



Dear Andover Norton Customer,

As you browse through our webshop, you will see we have added more pages to it.

I have added a "Wideline Featherbed" section that we will gradually build up, the "Frame Repair Items" have been added to, and in the Slimline section we have a new "Oil Tank Fittings" page that Simon Amos has done.

Meanwhile new items are constantly being added. Given we are pretty complete on the Commando models we now concentrate on the Featherbeds including the very early ones and, through that, often to the pre-Featherbed items.

Brexit has seen considerable problems with the shipping into the EU. I have had parcels in customs for four weeks(!) where three working days was previously normal from door to door.

We hope that either the customs officers eventually learn to deal with the mass of additional parcels they now must look after, or (better) that the politicians who came up with the current regulations get together again and consider how to speed up the process.

Andover Norton currently registers for another system with DHL that will, we hope, speed things up for our customers, but as yet we don't know if the shipper's promises will prove to be correct.

Mystery Bike

We sometimes get sent intriguing pictures by customers who don't know what they have. This one puzzled even us:



The engine is a Jan 1967 N15CS exported to Berliner, West Coast USA. The chassis looked very much AMC Road Models to me though my friend Stefan, motorcycle historian, saw it as a P11 chassis. Which makes it AMC again. The forks puzzled me and I saw them as something from a cheap and nasty two-stroke; Stefan believes they are 1950s Harley Sportster (Oooops!).



Above: and I thought this was off a Francis Barnett or something similar.....

Norton Rotaries

Though Rotary parts are only a small part of Andover Norton's offerings, I still have a soft spot for that episode of the Norton history, having been part of it in the years 1980 to 1992, when with Norton's bankruptcy it became clear the whole project was history as far as motorcycles were concerned.

In a recent e-mail exchange Nick Jeffery, a man who worked in the motorcycle and car industry all his life and was always interested in Norton and its industrial background, raised the subject of a Lotus project that was based on the Norton rotary engine.

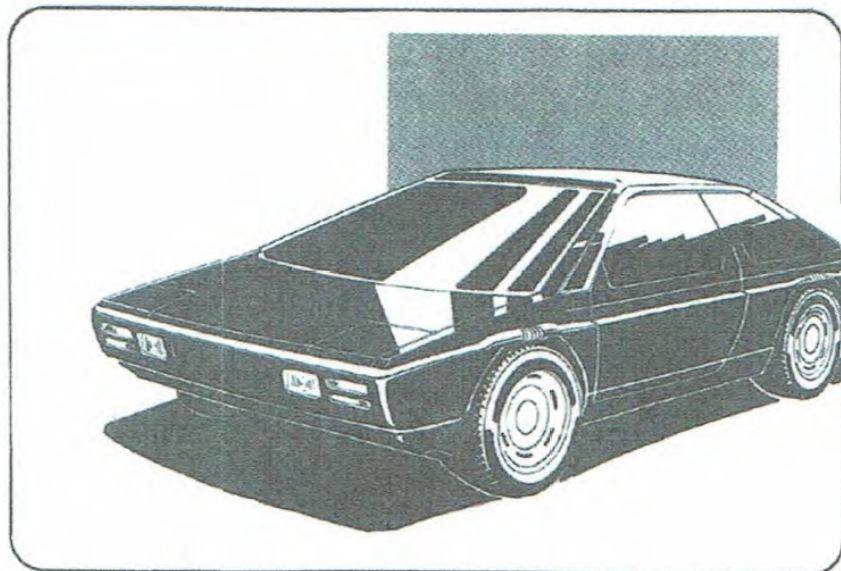
Nick wrote:

As usual, I've been doing a lot of reading and came across this autobiography by Oliver Winterbottom
<https://www.amazon.co.uk/Life-Car-Design-Jaguar-Lotus/dp/1787110354>.

He worked at Lotus on and off for many years.

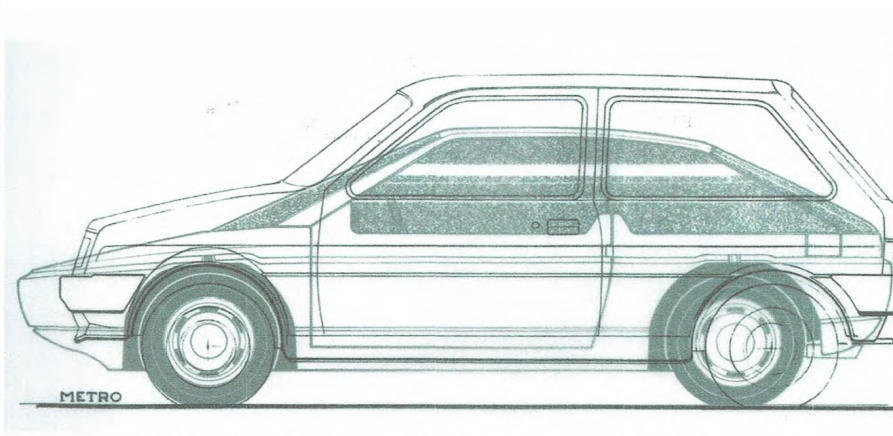
In the attached extract from it he says that in 1981 he was involved with 'Project Nora' which was exploring fitting a Norton rotary to a

small sports car. He also says the concept ideas were presented to Dennis Poore in Coventry.



Project Nora, the Norton rotary-engined coupé.

I'd never heard anything of this but what he says makes some sort of sense - DP would have been keen to explore other applications for the engine and meeting at Coventry could have been at the Manganese Bronze-owned Carbodies factory as they might have done the chassis. And the 'Nora' name has some motorcycle connection via the extraordinary Norah Docker of BSA/Golden Daimler notoriety.



Project Nora, compared with the Mini Metro, was very low it was, due to the compact powertrain.

Having heard of the project but lacking detail knowledge I asked Richard Negus who promptly replied:

I joined Norton Shenstone in December '81 and one of the development projects then was a ratty Austin Metro fitted with a twin rotor aero engine coupled to a Honda transmission. It was built by a motor mechanic on the industrial estate round the back of the factory, Bill Peat. It was said to be a challenging drive, good at the traffic light GP's, but lethal in the wet with so little weight on the driving wheels. I don't know what happened to it.

After that, Norton tried to get Reliant, whose factory was only 20 miles away, interested in a four-rotor engine for a high-performance version of their Scimitar SS1. Reliant supplied a complete SS1 and, again, Bill Peat did the modifications. Norton built a four-rotor engine from two aero twins with a big gor-blimey bronze Oldham coupling between them. Almost immediately the car was running, Reliant folded and the project dropped. Bill converted the car back to its standard Ford engine and it was returned to Tamworth.

That engine had a second life as it was sold to Mike Bellamy of Lancing Marine, Brighton, who installed it in an off-shore powerboat.

I seem to recall I rebuilt it at least once for him. He may still have it.

Now what has all this to do with Norton motorcycles? Quite a lot actually, and also, believe it or not, with BSA/Triumph!

The whole project started when BSA/Triumph was one concern under BSA leadership. I remember Norman Hyde telling me Doug Hele was driving around in an NSU Wankel Spider in the 1960s, exploring the possibilities of that "new" type of engine for use in motorcycles.

The first prototype pictures I have are BSA based, a B40 with a single-rotor engine:



and an A65 chassis with a twin rotor one.



The A65 was tested for quite a while, later getting the Oif "Euro" petrol tank and the SU carbs breathing the cooling air in over a (very small) "plenum chamber", which was the leap in rotary performance and fuel efficiency from the crude Fichtel & Sachs system.

BSA/Triumph developed the rotary alongside their conventional range as an alternative that, in the early stages, meant they were up with the other motorcycle and car manufacturers evaluating that engine. Later, after the car industry had a "gentlemen's agreement" to cease all development on that costly new engine, it was meant to give BSA/Triumph, then NVT, then Norton, an advantage over others in form of a market niche with an engine that was also easily adaptable to other uses.

Even in the dying days of BSA/Triumph the project was still ongoing, as can be seen from two further prototypes, the "Bandit Wankel":

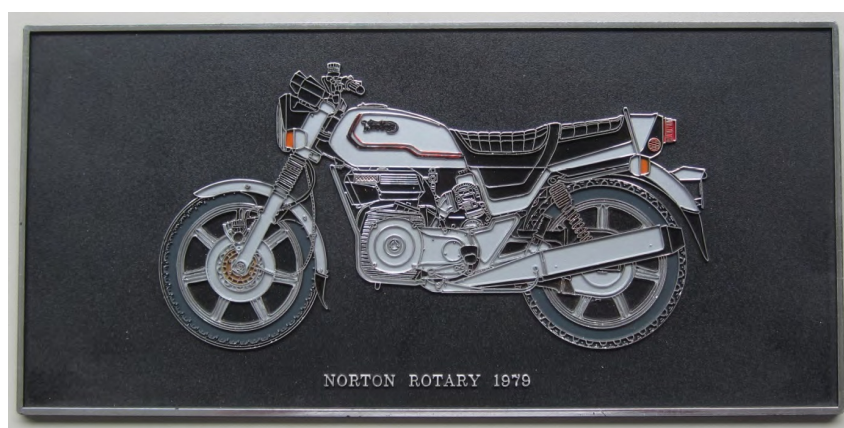


And later the "Oil in Frame" Wankel I once got back together from 5 different sources with Richard Negus' help and that my friend Rudi Kolano rebuilt into a working motorcycle:



This was a 1974 number plate and tellingly no logo was used on the petrol tank as it fell into the early NVT days. From a components point of view it was clearly a Triumph, with modified "Oil in Frame" chassis and a Triumph pre-unit gearbox fitted with a five-speed cluster.

The next step was the "Cooke Neilson" prototype of 1979 that was just destroyed in the Museum fire. This was now a "Norton":



Above: The plaque we still have a few off (13.9962) that shows the "Cooke Neilson" prototype that was meant to become the first civilian Norton Rotary model.

[Shop](#)

For the car and aero applications the air-cooled engines were replaced by water-cooled units, and in 1984 I rode the water-cooled prototype that had been on loan to the then German importers to be tested on autobahns:



The advantages were several over the air-cooled beasts: less mechanical noise through the abandoning of the big cooling fins, better cooling especially in town or escort work with the police, and later cooler main bearings by re-arranging the inlets.

From 1989 on, with the introduction of the Norton "Commander" police bike, watercooling became standard and that basic engine is still in production, though for aero use, thirty years later!

Had Norton persevered and put the money into the rotary engine for various applications instead of wasting shareholder's funds in half-wit "reverse takeover" deals I think the firm might still exist in its Shenstone form.

One reason why I saw a future in that engine type was its adaptability to various applications: aero engines, drones, stationary engines, motorcycle engines and car engines. All based on one core engine design with identical major components that lent itself to the modular approach, Bert Hopwood type. Also because of its compact dimensions and exceptional power to weight ratio.

Whether a rotary engine was still a viable proposition in motorcycles in today's world is another question, given the limited manpower and funds a small niche manufacturer might have had available over the last three decades.

Remember the race-winning Norton rotaries were nothing but glorified 1930s piston-engine technology. Fixed ignition, carburettors, cast-iron rotors, port-controlled inlet and exhaust timing- basically like an early 1930s two stroke!

Ashley's Workshop Tips & Tricks:

We have many queries about the fitting of the gaiters 06.5743. The best way is to fit these dry - not the best place to have moisture.

Heat them with a hairdryer / hot air gun and whilst still warm place the end you have just heated onto the ends of a rubber mallet. Most rubber mallets I have seen tend to be this size, and the shape will hold them stretched until they need to fitted.



Above: Ashley's Gaiter Fitting Tool. If we aren't careful Simon will give it a 13.17xx number and list it on our tools page!

To fit them, make a note of where the tiny hole is in the gaiter near the larger end you have just heated, this must go to the rear. It has two functions, prevents the gaiter from ballooning and allows moisture to escape. Remove the gaiter from the rubber mallet and quickly fit down over the stanchion and push over the seal retainer, if you are quick enough it should not have contracted too much. If need be you can use rubber grease on the retainer and the end of the gaiter to aid fitting, but be quick.

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Andover Norton Calendar 2022

We are already collecting your entries for next year's calendar, so as always please send your high-quality pictures of your Norton or Triumph along with a few lines about its history. So please send your pictures to;

newsletter@andover-norton.co.uk

**That is all for this edition of "The Source" so
until next time!**

The Team at Andover Norton.



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