

64 GT Coupe Hotrod (**tangerine**)

The car was built from a rust and accident free 64 C Coupe. The only metalwork needed was to perfect the fit of the panels and fill the gas tank door on the PS fender. I've attached pictures of the body in bare metal. It still has the original, kardex matching, engine and transaxle. The car has been extensively modified to increase performance and handling, but remains completely 356. No crazy body modifications have been done, and no updated 911 or VW parts have been used. It remains true to its original design and is the ultimate pushrod 356.

Details are as follows:

BODY



As mentioned, a near flawless 356C Coupe was the starting point. The body was stripped completely to bare metal and all insulation was removed. Undercoating was retained on the chassis to protect the metal from rocks.

The fuel door on the PS fender was deleted and a special fuel tank was fabricated with a larger GT filler cap.

Factory GT decos were used, and the bumper guards, rocker deco trim and hood handle were deleted (ala factory GT).

All side and rear glass was replaced with Lexan coated plexiglass and the window regulators were lightened.

The reverse light was modified as a third brake light for safety.

Headlights are 356 European type equipped with 90/100W yellow all-weather H4 bulbs.

All panels, floor, battery floor, bumpers, etc. are original to the car.

Curbweight with ¼ tank of fuel was checked at 1800lbs. Stock curbweight is just over 2000lbs.

CHASSIS

The stock torsion bars have been replaced with 5 leaf front bars (15% stiffer) and 26mm rear bars (20% stiffer).

The tie rods are stronger WR aluminum units.

Front spindles have been modified for 1 degree negative camber.

Front swaybar is the WR 17.5mm with HD bushings.

Rear springplate bushings are WR HD (15% harder rubber).

Brake rotors have been modified by cross drilling. Brakes are otherwise stock with rubber hoses for safety and stock pads. Master cylinder is an ATE dual circuit.

Shocks are specially valved WR Sport Bilsteins.

The car has been lowered 1.5" and the bumpstops have been modified to compensate for the lower ride height.

Wheels are Panasport Racing alloys 6x15 with 205/55 tires. The wheels have been stripped and tumbled for a bare aluminum finish. Bullnosed wheel studs are used.

INTERIOR

All interior floor and side panel insulation was removed to save weight (ala GT).

Original German square weave carpet and original German pebble grain GT interior vinyl was used to replicate an original GT interior. The smooth covered side panels of an original GT were replaced with lighter weight carpet.

Lightweight floormats were patterned after the originals, similar to the ST and RS lightweight cars. Special order, orange dot Cocomats are installed.

The seats are super light buckets made in Italy on custom frames to lower the driving position. They are covered in leather with cloth inserts.

The gauges were special ordered from VDO. The combination gauge displays oil temp, pressure, fuel tank, and voltage. The common warning lights for oil pressure (green) and charging (red) are mounted to the left of the combi gauge and are the same as the warning lights used for the heated windshield in factory rallye cars of that period. The tachometer carries a standard factory Carrera 8K RPM face with 7K RPM redline and has been internally converted to function with the CDI ignition system. The speedo is a factory 160 MPH Carrera unit. The clock is a special order sweep-second-hand type.

A special fuel pump cut-off switch is mounted below the speedo.

The bulky ashtray holder of the 356C has been removed.

The steering wheel is a 911 sport type that has a specially fabricated hub to mount to the 356 column and uses a 356A horn button.

The seat belts are WR 3pt type that mount to the B pillar with a special hardened bracket (no weld-in modification was done).

A black RS Lightweight type headliner was used and the overhead dome lights have been deleted. The sunvisors have been deleted and a shade stripe has been applied to the windshield.

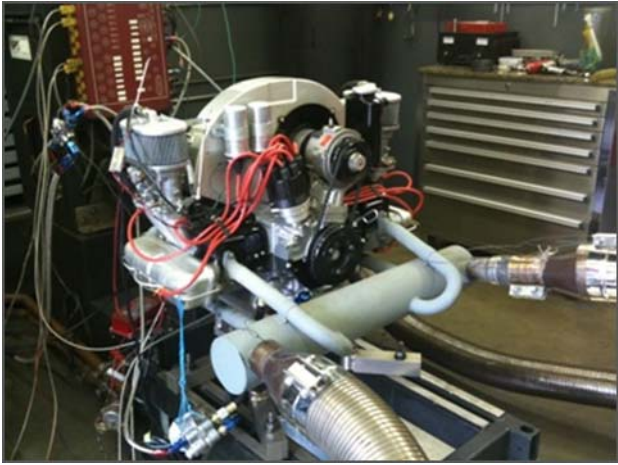
TRANSAXLE

The transaxle has the original BBB ratios for gears 1-3. Fourth gear has been changed to the slightly lower D ratio used in the European Carrera 2.

As in all of our WR rebuilt transaxles, the original extreme duty bearings are used for the intermediate plate and pinion. Specially prepared tapered roller bearings (ala 901) replace the ball bearings used by the factory for the diff carrier (these minimize the side play of the diff and are much stronger). The ring gear is the latest 12 bolt type and the late type diff housing has been stress relieved and shot peened to prevent cracking.

The shifter is a WR Short Shift unit, providing a 40% reduction in shift throw.

ENGINE



SHOWN ON THE DYNO WITH TEST MUFFLER

The heart of this 64 Outlaw Coupe is the engine - the latest in the evolution of the WR twin plug 356 engine – the **2002TR**. A 91mm bore and 77mm stroke provide 2002cc displacement. It has been built using the original Kardex numbered case to the following specs:

Special order WR 77mm lightweight crankshaft made for us by Scat using Buick 2.0" rod journals and steel backed Clevite bearings.

Special order Carrillo rods in standard length with 2.0" big end.

WR 91mm aluminum Nikasil coated cylinders made by LN Engineering.

Special WR Long Stroke pistons made for us by JE.

WR High Flow cylinder heads using 42I/34E valves made by Ferrea with chromoly retainers and double valve springs (set for the 7K rpm redline).

Full flow oiling system with full flow spin-on filter, 190 degree thermostat, aeroquip hose and fittings, and a 19 row Mocal oil cooler mounted on a special bracket and airduct in the DS front fender.

44IDF Weber carbs.

WR Breather kit with valve covers vented to carbs and crankcase vented to exterior. Breather can modified with special baffle to prevent oil spray.

Stock #16 Super camshaft profile specially ground on a new billet with a base circle spec'd for the longer stroke crankshaft. Lifters are EDM center-bored with a .020" hole to provide direct cam lobe oiling.

WR Lightweight flywheel and clutch package using a special made 4130 chromoly 11lb flywheel, and a tungsten coated aluminum HD pressure plate combined with a special organic/Kevlar clutch disc.

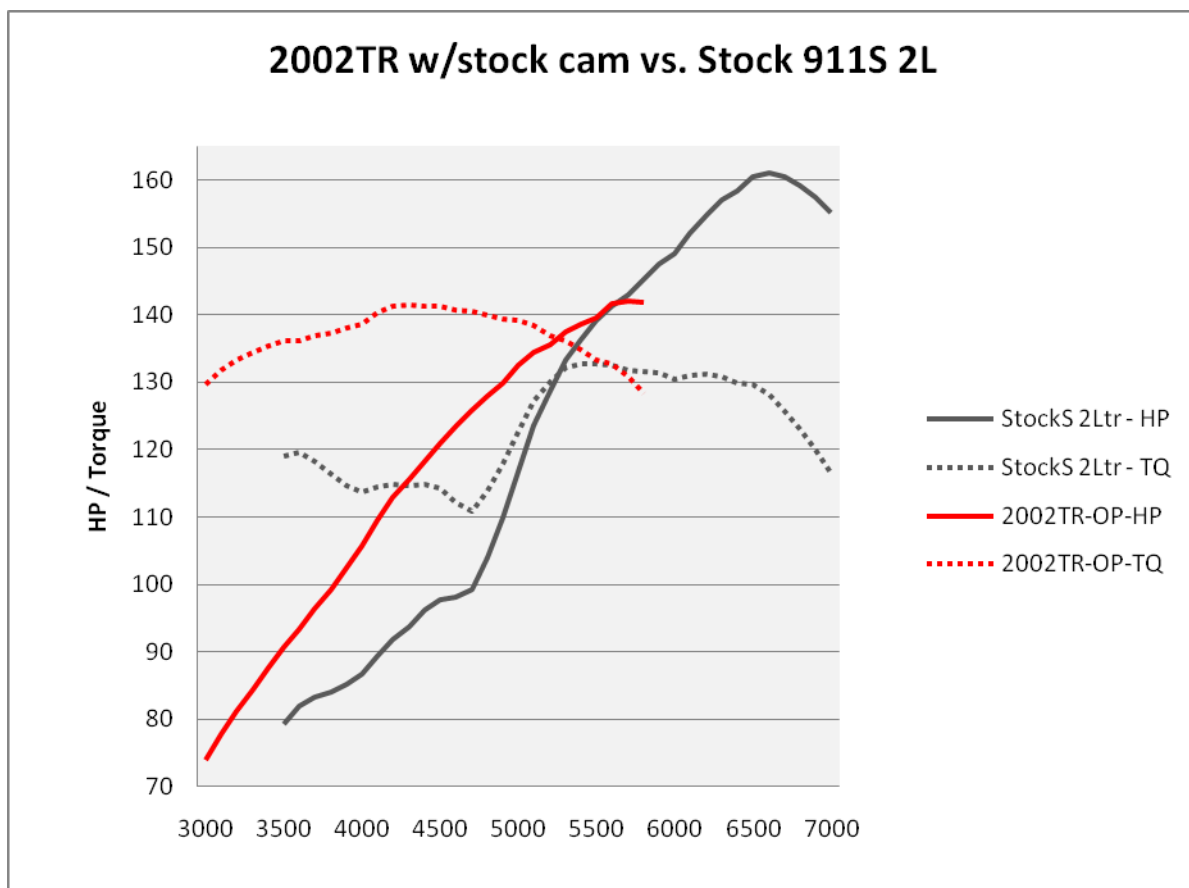
WR Harmonic Damper/front pulley made by ATI to smooth the resonance at high RPM and provide longer bearing life.

Sport exhaust made for the twin plug engine.

12V electrical system with special WR dual output CDI ignition.

Fully broken in and then dyno tested on a \$200K DTS dyno cell, the engine (with this very mild camshaft) produced **142hp@5700rpm** and **141ftlbs@4300rpm**.

A dyno graph is displayed below. As a comparison, I plotted the 2002cc engine against a stock 2 liter 911S engine that we had tested one week earlier. **The 911S produced stock power according to the factory spec. book.** The 911S makes more power because of the 6 cylinders, bigger cam, and higher rpm, but can't begin to match the torque/hp, and drivability of this 2002TR below 5700rpm.



The result of a no expense spared restoration four years ago, the car has just recently undergone a complete refurbishment including all new brake calipers, turned rotors and new pads, new special WR Bilstein shocks, all new 2002TR engine using only the original case and heads (all other components new), and all new WR HD suspension bushings.

It is ready to drive and enjoy.