

Campagnolo[®]



1994



CARBON



DEAR FRIEND,

WE HAVE REACHED OUR 60TH ANNIVERSARY SINCE STARTING BUSINESS.

THE BEST WAY TO CELEBRATE THIS DATE IS TO OFFER YOU ALL THE FRUIT OF OUR

LABOURS. THE PRODUCTS WHICH YOU WILL FIND IN THIS EDITION ARE IN FACT THE

SYNTHESIS OF A METICULOUS PASSION FOR THE BICYCLE DATING BACK EARLIER THAN 1930 AND WHICH LED TO A CONTINUOUS EFFORT TO SEEK AND OFFER APPROPRIATE SOLUTIONS IN STEP WITH TECHNOLOGICAL EVOLUTION IN THE CYCLING WORLD.

FROM THE FAMOUS "STICK" SHIFT PATENTED IN 1930 TO THE NEW ERGOPOWER® HANDLEBAR CONTROLS, FROM THE FIRST QUICK RELEASE TO THE NEW EXA-DRIVE® FREE-WHEEL SPROCKETS, THESE HAVE BEEN SIXTY

YEARS DURING WHICH WE HAVE INTERPRETED CYCLING AND OUR PROFESSION WITH KEEN DEDICATION, ENTHUSIASM AND RESPONSIBILITY.

IT IS OUR DESIRE TO CONTINUE THIS MISSION THROUGH TECHNOLOGICAL RESEARCH

AND WITH THE COMMITMENT TO OFFER YOU SOLUTIONS WHICH WILL BE INCREASINGLY FASCINATING AND MODERN, ATTRACTING MORE AND MORE ENTHUSIASTS TO THE SPLENDID WORLD OF CYCLING.

THROUGH OUR WORK,

WE WANT TO BE ABLE TO OFFER YOU OUR CONTRIBUTION TO IMPROVE THE QUALITY OF YOUR FREE TIME.

WITH OUR BEST SPORTING WISHES,



Valentino Cannondale



DURING THE LAST FEW YEARS, ALL CAMPAGNOLO'S DESIGN EFFORTS HAVE BEEN

AIMED MAINLY TOWARDS INNOVATIVE SOLUTIONS FOR OBTAINING THE MAXIMUM FROM THE TRANSMISSION IN TERMS OF PERFORMANCE AND RELIABILITY.

WITHOUT DOUBT THE NEW ERGOPOWER® CONTROLS SUM UP ALL THOSE FEATURES WHICH MAKE THEM "THE PRODUCT OF THE NINETIES".

THE VARIOUS STUDY, DESIGN AND MANUFACTURING STAGES FOR THE ERGOPOWER® CONTROLS WERE TACKLED USING THE MOST ADVANCED DESIGN TECHNOLOGIES AND USING SOPHISTICATED MATERIALS SUCH AS CARBON, CAPABLE OF PROVIDING PERFORMANCE, RELIABILITY, ERGONOMICS AND ABSOLUTE LIGHTNESS. WITH THE ERGOPOWER® CONTROLS, WE HAVE REINFORCED THE CONCEPT OF "DRIVING THE BICYCLE". AS ALL OF THE CONTROLS ARE WITHIN HAND'S REACH ON THE HANDLEBAR, THE TRADITIONAL BRAKING AND SHIFTING OPERATIONS CAN BE CARRIED OUT WITH THE MAXIMUM SAFETY WITHOUT HAVING TO TAKE YOUR HANDS OFF THE HANDLEBARS.

THIS IS AN EXTREMELY SIMPLE PRODUCT TO ASSEMBLE AND USE, ITS OPERATION IS INSTINCTIVE AND MAINTENANCE PRACTICALLY NONEXISTENT.

THE USE OF CARBON FIBRE ALLOWS PREVIOUSLY UNIMAGINABLE WEIGHTS TO BE ACHIEVED WITHOUT COMPROMISING THE RELIABILITY OF THE SYSTEM. THE FREEWHEEL CASSETTE SPROCKETS ARE ANOTHER FUNDAMENTAL TRANSMISSION COMPONENT. THE NEW EXA DRIVE® SPROCKETS ARE THE RESULT OF CAREFUL STUDY OF THE DESIGN OF EVERY SINGLE TOOTH.

ABOVE ALL, THE STUDY OF THE TIMING OF THE SPROCKETS WITH ONE ANOTHER ENABLES SAFE, FAST SHIFTING TO BE OBTAINED IN ANY CHAIN TENSION CONDITION. SOME TEETH WITH A SPECIAL PROFILE LOCATED IN A PRECISE POSITION ON THE



OUTSIDE OF THE SPROCKET ALLOW SHIFTING EVEN UNDER STRESS WITHOUT HAVING TO SLACKEN THE PRESSURE ON THE PEDALS. THIS MEANS A SAVING OF TIME AND ENERGY WHICH WOULD BE USELESSLY WASTED OTHERWISE TO REGAIN THE PEDALLING RHYTHM.

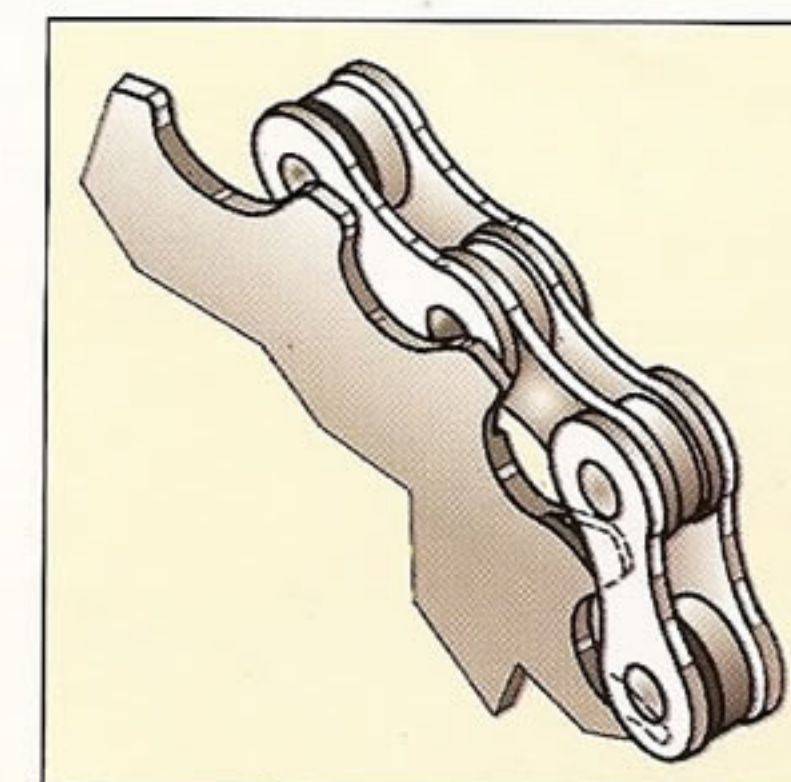
THE NEW CAMPAGNOLO EXA-DRIVE® SPROCKETS WERE ALSO DESIGNED WITH A NEW CHAIN IN MIND, CREATED WITH EXCLUSIVE INNOVATIVE SOLUTIONS WHICH PERMIT PERFORMANCE AND RELIABILITY LEVELS TO BE OBTAINED WHICH HAVE NEVER BEEN OBTAINED BEFORE TODAY. EVERY EXA-DRIVE® SPROCKET HAS BEEN DESIGNED TO REDUCE WEIGHT AS MUCH AS POSSIBLE WITHOUT, HOWEVER, REDUCING MECHANICAL STRENGTH.

FURTHERMORE, A SPECIAL NICKEL CHROME TREATMENT ENSURES LONG-LIFE RESISTANCE TO CORROSION AND TO ATMOSPHERIC AGENTS.

THE SAME DESIGN COMMITMENT WAS DEDICATED TO THE NEW CRANKSET CHAINRINGS.

TO PROVIDE THE MAXIMUM DERAILING IMPROVEMENT, CHAINRINGS WERE CREATED WITH TOOTH PROFILES MACHINED ONE AT A TIME BY SPECIAL CNC MACHINES SO AS TO OBTAIN INNOVATIVE SOLUTIONS WHICH PERMIT DERAILING IN ANY DIRECTION EVEN UNDER STRESS. DIFFERENT MACHINING PROCESSES WERE USED AT VARIOUS POINTS ON THE CHAINRING TO PRODUCE THE TEETH WHICH, ALONG WITH SMALL ENGAGEMENT TEETH, ENSURE FLUID CHAIN PASSAGE FROM ONE RING TO THE OTHER WITHOUT HESITATION. THESE OPERATIONS ARE ALSO CARRIED OUT ON THE OUTER CHAINRING BASED ON THE INNER CHAINRING WITH WHICH IT WILL BE COMBINED. THE RESULT IS A PERSONALIZED TIMING OF THE RINGS WITH ONE ANOTHER ON THE BASIS OF THE TOOTHING USED.

THE QUEST FOR PERFECTION ALSO PASSES THROUGH THIS APPROACH TOWARDS PRODUCT PERSONALIZATION.



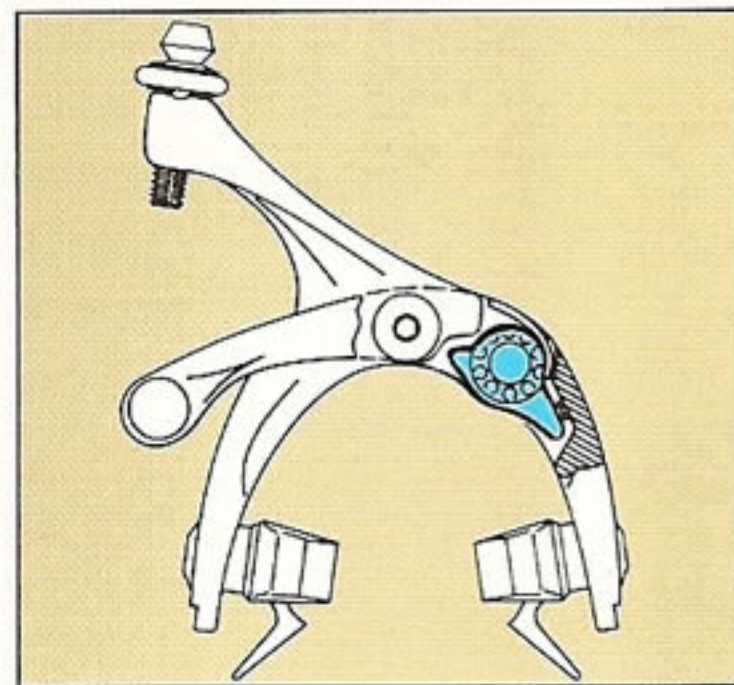
THE REAR HUB IS THE HEART THROUGH WHICH ALL OF THE CYCLIST'S POWER IS CONVEYED TO TRANSMIT MOVEMENT TO THE WHEEL. IT IS AN ESSENTIAL COMPONENT WHICH MUST COMBINE THE MAXIMUM RELIABILITY WITH ABSOLUTE FUNCTIONALITY. ALL CAMPAGNOLO CASSETTE HUBS WERE DEVELOPED ON THESE PRINCIPLES.

THE TWO PART - HUB SHELL/FREEWHEEL BODY - SYSTEMS ARE COMPLETELY INDEPENDENT FROM ONE ANOTHER. THE HUB, IN FORGED ALUMINIUM ALLOY, IS FITTED WITH A SPECIAL AXLE REINFORCED AT THE CENTRE WHICH ROTATES ON TWO BALL-BEARINGS WITH ADJUSTABLE CUPS. THE FREEWHEEL IS PROVIDED WITH TWO RIGID SEALED BEARINGS AND WITH HOLES FOR THE SPOKES AND CAN BE FITTED AT ANY TIME.

THE DESIGN OF THE HUB FLANGE AND OF THE SPOKE HOLES WAS DEVISED SO AS TO REDUCE STRESS ON THE SPOKE ITSELF AS MUCH AS POSSIBLE, PUTTING IT IN THE IDEAL TRACTION CONDITIONS AND ELIMINATING ALL RISK OF BREAKAGE.

IF THE HUB IS CONSIDERED THE HEART OF THE TRANSMISSION THEN THE REAR DERAILLEUR IS THE BRAIN: SAFE FAST SHIFTING IN ANY CONDITION DEPENDS ON ITS SPECIFICATIONS.

THE REAR DERAILLEUR REPRESENTS ALL THE TECHNOLOGY DEVELOPED OVER SIXTY YEARS OF EXPERIENCE IN THE FIELD. MANUFACTURED USING THE MOST SOPHISTICATED ALUMINIUM ALLOYS, THE PARALLELOGRAM IS COMPLETELY ARTICULATED ON SELF-LUBRICATING BEARINGS WHICH ENSURE FLUID MOVEMENT AND LONG LIFE. PARTICULAR CARE WAS TAKEN TO ENSURE PERFECT BALANCING OF THE RETURN SPRINGS OF THE TOP AND BOTTOM BODIES, ALLOWING THE DERAILLEUR TO ADAPT ITSELF TO THE PROFILE OF THE FREEWHEEL. NEW ROLLERS, DERIVED FROM STUDIES ON THE NEW SPROCKETS AND ON THE CHAIN, NOT ONLY FURTHER ENHANCE SHIFTING BUT ALSO PERMIT A REDUCTION OF THE SPACE BETWEEN THE CAGE



AND THE WHEEL SPOKES, ELIMINATING ANY POSSIBILITY OF INTERFERENCE. A STREAMLINED AERODYNAMIC DESIGN GIVES THE DERAILLEUR A UNIVERSALLY ENVIED LINE, THE MAXIMUM EXPRESSION OF THE PASSION WITH WHICH OUR COMPONENTS ARE DEVELOPED.

THE NEW GENERATION OF CALIPER BRAKES WITH DOUBLE ARTICULATION FULCRUM USED FOR THE RECORD AND CHORUS GROUPS, COMBINES THE ADVANTAGES OF CALIPER BRAKES WITH THE CENTRALLY ACTUATED TYPE. FURTHERMORE, AN INNOVATIVE SYSTEM FOR INCREASING THE APPLIED FORCE IS INTEGRATED INSIDE THE ARTICULATIONS THEMSELVES. THIS SYSTEM, CALLED CAM-PLUS, IS OBTAINED THANKS TO THE INSERTION OF AN ARTICULATED TRANSFER CAM WHICH ALSO PERMITS ADJUST-

MENT TO BALANCE THE LEVERS WITH THE WHEEL RIM. MANUFACTURED COMPLETELY IN HOT-PRESSED ALUMINIUM ALLOY, (THE ONLY SOLUTION WHICH GUARANTEES PERFECT RESISTANCE TO BREAKAGE), THE CALIPER BRAKES ARE SUB-

JECTED TO A PROTECTIVE ANODIC OXIDIZATION PROCESS AFTER CAREFUL POLISHING. ALSO, THE BLOCKS, MANUFACTURED FROM A NEW COMPOSITION AND WITH A NEW DESIGN TO ELIMINATE WATER,

FURTHER ENHANCE BRAKING PERFORMANCE IN WET CONDITIONS. SPECIALLY CONCEIVED FOR USE WITH ERGOPOWER® CONTROLS, THIS NEW BRAKE MODEL CAN ALSO BE USED WITH TRADITIONAL CONTROLS.



RECORD

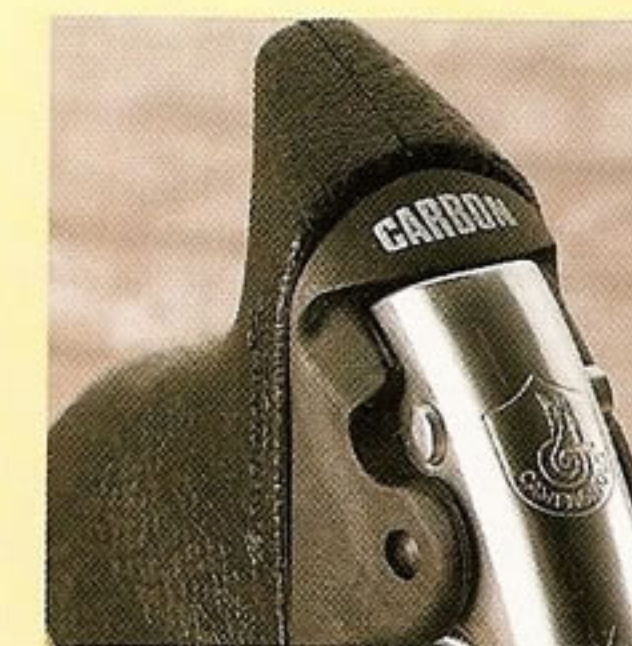
THE RECORD GROUP IS THE VERY BEST ON OFFER TO CYCLING ENTHUSIASTS. IT IS THE GROUP USED BY THE GREAT PROFESSIONALS WHO PUSH AND EXPLOIT ALL THE CHARACTERISTICS OF EVERY COMPONENT TO THE EXTREME LIMITS. ALL THE BEST OBTAINABLE IN TERMS OF TECHNOLOGICAL AND DESIGN INNOVATIONS, MATERIALS AND MANUFACTURING PROCESSES IS PRESENT IN THE RECORD GROUP. IN THIS GROUP, EVERY COMPONENT REPRESENTS ALL OF THE DETERMINATION BEHIND THE NEW DESIGNS. SYMBOLIC OF THE ENTERPRISE WITH WHICH CAMPAGNOLO IS LAUNCHING ITSELF ONTO THE ROADS OF THE THIRD MILLENNIUM. RECORD IS SYNONYMOUS WITH PERFORMANCE, FUNCTIONALITY, RELIABILITY AND BEAUTY: ALL INDISPENSABLE FEATURES FOR A GROUP WHICH RECONFIRMS ITS LEADERSHIP AMONG RACING BIKE COMPONENTS.



SPROCKETS EXA-DRIVE®: the new Campagnolo EXA-DRIVE® sprockets symbolize all the commitment dedicated to obtain perfect transmission. Manufactured in special steel and nickel-chrome plated, they are designed with a new tooth profile with personalized timing on the basis of the combination chosen. This profile also allows shifting under stress with the maximum chain stretch. The new sprocket packs are available with toothings from 12 to 26 teeth.



ERGOPOWER®: to make the body on the control, carbon fibre was used for the first time. This allowed weight reduction to be obtained that was unimaginable with traditional materials. The aluminium levers, forged, pressed and anodized after manual polishing, rotate on movements with ball-bearings, ensuring high precision and shifting sensitivity. The ergonomics of the control itself are further enhanced with the use of a new support cover in silicon rubber. The quick release on the control is the permanent type.



REAR DERAILLEUR: completely manufactured in hot-pressed aluminium alloy, the parallelogram of the Record rear derailleur is articulated on self-lubricating bushings. The articulation springs of the top and bottom bodies are specially calibrated to ensure perfectly balanced movement of the derailleur itself depending on the freewheel used. The new rollers, narrower and with a profile specially designed for use with the new chain, also permit any risk of interference between the cage and the spokes to be eliminated.



BRAKES: devised with the innovative double fulcrum system, Chorus brakes are in hot-pressed aluminium alloy, the only solution capable of guaranteeing maximum resistance to breaking. All the articulations are made with self-lubricating bearings and bushings. The double possibility of adjusting the return spring setting and balancing the brake itself with the rim means that the use of the brake can be personalized depending on the bike and user. The Chorus brakes are completed with new blocks designed to improve braking in wet conditions.

CHORUS



DERIVED FROM THE EXPERIENCE AND TECHNOLOGY DEVELOPED TO STUDY AND DESIGN THE RECORD GROUP, CHORUS IS IDEAL FOR CYCLISTS, AMATEURS AND ENTHUSIASTS OF "SPECIALTIES" OF UNCONTESTABLE QUALITY.

THOUGH NOT SOPHISTICATED TO THE EXTREME, THE CHORUS GROUP HAS THE SAME CHARACTERISTICS OF FUNCTIONALITY AND RELIABILITY AS THE RECORD GROUP WITH RESPECT TO THE TRANSMISSION (ERGOPOWER®, EXA-DRIVE® FREEWHEEL SPROCKETS, ETC.) AND TO THE BRAKING SYSTEM (BRAKES WITH DOUBLE ARTICULATION FULCRUM).

IDEAL FOR TOUGH COMPETITION, THE CHORUS GROUP IS ALSO AN OPTIMUM TRAVELLING COMPANION ON BIKE TRIPS WHERE THE CYCLIST DEMANDS ABSOLUTE PERFECTION.

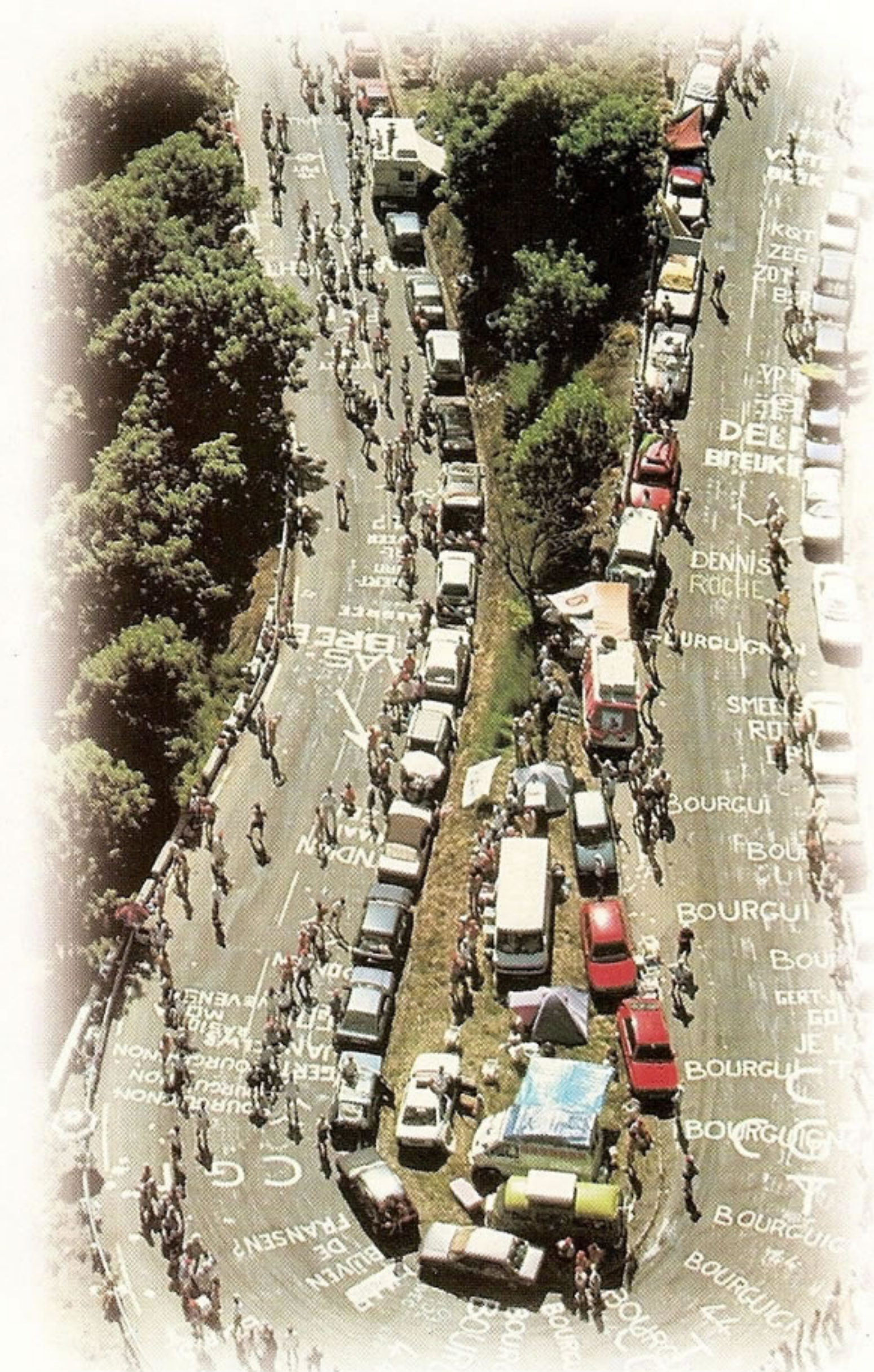
CRANKSET: produced in an aeronautical type of aluminium alloy, the chainrings of the Chorus crankset are designed with a new tooth profile. Special machining, combined with small teeth arranged in a carefully studied position permits shifting in any direction.



FRONT DERAILLEUR: in studying the fork, all the possible conditions of use were evaluated, even shifting under stress, in combination with the new chainrings. The result is an essential and functional fork design which allows the chain to move up or down from one chainring to another without hesitation, rapidly and without the risk of the chain falling towards the inside or outside of the bike. The fork movement is created by means of aluminium rods which ensure the high torsional rigidity of the system.

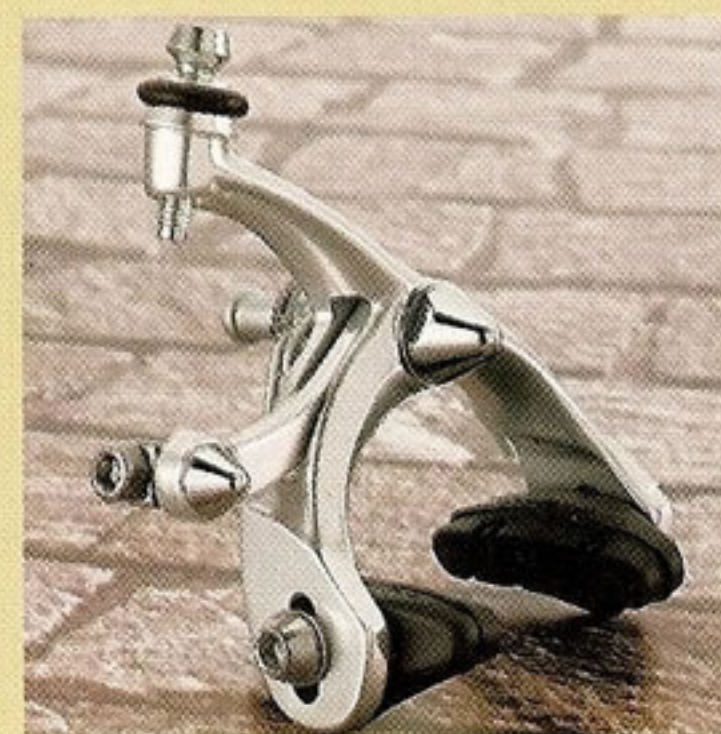
ATHENA

THIS NAME IS NOW WELL ESTABLISHED IN THE WORLD OF AMATEUR CYCLISTS AND ENTHUSIASTS. THE ATHENA GROUP AVAILS OF THE SAME DESIGN AND MANUFACTURING TECHNOLOGY USED BY THE PROFESSIONAL GROUPS, THEREBY MAKING A HIGH QUALITY PRODUCT BUILT USING HIGHLY SPECIALIZED TECHNIQUES AVAILA-



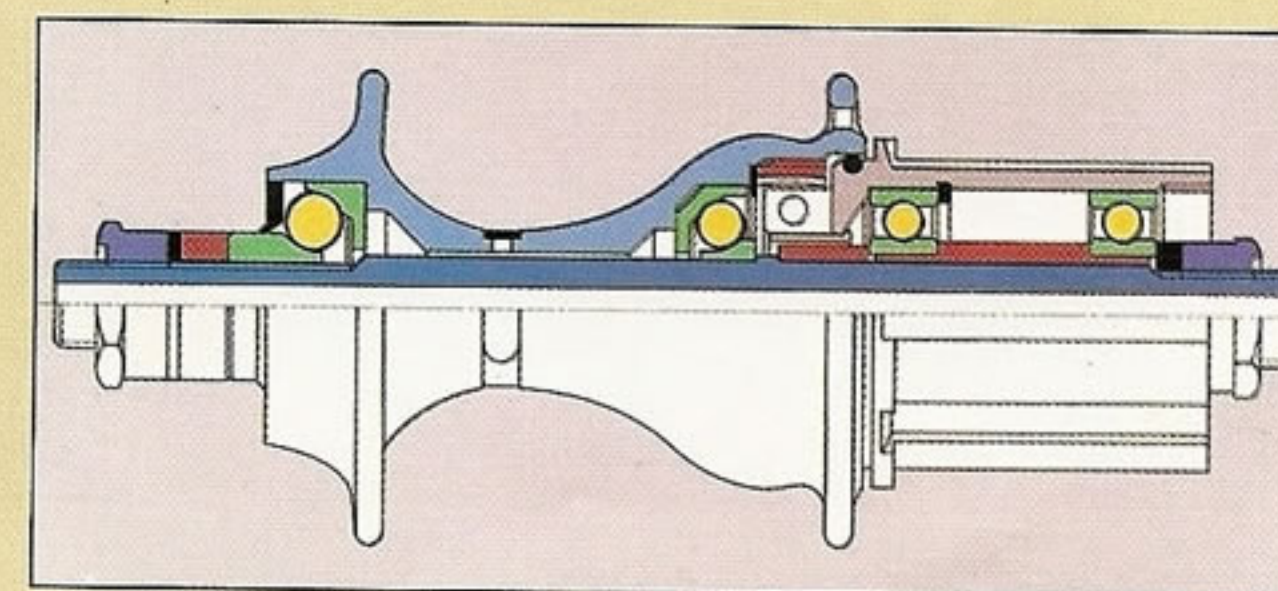
BLE TO EVERYONE.

APART FROM ITS TECHNOLOGICAL CONTENT, THE ATHENA GROUP HAS AN ATTRACTIVE AND MODERN APPEARANCE AS A RESULT OF THE PARTICULAR CARE TAKEN WITH DETAILS. IT INCORPORATES THE TRADITIONAL CAMPAGNOLO FUNCTIONAL AND QUALITATIVE FEATURES, THE RESULT OF 60 YEARS ON THE ROAD ALL OVER THE WORLD.



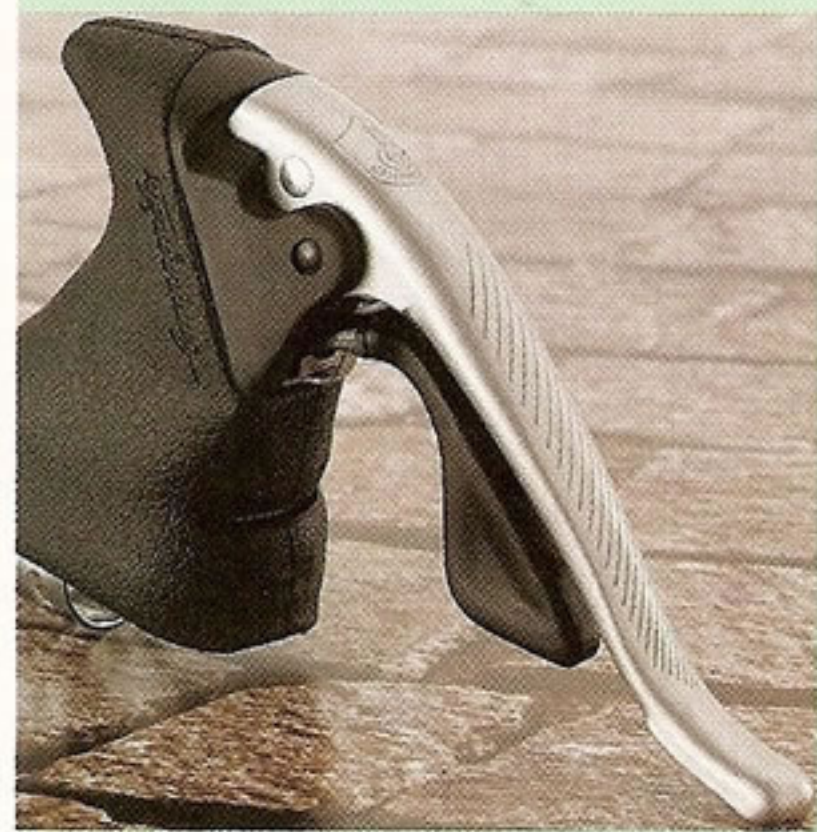
BRAKES: The new Athena brakes are the caliper type and use the innovative MONOPLANER system of interfacing the levers themselves. This particular design makes it possible to work the two block-holders on the same plane and ensures braking which is perfectly balanced between the blocks with the elimination of all vibrations. The block-holder levers are in hot-pressed aluminium alloy and are anodized after polishing, a characteristic of Campagnolo products.

ERGOPOWER®: the Athena Ergopower® controls have the same functional features as the commands in the higher ranges. They allow 1, 2 or 3 sprockets to be changed at a time going up or up to 8 sprockets coming down. Furthermore, the left-hand control for the front derailleur is already set up for triple cranksets. The brake control levers in aluminium alloy are polished and anodized. The various movements of the derailleur control levers are mounted on self-lubricating bushings. The special support cover is in natural black rubber.



REAR HUB: all the more innovative manufacturing processes have been used in making the Campagnolo cassette hub. The hot-pressed hub bodies and the cold-pressed freewheel bodies machined on CNC machines, along with the specially dimensioned axle, provide the guarantee of reliability required for this component. The moving parts of the hub are manufactured using the traditional Campagnolo system with adjustable cones and cups. The freewheel body, completely removable, turns on rigid bearings, perfectly protected from dirt and water.

VELOCE



ERGOPOWER®: even if built with the same functional and manufacturing concepts, Veloce Ergopower® controls have been personalized at the level of finishes and materials so as to perfectly match the other group components.

Like the Ergopower® control in the higher ranges, they allow 1, 2 or 3 sprockets to be changed at a time going up or up to 8 sprockets coming down. The use of innovative synthetic materials allowed their weight to be maintained at the same level as traditional controls.

CRANKSET: as with the higher range groups, the sprockets, in superior aluminium alloys, have teeth which are machined individually on special CNC machines, the only technological solution capable of ensuring a precise and continuous design of the tooth profile itself. New retaining socket head screws with incorporated cover were combined with the cranks which are available in various lengths with the characteristic Veloce group finish.



BRAKES: Veloce brakes are the essential expression of functionality and reliability. The CAD designed block-holder levers are in hot-pressed light alloy which ensures maximum strength, an essential feature of a safety product such as brakes. The blocks are the result of long studies carried out by Campagnolo to guarantee safe braking in all conditions of use.



WITH THE VELOCE GROUP, CAMPAGNOLO CREATED A GROUP WITH UNCHALLENGED PERFORMANCE LEVELS TARGETED TOWARDS THE HIGHEST NUMBER OF ENTHUSIASTS AND AMATEURS. THE TECHNICAL PERFORMANCE OF THIS GROUP IS AT THE LEVEL OF THE MORE ADVANCED INNOVATIONS APPLIED TO THE HIGHER RANGE GROUPS: ERGOPOWER®, CASSETTE HUB WITH EIGHT SPEEDS, HIGH QUALITY HOT-PRESSED MATERIALS, ETC. VELOCE IS THE FIRST CAMPAGNOLO GROUP ALSO STUDIED FOR USE BY BIG BIKE MANUFACTURERS IN MIND, SO THEY CAN BUILT SPECIAL BIKES WITH COMPONENTS WHICH ARE THE EXPRESSION OF THE MOST MODERN TECHNOLOGY.



STRATOS

THE STRATOS GROUP IS A FURTHER STEP FORWARD BY CAMPAGNOLO IN THE OEM MARKET, WITH THE COLLABORATION OF THE MOST FAMOUS INTERNATIONAL MANUFACTURERS. THE STRATOS GROUP IS AIMED AT ALL THOSE WHO SEEK THE FUNCTIONALITY AND PERFORMANCE FOUND IN THE HIGH RANGE GROUPS.

THE PERFORMANCE OF THIS GROUP IS CAMPAGNOLO STANDARD WITH A 16-SPEED TRANSMISSION, ERGOPOWER® CONTROLS, NEW BRAKES AND RAPID RELEASE PEDALS PROCESSED USING CAD-CAM SYSTEMS.

CAMPAGNOLO PASSION FOR EVERYONE.



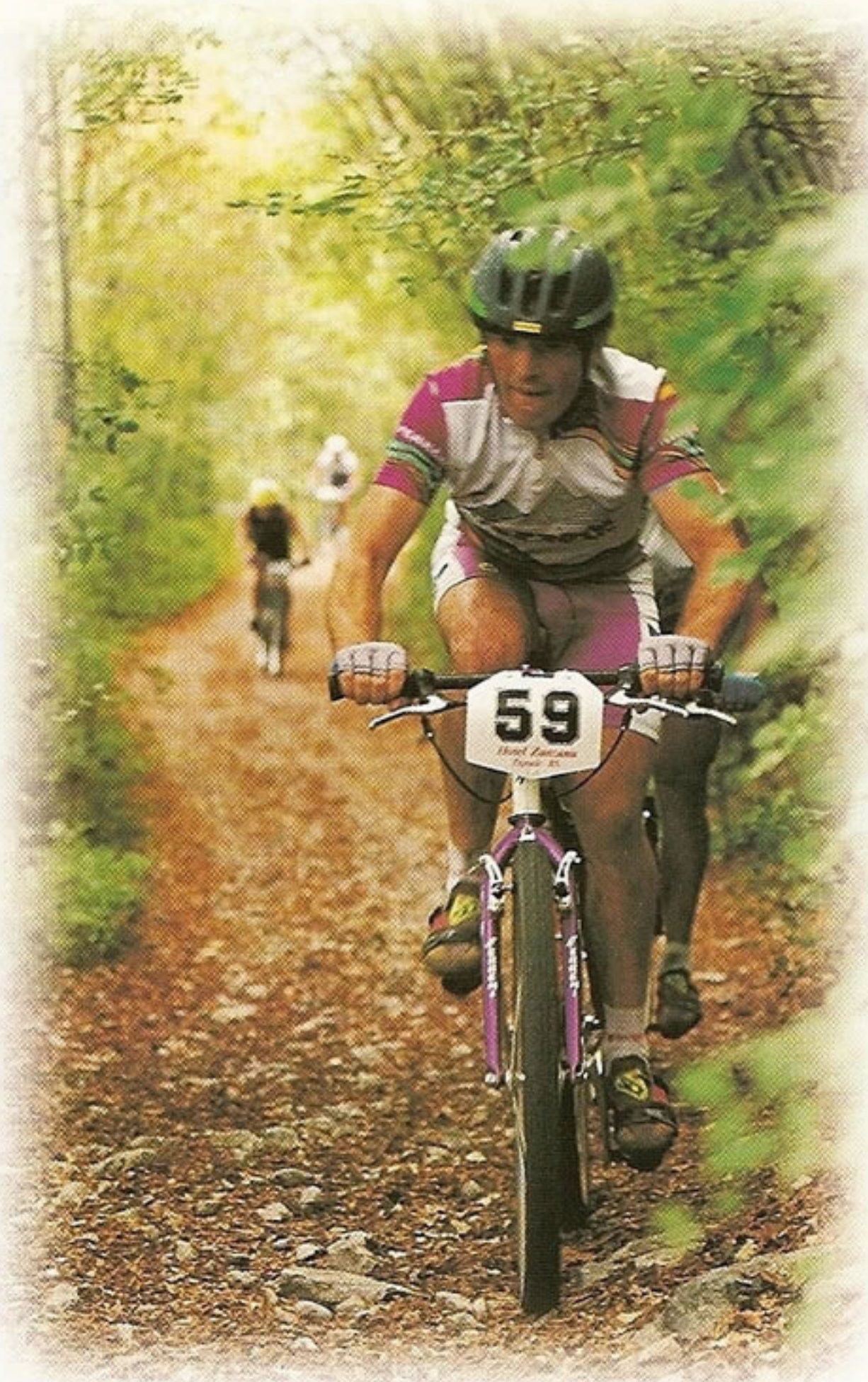
REAR DERAILLEUR: the operating principles of the Stratos rear derailleur are those derived from the higher range groups with which it is completely compatible. The new rollers designed for use with the new chain have also been adopted in the Stratos rear derailleur for further enhanced shifting. All the components of the mechanism are articulated on self-lubricating bushings which ensure longer life.

PEDALS: the quick-release Stratos pedal is made with new production technologies and, above all, with new materials never used before now for this type of component. The body is made from new synthetic fibres. The very modern streamlined body design is further highlighted by the use of "blank" type axles as on the higher range pedals. The foot support surface has been enlarged to the maximum for even more effective transmission of the riders thrust. The Stratos pedal uses the same cleats supplied for other Campagnolo models.



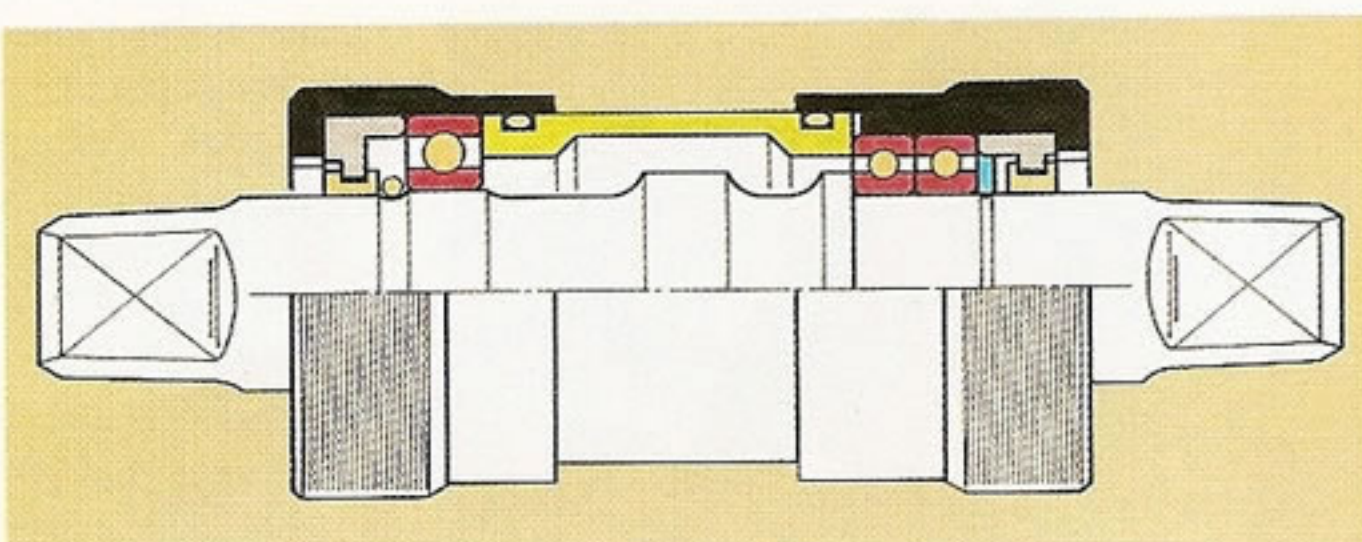
ERGOPOWER®: Stratos ErgoPower® is an example of Campagnolo's desire to offer the widest range of users the same technology developed for professional cyclists. With phenomenal performance in functionality and reliability terms for a group in this category, Stratos ErgoPower® further reinforces the concept of driving the bicycle. With the Stratos controls, Campagnolo technology goes beyond the confines of exclusive competition use to achieve greater expanse of the love for cycling.





RECORD O.R.

WHEREVER THERE IS COMPETITION, CAMPAGNOLO IS THERE WITH ITS PHILOSOPHY ACQUIRED IN THE SIXTIES ON THE RACING FIELDS: AT THE CYCLIST'S SERVICE WITH A PRODUCT CREATED WITH PASSION. CAMPAGNOLO DEVELOPED THE SAME DESIGN, MANUFACTURING AND FUNCTIONAL CONCEPTS USED ON ROAD GROUPS FOR THE RECORD O.R. GROUP, AIMED AT OFF-ROAD COMPETITION BIKES. THE SAME DESIRE TO INNOVATE LED TO THE DEVELOPMENT OF PRODUCTS WITH EXCLUSIVE FEATURES, AN INDICATION OF THE PASSION WHICH CAMPAGNOLO MAKES AVAILABLE TO CYCLING ENTHUSIASTS, WHATEVER TYPE OF GROUND THEY RACE ON.



CARTRIDGE BOTTOM BRACKET: in developing its off-road components, a lot of work was done to ensure maximum protection against dirt and water. The axle of the Record Cart b.b., built in special treated steel, turns on three ball bearings: one on the left and two on the right, the side subject to more stress due to the pull of the chain. These bearings, already protected by waterproof seals, are also provided with lip seals to ensure perfect defence when washing with high-power water jets.



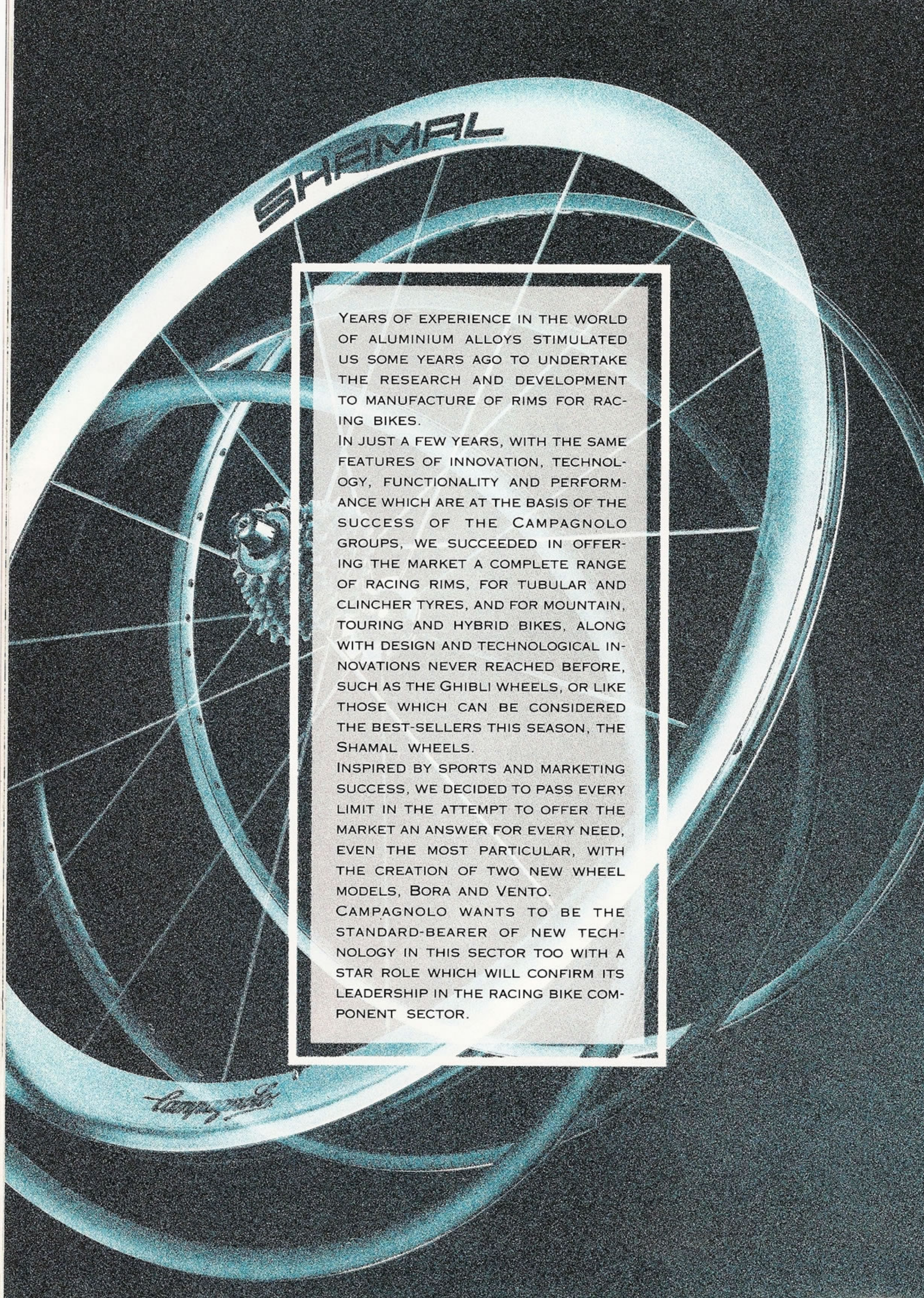
THUMB SHIFTERS: these are the lightest front and rear derailleur controls for off-road bikes in the world. Perfectly designed to offer the best possible ergonomics, they are adjustable in all directions and allow the rider to adopt a personalized steering position. The control levers are articulated on ball-bearings and ensure smooth fluid movement when changing, requiring a minimum effort on the rider's part.



BRAKES: Record O.R. brakes in aluminium alloy are equipped with a new system for securing the shoe to the shoe-holder lever. A spherical bushing guarantees orbital shoe adjustment in all directions. This solution guarantees perfect shoe positioning with any rim profile, ensuring effective braking at all times. The shoes are made with an expressly developed composition and design to meet the severe stress of extreme off-road conditions.

CRANKSET: weight reduction and optimization of the transmission are at the origin of the new crankset with cassette chainrings. Chainrings assembled directly on the crank using the cassette system are lighter and more rigid. The same tooth profile designed for the road chainrings was also adopted for the Record O.R. crankset. The reduction of the number of chainring teeth also enhances the performance of other components such as the rear derailleur and the freewheel, ensuring greater functionality for the whole transmission.





YEARS OF EXPERIENCE IN THE WORLD OF ALUMINIUM ALLOYS STIMULATED US SOME YEARS AGO TO UNDERTAKE THE RESEARCH AND DEVELOPMENT TO MANUFACTURE OF RIMS FOR RACING BIKES.

IN JUST A FEW YEARS, WITH THE SAME FEATURES OF INNOVATION, TECHNOLOGY, FUNCTIONALITY AND PERFORMANCE WHICH ARE AT THE BASIS OF THE SUCCESS OF THE CAMPAGNOLO GROUPS, WE SUCCEEDED IN OFFERING THE MARKET A COMPLETE RANGE OF RACING RIMS, FOR TUBULAR AND CLINCHER TYRES, AND FOR MOUNTAIN, TOURING AND HYBRID BIKES, ALONG WITH DESIGN AND TECHNOLOGICAL INNOVATIONS NEVER REACHED BEFORE, SUCH AS THE GIBLI WHEELS, OR LIKE THOSE WHICH CAN BE CONSIDERED THE BEST-SELLERS THIS SEASON, THE SHAMAL WHEELS.

INSPIRED BY SPORTS AND MARKETING SUCCESS, WE DECIDED TO PASS EVERY LIMIT IN THE ATTEMPT TO OFFER THE MARKET AN ANSWER FOR EVERY NEED, EVEN THE MOST PARTICULAR, WITH THE CREATION OF TWO NEW WHEEL MODELS, BORA AND VENTO.

CAMPAGNOLO WANTS TO BE THE STANDARD-BEARER OF NEW TECHNOLOGY IN THIS SECTOR TOO WITH A STAR ROLE WHICH WILL CONFIRM ITS LEADERSHIP IN THE RACING BIKE COMPONENT SECTOR.

G H I B L I

THANKS TO A PATENTED SYSTEM FOR WORKING A SUPERLIGHT MATERIAL, KEVLAR, CAMPAGNOLO MADE IT POSSIBLE TO CREATE THE GIBLI WHEEL WITH A WEIGHT PRACTICALLY EQUAL TO THAT OF A WHEEL WITH TRADITIONAL SPOKES.



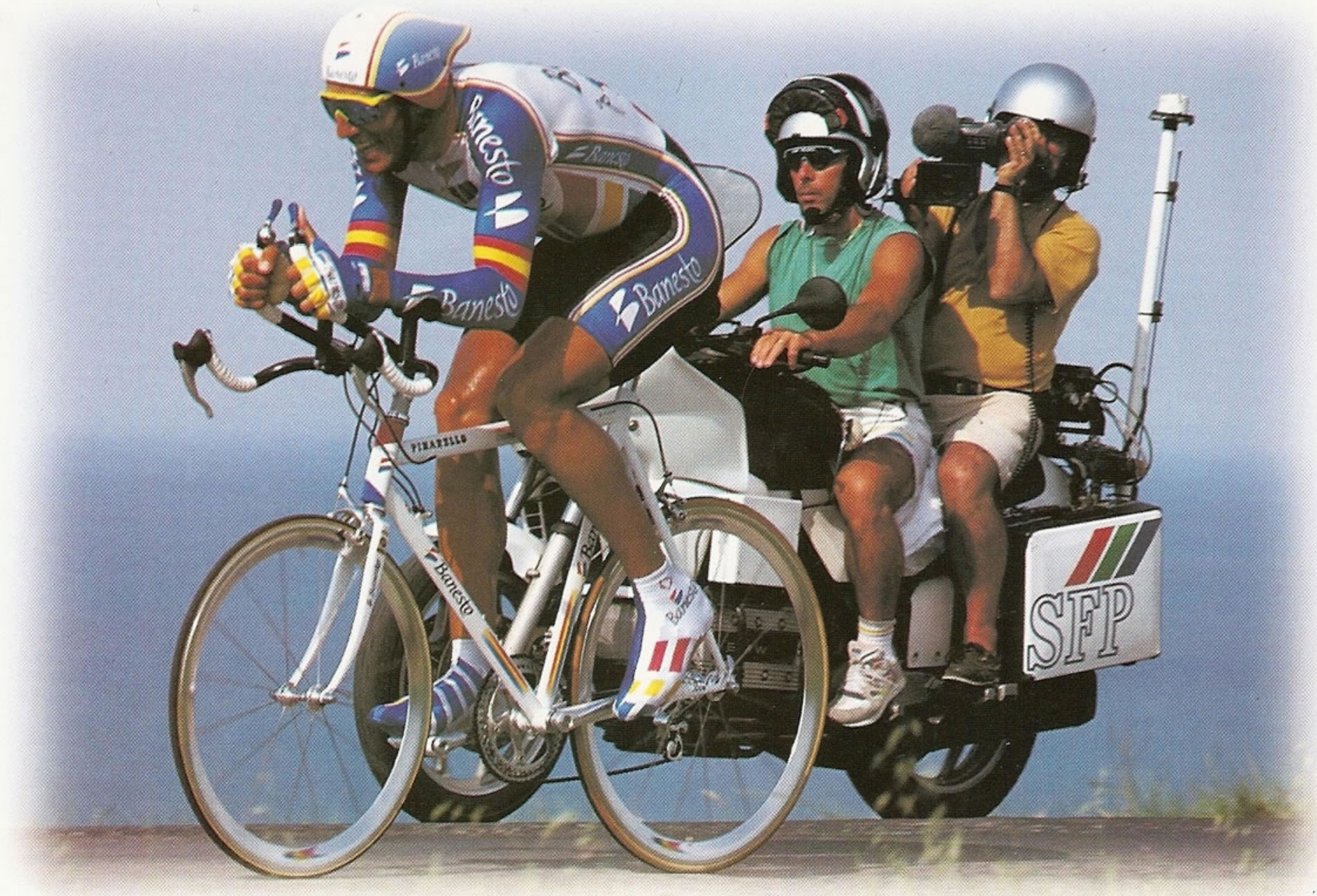
S C I R O C C O

SCIROCCO IS AN ANTI-CROSSWIND FRONT WHEEL, THANKS TO THE FOUR HOLES IN THE SIDES OF THE SIDE WALLS. WITH STUDIES AND EXPERIMENTAL TESTS, CAMPAGNOLO CREATED THE FORM OF PASSAGE FROM THE BICONICAL SIDES TO THE HOLE, WITH A WING PROFILE, RESPECTING THE LAWS OF AERODYNAMICS.

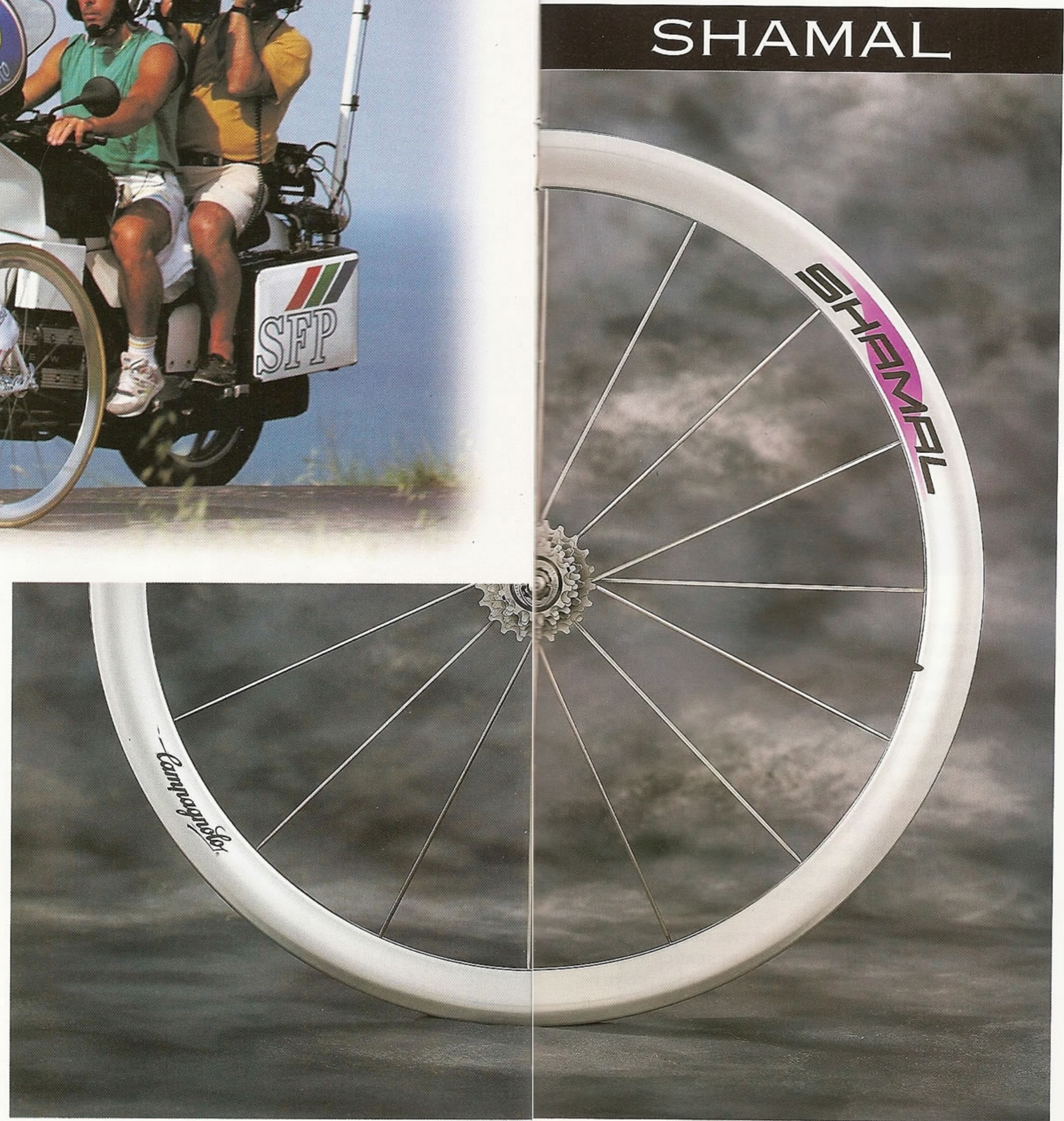
K H A M S I N

KHAMSIN FLUID-DYNAMIC WHEELS ALSO OFFER OPTIMAL AIR PENETRATION THANKS TO THE TRADITIONAL PROFILE OF THE SLIGHTLY CONVEX WALLS. LIGHTNESS IS ENSURED BY THE NEW COMPOSITE MATERIAL USED. THE KHAMSIN WHEEL HAS A SPECIAL HUB WHICH CAN BE TRANSFORMED FROM ROAD TO TRACK AND VICE VERSA BY CHANGING THE AXLE.





SHAMAL



INITIALLY CONCEIVED AS CAMPAGNOLO'S TECHNOLOGICAL RESPONSE TO SPOKED WHEELS FOR BIKES RACING AGAINST THE CLOCK, THE SHAMAL WHEEL IMMEDIATELY MET WITH GREAT SUCCESS, EVEN OUTSIDE TIME TRIALS, THANKS TO THE INNOVATIVE DESIGN SOLUTIONS USED FOR ALL THE COMPONENTS. THE BEST AERODYNAMICS ARE EXTREMELY IMPORTANT BOTH TO GAIN SECONDS WITH IMPROVED AIR PENETRATION, BOTH FOR PERFECT BIKE STEERING WITH LESS ENERGY CONSUMPTION BY THE RIDER.

AERODYNAMICS APPLIED TO THE NEW WHEEL PROFILE IS THE RESULT OF RESEARCH ON THE N.A.C.A. (NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS) CURVES. THIS DESIGN INCREASES AIR PENETRATION, ELIMINATING THE FORMATION OF NEGATIVE VORTICES.

THE WHEEL IS FITTED WITH 16 SPOKES WITH A STREAMLINED AERODYNAMIC SECTION EXPRESSLY STUDIED TO OFFER THE LOWEST RESISTANCE TO THE AIR.

ANOTHER STEP TOWARDS THE REDUCTION OF AIR RESISTANCE WAS MADE BY "HIDING" THE NIPPLES INSIDE THE RIM PROFILE, WHILE IT IS EASY TO GAIN ACCESS TO THEM USING A NORMAL 5.5 MM SOCKET WRENCH.

A PARTICULAR EFFORT WAS MADE IN THE QUEST FOR

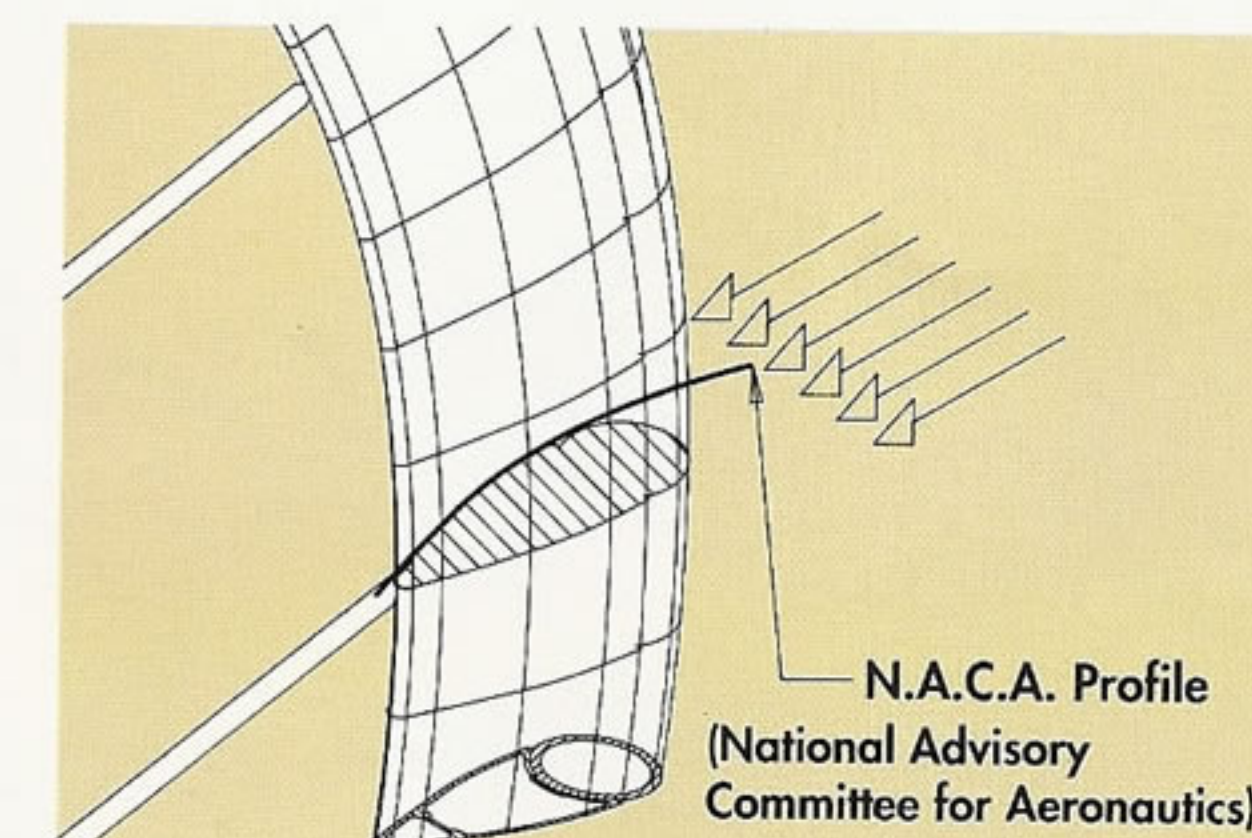
EXTREME WHEEL LIGHTNESS. THANKS TO THE SPECIAL RIM PROFILE AND THE USE OF ONLY 16 SPOKES, THE WEIGHT IS LOWER THAN THAT OF A TRADITIONAL WHEEL. THIS LIGHTNESS, FURTHER REDUCED BY USING CASSETTE HUBS WITH AN ALUMINIUM FREEWHEEL, ALLOWS THE INNOVATIVE FEATURES OF THE SHAMAL WHEEL TO BE EXPLOITED ON ANY TERRAIN, WHILE CLIMBING.

ALL THE DESIGN AND MANUFACTURING EFFORTS TO OBTAIN A LIGHT AERODYNAMIC WHEEL WOULD HAVE BEEN WASTED, HOWEVER, IF THE WHEEL LACKED A THIRD FUNDAMENTAL CHARACTERISTIC, RIGIDITY.

DURING THE DEVELOPMENT OF THE SHAMAL WHEEL, ENORMOUS IMPORTANCE WAS GIVEN TO THE RIGIDITY BOTH OF THE RIM AND OF THE RIM/SPOKES/HUB ASSEMBLY. AND, IN FACT, THE SHAMAL WHEEL IS CAPABLE OF SUPPORTING MUCH HIGHER LATERAL FORCES THAN ANY WHEEL WITH TRADITIONAL SPOKES.

THIS GREAT RIGIDITY, OBTAINED AS A RESULT OF THE RIM PROFILE AND THE HIGH SPOKE TENSION (ALMOST TWICE THAT OF A TRADITIONAL SPOKE), MEANS THAT ALL THE CYCLIST'S ENERGY IS RESTORED TO THE TRANSMISSION WITHOUT USELESS WASTAGE.

THE SHAMAL WHEELS ARE AVAILABLE IN ROAD AND TRACK VERSIONS, FOR TUBULAR OR NARROW CLINCHER TYRES, IN 26" AND 28" SIZES. ALL THE REAR WHEELS ARE FITTED WITH CASSETTE HUBS WITH 8-SPEED STEEL OR ALUMINIUM FREEWHEEL BODY.





BORA



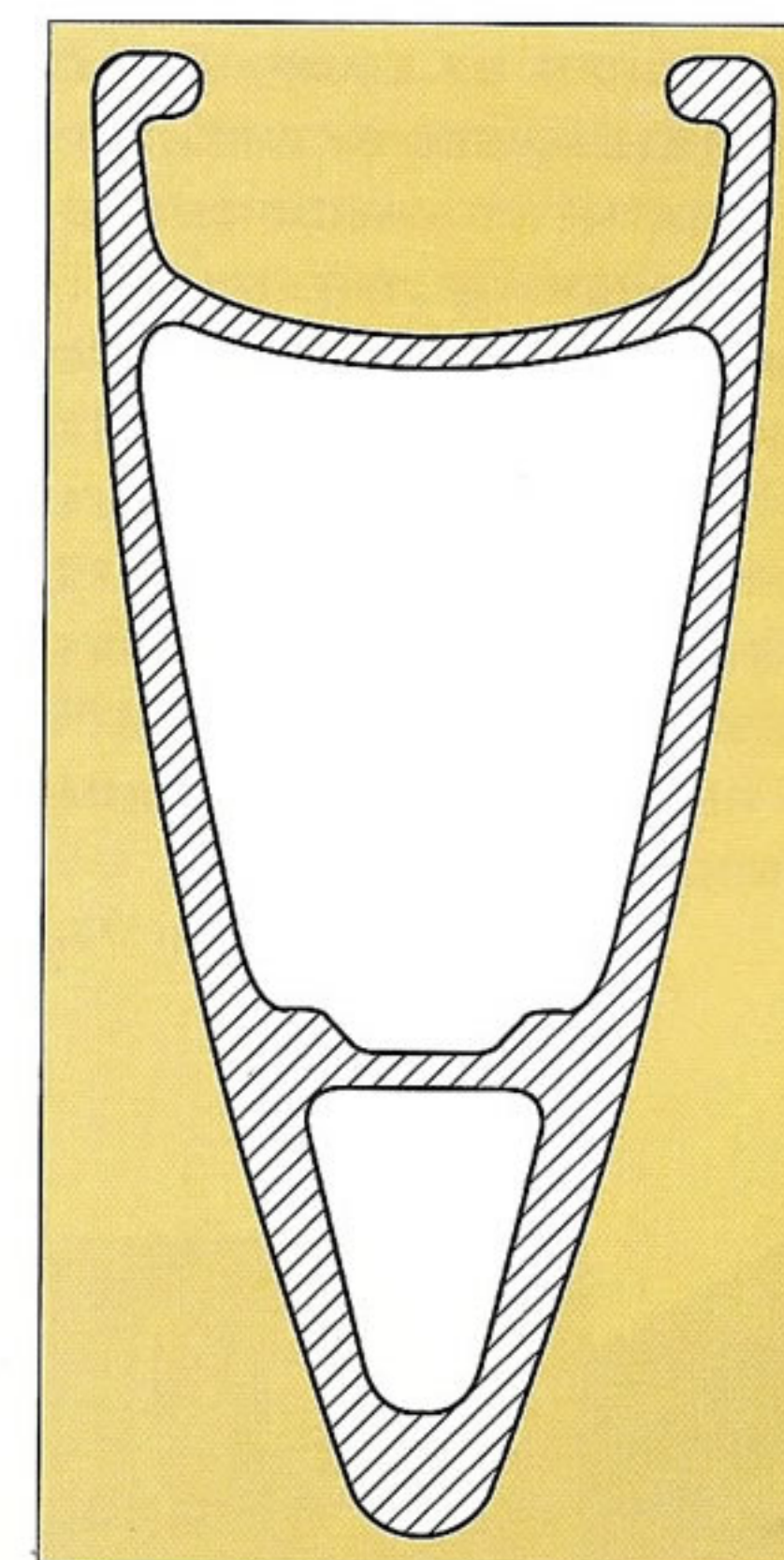
DERIVED FROM THE STUDIES AND EXPERIENCE ACQUIRED WITH THE SHAMAL WHEELS, THE BORA DESIGN SPANG FROM THE DESIRE TO FURTHER INCREASE THE LIGHTNESS OF SPOKED WHEELS. TO REACH THIS TARGET, WE AVAILED OF THE MOST SOPHISTICATED MANUFACTURING TECHNOLOGIES, WITH THE USE OF MATERIALS SUCH AS CARBON FIBRE WHICH ALLOWED US TO OBTAIN WEIGHT LEVELS UNPRECEDENTED IN THE WHEEL SECTOR.

IT WAS POSSIBLE TO GAIN A FURTHER 200 GRAMMES COMPARED WITH A PAIR OF TRADITIONAL 32-SPOKE WHEELS, WITHOUT, HOWEVER, AFFECTING RIGIDITY.

EXPRESSLY DESIGNED FOR THE USE OF CARBON FIBRE AND COMBINED WITH RESEARCH ON THE N.A.C.A. CURVES, THE RIM PROFILE FITTED WITH 16 SPOKES WITH AN AERODYNAMIC PROFILE PERMITS EXTREMELY HIGH AERODYNAMIC LEVELS TO BE REACHED.

AN APPROPRIATE ARRANGEMENT OF THE FIBRES OF THE CARBON FABRIC ALLOWED THE CONCEPT OF NIPPLES "HIDDEN" IN THE RIM PROFILE TO BE MAINTAINED, WITHOUT REDUCING RESISTANCE TO THE STRONG FORCES TO WHICH IT IS SUBJECTED. THIS MEANT CONFERRING BORA WHEELS WITH THE LATERAL RIGIDITY INDISPENSABLE FOR TRANSMITTING ALL THE RIDER'S POWER WITHOUT WASTING ENERGY.

THE BORA WHEEL IS AVAILABLE IN ONE VERSION ONLY FOR TUBULARS, WITH 26" OR 28" DIAMETERS AND EXCLUSIVELY WITH ALUMINIUM CASSETTE FREEWHEEL.



VENTO



THE RISING DEMAND FROM THE MARKET FOR COMPLETE WHEELS AS WELL AS THEIR INCREASING USE ON TRADITIONAL RACING BIKES AS WELL, SPURRED CAMPAGNOLO TO USE THE TECHNOLOGY DEVELOPED FOR SHAMAL WHEELS TO INCREASE ITS WHEEL RANGE WITH A NEW SERIES: VENTO.

EXPLOITING ALL THE TECHNOLOGICAL AND DESIGN FEATURES EXPERIMENTED ON THE SHAMAL, THE VENTO WHEEL IS A PRODUCT WITHIN THE REACH OF EVERYONE, FOR ANY USE, WHILE MAINTAINING INTACT ITS CHARACTERISTICS OF ABSOLUTE QUALITY, RELIABILITY AND FUNCTIONALITY, REFLECTING THE IMAGE OF ALL CAMPAGNOLO PRODUCTS. THE SAME DESIGN PRINCIPLES USED FOR THE DEVELOPMENT OF THE SHAMAL WHEELS WERE ADOPTED FOR THE VENTO: RIM WITH A PROFILE DERIVED FROM STUDIES OF THE N.A.C.A. CURVES, ASSEMBLY WITH 20 SPOKES WITH AN AERODYNAMIC PROFILE, NIPPLE HIDDEN IN THE RIM PROFILE, ETC.

VENTO WHEELS ARE TARGETED TOWARDS ALL ENTHUSIASTS, AMATEUR RIDERS OR CYCLE TOURISTS WHO DEMAND THE TOP FOR THEIR BIKE.

VENTO IS AVAILABLE IN THE VERSION FOR CLINCHER TYRES, DIAMETER 28", WITH REAR HUB WITH 8-SPEED STEEL CASSETTE FREEWHEEL.

RIMS FOR TUBULAR

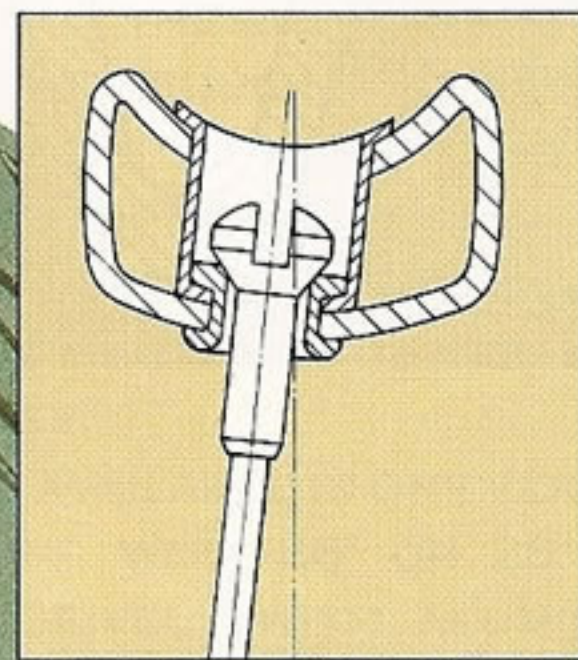
CAMPAGNOLO'S PASSION FOR STUDYING RACING BIKE COMPONENTS LED IT TO OFFER A COMPLETE RANGE OF RIMS FOR ALL TYPES OF BIKE.

SIGMA RIMS SPRING FROM YEARS OF EXPERIENCE OF RACING AND PROVIDE A COMPLETE RESPONSE TO THE NEEDS OF GREAT CHAMPIONS. IN DESIGNING SIGMA RIMS, WE WANTED TO OBTAIN RIGIDITY AND ELASTICITY CHARACTERISTICS WHICH WOULD GIVE THE RIM AN OPTIMUM SHOCK ABSORPTION POWER.

THIS TARGET WAS REACHED THANKS TO THE MATERIAL USED, ERGAL, AN ALUMINIUM ALLOY FOR AERONAUTICAL USE WITH A HIGH COEFFICIENT OF ELASTICITY (54 KG/MM²) AND HIGH BREAKING STRENGTH (62 KG/MM²)

THE EXCLUSIVE CAMPAGNOLO PATENT FOR THE EYELETS WITH TWO ANGLES (CAMBER AND CROSSING), NOT ONLY MAKES ASSEMBLY EASIER AND FASTER, BUT ALSO GIVES THE WHEEL GREAT STABILITY OVER TIME AND REDUCES THE RISK OF SPOKE BREAKAGE.

ALL THE TECHNICAL FEATURES OF CAMPAGNOLO SIGMA RIMS ARE FURTHER ENHANCED BY THE HARD ANODIC OXIDIZATION TREATMENT WHICH TRANSFORMS THE SURFACE LAYER OF THE RIM, INCREASING ITS HARDNESS AND RESISTANCE TO BRAKE BLOCK WEAR. SIGMA RIMS SYMBOLIZE ALL THE COMMITMENT OF CAMPAGNOLO'S DESIGNERS TO PROVIDING THE RACING BIKE RIM SECTOR WITH A PRODUCT WHICH MEETS THE PROFESSIONAL RIDER'S NEEDS IN TERMS OF PERFORMANCE, FUNCTIONALITY AND RELIABILITY.

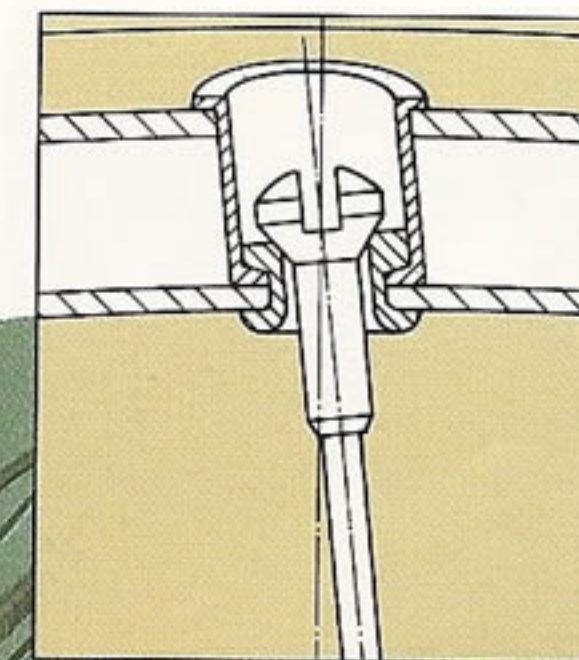


RIMS FOR CLINCHER TYRE

CLINCHER TYRES ARE NOW ESTABLISHED IN THE COMPETITION WORLD AS INCREASING NUMBERS OF CYCLISTS ADOPT THIS TYPE OF TYRE.

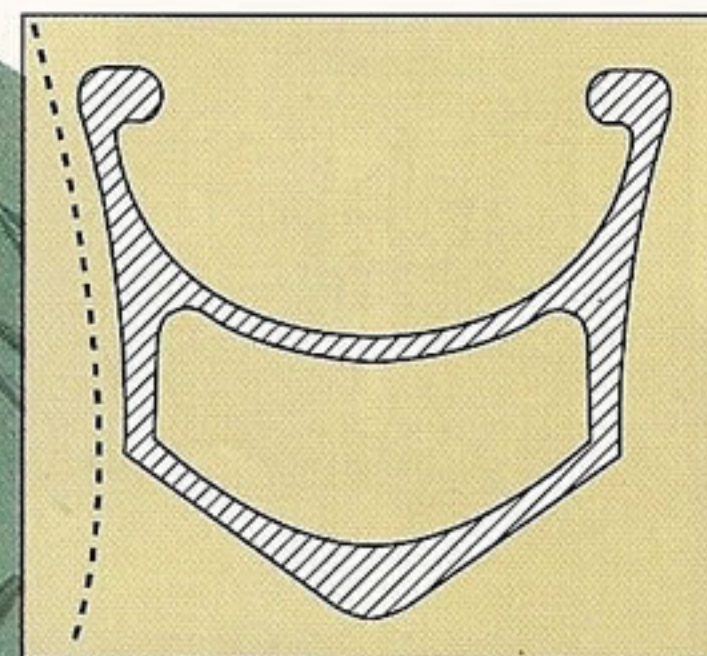
IN THIS SECTOR, CAMPAGNOLO IS PRESENT WITH A COMPLETE RANGE CAPABLE OF MEETING ANY KIND OF REQUIREMENT: FOR COMPETITIVE RACING, TOURING BIKES AND FOR ASSEMBLY ON AUTOMATIC MACHINES. FROM A DESIGN POINT OF VIEW, CAMPAGNOLO RIMS FOR CLINCHER TYRES REFLECT THE LINES OF THE SIGMA RIMS AND ADOPT THE EXCLUSIVE PATENTED DOUBLE-ANGLED EYELETS. CAMPAGNOLO RIMS FOR CLINCHER TYRES ARE MADE WITH TWO PROFILES: NORMAL OR AERODYNAMIC. THE NORMAL PROFILE WITH DOUBLE CHAMBER AND 19 OR 20 MM SECTION IS FITTED WITH DOUBLE OR SINGLE EYELETS. THE V-PROFILE RIMS WERE DEVELOPED IN WIND TUNNELS AND THE SECTION DESIGNED PROVED TO BE THE BEST FOR EFFECTIVE AIR PENETRATION AND THE RIGIDITY REQUIRED FOR WHEEL TRUENESS. THE V-PROFILES ARE SPECIALLY DIMENSIONED SO AS NOT TO USE EYELETS, THEREBY CONSIDERABLY REDUCING WEIGHT.

THE MATERIALS USED ARE HEAT-TREATED SILICON AND MAGNESIUM ALUMINIUM ALLOYS WHICH GIVE THE RIMS AN EXCEPTIONAL BREAKING STRENGTH AND A HIGH COEFFICIENT OF ELASTICITY. FURTHERMORE, THE VARIOUS FINISHES OFFERED - HARDOX, OXYDE, BLACK AND POLISHED - ALLOWS THE MECHANICAL FEATURES OF EACH RIM TO BE SUITED TO ITS USE: FROM COMPETITIVE RACING TO TOURING.



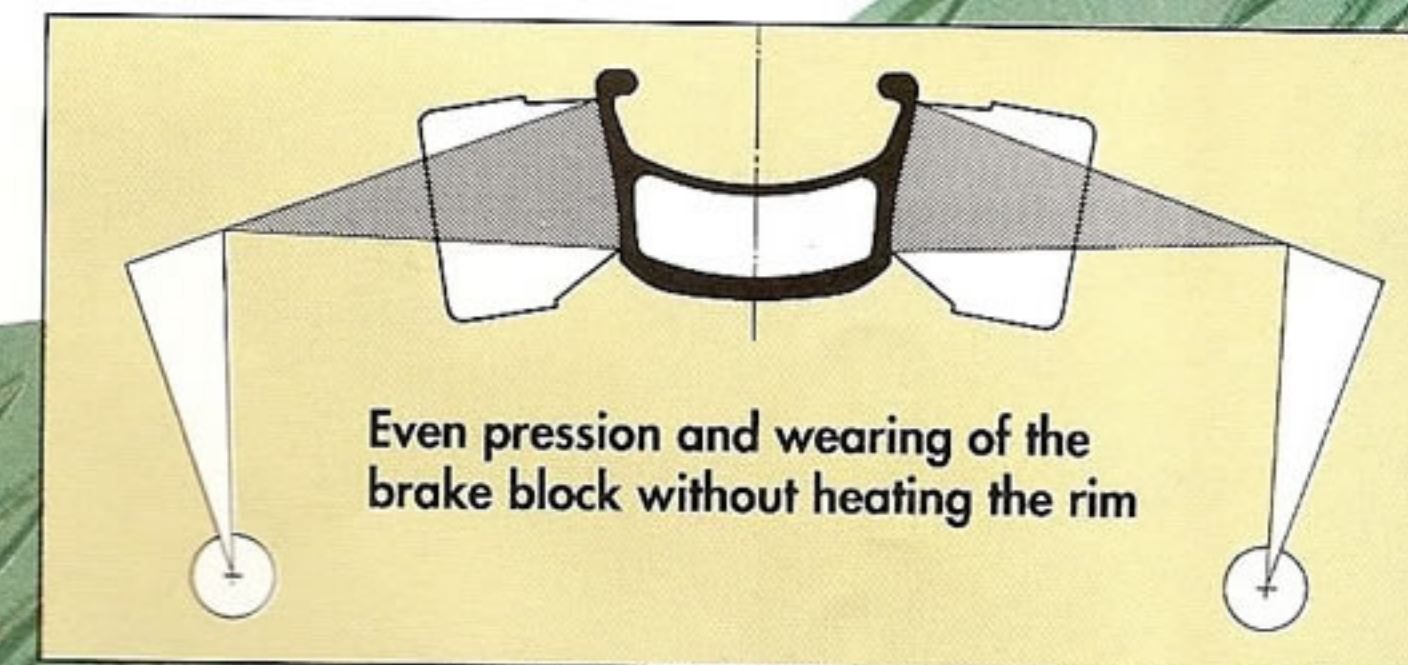
RIMS FOR OFF-ROAD

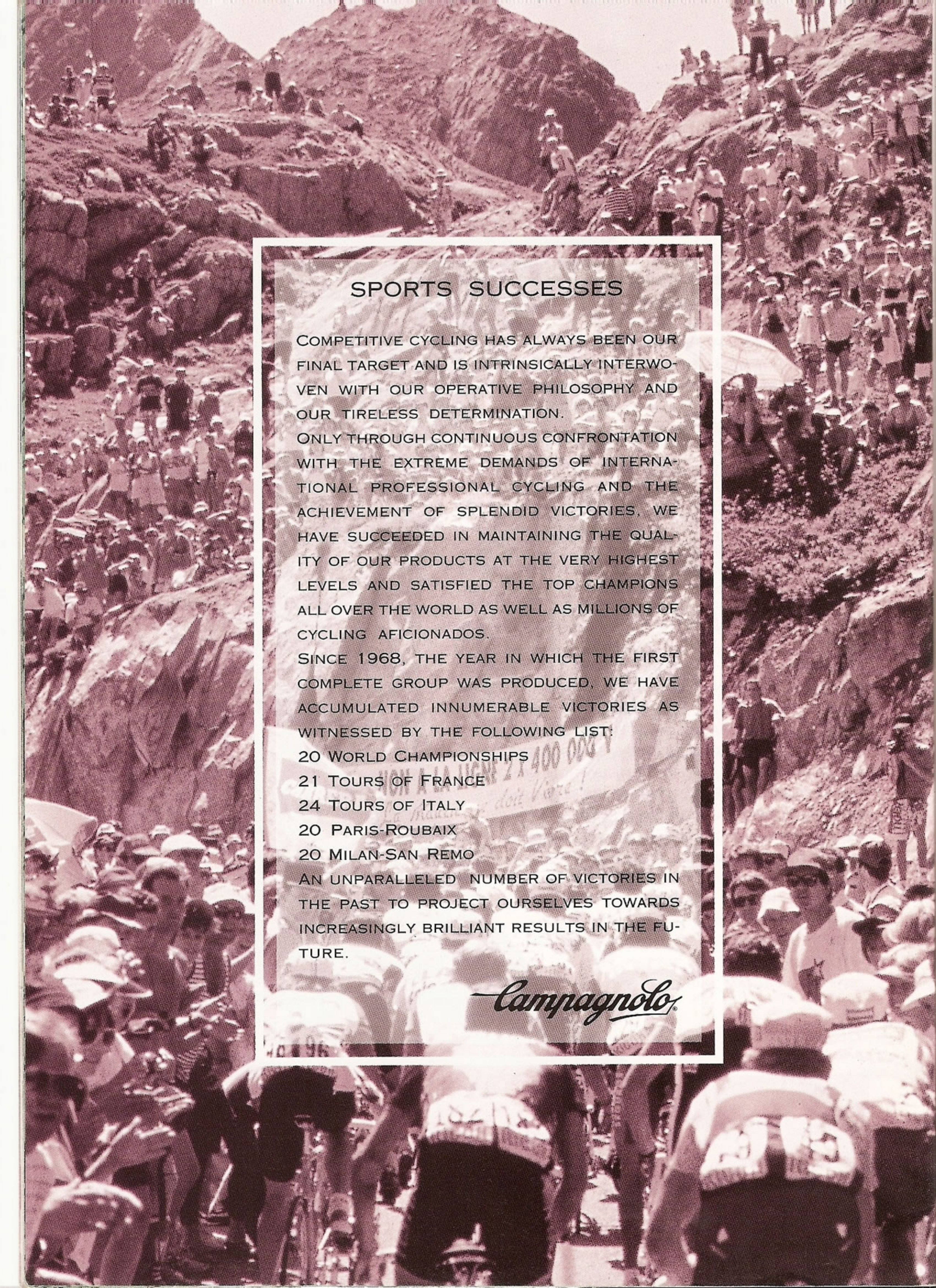
WITH THE EXPERIENCE GAINED FROM ROAD RIMS AND THANKS TO THE USE OF INNOVATIVE SOLUTIONS AND TECHNOLOGICALLY ADVANCED MATERIALS, A VAST RANGE OF OFF-ROAD RIMS WAS CREATED WITH HIGH STANDARDS OF RIGIDITY AND LIGHTNESS. IN-DEPTH STUDIES SHOWED THAT THE MOVEMENT OF CANTILEVER TYPE BRAKES USED ON OFF-ROAD BIKES WAS INADEQUATE FOR RIMS WITH TRADITIONAL SIDES AND DID NOT PERMIT OPTIMAL BRAKING PERFORMANCE. TO INCREASE THE BRAKING POWER OF THE BLOCKS WITH RESPECT TO THE FORCE APPLIED TO THE CONTROL, CAMPAGNOLO DESIGNED A NEW POLYCENTRIC TYPE RIM PROFILE, WITH PROGRESSIVE INCLINATION WHICH ALLOWS EVEN BLOCK CONSUMPTION TO BE OBTAINED AND A GREATER FRICTION COEFFICIENT. CAMPAGNOLO OFFERS A COMPLETE RANGE OF RIMS FOR OFF-ROAD RACING WITH THIS NEW PATENTED PROFILE: STHENO, ATEK, MIROX AND ZARK. THESE RIMS ARE AVAILABLE IN THE TRADITIONAL HARDOX, BLACK AND POLISHED FINISHES WHICH MAINTAIN THE APPEARANCE OF THE RIM WITH THE PASSAGE OF TIME. ANOTHER VERY IMPORTANT FEATURE FOR COMPETITIVE APPLICATIONS IS THE POSSIBILITY OF REMOVING AND REINSTALLING THE TYRE, IN THE EVENT OF PUNCTURE, WITHOUT TOOLS BUT USING YOUR HANDS ONLY. STHENO AND ATEK RIMS ARE DESIGNED FOR ASSEMBLY WITHOUT EYELETS AND ARE AMONG THE LIGHTEST IN THE WORLD. MIROX AND ZARK RIMS, FITTED WITH DOUBLE-ANGLE EYELETS, WERE SPECIFICALLY DESIGNED TO BEST MEET THE NEEDS OF THE WORLD'S TOP OFF-ROAD BIKE MANUFACTURERS.



RIMS FOR HYBRID

THE NEW HYBRID TYPE BIKES AND MANY BIKES FOR TOURISM ARE FITTED WITH CANTILEVER TYPE BRAKES. WITH THE KNOW-HOW ACQUIRED IN THE DEVELOPMENT OF ITS OFF-ROAD RIMS, CAMPAGNOLO DECIDED TO APPLY ITS TECHNOLOGY TO THIS SECTOR WITH THE DEVELOPMENT OF THE TWO DEDRA VERSIONS. THE NEW DEDRA RIMS WERE DESIGNED STARTING FROM THE POLYCENTRIC PROFILE ALREADY SUCCESSFULLY USED FOR THE OFF-ROAD RIMS, WITH APPROPRIATE MODIFICATIONS OF THE SECTION SO AS TO BE ABLE TO FIT TYRES FROM 23 TO 35 MM. THE SIDES WERE EVEN DESIGNED SO AS TO BE ABLE TO USE CALIPER TYPE BRAKES (SIDE PULL). FITTED OUT WITH SINGLE EYELETS, DEDRA RIMS ARE AVAILABLE IN BLACK AND POLISH FINISHES. CAMPAGNOLO CAN THEREFORE BOAST A TRULY COMPLETE RANGE OF RIMS OBTAINED THANKS TO DESIGNS PERSONALIZED WITH OPTIMAL COMBINATIONS IN TERMS OF RIGIDITY, ELASTICITY AND INDEFORMABILITY. AN EXTREMELY RICH RANGE, THEREFORE, IDEAL FOR THE MOST DISPARATE SPECIALITIES FROM COMPETITION TO TOURISM, WHICH CONFIRMS CAMPAGNOLO'S LEADERSHIP IN THE RIM SECTOR.





SPORTS SUCCESSES

COMPETITIVE CYCLING HAS ALWAYS BEEN OUR FINAL TARGET AND IS INTRINSICALLY INTERWOVEN WITH OUR OPERATIVE PHILOSOPHY AND OUR TIRELESS DETERMINATION.

ONLY THROUGH CONTINUOUS CONFRONTATION WITH THE EXTREME DEMANDS OF INTERNATIONAL PROFESSIONAL CYCLING AND THE ACHIEVEMENT OF SPLENDID VICTORIES, WE HAVE SUCCEEDED IN MAINTAINING THE QUALITY OF OUR PRODUCTS AT THE VERY HIGHEST LEVELS AND SATISFIED THE TOP CHAMPIONS ALL OVER THE WORLD AS WELL AS MILLIONS OF CYCLING AFICIONADOS.

SINCE 1968, THE YEAR IN WHICH THE FIRST COMPLETE GROUP WAS PRODUCED, WE HAVE ACCUMULATED INNUMERABLE VICTORIES AS WITNESSED BY THE FOLLOWING LIST:

20 WORLD CHAMPIONSHIPS

21 TOURS OF FRANCE

24 TOURS OF ITALY

20 PARIS-ROUBAIX

20 MILAN-SAN REMO

AN UNPARALLELED NUMBER OF VICTORIES IN THE PAST TO PROJECT OURSELVES TOWARDS INCREASINGLY BRILLIANT RESULTS IN THE FUTURE.

Campagnolo

TECHNICAL SPECIFICATIONS

		RECORD	CHORUS	ATHENA	VELOCE	STRATOS	RECORD O.R.	
REAR DERAILLEUR	speed	8 speed	8 speed	8 speed	8 speed	8 speed	8 speed	
	max.sprocket	26 teeth	26 teeth	28 teeth	28 teeth	28 teeth	30 S - 32 M	
	total capacity	26 teeth	26 teeth	26 teeth	26 teeth	26 teeth	30 S - 36 M	
FRONT DERAILLEUR	braze-on	●	●	●	●	●	-	
	clip-on Ø	● 28,6 mm	● 28,6 mm	● 28,6 mm	● 28,6 mm	● 28,6 mm	● 28,6 mm	
	adj. clip-on Ø	-	● 29+33 mm	-	● 29+33 mm	● 29+33 mm	● 28,6+33 mm	
	adj. clip-on Ø	-	-	-	● 35+36 mm	-	● 35+36 mm	
	capacity	14 teeth	14 teeth	14 teeth	14 teeth	14 teeth	22 teeth	
CRANKSET	max. chainring	56 teeth	56 teeth	56 teeth	56 teeth	56 teeth	48 teeth	
	crank lengths mm	170-172,5-175-180	170-172,5-175	170-172,5-175	170-172,5	170-172,5	170-175	
	toothings	39x52 - 39x53 41x52 - 41x53 42x52 - 42x53	39x52 - 39x53 41x52 - 41x53 42x52 - 42x53	39x52 - 39x53 41x52 - 41x53 42x52 - 42x53	39x52 - 39x53 42x52 - 42x53	39x52 42x52	20x30x42 22x32x44	
BOTTOM BRACKET	traditional, lt.	●	●	●	-	-	-	
	traditional, BC	●	●	●	-	-	-	
	cartridge type, lt.	●	●	●	●	●	●	
	cartridge type, BC	●	●	●	●	●	●	
ERGOPOWER® SHIFTING LEVERS	speed	8 speed	8 speed	8 speed	8 speed	8 speed	8 speed	
	speed	8 speed	8 speed	8 speed	8 speed	8 speed	8 speed	
	traditional type	●	●	●	●	●	-	
	Thumb-shifter	-	-	-	-	-	●	
BRAKE LEVERS	Bullet	-	-	-	-	-	●	
	traditional type	●	●	●	●	●	●	
	height mm	39+50	39+50	40,75+51,2	39+51	39+51	cantilever	
FRONT HUB	spoke holes	32-36	32-36	32-36	32-36	32-36	32-36	
	over lock dimensions	100 mm	100 mm	100 mm	100 mm	100 mm	100 mm	
REAR HUB	spoke holes	32-36	32-36	32-36	32-36	32-36	32-36	
	over lock dimensions	130 mm	130 mm	130 mm	130 mm	130 mm	135 mm	
SPROCKETS	cassette, 8 speed	●	●	●	●	●	●	
	toothings	EXA-DRIVE® 12/13/14/15/16/17/18/19 12/13/14/15/16/17/19/21 12/13/14/15/17/19/21/23 13/14/15/16/17/18/19/21 13/14/15/16/17/19/21/23 13/14/15/16/17/19/21/23 13/14/15/17/19/21/23/26 14/15/16/17/19/21/23/26	EXA-DRIVE® 12/13/14/15/16/17/18/19 12/13/14/15/16/17/19/21 12/13/14/15/17/19/21/23 13/14/15/16/17/18/19/21 13/14/15/16/17/19/21/23 13/14/15/16/17/19/21/23 13/14/15/17/19/21/23/26 14/15/16/17/19/21/23/26	EXA-DRIVE® 12/13/14/15/16/17/18/19 12/13/14/15/16/17/19/21 12/13/14/15/17/19/21/23 13/14/15/16/17/18/19/21 13/14/15/16/17/19/21/23 13/14/15/16/17/19/21/23 13/14/15/17/19/21/23/26 14/15/16/17/19/21/23/26	12/13/14/15/17/19/21/23 13/14/15/16/17/19/21/23 13/14/15/17/19/21/23/26 13/14/16/18/20/22/25/28 14/15/16/17/19/21/23/26	12/13/14/15/17/19/21/23 13/14/15/16/17/19/21/23 13/14/15/17/19/21/23/26 13/14/16/18/20/22/25/28 14/15/16/17/19/21/23/26	EXA-DRIVE® 12/13/14/15/16/17/18/19 12/13/14/15/16/17/19/21 12/13/14/15/17/19/21/23 13/14/15/16/17/18/19/21 13/14/15/16/17/18/19/21 13/14/15/16/17/19/21/23 13/14/15/17/19/21/23/26 14/15/16/17/19/21/23/26	
	SUPER RECORD in light alloy	● in 2,3,4,5,6,7 and 8th position from 13 to 23 teeth	● in 2,3,4,5,6,7 and 8th position from 13 to 23 teeth	-	-	-	-	
	CHAIN HEAD SET	1/2"x3/32" narrow	●	●	●	●	●	●
	PEDALS	BC 1"x24tpi	●	●	●	●	●	● - OS 1"1/8 - OS 1"1/4
quick release type		●	●	●	●	●	-	
SEAT POST	traditional type	●	-	-	-	-	●	
	Ø 180 mm	25-26-27-27,2	25-25,4-26-26,4-26,6-26,8-27-27,2	25-25,4-26-26,4-26,6-26,8-27-27,2	-	-	-	
	Ø 325 mm	-	-	-	-	-	27 - 27,2 - 29,4	

RIMS FOR TUBULAR TYRE	mm.	Drilling	Weight gr.
SIGMA Hardox	22	32-36	335
SIGMA 20 Hardox	20	32-36	345
OMEGA "V" Hardox	19,5	32-36	395
OMEGA Hardox	20	32-36	395
LAMBDA Polished	20	32-36	395
RIMS FOR CLINCHER TYRE			
OMEGA Hardox	20	32-36	430
OMEGA 19 Hardox 25"	19	32	350
OMEGA 19 Hardox	19	32-36	380
OMEGA "V" Hardox	20	32-36	440
OMEGA 19 Silver	19	32-36	380
LAMBDA Polished	20	32-36	430
LAMBDA "V" Polished	20	32-36	440
OMICRON Black	20	36	480
OMICRON Silver	20	36	480
OMICRON Polished	20	36	480
GAMMA Black	20	36	480
GAMMA Silver	20	36	480
GAMMA Polished	20	36	480
RIMS FOR HYBRID/TOURING			
DEDRA Black	23	32-36	495
DEDRA Polished	23	32-36	495
RIMS FOR OFF-ROAD			
STHENO Hardox	22	32-36	405
STHENO Polished	22	32-36	405
ATEK Hardox	20	32-36	390
ATEK Polished	20	32-36	390
MIROX Hardox	22	32-36	380
MIROX Polished	22	32-36	380
ZARK Black	21,9	32-36	405
ZARK Polished	21,9	32-36	405

SHAMAL FOR TUBULAR TYRE	Rim cross section	Hub spacing	Weight gr.
Front road 26"	19	100	750
Front road 28"	19	100	790
Rear road 26"	19	130	1045
Rear road w. fw. body in light alloy 26"	19	130	990
Rear road 28"	19	130	1095
Rear road w. fw. body in light alloy 28"	19	130	1040
Front track 26"	19	100	830
Front track 28"	19	100	850
Rear track 28"	19	120	940
SHAMAL FOR CLINCHER TYRE			
Front road 26"	19	100	800
Front road 28"	19	100	860
Rear road 26"	19	130	1105
Rear road w. fw. body in light alloy 26"	19	130	1050
Rear road 28"	19	130	1165
Rear road w. fw. body in light alloy 28"	19	130	1110
VENTO FOR CLINCHER TYRE			
Front road 28"	19	100	930
Rear road 28"	19	130	1190
BORA FOR TUBULAR TYRE			
Front road 26"	20	100	660
Front road 28"	20	100	700
Rear road 26"	20	130	890
Rear road 28"	20	130	935
KHAMSIN			
Front road 26"	18	100	950
Front track 26"	18	100	950
Rear road/track, lt. or BC thread 28"	18	126,5/120	1110
SCIROCCO			
Front road 26"	18	100	980
GHIBLI			
Front road 24"	18	100	740
Front road 26"	18	100	820
Front track 24"	18	100	740
Front track 26"	18	100	820
Rear road, lt. or BC thread 28"	18	126,5	960
Rear track, lt. or BC thread 28"	18	120	960

N.B.: the weights of the rims do not include the eyelets.

Campagnolo SRL reserves the right to modify the product specifications without notice.

Campagnolo

CAMPAGNOLO S.R.L. - VIA DELLA CHIMICA, 4 - 36100 VICENZA - ITALY - TEL. 0444-564933 - TELEFAX 0444-565062
CAMPAGNOLO FRANCE - B.P. 39 - 42330 ST-GALMIER - FRANCE - PHONE 77-940778 - TELEFAX 77-941109
CAMPAGNOLO (DEUTSCHLAND) GMBH - QUETTINGER STRASSE 196 - 5090 LEVERKÜSEN - GERMANY - TEL. 02171-768254 - TELEFAX 02171-768255
CAMPAGNOLO USA INC. - 5245 AVENIDA ENCINAS, UNIT J- CARLSBAD - CALIFORNIA 92008 - U.S.A. - TEL. 619-9310106 - TELEFAX 619-9310991
SERVICE AND TECHNICAL INFORMATION: CENTRAL (ITALY) - Tel. 0444-571871 GERMANY - Tel. 02171-768254 USA - Tel. 619-9310106