



NORTON
FACTORY 1972
 Norton Commando frames and engines are introduced to each other at Andover.

History is fascinating – and it’s never more exciting than when you discover something that’s never been seen before. That’s how we felt about seeing Allan Tannenbaum’s photographs. Taken in 1972, when he visited both the Norton Villiers factory in Andover and Ducati’s newly-built Bologna facility, they’re an intriguing insight into the culture at the two companies at the time. As is Allan’s story (originally written for US magazine *Motorcyclist*, but never published) which we reprint unedited. We hope you find it as mesmerising as we did... 📷



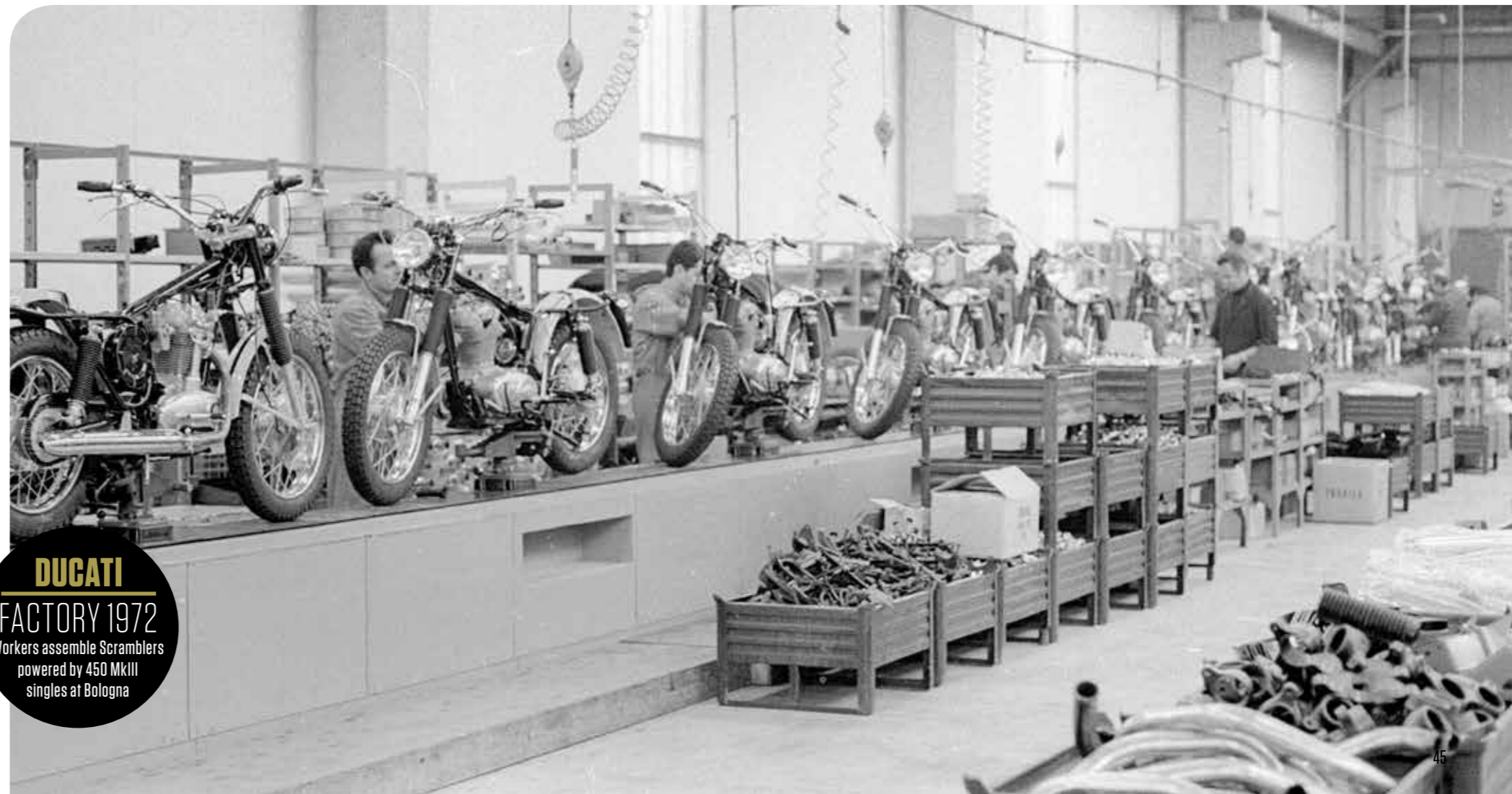
Photojournalist Allan Tannenbaum tries out the new 750 Sport for size during his visit to the Ducati factory



FACTORY INSIDER

In 1972, a US photojournalist negotiated exclusive access to the Norton and Ducati factories. His fascinating photos and story have never been published – until now...

WORDS & PHOTOGRAPHY: ALLAN TANNENBAUM



DUCATI
FACTORY 1972
 Workers assemble Scramblers powered by 450 MkIII singles at Bologna



The factory at North Way, Andover was solely a bike assembly plant



INSIDE ANDOVER

BEAUTIFUL HANDLING. Breath-taking acceleration. Vibration-free. Outstanding good looks. Those are some of the reasons that I, and many others, bought a Norton Commando. And after three seasons of riding my Roadster, for better or worse, I was curious about the place they come from.

I had spoken with many other Norton owners, been a real Norton fan at the races, and read Dennis Howard's *History of Norton*, an excellent book. So, while in London this autumn I took the opportunity to visit the Norton works in Andover. The factory used to be in London, but a cash incentive as part of the government's 'New Towns' programme promoted the move to this former market town in Hampshire.

After a dull 1¼-hour train ride from London – I had left my Norton chained to my house in Brooklyn – I was at the low, modern Norton Villiers assembly plant. And assembly plant is just what this is. Parts from all over arrive here: engines which are assembled at the Norton-AJS factory in Wolverhampton, electrics from Lucas, frames from Italy, etc.

Norton uses over 400 suppliers, 10% of whom are on strike at any given time. This means there are often times when up to 40 essential bits just aren't there, making it very difficult to manufacture a motorcycle under such conditions, much less keep a supply of spares at dealers – but that's the situation in Europe, and in England in particular.

In a way, I picked the wrong time to visit Norton. It was the end of the season, many workers were on holiday, and those remaining were on their afternoon tea break. But I did walk the production line and see how all those parts, which look so familiar in place, got there. It's all quite simple, really. The bare frames are put on a stand on a roller-bearing conveyor. Drop in the gearbox and engine, oil tank and battery, wiring harness, controls, bars, forks, lights, chain, wheels and tyres and you've got yourself a brand-new Norton Roadster, Hi-Rider, Fastback, Interstate, Interpol or Production Racer. In full swing, the production line issues a new bike every seven minutes.

After assembly, the bikes are sent with slave tank and seat to the race circuit at Thruxton. Here, new machines receive 12 miles of road test. Some don't pass and are sent back to be fixed. This road testing, as well as pressure-testing the engine cases at Wolverhampton, helps to ensure the buyer a reliable machine. Only after testing are the machines partly disassembled for crating and container shipment.

My tour completed, I had tea with Mr WB Colquhoun, Vice-President of Norton-Villiers in Long Beach, California. I've experienced no main-bearing seizures or cracked frames to complain about, but I did ask about my three new clutch cables, loose exhaust pipes, leaky transmission seal and a few other odds and ends.



After 12 miles of testing (and after any test faults have been rectified), workers pack semi-disassembled Commando Roadsters into crates for shipment



ABOVE: Completed Norton Interpol motorcycles await delivery to their respective police forces
LEFT: Tankless Norton Commandos, fresh from the assembly line, await completion at the works



Norton workers build a Commando production racer. This particular machine must be a special order, because at the time the production racer had been discontinued. It is probably being assembled with leftover parts. It all looks to be in order, except the sidestand and bracket which would make the tug-in exhaust headers of the production racer impossible to fit. Production racers weren't delivered with sidestands. Also none had the notorious '72 crankcases.

All in all, my Norton has been quite reliable, although there have been times, I was working on her when I should've been riding.

Mr Colquhoun explained the evolution of the Norton twin, from 500cc Dominator to the present 750cc Combat engine, and the problems experienced on the early Commandos; most of the minor problems, such as the exhaust pipes that would work themselves loose every 26 miles or so, have been ingeniously eliminated. However, the pushrod twin in this age of overhead-cam multis, water cooling and even rotary-engine Wankels, is an anachronism.

Norton, of course, is developing a new engine – but as to the nature of the powerplant, Mr Colquhoun was tight-lipped.

Until the new machine is introduced, which is several years away, the immediate future for Norton will consist of expanding the marketing and dealership programme as well as developing and strengthening the racing effort. Racing always improves the breed, and much has been learned from the new John Player Norton Team's ventures already. A stronger gearbox was installed for Ontario, which allowed the team to see what would be their next problem.

The same weekend as Ontario, the *Motor Cycle* 500-mile production race took place at Thruxton. And here the Nortons were first, second and fourth. This kind of result, as well as a range of spirited motorcycles, is quite something when you consider that the name Norton almost vanished a few years ago.

Mr Colquhoun asked me if I thought a place exists for a machine like the Norton on the American market. I explained to him that not every motorcyclist wants to drag fat engine cases on every bend, nor do they want an inexpensive acceleration sled that won't handle – and nor do they all want a chopper. I reassured him that there were many people like myself, who dig the sound, simplicity and classic lines of the British twin. And as long as Norton builds that kind of machine, they'll have no trouble finding those people. ☉



Sideburns were mandatory on the Commando wheel assembly line

Turn over to read about the Ducati factory in 1972

As the female worker on the left fits main bearings, legendary Ducati engineer and designer Fabio 'The Wizard' Taglioni gets down to some expressive gesticulation on the shop floor



The new Ducati factory was still being completed in 1972, but production had started



INSIDE BOLOGNA

DUCATI'S ENTRY into the superbike market has succeeded in turning a lot of heads. The overhead-cam, 750cc, 90° V-twin engine, the rakish styling, and the 1-2 win at Imola, from a marque which had been floundering in America, aroused my curiosity to the point of visiting Ducati while in Europe this autumn.

After getting thoroughly lost in the rather interesting city of Bologna, we finally found the gate of Ducati Meccanica, where we were met by Mr Bruno de Prato. Being both a PR man for Ducati and a motorcycle journalist, Mr de Prato was quite well versed in colloquial English and motorcycles. And as a cordial host and guide, he made our tour quite informative and interesting.

Until recently, all of Ducati was housed in an old brick factory. Today, adjoining the old works, is a brand-new structure. Although it is not yet completed, production is going on in the new quarters. The new plant

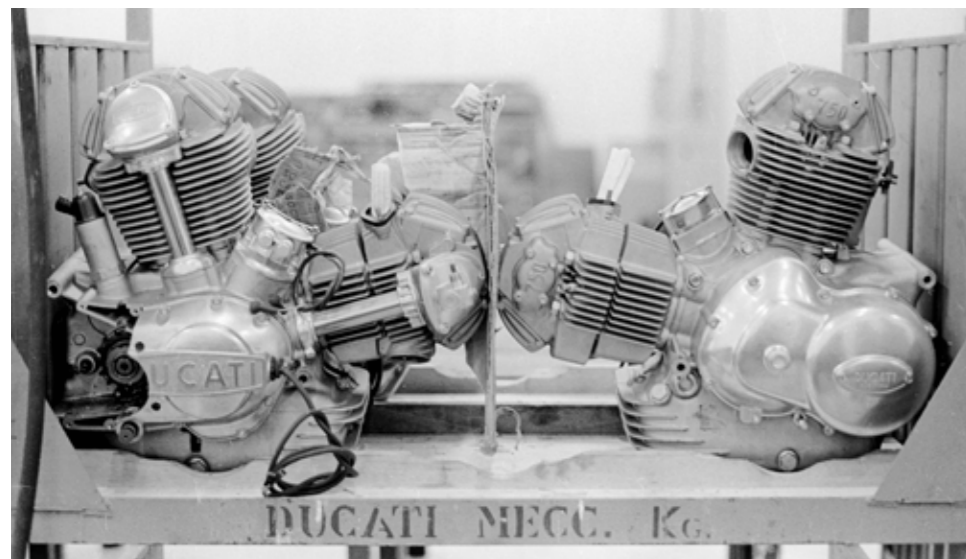
'DUCATI CUT THEIR OWN GEARS – FROM THE 125'S TRANSMISSION TO THE 750'S CAM-DRIVE BEVELS'

has many advantages. It's light and airy, and the machines are spaced so that everyone has enough room to work.

Most of the factory's machines, such as the one that matches the 750's engine cases, are brand new. All the old machines are being replaced. The floor has a special plastic coating which keeps dust out of the air, to the advantage of both workers and motorcycles. A completely automated parts retrieval system is being installed, in which the operator simply dials the parts number and quantity to get what he needs.

As we walked around the plant, we learned quite a bit about Ducati. For example, Ducati, unlike other motorcycle manufacturers, cut their own gears. This includes everything from the 125's transmission to the 750's cam-drive bevels. And besides motorcycles, Ducati also builds a line of outboard motors, as well as the world's first all-aluminium diesel industrial motor.

At one point in our tour, we saw a woman inserting main bearings into the engine cases of a 750. Observing her was a group of men. Pointing to the tallest, Mr de Prato said to us: "That's The Wizard!" He was referring to Fabio Taglioni, the man responsible for the design of the new 750 and, for that matter, most of Ducati's other products. ◻



The Ducati V-twin of 1972: thing of great beauty (although it took Allan Tannenbaum a while to get used to it, as 'it looked so strange at first'). These are 750 Sport engines, racked up and awaiting fitting into frames



The factory is a full production plant; a worker unloads a pallet of newly made crankcases



Like starters in a race for slightly incomplete motorcycles, 450 Scramblers line up awaiting their finishing touches at the new Bologna factory



A 750 Sport fresh off the Bologna production line, with a phalanx of its single-cylinder brethren in various states of completion behind it

WHO'S ALLAN TANNENBAUM?



Born in New Jersey in 1945, Allan has been photographing since the 1960s. His subjects have included famous faces from the art world, music scene, politics, show business, and nightlife, as well as covering international news events such as Operation Desert Storm and the 9/11 terrorist attack on New York. His work has appeared in

Time, *Life*, *Rolling Stone* and *Paris Match* magazines, amongst others. A Norton owner since 1970, he lives in Manhattan with his wife Debora and his 1968 Commando Fastback. Maybe we'll get the space to print some pics of Allan on his bike in the future, but in the meantime this is what he looks like today (above) and some of his famous rock 'n' roll subjects (below).



ABOVE: Debbie Harry and Chris Stein of Blondie. RIGHT: Recognise him?



Mr de Prato, who once turned down a high offer from another motorcycle manufacturer to work under Taglioni, spoke reverentially of the man. "His design and engineering genius are unequalled. Do you know, he can even operate a lathe? It was his spirit and strength that kept Ducati going in the bad years... and the new designs!"

That spirit is reflected in the newest version of the 750 – the 750 Sport. This model has a hotter engine (lightened, compression ratio up to 9.5:1 32mm Dell'Orto carbs), dual disc brakes up front, single disc at the rear, clip-ons, rearsets, a special tank and seat, and an attitude and appearance that are definitely Italian.

A worker was putting the final touches on a new 750 Sport. He then wheeled it out for some pictures. It is a beautiful machine, well designed and superbly executed. The engine, which looks so strange at first, begins to make sense once you're used to it, and by the time I got through photographing the bike I was up for a test ride. But a heavy and persistent thunderstorm put a damper on that.

The last room in the new plant contained some different versions of the 750 GT, with new tanks, side covers and paint combinations in an effort to refine the styling of the 750. Future cosmetics will include some engine paint, too. Also in this room were quantities of the other machines Ducati makes. There were 450R/Ts, 450 café racers, plus 350, 250 and 125cc street and trail machines, which were the mainstay of Ducati till now.

Compared to Honda or Kawasaki, Ducati is very, very small. The management of Ducati knows, however, that it is not their role to compete with these heavies and their mass-produced, mass-appeal motorcycles. Instead they will continue in the tradition of hand-building special motorcycles for the individualist. In a cookie-cutter world, it is unusual for a business to adopt this approach, much less succeed at it. That is the spirit of Ducati, expressed by the people who work there, embodied in the new 750.

Our tour was drawing to a close. First a visit to Mr de Prato's boss, who proudly showed us a safety award from Transportation Secretary John Volpe. On the way to the gate, more info: Taglioni is working on a 750 small enough for a dirt bike... production of the 750 is going from 2500 this year to 5000 next... Then there are warm goodbyes and we drive off into the rainy Italian evening, me left wondering how I am going to get one of those lovely 750 Sports... ☺