

# SMOKING ACE

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**P**istons... Who needs them? I mean they work well, but for a minority in the racing scene they are of no use. This is where the Rotary engine and its piston-less design comes into play. While most piston engines are limited to the confines of revving to around 6000-8000 rpm, the Rotary engine just starts to have some fun at this rev range. It's like a never ending high-revving story that goes on and on to about 13000 rpm... That's super bike territory! >>



After sitting in a turbocharged Rotary it's easy to understand why Rotary enthusiasts like Raymond Goodwich are in love with them. Yes they are expensive to build and maintain but once you plant your right foot and explore the plethora of available boost and revs, the costs become insignificant. It's all about mental power and having good old juvenile fun - and that's what this Mazda 323 is all about. I believe that if you spend money on a car and build it passionately you must enjoy it and by the looks of things Raymond does exactly that. What more could a guy want? Get in, start it and listen to the sexy idle, maybe have a monster burnout or two.



This little Ace started life as a daily economical run about. These 323's last for ever and are as tough as your mother in laws rump steak. The advantage that these cars have that makes them such good platforms for race cars is that they are rear-wheel drive hatch backs - which are rare. They're light and the 13b Rotary turbo motor fits in the engine bay perfectly. To start the project Raymond got his hands on an import 13b Rotary turbo motor. These motors are widely available and are relatively easy to modify. Since there are no connecting rods and pistons to worry about the first upgrade was made on the turbocharger. The standard turbo was replaced by a much more potent and boost efficient Garret turbo that does a good job of shoveling a conservative 0.8 bar boost. Needless to say at this low boost level the Ace makes 206 kW and 300NM of torque all of which powered the car to a personal best of 11.8sec quarter mile.

The addition of a Turbo Toys 46mm waste gate ensures that the boost is always under control and an Excell dump valve was plumbed into the system to protect the turbo from excess boost causing surge. Compressor surge sounds lovely but it will break your turbo! The stock intercooler was also replaced with a shiny new front mount and the whole system is connected via some tasty polished charge pipes. All goings on are controlled via a Microtech fuel management system which is the preferred management system globally for Rotary engines. Once it's fired up all you need to do is block your ears because in true turbo Rotary fashion this 323 screams! It will give you goose bumps and is the best sounding performance engine around. All of this Rotary inspired power is transferred through to the rear wheels via a standard Rotary turbo gearbox and a Toyota Hilux M75 diff which utilises a 4:11 diff ratio. This car gets a good amount of





traction, partly due to the fact the Raymond fiddled around with the suspension himself. The addition of adjustable rod ends help in this department. Not only can it accelerate hard but it can stop on a dime too. This is thanks to upgraded rear brakes with Golf 2 callipers.

The exterior of the car is pretty much standard as there aren't many of the shelf styling parts available for this model Mazda. But I prefer it this way, it's purposeful. You won't mistake for anything else but a drag car with its light to dark blue paint scheme and sponsors stickers. The paint job is great and it really makes this old car look a bit more contemporary and the good thing is that Raymond painted it himself. The only addition has been the bonnet scoop and raised bonnet which aid in gulping in huge amounts of fresh, smog free air. This dragster runs on proper drag tyres namely 26x10x15 Mickey Thompson slicks covering a set of sexy Spinwerkes light weight wheels at the back and 195x50x15 rims at the front.

The interior is purposeful also, only the necessary ancillaries like a custom roll cage, a rev counter with tachometer and the necessary boost and oil pressure gauges are present. There's a matching blue sport steering wheel that aids Raymond in keeping this puppy straight. With the stripped out interior the howling Rotary sound must resonate through the car and shake Raymond's bowels. Ice? Radio? Hahaha that's not needed, don't be silly. To 13000 rpm and beyond!!!



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