

THE RACE ROD

We Assemble a **Factory Five '33 Kit** in Five Days, Start to Finish.

By Rob Kinnan

Photography: Rob Kinnan and Eric Jacobs

Street rods have never been known as handling cars, but why can't they be? If you're fabricating suspension anyway, why not build in geometry that'll make it go around corners like a slot car, with fat tires on all four corners? Factory Five Racing was reading our minds, literally, and built just that, a '33 Ford kit with real underpinnings and a low enough curb weigh to guarantee blistering performance. For a

few coins less than 20 grand, you get everything but the drivetrain, wheels, tires, paint, and a few assorted smaller items. We showed the new kit and what it takes to prep the body in last month's issue and return with a complete buildup of one here.

Actually, *complete* is not totally accurate since it's impossible to cover everything in even a year's worth of stories in a monthly magazine. FFR's build manual

on the kit is a whopping 397 pages of step-by-step illustrated instructions, and when you first start looking through it, it's easy to get intimidated. So we conspired with Factory Five to cheat on a buildup in a most entertaining way—and one we're pretty sure is going to catch on with other people building kits.

FFR has a very active group of customers offering advice and friendship on its website. The

word went out on the message board that HOT ROD was going to follow the buildup of a car in California and was looking for volunteers to jump in and help. Approximately 20 agreed and were summoned to Langley Kersonboom's Hermosa Beach, California, shop, LK Motorsports, with the goal of tearing open the boxes on Monday morning and driving the finished car out of the shop by Friday night in time

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> Here's the majority of the build crew with the partially finished car. This was on Wednesday, the midpoint of a five-day buildup.



> The monstrous FFR instruction manual looks intimidating, but every single step is illustrated with a photo and explained in detail.

> This was the scene at LK Motorsports when the kit was first delivered. Owner Langley Kersenboom set aside the area next to his new four-wheel dyno so everyone had enough elbow room during the build.

for the annual kit car show at Knott's Berry Farm. The only advantage the team had was that the body had already been painted by Jeff Miller, as we covered in last month's issue.

As stated earlier, seven pages cannot possibly cover even a fraction of what's involved in building the FFR hot rod kit, so don't look at this as anything resembling an instruction manual. Rather, this story is intended to show that it's not an overly difficult kit to assemble (and in fact is easier than FFR's straightforward roadster kits) and that with enough people who know their way around a wrench (and even a few who don't), you can build one in a short amount of time. No lying, it only took five days on this one. And the best part is, you can have fun with a group of buddies while doing it.

Next month we put the finished car to the test, but we'll tease you a little here—it's really fast.



> The front suspension is the first area of attack. The kit uses inboard-mounted Koni coilover shocks mounted just behind the radiator.



> At any one time there were three or four areas of the car being worked on, which allowed us to build it in a week. Here you can see where the MSD 6AL box and starter solenoid are mounted. The aluminum firewall should be mounted while the body is fitted to the chassis since it is a locator for a bunch of other parts. We painted the body before the build, so the firewall had already been positioned and marked.

> That big box on the frame is the fuel tank. It's mounted behind the seats and is concealed when the body is on.

THE CREW

All week:

Eric Jacobs,
Wareham, MA, project manager
Langley Kersenboom,
owner, LK Motorsports
Mark Dougherty,
Hershey, PA
Henry Renaud
Lithia, FL
Karen Salvaggio,
Riverside, CA
Andy Salvaggio,
Riverside, CA
Dave Boles,
San Diego, CA
Mark Stackler
Tom Heltzel,
Seattle, WA
Bill Lohmiller,
Palos Verdes Estates, CA
Gary Larrivee,
Redondo Beach, CA
Bruce Kading,
Las Cruces, NM
Victor Menashe,
Albuquerque, NM

Partial week:

Jeff Felderman,
Mission Viejo, CA
Paul Mastroianni,
Corona, CA
Darren Trapp,
Orange, CA
John Jones
Ed Holley,
Oak Hills, CA
John Cameron
William Robertson,
Valencia, CA
David Hodgkins
Donald Cribbs,
Burbank, CA
Jeff Rautenberg,
Palmdale, CA

> Ah yes, the horsepower jewelry. Ford Racing supplied a Boss 347 crate motor and Tremec TKO-600 five-speed transmission. The engine makes 450 hp at 6,000 rpm and 400 lb-ft at 4,900 with a hydraulic roller cam, 9.7:1 compression, and Ford Racing Z heads. The forged crank and pistons will also allow us to spray it at a later date, but with the car's final curb weight of about 2,300 pounds, this should be plenty... at least for a while.



> The kit is designed to use a Ford 8.8-inch rearend from a Fox or SN-95 Mustang, and you can choose from a stock-style four-link or a more race-oriented three-link suspension. This car uses the three-link, and we loaded the 8.8 with 3.73:1 gears. That big bracket bolted to the housing is the upper link mount.



> A checklist was made for each day to ensure progress.



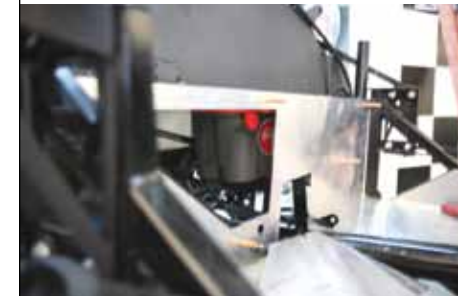
> Some of the aluminum panels were installed before the body went on and some afterward. Cleco pins are a brilliant way to hold them in place to make sure all the holes are correct and everything lines up. This photo also shows how the pedal box was mounted. Notice the hanging Wilwood pedal and three master cylinders (two for brakes, one for the clutch). The trick reservoirs mounted in front of them are an LK Motorsports setup, and once the body is mounted, they're accessible from a removable panel on the cowl.



> Some of the stock rearend brackets were not needed and were removed.



> There are quite a few aluminum panels for the floor, trunk, and other areas. They are precut to fit, but you still have to drill the mounting holes in the panels and the frame.



> The Optima Red Top battery was hidden under the fuel tank and looks to be a bear to remove, if that's ever needed.



> The car really started to take shape when the engine was slid into place.



> After assembling the grille/radiator/fan assembly, it was installed. The kit comes with hoses and everything else needed.



> With the fuel system plumbed and the wiring hooked up, we all stood back and listened to the first engine firing. The gesturing dude in the middle is Ford Racing's Jesse Kershaw, who came to visit the buildup.



> The stainless steel mufflers sit right under the seats, so we covered the floor with Damplifier Pro insulation.



> Miller installed the door hinges and doors. Five-point Simpson harnesses are included for both sides and attach to a chassis mount before the rear bulkhead and seats go in.



> Jeff "Batman" Miller delivered the body that was painted last month. The suit? Don't ask.



> Since we were shooting for a street-going race rod, it seemed obvious that a RacePak UDX Ultra Dash Extreme be used instead of traditional gauges. It's really cool.



> The roof is held on with about 10 bolts and Rivnuts and is removable. Here, Dougherty drills the cowl for the Rivnuts.



> The interior of the roof and the bulkhead behind the seats are finished in black gelcoat, but we went the extra distance and had Tom Hanson masterfully cover them in leather. It really makes a difference. Hanson works out of the LK Motorsports shop, so many of the company's cars get his touch.



> The roof was lowered into place and bolted down. We doubt we'll ever remove it since it looks too cool installed. You can see part of the rollbar. The kit comes with double-hoop bars, à la Cobra. But with the roof in place, that would look weird, so we converted it to a single bar the width of the interior.



> With the body mounted, the remaining trunk panels were installed. The kit includes pre-cut carpet to cover all the aluminum panels.



> The kit comes with all the glass, including power windows for the doors.



> To separate the flat and shiny parts of the paint job, Bruce "The Brush" Brennan was called in to lay down some red pinstripes.



> Mark Dougherty prepped the fiberglass transmission tunnel to clear the trans.



> The body is not that heavy, but we used plenty of hands to carefully lower it into place without scratching anything.

LK MOTORSPORTS

Langley Kersenboom's Hermosa Beach, California, shop is the West Coast go-to place for pro-built Factory Five cars. While the company specializes in the FFR Challenge series (a class within NASA that runs all FFR roadsters), it's well versed in building turnkey versions of any FFR component car. In the shop on any given day are several street and race roadsters, a GTM supercar in progress, and a hot rod or two. Just before our build party, LK had gotten its new four-wheel dyno up and running, too. If you're reading this story and don't feel like you have the time to build a car yourself, LK can set you up.



> We chose black powdercoated Rushforth Rated X wheels (19x10 rear and 17x8 front) and Nitto's sticky NT-05 rubber (275-40s on all four corners).



> Kersonboom installed the meatball. Why number 13? Dunno, just seemed cool.



> Knott's Berry Farm, Saturday morning.

SPECIAL THANKS

We gotta give props to a few companies that really helped this project come together in a timely manner. First was Summit Racing Equipment, which provided most of the needed parts (like a fuel pump, carburetor, and so on). This build certainly wasn't the first time we've had to make panic-stricken, last-minute calls to Summit to get parts next-day'd, and it probably won't be the last. Also, ANplumbing.com in Lawndale, California, graciously provided the various lines and fittings we needed, and Tom Hanson of Auto Restorations [310/739-1957] did a masterful job of upholstering the door panels, headliner, and rear bulkhead in yummy black leather.

> The plank owners all signed the underside of the trunk lid—even the two shop dogs. **HRM**



SOURCES

AUTO RESTORATIONS; 310/739-1957

ANPLUMBING.COM; Lawndale, CA; 310/542-0856; www.anplumbing.com

FACTORY FIVE RACING; Wareham, MA; 508/291-3443; www.factoryfive.com

FORD RACING; Dearborn, MI; 800/367-3788; www.fordracingparts.com

J. MILLER CUSTOMS; Temecula, CA; 951/676-0191

LK MOTORSPORTS; Hermosa Beach, CA; 310/937-6869; www.lkmotorsports.com

NITTO TIRE; Cypress, CA; www.nittotire.com

OPTIMA BATTERIES; Aurora, CO; 888/80OPTIMA; www.optimabatteries.com

RACEPAK DATA SYSTEMS; Rancho Santa Margarita, CA; 949/709-5555; www.racepak.com

RUSHFORTH WHEELS; Tacoma, WA; 253/306-3215; www.rushforthwheels.com

SUMMIT RACING; Tallmadge, OH; 800/230-3030; www.summitracing.com