

# TROPHY SUPPORT

## BULLET PROOF DIESEL'S NEW BAJA CHASE TRUCK



**T**rophy trucks are the big dogs of the off-road race universe. The allure of 800 horsepower, 40-inch tires, and the beauty of Baja is enough to attract big names and big money. This eventually translates into non-stop progression of technology and strategy as speeds get higher. With these supertrucks raging towards the finish line, blasting through any off-road obstacles in their path, one question remains: How does the support team keep up?

Chase trucks—as the support vehicles have been termed—are the workhorses that keep racers going in the dirt. Staffed by

support crew and equipped with tools, fuel, spare parts, and other equipment, these purpose-built pickups speed to pre-planned pit spots and provide whatever they can to keep the race trucks moving. Many times, when a pit stop has been completed, the chase truck hurries to the next agreed-upon pit to help the truck later in the race.

The Desert Assassins race team, headed up by pro driver Cameron Steele, has long been supported by Bullet Proof Diesel's pit team and chase trucks. Looking to build a new flagship for the support crew, Bullet Proof Diesel's Ken Neal purchased a 2018 F-350 in the cab-and-chassis configuration and got right to work on it with his team.





▲ The factory cab-and-chassis configuration is just that—no bed included. However, cab-and-chassis models have slightly different frames than normal Super Duty pickups (in order to make service bed or cargo boxes mount more easily).



▲ The Knapheide utility bed is longer than a pickup bed would have been. At 9 feet, this bed will be able to carry the support, recovery, and communication equipment required of a pro-level chase truck.

### Immediate Obstacles

The cab-and-chassis configuration comes without a truck bed, and this was one reason it was ordered; the Knapheide utility bed would soon be mounted in place. However, a few other differences between the cab-and-chassis model and a standard F-350 became apparent and demanded solutions. The framerails at the rear of the truck differed from the normal chassis, requiring a special-order utility bed. Other differences include gas tank location, shorter leaf springs in the rear, and no wiring to the (dummy) third brake light. Oh, and the engines in cab-and-chassis Super Duty trucks are detuned. D'oh!







▲ The first mod was one of the easiest—installing the third brake light antenna mount available from Bullet Proof Diesel. This truck has an aluminum body so magnets won't stick to it, and using this mount avoids a hole being drilled for a body-mount.



▲▼ There really is nothing like the smell of fresh tire rubber! These 37x12.50R17 BFGs were a pre-release set of the new KM3 version of the tire. The early impressions of the tire have been very good; relatively quiet on the street but grippy off-road. And they're load range E, which was needed for a truck this heavy. Method NVHD wheels were also chosen for their enhanced weight ratings. Plus they look great.



▲ One of the differences from the pickup version of the truck was the leaf spring length: It's a tiny bit shorter on the cab-and-chassis model. Luckily, Deaver Spring has already started producing spring packs for either application. Their recipe of more numerous but thinner springs add some extra pliability in the packs, making the ride better.



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It took some doing (read: custom work) to ensure fitment and function were in line with the intended use of the truck. As a result, Neal concedes a simple box-delete option on a normal F-350 might have been an easier build, but, thankfully, this chase truck turned out pretty darn good.

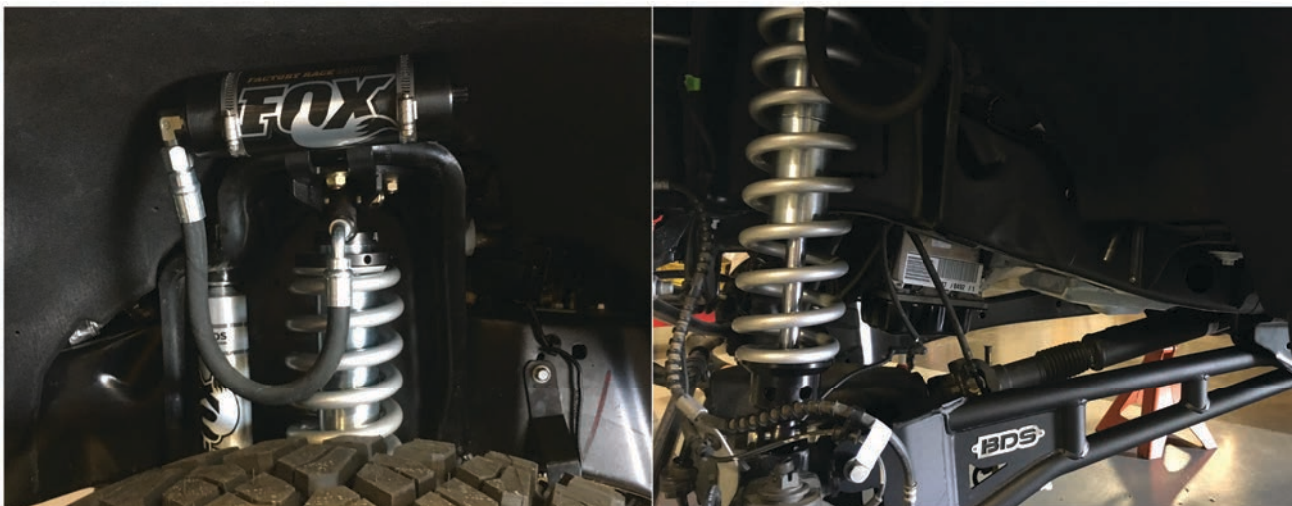
### Suspension & Rolling Stock

When chasing down race trucks over dirt roads in Baja is the goal, the first thing a builder thinks about is the suspension. Trophy trucks have some of the most advanced off-road suspensions in the world, so chase trucks need upgrades to keep up. BDS Suspension has become a key company creating suspensions for heavier trucks, and their top-of-the-line coilover-conversion kit seemed a natural fit for the chase truck. The remote-reservoir coilovers in front and smooth-body remote reservoir shocks in the rear are Fox units, which have seen plenty of use in Baja and the

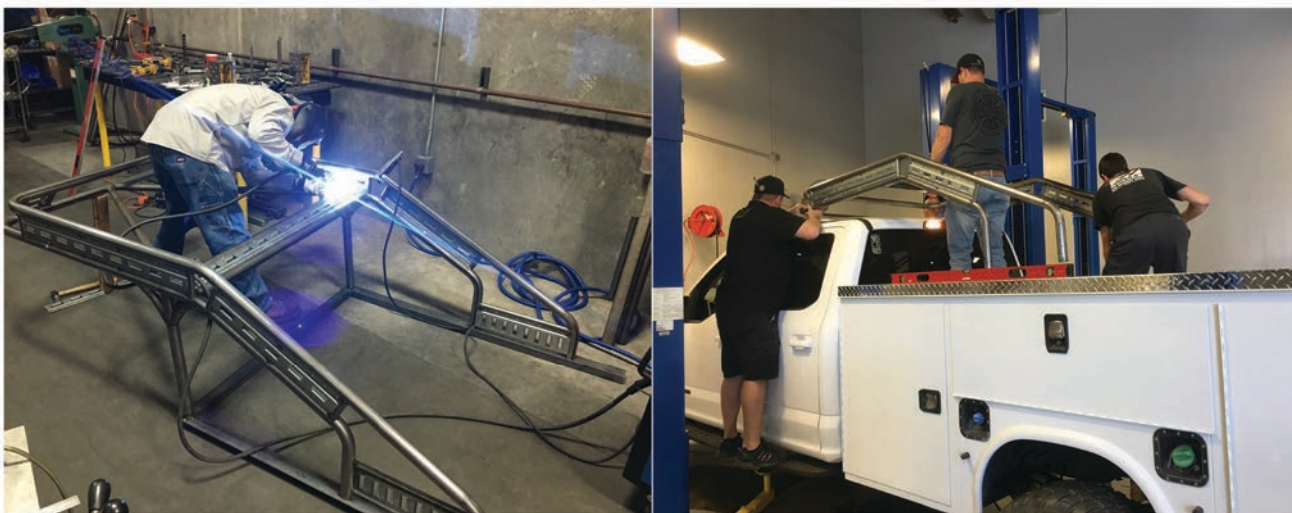


▲ Rigid LED lighting was placed all over the truck. In front, the curved LED bar was a perfect match for the Addictive Desert Designs Stealth front bumper. Scene lighting was placed around the perimeter of the truck for use during nighttime pit stops.





▲ Tunability and the capability of setting ride height dictated a choice of Fox 2.5-inch coilovers for this truck. BDS Suspension has been making waves in the HD segment over the last few years, and their radius-arm kit was used, lifting the front end 4 inches. The kit installed beautifully and the components are extra-beefy. It even included a steering stabilizer.



▲ Bullet Proof Diesel's history of engineering and hard-part construction meant the team was on-point to create the chase rack in-house. Here, Kenny Kreuter finishes up the main section of the rack before it was sent off for powdercoating.



▲ With the suspension and rolling stock installed, it was time for a desert test. Everything worked great, and the Ford's on-demand differential lockers really shone when the terrain got loose and the grades got steep.

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southwestern United States. Deaver Spring provided the ultra-burly leaf packs, which provide a great balance of go-fast comfort and heavy-duty competence.

A pre-release set of E-rated BF Goodrich Mud-Terrain KO3s (the fact that BF Goodrich is a Desert Assassins sponsor may have had something to do with this) was mounted on Method NVHD wheels, which carry a 4,500-pound weight rating per wheel. Loaded with tools, fuel, and parts, chase trucks are extremely heavy rigs, so weight ratings for both tires and wheels were paid attention to, as a failure could mean a loss of a race and possibly strand the crew.

### Armor & Lighting

Obviously, protection for the truck and illumination of its surroundings is a big factor in a chase truck build. If the two can work together, all the better. The curved LED light bar from Rigid Industries is an excellent fit for the curved mount in ADD's Stealth front bumper. Details like that really enhance the overall aesthetic of the truck. Aesthetics, however, are but a small detail when the more important subjects of front end protection (the excellent Stealth bumper) paired with about a dozen different types of Rigid LED lights: strobes, spots, floods, areas... you name it. This truck can light up like a Christmas tree, which is advantageous when you're running a pit stop at midnight in the middle of Baja. The





▲ The truck was transported to The Brandsmith in Mesa, Arizona, where a desert-themed wrap was applied, with the sponsor logos worked into the design. In addition to looking good, the wrap will protect the paint from the harsh UV rays of Baja.



▲ The Rigid LED lights around the truck are tested for the first time. The amber lights will provide better visibility in dusty conditions.



▲ Twin 50-gallon transfer tanks from Better Built feed GPI pumps that will be used to refuel race trucks. In the old days, fuel was stored in elevated tanks that had to be mounted above pit stops with scaffolding. Having pumps in the bed of the support truck makes things much easier.

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stock side steps were ditched in the name of ground clearance, and a set of Raptor running boards was installed instead.

### Fun With Fabrication

One of the strengths of Bullet Proof Diesel's build team is the flow between design and construction. After building several chase trucks previously, the gang decided to take all of the best design cues from previous designs and work them into the current rack. Lining it with A-track railing, the Bullet Proof team was able to utilize the in-house-invented HandETrack, the only anchor system that allows for hard-mounting of tools and other components. The rack will be used for more than just storage, however—the design allows it to reinforce the utility bed with stiffer walls.

### Finishing Touches

The truck looked a little... plain... when it was all-white. In order to spice things up (and be recognizable as a genuine chase vehicle) a desert-influenced wrap was applied with nods both to Arizona (Bullet Proof Diesel's home base) and Baja. Several radios sourced from PCI Race Radios are mounted around the truck so that communication can happen from almost anywhere in or on it.

The truck made its debut at the 2018 Baja 500 this past June and should be seen being utilized for years to come. Maintenance and careful inspections will be key to the service life—after all, this is just another flavor of work truck! **DW**



▲ Multiple race radios are mounted around the truck. This way, the radios can be used inside or outside. The radio mics are also connected to an external speaker and can be used as a megaphone. This Kenwood unit, sourced from PCI Race Radios, was mounted on the dash.

