

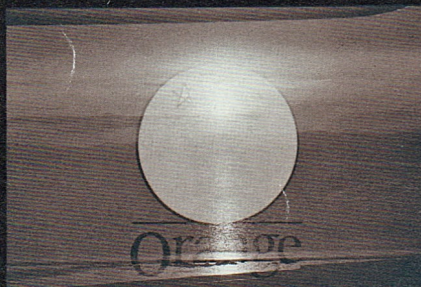
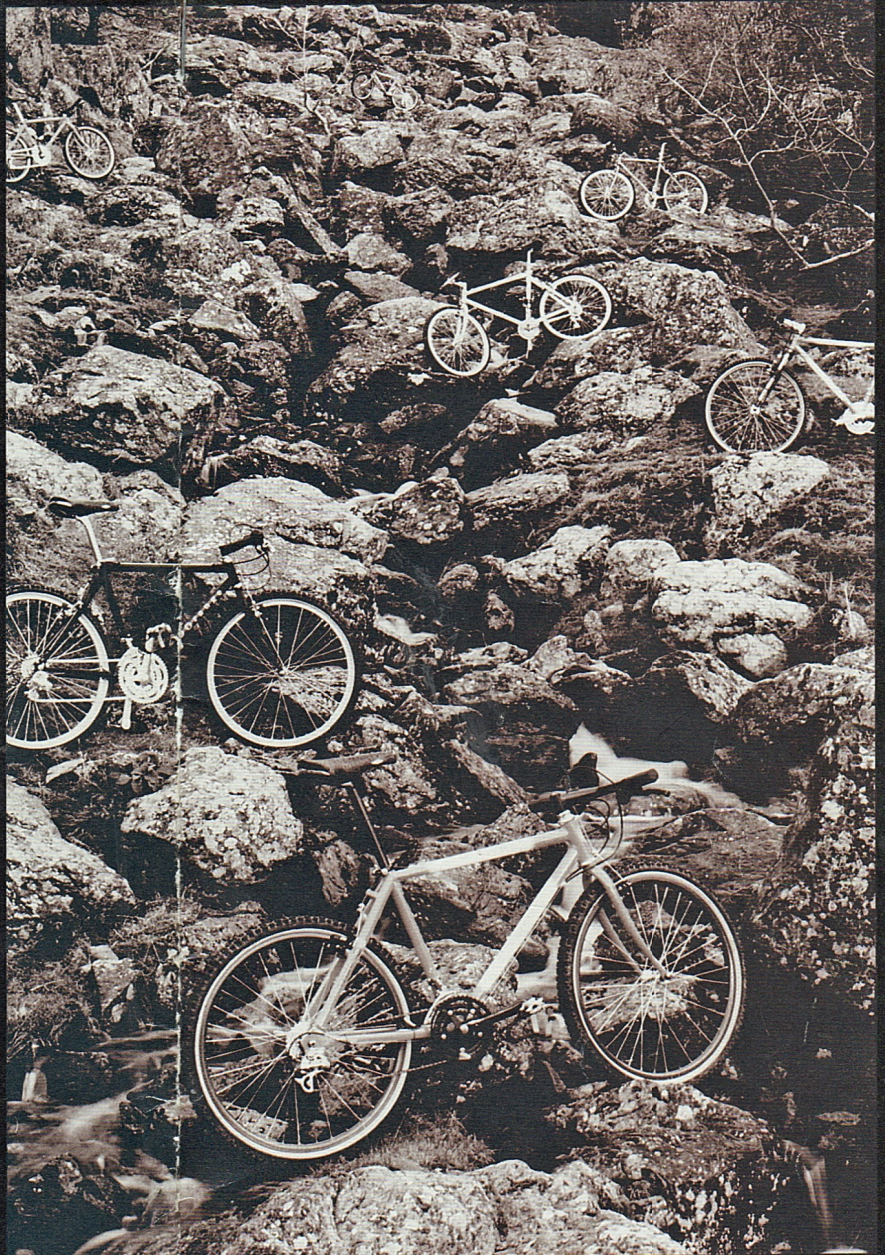


Although run by racing enthusiasts, our main aim is to encourage as many people to participate in and enjoy the sport of mountain biking.

Sadly, some of the traditional routes in the States have been closed to mountain bikers; the UK has some of the most varied and colourful terrain in the world - PLEASE respect the countryside and keep to the off road code.

Thanks

ORANGE



'The ORANGE CLOCKWORK, already a classic' - *Mountain Biker*

ORANGE MOUNTAIN BIKES
PO BOX 100
PENRITH
CUMBRIA
CA10 2DA

PHONE: 0768 890700
FAX: 0768 67871

Designed by Iushingham Higgins 0532 342224
Photos by Bob Allen, Linda Whittem and Orange

ORANGE is a small company formed, owned and run by mountain bike enthusiasts. We have a commitment to providing true high performance bikes for dedicated mountain bike riders and racers.

Our aim is to produce the most comfortable and efficient bikes for the demands of the hardcore, wherever they ride.

Before **ORANGE**, the majority of mountain bikes sold outside the States, were disguised to look like off-road machines but were really aimed to fulfil the requirements of the fashion conscious city rider. This can still be seen today. The riding position is too upright and cramped for efficient off road riding: corners are cut with essential but easily overlooked components like pedals, headsets and bottom brackets - all compromised to reach the right price. This runs against the grain of the **ORANGE** philosophy. At **ORANGE** we don't take shortcuts, we build real mountain bikes from the tubes up. No compromises.

At **ORANGE** we are in the unique position of building both production and one-off custom framesets and bikes. No other British mountain bike manufacturer deals so effectively with both markets, giving **ORANGE** a unique edge. Experimentation with new design concepts and components, leads to a deeper insight into the requirements of a performance, production mountain bike.

In 1989 this led to team Schmoor rider Tim Davies carrying away the UK National Championship on a stock Clockwork **ORANGE**.



The Pennines and Yorkshire Dales provide an appropriate backdrop to our Halifax factory, where all **ORANGE** bikes are assembled. Far Eastern assembly dictates other manufacturers to source components from suppliers relatively close to them, so many mountain bikes are extremely similar in all but name.

ORANGE PLANT

Our UK assembly gives us the flexibility to source equipment from anywhere in the world, and choose the best components, regardless of their country of origin.



The list of **ORANGE** suppliers reads like the Who's Who of the component world; Shimano, Mavic, Suntour and Campagnolo are just some of the manufacturers whose products can be specified on an **ORANGE** mountain bike. Not that the list of trick componentry ends there; the World Championship winning hydraulic forks 'RockShox' can also be fitted to **ORANGE** bikes, Magura hydraulic brakes and the list goes on, ensuring every need is satisfied. All wheels supplied with an **ORANGE** are handbuilt and specified with Mavic rims, widely acknowledged as the world's best. The pedigree continues even with saddles produced by Italy's premier manufacturer, San Marco.



Our ability to pick and use only the best equipment sets **ORANGE** Mountain Bikes apart from the competition. We will always strive to produce mountain bikes with our own identity; real, off-the-peg, off-road machines.



The watchful eye of the **ORANGE** R&D team will ensure that if any new componentry comes onto the scene offering a significant step forward and achieves the **ORANGE** seal of approval for durability, it will be available on an **ORANGE** mountain bike.

CONTINUAL UPDATE

Examining the core of an **ORANGE** mountain bike leads to a realisation of why **ORANGE** are so highly acclaimed. Our custom designed frames offer the ultimate in performance for the dedicated, discerning mountain biker. Each frame can be tailored for specific uses - racing, touring or simply the best all-round mountain bike you will ever ride.

To maximise performance the rider has to attain total empathy with the machine at all times, on all terrains. Optimally, the bike should complement the rider's strengths and skills and compensate for his or her weaknesses. **ORANGE** produce frames to fulfil these roles.

Every **ORANGE** frame is built from tubing selected by Steve Wade, the head frame builder, to best suit the rider's requirements, but even after choosing the best, **ORANGE** go one step further. There are several tube sets available, but by maintaining the philosophy 'only the best', **ORANGE** combine different materials to ensure that strength, stiffness and weight - the essential characteristics of any quality frame, are ideally suited to each frame's purpose.

Every **ORANGE** frame is subject to a standard of workmanship which combines traditional engineering excellence with dedicated attention to the aesthetics of the finished frame. Good frame building frequently achieves the status of an art form, but this can only be achieved through engineering perfection; form must follow function.

With performance being the prerequisite of any successful frame, particular attention is paid to the tubes used in the rear triangle. After choosing the appropriate tubes for the main triangle, the design of the seat stay and chainstay can often be overlooked as being insignificant, yet failure to recognise its importance can dramatically spoil the bike's characteristics. A frame must transmit all the power applied at the pedal into turning the back wheel. It is by ensuring the chainstays and seatstays retain the rigidity of the bottom bracket, that an **ORANGE** frame will deliver Direct Drive performance. For this reason Clockwork and Prestige frames feature wishbone seatstays whilst the Aluminium 'O' sports the unique **ORANGE** aluminium box section seat and chainstays.

ORANGE make it a policy of not underestimating the value of building frames to suit different conditions. Suffice to say that every **ORANGE** sold in the UK is built to take on UK conditions, warts and all.

All models are designed around the British Championship winning Clockwork, with Head Tube and Seat Tube angles of 71° and 72.5° respectively. Angles which combine responsiveness with comfort. Even at



World Championship level, stamina can easily be wasted through the uncomfortable ride extreme seat tube angles give. All the performance in the world equates to nothing, if you can't finish your ride.

Features such as TIG pulse Welded lugless construction - chainstay length under 17" - stem reach between 120/150 mm - slotted cable guides - front derailleur cable hanger - sloping top tubes - vertical dropouts...etc, are part and parcel of the **ORANGE** concept, 'only the best'.



Since its inception in 1986 **ORANGE** have been captivated by off-road racing. **ORANGE** thrive on competition and it is this inbred competitive spirit which has produced the pedigree to achieve a true performance machine. This racing knowledge runs throughout the heart of the company.

The UK division of **ORANGE** is directed by Lester Noble and Steve Wade, both have mountain bike racing backgrounds. Lester rode for the British team in '87 and finished top Brit in the World Championships of that year. Steve, in between his role as head frame builder and designer, still actively races and finished 11th in the '89 expert national series in his first season of cycle racing. The enormous mechanical stresses imposed by top flight off-road racing are of incomparable value in the design and production of lightweight bikes that will withstand the daily rigours of fast lane riding.

ORANGE have an extremely high regard for the value of design feedback from the heat of top competition. The riders chosen for Team **ORANGE** are not just some of the quickest riders in the UK, but each has an engineering background and so are able to correlate Steve's ideas more accurately. It is this feedback which determines the size of top tube, reach and rise of the stem, length of chainstays, fork rake, height of the bottom bracket...etc., to best suit the UK terrain. Features which allow a rider to accomplish his true goal, whether it be racing at the highest level or undertaking the longest journey.



ORANGE FRAMES

ORANGE TEAM

THE ORANGE

The ORANGE assembly plant being situated in the UK gives a unique versatility to the specification.

Here are some guidelines to the range;

FRAME	GROUPSET
CLOCKWORK	LX, DX, XT
PRESTIGE	LX, DX, XT
ALUMINIUM 'O'	DX, XT

RANGE

All ORANGE bikes are supplied with the best componentry manufacturers have to offer. To give an example; Shimano, probably the most innovative manufacturer of mountain bike components in the world, produce 12 off road groupsets. ORANGE use only their top 3, Deore LX, Deore DX, and top of the line Deore XT, anyone of which is suitable for hardcore mountain biking.

The ORANGE bikes are coded with the frame name then either LX, DX or XT.

Other manufacturers' goodies on tap from ORANGE are Campagnolo, Suntour and Mavic, each offering its own individual identity but all carrying a reputation for quality and durability of world renown.

All in all, quite a formidable offering and in line with ORANGE philosophy, 'Only the best'.

We also have a few specialist products, which we feel can offer significant performance improvements in certain conditions. The most notable being the composite and hydraulic forks from Rock Shox and Pace, and the hydraulic brakes of Magura. Rock Shox in our view are the first step in offering suspension performance without any major drawbacks. The area in which they really shine is hard, bumpy courses - in particular, during long, rough descents - amply illustrated by the winner at Durango, Colorado, scene of the 1990 Mountain Bike World Championships.

Also, in line with our policy of offering the latest in technology, we will constantly update this list but only after it has undergone comprehensive testing by Team ORANGE.

Full specification sheet and list of the different options is printed on the back of the price list.

CLOCKWORK

After winning the 1989 British Championship, the CLOCKWORK frame maintains its winning formula, undergoing only cosmetic changes. Built from specially selected Tange Infinity tubing and featuring the ORANGE wishbone seatstays, it provides a ride of unique performance, lightness and comfort. All cables are routed through slotted cable guides above the bottom bracket allowing easy maintenance without needing to undo the cable ends.



CLOCKWORK



PRESTIGE

PRESTIGE follows the same successful geometry as the CLOCKWORK with the tube set being based on Tange Prestige, acknowledged in the States as the best competition Cromoly, and again each tube individually selected by ORANGE guru Steve Wade to provide a ride of unrivalled performance.



ALUMINIUM 'O'

FORMULA ORANGE

PRESTIGE

FORMULA



ALUMINIUM 'O', featuring the same angles, is built from unique aluminium Max tubing with each individual tube end in the main triangle swagged to provide extra frame rigidity. Normally, aluminium frames offer comfort but can feel dead when power is applied. With the swagged Max tubing and unique ORANGE aluminium box section chainstays and seatstays, the ALUMINIUM 'O' is a true performance orientated aluminium bike, yet retains the associated lightweight and comfort.



Individually built by the ORANGE frame-building chiefs, Steve Wade and Brian Marshall, the FORMULA is a custom bike of racing renown. The tubing on offer comes from the tube manufacturing heads of state, Tange, Columbus and Reynolds. The design maintains the same theme but special consideration is given to the size of each individual rider. Basically, the design follows the successful theme adopted by ORANGE throughout the range - taking careful stock of the terrain the bike will be used on; the rider's experience; his or her aspirations; and, finally, finding the formula which correlates all this with the physical proportions of the rider.

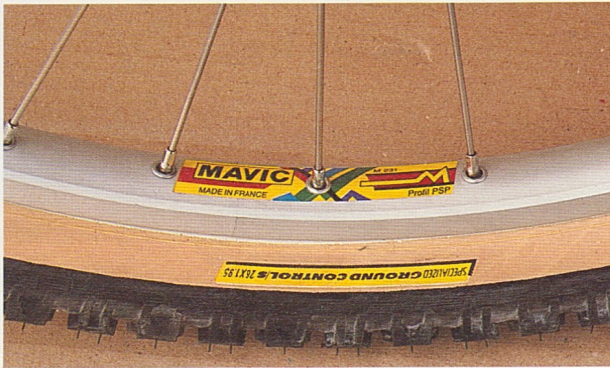
That formula is 'FORMULA ORANGE'.

WHEELS & TYRES

All ORANGE wheels are handbuilt here in the UK. Double butted, stainless steel spokes lace the hubs of the corresponding groupset to double skinned, double eyeleted, Mavic rims - probably the finest in the world.

Tyres are Ground Control S, in whose tracks others still follow. They recently received the accolade as the best all-round tyre by "Mountain Bike Action" the American mountain biker's bible. They are also one of the lightest tyres available by virtue of their advanced Kevlar bead.

Like other manufacturers, we could downgrade the wheels to make the bike appear better value but, with any weight saving in a wheel representing quite a significant difference in bike performance, it is a compromise ORANGE are not prepared to make.



HORSES FOR COURSES

HORSES FOR COURSES - At ORANGE we would be the first to admit that all changes are not necessarily for the better. That is why we always try to retain a stock of those bits which we feel may serve a particular application better. All ORANGE bikes can be supplied with thumbshifters and normal cantilever arms if specified.



This is the nearest we come to having a sales force. At ORANGE the emphasis is on design and testing. Team ORANGE provides invaluable feedback to Steve's designs as well as being a regular contender, and winner of the team prize on the national circuit.



CABLE ROUTING - Front derailleurs cable hanger is welded to the top of the bottom bracket; it's a feature which helps cut down dirt build-up and allows easy removal of the cable. This, coupled with the slotted cable guides, means easy maintenance without having to undo the cable ends, thus eliminating the need for new cables on every overhaul. Also by routing the rear derailleurs cable along the top tube and down the seat stay, the shifter gives better, mud-free performance.

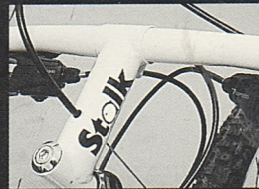
NEW DEORE XT CAM BRAKE LEVER



BOX STAYS

Unique ORANGE aluminium Box Section - performance orientated stays on the Aluminium O

ORANGE STALK - the final touch in achieving the correct geometry. Stalks



are available in two sizes of reach, 150mm and 120mm, with two options of rise, 90° and 105°.

CUSTOM STALK - Aircraft grade Cro-moly selected by

Steve is welded to Tange Prestige bars to make a bar stem combination over half a pound lighter than a more conventional set up. Angles and lengths can be varied for a truly efficient, customised combination.

RAM BARS - Aluminium bar extensions enabling the rider to adopt a position for piling on the power.

CUSTOM STALK - The final touch to achieving customised geometry

