate need or benefit to seek accreditation and display that on their vehicle at all times, but we are seeing an increasing number of facilities that are promoting that qualification.

To assist our members who struggled with the original criteria to drain their grey water to an on-board fitted grey water tank it was decided to include the use of external (non-fitted) grey water tanks which are commonly referred to as totes. Tote tanks are commercially manufactured for the collection and transfer of grey water to waste disposal points such as dump points and sullage points in commercial parks and camp sites. They range in price from \$50.00 to \$150.00 and many of our members have already purchased such units. In most instances these units are imported and the setup and or fittings are not readily compatible or adaptable with Australian RV fittings and connections.

Members were quick to tell us that they could produce a suitable unit of comparable quality to be “fit for purpose” and do the job adequately. To that end it was decided to make a number of prototypes and finally a very affordable and practical unit was developed. It should be stressed that this is just one design that has been “tried and tested” on the road over many months of use and proved to be extremely efficient.



A major advantage of this designed tote is that the components are readily obtainable at any good irrigation supply shop or helpful hardware store. The parts list used in this design are attached and images of the unit and its parts are also included.

Any RV needing to discharge grey water in an appropriate manner will have now, or need to have a shut-off valve to attach either a drainage hose or a drainage hose connected to the tote.

The reality is we don't live in a perfect world re sizes when it comes to plumbing connections and fittings on Motorhomes, Campervans, Caravans and Camper trailers.

Hence the starting point for any tote connection will be a shut off valve. The SCV policy states "A tote shall be connected to the vehicle by a drainage pipe with a water tight seal and have a working shut off valve to avoid overflow".

The most common shut off valves have a twist or lever action.



They are made of PVC, brass, alloy or stainless steel etc. and costs can vary from \$7 - \$25.00. The most common sizing used is 1 Inch or ¾ Inch BSP Threaded.

"British Standard Pipe (BSP) is a family of technical standards for screw threads that has been adopted internationally for interconnecting and sealing pipes and fittings by mating an external (male) thread with an internal (female) thread. It has been adopted as standard in plumbing and pipe fitting, except in the United States, where NPT and related threads are the standard used."

Most motorhomes coming off the production line today will have a grey water shut off valve fitted. When the writer purchased a well known motorhome brand in 2008 it only had a drainage hose from the grey water tank and no shut off valve. As can be seen from the image above a shut off valve was retrofitted and is the starting point for any connection. A large proportion of caravans on the road and manufactured today, do not have fitted grey water tanks for reasons we will not discuss here. The tote concept is a way in which these vehicles can access those facilities that are deemed for "self-contained vehicles only" by either CMCA or other controlling authorities.

Once the shut off valve has been fitted it is recommended that a Camlock attachment is used for attaching to the shut off valve and the drainage hose.

The next document will describe and illustrate the various components of the tote and how they are assembled.