
Porsche RSR turbo by Brickyard Legends Team

Geschrieben von B8man - 31.03.2013 08:41

Brickyard Legends Team present :
Porsche Carrera RSR turbo

At the Frankfurt Motor Show in September 1973, Porsche unveiled a special 911 concept car that changed the course of sports car history. With RSR fender flares, a large rear wing and the word "Turbo" emblazoned over the rear haunches, the new Porsche offered an exciting new glimpse at the future of the 911 series.

A month later, Porsche announced that they would cease factory-backed racing activities for 1974, allowing private entrants to represent the marque with the Group 4 RSR. However, in cooperation with Martini & Rossi, Porsche entered a turbocharged Carrera in the Group 5 category for the Manufacturer's Championship, just as had been done with the prototype RSR 3.0 models of 1973.

At the time of the announcement, Porsche had little more than a concept for a turbocharged racing Carrera, yet the idea was appealing for several reasons. Not only would a Turbo Carrera expand on the technical expertise gained during the final years of the 917 program, it would set the stage for the production Porsche Turbo that was being developed for the 1975 model year. Furthermore, the promise of a "silhouette formula" in the near future made a Group 5 Turbo Carrera an ideal platform for experimentation.

To comply with the Group 5 regulations that limited capacity to three litres, a 2.14-liter engine was developed with a magnesium alloy crankcase, polished-titanium connecting rods, enlarged oil-pumps, dual ignition, Bosch mechanical injection and sodium-cooled valves. At the rear of the engine, a single KKK turbocharger was mounted in the manner of the 917 Can-Am cars. This potent engine was mated to the five-speed RSR transaxle with an 80% locking differential and special half-shafts for increased strength.

Like the engine, the chassis was a vast departure from the production 911 and Porsche implemented the best RSR and 917 components. The standard torsion bar suspension was replaced with progressive-rate titanium coil springs, Bilstein shock absorbers, anti-roll bars and boxed-aluminum trailing arms. The result was a suspension assembly 66 lbs. lighter than those of the RSR 3.0. To this sturdy foundation, Porsche equipped the Turbo Carrera with RSR-type brakes and massive rear wheels for additional grip.

Again, using the RSR as the basic foundation, the bodywork made extensive use of fiberglass, with lightweight plastic forming the front fenders, rear aprons and all door and deck lids. Similarly, the interior was stripped of all unnecessary details and outfitted with an aluminum roll cage, boost gauge, boost knob and full-race controls. At the rear, a substantial rear wing was fashioned to both increase downforce and provide a more discreet inlet for the intercooler. In an attempt to maintain a visual relationship with the production 911, the large rear wing was painted black to downplay its size.

After extensive testing, the RSR Turbo 2.14 made its competition debut at the Monza 1000 Kilometers finishing 5th overall and proved extremely successful at the 1974 24 Hours of Le Mans finishing 2nd overall behind a Matra sports prototype. Throughout the 1974 season, the Turbo Carrera continued to be tested and improved, eventually leading to the introduction of the 935 in 1976.

- the mod is linked to GTC-TC-76 class and the Porsche 911RSR.

Credits :

- papag21 : 3d, mapping, file structure, skins
- greg7 : physics
- kiwisteve : template, skins
- Ralf1973 : skins
- hpiracer : skins
- rallymaster : testing
- Cesere : Track testing
- Jason : Track testing
- rsvmille : sounds

Installation instructions:

- extract folder to X:/GTL/

Enjoy

YOU NEED THE ALTBIERBUDEN CAR CLASSES TO RUN THIS MOD!

Porsche RSR turbo Physics read me

Essentially a test bed for Porsche to try out racing a 911 chassis with a turbocharged engine, it was understood from the start that would be impossible to homologate as a true GT car as Porsche had no turbo charged road car yet. Instead built to fit in to the 3.0 Prototype rules that allowed turbocharged engines to displace up to 2.14 liters, however this also meant racing against full 3 liter prototype cars like Matra and Ferrari 312s.

Built from a standard 3.0 RSR chassis the RSR turbo would have several things about it that were new and unique for a 911 based race car.

First was of course the 2.1 liter turbo flat six engines built using the experience gained from the 917 Can Am project. It was capable of producing as much as 500hp with the boost turned all the way up. However this power output was soon found to make the engine and gearbox (a standard RSR 915 unit) unreliable and was only used for short qualifying runs. Instead the car was raced at between 450 and 470hp. even at these numbers the 915 gear box was often a source of problems for the car

Also this RSR had the fuel tank mid mounted instead of in the front of the car to help keep the handling balance more consistent between full and empty tanks.

That and the large rear mounted air to air inter cooler and the extra weight of the Turbo charger components combined to create an RSR with an almost 30/70 front to rear weight split more rear weight than ever tried in an RSR.

Also the first true rear wing that the factory ever fitted to a 911 chassis was seen on the RSR turbo.

All this added up to a very fast car but all was not perfect. the car ended up with a very high center of gravity compared to a standard RSR, more aero drag, initially 15 inch wide rear wheels were use but thy proved too small to handle the power and rear weight and were quickly changed to 17inch wide ones.

The early reports were of a car that was extremely challenging to drive, too much rear weight combined with too much power.

There was lots of under steer on corner entry and lots of over steer on exit.

However by the end of its development it was tuned to be not too bad at all to drive fast.

Its greatest achievement was to finish 2nd over all at the 1974 24 hours of Le Mans and were it not for loosing top gear (as well as 1st, 2nd and 3rd) it might have won over all.

In the shorter sprint races it was simply out classed by the purpose built 3.0 prototypes. And at the end of the 1974 season Porsche abandoned the car to build its true Group-5 car the 935.

RSR TURBO for GTL

It is a unique car to drive the fist thing to notice is how light the front end is this can make hard braking a little tricky as it is easy to lock the front wheels so some time needs to be spent tuning the front to rear brake balance for each track you drive on.

You always need to be aware of the weight at the back 69% of the weight of the car is behind you and you need to keep it under control. Over aggressive driving will cause it to work like a pendulum against you and while the 17inch rear tires have a lot of grip you can over power them if the back of the car starts to fish tail to much.

470hp and 1990 pounds with driver means its fast. Unlike the bigger 934 and 935 turbo engines there is not a huge Torque spike and the power band is wide. But some attention to gearing is necessary.

The front of the car can be set very soft because of the lack of front weight and this can help the mid corner throttle on under steer but to soft in the front and car will dive hard on throttle lift and can become unstable.

In fast corners the tendency if for some Power on under steer a light lift off of the throttle will tuck the front of the car back to the apex but to aggressive a lift can start the back around.

As long as you keep the rear under control you can change the attitude from under steer to over steer and back by modulating the throttle.

In slow corners there is always the possibility of locking the front brakes if youâ€™re not paying attention.

You need to get it rotated well around before you go pack to full power as all that rear weight will unload the front tires under hard acceleration and it will pick up some under steer on exit.

It was reported at one race that after loosing the nose in an accident and the down force that goes with it, that it would lift the front tires completely off the ground under hard acceleration out of some corners.

Greg7

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von kart1803 - 31.03.2013 09:53

Vielen vielen Dank f  r dieses sch  ne Fahrzeug!

Thanks a lot for this wonderfull car @ team Brickyard Legends and all involved. :)

cheers,
kart1803

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von marc125 - 31.03.2013 11:38

vielen dank!

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Nepomuk - 31.03.2013 12:25

What a lovely easter egg!

Thank you very much!

:woohoo: :woohoo: :woohoo:

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von !Dirk - 31.03.2013 12:33

jo frohe Ostern,

und wieder einmal ein tolles Geschenk. Keine Frage dolles Auto. Doch leider wiedereinmal kein 911er f  r die ETCC :(und das wo wir jetzt 8 verschiedene Teile davon haben. Man darf die Hoffnung nicht aufgeben

Ig Dirk

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von DonPanoz - 01.04.2013 13:05

!Dirk schrieb:
jo frohe Ostern,

und wieder einmal ein tolles Geschenk. Keine Frage dolles Auto. Doch leider wiedereinmal kein 911er f  r die ETCC :(und das wo wir jetzt 8 verschiedene Teile davon haben. Man darf die Hoffnung nicht aufgeben

Ig Dirk

Wäre der 911 S nicht evtl. ein geeignetes Teil dafür?

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Greg7 - 01.04.2013 18:19

Funny you should mention that.

The reason the original 1972 911S (at NoGrip) has not come to ABB yet is because my original Mod is a mess from a file structure point of view. And needed to be cleaned up and basically rebuilt.

That work to rebuild the mod started about 4 weeks ago and in fact it's very close to finished.

Because the original mod had had many cars painted for it and I don't want to render them useless, I am not replacing the older mod. Instead it is being built specifically with ABB in mind.

There will be 3 variations of the car all of which should be eligible for the ETCC

The standard 1972 spec, 2.5 liter Group-4 car

The Later IMSA GTU spec version 2.5 (lighter weight)

And the 1970 ultra light weight early 2.3 liter Gérard Larrousse car that raced as a prototype.

All the mesh files and wheels have been redone and cars are being painted now.

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Greybrad - 02.04.2013 04:44

Liking the Turbo :cheer:

I hope I get enough free time to try the 1972 911S

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Marko123 - 02.04.2013 12:46

Ich danke natürlich auch für den geilen Porsche!

Er hat echt ein total geiles design mit allen Details. Nur das fahrverhalten bereitet mir noch ordentlich probleme-wenn ich in eine kurve fahre komplett ohne den Gasfuß-> ganz klar: er bricht aus!

Wenn ich aber in eine kurve fahre und gas gebe(egal wie viel)-> er schiebt sich immer sofort ans äußere der kurve, so als würde er übersteuern: dry.. Aber jetzt hab ich endlich wieder eine neue Herausforderung nämlich den RSR zu beherrschen:)

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von !Dirk - 02.04.2013 13:57

oh hi Greg,

yeah funny indeed, i know the NoGrip Version, quite fine 911, only thing is i saw only one Version.

201kW and about 1008kg mass, so a bit heavier than the light-version 911rsr on ABB, which has 987kg mass.

So fine we will see how much time you can spend on it...it would be gaining forwards the ABB-ETCC if this car find the way :)

Thanks for the info

regards !Dirk

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von pcroon - 09.04.2013 04:57

thank you, great work and a nice videopresentation

leuts, schaut euch mal das video bei youtube an, ist echt gut gemacht. ich frage mich nur woher die autoren die energie und zeit hernehmen...

nochmal, vielen vielen dank fÃ¼r all die arbeit hier :cheer:

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Lukas Mueller - 23.04.2013 13:16

Da ist man mal fÃ¼r ne etwas lÃ¤ngere Zeit nicht online und dann sowas! Wow! :ohmy: :woohoo: :woohoo:

Aber wie kann ich den Wagen herunterladen, im Autoupdater erscheint sie nicht? :o

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Argyle - 24.04.2013 10:23

Thx Greg,

after just some testing i could say :

what a fine car !

Great car, great physics, with some setupping well controlable with steering AND gaspedal. But it remains a challange and needs a wide awake and well concentrated Driver B)

could become my favorite P.

compliments

Stefan

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Samstrike68 - 03.03.2015 13:27

Habe diesen Traumwagen am Sonntag nach langer Zeit mal wieder bewegt.
Echt schwer zu fahren das Monster, habe dann den Lenkwinkel von 15Â° auf 13Â° gesetzt und es ging schon besser.

Leider finde ich online kein Setup fÃ¼r das Monster, hat hier evtl. jemand eines oder kann mir sagen, wie ich ihn noch ein wenig freundlicher gestalten kann von seinen Einstellungen her ?

GruÃ Sam

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von [GCZ] Henry F - 03.03.2015 16:00

Hi,

habe mich mal vor einiger Zeit mit dem Porsche beschäftigt.
Setup hin oder her, er bleibt eine riesen Zicke.
Ohne massive Fahrstilanpassung wirds anstrengend(Schaltpunkte, Gangwahl usw.).

Meine Setupversion fÃ¼r den Carrera RSR Turbo sollte im Interlagos Ordner liegen.

MfG

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Samstrike68 - 03.03.2015 16:20

Danke @Henry F, das schaue ich mir an. :)
Klar wird daraus kein gutmÃ¼tiges Fahrzeug aber ich finde, das ist ja gerade der gewisse Reiz bei diesen PS Monstern.

Danke
GruÃŸ
Sam

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Linus64 - 03.03.2015 18:00

Hi Leute

Probiermal den Sturz vorne auf 0,7 und
der fÃ¶hrt richtig gut.:)

Gruss Wiege

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Samstrike68 - 04.03.2015 16:26

Danke @Linus64, mal schauen was Henry F in seinem Setup verbaut hat bzw. eingestellt hat. :)
Wird morgen getestet.

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Samstrike68 - 07.03.2015 18:55

Henry F schrieb:
Hi,

habe mich mal vor einiger Zeit mit dem Porsche beschäftigt.
Setup hin oder her, er bleibt eine riesen Zicke.
Ohne massive Fahrstilanpassung wirds anstrengend(Schaltpunkte, Gangwahl usw.).

Meine Setupversion fÃ¼r den Carrera RSR Turbo sollte im Interlagos Ordner liegen.

MfG

Hi Henry F, weiÃ Du noch wie dein Setup in Interlagos heiÃt ?
Finde nur je eins von Stefan Bellof & Micha W.

GruÃ
Sam

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Robbser - 07.03.2015 19:05

der Henry F ist der Stefan Bellof

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Samstrike68 - 07.03.2015 19:09

Robbser schrieb:
der Henry F ist der Stefan Bellof

Besten Dank, dann probiere ich das mal mit original und -0,7er Sturz. :)

GruÃ
Sam

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Heizen Ltf - 07.03.2015 19:35

Ich tippe auf Stefan Bellof. Das ist sein Nick hier im Game.

GrÃ¼sse Patrick

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von Samstrike68 - 07.03.2015 19:47

Heizen Ltf schrieb:
Ich tippe auf Stefan Bellof. Das ist sein Nick hier im Game.

GrÃ¼sse Patrick

Dannke @Heizen, den Tipp hatte mir Robbser zwei BeitrÃ¤ge weiter oben schon genannt, aber besser zwei richtige als gar keine Antworten. :)

=====

Aw: Porsche RSR turbo by Brickyard Legends Team

Geschrieben von [GCZ] Henry F - 07.03.2015 21:27

Hi,

ja sorry hÃ¤tte ich doch mal erwÃ¶hnen dÃ¼rfen.

Henry F = Stefan Bellof

Das Durcheinander wird nach der ETCC geordnet. :)

Mein Sturz richtet sich immer nach der Temp Verteilung, ganz klar.

Sturz, Steering Lock, Bremsdruck sind meist "Fahrstil" und auch Ausstattungsabhängig. ;)

=====