

Dear Andover Norton Customer,

An early "Source" this time due to a couple of events we hope might be of interest to you.

## **Our Retail Counter**

Due to recent developments with many British citizens now fully vaccinated our Retail Shop Counter will re-open on 17th May. Please check our homepage for the exact procedure should you wish to visit and collect your spares personally.

## **The Lowboy Project**

The better informed Norton fans will probably know the historical background of the "Lowboy" frame.

When Doug Hele was responsible for the Norton Race Shop he shrewdly decided that the days of the racing single, i.e. the "Manx" models, were over, and as a first step developed the 500 Dominator twin. Which after a very short development period gave the same horsepower as the fully-developed Manx engine with half the mechanical complication and less weight.

I have spoken at length to the only ever owner of a works Domiracer engine, Rudolf Thalhammer, an Austrian world-class rider who tested the engine for Doug Hele in the IoM in training but had a nasty accident and spent a long time in Nobles Hospital. As compensation Doug gave him, as the only person outside the factory, a Domiracer engine that Thalhammer then put in the chassis of his standard Manx and raced it for a while until he ran out of parts.

Thalhammer insists not a single casting on the engine was standard. I do not know if this is correct for the crankcases, but I do know thanks to works drawings we have, that the aluminium cylinder barrel and the cylinder head with excentric rocker adjustment were definitely special.

Tom Phillis rode the first "Domiracer in the IoM TT in 1961 and finished 3rd in the race, proving the viability of the project.

With the Norton factory closing down in Birmingham and everything moved to AMC in London the race shop also closed down and all further development was abandoned.

Paul Dunstall told me he was given all the leftovers but no information with the bits so thinks he most probably couldn't do and didn't do the components justice.



Above: The works Domiracer with the new "Lowboy" frame.

Apart from the engine the other special feature of the Domiracer was the "Lowboy" frame that made the bike lower and thus gave less wind resistance.

Mick Hemmings, who owned the only original Lowboy frame left, recalls:

*"With the 850 Commando engine I fitted I took it to Japan and won the Battle of the Twins race at the wonderful Tskuba circuit. It rode like it was on rails. And won the race beating the best of the Japanese racers".* 

Now what is the relevance of all this for the "Source"?

Those who know me also know I was always interested in the "Domiracer" and its components. It intrigued me that a relatively simple engine could, with little development, compete with the best. I grilled Thalhammer and the Hemmings, and finally by the end of last year convinced them to sell us the "Lowboy" project.

Angela and Michael made quite a number of replicas of the "Lowboy" frame and sold them all over the globe. The big advantage of that frame is that the bottom frame rails are further apart than on the standard featherbed chassis so all engines can sit lower in the frame, giving a better C of G. Also, with the frame wider in that area more engines can be used in this chassis.

Two things we did get as part of the deal was that one last surviving genuine Lowboy frame, and the factory drawing of the chassis. Other ingredients of the deal were the frame jig and the "Lowboy" Trade Mark.



## Above: The last remaining genuine Lowboy frame.

The plan is to sort through the project and offer replicas of this frame to ambitious racers. We hope to have the first frames ready later this year.

The genuine Lowboy I'd like to build up as a complete bike, but that is but one of my many projects!

## **Aging Surfaces**

The current rebuild of my 1937 Racing Inter is ongoing. Having experienced the totally worthless original front brake on the track I bought a brake a once very fast German vintage racer and acquaintance for over 40 years. Erich Kruse, has made a small batch copying the post-war garden-gate Manx brakes that I know are very effective.

Unfortunately, being newly-cast aluminium they look out of place on an old racer. I remembered a fluid I used about 25 years ago (and still had enough left!) on the new Magnesium front hub I bought off Ken McIntosh after I found the original one of my ex-Albert Moule garden gate Manx had cracks.

This is an etching fluid hobbyists who make Tiffany-type windows use to etch the window frames.



Above: Etching Fluid "Patina black"

The first attempt with the hub as-cast wasn't very successful in that the surface varied from plain to rough. That gave an inhomogeneous surface and patchy colour finish when etched.

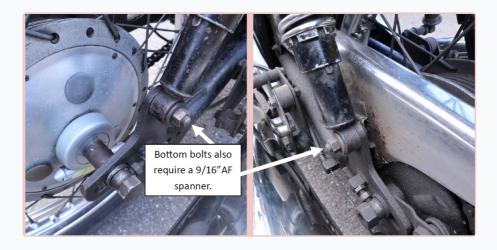
I therefore decided to entrust the hub and brake plate to my beadblasting specialist and then to have another go. Though magnesium parts are a deeper black when etched I think the result looks much more in keeping with a pre-war machine that newly-cast aluminium components.



Above: Hub surface etched, inner part of brake plate as cast and machined.

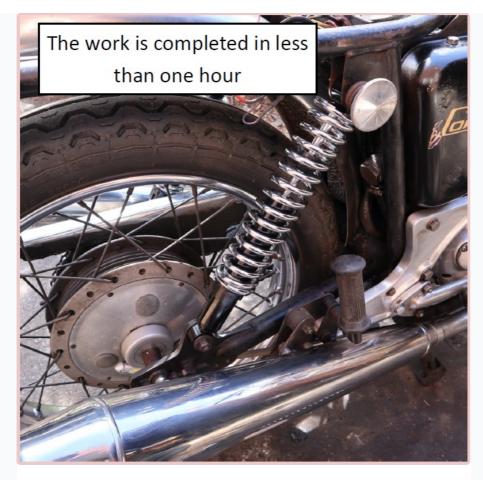
## Simon's Bit











#### 1972 Commando Roadster (frame/engine 200908)

Bought and rebuilt in 2011, I have covered over 20,000 miles sincemostly travelling to and from Andover. The bike runs well along the winding country roads with comfortable semi western 'bars and 21 tooth gearbox sprocket. The fibreglass tank is lined with Caswell sealant and caused no problems. I decided to renew the rear suspension units to (hopefully) improve the ride. Time will tell....

## **Miller Oils**

Andover Norton now stocks high quality classic lubricants from Millers Oils - a British company established in 1887. There are six products in our range, which are available on a <u>'collect only'</u> basis from our Andover sales office.



AN Part No.	Description	Size	Price
			inc.
			VAT
13.1816	GEARBOX/TRANSMISSION OIL MILLERS EP90 GL5	1 litre	£14.95
13.1817	ENGINE OIL MILLERS CLASSIC PISTONEEZE 20W50 MINERAL	5 litre	£34.95
13.1818	ENGINE OIL MILLERS CLASSIC PISTONEEZE 40 MINERAL	5 litre	£34.95
13.1819	GREASE MILLERS DELTA 2EP	500	£11.95
		gram	
13.1820	ENGINE OIL MILLERS CLASSIC SPORT SEMI-SYNTH 20W50	5 litre	£37.9
GREASE/RED	RUBBER GREASE RED SILICA/CASTOR BASED	500	£11.85
		gram	

## PW3 Camshafts

New PW3 camshafts are back in stock! These are precision manufactured in England exclusively for Andover Norton in hardened EN40B steel.

Suitable for Dominator, Atlas and Commando, the PW3 gives a useful performance increase across a broad rev range.

Part 06.7367 for Commando 750 and 850 with rev counter drive (photo below) Part <u>06.7368</u> for Dominator, Atlas and early Commando £275 each plus carriage/VAT (where applicable)



## **Gasket Kits**

When fitting a new camshaft new gaskets will be required. Andover Norton can supply a full range and a few these are shown in the "Featured Products" below.

## **Norton Commando Frames**

New stocks of Commando frames are nearly complete. These are made in England using an original factory jig and available for 1971 to 1978 Norton Commandos in powder coated or bare metal condition.

Part <u>06.5404</u>, Commando 750/850, 1971 to 1974, Black powder coated: £1,495

Part <u>06.5404/1</u>, Commando 750/850, 1971 to 1974, Bare metal: £1,395

Part <u>06.5632</u>, Commando 850Mk3, 1975 to 1978, Black powder coated: £1,495

Part <u>06.5632/1</u>, Commando 850Mk3, 1975 to 1978, Bare metal: £1,395

Prices exclude carriage and VAT (where applicable) Frames will be available in two to four weeks. Contact us to preorder.





## **Ashley's Bit**

## My own bike.

This was treated to an oil change, I had been using Millers CFS 10w60 Full synthetic NT oil for the last few oil changes. When drained after 3,000 miles it looks like it has had a hard time. Quite surprising as it is full synthetic, with ZDDP and their NT additive package.

It is supposed to sustain high temperatures. The reason I like a 10Wxx spec oils is that I can thrash it from cold. In the past I used Millers Classic Sport 20w50 which seemed to hold up better even when used for a whole morning of sustained riding in 39 C of heat.

As to what the engine is like inside, I have no real way of knowing, but after 16,000 miles there is still very little on the magnetic plugs so no sign of an engine strip needed anytime soon. Engine oil is very subjective, but one thing the manufacturers all seem in agreement with is for flat face cam followers, ZDDP is critical. They will clearly let you know if asked as ZDDP is not to be used in certain engines.

There are many good oils out there to suit all budgets, and lots of oils were tested and the results listed on accessnorton, with oils becoming an engineered item sometimes the best oil for the track may not be the best oil for the road and vice versa.

## The Blue 88

I decided to use Commando sealed bearings for the headstock. Many may have done this and used the bearing spacer tube and here is where caution is needed. On the Commando the bottom bearing takes the load and the top bearing just locates the steering stem, much like the original Dominator set up.

Yes, the top bearing can be set by the adjuster but this also sets the bottom bearing, when in use the force will be all felt on the lower bearing. With a bearing spacer tube on the Commando, the top bearing is forced off its location shoulder in the headstock effectively leaving it as purely a location bearing. Some may say but the later steering stem is done up from the bottom, no odds the tube dictates where the top bearing will eventually sit.

Now the reason caution is needed for the Dominator conversion is that the tubes are cut to a very accurate length, but the recesses for the bearings in the headstock are not so accurate being machined in the old days. If the tolerances are against you it is possible to over set the bearings by forcing the inner races against the bearings and the upper and lower areas on the outer races of the respective bearings, when the adjusting collar is fitted. At first the simple solution looks like the spacer tube could be made longer to hold the top bearing well off its seat like it does on the Commando.

This works fine until you then go to fit the headlamp ears, the gap they fit is determined by the lower and upper yoke and the space between the bearings. If the bearings are spaced to far apart then when the top yoke is fitted then you will not get a nice compression on the rubber rings above the ears, too little and it would cut through them.

The Commando sealed bearings and spacer tube does work, you can even use the sealed bearings without the spacer tube and set the bearings using the original adjuster, but whatever bearings, or if you use a spacer tube take each step carefully and check each stage as you progress.

**Featured Products** 



## Norton Commando Restoration Manual

Norman White



## NW001SC

Norton Commando Restoration Manual by Norman White

SIGNED EDITION

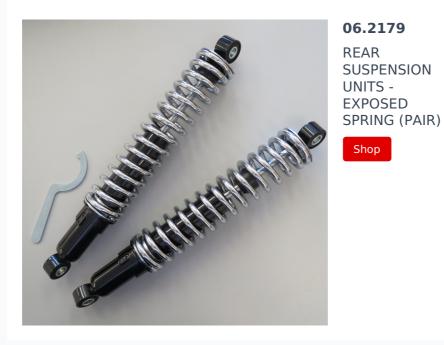
Shop

## NM20060 WIDELINE

FEATHERBED FRAME, 1957

Shop



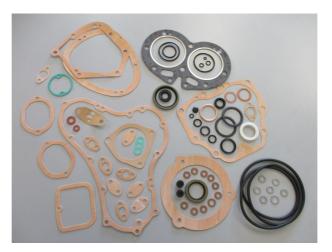


#### 06.3608

GASKET & SEAL SET (FULL 750cc) (06.0910) c/w COMPOSITE

Also available with Copper Head Gasket

Shop



## 06.5030

GASKET & SEAL SET (FULL 850cc Mk1/2 COMPOSITE HEAD GASKET

Also available with Copper

Head Gasket

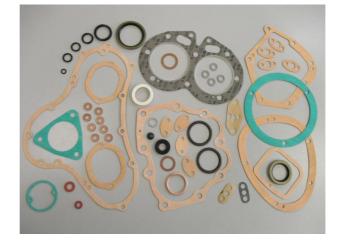




## 06.7925

GASKET & SEAL (FULL) 500/600/650 NM 25360 NON SPIGOTTED COMPOSITE

Shop



# That's all for now for this issue, until next time!



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