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Great ←→ Swaps of the Past

1.8t MkII

That we love the 1.8t engine is a given (it certainly helps explain our upcoming 1.8T Challenge). Why we don't see them transplanted more often is the complexity of the operation, especially the integration of modern electronics with older systems, security coding issues, engine mounts and the challenge of plumbing lots of pipe



into a small space. It's do-able, but not for the faint of heart or fiscally challenged.

Several examples were assembled by Shawn Van Neer, formerly of Momentum and now with Kinetic Motorsport, and represent many hours of fabrication and labor.

The ideal engine candidate for this swap is a 1997-99 A4/Passat 1.8t sans electronic throttle or security system. You can choose from various transmissions, including the new six-speed. The MkII Jetta includes a 1998 Audi 1.8t engine heavily modified with a ported and polished head, balanced and blueprinted internals, knife-edged crank, Piper cams and prototype exhaust manifold. Its intake manifold was culled from a New Beetle, augmented with a 25-hp shot of nitrous oxide. A customized Spearco intercooler mounts just beneath the bumper, linked with aluminum tubing with provisions for a GReddy blow-off valve. The exhaust is a one-off unit comprised of 2.5-in. stainless steel, a 1.5-in. Deltagate pipe and stainless-steel muffler. Its 300+hp are funneled through a Clutchmaster carbon-Kevlar unit and Quaife differential.

Van Neer also built a MkIII Jetta with the same engine but was left mostly stock except for a TAP ECU Mitsubishi Starton intercooler and custom exhaust plumbing. It appears as though it was born this way.



GPR 914-6/3.2

As Dave Shepard, proprietor of GPR and owner/builder of this 1970 914-6 put it, "This Porsche is nothing fancy...but it works." Essentially a bolt-in program for the 914, this car has been fitted with a 3.2-liter engine from a 911 Carrera, a relatively painless swap given the two cars' electronic compatibility. The bul-



letproof Motronic brain of the 911 was retained, so the 914 performs like a factory-built car. Shepard augmented the engine with



AutoThorty's mass airflow sensor, performance software and Bursch headers and exhaust. Brakes have been upgraded to cope with the 250 bhp this 914 makes...and delivers in its role as a daily driver.

GPR

(805) 549-8525

www.gprparts.com

Twin-turbo VR6 New Beetle

HPA was one of the first VW tuners to place VW's narrow-angle six into the New Beetle, an idea VW put into production months later with its New Beetle Cup racers. The concept for this car was based on a 2000 New Beetle and includes VW's new 24V VR6 augmented with twin turbochargers. Audi's Haldex-based all-wheel drive supplies the grip, while enlarged body panels allow bigger running gear and huge brakes.

Marcel Horn scanned microfiche, ETKA CDs (European and U.S. versions) and consulted with contacts within VW Germany before acquiring the appropriate combination of Golf, Jetta, TT and A3 parts and pieces for the revised floorpan. The stuff came straight off the assembly line and follows HPA's philosophy of factory accuracy to ensure maximum reliability.



The turbo system is from HGP, a German company that had built several prototype vehicles for VW & VW Motorsport. Although

the design and mechanics of the system were important (intake and exhaust manifolds, intake tubes, and intercoolers), the key was using the factory's electronics.



The only internal engine mods are special hardened "black" race connecting rod bearings and HGP's head spacer, which lowers compression to 7.0:1. In VW Motorsport testing, the production drivetrain can accommodate up to 750 hp, so it remained unmolested.

Runs with a similar HGP vehicle on the Bosch awd dyno revealed stunning results—with 100-octane fuel, the car made 491 hp with 537 lb-ft of twist. Tuned for 93 octane, the HGP system made 442 hp and 484 lb-ft of torque, still enough to best Porsche's bad boy biturbo.

Underpinnings (by order of importance) include Porsche 993 Twin Turbo cast, drilled 12.88-in. rotors and calipers up front and Boxster S calipers and rotors in the rear.

HPA Motorsports

(888) 530-1433

www.hpamotorsport.com

Tristar/3.2

Despite its underwhelming Wasserboxer engine, VW's T3 chassis and all its incarnations is a beloved design. The T3 was host to a slew of transplants, including the inline four from the Golf, various VW TDI engines, small-block Chevys and, in this case, Porsche's 911 six. Although never officially imported to the U.S., a few VW TriStars found their way across the pond and landed in enthusiastic hands. Knightwerks in Hawaii performed the transplant using a 3.0-

