

Lambretta Targa Twin Road & Race

In the run-up to last month's Scooter Shootout I received a call from Stuart Owen of 100mph Lambretta Club/Supertune asking if I wanted to take his Lambretta Targa Twin demonstration GP up the strip. Of course I spent all of a split second before I answered, yes please!



Origin of the species

As many readers may be aware, Innocenti produced some prototype twin-cylinder engines back in the 1960s. Fitted in to SX200 chassis' at least one of these was in a frame adapted to take 12 inch wheels and featured an updated version of its current front disc brake. However, despite extensive testing, none of these 200cc twin-cylinder Lambrettas actually made it into production.

Almost 40 years later and Tino Sacchi, Lambretta enthusiast extraordinaire and the man behind a lot of innovative new products for Lambretta scooters, set out to create a twin-cylinder Lambretta engine which would fit inside a standard Li Series frame and bodywork with no modification.

The idea was that externally these scooters would appear as original as

possible. Based around the original Innocenti designs, what he and the rest of the people involved in the project managed to create is, in my opinion, a work of art.

New old design

A complete engine costs £7200, which at first glance seems a frankly ridiculous amount of money to spend on a scooter engine. But, when you look a bit closer at what you are actually getting for your investment, then it does start to make some sense.

We first looked at the engine in depth back in the February 2007 edition of *Scootering*. The engine casing is a completely new casting to make room for the two cylinders and dual cranks, but still retains the original design for the

transmission. This makes it possible to fit a different gearbox from the Indian GP200 box fitted as standard when you buy a new Targa Twin engine. As the Indian gearbox is still available as a 'new part' there was little option than to go with that as the supplied part and as the engine produces a lot of torque the gap between second and third gears normally found when up-gearing beyond the 5.2 overall ratio with an Indian 200 box isn't really a problem. If you take into account that you are getting two cranks, two cylinders, two carburettors, an expansion system and everything else needed for a complete engine that is ready to simply bolt in, then add up the cost to build a single cylinder motor with comparable power and it starts to even out a bit.



Externally it looks just the same as a single-cylinder Lambretta.

On the track

Stuart and I had intended to take the Targa to a sprint meeting last year, but due to other commitments and no spare time on race weekends the Scooter Shootout in October was to be its first time up the strip.

It was also the first time I had seen it, let alone ridden it... so no pressure then!

When you kick the Targa into life the first thing that hits you is the exhaust note. It sounds like a well sorted Yamaha RD350 motorbike, with passers-by well used to the sound of a tuned two-stroke stopping to take notice. The other thing you notice is the vibration, or lack of it. I didn't tire of inviting people to put their hands on the headset while I revved it from tickover to 7500rpm (as indicated on the Pulse rev counter) and see the bemused look on their faces.

Before my first run up the drag strip, I realised in the queue to race that I was wearing my thick road gloves and clutch feel might be a bit limited. It was, and I pulled a wheelie off the line.

For my second run I borrowed Frank Osgerby's gloves and got off the line cleanly, only to knock the ignition switch off with my helmet as I tucked down and hit second gear. In keeping with the racy look Stuart had built the demonstrator around, he had fitted an on/off toggle switch to the handlebars which was right in line with the top of my helmet when I got my head down.

Reminding myself to remember about that, I did exactly the same thing again on the third run – D'oh!

I was getting annoyed with myself by now as I really wanted to get near the 15 second barrier and I wasn't riding well at all, missing second gear on a couple of runs. I managed to get it together and recorded a 16.03 at 77mph, but also realised I wasn't going to better that time by much as first gear was just too short for the goal I wanted to achieve. Sprinting is very much all about the start and as much as a second can be gained within the first 60 feet. Although the Targa's power starts to come in at 4500rpm,

peak power is made at 7000rpm and the engine does not rev much past this so my '60 feet' times were higher than ideal. A new expansion pipe system is currently in design which should give some more options on peak power output, if you wanted to go down that route. Higher compression cylinder heads are also on the way soon.

On the road

Having the chance to ride the Targa Twin away from the drag strip I ventured out on to the road and discovered that this is where the twin comes into its own.

Pulling away from the Airfield onto local B-roads it accelerated smoothly up to 60mph and was responsive through the bends. Dropping below 40mph without changing down, it was able to get back up to speed with little effort. With a spread of power overtaking can be spontaneous, rather than having to plan in advance, complete with a full written risk assessment before you consider getting past slower traffic!



Remove the panels and walk around the Targa Twin and you'll notice anomalies such as two carburettors.



Targa Twin vs Supermonza. Two very different engines from the same stable.

Out onto the A64 and straight up to 70mph, overtaking in the outside lane the motor felt smooth and inspired confidence. It felt unstressed at 70mph too, indicating just over 6500rpm. Dropping down to 60mph it felt like it was barely ticking over.

When I had arrived at Elvington and took a first look over the Targa, Stuart told me it had just over half a tank of fuel. And it wasn't a long-range tank either, but a standard one. After I had been up the strip a few times I was a little concerned as to how far on the open road it would take me before I ended up pushing, so with that in mind I reluctantly decided to head back. Upon investigation, however, I was surprised to find I had covered almost 30 miles and still had plenty of fuel left. Stuart later explained that the motor was returning an average of 65mpg and so despite being thrashed up the strip and given a good workout on the road, it still hadn't gulped as much fuel as I would have expected.

So is it worth it?

Bearing in mind that this a complete package with designed and manufactured components – which obviously don't come cheap – then yes, I think the Targa Twin is worth the price. It's not a cheap lash-up designed for maximum profit from minimum investment but aimed at the serious scooter tourer and user. At 70mph in the outside

lane on a single-cylinder Lambretta I tend to feel a bit exposed and get back in as soon as possible, but the Targa lends a bit more confidence. You also don't feel like your internal organs have shaken loose; the lack of vibration really needs to be experienced to be fully appreciated. I do think that for touring on a classic scooter, particularly if you use a lot of motorways, then this engine is going to take some beating. Obviously motorcycle engine conversions can be cheaper and give similar – if not better – results, but to me that's just not the point.

I know people who have spent thousands on engines only to travel at 60mph for fear

of an expensive breakdown, which kind of makes all the tuning work irrelevant. I also know people who are quite happy to ride a standard 150 as it does exactly what they want it to do. It's all about personal choice and it's the same for the Targa Twin – if you have the money and want one, I guarantee you won't be disappointed.

Barrie Braithwaite
Sprinting shots by Lee Hollick



At first glance the Targa looks like a traditional Lambretta engine.



Three Lambretta engines, six cylinders.