



IN HOT WATER

JOHN WICKERSHAM FEELS THE HEAT WITH ONE OF THE MODERN CARAVAN'S MOST IMPORTANT PIECES OF EQUIPMENT

I NEVER mind boiling a kettle as a prelude to washing the dishes. That's what we did in our very first caravan and 40 years later I'm still content to do the same. Since our current caravan is nearly always used on sites equipped with washrooms and showers, its water heater seldom gets used.

Of course, the absence of a water heater wouldn't suit caravanners using the Club's CLs or attending rallies.

Neither does it suit motor caravanners who like to escape from the crowds. When walking down mountains in miserable weather, I'm glad to get back to the car park and a motor caravan equipped with a shower.

Most caravans and motor caravans are fitted with water heaters, whether we want them or not. Typically they run on gas, mains electricity or diesel fuel from a motor caravan's tank.

IMPLICATIONS

Having enjoyed caravanning without a water heater myself, this isn't as bad as it seems. Since most modern water heaters are storage types, as opposed to instantaneous models, their installation means:

- The weight of water takes up payload (unless you drain it down before taking to the road)
- The weight of the appliance itself takes up payload

1. This cut-away heater is used when training Truma service specialists

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2. Water heaters often occupy a lot of space; this is the lower part of a wardrobe



3. Electronic controls are commonplace and operation relies on a good 12V supply



4. Whenever there's a chance of frost, it's essential your water heater has been drained down



5. A manual tap on a Truma Combi is also triggered electronically in low temperatures



6. Trumatic combination heaters embrace space and water heating but they're bulky items



7. Some combined Eberspächer systems include a copper cylinder with a 230V immersion heater



8. Eberspächer Hydronic diesel units provide both space and water heating and can be operated while driving



9. Water heaters like this Carver Cascade need periodic service checks

10. Like all gas products, Truma's latest heater must only be serviced by qualified persons



- A water storage appliance uses a significant amount of space
- There's a need for gas or diesel fuel connections
- Electronic control systems rely on a good 12V supply
- There has to be a 230V supply to use a mains option
- Draining down water in frosty weather is critically important
- Routine servicing work must be carried out as prescribed
- Automatic water release on a Truma Combi in low temperatures can take users by surprise

Water issues – using a Truma Ultrastore 14-litre model as an example. Weight of water = 14kg/30.9lb. Empty weight of unit = 7.3kg/16lb. Total = 21.3kg/46.9lb. The Club recommends that, ideally, you should drain down a water heater before taking to

the road and that if your vehicle's payload allowance is really tight, you may have to.

Battery supply issues – 12.4 to 13.8V is required. Control panel green light fails if DC Voltage falls outside 10V (min) and 16V (max) range. The 12V current consumption for ignition is 0.17A.

Gas issues – some recent caravans/motor caravans fitted with 30mbar wall-mounted regulators (post 1 September 2003) have been troubled by gas blockages as reported in this magazine. This obviously upsets the operation of gas appliances.

DIFFERENT TYPES OF HEATER

1. Instantaneous heaters

Although storage heaters are universally fitted today, wall-mounted instantaneous heaters like the Morco and Rinnai products had some good features. The ones I installed in caravans and campervans worked well, although the ventilation issues raised concerns. Appliances with exposed gas burners draw oxygen from the living space: an internal flue means that products of combustion are released inside as well.

2. Storage heaters

In contrast, the Carver Cascade and the Truma Ultrastore appliances both heat and store water in a cylinder. They run principally on gas and use external combined combustion air intakes/exhaust outlets which are mounted on a sidewall. There are versions of both products offering a 230V heating element, too.

External outlets also feature on Truma C4002 and C6002 Combination space and water heaters. The EL and EH versions have a 230V heating collar and these Combi appliances store 12-litres of hot water.

3. Diesel heaters

Some motor caravan manufacturers utilise heaters which run on diesel fuel from the base vehicle's tank. Eberspächer and Webasto are the familiar names here. Murvi introduced purpose-designed Eberspächer systems in its van conversions. My motor caravan has an Eberspächer insulated copper tank with a central coil, like the types fitted in many household airing cupboards; it has an auxiliary 230V

immersion heater, too. That's for back-up, though, because water is heated by either the engine when driven or by a compact diesel heater that operates both on the road and on site.

So there are various hot water appliances and provided they're serviced as recommended, they usually work well.

TECHNICAL ISSUES

Although a torch battery is often fitted to ignite a pilot light on an instantaneous heater, the ignition and electronic control systems on other appliances normally require a 12V supply. In fact when heaters fail, it's often caused by an electrical fault.

A nearly-empty gas cylinder is another reason for failure. Sometimes there's enough gas to ignite a pilot flame so you presume the cylinder's fine. In reality it's on its last legs and the main burners don't light as they should.

Exhaust blockages cause failure, too – especially when the owner forgets to remove the cover outside. Am I the only one who finds Truma's Type 2 Ultrastore covers a job to unclip? Anyway, there's a removal tool in the catalogue at £5.42, and the Type 3 cover (post July 2006) is more finger-friendly.

Of course, problems also arise when appliances cease production. For example, the Carver Cascade was especially popular and its design doesn't take-up much space. Although it's nearly 10 years since Carver ceased trading, there are many Cascades still giving good service. Specialists like Arc Systems in Nottinghamshire not only carry spares for Carver products, but also carry out repair and maintenance operations.

There's also the Henry GE, a recreated version of the Cascade. Its dimensions are the same and a Henry is often fitted when a Cascade model fails. Many of their respective parts are apparently interchangeable, too.

Don't forget, however, that unqualified owners must never try to repair complicated gas appliances. In theory it might sound easy to clean and reset the 2.5mm gap on a spark electrode, but heaters are extremely complex so it's a job for qualified fitters. ■

INFORMATION CONTACTS

- Alde International (UK) Ltd – tel 01933 677765. Central heating systems
- Arc Systems – tel 0115 921 3175. Spares/repairs for all types of Carver heater
- Caravan Parts.net, Unit 5, Grovehill Industrial Park, Beck View Road, Beverley, East Yorkshire HU17 0JW. Supplier of the Henry-GE water heater
- Eberspächer (UK) Ltd – tel 01425 480151. Petrol and diesel-fuelled space and water heaters
- Morco Products Ltd – tel 01482 325456. Water heaters
- Propex Heat Source Ltd – tel 023 8052 8555. Malaga Mk II water heater
- Truma UK – tel 01283 586020 (end-user), 01283 586011 (warranty). Water and combined appliances
- Webasto Products UK – tel 01302 322232. Diesel-fuelled DualTop system