

Loo and behold

JOHN WICKERSHAM reveals what is involved in a cassette toilet installation

Thetford's fixed cassette toilet was introduced in the 1980s. It immediately received approval and soon became a standard item. How appropriate to be able to remove a waste tank from outside instead of having to carry it out through your kitchen!

But fine though it was (and still is), the designers of this splendid throne didn't stay complacently glued to their seats. To begin with, Thetford's 'bench-style' model tends to dominate a washroom and limit the layout possibilities. It also claims a lot of floor space – which is why you often find

one fitted beneath a tip-up wash basin. I've got this arrangement in my own caravan and the two tier facility can cause problems if you have an unplanned nocturnal need. That's because the act of tipping up a wash basin can awaken other sleepers, especially if you forget to move the soap.

So to help any lads who find it hard enough to lift the seat, never mind a wash basin, Thetford introduced swivel bowl versions in 1994. These models not only occupy less floor space but the swivelling bowl can improve access in the smallest room of all. And even better, Thetford created a mechanism whereby the bowl locks automatically during each seated performance. That clever bit of engineering prevents wayward infants from carouselling in circuitous abandon when their mind should be otherwise focused.

Different models

It's no surprise that anyone who owns an older, free-standing Porta-potti would much prefer to change it for one of these more convenient conveniences. And quite often that's possible – as I've found to my advantage on several occasions.



■ Swivel bowl models take up less floor space which is very helpful when a toilet cubicle's being designed

Nevertheless, before going ahead with a fixed cassette installation, it's important to recognise that there are quite a number of models. For instance the bench type products come in left and right hand versions to suit near-side or off-side cubicles. You'll appreciate that the external access hatch needs to be on the correct side for your particular van.

They also used to come in different colours, although you can now only get 'bog standard' white. Then there are versions with a manual flushing facility whereas other models run with an in-built electric pump.

On the swivel bowl front, there's yet another variation. Some models are made to draw the flushing water from the same built-in fresh water tank which serves all the taps. That version is more commonly found in motorhomes although it could equally be fitted in

those caravans which have fixed on-board water tanks – like some of the Swift and Bessacarr models. The only trouble here is that if you like to use Thetford's pink flush additive to keep the loo bowl in shining nick, you'll also have pink water coming from the taps on your sink. It's not the best additive to have in a cup of tea.

And that's why most caravan installers use a model which has its own built-in flush water tank. On the bench-type versions the top-up point is just inside the hatch door whereas on swivel bowl models you'll see a separate fill-up point just above this door.

In consequence, if you plan to have an older caravan upgraded by fitting a fixed cassette toilet, critically compare the products and take careful washroom measurements.



■ A separate filler hatch on a swivel bowl model

So what does an installation involve?

Let me assure you that Thetford's installation instructions are detailed, easy-to-read and very precise. For that reason, I don't intend to repeat a punch-by-punch account here. In contrast, the photographs alongside are used so that you can gain an insight into some of the more important elements.

And how long would the job take? Well as a rule, an experienced engineer can usually fit a cassette toilet in around three to four hours.

Points to take into account

1. One point you might need to check is the shower tray. On a friend's caravan, I had no choice but to cut away part of the tray in order to house the toilet. With a lot of effort and a tube of Sikaflex I could have re-modelled the acrylic capped plastic tray to create a revised shape. But the



■ Where space is limited, a Thetford 'bench-style' toilet is often mounted below a lift-up wash basin



■ The ceramic-lined bowl of the new vacuum model from Dometic marks the latest development in caravan cassette toilets

owners didn't want this carrying out because they always use the showers on caravan sites. So I just had to cut away the sections where the bench toilet would sit. Photograph '1' shows how the tray was reduced in size using a woodworking knife, a steel rule and patience aplenty.

2. Have a good look at the key features of the unit before proceeding with the installation. On this job I was fitting a swivel bowl model with an electric flush and its own in-built water tank. You'll notice in photo '2' that the filler hatch and pipe is connected to the body of the product with an O-Ring coupling. However, this photograph also clarifies that the position of the filler hatch on the outside wall of the van is critical. Get it wrong and it won't align with the sleeve on the assembly that's mounted inside the caravan.

3. To ensure the installation inside is correctly positioned relative to the hatches fitted outside, Thetford provides paper templates. Hence the location of a separate filler hatch on a swivel bowl model starts by using paper templates that you temporarily tape on the inside. Working from within the toilet cubicle, you drill through the sidewall of the caravan at the marked points on the template and leave the twist drill (or temporary nail) in the two holes you've made (photo 3). A further



■ The vacuum mechanism and chemical-free cassette on Dometic's new product can be mounted in a bed box if required

step-by-step



1. Reducing the shower tray in size to make space for the toilet



2. Ensure the filler hatch on the outside is correctly positioned



7. Carefully cut round the template border line with an electric jigsaw

paper template is then mounted on the outside of the caravan using the projecting drill bit or nail to achieve an accurate location. Now you can draw around this to show the cutting point (photo 4). Finally, before making the cut-out using an electric jigsaw, always stick masking or electrical tape on either side of the cut-line so the sole plate of the machine doesn't mark the caravan's skin (photo 5).

4. Now let's look at the main hatch preparation work using photographs taken from a bench toilet installation – although there's much in common if you're fitting a swivel bowl

product. It again starts with a photo of the outer template whose function is to ensure that the aperture is cut in exactly the right place to marry-up with the toilet structure inside (photo 6). Thereafter, plastic electrical insulation tape was applied on either side of the cutting line to protect the caravan's paintwork from the sole plate of the jigsaw (photo 7). The section you remove has to be kept for later installation within the frame of the access door (photo 8). Now you need to strengthen the aperture and I started by cutting away about 25mm (1in) of the wall's insulating polystyrene around the opening (photo 9). On older models, the insulant in the

Future developments

Thetford isn't the only specialist in the cassette toilet business. Models have been made for some time by Fiamma. And now Dometic has launched a rather impressive 'Advanced Vacuum Technology' toilet. However, for the time being, if you want a cassette toilet fitted, I suggest you talk to your dealer and also contact Thetford for further product information. Alternatively if you've got plenty of DIY experience, installing one yourself is certainly worth considering.



3. Drill two holes in the sidewall leaving one drill bit in place



4. Draw round a template using the drill bit as a positioning guide



5. Masking tape protects the caravan's paintwork when cutting



6. Positioning the template correctly is extremely important



8. The section of sidewall removed needs to be kept safe for later installation within the frame of the cassette toilet access door



9. Strengthen the aperture by cutting away the wall's insulation



10. A wooden frame fits inside the void and is bonded in place



11. Ribbon sealant ensures the frame and door are water-tight



12. Doors opening this way round could blow open in the slip stream



13. Make sure the hinge side of the door is nearest to the front of your caravan. Screw the toilet door in place on its bedding of sealant

wall void is likely to be glass fibre quilt which can simply be compressed. Then a frame formed of four wooden inserts was prepared to fit snugly within the void and a sealant adhesive like Sikaflex 252 is ideal for bonding the wood into place (photo 10).

5. The framed and pre-hinged doors supplied by Thetford obviously need to be thoroughly water-tight. I realise some professionals use a non-setting mastic that's applied from a cartridge gun. However,

I prefer to use a ribbon sealant such as the type sold at caravan accessory shops under the W4 brand name. You can cut this to the width you want and here the product is being carefully and precisely positioned around the aperture (photo 11). Meantime the spare piece that was cut from the van's wall had been mounted within the door frame.

6. Now for my silly mistake – or nearly. For the sake of a photograph I offered up the door to the aperture – and

can you spot my mistake? The door assembly fits either way up within the aperture and I had positioned it upside down (photo 12). In this illustration, the catch on the door is on the leading edge (as the caravan is towed forwards along the road), and that means that the slip-stream could blow a poorly latched door open and rip its back on its hinges. So photo '13' shows which way round it needs to be offered-up – and finally screwed into place on its bedding of sealant. The hinge side of the door

should always be nearer to the front of your caravan than the catch side.

Another point worth mentioning is that there are 12V electrical connections to make if you're installing a model with an electric flush.

information

Thetford Ltd
Unit 6, Centrovell Estate
Caldwell Road
Nuneaton, Warwickshire
CV11 4UD
Tel: 02476 322700