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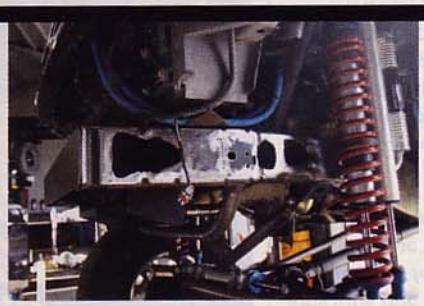
Part 6: A front bumper built for battle

By Robin Stover **Photography:** Robin Stover

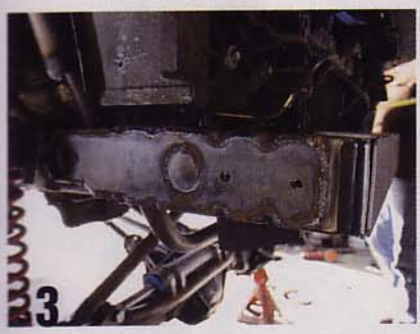
Two things come to mind when you associate a front bumper with Top Truck Challenge: Awesome approach angle and a winch mount. Aside from those, any superfluous bumper equipment on the front of a TTC rig might as well be gawked at like 20-inch spinners on a Buick Regal. This was our attitude when we approached Toby Lavender at Triple-X Traction about building our Titan's front bumper. Sure, it had to be strong, that was obvious. Above all, it was functionality that we were enthralled with. Toby had to remind us that it wouldn't hurt if the front bumper complemented our Titan's bold appearance too. He was right. So we left him to fabricate a front bumper to withstand a thrashing, house a winch, and look good at the same time.



1 Toby got started on our front bumper project by removing the OE bumper and all of its supporting brackets. A robust OE crossmember was cut from the front of the frame, followed by a forward-most body mount on each side of the frame near the radiator support structure. In this photo you can see how far back the frame was prepped for plating.

2 Next, Toby added a sizable section of frame plating to the outside of each framerail. He used large C-clamps to ensure uniform contact during the welding process. The idea here was to strengthen the frame's crumple zone while continuing the "cool guy holes" theme set forth early on in the project.

The finished product. Theoretically, the stinger should aid in preventing a forward end-over-end tumble. Realistically, it protects the engine compartment, hood, and front end from damage. It was also designed to serve as a tie-in point for the Titan's extensive rollcage. But we'll tackle that in another issue.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3 Here you can see the entire passenger-side frame plate that we built. Two holes were drilled and tapped in each plate. These threaded holes were designed to function as receivers for small removable flange brackets, part of the front-bumper mounting system.

4 We then fabricated a pair of plates to be used as bolt flanges for the new bumper. No square edges here—everything received a radius.

5 Toby custom bent a piece of 1¾-inch DOM underneath the front of the engine. Aside from being a good starting point, this bar serves as a structural support member for the front portion of the frame. It also provides protection for the vulnerable oil filter visible in the background.

6 The Fox Racing Shox were temporarily removed from the front of the truck in favor of tubular spacers. This allowed Toby plenty of room to perform his magic.

7 Warn provided this attractive 9.5ti winch for our project. We chose Warn as our winch supplier because Warn winches have a history of dependability and unrivaled performance, especially at TTC. This particular unit features water-tight seals in key areas, a welcome benefit for the severe splashings we have planned. Plus, it has a really cool operator feedback feature that gives the operator information about motor temperature during winching operations.

8 Toby used a tranny jack to help visualize where he was going to mount the winch.

9 We returned to the shop a week later to find significant progress had been made. You can see here how the entire bumper structure was designed to be removable. We appreciated this because we had plans to powdercoat the front bumper once it was completed.


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10 A ton of strength was built into the the front bumper's outermost tubes. They were designed specifically to protect the fiberglass front fenders from the walls of the Tank Trap.

11 Ready, set, stare. We did. It took us a while to figure out how all this fancy tubing worked. The yellow arrows indicate the mounting bolts for the Warn winch. The red arrows point out the mounting points for the bumper itself. Notice how the skidplate is only corner-welded in place. We liked this because we expect it to receive a good amount of abuse. Corner welds ensure easy removal of the skidplate after thrashings. Toby added six flared holes for more rigidity and style to the plate.

12 Here you can see our new Warn 9.5ti nestled in its new home. Check out the way the Titan's grille was clearanced to accommodate the winch. We chose to use a roller fairlead instead of a hawse fairlead because past experience has proven that winching a rig sideways at TTC is not at all uncommon. **FW**

SOURCES

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