



**You** probably won't be surprised to learn that Wally Larson lives in California.

The team at Larson Engineering has built a long line of street machines and hotrods which have become cover cars on many magazines. Highlights include a blown Hemi-powered Deuce roadster way back in 1955 and, in the late 1980s, an injected, blown Ferrari 512 BB which developed 1600 horsepower.

The Groundfighter takes that megamotor, mega-car idea to the extreme, mixing aviation themes with race track hardware in a package that Wally says is street legal. In Wyoming, maybe...

The real headbanger with this machine is the powerplant. Forget bigblock Chevys, ground-pounding Chrysler hemis and other traditional hot rod iron. Wally looked carefully before choosing a 4.0 litre 32v Lexus V8. Yes, Lexus.

Toyota engineers may have spent a fortune developing the Lexus to be the smoothest, quietest luxury car engine in the world, but Larson the hot rodder found the under-stressed, over-engineered alloy V8 jewel offered him everything he needed. **Its stock forged steel crank, crossbolted, webbed block and press-in, sixbolt main bearing caps** were the perfect foundations for some serious horsepower.

A little Yankee know-how in the form of Cunningham billet connecting rods and Venolia custom forged pistons toughened the Japanese basics, while

Larson personally potted and polished the heads. Then he added a PSI Corporation Lysholm screw-compressor supercharger, tweaked to a monstrous 50psi boost.

The engine runs on an explosive cocktail of nitromethane and methanol pumping through one of Larson's custom fuel injection systems. All up, the Lexus V8 is now claimed to produce close to 1500kW. That's 2000 horsepower.

The engine sits virtually dead centre in a chrome moly tube chassis which gives the Groundfighter its 7ft (2134mm) width and 14 1/2ft (4.4m) overall length. Suspension is by way of a combination of Corvette components with fabricated tubular A-arms front and rear. The rear drive assembly is also a mix of stock latemodel Corvette IRS pieces, with upper and lower trailing arms to keep it all in place when those 2000 horses start galloping towards the road.

The power is transmitted earthwards via a Ford C4 automatic transmission hooked up to an aluminium '85 Corvette



differential assembly running long 2.73 gears. The C4 uses a 10in 2500rpm stall converter for smooth power delivery. The positioning of the drivetrain gives the car a slight rear weight bias.

Groundfighter hugs the bitumen through huge Budnik billet alloy wheels capped with Goodyear 27.5x15K17 D4903 GTP tyres. The fronts are also 17in diameter but 12 inches wide. Massive Brembo 13in vented rotors with fourpiston calipers take care of braking.

The complete composite body was made at Larson Engineering in 12 layers of various mats including carbon, glass and duraglass. It was a first for Michael Larson, but Chevrolet could take sonic tips' on quality glasswork from him. The superbly crafted body was first formed in wire mesh and then built up in layers. It is finished in a blindingly bright Sikkens red.

The body assembly consists of three main sections which Theclamp together. All are remotely operated and hydraulically driven, the rear section opening from the rear of the cockpit while the front section pivots off the nose in a similar fashion.

To accomplish this and other hydraulic operations, the car needed more than 90 metres of aviation-quality plumbing. The cockpit canopy hinges forward, allowing access via a single step mounted over the side battery packs.

As you can imagine, this baby bums up a lot of electrical power, not only to start the Lexus V8 but to run all its other systems. Groundfighter uses 34 electrical circuits which are wired through an aviation-style electrical system using four 1000-amp batteries.

The windshield/canopy is a 1.8m long armoured, 25mm thick F-16 jet fighter canopy. It gives unlimited forward and side vision. The body then sweeps back and around the blown Lexus powerplant into a wide open deck with a