

Tools on Board

A builder's truck or van is a mobile workshop. Here are five approaches to making the most out of that valuable space.

BY CHARLES BICKFORD

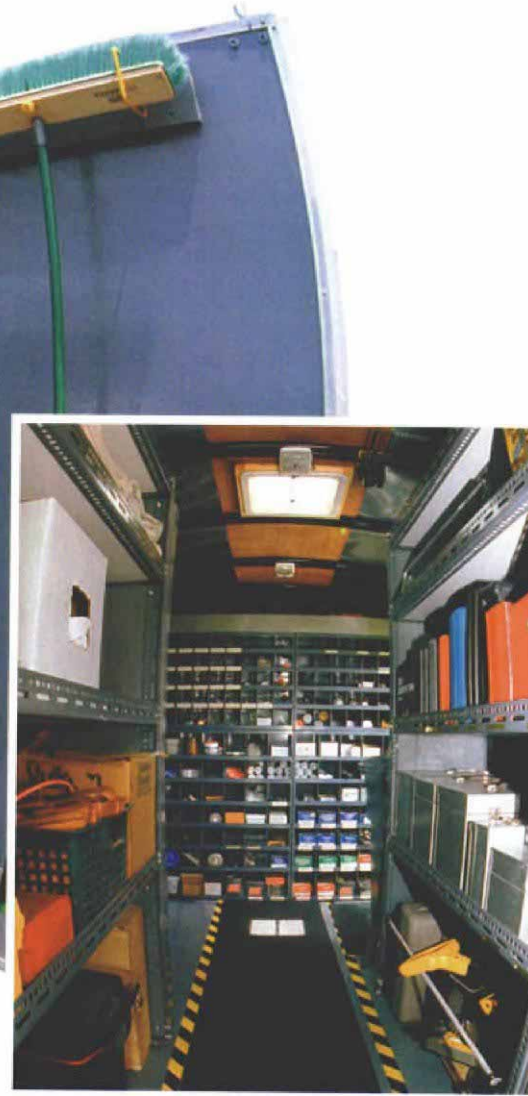
Count the times you've spent looking in your truck for a tool or box of screws that you know you had, only to give up and make an unscheduled trip to the hardware store. If you're a builder, especially one with a small business, materials organization is probably as important a skill as bidding or managing subcontractors. If you have a lot of small jobs, you're not going to have the time to set up on site and will end up working out of your truck. An organized truck will save you time and money.

Most experienced builders seem to have a system. Some carpenters buy a ready-made service body for their truck. Others will build their own setups to save money or to get exactly what they need. Pulling up to a job with a carefully organized, custom-built workshop speaks volumes about your expertise and commitment to your trade.

I recently visited five builder/carpenters who have designed and built tool-storage systems on their trucks. Like a lot of other carpenters, all five wear a variety of hats throughout the week and need a setup that allows them to be flexible and still be organized. Some of the designs are ornate, some are plain, but all are creative solutions to a common problem. □

Charles Bickford is an associate editor at *Fine Homebuilding* and took all the photos in this article.





A TRAILER BIG ENOUGH TO HOLD A HARDWARE STORE BY MARK CHICK

I've been a general contractor for 14 years now. At first, I just used a pickup. But eventually, I realized I could improve my work with a trailer. If the trailer were organized and well stocked, I could haul it to a job, leave it there and use the truck to meet a client or file a building permit. I ordered a 20-ft. closed cargo trailer (photo above) from Pace America (800-247-5767). It has a 7,000-lb. capacity and is painted the same shade of red as my truck. I settled for a 7-ft. width interior; an 8-ft. interior is available, but the extra 12 in. makes the trailer harder to maneuver. I also specified a side-access door, roofvents for ventilation, five interior dome lights and power outlets. When the trailer is parked, I use a heavy-duty extension cord to connect it to the handiest power source. In a pinch, I can even use the trailer as a small workshop.

To organize tools and supplies, I bought used steel bins and file drawers (photo top right) from an office-supply store and shelving from a local truck-and-van interiors distributor and installed them myself. I also beefed up the shelves with 1/2-in. plywood to keep them from racking. To keep cabinet drawers closed while the trailer is moving, I mounted spring hinges and a length of angle iron across the drawer fronts (photo bottom right); the angle iron snaps out of the way when I use the drawer.

The trailer cost about \$5,500, and the bins and shelving about \$1,500. I've found that the maintenance and insurance for this trailer is pretty inexpensive: About \$75 annually covers the insurance; maintenance equals the cost of a periodic wash and wax, plus a few dollars for a lube. My next trailer, however, will have a bigger weight capacity. No matter how big the box is, I always seem to fill it up. □

Contractor Mark Chick lives in Florissant, MO, and spends his free time in a fast boat on the Mississippi River.

A big trailer is like having a shop on wheels. Outfitted with dome lights and power outlets, the 20-ft. trailer has room for stationary and hand tools, as well as a good supply of hardware and fixtures



Drawers need extra help to stay closed. To keep the drawers from opening while the trailer is moving, Chick installed lengths of angle iron on spring-loaded hinges.





MILK CRATES AND SHELVES ORGANIZE A PICKUP

BY CHRIS ELLIS

I'm a handyman carpenter. To make my business run smoothly, I need to carry lots of different tools, fasteners and supplies that are organized and at hand. To keep overhead low, I devised a simple and economical way to outfit my truck: humble milk crates. They're tough, uniform in size and inexpensive.

The major expense of this low-tech system was a 30-in. tall, windowless aluminum cap for my pickup; the cap cost about \$500. The cap keeps everything dry and secure, but more important, it provides a frame for my system of shelves (photo top right). I suspended two rows of 16-in. wide wire shelving upside down from each side of the cap. The shelving lip in front keeps the crates from slipping out. The outer sides of the shelves are attached by metal conduit supports bolted through the cap frame. The inner sides are hung from reinforced ceiling supports by chains and S-hooks, an arrangement that keeps the floor clear. I angled the shelves down toward the center of the bed so that I can see inside the crates.

I also built a false floor over the bed. Made of 3/4-in. AC plywood supported across the front edge by 1/2-in. angle iron and a 2x6 under each side, the floor creates a space that's wide enough to carry sheet goods. A wooden ladder rack on top of the cap completes my modifications. □

Chris Ellis fixes houses on Cape Cod and lives in Brewster, MA.



An exploded view.

For better organization, each of the 26 crates contains tools or materials for one specific job.



Upside-down shelves held milk crates.

Closet shelves are hung from the roof framing with S-hooks and chains. Angle iron bolted to the frame is reinforcement.





VAN CABINETS FIT FOR A BOAT

BY KEITH MAZZARELLO



Cabinet doors keep smaller items secure. Fastened by roller catches, these doors keep smaller tools and open boxes from falling out. Scrap PVC (below left) makes good storage for long items.



I've always thought that if potential clients see that you have a clean, well-organized vehicle, they'll know that you'll maintain the same standards in their house. When I purchased a new van a couple of years ago, I decided to outfit it with good-looking cabinets (bottom photo) that would help me keep my tools organized.

I made the cabinets from $\frac{3}{4}$ -in. furniture-grade oak plywood and solid-oak stock. I wanted them to fit the deep inside curve of the van body, but working on the van was like working inside a boat. To establish level and plumb, I laid a sheet of plywood on the floor and used two framing squares. I registered the first from the floor to establish plumb; the second registered from the first to establish level. Once I had scribed the end panels, I could complete the cabinets in my shop. I finished them with three coats of exterior-grade varnish.

Before bolting the cabinets to the truck interior, I used silicone to glue 1-in. thick rigid-foam spacers to the truck walls; these spacers keep the body panels insulated from anything loose that slams into the $\frac{1}{4}$ -in. lauan cabinet back. The horizontal cabinet doors (photo top left) are hung with piano hinges; roller catches keep all doors closed tightly. To keep boxes and bags from sliding out of the open cabinets, I made the face frames wider to create a $1\frac{1}{4}$ -in. high lip in each bay.

In addition to the cabinets, I've found that plastic cutlery trays (the kind used to organize kitchen drawers) are great for storing small items such as plumbing parts. I also use parachute bags, big plastic food-storage containers and roll-up storage boxes to keep all the small parts organized and in one place.

In my neighborhood, security is a big concern, so I have an alarm system that I supplemented with heavy-duty chains and padlocks on each door. I know that nothing will stop determined thieves, but an alarm and chains will slow them down until the police show up. □

Keith Mazzarello, of the Bayside section of Queens, NY, owns Bayside Contracting.

Oak cabinets dress up a van's interior. In addition to providing plenty of storage space, these shop-built cabinets are a traveling showcase for the carpenter's skills.





COMPACT STORAGE WITH LOTS OF FLASH

BY MARK DANIELS

I've been in the carpentry business for 25 years, and I've always worked exclusively out of regular-size vans because they have the right combination of storage, size and economy.

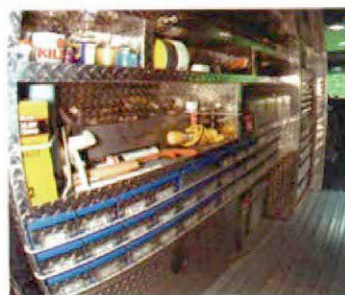
My current van is a 1997 1-ton Chevy (bottom photo) that I customized to get the storage I need. I chose to fabricate the interior of aluminum diamond plate for a couple of reasons: I really liked the look of the diamond-plate toolboxes I had seen, and it's a lightweight material that's both thin and strong. It wouldn't need much of an additional framework, which would take up valuable space.

I used four 4-ft. by 16-ft. sheets of 0.080-in. stock, which weigh a total of 300 lb. and cost me about \$750. Because I didn't have a heavy-duty brake, I bent the stock by first carefully scoring it with my circular saw, then bending it with a rubber-tipped hammer. All joints are lapped and screwed together. I covered the ceiling as well, cutting in small skylights later for natural light.

I covered all drawer fronts and my mechanic's tool chests (photos center left, right) with the same aluminum and installed them near the doors for easy access. When I designed the storage, I placed the items that would be most in demand closest to the doors. Loose items such as levels, cords, brooms and even drawer fronts are tied down with bungee cords. I also made sure that I have a clear center aisle for carrying sheet goods; 12-ft. sheets of drywall fit in the truck with the doors closed. □

Formerly a resident of Bellevue, WA, Mark Daniels is now building a new home for his family in Brunswick Hills, OH.

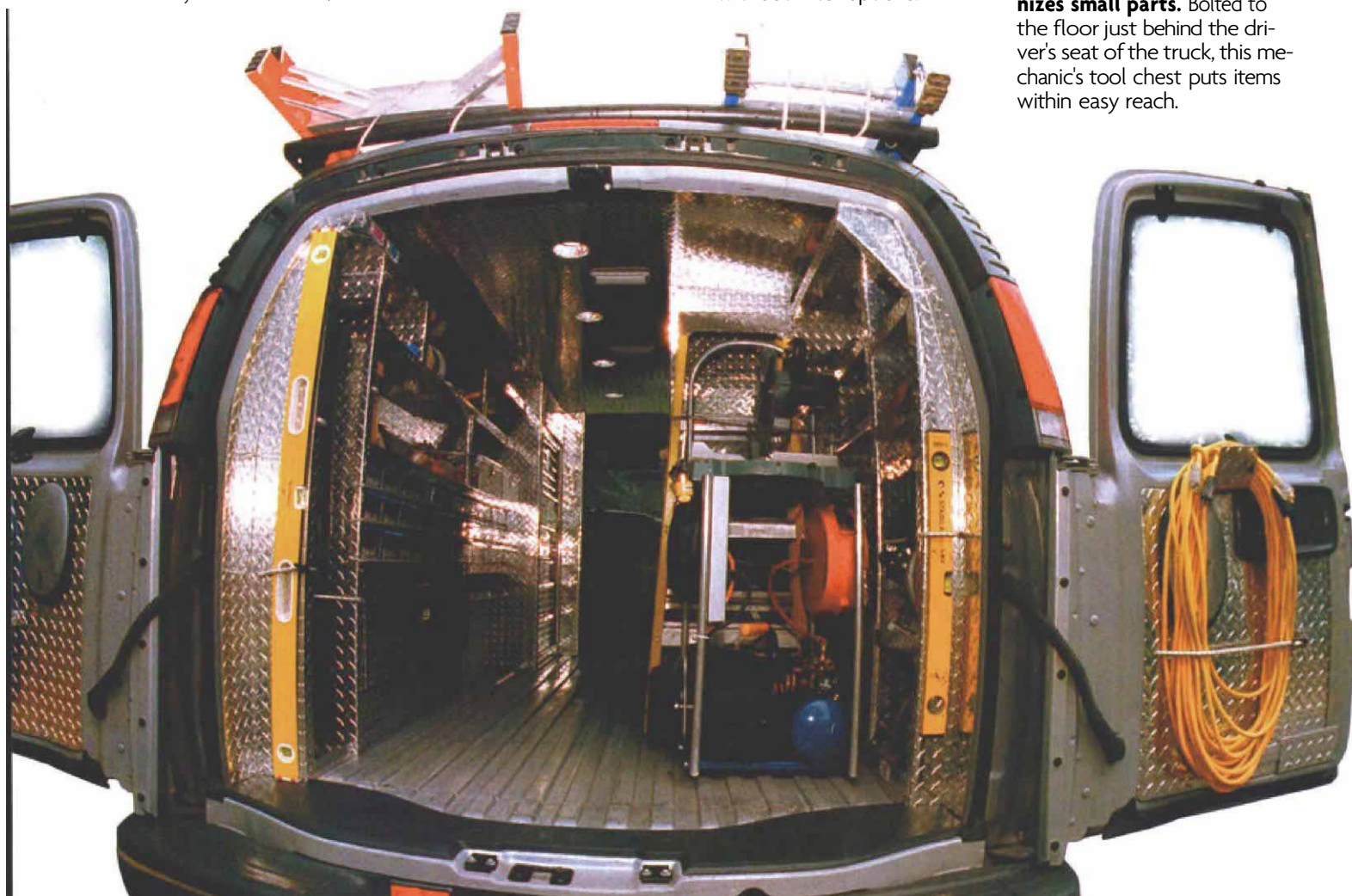
Electronic sign attracts attention. To make the truck more memorable, Daniels installed a programmable LEO sign board in a rear door.



Bank of drawers saves a trip to the store. A truck that's stocked and organized with supplies means you can work without interruptions.



Converted tool chest organizes small parts. Bolted to the floor just behind the driver's seat of the truck, this mechanic's tool chest puts items within easy reach.





SITE TRUCK OF RECLAIMED PARTS

BY DAN ROCKHILL

My crew and I build houses or renovate existing ones, and we're on the job from start to finish. We need a big truck to haul our heavy tools, compressors, staging and fasteners to the site. Once we're established on a job, the truck stays on the site as a secure lock box, warehouse and distinctive sign of our presence. I bought my truck, a 1952 Chevrolet cab-over-engine (top photo), from a guy in western Kansas who used it to haul prairie hay to the foothills of the Rockies.

We extensively modified the truck, originally a flatbed, with recycled and scrap materials. I shortened the length of the frame and painted the cab a vibrant yellow, an original factory color. I scrounged sheets of stainless steel (former toilet partitions) from a scrap dealer to create the bed's enclosure. We riveted the stainless to 3/4-in. plywood, which in turn was bolted to a framework of 1 1/4-in. square steel tubing. To provide natural light inside the truck (bottom photo), we covered the curved-steel roof frames with sheets of thin perforated steel and then stretched translucent ripstop greenhouse fabric over the entire roof for the waterproofing.

We keep a job box at the cab end of the bed for tool storage. We cut brackets from 2-in. steel angle stock and welded them to the left side of the frame (bottom photo) to support shelving, where we keep cases of oil, boots, boxes of nails, a grease gun, the first-aid kit, a vise and other miscellaneous supplies. On the right, short lengths of tube stock serve as hangers for extension cords, hoses, hard hats, come-alongs and ladders.

Other salvaged parts include wheel-well covers (center photo) that we made from gang-shower fixtures inherited from a high-school renovation project; the soap dishes make good places to hang extension cords when we roll out in the morning. The back steps are made from recycled grates handy for scraping accumulated mud from our boots. The steps hang from the old trailer hitch and get tossed in the back when the truck moves.

For security, the doors have bar-lock latches and hinges that are Italian-made, top-of-the-line stainless steel. □

Dan Rockhill is an architect, builder and professor of architecture at the University of Kansas. He lives in Lecompton, KS.



Reclaimed soap dishes double as hooks. These wheel covers are actually stainless-steel shower fixtures acquired during a renovation.



Translucent roof illuminates truck interior. To create a well-lighted storage area, Rockhill and crew covered the curved-steel roof frame with thin perforated sheet steel, followed by a layer of waterproof greenhouse fabric.