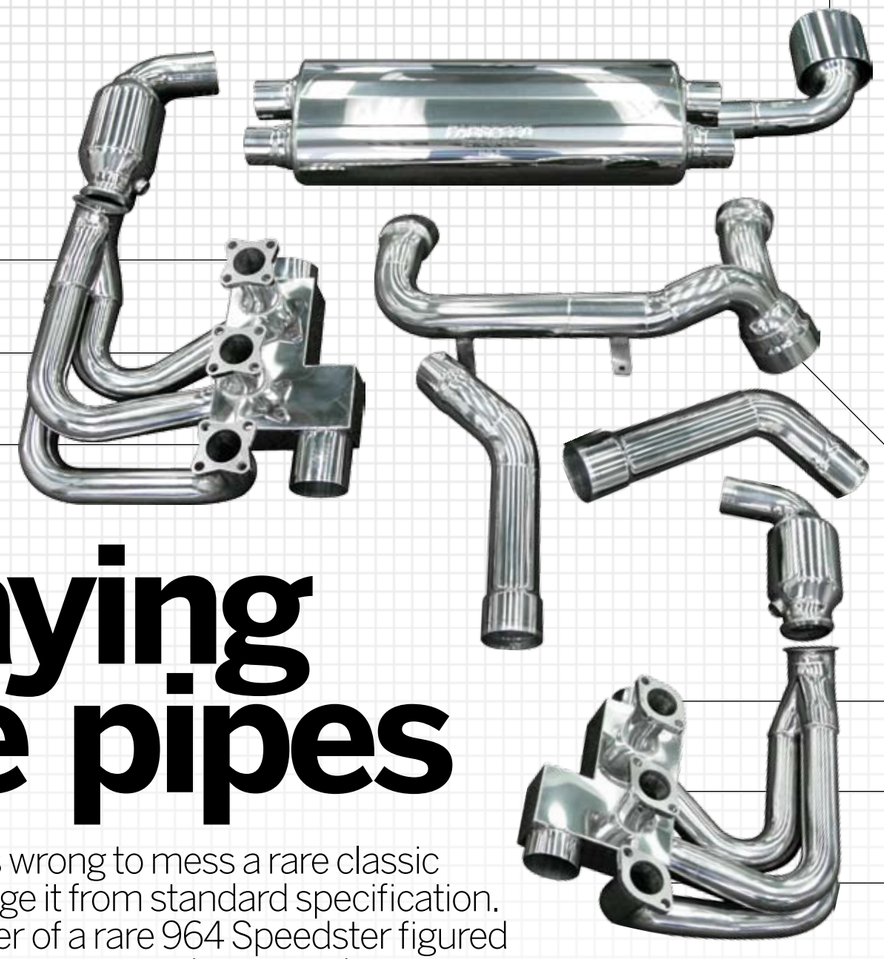

Playing the pipes

Some say it's wrong to mess a rare classic 911 and change it from standard specification. But one owner of a rare 964 Speedster figured it made sense to improve his car with an aftermarket exhaust system

Written by **Philip Raby**
Photographed by **Leo Tam and Peter Chang**

More and more, people want their Porsche 911s to be as they left the factory. Buyers are keen to find cars with the original wheels, original radio and, most certainly, the original exhaust system. And this is no truer than with 964 buyers who, all of a sudden, have become originality addicts.

The upshot of this is that owners are increasingly reluctant to modify their Porsches, as they're concerned that, doing so, will affect its resale value. And, nine times out of ten, they're right – a modified 911 will be harder to sell than a standard one. So, increasingly, Porsches are remaining as Dr Porsche intended them. Which is good news in some ways, as we're less likely to see unsympathetic modifications but, on the other hand, tasteful modifications can be a joy to behold.

One enthusiast who's wrestled with this dilemma is Kevin Yeung from Hong Kong. He owns a very special Porsche, indeed. It's a 964 Speedster, which is rare in itself but this one was the last of its handcrafted kind to leave Rolf Sprenger's Sonderwunsch department, back in 1994 (you can read its full story in issue 46). With a Porsche this rare, you are more custodian than owner; a fact that Kevin is well aware of, and of his responsibility to preserve the Speedster for future generations.

However, he has no intention of selling it, so he doesn't have to worry about resale values but, at the same time, he wants to enjoy the Porsche as a fun weekend toy. "As a driving enthusiast, I had identified one particular area that required improvement," Kevin explains. "And it was something that could be changed without permanently affecting the Speedster's originality – the exhaust. A better-breathing system would release some power and give a rather more intoxicating sound."

Being a dyed-in-the-wool Porsche fanatic, Kevin naturally first turned to factory options, namely the 964RS system. "A few of my friends own 964RSs so it was a simple matter for me to drive their cars to see how the exhausts feel and

"I identified one particular area that required improvement. And it was something that could be changed without permanently affecting the Speedster's originality – the exhaust"

The original heat exchangers (above) ready to come off. Without an exhaust, you get a good look at the flat six engine

All laid out on the OPC's floor ready for fitting, the new exhaust looks too good to use!

"If a committed 964RS owner wasn't happy with the factory exhaust, then I figured I needed to think outside the box"

sound. Incidentally, my Sonderwunsch Speedster was built with a blueprinted RS-spec engine so the comparison was closer than if it had a standard 964 unit."

It's possible that Kevin would have settled for an original RS system if it hadn't been for one of his friends expressing dissatisfaction with his RS's exhaust. "When my friend Julien Stump mentioned he was looking for an alternative system for his 964RS, my ears pricked up. If he, a committed RS owner, wasn't happy with the factory exhaust, then I figured I needed to think outside the box."

Kevin chatted with his Porsche-owning friends and scoured internet forums for advice. "My mandate was to find a exhaust and header system that would noticeably improve my Speedster's performance while not compromising its usability in any way. I demanded a world-class and proven system that was developed with real engineering merit. Also, being environmentally minded, it was important to me that the system featured highly effective catalytic converters."

Kevin's search eventually took him to Fabspeed Motorsports in Pennsylvania, USA. The company was formed in 1992 by Porsche nut Joe Fabiani. "I wanted an exhaust system for my 993 but couldn't find what I wanted, so I made my own, and then began building systems for friends' track 911s," Joe explains. "I was delighted to hear from Kevin as I also have a Sonderwunsch Porsche – a 1987 red flatnose Turbo."

Not surprisingly, then, Kevin and Joe immediately hit it off. "Speaking with Joe, I shared his passion for sport cars and exhausts – our conversation was both enlightening and infectious," grins Kevin. "What's more, Joe has a team of design engineers and welders who share that passion and, more importantly, demonstrated to me that they know what they are talking about and are dedicated to producing the best exhaust systems out there."

Kevin's mind was made up – Fabspeed was the company which was going to create a new exhaust system for his precious Speedster.

Before long, an order was placed and Fabspeed's engineers set to work creating what can only be described as a work of art. General Manager, Jeremy D'Avella, explains what was involved: "Made entirely from 12- and 14-gauge T304 stainless steel, the tubing was CNC mandrel bent and linked to hydroformed silencers and 200-cell catalytic converters. Each TIG joint was butt welded and internally finished by hand to give the smoothest possible flow.

"The headers included merge collectors which build velocity through the venturi effect. Air passing through an hourglass-shaped venturi accelerates as it passes through the narrowest part of the venturi then slows down and expands as it emerges on the other side. This creates a pressure drop, in effect siphoning air into the low-pressure side of the venturi and drawing more volume through the venturi. In a header collector, the venturi effect improves exhaust velocity and scavenging. In a standard collector, the primary tubes are cut off flat and dump directly into the collector. In a Fabspeed merge collector, the primary tubes are sectioned and merge into a cone shape before the collector necks down to its minimum diameter. This helps to shape the flow of gasses and improves the transition from the primaries to the collector, reducing the effect of the change in area on velocity."

Fabspeed's Performance Director, Alex Kononchuk, is the man behind this clever design, and explains that they customised the system to suit Kevin's requirements: "He wanted catalytic converters on his system, so we built him a specific setup involving headers with 200-cell sport cats so his Speedster would comply with local emissions regulations but still make a noticeable power increase."

Exhausting process

Kevin's Fabspeed exhaust, like manygood aftermarket units, has two main advantages.

First, it's 20kg lighter than the original system which is particularly useful in a 911, when reducing weight behind the rear wheels improves the car's overall balance and handling.

Second, it's more free-flowing and allows spent gases from the cylinders to exit more quickly and efficiently which, in turn, can increase engine power; especially in conjunction with an improved inlet system and, where appropriate, a remapped ECU.

A standard exhaust system, on the other hand, is more restrictive, partly because of cost restraints, but also because it has to be relatively quiet for legal and comfort reasons – generally, the quieter an exhaust is, the more restrictive its gasflow is.

www.fabspeed.com

The new system fitted straight on with the minimum of fus

At last, Kevin got the phone call he was waiting for – his newly modified Porsche was ready to try out. He was down to the Porsche workshop before you could say 'Ferdinand Porsche'.

So was it worth the effort? "It certainly was," grins Kevin. "There aren't many exhausts you can be excited by just by looking at them, but this is a piece of engineering art. It's stunning."

Of course, that's not enough, and Kevin was eager to get out for a drive. "When I turned the ignition key for the first time, I was greeted by a solid, deep cultured rumble that was definitely sporty but not too loud. A promising start.

"I engaged first gear and, driving off, immediately noticed the 20kg weight reduction on the rear of my car. As I drove home I realised the transformation was significant. The entire power band from low-end torque to high-end horsepower was noticeably improved.

"What's more, the sound was simply epic! At full throttle, it produced a genuine RSR howl that would not be out of place at Le Mans. However, at part-throttle and low revs, there was none of that awful resonance that haunts many aftermarket exhaust systems.

"I have now spent two weeks with my Fabspeed exhaust system and the sound has become only more solid. After taking my Speedster on a few spirited drives, I really appreciate how much more balanced the handling has become; the weight off the rear has been significant and has transformed my driving experience. I have no regrets about making this change to my Porsche."

Sensibly, though, Kevin is keeping the original exhaust system in dry storage so the car can be returned to standard in the very unlikely event he decides to sell it. That way, he has the best of both worlds – a Porsche that has been subtly updated just the way he wants it, but not in a way that will affect it's future value. A perfect solution, then!