

3-Year Update to the book “MY Minicamper Conversion” ***by Charles Mathys, www.myminicamper.com***

This write-up is an update for the book titled *MY Minicamper Conversion*, which was first published in May 2010. The main areas in need of updating are the specifications of appropriate 2013 minivans for an RV conversion and the camping accessories, in particular, the Igloo, 26-quart “Picnic Basket” cooler which is no longer available.

Since 2000, which was a banner year for minivans, the sale of minivans has continued their slow but steady slide from 1.37 million to less than 600,000 in 2012. Proliferations of SUV’s (some with 3 rows of seats) and Crossovers which now have better mileage and riding qualities have replaced many minivans. The minivans are becoming outdated and are considered “Soccer Mom Wagons” which is less than cool.

Consequently, Volkswagen which had a small portion of the market has pulled out and will not have a minivan model in 2013. (Their vehicle was built by Chrysler and was basically a duplicate of the Dodge Grand Caravan). Kia and Hyundai had combined their minivan operations but after visiting both dealerships I found out that neither had any 2013 minivan models to sell. In 2014, Chrysler will field only one model which will be the Dodge Caravan.

THE 2013 MINIVANS

The other major manufacturers, Chrysler/Dodge, Toyota, Honda and Nissan will continue to sell minivans. The latest Chrysler/Dodge models came out in 2010 while the Toyota Sienna, the Honda Odyssey and the Nissan Quest were new in 2011. The specifications of the Toyota, Honda and Kia changed very little in the last 3 years. I added a column named “2013 Volume” to the chart shown in the book to indicate the changes that have taken place in the overall size of the vehicles.

Minivan Name	Wheelbase	Length	Volume	Weight	2013 Volume
Chrysler/Dodge	121.2 in	202.5 in	143.8 cu.ft.	4335 lbs	143 cu. ft.
Toyota Sienna	119.3 in	201.0 in	148.9 cu.ft.	4270 lbs	150 cu.ft.
Honda Odyssey	118.1 in	202.1 in	147.4 cu.ft.	4387 lbs	148.5cu.ft.
Kia Sedona	118.9 in	202.0 in	141.5 cu.ft.	4387 lbs	*
Nissan Quest	124.0 in	204.1 in	148.1 cu.ft.	4293 lbs	119 cu.ft.

* No longer available

As we can see, the 2013 minivans are marginally larger in all makes except the Nissan Quest which appears to have shrunk considerably. In fact, the size of this new minivan is the same as of previous generations but now that all the seats fold forward, the distance from floor to ceiling is reduced by the height of the folded seats, hereby reducing the volume.

The weight of the new minivans is within 50lbs of the previous models except for the Chrysler/Dodge which has gained about 150lbs to 4510lbs. This may be due to the new feature of the post-2010 models. The second row seats fold into the floor and the third row seats fold into the rear well thereby providing a flat 4X8 foot floor.

New models are still being planned. There is quite a bit of excitement in the trade papers about the new 2014 Honda Odyssey which will feature a built-in vacuum cleaner.

THE WELL SIZE OF THE 2013 MINIVANS

An important feature for the inexpensive conversion of a minivan into an RV as described in the book is the size of the well in the back part of the vehicles. I measured the wells of each of the 2013 vehicles and found that the wells of the Toyota and Honda have not changed much from the ones described in the book. Basically, they measure 26 by 48 inches and are about 12 inches deep at the edge of the lift-gate.

Because of the contour of the well, coolers will fit better in some models than in others. As shown in the pictures in the book, the best fit was in the Toyota and the Kia. I found that is still the case, when I placed a cooler in each of these vehicles. The rear part of the well bottom of the Odyssey models tilts up slightly causing the cooler to tip forward slightly. This is still the case but due to the deep well, the top of the cooler is still below the edge of the liftgate lock, when the cooler is leveled.

The fit of the coolers in the Nissan Quest is better than in the previous generation. The depth, which is now 17 inches, can handle a very deep cooler. The front to back distance of the well is only 21 inches (about 5 inches less than other minivans), it does cut down on the storage space for camping gear. On the other hand, remember that the third row seats do not have to be removed to turn this vehicle into a camper. When this minivan is not used for camping, it can carry seven people.

The fit of the coolers in the new Chrysler/Dodge models is better than in the previous generation (the picture in the book is of the previous generation, pre-2010). The well is 11 inches deep and 26 inches wide by 48 inches. Chrysler has a major advantage: with the "Stow and Go" storage of the second row seats into the floor, it provides a full 4 by 8 foot flat surface for sleeping accommodations.

The following chart indicates the changes to the wells of the 2013 models. Except for the Quest, the changes are minimal. As mentioned in the book, when shopping for a minivan to be converted to an RV, bring a cooler with you and check the fit before making a final decision.

Minivan	Length x Width	Depth To Floor	Depth To Edge	Distance to Front Seat	2013 Changes
Chrysler/Dodge	2x4 feet	9.5 in.	11 in.	96 in.	11 in. Deep
Toyota Sienna	2x4 feet	10 in.	12 in.	76 in.	11 in. Deep
Honda Odyssey	2x4 feet	10 in.	12 in.	74 in.	12 in. Deep
Sedona	2x4 feet	10.5 in.	12 in.	74 in.	No longer avail.
Nissan Quest	20 in.x4 feet	9 in.	12 in.	96 in.	**

** The changes in the new Quest model (starting in 2011) were significant for the use of this van as a camping vehicle. The two rows of rear seats fold forward and down flat on the floor providing a 4x8-foot flat area which can be used for sleeping. Unlike the Chrysler Town and Country, the third row seats are not stored in the well so that the camping gear does not have to be removed from the well to make room for the seats. For those who need a 7-passenger vehicle when they are not using their minivan for camping, this is the perfect solution. The 17-inch deep well makes it easy to find a cooler for the RV conversion. It can be performed using either the generic design in the book or the one described later in this update as a guide. The only penalty paid for this remarkable seat transformation is that the distance from floor to ceiling which is 41 inches compared to 46 inches in the other minivans.

THE CAMPING ACCESSORIES

As I mentioned before, the Igloo's 26 quart "Picnic Basket" measures 19 by 12 ½ inches and is a bit less than 12 inches high. It fits very well in several vehicles but it is no longer available at Target. I have checked other outlets on the Internet and they are all out of stock.

Igloo is the country's largest manufacturer of coolers with 153 different models of which 40 are intermediate sizes. The "Picnic Basket" is not listed anymore. The closest size to the "Picnic Basket" is the Marine 25 which has been Igloo's most popular cooler for 40 years. It measures 19 by 11 ¼ inches and is 13 inches high. The height is somewhat of a problem but if the carpet and padding are removed from the area where the bottom of the cooler rests, it can be used. Walmart sells these 25 quart coolers for \$19.88.

Some of the other manufacturers of coolers are Coleman, Rubbermaid and Yeti. There are also numerous other coolers: some with soft sides or folding sides, some with wheels as well as throwaways in plain Styrofoam. They were not researched further, nor was the Yeti cooler which costs over \$200. Other cooler possibilities are discussed below.

The closest Rubbermaid cooler to the Igloo is the highly rated 24-quart size, which measures 17.x12.4 inches and is 13.3 inches high. It is somewhat small and somewhat high. But the hinged cover could be replaced with a ½-inch plywood cover which would bring the height down to 12 inches.

Coleman offers several good replacement possibilities. The 28-quart size with the large handle (not the chest model with molded handles) measures 19.7x12 inches and is 13.7 inches high. Except for the

height, the size is a very good. The cover can be easily detached at the hinge. As with the Rubbermaid, it could be replaced with a plywood cover to bring the height down to 12 inches. This cooler is available at Walmart for \$19.98. The same cooler is available in a more durable construction as a “Marine Cooler” of the same size. To hold a plywood replacement cover in place and add insulation at the same time, I would glue (with spray contact cement) a layer of ½-inch thick Styrofoam inside the plywood cover so that the edge of the Styrofoam provides a tight fit against the inside of the cooler.

Finally, Coleman offers 2 low profile coolers called “Party Stacker”. Both are 22 long by 13.5 inches wide, the smaller one is only 8.5 inches high and hold 24 cans, the larger is 11.7 inches high and holds 48 cans (35 quarts). The height is fine but the length is greater than optimal: two of these coolers placed side by side would only leaves 4 inches between them for the organizer. Another “generic” design which broadens the selection of coolers for various makes and generations of minivans is described below.

A SECOND GENERIC DESIGN FOR THE MINIVAN CONVERSION

The Toyota Sienna conversion was greatly influenced by the desire to make the camping conversion without any changes to the vehicle. After the third row seats are removed, the original anchors for the seats are used to attach the partitions and the special hinges used for the plywood lid. With minor adjustments to the dimensions, this can still be done with a cooler very close in size to the “Picnic Basket”. For vehicles other than the Sienna, the generic design provides a guide for the conversion of numerous other minivan models.

A second generic design described below makes it possible to convert many more minivan models and it also allows a greater selection of coolers. Basically, the idea is to replace the second cooler which was used to store non-perishable groceries, with a plywood box which is dimensioned to fit in the room left over after the cooler for perishables is installed.

For example, imagine using the large, 35 quart Coleman “Party Stacker” which is 22 inches long for the perishables. The available space across the well is 48 inches so, if we built a grocery box 22 inches in length, 4 inches will be left between the cooler and the box, enough room to stack 3 or 4 rows of cups or glasses. At the other extreme of coolers sizes, is the 24-quart Rubbermaid which is only 17.5 inches long. In this case, the grocery box could be as much as 26.5 inches long and still leave 4 inches for cups and glasses.

The grocery box would have the same height and width as the cooler so that the lid covering the camping cargo can have a straight edge and form a flat surface for the sleeping pads. The corners should be reinforced with 1x1 strips so that the corners can be rounded off for a better fit in the van. We have the necessary room for the storage of the cups between the cooler and the box, but we still need to find a space for the other items in the organizer such as the plates, condiments and utensils. I would suggest a handy location inside the grocery box on each side of the box.

I would attach a 2-inch wide, ½-inch thick board across the left side of the box about 6 inches from the top. The partitions to provide cubby holes for utensils can then be built of ¼-inch plywood (as the organizer partitions were) and attached to this 2-inch board. On the other side of the box, a 5-inch wide, ¼-inch plywood retainer can be installed for the full width of the grocery box to hold a variety of paper plate sizes in place.

The grocery box has two more functions: it must keep the cooler in place and it must be capable of supporting the rear edge of the lid. A partition such as shown in the plans is needed to keep the cooler firmly against the rear and the left side of the minivan. A 1x4-inch board about 4 feet long is all that is necessary. It can be attached at the bottom of the grocery box with 3 – 1-inch drywall screws (attached from the inside of the box). A short 1x4 of the same length as the width of the cooler is attached to the bottom 1x4-inch partition with 2 – 2-inch screws at a right angle to the first partition. It is used to hold the cooler tightly against the left side of the van. A second 4-foot, 1x4-inch board attached near the top of the box with 4 – 1-inch drywall screws should be located so as to support the lid at a slight rising angle for the support of an inflatable mattress or pad. The other end of each of these 3 partitions is attached to the vehicle with a ¾-inch angle bracket.

CONCLUSION

1. The number of new minivans sold in the US is decreasing but there is still plenty of competition between the 4 active manufacturers. Two of these: Toyota and Honda continue to build the standard minivan with a large 8-cubic foot well and second row seats which fold forward. Toyota and Honda offer 8-passenger vans which provide as much seating room as a large sedan or an SUV even after the third row seats have been removed for the camper conversion. The Chrysler/Dodge minivans have a clever way of folding the second and third row seats into the floor, this “Stow and Go” feature provides a 4x8-foot flat floor. The well is slightly shallower than the other vans thereby restricting the size of the cooler and the camping equipment. Nevertheless, by storing some of the camping equipment in back of the front seat, a very roomy and useable RV conversion can be built.

The Nissan Quest has the best of both worlds: when both rows of rear seats are folded forward, a 4x8-foot floor is provided as well as a large and deep well for camping gear without removing the third row seats. The only price that is paid for this extraordinarily useful feature is that the floor to ceiling distance is 41 inches compared to an average of 46 inches in the other vans

2. The camping accessories: sleeping pads such as the Eddie Bauer (now called Therm-A-Rest) etc... are still widely available but the Igloo 26 quart cooler is no longer sold at Target nor on line at the Igloo website. As far as I can tell, there are no low profile coolers 19x12.5 inches in size that measure 12-inches in height. There are plenty of 24-, 25- and 28-quart coolers whose sizes are very close. Such as the 25-quart Igloo Marine measuring 19x11 ¼ inches and 13” high or the 28-quart Coleman measuring 19.7 by 12 inches and 13.7 inches high. (The cover of this cooler should be modified to reduce the height).
3. A third design for an RV conversion using a custom-made grocery box is also presented in this 3-Year Update. It involves building a plywood grocery box to be used instead of the second cooler for non-perishables. The size of the box can be adjusted to match the size of the cooler and the space available in the minivan to be converted. Such a box could be used in conjunction with a larger cooler such as the low profile 35-quart Coleman “Party Stacker” which has the correct height (11.8 inches) but is longer and wider (22x13.4 inches) than the optimum size.

*Enjoy the great outdoors! ~ Charlie
Order your copy of the original book at Amazon.com.*