Ryan Lusk installed a Cummins diesel engine in his 1968 Corvette.

Big engine fits Corvette with no room to spare.

How To Squeeze A Cummins Into A Corvette

When his father suggested that Ryan Lusk put a Cummins engine in his 1968 Corvette, Lusk dismissed the idea. But when two friends said it couldn't be done anyway, Lusk couldn't ignore the challenge.

He proved them wrong, and this year he turned heads when he started drag racing with his Cummins-powered Corvette.

The Mitchellville, Iowa, resident works as a diesel mechanic and started his own sideline business — Low Budget Diesel Performance, focusing on diesel conversions and boosting diesel performance. Lusk had already converted several gas pickups to diesel before he started installing a 1998 12-valve Cummins in his Corvette, together with 1995 47RH Dodge lock up overdrive transmission with a Goerend Brothers triple billet torque converter. The 'Vette was also fitted with a Sonnax billet input shaft and hub, Goerend-built valve body and many other modifications to get ultimate power from the engine.

Lusk's first challenge was putting a big engine in a small space. "I cut out the floor of the car and built a new floor out of 1 by 1-in. angle iron for frame work, and .040 aluminum plate," Lusk says.

The next challenge was modifying or making everything tie into the transmission and engine. One sponsor, Gilmore Diesel Performance from Kingdom City, Mo., built and modified the transmission, and another sponsor, PureFlow Technologies, supplied a fuel system. Lusk and a few friends and relatives did the rest of the car work themselves — including making frame changes, building motor mounts, welding in a 14-pt. roll cage, adjusting the Ford 9-in. rear end, and building the tilt front end. Because of the space needed for the roll cage Lusk (reluctantly) removed the Corvette's dashboard and replaced it with a smaller aluminum dashboard.

"Graham from Sargent's garage in Des Moines, Iowa, aligned the car and it launches beautifully down the track," Lusk says. "The guys still can't believe that engine fit in there."

While it's a hassle to get some parts, such as the injection pump, Lusk designed the car so he can pull out the transmission with minimal work.

Changing engines improved gas mileage to about 26 mpg and the car drives and rides great, Lusk says. It sounds like a truck so people look twice when he starts the car. Because of the car's 3,650-lb. weight (with driver), he competes in the pro-stock class at National Hot Rod Diesel Association races. In early races this year he completed the 1/8-mile distance in 7.87 seconds at 90 mph. Lusk's brother, Nick, also drives the car in the Sportsman ET class.

The car has a single small Schwitzer turbo and uses turbo blankets supplied by sponsor Turbo Performance Products to help spool the turbo at the line. Lusk plans to change his injectors and turbo setup to boost his power to 55 to 65 hp in the near future.

More details of the Corvette's specifications can be found on Lusk's business' website. He invites readers to contact him regarding diesel-rebuilding challenges they might have.

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Brian Wischmeyer started restoring tractors when he was only 16 years old and now operates a successful restoration business. "My specialty is painting," he says.

Young Farmer Starts Restoration Business

Fixing tractors started out as a necessity for Brian Wischmeyer when he was 16. The tractors he and his father worked on were the ones they used on their Ottawa, Ohio farm.

Eight years later, Wischmeyer is still at it with a reputation for good work that has spread from neighbor to neighbor. He recently started advertising his business, Brian's Tractor Restoration, to fill in his off time from farming with his dad.

Wischmeyer studied ag business at college, but gained most of his restoration skills working with an auto body expert who also rebuilds engines.

"My specialty is painting," Wischmeyer says. "Most guys don't take the time to get a tractor ready to paint, and a successful paint job is 90 percent preparation." He has invested in good equipment to power wash and sandblast all the grease and old paint. He also wet sands after applying primer and before adding a final clear coat. In addition to painting restored tractors, he paints new equipment for local dealers.

The 24-year-old can do more than just paint, however. He points out that there's no use painting a tractor to make it look new if there's something wrong with it. He offers complete overhauls, if needed.

"On the last one I took off every nut and bolt," Wischmeyer says. He buys parts books for every model he works on.

Many of his customers are collectors who appreciate his professional painting.

"I work on a lot of Ford 8N and Deere 420's and 730's also," he says.

Wischmeyer charges $25/hour and he estimates approximate costs ahead of time. Painting a small Ford 8N runs about $700, for example.

The work is satisfying, Wischmeyer says. He isn't fond of the prep work for painting, but likes the challenge of fixing tractors.

"The part I like the best is when you get it back together and painted, and it looks like new," he says.

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Cylinder Sleeve Puller

Georg Hertz-Kleptow of Dapp, Alberta couldn't justify the cost of a commercial hydraulic-cylinder sleeve puller, so he made his own.

With only about a $360 investment and 12 hrs. of his time, Hertz-Kleptow built a unit that serves his needs well.

"Hydraulic sleeve pullers are very expensive and it's not something you use every day. You could spend $5,000 for a comparable unit," he says. "I'm really happy with mine. It's a 30-ton puller with a 5-in. inside dia. cylinder."

The specialty tool pulls engine sleeves and also presses new ones in. It's something that Hertz-Kleptow needed in his shop, where he works for neighboring farmers and also himself.

Hertz-Kleptow saved money by being able to use an existing hydraulic pump in his shop – one that he normally uses on his hydraulic press.

Hertz-Kleptow salvaged two hydraulic cylinder rods from an old air seeder and used them as the sleeve puller's frame. To power his unit, he already had a hydraulic cylinder "laying around". He spent about $80 on hydraulic fittings, hoses, 2 pressure gauges and other miscellaneous materials.

Because various engines have different sleeve sizes, the puller also needed several adapter plates. Hertz-Kleptow had a local machine shop make up 3 sizes of adapter plates for about $40 each. The adapter sits under the sleeve to catch the bottom edge of the liner, and a threaded rod connecting the hydraulic cylinder to the adapter plate pulls the liner up through the boring.

"I also use the sleeve puller for pulling large tractor tires off axles as well as pulling king pins out of the front axles of FWA tractors to remove final drive pivot housings," Hertz-Kleptow says. "You only need a welder, a torch and a drill press to build it."

With only about a $360 investment, Georg Hertz-Kleptow built his own hydraulic sleeve puller.

He saved money by using a hydraulic pump in his shop that's normally used on his hydraulic press.

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