



Dear Andover Norton Customer,

Spring is nearly there and I try to work on three of my projects simultaneously. Unfortunately, as opposed to our Norton Motors Ltd workshop, I neither have the working day for them because I run the German Norton Motors GmbH single-handedly, nor am I working on motorcycles that I just go to the stores to get a part needed in the course of the restoration. It was much easier with the Commandos I restored over the years, but then I did more challenging restorations, starting with my 1937 16H in 1976, later the 1937 racing Inter, the 1949 Garden Gate Manx, and the 1952/53 ex-Earls Court featherbed Inter. So hiccups are well-known but still never welcome.

I trust you, our customers, mostly blessed with less esoteric models, have your bikes ready for the season and if you need a part we can swiftly help you.

Meanwhile we continue our effort to provide the best quality for Norton and Triumph spare parts, see the two projects below.

Have fun riding your bikes,

Joe and the team of Andover Norton and Norton Motors Ltd

Gearbox Cradles

Our new cradles were far more complicated to make than an outsider would think. As opposed to what is available elsewhere, our cradles are made to drawing and from the correct width plates. It took us quite some time to find steel plate material in the original thickness to make our cradles.

Why is this so important, you may ask. It is because the cradles and the motorcycle around them was designed in non-metric dimensions and numerous other things fit to the subframe that rely on the correct width and distance from the outer plains of the subframe. Hence we took great pains to do the job according to the original drawing and you can fit these cradles without difficulties and adjustments.

Beware of copies

Our product is manufactured on new tooling with precision ground side plates. It is welded, machined and powder coated to ensure correct fit and long life.



The first ones available are [06.4060](#), the original subframe for all 750/850 Commandos pre-Mk3 and [06.5140](#), the Mk3 subframe. The special pre-Mk3 subframe [06.6972](#) with the swinging arm spindle fixed by cotters as on the Mk3 (and as on the Thruxton racebikes!) is about four weeks away.

Seat Bases

Another product in the making is our properly pressed seat bases for the most popular seat, the Commando Roadster one. Current manufacture is not 100% correct so we commissioned new tooling to press seat bases that are as per drawing. The first (revised, see Ashley's bit) pressings are now ready and about to be shipped to us. Always a heart-warming picture to see correctly-made parts that make our product range even better.



The real deal. O.K. so you don't see them but they are exactly as they should be!

Rotary News

Every week our local newspaper has a magazine-like insert called "Mobile Life" which covers cars, motorcycles, caravans and pushbikes alike. The features are quite obviously written by people unhindered by too much subject knowledge. It recently had the following news: "Mazda builds electric car with a rotary (Wankel) engine to recharge the batteries as and when needed." Not only did I learn in the feature that one of the great advantages of the rotary engine is that it does not have a crankshaft, no doubt the writer has never come across its equivalent, the excentric shaft, but furthermore the whole exercise is hailed as a totally new idea.



Factory engine display case used for trade shows & exhibitions, now in Andover.

Given the newspaper is compiled and printed in Munich; also given Ingolstadt, the home of Audi, is just 50 miles to the north, I find it astonishing the writer does not know Audi had exactly the same idea about a decade ago but never took it beyond the prototype stage. No doubt because the then “God in Residence” of the VW/Audi empire, the late Ferdinand Piech, hated the Wankel engine and saw to it that it was buried as an engine option as soon as he had the say in the then Audi/NSU factory.

Paul Dunstall

As I told before we bought the late Mick Hemmings’ archive off Angela Hemmings a while ago and I asked Karl to send me the odd archive box with my spares orders. In late February I found the box “Dunstall, Yoshimura, Moriwaki” in a parcel and over the next weekend studied the content.

Though I once had a memorable ride in the back of Norman Hyde’s van with “Pops” Yoshimura and his wife from the Cologne IFMA to the hotel, all involuntarily rolling over the floor in the back of it that was devoid of chairs and things to hold on, (Pops was heard to say: “Hahaaa, velly fast van!”) my interest in the Yoshimura/Moriwaki bits is zilch.

dunstall motorcycles



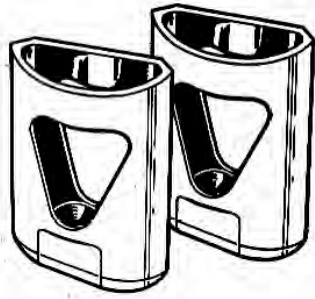
Typical 1970s advertising, the young lady vainly trying to detract from the idiosyncratic design of Paul's bodywork and exhaust system.

The Dunstall collection, including a letter signed by Paul to Mick dated 5th January 1971, apologising for the non-availability of some piston rings, contained some vintage Dunstall catalogues and a few late ones mainly concerned with Honda/Yamaha/Suzuki/BMW with Triumphs and Nortons gradually fading away.

Interesting is the range of parts Paul offered for Nortons. Special camshafts, high-compression pistons, bronze valve guides, progressively-wound valve springs, bigger valves, the six-start gears for oil pumps that became standard on late Dommis and all Commandos, timing discs, duplex brake plates, improved disc brakes, bellmouths, fairing kits... all parts we now still offer for the performance-orientated customers, see our section <https://andover-norton.co.uk/en/shop-category/69/go-faster-stuff-norton>, but also for Triumphs <https://nvt-motorcycles.com/nvt/shop-category/71/go-faster-stuff-triumph>

In the brochure that is undated but makes no mention of Commandos yet, so must be pre-1968, I found:

DOMIRACER CAM FOLLOWERS



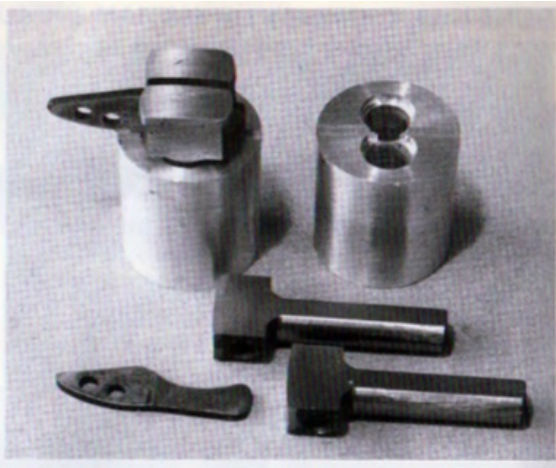
These are the genuine Domiracer cam followers specially designed for ultra high Norton Twin performance. They weigh less than half of a standard S.S. cam follower. Complete set of four as illustrated, £7.0.0. Special lightweight push rods for use with the Domiracer cam followers, £4.0.0 per set complete. Hollow blown S.S. push rods, £4.3.8 per set complete. Latest pattern downdraught S.S. cylinder head with splayed exhaust ports, complete with valve guides (the rockers, etc., from the old head will fit), £25.6.0. Domiracer inductions (3 $\frac{3}{8}$ in. long rubber mounted) for the down-draught head only £3.15.0 for the set complete.

Frankly, I did not know Dunstall ever offered these, and I wonder if he found a cache of these when he cleared the Bracebridge Street race shop out and just sold them off. Knowing how complicated and costly the “normal” [06.7820](#) camfollowers are to make I don't think Paul ever re-manufactured them for sale.

In the 1971 catalogue I find a different solution, one that is imitated by some race bit suppliers today:

DUNSTALL CAMFOLLOWER KIT

These new cam followers are 35% lighter than stock to cut down the load on the valve springs. They are also far more rigid to provide better control over the valve gear, minimising flexing and friction in the valve train. Made from EN 32 B material case hardened on the stems with stellite pads on the foot for minimum wear and friction. They are supplied complete with alloy adaptor and they fit into stock Norton barrels without modification.



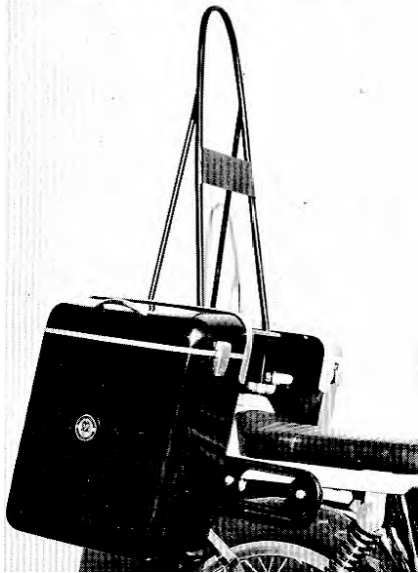
Far easier to make since one can use Triumph or BSA cam followers and just needs to make guide blocks. Knowing the difficulty to make, the real deal I do not believe the claim about these being 35% lighter than standard and being more rigid. I think it was said to explain why Dunstall did not offer the genuine Domiracer tappets anymore. Why these should be less rigid running in their tunnels in the barrel escapes me. Weight saving on even the original tappets can be achieved by enlarging the “windows” in them. Done properly this can last near-indefinitely as our “Family Racer” after more than 25 seasons under various riders testifies. Not sure if this will give 35% weight saving, but certainly a 2-figure percentage, and neither our valve springs nor the PW3 cam have ever complained.

I suspect the original Domiracer tappets from the 1960s gave even better weight saving.

In the collection was also an American test with words about Paul Dunstall as a “customiser”, stressing that in the US customising meant “improving the looks”, whilst the British tradition meant “racerizing” the machine.

One of the later brochures showed that Paul bent to the

Luggage Rack and Panniers.
Available with or without Pillion Backrest.



wishes of the American market that bought most of his accessory output in the 1970s, resulting in sales of his silencers especially he had not foreseen and that he could never quite satisfy as he once told me. The most amusing accessory for a Dunstall Commando I found was this "luggage rack and panniers" kit, c/w a "sissy bar" back rest for the girl on the pillion no doubt.... Ever since I had my first Commando I ordered from the London dealer with luggage rack and panniers I was amazed about the improvised and, quite frankly, poor design of the then Craven equipment.

Dunstall's attempt at fitting this sorry stuff to the high rear end of his dualseats was even worse than what I had on my Interstate.

Ever since the 1970s, knowing the BMW solution, I yearned to adapt that solution to Commandos, and this we finally did over a decade ago: <https://andover-norton.co.uk/en/shop-details/17034/luggage-frame-chrome-all-commandos>



Joe's first Commando, April 1977. The Craven panniers had no quick release and the Craven luggage rack had bolt-on struts, no end of nuts, bolts, washers and adaptors for rack and panniers. To detach the panniers, spanners were needed. A comic in MCN of the era comes to mind: "This is the universal luggage rack, it fits nothing. And this is the one for the XYZ500, it won't fit the XYZ500!"

Our Bikes

Joe's dreaded ex-press C652

Work progresses more slowly than hoped and obstacles occur I had not foreseen. I tend to forget we built these beasts now 25 years ago. Only last week I realized that parts we used to source with no difficulties whatsoever are now no longer in production. The CEV indicators, one of which fell prey to the Scottish farmer's ditch, are no longer available.

The fans for the radiator aren't either, but I found a substitute at KTM that, helped by the subframes KTM supplies with them, can be adapted. Talking of obstacles naturally the connectors on the radiator's cables are male and different to those on the wiring loom that furthermore call for female connections. Ever tried to find the required crimp terminals? An adventure by itself, even with the help of search engines. To start with what are they called?



Original fans on the left, new fans on the radiator. Still missing correct electric connectors.

Another stupid letdown is mirrors. At the time these "Bumm" (Busch & Mueller) mirrors were used by everybody in variants. But looking them up in the webshop of the wholesaler that always had them my eyes nearly pop out as I read "discontinued in 2021".

Front brake and handlebars are in place, so is 90% of the electrics, but the ignition box seems to have disappeared. I have now given up looking for it and ordered a new one that was surprisingly cheap and arrived within 24 hours. No, it didn't come from Andover!



State on 3rd March. Electrics nearly finished.

Next is fitting exhaust and radiator and looking after the lubrication system. Petrol tank and side covers are painted and to be delivered next week.

Ashley's Bit.

After an arm injury last year and a family bereavement after a long illness just after Christmas, riding and time to work on my MK3 has been very limited. Things are now at stage where I have a little more time to fit and test new items, the rebuilt front wheel still needs to fitted, a leak free MK3 neutral switch is fitted and tested on the bike whilst running but needs some road miles to give it a thorough test.

Some will know I am no fan of fitting liners to 850 cylinder barrels, the photo shows why and this has been bored to +020" which was gamble. The cost of liners and fitting, itself an operation which could fail, does not really make viable sense, there are also other problems like insufficient support around the liner and if they are successfully fitted are likely to be only suitable for standard bore as anything larger will make the liner wall too thin in a barrel that is not providing adequate support - remember this support also needs to remove heat as well, if it does not then there will be problems. The fitting of liners can be done but be wary of the pitfalls, if it is a rare barrel no longer available then it is worth trying, ideally a new barrel would be the better and cost effective option in the long term.



The crack was obviously already there when the liner got honed. Having experienced warping of one cylinder liner on my TX racer I fully agree with Ashley (Joe)

We have projects on the go and the one piece crankshafts will be with us and on display at Stafford. Other items we have also planned. These are to reintroduce parts that have been not available and improved parts where supplier quality is not suitable for retail. Seat bases are taking longer than expected as the drawings are not quite right which was evident when comparing to original seat bases. The revisions have been made and we wait to see the bases. This will guarantee supply of a part that has been hard to obtain in the past.

Recently we have seen the shortages in materials, and thankfully the suppliers will make sure that we approve or decline any alternative. Just because the supplier uses it for items they make for others does not mean it is suitable for use on a motorcycle, even if it is the best made Swiss steel that I recently rejected. It was used to make gears, shafts and pins and threaded fasteners – a steel with a wide range of uses but it had one serious flaw and our supplier not being a motorcyclist had not considered it. The steel was not suitable for threaded fasteners in temperatures below 0° Centigrade, and as such there was no way I was going to approve it for studs that hold a brake disc in place. The correct grade steel was available, 1/3 more expensive with a long lead time.

For items like this I would rather not have the parts than a part that could fail. Sadly as many steel grades get rationalised we often get asked to approve alternatives, in nearly all cases the alternative is suitable and safe to use but in two cases recently they have not, so larger diameter steel in the correct grade has been used but how long this can continue we don't know though I am trying to hold stock here at ANIL if I can get it.

Sadly some suppliers are more proactive than others. One supplied a part they have had on the market for over 15 years and it was not correct, I contacted the new to us supplier and though no immediate action could be taken, they will rectify the problem in the next month or so. As for tyres, we have still not had any luck on what tyres and sizes will be continued to made when Avon UK moves to France, the Dunlop TT is made in the same factory and I suspect some rationalisation of sizes and styles will take place. We have tried our distributor and the owners of Avon and we have nothing back, not even a reply to my email query to Goodyear in the USA.

The problem for us other than the sizes is that we cannot ship a tyre made in the EU to the USA. Another typical sample is a USA company who sell LEDs for the automotive history, but only rate the LED at max Forward volts 13V, when I queried that most automotive charging systems supply in excess of this figure they said it will not work for long!!!

I will also grab some photos and do a small piece on the deceased relative who was a DR in the Black Watch and was actually blown up whilst on his bike in Korea.

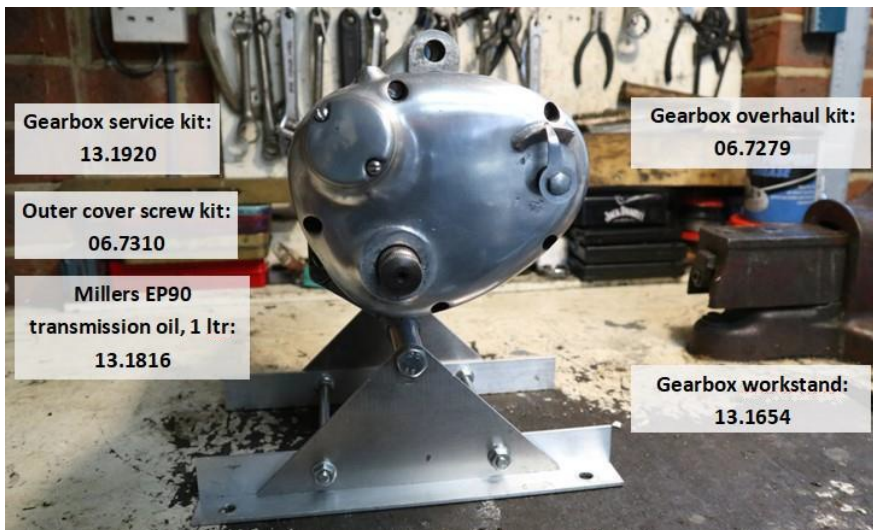
Ashley Cutler IEng MIET

Simon's Bit.

Simon has rebuilt his Commando's gearbox to make it as reliable as

possible for the bike's new owner. The Commando will be offered for sale in the Spring.

The 'box has covered 30,000 trouble free miles in his ownership and was last overhauled in 2012. Although a scrap cradle is being used as a holding jig, Andover Norton can supply a special stand for this purpose, part [13.1654](#). Undoing the inner cover mainshaft nut was aided with tool [13.1710](#) which locks the shaft in position. Despite its mileage, the gearbox is unworn apart from a cracked clutch lever operating body. This part and all bearings, gaskets, seals will be renewed.



[Gearbox Service Kit](#)

[Gearbox Overhaul Kit](#)

The cylinder head was next for attention. It was serviced three years ago and now only needs minor work. Carbon deposits in the combustion chambers were removed with a Dremel and brass wire brush. The guide bores were checked and found to be OK, cast iron is very durable. The head sealing face will be checked for flatness and lapped on a surface plate, if necessary.

The valves are in good condition and the inlet ones were run in an electric drill to remove carbon with fine emery paper. Carbon on exhaust valves is thicker and harder to remove so they will be replaced. The inlet valve seats needed only a light grind to ensure the valves seated perfectly. The exhaust valve seats needed more grinding effort to remove minor imperfections.

The factory workshop manual recommends testing the efficiency of the valve to seat mating surfaces by placing the head upright and injecting a small amount of petrol or paraffin into the ports. Within twenty seconds no liquid should seep through the valve seats. Using a children's medicine syringe, all valves passed this test. New inlet valve seals were fitted and insulating washers under the exhaust valve spring seats.

The inner and outer springs were measured and found to be within factory dimensions, so were reused. Simon smears the rocker spindle gaskets with silicon sealant to avoid leaks at these critical joints. The 'C' marking on the top of the head confirms the bike is a Combat model.

Simon will be checking the cylinder barrel and pistons next.





Avon close their UK factory

Goodyear, owners of Cooper Tires including Avon, announced in December 2022 that the Avon factory at Melksham, Wiltshire will close in December 2023 ending over 100 years of car and motorcycle tyre production.

With uncertainty on future availability and pricing of Avon's classic motorcycle tyre range, Andover Norton have secured significant stocks of AM26 Roadrider Mk2 100/90 tyres.

Part [Avon100/90V19](#) £105.95 + carriage/VAT



Featured Products

OIL FILTER - SPIN ON

Shop



GEARBOX
TRANSMISSION OIL
MILLERS EP90 GL5 (1
litre)

Shop



Engine Oil 10w50 Fully
Synthetic Oil Millers EE
Performance 1 litre

Shop



Engine Oil 10w40 Fully
Synthetic Oil Millers EE
Performance 1 litre

Shop



INNER TUBE 19"
MICHELIN (2.75, 3.00,
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Shop



RIM TAPE 18"/19" x
28mm

Shop



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