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HD Squared

BESTING WHAT THE GENERAL STARTED

BY KEVIN BLUMER | Photography: Kevin Blumer

COVER
TRUCK
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IF THERE'S AN OEM TREND WE LIKE, IT'S THE TREND TOWARD BETTER-EQUIPPED, WARRANTY-BACKED TRUCKS THAT CAN DRIVE OFF THE DEALER'S LOT STRAIGHT INTO THE WORK WORLD OR ONTO THE TRAIL. CHEVY'S HEAVY DUTY SERIES JOINS RANKS WITH OTHER FACTORY-BUILT POWERHOUSES SUCH AS THE JEEP WRANGLER RUBICON, THE DODGE POWER WAGON, AND THE FORD SUPER DUTY.

Right out of the box, the HD bristles with a pretty impressive drivetrain. Power generation begins with a 6.6L Duramax Diesel and feeds into an Allison automatic transmission. After being split at the transfer case, power is then routed to big-time beef in the form of an AAM 11-1/2-inch full-floating rearend factory equipped with disc brakes. The front differential is on par with the rear: the 9-1/4-inch ring gear is reverse-cut/high-pinion,

which makes it ideal for front applications and provides about 4 inches of additional ground clearance compared to a standard-cut/low-pinion frontend.

If there's a weak spot in the HD's off-road armada, it's the lack of clearance for the oversize rubber that off-roaders want to install. Big tires offer big floatation for navigating soft sand and big grip for clawing at rocks and hardpack. Enter Fabtech Motorsports.

When designing its HD suspension system, Fabtech took into consideration that many truck owners want to leave their body panels unmodified, and that those same owners want a simple installation experience

As such, the Fabtech 8-inch HD suspension is catalogued to complement tires as large as 37 inches without modified body panels. Installation is possible in a driveway in conjunction with an average selection of tools and intermediate mechanical aptitude. Of course, fender trimming will allow even bigger meats to roam beneath the HD. As an option, HD owners can also choose to equip their lifted rides with Fabtech's new line of Dirt Logic shocks. Featuring high-quality

HD Squared



► Did we mention Fabtech's racing roots? The new line of Dirt Logic dampers not only reflects this heritage, it brings that heritage on board larger trucks that typically see only the most basic of shocks. Hefty diesel engines, such as the Duramax, need the added damping capacity that high-quality, large-volume shocks offer. It turns out that high-end shocks are just as called for on a heavy-duty, fullsize 4x4 as they are on a lightweight, high-speed pruner. Yeah, they look cool driving around town, but get these shocks past the end of the pavement and you'll really notice a difference.



► Aluminum differential housings are a great way to save weight. They're also prone to rock damage. No problem here though — the diff housing is protected behind a well-executed skid plate. Also note the crossbracing that lends extra strength to the lower A-arm cradle.



▲ Heavy-duty drop brackets provide the required altitude adjustment for the torsion bar crossmember.



▲ There isn't as much to tell about the stern section of the HD Squared, only because the design is age-old and proven efficient. Leaf springs are well suited for a variety of tasks, take up relatively little space, and are simple to create brackets and shackles for. One time-proven drawback to leaf springs is their tendency to wrap up under heavy acceleration or braking. To counteract this drawback, Fabtech bolted a pair of its traction bars below the leaf packs — no more spring wrap. Fabtech will soon release a long-travel leaf and spring hanger system to take the HD's rear suspension to the next level.

► Sensible strength and durable, proven traction meet in Weld Commando wheels surrounded by 37-inch Toyo Open Country M/Ts.



▲ Fabtech's drop cradle is crafted from heavy-gauge steel MIG-welded to fussy standards in its Chino, California, facility. We're impressed with the way ground clearance is maximized via high-clearance arches spanning the distance between the A-arm mounts. The signature blue is simply Fabtech CEO Dave Winner's favorite color, but the system is also available in a neutral gloss black. Fabtech's roots lie in off-road racing, and the company works hard to give its success back to the sport through sponsorship. Trophy Truck driver Scott Steinberger, Stock Full contender Greg Foutz, multi-time Class 7 champ Craig Turner, CORR Pro-4 stand-out Rick Huseman, and grassroots United Pruners are among those supported by Fabtech's generosity.



▲ The General believes in the virtues of IFS all the way up to its K3500 1-ton 4x4 pickups. As such, the 2500 sports A-arms and CVs up front. Why not? IFS lets the wheels absorb jolts and other forms of off-road mayhem without forcing both wheels to respond to bumps that are only on one side or the other. The 2500 shares the same front differential with its 3500 1-ton big brother. Fabtech's 8-inch 2500 HD suspension system smartly uses taller knuckles to allow the upper A-arms to stay in their stock mounting locations. The lower A-arms are dropped via a gusseted, crossbraced cradle. If there's one thing we'd like to smite the General (and most of the other OEMs) about the head for, it's the miniscule size of the tie rods. It just doesn't make sense to give truck buyers a truck equipped with a superior powerplant, bulletproof tranny, and tough differentials and then handicap the whole package by using noodle-sized tie rods to point the front wheels down the road or trail. The rest of the truck is off-road worthy, so why not give the buying public a steering system that's equally tough? Although not shown, Fabtech offers an HD replacement tie rod end system whose components are double the size of the stockers.



▲ The bumpstop provides a progressive ride via its inboard mounting location. This is a great suspension-tuning aid because generally torsion bars aren't as progressive as coil springs. More of Fabtech's racing roots will be revealed in the form of its soon-to-be-released Long Travel Collover Conversion System for the HD. 4.0 Dirt Logic collovers are part of the system.



◀ Rear lift is equal to the front at 8 inches. The lift springs combine with a lift block to achieve the desired altitude. Big-inch lift blocks are bad news because they augment existing spring wrap problems. This block is a reasonable

size though, and when combined with the Fabtech traction bars, the rear suspension package works well.



▲ Here's another part that lets the HD live up to its name. The AAM 11-1/2-inch ring gear fully floating rear axle is the next step beyond the already-legendary AAM 10-1/2-inch "14-bolt" rearend that is so sought after for enthusiasts looking to beef an older or lighter-duty trail rig. With a massive ring gear and disc brakes from the factory, all that was left to do was to fit the limited slip carrier with a set of 4.11 gears and call it a day.



▲ Here's what provides the motivation for the whole show. The Duramax 6.6L turbo diesel is one of the best reasons to go with a diesel truck today. It's genuinely fast, and responds well to electronic power programmers such as those offered by Edge Products, Gale Banks Engineering, and Bully Dog Technologies. The higher combustion efficiency of a diesel engine is the reason a girthy truck like the HD can get fuel efficiency on par with rigs that weigh half as much and have half as many cylinders.



▼ Since even the strongest drop cradle creates extra leverage on the frame mounting points, a pair of compression struts brace the cradle against movement. They nestle between the dropped torsion bars.



◀ Here's where all the motion and energy gets controlled. The new line of Dirt Logic shocks represents Fabtech's commitment to the high-end off-roading market. One of Fabtech's earliest hardcore products was their "Ivan Dan" kit for

'84-'95 2WD Toyota pickups. Based on the strength of this and similar kits for other trucks, Fabtech's lineup expanded into the comprehensive list available today.



▲ Our take on the HD Squared's looks? For a nice truck, this is a really nice truck! What we're trying to say is that adding a Precision grille along with graphics by the Paint Department are finishing touches that don't scream "tasteless," "gaudy," or "bling." Nicely done.

USA construction and generous oil capacity, the Dirt Logic dampers can be rebuilt and revalved for long life and fine-tuning.

Does it work? Fabtech's Jason Jones began by telling us that this very truck towed an 11,000-pound Payload up I-15 to the annual SEMA show and back. For those unfamiliar with this particular stretch of asphalt, it is laden with several brutal grades that unearth any weakness in power output or cooling system efficiency. The route's nastiest hill is known as Baker Grade, where it's not uncommon to see Grade victims pulled to the side of the road, hoods raised in defeat. Towing and mechanical help command a king's ransom in the Baker area; it's not a wallet-friendly place for trouble. The Fabtech HD took itself, the laden trailer, and its amazed driver over the grade without slowing and without the exhaust gas temperature gauge getting anywhere near the dreaded red zone. Jason answered the rest of the "does it work?" question by flogging the HD in the dirt for our eyes and lenses. Yes, it works.

Chevy got the HD pointed in the right direction with a stout drivetrain that loves to tow. Fabtech got the HD into the dirt with clean design, heavy-duty construction, and race-bred dampers. HD squared. **ON**

► For more information:
www.fabtechmotorsports.com

