

M/E Wagner Dual Flow PCV Valve Installation



There are always tales out there that seem to have great credence but deep down you know it is undiluted BS. I liked the one about old race cars having white firewalls so that they could prove that the old lump was not spewing its life fluids all over the place if someone was interested in buying it. I brought into that and that is one of the reasons why I had mine on the 37 painted BL Old English White. I still think it was a good call in terms of aesthetics, but I had not reckoned on my new 350 Goodwrench being incontinent.

Right from the outset there was a weep from the rear crank oil seal and this was before I had rolled out of the garage. OK you can kid yourself that "It will take up" but it didn't nor did the seepage from the valve covers or the breather/filler tube on the front of the retro style inlet manifold. Fitting a bigger cooling fan did not help the cause, when that kicked in it simply sprayed "Texas tea" all over my pristine firewall. After 4,000 miles and a lot of wiping it was time to get to grips with the situation.

OK I knew what the problem was, I needed to fit a PCV valve, crank case pressure was building up and the oil under positive pressure was being forced out of every orifice. Trouble is I just loved the look of the 66 Chevy valve covers and the thought of punching holes through them did not sit well. Going onto various forums revealed that an option was to punch a hole in the back of the inlet manifold and then bond a PCV valve into that. I don't think I can say that I saw one that could be described as "Pretty", in fact I think I know what those guys did with their gum once it had lost its flavour. Then there were stories about horrendous oil consumption, catch tanks and a whole bunch of other stuff, more surfing was needed.

I was looking for a PCV valve that I could buy online, most you could get for twenty five to thirty dollars but there was one that was over one-hundred. Photographs suggested it was a little bit different and reading up about it; the guys had done their homework. They had reasoned that the average PCVs are crude affairs with the same flow rate at idle as there was at full throttle, this was why there were consumption issues. They also did some interesting work with baffles which revealed they were more than just a plate that stopped splashes of oil from being drawn up through the valve and into the combustion chambers, the position and air gap was critical.

That was it I was sold, I placed an order with M/E Wagner but requested a pair of Inline Adaptors, I wanted to have mine so it screwed into the manifold, a backyard fix does not have to be crude. Anyway, by the time the

UK Mail and Revenue had robbed me of their bite I would be looking at an expensive item, I had to get it right.



The retro Edelbrock inlet manifold has a raised boss just in front of the distributor, I had played with the idea of getting that drilled and tapped but it was a both thin and a bit too close to the whizzy sparky thing.



Turning the manifold upside down revealed that just in front of the raised

boss on top was another boss in the casting, I had already determined this was to be drilled and tapped for $\frac{1}{4}$ NPT, the question was then was it thick enough? It was time for a bravery tablet. The hole was bored then the casting faced off.



Steve down at Jontor Engineering has stopped throwing his head in his hands each time I walk in there, he just rolls with it and says "yes Dave". This time was no exception and within 48 hours I had the manifold back and machined exactly the way I had requested.

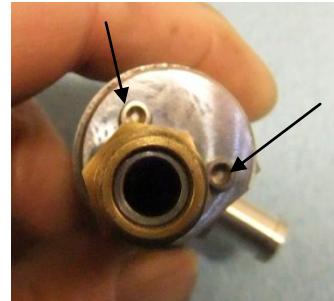
Steve had also removed the hose retaining barb so the inlet pipe was now smooth.



He had also bored out a 1/8 to 1/4 NPT reducing bush that I had taken with me, this could now be pressed onto the end of the adaptor along with a dab of "bearing fit" for good measure. I now had the makings of a gum free installation.



A test fit revealed a couple of things, the raised boss I had initially looked at now had nuisance value, it just got in the way of the 9/16 wrench needed to tighten the bush into the manifold. A few dozen strokes with the sharp side of a hacksaw blade addressed that issue.



When pressing the bush onto the inlet adaptor it was important to position the flats such that an Allan wrench could still access the small hex head retaining screws for servicing.



The next thing I would need was a baffle, even in the middle of the inlet manifold there would be plenty of oil flying around in the push rod valley. Mindful of the research Wagner had done on this subject, I formed up a baffle out of some aluminium sheet ensuring there was a good air gap between the baffle and the underside of the manifold thereby avoiding any velocity issues.



OK the installation looks good, the valve body in the vertical position to my mind is better than horizontal as any residual oil can drain back. There is good access to the idle and cruise screws, and equally important the same may be said for the cross passage plug which is removed to enable the connection of a vacuum gauge to optimise the settings. See those guys have covered all bases.

My only disappointment was that I could not dream up a simple way of fitting an NPT male connector onto the PCV outlet pipe. That way I could have formed up a nice 3/8" aluminium tube, it would have connected to the NPT fitting using a flare nut and would turn through a couple of 90° bends before connection with the shortest piece of rubber to the inlet at the base of the carburettor.

In March of this year I had settled on using some ugly silicon vacuum hose and reviewing the situation once the PCV valve had proved itself to be worthy of all this attention. It is now almost November, I am still reading horror stories about guys cable tying rags to the breather tubes and changing them out on a regular basis. Time for a "Situation Report".



Not as pretty as I would have liked but with just a little bit of a compromise I have managed to make it work.

Some 8mm aluminium tube from a DIY store plus a reinforced silicon 90° elbow has done the trick.

Setting up the unit using the M/E Wagner instruction sheet was a walk in the park, so much so that I thought I was missing something.

Question is now, did it work?

OK Odometer reading when PCV installed 4,000 miles, current reading just over 8,000. Mixed journeys, a lot of them long haul and a few hundred towing a caravan.



Le Mans 24 Hour Classic. Sarthe France



Circuit du Reims

Reims northern France



ESRA Hot Rod Nationals
Bernkastel Keus Germany



NSRA Hot Rod
Supernationals. Old Warden
Bedfordshire, England

NASC Hot Rod Nationals
Trinity Park, Ipswich, England



These were just some of the events attended this year. Obviously there were many more local events, club meetings and cruises. When arriving at the first few involving major mileage there was always a little trepidation on my part as I opened the hood sides. Each time the picture would be the same, the usual road dust and bugs to remove but no more swabbing up oil from the manifold and valve covers. This picture was taken after a good 85 mile journey, and I sure as heck was not cruising.



What would you change? Have Wagner produce the inline connector that could screw into the manifold.

Edelbrock to have the smarts to understand that guys using a Retro inlet manifold probably do not want vented valve covers. Their product is 85% there take it the extra mile and make a great sales feature out of it.

