

AUSTRALIA'S PREMIER CYCLING MAGAZINE

# Freewheeling

SUMMER 1990 BUYERS GUIDE \$4.95

## BUYERS GUIDE

- **MOUNTAIN BIKES**
- **LIGHTWEIGHT BIKES**
- **ROAD BIKES**
- **KIDS BIKES**
- **WOMENS BIKES**
- **THE LATEST EQUIPMENT**
- **REVIEWS**
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THE RIGHT  
LIGHTWEIGHT**



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# Freewheeling

NO.59 SUMMER 1990 BUYERS GUIDE

Editor  
**Warren Salomon**  
Editorial assistant  
**Julia Thorn**  
Production Manager  
**Ian Walker**  
Administration Manager  
**Angie Daskalakis**  
Marketing Director  
**Lynda Prince**  
Subscriptions Coordinator  
**Gina Thomas**  
Promotions Coordinator  
**Phillis Agios**  
Group Advertising Manager  
**Stephen Kay**  
(02) 331 5006

Advertising Sales Executive  
**Andrew Jeffery**  
(02) 331 5006

Advertising Production  
**Brett Cheshire**  
Editorial Director  
**Andrew Cowell**  
Publisher  
**Philip Mason**

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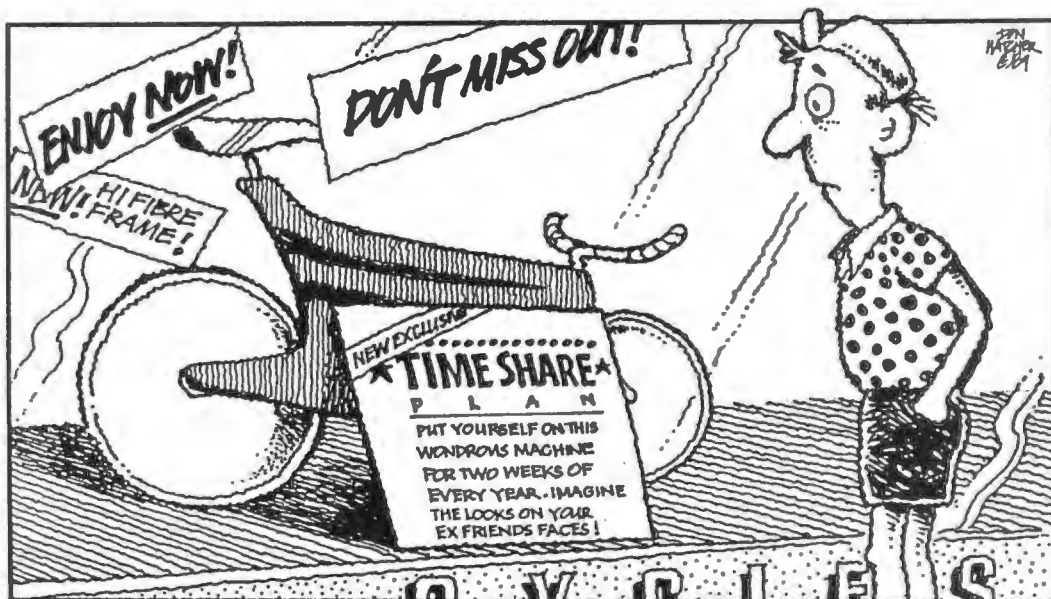
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Cover photograph of the Mongoose IBOC Comp courtesy of Repco Cycles. Inset photograph of Kathy Hart in action during her recent US tour by Jim Stafford. Our sports feature on buying a competition bike starts on page 42.



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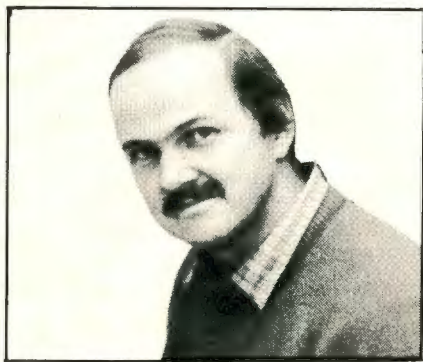


\*All frames except Kevlight and Super Record.

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*Warren Salomon*

## The illusive search for good value

*All about quality, service, price and how combine all three to find your dream machine*

**A** FRIEND WHO I HADN'T seen for some years phoned me recently to get some advice on buying a bike. He had ridden a bike as a kid but now with his forties rapidly approaching and his girth enlarging by the year he had decided that it was high time he owned a bicycle again.

Like a type of modern day Rip Van Winkle he was amazed how much bikes had changed since he was a boy when he had virtually lived on top of his trusty treadly for days on end. He thought he *knew* all about bikes but found after only one visit to a large Sydney bicycle retail store that the humble single speed 24" wheeled machine with the back pedal brake of his youth had sprouted gears, was half the weight and looked like it could go as far and as fast as any athlete could push it.

Bicycle technology still has a long way to go but in the past decade huge advances have been made which have transformed the bike in a way known only during cycling's last golden era just before the turn of the last century.

My friend saw space age metals, gears that click into position, beefy tyres that cruise effortlessly over dirt roads, saddles that move with your body and virtually massage your bottom, clothing with a flair for fashion, helmets as light as a feather and pedals with out clips and straps.

He saw lots more but it all adds up to the age old fact that the bicycle as a living, growing, developing machine is as alive to day as it ever was and with even more technological innovations foreshadowed by the industry the future looks even brighter.

But back to my friend, his problem was that he couldn't decide which bike to buy.

The first thing he noticed after waking from his slumber of almost two decades was how the prices had changed. Naturally anyone who wandered down to the local barber or hairdresser to get a hair cut after twenty years in the cot would

be shocked at the price hike they would be confronted with. The currency has become dollarised too but that's a minor point to my friend.

When compared to other costs such as food, transport, housing and consumer goods bicycles are still very good value. However I was quick to point out to my friend that there is a difference between good value and cheap cost. The \$200 specials often seen in the coloured catalogues pushed through our mail-boxes every summer are not good value even though they are the cheapest bikes available.

Even in the short term they are heavy to push, the components wear quickly and before long you end up paying as much in repair costs as you would have paid if you had bought a better quality bike. This type of bike is only good to own if you never ride.

At the other extreme I wouldn't agree that a top of the range competition type bike (mountain or road bike) is good value either. I'd define a good value bike (an obvious good deal) as follows:

It should have alloy wheels, if possible a chrome moly (lightweight frame), mostly alloy componentry, multi speed indexed gears, good quality paint work AND it should have a price tag as better or marginally higher than a bike with some steel equipment.

Impossible? Not so. Bikes like that are out there and if you do your homework you will find them.

Good value bikes exist further up the scale as well. These bikes have quality componentry made by one of the major component manufacturers on a lightweight frame that is built and finished like a hand made original.

In this, our first, buyers guide we have not included prices in many of the articles where bikes are discussed. The main reason for this is that retail margins in this country are all over the place and it is not uncommon for the same machine to be charged three or four different prices within the same metro area.

Instead we have concentrated on the information side of bikes and have tried to provide you, the reader and buyer, with as much information and guidance so that when you walk into a store and throw yourself at the mercy of the salesperson you will have a fair idea about what you really want.

Though we've left the price comparisons up to you I would still like to make a few observations on the subject:

The price a dealer sets is related to many things. Primarily bike shops make a living by buying and selling cycles and associated equipment. But they do more than straight out merchandising. At a time when the helpful, knowledgeable sales assistant has virtually been replaced by the check out cashier in department stores and specialty shops the bicycle industry is the last bastion of the true service industry.

Mind you, the service you can expect will be much less if you are buying a \$200 monster than if you are forking out over a \$1,000 for a competition quality lightweight. Still the dealer survives (and is currently outselling) the chainstores mainly because they are the experts who service everybody's bikes as well nurture the enthusiast and encourage the sport.

Providing service costs money so you can at least expect to pay a bit more when you buy from a specialist.

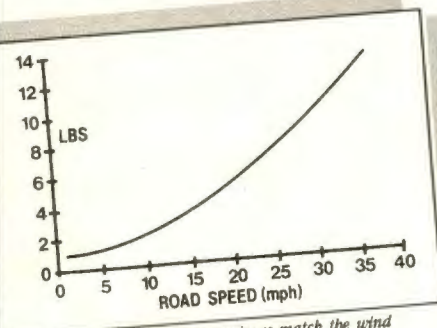
But they will fix things for you and answer your questions when things go wrong.

Somewhere in one of this issue's articles I have mentioned the old adage: the more you pay the less you get. On bicycles where the lightest bikes are usually the best to ride this is certainly true but the thing to remember is that above a certain point the benefits curve begins to level out. You get less of a jump in quality for each successive price rise.

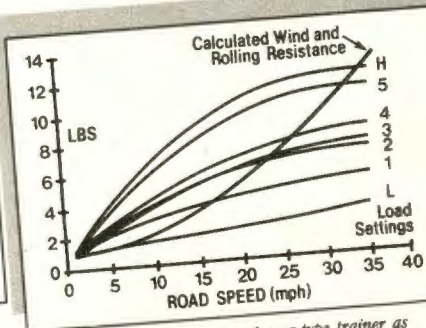
There is usually an upper performance limit to any component. A chain-wheel set for instance: once the cranks and chainrings have been accurately machined from lightweight aluminium ►



# Before You Buy a New Trainer, Make Sure it Can Pass a Physics Course.



All RacerMate trainers match the wind resistance load curve exactly. \*\*



7 drag settings of a typical mag-type trainer as compared to actual wind resistance load curve. Example: from 25-30 MPH the load barely varies, yet actual wind resistance changes drastically. \*\*

There's an unalterable law of physics that rules your cycling. It's called  $R = cv^2$ \*. The law of wind resistance.

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\*\* Load curve testing verified by Joseph L. Garbini, Ph.D., Associate Professor, Department of Mechanical Engineering, University of Washington.

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► alloy material there is not much a manufacturer can do to improve performance. What does happen at this point is that the item is polished and finished to a mirror sheen, and this 'extra' work costs in labour and adds to the overall price of the item.

I should also point out that there are components at the top of the range with the high quality surface finishing mentioned above but with definite technological advantages over the equipment in the next category below.

The more you explore the world of cycles and cycling the more there is to know and this issue of *Freewheeling* has been designed to help you in that quest for knowledge. If you end up with a bike that satisfies your needs then the work put into compiling this special issue will have been worthwhile. Of course, our experienced riders should find plenty of information too. Happy reading and successful buying.

## Reviewing the bike catalogues

**P**ART OF THE AUSSIE BIKE industry's annual marketing rituals is the production of new season bike catalogues. These are usually lavish affairs with all the models in the distributor's range displayed in living colour. Sometimes the success of a particular company can be traced through its catalogues. In 1982 when Repco was a relatively small player in the industry its catalogue was a modest affair with its equally modest range of bikes displayed in the familiar right-side-profile-against-a-plain-background.

This year with millions splurged on television advertising the catalogue is huge, almost tabloid format, with grainy blown up atmospheric images from the TV ad to accompany equally large size pictures of the bikes. Alas Repco, like most distributors, still prefers to show its bikes against a plain coloured background. However this year's trendy photographer's gimmick (strong spotlighting above and just behind the bike to give an interesting wheel shadow on the ground immediately in front of it) is employed to set the 1989 catalogue apart from last year's.

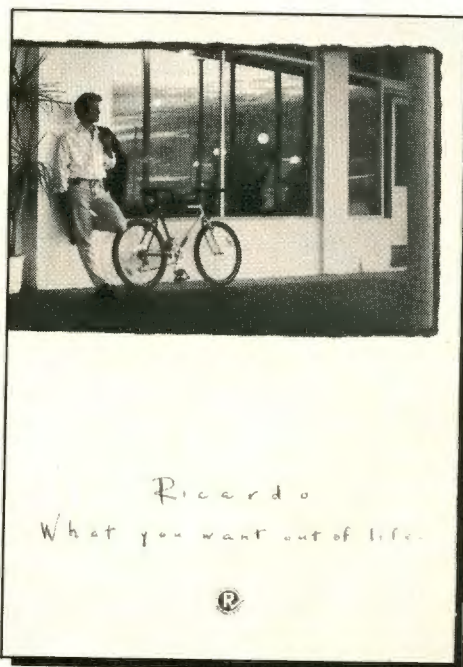
A well done catalogue has to be inspirational. It has to have an element of fantasy about it. It has to grip one's imagination and set the mind racing and, ultimately, the bank account reeling. Unfortunately most catalogues are just plain boring. Full of sterile shots of product; as inspirational as a piece of unwanted junk mail.

No so with this year's Ricardo catalogue. After a brave attempt at a new format last year the little Aussie

battler (Ricardo is one of only two Australian bike manufacturers and is now part of the Pacific Dunlop group) has come up with a stunner. The format is outwardly modest (only slightly larger than A4 format) but very very stylish and a veritable flight of fantasy.

Each double page spread in the 12 page catalogue features an immaculately photographed scene depicting one or two of the bikes in each product category with small detail studio shots of other models arranged below with accompanying text. The overall effect of such breath taking design and photography is to transport one's thoughts away from the ordinary and the mundane into another world of pleasure seeking enjoyment.

My only reservation with the catalogue is the way the models have been posed. No one seems to be looking at the camera or really enjoying themselves; just looking very, very cool and



sophisticated seems to be the flavour of the late nineteen eighties much preferred by advertising art directors at the moment.

But that's a minor point for the bikes and the stunning locations (shot mostly around Adelaide) really steal the show even if their supposed owners are off in a dream somewhere else.

If the 1989/90 Ricardo catalogue is good it's because it's designed primarily to convince potential customers to buy Ricardo bicycles. Unfortunately most of the catalogues printed in this country do not reach the actual bike purchaser – you the ordinary bike buyer and user. Usually this is because catalogues are expensive to produce and distributors and dealers are loath to give them out to all and sundry especially if it is unlikely that they will influence a purchase.

Most catalogues in the past were principally designed as a selling tool to be used by the dealer at the point of sale. Copies were always rationed out and by the time the season was through it was not uncommon to see dealers still showing their customers the bike that they didn't have but could get real fast from the distributor printed in colour on the well thumbed pages of a very dog eared catalogue.

The increasing number of US ranges being marketed in Australia has changed all that. When a distributor brings in bikes from a US company they usually bring in the catalogue which is designed to sell that range to the customer. Smart operators like Bikecorp who import the Shogun range of bikes realise that to be mean with catalogues is to reduce the ability of the dealer to sell their products. They have attempted to support their appointed retailers with generous supplies of the slick US designed catalogue.

However slick the Shogun, Miyata, Mongoose and Fisher 1989 catalogues may look they still all lack the essential ingredient of fantasy so important to a successful catalogue. GT have attempted to lift their game with a nice smattering of excellent action shots featuring handsome US youths in Team GT jerseys and knicks (check out the pic that heads one of our mountain bike features in this issue) doing dramatic things on the easily identifiable GT product. The GT catalogue is my pick of the US catalogues this year.

Last year's Fisher catalogue was terrific and much, much better than the 1989 version. The bikes were photographed against different rock face backgrounds in natural settings and the pages were punctuated with small inset shots of fantastic riding locations in red rock sandstone country. Nice.

Maybe I have overdosed on bicycles but you can't get a more boring and uninteresting photograph than a right side profile of a mountain bike against a light grey backdrop.

Even though a coloured photograph contains a wealth of detail it is highly unlikely that a potential buyer (or bike dealer), squinting at a photo close up will say: "Hey THAT bike has a Trans Z chain as well as a seven speed rear freewheel. I really want to buy it!" No, the object of any catalogue is to make the product look good AND fire the imagination. Perhaps the bike makers should take a look at what the parts makers like Shimano and SunTour have done to dress up their catalogues. Both have taken to using real life action shots throughout to add some realism (the top riders actually DO use this equipment) and drama to their otherwise boring shots of derailleur and gear levers. ●

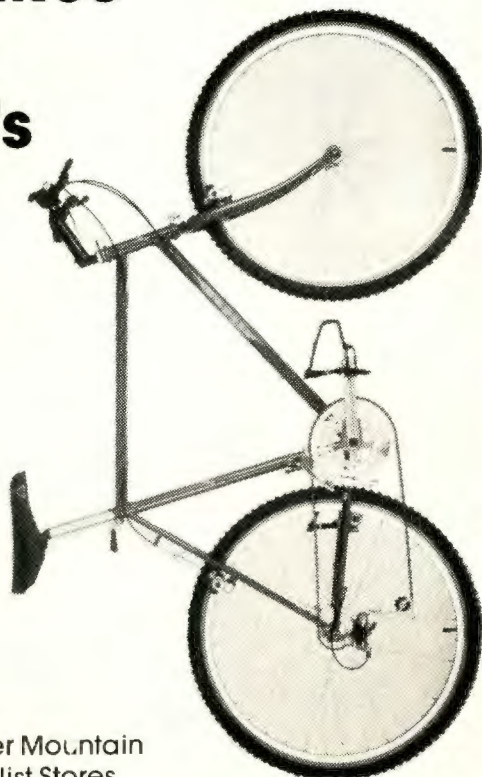


# If you wonder what Mountain Bikes will be like in the 1990's

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# BICYCLE BUZZ WORDS

A guide to biker's jargon

BY WARREN SALOMON

**I**F YOU HAVE GOT ON THIS far in our first ever buyers guide and you're not a tiny bit confused with terms like chrome moly, cantilever, and cotterless crank then you can skip this article and read on elsewhere for this is a guide to biker's jargon: an attempt to explain some of the technical terms that the cycling world seems to thrive on. Here we go — questions at the end of this session to the Editor PO Box K26 Haymarket NSW 2000.

## Alloy rims

Heavy boots on your feet weigh you down more than if the same load was carried on your back. The same goes for bike wheels. If you are at all serious about your cycling you will want to have alloy rims. In wet weather alloy rims also give better braking than chrome plated steel though you can now buy leather brake pads which work better on wet steel rims than conventional pads.



## Bar end shifters

Gear levers which are mounted on the ends of the handlebars. This type of lever is popular with touring cyclists because it allows gear shifts to be made without removing the hands from the bars.



## Biopace chain rings

A type of non round chain ring designed and manufactured by Shimano and fitted to many mountain and sports bikes. This type of ring is the result of computer studies of the human leg pedalling movement. Biopace rings aim to smooth out the surging action of the normal piston action of the leg stroke and make pedalling more efficient.



## Bottom bracket

That part of the frame which houses the main crank axle bearing assembly.

## Cantilever brakes

An engineering dictionary would define a cantilever as load bearing bracket ex-

tended out from its anchor points to support a load. Put simply a balcony is cantilevered out over a street. Cantilever brakes are those found on mountain bikes which protrude out from the forks and frame on which they pivot. Brakes of this type can exert tremendous pressure and are the most powerful types fitted to bicycles. Mountain bikers love their incredible control and stopping power.



## Carbon fibre frames

Carbon fibres are lightweight, have high strength properties and have become widely used as a frame building material. The fibres are shaped into tubes by weaving them into a cloth like fabric and forming this fabric in layers around a core often of aluminium. The layers are held in place with epoxy resins. The tubes on this type of frame are often bonded into precision cast aluminium lugs.

6000-SERIES  
ALUMINUM  
SPECIAL ALLOY,  
TEMPERED.

ISOLATOR

90/90 CLOTH  
PREPREG

45/45 CLOTH  
PREPREG

UNI-DIRECTIONAL  
PREPREG

45/45 CLOTH  
PREPREG

PROTECTIVE  
CLEAR COAT



Miyata Carbon fibre



## ► Chrome moly

If you have to push your heavy machine you will soon get tired of it. That's why bikers prefer lightweight everything: lightweight frames and lightweight components and lightweight hair styles. The most economical frame tubing material is chrome molybdenum a steel alloy which can be easily manufactured using mass fabrication techniques. Aluminium is increasing in favour but is a more difficult metal to work with. Titanium is the lightest of all and is the glamour metal in the bike world. Ultralight mountain bike and road frames made in Melbourne are made from this wonder metal.

## Clincher tyres

The most common type of tyre. Used with separate tube. The clincher has a strong stiff inner edge (beading) which helps it stay on the rim when the tube is inflated to maximum pressure. All mountain bike and BMX tyres are this type.

## Components

Any single part of a bicycle other than the frame or wheels: eg brake levers, derailleurs, seat post, stem etc.

## Cruiser bikes

Usually single speed bikes with balloon tyres suitable for use on the beach. Typically heavy but a favourite with the beach kids.



## Clip-less pedals

A newer type of pedal used with cleated shoes which dispenses with the toe clip and strap. The larger size cleat is held onto the pedal in a similar manner to ski boot bindings. The rider usually twists their foot to one side in order to release the mechanism.

## Disk wheels

This type of solid wheel (usually made from honeycombed section carbon fibre/epoxy material) is used in time trial and track competition events.

## Drop-outs

Not a group of riders who withdraws from a race but the cast lugs (made from pressed steel on cheaper bikes) welded to the rear stays to which the wheel is attached. The front drop-outs are usually called fork tips or ends.

## Forks

The front assembly of a bicycle to which the wheel and handlebar stem is fixed. Forks are often bent forward and this is called the fork rake. The amount of rake determines the way a bike handles (steers and tracks) and should be related to the length of the handlebar stem.

## Funny bike

A rather unfortunate name for a very serious track racing machine. The name was probably coined by larger bike manufacturers who don't make this type of bike. It is usually hand made by a frame builder. The riders who win races on these machines do not think they are funny but they always have a smile on their faces when they cross the line a winner.

## Headset

The bearing assembly fitted to the top and bottom of the frame head tube to accommodate the turning movement of the forks. Headset bearing races are also fitted to the fork steerer tube.

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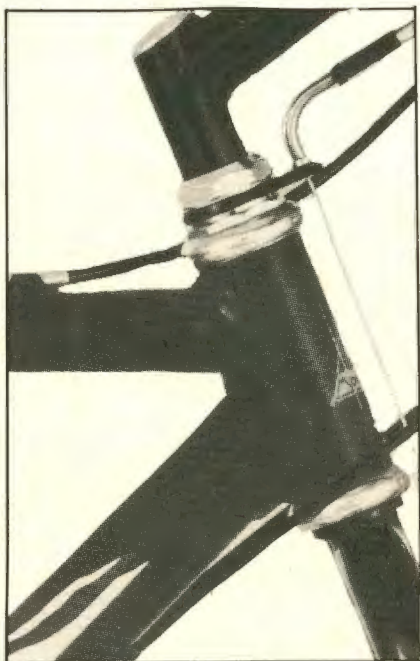


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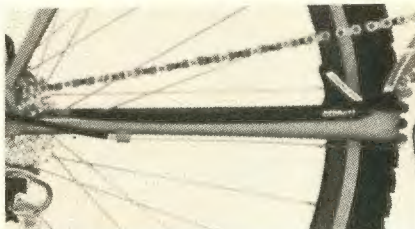
### Indexed gearing

Finally after decades of putting up with imprecise gear shifting mechanisms cyclists can now enjoy positive 'click' shifting on their machines. Indexed gearing uses a special lever with click stops built into its action. The click stops are precisely aligned to the cogs on the rear multi cog freewheel so that when you click the control lever into a new position the rear derailleur 'knows' just how much to move the chain across to accurately select the gear. Gear makers have still to invent quiet action gear levers for those of us who don't want to wake the dead every time we change gear.



### Pannier bag

A type of rucksack or carry bag designed specially for bike use. When fitted to a front or rear rack they hang down on either side of the wheels and reduce the load centre of gravity.

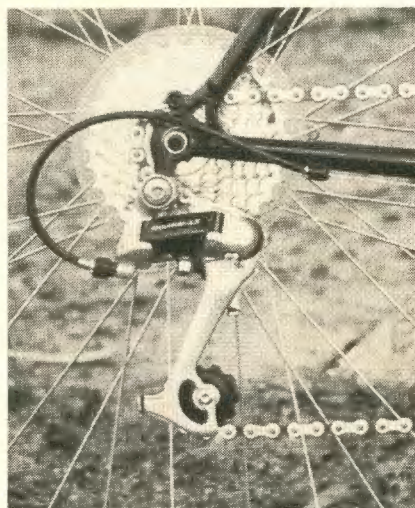


### Shark fin

A plastic device fixed to the chain stay of a mountain bike in order to prevent the chain from damaging the stay or becoming jammed between the tyre and stay.

### Trials

Often called Observed Trials. A specialised type of mountain bike event where skilled riding is the most important feature. The event is run over a series of short obstacle courses called sections and the rider who touches ground the least number of times at the end of the course is declared the winner. The event is usually run at very slow speeds on a confined course that lends itself to close spectator involvement.



### Transmission

That group of components usually associated with the transmission of power from the pedals to the back wheel: cranks, chainwheels, chain, and freewheel.

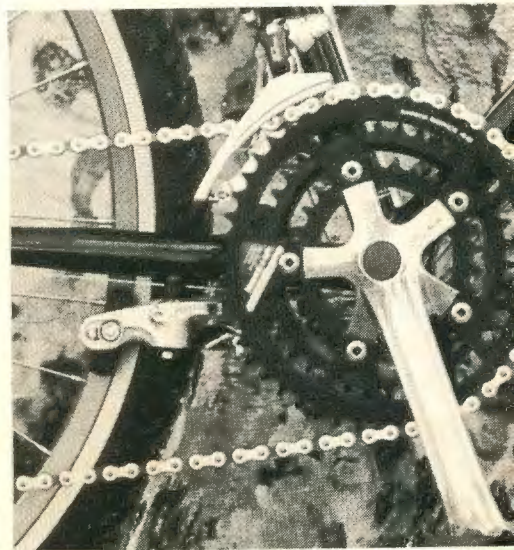
### Tubular tyres

Often called singles. Lightweight one piece racing tyre and tube assemblies usually glued onto a special racing type rim. Found only on competition racing bikes. Also see clincher tyres.



### U brake

A type of brake mounted directly onto the frame like a cantilever but with cross over arms that work like a conventional centre pull brake.



### Wheelbase

The distance between both wheel axles. Mountain bikes usually have longer wheel bases than sport bikes and are thus more comfortable to ride. Usually touring bikes have the longest wheel bases.

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# A BUYER'S GUIDE TO BIKE SHOP OWNERS



## THE QUAIN OLD FART

The shop is usually located in a five foot gap between an orthopaedic bootmaker and a second hand house mould emporium with the name "Fritz's Bicycle Palace" on a cedar shingle. The owner can be found down a basement workshop shrouded in marsh gas and mosquitos working under a bare lightbulb which, when switched on, makes the room darker. His face is a sun-baked mass of lines, wrinkles, creases, canyons, valleys and a petrified forest. He has an antique love of all bicycles and calls each ball bearing by its christian name. He methodically executes repairs using tools such as tuning forks and dental floss while regaling customers with anecdotes from the Jurassic era. He accepts payment in cigarette butts or World War I ampoules of morphine.



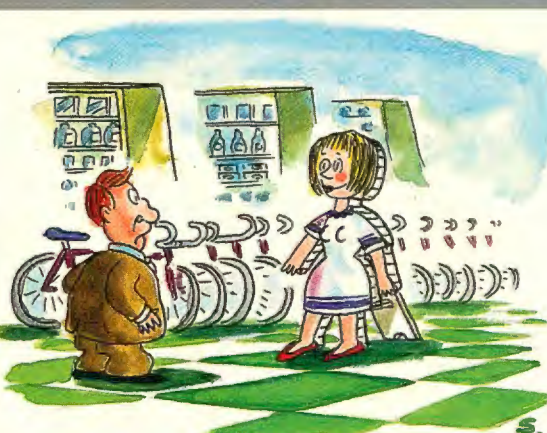
## THE TRENDOID

The shop is called a bicycle boutique. It is located next to a futon assertiveness training centre across the street from a video tape de-kinking clinic. The owner answers to "Trent" or "Spaz" and has a vast storehouse of mechanical expertise culled from years of using hair gel. His face is clean shaven, angular and all his pimples are individually stamped with a use-by date. His brightly lit showroom is stocked with the very latest gear including reflective trusses, teflon touring shorts, lycra sanitary pads, Goretex mosquito nets, hinged fold-up leg warmers and edible knicks for the camping cyclist. Next year he will extend the floor space and stock a few bicycles.



## THE FLOWER MECHANIC

The shop is wooden and cluttered with a name like "The Cycle Deli" hand painted over where "Fritz's Bicycle Palace" used to be. The owners are a symetrical worker's co-operative comprising one white anglo-saxon man, one black lesbian, one female heterosexual Asian, and one gay southern European. Bisexual Amish shepherds are surely under represented. Trade advertisements are placed in the "Nut and Legume Review Quarterly". They pursue alternative business practices wherever possible. Business hours are 10 pm to 4 am on Shrove Tuesdays of even numbered years. Free mechanical advice is eagerly dispensed such as: "I see the trouble. Your wheel's a Pisces but the spokes are Sagittarian".



## THE STORE OF THE LIVING DEAD

This is where you find "sales attendants" who tend that part of a department store or hype market which sells bicycles – usually a roped-off section of the toy department or frozen foods. They can generally be located by medium and sport a name badge, cheery smile and two fine glass eyes. Their keen knowledge of bikes comes from gruelling months spent as an apprentice to a master shelf-duster in kitchenware. The bike stock covers a wide range of brands all made from plumber's pipe in the same metalwork class at a Taiwanese junior high school. The bicycles all display the prestigious black and white bar code logo sticker on their downtubes and come in a dazzling range of 27 different shades of purple.



# HOW TO BUY A BIKE

## The secret of getting the best deal

**BY WARREN SALOMON**

**T**HIS MAY SOUND OFFBEAT but buying a bicycle is more like buying smart fitting clothes than buying any other kind of vehicle. With bicycles it is important to get a bike that's matched to your body size unlike a car where the size of the vehicle and its engine capacity is more often related to the enormity of the prospective owners ego than their actual physical needs. A bike has to fit you like a comfortable item of clothing.

It also has to be the right bike for your needs. And these two points – the right fit and the right bike for your needs – are the foundation that any successful purchase will ultimately be built on. Of course there's the right price but first lets look at each of the above in depth before coming back to the price issue.

### The right bike to suit you needs

New buyers often find it bewildering to walk into a bike shop and be confronted with the question: "What do you want to do with your bike – what type of riding do you intend to do?"

"Now lets not get too personal", you say, "I just want a bike to ride. You know – a plain ordinary bike. Simple eh?"

Not so. Take a look at what's on offer today. For example if you were a Formula One motor driver you would not buy a four wheel drive vehicle. The same goes for bicycles. With a rapid development in component engineering and production techniques the ordinary bicycle has developed into a sophisticated class of machine with model types to suit ever possible type of riding. To get the most enjoyment out of your machine it is important to know which type of bike will best suit your needs.

The Formula One analogy is a good case in point according to Steve Nesbitt of Cranks Bikeshop, one of Sydney's new breed of energetic bicycle dealers. The professional road or track racing bicycle is the direct bicycle comparison to the high performance formula on motor racing machine. This type of bike is made in a wide range of models from the ultralightweight pro machine to the

scaled-down drop-handlebared twelve-speed street bike.

This type of bike is designed for fast riding over high quality road surfaces. If you crave speed and rapid acceleration then the pro racing machine (and its heavier equivalents) is the bike for you.

"There is nothing quite like the feeling you get from riding one of these bikes," says Steve Nesbitt who rides one of Shogun's high performance lightweights, the Samurai, whenever he can get the time away from his busy retail business. "But", he adds, "the problem most people run into is that they think that they can ride this kind of bike comfortably over 'normal' roads. Then they wonder why the bike is no longer comfortable or rides like the wind".

Like the Formula One motor car the lightweight racing bike is designed for the optimum conditions of a racing circuit. They are not designed for normal knock-about conditions.

"This is why the mountain bike is rapidly becoming THE bike. It's robust, comfortable to ride and is much more forgiving of the rider than a racing bike", says Steve Nesbitt. "And the word is getting around", he adds. "There was a time when we had to point

The Raleigh peak has an aluminium frame and a wishbone type rear stay assembly.

out the mountain bikes on our showroom floor. Not any more; they now come in and ask for a mountain bike".

Mountain bikes have bigger tyres (which are less prone to punctures) tougher and stronger frames and gear controls which are located conveniently next to the brake levers so that you don't have to move your hand to change gear.

As the name implies the mountain bike is the four wheel drive of the cycling world – the go anywhere machine. However, what the majority of bike riders are now realising is that this type of bike is also a great "all-rounder". It's a machine that eats rough city and suburban streets and shrugs off the occasional gravel road as if it were smooth bitumen. And with the right type of tyres and lightweight frame and componentry it can be as fleet footed as any scaled-down twelve-speed racer – well almost.

**T**he bike trade divides its models into two broad categories: adult and kids bikes. Adult bikes are further divided into racing type bikes, mountain bikes and specialty bikes such as touring bikes, step-through framed machines for women and beach cruisers (cruisers are usually heavier and cheaper versions of the mountain bike and are often lumped into the same category).

Since the mid 1970's ten and twelve-speed racing type bikes have been the dominant category behind BMX and other kids style machines but this has changed since the introduction of the MTB in 1982. This year mountain bike sales will account for around 30% of total unit sales (there are approximately 650,000 bicycles sold on the Australian market per year) making them the most popular single category. In some areas dealers are reporting closer to 50% of total sales.

Now, it seems, everyone wants to own one. The idea of a second or even third ▶





► machine has gained acceptance because experienced cyclists have also realised that their skinny tyred racing type machines will not do everything a mountain bike does and vice versa.

In the sections which follow this article we will take a look at the various types of bikes currently available to the Australian buying public. But you have to first make up your mind and decide what type of bike or bikes best suit your purpose. And if you're at all in doubt - buy a mountain bike.

### The right fit

A bike that doesn't fit is bad for your body. One that does fit will be your friend for life and bring you lots of

pleasurable experiences. As a rule of thumb the way to size a bicycle is to straddle the top tube of the frame and check to see that you have about 25 mm (one inch) clearance between the top tube and your crotch. With a mountain bike this should be at least 50 mm (2 inches).

Research into optimum frame sizing and racing position has found over the years that it is always best to err on the small size - that is it is always better to ride a smaller frame than a larger one. Many experienced cyclists prefer to ride slightly smaller frames because of the better handling and performance a smaller frame provides. With the advent of the mountain bike extra long seat posts

and handlebar stems are readily available so precision fitting of any small frame size is no longer a problem.

Once you have selected the right size bike don't think that your work ends there. The saddle and handlebars are both adjustable so that you can fine tune your machine to give you the optimum riding position. If possible you should get your dealer to help you with these fine adjustments after you make your purchase. Or better still do it in the comfort of your own home with help from a family member or friend.

### The right price

The question of the right price also leads to the question of the right dealer. If the right fit and type of bike is important then it only stands to reason that you should buy your new bike from a dealer who will provide you with the best kind of attention and service.

In an era where knowledgeable and trained salespeople are rare it is heartening to see that the bicycle industry still places a heavy emphasis on service to the customer. Bicycles have always been sold from department store and supermarkets but their lack of staff expertise and the very limited range of model types has meant that serious buyers always end up at their local bike shop.

Not all bike shops are the same however. As the classic Phil Somerville cartoon parody which heads this article illustrates the bike trade is full of colourful and not so colourful characters. At the bottom of the pile have to be the department stores. Their bikes may look flashy and have a low price tag but underneath the purple paintwork you will usually only find heavy steel tubing and low grade componentry.

The mistaken lure of cheaper bikes is all that gleaming chrome. Forget it! The soft, subtle sheen of lightweight aluminium rims, handlebars, brakes and gears is what you *should* be looking for. As you have to pedal and push that weight you could well avoid it if you can.

My advice is to seek out a specialist bicycle dealer who is prepared to discuss your needs and fit you for the right size bike. Not all specialist dealers are the same. If they look at you blankly when you mention mountain bikes and try to seat you on a lightweight racer when all you want to do is go for Sunday rides with the kids leave them to their prejudices and go find a retailer who is more in touch with reality.

One other tip. If you encounter the kind of dealer who tries to sell their bikes on the relative discrepancies of the bikes stocked by another dealer you last visited give them a big miss too. This type of operator doesn't deserve to be in business if they can't sell their machines on their own merits. Negative selling means a negative dealer and that probably means that you will probably have ►

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the best  
from your body,  
give your body  
the best.*



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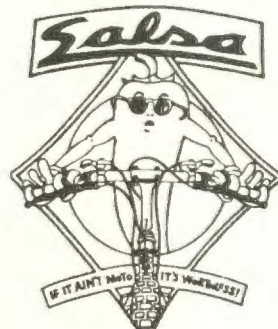
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► problems with them further down the track.

One of the most bewildering things that an uninitiated buyer finds when they enter the showroom of a large bike dealer is that it often seems that several different brands of the same bike are stocked. Not so. Usually there are subtle differences and other sections in this buyers guide will investigate componentry and the differences that bike speci-

**The Ricardo Exceed is a lightweight Shimano 105 equipped competition quality machine.**

cations can make to the price and performance of each model in a manufacturers range.

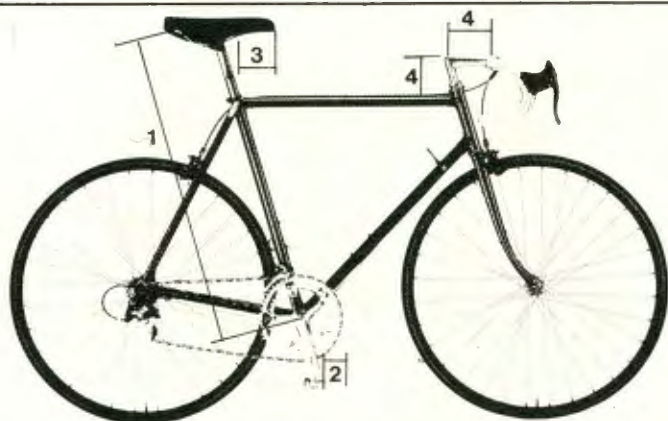
Unlike the motor industry where single (or dual) brand dealerships are the norm the bike industry has very few retailers who stock less than two or three brands. The reason for this is that deal-

ers like to choose the best models from the manufacturer's ranges to suit the needs and preferences of their customers. In addition it is rare for a manufacturer/distributor to offer a consistently good range of models and it is up to each dealer to choose which models they will stock in order to provide a complete quality/type/price range for their customers.

If, for instance, you have your heart set on a particular bike seen in one of the manufacturer's catalogues and can't find it in any of the local dealer's shops it might be that they have judged that particular model as poor value or badly equipped. It could be that you are chasing the proverbial lemon. That's where a good dealer is worth their weight in gold. They know what's good and what is rubbish and the best dealers will only try to sell you the former.

Finally you should be always aware of the old adage: you pay your money and take your choice. Don't expect a lightweight high performance machine for \$200.

The following pages have been compiled to help both newcomers and old hands ride the spectacularly beautiful and potentially rocky trails of the 1989/90 Australian bike ranges. Happy reading and enjoyable cycling. ●



## Fitting your bike to your body made simple

**BY CYNDI HOLMES**

There are many opinions on how to properly adjust a riding position (see *Freewheeling*, Mar/Apr 1987). The following is a step-by-step checklist for one of the more common methods.

First, gather the tools you'll need to adjust your saddle height, the fore/aft position of your saddle and the height of your handlebar stem. For measuring, you'll need a tape measure, a one-metre straightedge, and a plumb line (one-metre string with a fishing weight or heavy nut tied on the end.) A home-trainer is ideal to hold-up you and your bike, but leaning against a wall will work too.

Now set aside an hour, recruit a helper and get started towards a better riding position by following the checklist in the given order.

### 1. SADDLE POSITION

Start by placing the straightedge lengthwise on your saddle. Adjust your saddle so that the straightedge is parallel to your top tube. It's okay to have a slight tilt either up or down, but nothing radical.

Next, standing with your bare feet 15 centimetres apart, hold the tape measure to your crotch and have your helper measure to the floor, midway between your feet.

Multiply this measurement by 1.09. Use this figure to set the distance from the top of your saddle to the centre of your pedal axle, while the crank arm is in line with the seat tube.

Mark this position with a waterproof pen on the seat pillar where it comes out of the frame for future reference. Mountain bike riders who regularly lower their saddle position for rough terrain riding should scratch a small mark onto the seat tube.

**FINE TUNING TIP:** Multi-day tourists, mountain bike riders and frequent long distance sport riders and racers should adjust their saddles a few millimetres lower than the above figure. This lower position is slightly less powerful, but it reduces stress to the knees.

### 2. FOOT POSITION

With your cycling shoes on ensure that your toe clips allow the ball of your foot to be centred over the pedal axle. If clips are over one centimetre too long, buy new ones. If clips are too short, buy longer ones or build-out your current ones using spacers and longer bolts.

**FINE TUNING TIP:** For long feet or frequent long distance sport riders or racers, slide your cleat so that the centre of the ball of your

foot is just forward of the axle. For small feet, high r.p.m. spinners and track riders, place the ball of your foot slightly behind the pedal axle.

For those who don't wear cleated cycling shoes or toe clips, you can paint a dot on your shoe uppers to indicate the ball of your foot. While riding, you can then look down occasionally to see if the dot is in line with the pedal axle.

For those who wear cleated cycling shoes, rotate the cleat so there is five millimetres clearance from the ankle bone to where it passes the crank arm. This figure may vary depending on whether your feet are normal, supinated or pronated. Test your cleat adjustment and make any alterations while on rides.

### 3. FORE/AFT POSITION

Sit on your bike on the home trainer or against the wall, and pedal for a while until in your normal riding position. Stop pedalling with the cranks in the 3 and 9 o'clock position. Hold that position.

Have helper find the tibial tuberosity (the bump at the top of the shinbone, just below the knee). Then have helper hold the plumb line to the rear of the bump, in line with the shin bone. The plumb line should intersect the pedal axle.

**FINE TUNING TIP:** For frequent long distance riders, adjust the saddle so the line is 1-2 centimetres behind the centre of the pedal axle. For track riders and other high r.p.m. spinners, the line should fall 1.5 to 2.5 centimetres forward of the centre of the pedal axle.

Recheck your saddle height. If it has significantly changed, readjust the height, then recheck your fore/aft position. Stay with us now, all of this effort really is worth it!

### 4. HANDLEBARS

For efficient breathing, your handlebar width should match your shoulder width. Typically, racers position the drops parallel to the ground and recreational riders position the handlebar end to point to the middle of the seat stay, between the seat lug and rear axle. The choice is yours.

Handlebar stem height is a matter of comfort. Experiment. Generally, 2-4 centimetres below the top of the saddle for touring, sport riding and road racing. And as much as 6-8 centimetres below for short races and triathlons.

### 5. ADJUSTING TO YOUR NEW POSITION

It takes time, so give it time. It's okay to make minor adjustments until you're comfortable. Then let your body adjust to its new position for a month or more before making further adjustments.

Now that you've fitted your bike to your body, you can experience the same type of comfort and performance benefits long experienced by the top racers. But you need to be a racer to appreciate the difference a well-adjusted riding position makes. ●





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# THE FAT TYRE TAKEOVER

After steady growth in sales mountain bikes are now the choice of most Australian cyclists this summer.

**BY WARREN SALOMON**

**B**ROWSING THROUGH THE glossy bike catalogues for the 1989/90 summer season the feeling is reinforced that the action on the streets and in the shops this year is going to be in the mountain bike area. The industry's major distributor Repco may not give the most

prominent position in its large format colour catalogue to its six adult fat tyred machines but then the company is also importing an additional ten up-market models from the US Diamond Back and Mongoose ranges!

Apollo is also experimenting in this area and will introduce for the first time a representative range of Fisher moun-

One of the best bike maker's catalogues we've seen in years comes from the Aussie company Ricardo. The 1989 Ricardo catalogue is full of stunning photography which really fires up the imagination. Their bikes are great too!

tain bikes (4 models) in addition to the seven models listed in the catalogue. Apollo were one of the first companies to recognise the appeal of the mountain bike and this year they are broadening their range with a new flagship the Team – Shimano Deore equipment on a Tange chrome moly frame.

The Malvern Star parent company Derby Cycles is also bringing in four models from the US Raleigh range and Shogun's 1990 models will arrive ahead of all the other new season US models about December. In all it is certainly looking like a great summer for the mountain bike in Australia.

Lets not pretend that all the bikes sold will be mountain bikes others will be sold as well though not as many as their fat tyred cousins. Lets have a look at some highlights of this year's ranges to see what's in store for the Aussie biker.

## **Repco**

This year the market leader is adding to its top end models while dressing up its





lower end. The Vertex Aluminium uses a Japanese frame made by SR from 5000 series aluminium tubing. This style of frame uses a bonding process to fix the tubes to the cast aluminium lugs. Sun-Tour Sprint components throughout complete this fine lightweight machine.

In the fat tired field Repco have added the new model Crackenback to the top of its range. This MTB has a full chrome moly triple butted frame with Shimano Deore II componentry (including pedals). It also sports the favourite rim of racing cyclists: the black hard anodised Araya RM 20.

The High Sierra has Shimano Mountain LX componentry on a triple butted chrome moly frame while the Sierra model uses SunTour XCM gear on a chrome moly (main tubes) frame. The best value for money MTB in the low end of Repco's range is the Skyline model which has Weinmann alloy rims a heavier high tensile steel frame and Shimano Exage components. The ten-speed Hotham model has an even lower price tag yet it still comes with alloy rims and SunTour indexed gears.

Repco still thinks the lightweight racing type bike is a big section of the market this year and it has a staggering ten

models on offer ranging from the all aluminium Vertex to the (almost) all steel Traveller designed to offer unfair competition to the supermarket type bike. Repco expects to move a lot of these machines.

The big news in kid's bikes this year is the Repco Hornet which is a scaled down mountain bike with 5-speed gears and 20" wheels. Hotfoot BMX bikes in coaster, freewheel and chrome finished models are still a popular part of the BMX range.

In addition to its traditional BMX bikes Repco has seven other kids models styled for both girls and boys including a couple of U framed bikes in 16 and 20" wheels.

According to Repco the step through framed women's style bike is still a big seller so the company will offer four models this year. Three are versions of other diamond frame models in their range (Spectra, SLX Sport and Traveler). The Cambridge has a back pedal brake and like the other three is fitted with full mudguards.

### Malvern Star

Malvern Star's range has changed a little since last year and offers a huge array of

models in traditional sports, mountain bike, traditional women's and kids bike styles. Flagship of the lightweight range is the Equipe which is listed in the front of the catalogue as a touring bike! With its Tange No 1 chrome moly frame and Shimano 105 componentry it is a fine lightweight racing machine but a touring machine it is not. The Malvern Star catalogue with its plain vanilla product presentation also continues the layout scheme of previous years by listing its lesser models ahead of its flagships.

The Winner is a 24" diamond frame bike aimed at young boys but the action in that market sector will be with the Fury 20" or Mustang 24" which are both scaled down mountain bikes. Kids like to think that they have all the fun so why should the adults have mountain bikes all to themselves.

In the Malvern Star MTB range the Bushranger is still the flagship. This year it has had its Shimano equipment upgraded from Exage to Mountain LX. Malvern Star has eleven models in its mountain bike range this year. Three of those are traditional women's framed versions, two have smaller frames for kids, three have steel diamond frames and steel wheels and three more (includ-





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►ing the Outlaw, Trailrider and Bushranger models) have chrome moly frames and alloy wheels.

The smallest frame size available is 46 cm (18").

Malvern Star is introducing two beach cruiser models this year: the Surfside 1 with steel 26" wheels balloon tyres and five speed gears and the Surfside 2 with the same style wheels, single speed with a back pedal rear and front calliper brake.

BMX bikes for kids are still in abundance with seven 20" and two 16" models on offer. Little kids have three models and there are also two traditional women's framed bikes in 24" and 20" as well as four models with 27" wheels.

### Apollo

This company is in no doubt where the market is heading this year and lists its mountain bike models at the front of the catalogue. New this year is the Shimano Deore II equipped Team the new Apollo mountain bike flagship. Popular Everest, Himalaya, Kosciusko, Alpine, Leopard models are still available. Both Kosciusko and Alpine models are available in a traditional women's frame while the Leopard is also available with 24" wheels. Smallest frame size available on standard diamond frame models is 40 cm (16") on Team and Everest and 46 cm (18") on all other models.

Apollo's sports bike range this year has seven models headed by the Shimano 105 equipped Team. The top four all have chrome moly frames alloy rims and indexed gears. The Access and Jaguar models also have alloy rims and SunTour indexed gears on basic steel frames.

Apollo are one of the few companies to still offer a mixte type traditional women's framed bike. The Mixte model is accompanied by two conventional double down bar type women's framed bikes and a further two with U type frames and either 22" or 20" wheels.

### Ricardo

Bikes from this Australian company are as impressive this year as their colour catalogue. They have taken the brave step of offering as their flagship model a full Shimano Deore XT II component ensemble fitted to a double butted Tange Prestige chrome moly frame made in Ricardo's Adelaide factory. The frame has wishbone style rear stays and

is finished in a stunning blue marbled paint job. None of the other Australian distributors who specify their own models for the Oz market have a bike in this quality range so the K2 this year will compete with the cream of the US models.

Ricardo have completely reorganised their ranges this year and the lineup is certainly full of gems. There are five machines in the mountain bike range starting with the K2 and introducing the new Kurrajong and Kakadu models with both certain to be the volume sellers. Smallest frame size in all models is 48 cm (18").

There are six models in the sports/lightweight range with a further five models targeted at young women riders. With the triathlon market expected to level out this summer Ricardo are obviously pinning their marketing hopes on the growing number of young women who are taking up cycling both for fitness and pleasure.

Beach cruisers are now considered by Ricardo to need gears and the Bombora model has 10 speeds and comes in a traditional women's frame as well as a diamond framed model with 24" wheels. The Easy Trail also comes in both frame configurations. The only thing lacking from the Ricardo range this summer is the new 20" wheel mini mountain bike sure to be a hot seller in kid's bikes. Nevertheless they do have a good range of six children's models.

### Miyata

Like many of the Australian importers who source their models directly from the US ranges Miyata was preparing for new 1990 models to be introduced late in 1989 and available by the new year. Their most impressive current model is the flagship mountain bike: the Sky Runner with its unique aluminium frame. This bike is equipped with chrome moly forks, Shimano Deore XT II componentry and a Selle Italia Turbo racing saddle. Its companion in the range is the Trail Runner model which sports the same frame and SunTour XCD componentry. Both models come in a minimum frame size of 42 cm (16.5").

In addition to the aluminium MTBs Miyata has three other models all with chrome moly frames. All are equipped with various grades of Shimano Exage componentry.

The most impressive addition to the Miyata lightweight/sports range this year is the Alumitech 6500 a sleek lightweight with Shimano NEW 105 componentry fitted to Miyata's new aluminium racing frame. Miyata's other lightweight/sports models are the 1200 (fitted with Shimano Sante gear), the 712 (Ultegra 600), 512 ((Shimano 105), 312 (Shimano Exage) and the 110 (Shimano Exage Motion). All have Miyata chrome moly frames.

As part of its new 1990 range Miyata will introduce a carbon fibre bike to head up its lightweight/sports range.

### Shogun

Though this company was eager to give us as much information as we needed about their ranges of lightweight/sports bikes and mountain bikes they did warn us that their new 1990 models are due for release around November/December this year. Among the new developments promised in the 1990 mountain bike range is Tioga's Avenger oversize system which introduces larger sized headset bearings, head tube and fork blades - larger, but with thinner walls to give greater rigidity with less weight.

As well all the top mountain bike models will feature the latest 'push-push' gear shift mechanisms. The 1989 range has been very popular and the sports bike flagship the black with gold trim Ninja is one of the classiest bikes seen in the shops all year.

The Ninja which also heads the 1990 range has a Tange Prestige frame and Shimano 105 running gear and brakes.

There are five other models in the sport range as well as the Alpine GT a fully featured touring bike - one of the few real touring machines available in this country. The Alpine is also available in an 18" (46 cm) microframe for women riders.

The new models for 1990 will all feature the latest Shimano technology with the popular Hyperglide freewheel being available in seven speeds on MTBs and sports bikes.

In the mountain bike field Shogun have pioneered the top end of the market and their two Prairie Breakers - the Team and Pro - are still popular machines for competitors and recreational riders alike. The Prairie Breakers have abandoned their distinctive parallel frame construction and have moved the ►

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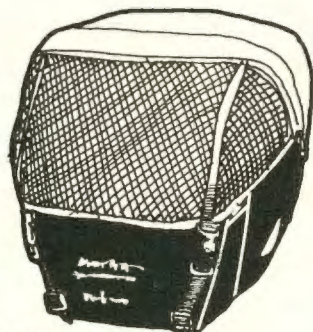
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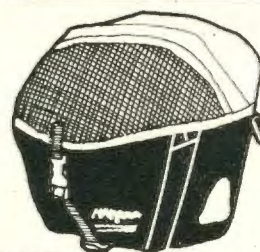


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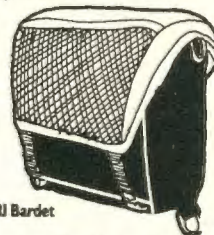
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► rear brake up onto the seat stay.

The Team has a Tange Prestige frame and Deore XT II components while the Pro has standard chrome moly frame and Deore II gear. The Ground Breaker and Ground Breaker Expert along with the three Trail Breakers make up a complete range of mountain bikes to suit every use and budget. All the Shogun mountain bikes come in a small 45 cm (17") microframe for women riders.

## MBK

The French bike maker MBK has two ranges of bikes this year in both mountain bike and lightweight/sports categories. Top of the MTB range is the Tracker Hi-tech with its fabulous Columbus chrome moly frame, Mavic alloy rims and Shimano Deore XT II componentry. This bike provides ample evidence that the Europeans are now getting into mountain bikes in a big way. There are two other mountain bikes: the Ranger Hi-tech which has Mountain LX components on a chrome moly frame (three tubes) while the Adventure has Shimano Exage Country gears and brakes on a high tensile frame.

The five bikes in the MBK racing line up are lead by the fantastic carbon fibre framed Kevlight which has an 8 tube carbon fibre frame construction, light alloy forks, Wolber alloy rims, Vittoria tubular tyres and Campagnolo Chorus

group componentry. The Kevlight is backed up by a strong line up of models such as the Triathlon and Super Record which have Columbus Cromor frames and forks. The Triathlon model has Shimano 105 components while the Super Record has Campagnolo Athena. Both the Trainer and the Super Mistral models have Shimano gear and brake ensembles fitted.

## GT

Always to the forefront of the BMX scene GT was one of the companies to realise early in the eighties that the mountain bike had a bright future. Nowadays GT makes both BMX and mountain bike ranges and what bikes they are!

The MTB range is distinctive for its stunning paint styles (my pick of the lot) and parallel frame design. The Avalanche is a Shimano Deore II equipped bike with Tange Prestige and MTB tubing used in the parallel "double triangle" frame. The Karakoram (pronounced Kar-a-KOR-am) has a Tange MTB tubed frame and Shimano Mountain LX group componentry. It has a distinctive grey speckled baked enamel paint job.

The Timberline has one of the most distinctive paint schemes seen on any bike over the years. Its black and white cracked finish covers an Ishawata chrome moly frame (main tubes) and

Shimano Exage Trail gear is used throughout. The Tequesta (pronounced Tee-questa) is fitted with SunTour XCD componentry onto a Tange MTB chrome moly frame.

GT's BMX range consists of four racing models and four freestyle (one of the freestyle bikes is a junior). The Pro Series Team model has a chrome moly frame and fork, GT light alloy cranks and alloy rims. Other models in the range are Pro Series, Mach One and Interceptor. In addition to GT bikes the Australian distributor Dojolorn also imports Robinson BMX competition machines. There are three top quality models in their range: the top of the line Pro Team; Pro and MX.

## Fisher

Gary Fisher was one of the Californians credited with originating the mountain bike design in the late seventies and early eighties. His small company has grown with the industry and this year has taken the lead with a number of technical innovations that promise to have the rest of the MTB makers in hot pursuit (some say that Tioga's Avenger oversize system is a reaction to the Fisher Evolution oversize system).

As well as the oversized headset bearings and head tube the top line Fishers have a wider bottom bracket shell that uses axles of conventional overall ►



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► length. The result is that the axles do not extend from the bottom bracket as far as other bikes thus relieving much of the leverage pressure placed on the bottom bracket bearings.

The top of the line Fisher, the CR-7 also uses an oversized aluminium frame (main triangle with bolt on chrome moly rear triangle) and the Fisher Evolution fork with taper gauge blades. The CR-7 has Shimano Deore XT-II components. The AL-1 model has a full aluminium frame, the same oversized head and bottom bracket assemblies and Shimano Deore II gear.

The two other models in the range both have chrome moly frames. The HK-II has the Fisher Evolution oversize system and Shimano Deore II components while the Advance has a more conventional chrome moly frame and Shimano Mountain LX running gear and brakes.

The Advance and HK II models come in a minimum frame size of 40 cm (16") while the two top models, the AL-1 and the CR-7 go down to a 38 cm (15") frame.

## Reflex

This American company is an offshoot of the Easton corporation which makes much of the aluminium tubing used in US mountain and road bike frames. Easton also make a carbon fibre tube called C9 and this tubing is used in their top of the line ALX Carbon mountain bike seen on many mountain bike tracks throughout the country during the '89 season.

The ALX Carbon DT has a C9 down tube and E9 aluminium seat and down tubes. Both bikes have Shimano Deore XT II components.

C9 aluminium is the tubing material used on both the ALX99 and ALX89 bikes. The 99 is fitted with Shimano Deore II components while the 89 model uses Shimano Mountain LX. All the Reflex frames are easily identified by their characteristic wishbone style rear stay assemblies. Reflex bikes are all available in frame sizes down to 41 cm (16.5").

## Diamond Back

Six models from the US range will be sold this season in Oz.

The Arrival has a TIG welded aluminium frame and Tange chrome moly forks. Deore II componentry is used

throughout as it is on the Apex model which has a Tange chrome moly MTB tubed frame. A similar frame to the Apex is also used on the next model down: the Ascent EX which is fitted with Shimano Mountain LX componentry.

The Ascent model has a 100% chrome moly frame and Exage components while the Topanga and Sorrento models have a mixture of chrome moly and steel. All models with the exception of the Sorrento come in frame sizes down to 38 cm (15").

## Mongoose

This year four mountain bikes and five BMX machines in the Mongoose range will be sold in Australia. Top of the mountain bike range is the IBOC Team with Shimano Deore XT II equipment on a Tange Prestige frame. (IBOC is marketing hype for International Bicycle Of Champions). The Team frame has a distinctive wishbone style mono stay arrangement on the rear triangle. The three top 1989 models all feature straight bladed forks.

Next down from the Team is the IBOC Pro. This bike has a Tange double butted chrome moly frame (with wishbone rear stays) and Shimano Deore II components. The IBOC Comp (partly shown on this issue's cover) has a similar frame to the Pro and is fitted with Shimano Exage Mountain componentry. Though the Sycamore model uses a similar design frame to the other IBOC's only its main tubes are chrome moly. It has an Exage chainwheel set, Deore II derailleurs and Exage brakes.

The Mongoose BMX line up is headed by the Maneuver an exceptional machine which at last brings lightweight mountain bike performance to a BMX style machine. This bike has a Tange chrome moly frame, 24x1.5" alloy rims, SunTour XCM gears, front cantilever and rear U type brakes as well as 18-speed indexed gearing. A hot one for the kids this summer.

The traditional BMX lineup consists of Californian Pro, Mini Californian (fitted with 20x1 1/8" skin wall tyres), Expert and M1. All models feature the Mongoose wishbone style rear stay assembly. The M1 has a hi-tensile frame while all the others use chrome moly tubing.

## Gemini

The Gemini World Randonneur is a ma-

chine in the classic touring tradition. It has all the right equipment for this type of bike such as: a chrome moly frame, wide 700 x 35c tyres, generous clearances on the frame for mudguards (though none are fitted), Shimano gears with bar end controls and Shimano cantilever brakes. Mounts are provided for front and rear racks and water bottles.

Gemini has a number of other models including both mountain bikes, road/sports bikes and a kids range.

## Raleigh

Raleigh USA aluminium framed mountain bikes will make their appearance in Australia this year. Initially only four models will be available and each will feature Technium frames with the distinctive wishbone style rear stay arrangement. Raleigh has helped popularise in the past year or so.

Top of the Oz range will be the Peak a Shimano Deore XT II equipped machine with a frame constructed from Easton E9 aluminium main tubes, chrome moly rear stays and an Ishawata chrome moly front fork. The Chill uses T8 aluminium tubing on the main tubes of its frame and chrome moly rear stays. Shimano Deore II components are used throughout.

The Frenzy and Heat models also use the same frame as the Chill but each is fitted with different componentry: Shimano Mountain LX on Frenzy and SunTour XCE on Heat.

## Missing presumed...

In the weeks and months of preparation for this issue we have managed to ferret out and contact all the major bike makers and importers throughout the country as well as most of the smaller ones. However a few have inevitably escaped our net. In some cases the distributors contacted failed to respond to our requests for information about their bikes and we have not been able to include information about their ranges in our survey. Don't be too surprised then if you come across a couple of minor brands in the showrooms this summer.

In addition you will also discover that some bike dealers assemble and sell their own house brand bikes. Larger shops such as Clarence St Cyclery in Sydney (who sell Clamont branded bikes) even offer a complete range of machines made by large and reputable Australian and overseas makers.



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# FAT TYRES AND FAST BIKES

## A guide to choosing your next mountain bike

**BY WARREN SALOMON**

**T**HIS SUMMER THERE WILL be more mountain bike models sold in this country than at any other time. It's a daunting prospect to confront this array of machines in a well stocked store especially if the dealer is not fully clued up on the subtle differences between the multitude of models.

To make it easier for you, the potential buyer, this article breaks up the mountain bike into its component groups and looks at how the manufacturers organise their bike ranges. There are four main areas: frame, wheels, componentry, and extras. Lets look at each in detail.

### Don't get framed

A bike frame is the skeleton of the machine. And because everything is bolted to it you can't easily change it later if you want to upgrade it. So you have to get it right first go. The best frames are usually made from the lightest metals. Typically frames are made from chrome molybdenum (usually abbreviated to chrome moly) a lightweight steel alloy with high strength properties. Cheaper chrome moly frames often have steel rear stays and chain stays to reduce the cost.

Over the past few years aluminium has been used increasingly in frame construction. This type of frame can use either oversize diameter tubes welded using a tungsten inert gas (TIG) process or more conventional diameter tubes bonded (glued) into cast alloy lugs. Aluminium has to be heat treated to achieve the best performance and durability and this is usually done after welding or in the case of bonded frames before assembly. Though it is important to have a frame that fits your body shape exactly. More often than not you will have to take what the manufacturer offers as it is not practically possible to make frames

in a huge range of sizes. Many of the top of the range frames are designed for competition use and have steep upright frame angles that offer good uphill response but have to be guided on tight corners and steep descents.

The current trend (it will probably pass with the seasons like the practise of mounting the U brake under the chain stays did) of fitting straight bladed forks gives a more rigid front end and does not absorb as much road shock as raked forks. Purely recreational riders will prefer the lower end models with their generally softer frame angles and more comfortable ride.

### Where there's a wheel there's a way

A few years ago one of the local makers decided to cut costs on one of their top MTB's by fitting cheap Taiwanese hubs. The rims were good quality Arayas but

the hubs were terrible. Dealers across the country were driven to distraction replacing bent and broken axles under guarantee. These days, with the lesson learned, you will only find cheaper hubs on cheaper bikes.

Mountain bikes are promoted as rugged go anywhere machines so they have to be able to take a fair amount of heavy treatment. That is not to say that things like rims and hubs are and should be indestructible. They aren't. If you ride any bike hard you can expect to do some damage to your equipment and perhaps your body as well. So take it easy.

The best rims these days are made by either the Japanese company, Araya, or the French maker Mavic. The most popular quality rim is the modular construction Araya RM 20 available in either silver or hard anodised black or grey finish. Araya's other top quality rims are the RX 7 and the top line RM 17. The Mavics are seldom used on Asian assembled bikes but are sold by specialist dealers who supply custom built wheels. Weinmann, Wolber and Ukai all make good quality MTB rims too.

With the move towards complete component ensembles consisting of brakes, gears, headset, seat post, pedals and hubs it is usual to see the one component group used throughout. Sometimes, however, lesser quality hubs from other manufacturers are used instead. The problem with poor quality hubs is that you have to pull the entire wheel apart to replace a broken or badly damaged component.

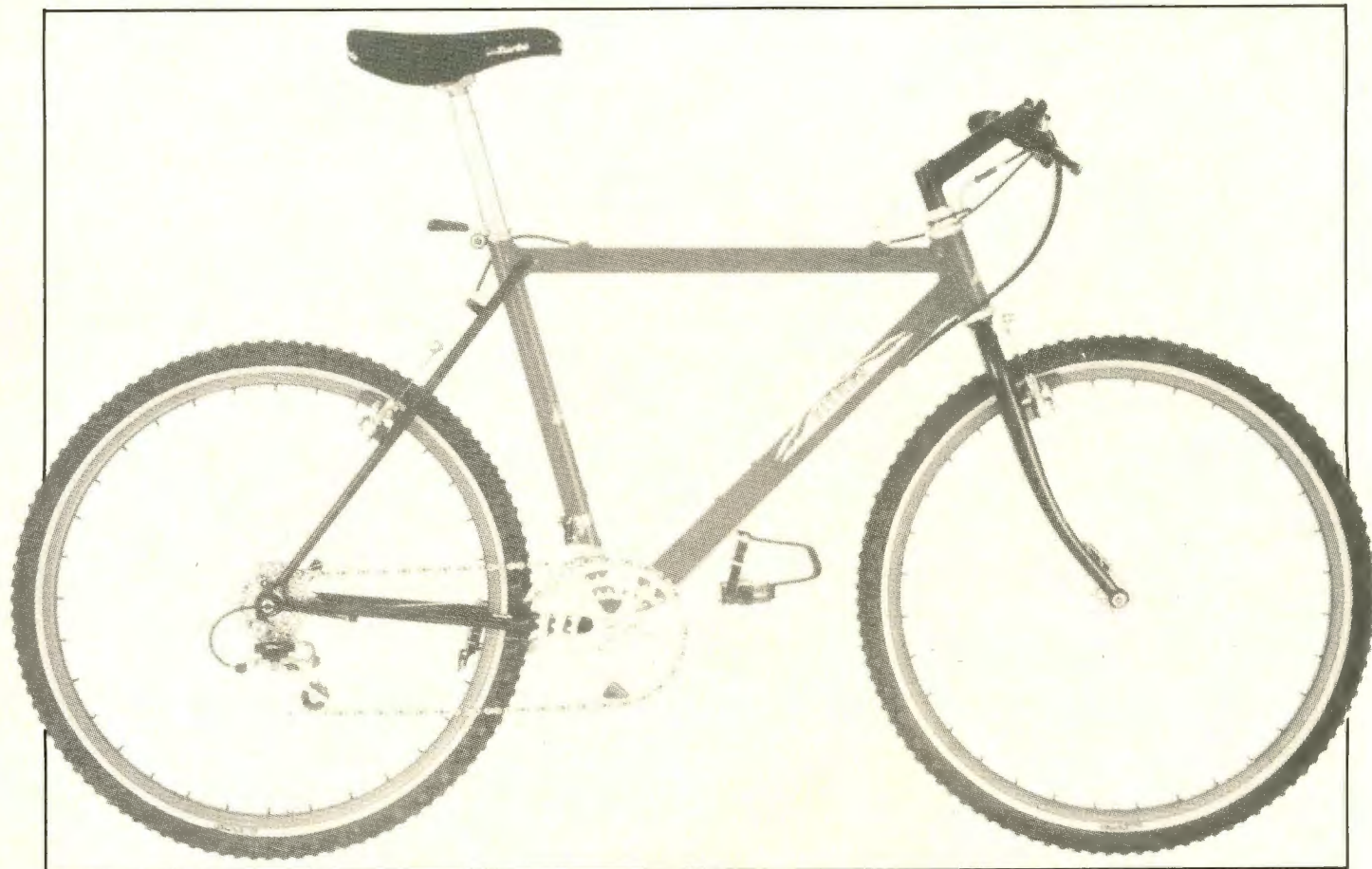
Unlike a rim replacement which is a reasonably easy repair, bike shops will balk at a full hub replacement preferring ▶

**The ALX Carbon in action.**



**Opposite page:** Mountain bike riding GT style. This rider powers up the bare rock with his GT Avalanche bike in low gear. Photo courtesy of GT.





► instead to sell you a new wheel. You don't have much control over the matter unless you are an experienced wheel builder with enough spare time to do the work.

Shimano, SunTour, Suzue and San-shin are all good hub brands to look for. Beware of unbranded hubs. They may still last as long as the top makes if you ride in a steady fashion but cross your fingers if you are an aggressive downhill trail blazer. After all you pay your money you take your choice in wheels more so than on any other part of the bike.

Skimping on cheap hubs and rims is a sure recipe for disaster if you want to ride your MTB in club and national championship competitive events. So for that type of riding always go for the best.

Tyres are a matter of personal choice and preference. You can even select the right tyre for the type of terrain you are riding - such is the range of choices avail-

**The frame on the Fisher CR-7 has an oversize aluminium main triangle with bolt on chromoly rear stays.**

able to the modern mountain biker. Some keen riders have an extra set of wheels handy before a race fitted with a good alternative set of tyres just in case they feel the need for a quick change of tread once they have tried out the course.

There is a real art in choosing the right tread to match the terrain. Accept the tyres that come with your bike. You will probably want to change them soon enough anyway.

### **What's the difference?**

The largest bike company in the world is the Japanese Shimano corporation. Shimano has virtually revolutionised the way bicycles are designed and marketed by taking the old European concept of

the component gruppo (the Italian word for set) and taking it to its logical conclusion.

In 1990 they plan to bring this development to a logical refinement when they release the STI concept. STI stands for Shimano Total Integration and means that the giant manufacturer expects to make even more of the parts that make up a bicycle and market them as distinct groups to satisfy the price bracket requirements of the manufacturers.

What is so confusing about the present Shimano system is the way they are named and the way new groups are introduced without clearly defining where they fit into the overall scheme of things.

The latest word we have from Japan is that next season Shimano will number its gruppi so that the ordinary punter can work out which is better than the other. The box shows the new system and its direct comparison with the other



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## Japanese component gruppi Mountain bikes

SHIMANO	SunTour
Deore XT (M735)	XC PRO BEAST
Deore DX (M650)	XC PRO
Deore LX (M550)	XC COMP
Exage 500LX (M500)	NEW XCD
Exage Mountain (M450)	CHROMA
Exage 400LX (M400)	XCE
Exage Trail (M350)	XCM
Exage 300LX (M300)	XCT
Exage Country (M250)	AC2000
200GS Series (M200)	AT2000
R552 Series (R552)	ALLEGRO
Town Combi (TY20)	FT

large (but small by comparison with the giant Shimano) component manufacturer SunTour.

SunTour and the other small Japanese component makers have banded together in order to effectively compete with Shimano and now market their components in gruppi under the SunTour umbrella. Some XCD and XCE gear has been seen on this years models and more will follow but if the opposition also want to improve their marketing clout they too should get their names sorted out and like Shimano even resort to numbering.

The Shogun Prairie Breaker Expert is a new model in the range. It has a chrome moly double butted frame and Shimano Deore LX componentry. Like the other Prairie Breakers it also has a Tioga Avenger oversize head tube and bearings and the new Shimano push-push gear controls mounted under the handlebars.

Shimano (and most intelligent customers and dealers) would prefer that all gear in a given gruppo is used throughout the bike. However corners are often cut and pedals, hubs and even brake sets are often substituted for lesser brands or sets. When checking out a new bike cast your eye over all the components; if the logos match you can be sure of consistent quality throughout.

As to the differences between the groups; that's a bit more complicated. For example the top of the range Shimano Deore XT II range performs just as well as the lesser Deore II group. The difference between the two is more in the finish of the components (the XT gear is highly polished and precisely machined. Lower down the differences are greater. Mountain LX (soon to be Deore LX or M550) is an all alloy component group while the SIX Exage groups use a mixture of alloy, steel and plastic materials in varying amounts. Exage is heavier than LX that is one obvious difference.

In the cycle game there is an old buyers adage: the more you pay the less you get. What this really means is that the higher priced component groups are harder to tell apart but weigh less with each upward jump. How much less depends on how much you want to pay.

### Bits and pieces

This section usually covers the other non gruppo components such as saddles, handlebars, stems and grips. That's not much to worry about if you are concerned about price but a big deal if comfort is your concern. Most top line MTB's are set up for competition racing use so they have almost flat handlebars and stems designed for a quick steering ▶



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► response. A number of manufacturers are making the mistake of building their cheaper models as replicas of their pro machines. This may be fine for the boy racer on a budget but no good for the average recreational rider.

Recreational riders need a more upright riding position so if you are that type of buyer ask your dealer to guide you towards that type of bike. If it is not available ask them if they will change over the stem and bar assembly to some-

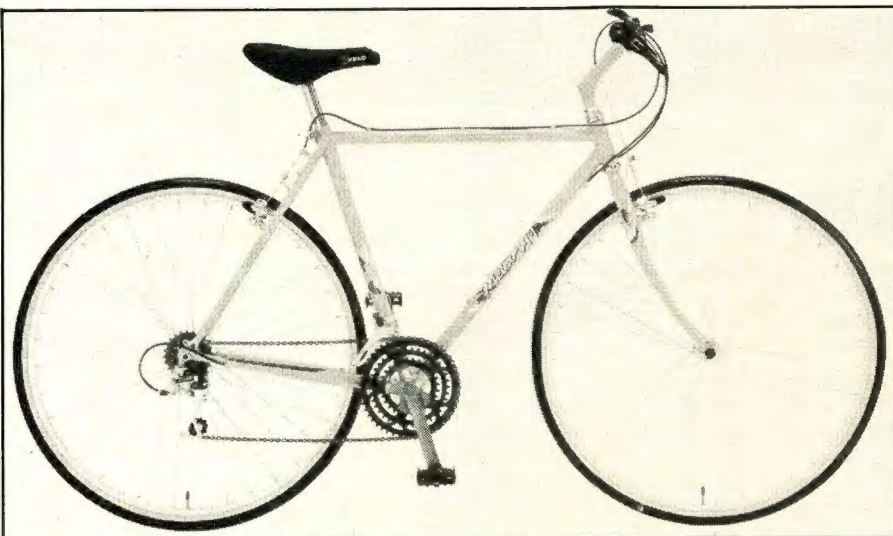
thing more suitable to your riding style. Saddles should often suffer the same fate. Don't risk your bottom on a seat designed for a racer who only uses it as a leverage point anyway. A good quality gel saddle or other anatomic type is well worth it if comfort is important.

### To wrap it all up

Building bikes by using one component gruppo makes it easy for both the customer and dealer alike but often it

doesn't work out that way. Cheaper models that use mostly Taiwanese components are harder to sort out. Here you have to use the experienced dealer as a guide. Good mountain bikes cost upwards of \$500 and below that price you have to be careful. *Caveat emptor* – buyer beware.

Further on in this buyers guide we look at guarantees and warranties offered to bicycle buyers in this country. Happy hunting. ●



## Whatever happened to touring bikes?

You've decided to ride up to Brisbane from Sydney next holiday and you are looking for the best bike to do the trip. Your lightweight sports bike is certainly not the type to be loading down with pannier bags and the like. And those mountain bikes, aren't they heavy and sluggish on the highway with their fat nobby tyres?

So you go down to your local bike shop and make enquiries about a bike for touring.

"A bike for touring! What's that?" the shopkeeper responds in a slightly derogatory manner which seems to imply that you may have lost your marbles somewhere.

"Where," you say, "are all the touring bikes?"

A few years ago many of the larger distributors had touring bikes in their ranges. Not all of these completely filled the bill for ideal touring bikes but they still had all the basic equipment. Then, in the scramble to climb onto the mountain bike bandwagon, most of them abandoned the touring bike leaving the market sector to be divided up between Gemini and Shogun.

The Gemini World Randonneur is a machine in the classic touring tradition. It has all the right equipment for this

The Shogun hybrid has mountain bike controls and bars – but a touring frame (with rack mounts) and 700x35c wheels. It will sell for a very competitive price.

type of bike such as: a chrome moly frame, wide 700 x 35c tyres, generous clearances on the frame for mudguards (though none are fitted), Shimano gears with bar end controls and Shimano cantilever brakes. Mounts are provided for front and rear racks and water bottles.

Likewise the Shogun Alpine GT is a true touring machine though you will have to fit racks and other equipment of your own choice. The 18-speed Alpine GT is fitted with Shimano Biopace chainrings and Exage gears and cantilever brakes. It also has a 40 spoke rear wheel for extra strength. It has double frame mounts for both front and rear rack and mudguard mounting and indexed bar end gear levers.

Both machines are supplied without racks and other accessories which makes them look quite bare on the showroom floor but it does allow you to choose the items of your choice.

One of the most often asked questions in an era where the mountain bike is in the ascendancy is whether fat tyred bikes are good to take touring. There is no easy answer to this. Unquestionably the two touring bikes listed above will outperform any mountain bike over sealed roads but once gravel roads are encountered the tables are turned.

Generally most long distance touring cyclists prefer to stick to the bitumen but with so many dirt roads criss crossing the continent it is often hard to plan a long trip completely on the black top. Some riders are preferring to use modified mountain bikes that will allow them to ride comfortably over gravel roads if a little slower over bitumen.

In the USA an exciting development is underway with a new bike type called the Hybrid. This type of machine is basically a touring bike in disguise (one could almost call the Gemini a hybrid as the preference is towards 700x35c wheels). To be more accurate the hybrid is a mixture of road bike and mountain bike. The idea behind the new style is an appeal to those riders who want a good all purpose bike without the weight and sluggish performance of wide 26" tyres plus the agility of a traditional road bike.

Miyata, Shogun and Fisher all have hybrid models in their US ranges and the Shogun Hybrid is due for release here in December. It has flat mountain bike handlebars but otherwise it is styled as a touring bike with 700x35c rims and tyres. On the other hand the Miyata is styled as a cyclocross bike and as that sport has never taken off in this country it seems unlikely that the Australian distributor will be importing very many until the market gives some direction. The Fisher will not be released here in the foreseeable future.

The big reason why the mountain bike has been so successful and will continue to dominate the bike scene in the future is that it such a practical and comfortable bike to use. Likewise if the hybrid is properly presented as a lightweight mountain bike that gives the rider the best of road bike and MTB worlds then, and only then, does it have a real chance of becoming the bike for the nineties.

However if the hybrid is bike is seen for what it really is – a very good synthesis of road bike and mountain bike technology to produce the first ever all purpose bike – then maybe there will be enough buyers in the country willing to part with their cash in order to use one. Can anyone think of a better name than "hybrid"? ●



# PERFORMANCE

by Clayton Stevenson Optics Bikewear by Spank

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21 SPEED  
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# MOUNTAIN BIKES

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SIS  
SHIMANO INDEX GEAR

SLR  
SHIMANO SLR

biopace II  
SHIMANO BIOPACE II



### Kosciusko

This is a truly remarkable machine, designed for the dual purpose of street riding or off road riding. With a Chromoly frame, Araya 26 x 1.75 alloy rims and a Shimano Exage Country ensemble, including Biopace and SIS Index gears, this bike is tough, lightweight and responsive. Also available in a ladies mixte version - St. Moritz. (Inset)



SIS  
SHIMANO INDEX GEAR

SLR  
SHIMANO SLR

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# HEADING FOR THE HILLS

**You don't have to be a serious competitor to enjoy riding a mountain bike**

**BY WARREN SALOMON**

**I**F A SKINNY TYRED RACING bike is best for speed then a mountain bike has got to be best for comfort. Mountain bike frame geometry is designed to give smooth and effortless performance. Whereas a road bike has to be guided through tight corners a mountain bike almost steers itself – well almost. Mountain bikes are equally at home on the city streets as well as the mountain fire trails but the best performance can often be obtained by choosing the right equipment for the purpose.

## **Short haul trail riding**

If you like a little adventure the bush is the place to be. State forests in most states are criss crossed with rideable fire trails and are excellent for day and weekend adventures. In some areas the forestry departments even provide camping and picnic facilities and details of these are easily obtained from the department offices in your town or city.

Before you plan a trip into a forested area you should first get hold of a detailed map of the area. The forestry departments usually produce good maps which show all their trails and roads. However, it is always important to check the date of the map as road conditions change more rapidly in a forest which is being logged and managed on a long term basis.

National parks are also good places for riding though it appears that in some states the pressure on some parks is becoming so great that the park authorities are frowning on all types of wheeled vehicles. Though the mountain bike, carefully ridden, does as little damage to tracks and trails as a walker, ill informed park managers are tending to lump

mountain bikes in with that dual scourge of the wilderness: the four wheel drive and the trail bike.

In any case national park authorities will not like you riding on walking trails though there are often many many kilometres of fire trails and access tracks which are suitable. Maps and information brochures on all the more accessible national parks can be obtained from the National Parks Department office in your capital city or regional centre.

## **Long distance touring**

Mountain bike sales have tended to overshadow the traditional touring bike. This bike has a frame which has similar geometry to a mountain bike only its 1 1/4" wheels and tyres are halfway between the MTB and a lightweight racer. Both the MTB and the tourer have wide range gears and extra mountings on the frame for racks and mudguards.

On bitumen country roads the touring bike is easier to push than the mountain bike but on unpaved surfaces the wider tyred mountain bike leaves the tourer for dead.

Not everyone can afford to have two bikes for each type of road so most opt for the more comfortable (but slower) fat tyred bike.

Touring is an absolute delight and is not hard to do. All you need to do in advance for a weekend trip is get together with your riding mates and plan out your route on a good map. Plan a short day first and that way you will give your body time to adjust.

If you live in the city you can either catch a suburban train out into the country or pack your bikes into a car or van. Depending where you live the railways can usually get you into the good touring territory fast and you won't have to worry about security for your vehicle.

However, it is wise to check with the railways first. In Brisbane, for example, the Bike Institute is trying to get the railways to see reason and allow bikes on suburban electric services but so far no go. In NSW the Liberal government seems to be dismantling the country rail network and the only trains left are the XPTs and – you guessed it – they don't take bikes either.

Try travelling by bus. It's cheaper though you do have to partly disassemble your bike and pay a small fee.

Once out into the country you should have selected quiet country roads and a place to stay at the end of your day. Country hotels are often a pleasant alternative to boring sterile motels and if you like camping there are many National Park camp grounds as well as the usual caravan parks.

For longer adventures away from towns you will need racks and bags to carry your belongings. Low rider type racks and bags for the front give stability to your bike handling. Cheap racks break when you least want them to so be wise and buy the best. The same goes for bags. As these items of equipment are expensive you should make sure you buy the kind of bag to suit your needs. ▶

**The MBK Tracker Hi-Tech**



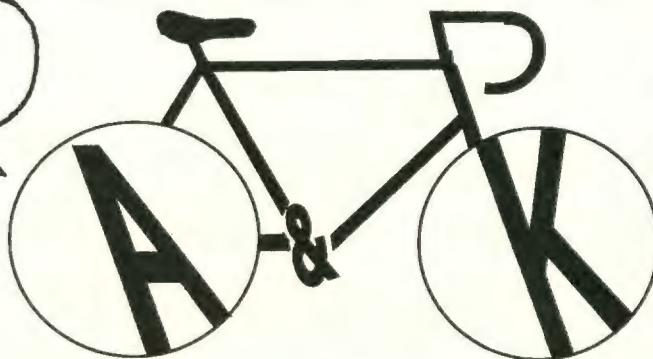
Opposite page: Heading for the hills is a great way to get away from the tension of urban life. This shot from the November Repco television commercial shows how its done in style – on a Repco, of course.



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► Larger bags may not be the most useful for short day type rides.

Back packs though popular with city cyclists are NOT recommended for long trips. Carrying even light loads in a backpack puts an unnatural strain in your spine and could give you back problems in later years. Let your bike do the work and get a good rear rack and pannier bags fitted.

### Be an environmentally responsible rider

Riding bush trails should be done in a careful and responsible manner otherwise you will give our new sport a poor reputation.

Most mountain bikers are people seeking adventure away from the madding crowd. If the yahoos take to cycling we could all end up a banned majority.

In the United States of America these days the hiker versus biker issue has really hotted up with the Sierra Club one of the nation's biggest conservation groups opposing the use of MTB's on walking trails where horses are permitted. Because of the scarcity of true wilderness in that country the battle for access to these areas is turning into a long drawn out legal wrangle. More and more rules are being applied to land use and in places like Marin Country near San Francisco cyclists are banned from a number of the once popular bushland

areas where mountain biking began.

The newly formed Australian Mountain Bike Association has its work cut out for it in making representations to all the many authorities and organisations which control the rapidly diminishing bushland areas. As clear felling of the forests continues at a pace and the development of rural land to serve industrial needs quickens the same situation will arise here as it has in the USA. There may indeed be trouble ahead for mountain bikers unless they actively support AMBA now and participate in its work to educate the community on the benefits and not the down side of cycling in the bush.

### City cycling

I used to ride a 1" skinny tyred road bike to work. Sure it was fast on the good sections of road but the jarring over the frequently poor urban road surfaces almost destroyed my back. In desperation I took to fat tyres and have never looked back.

The mountain bike makes an ideal city machine. All you need is smooth tread tyres like the Avocet Fasgrips or the Tioga City Slickers. Another essential item especially in winter is a generator driven light set or clip on battery powered units. Mudguards are also good if you are the type of person who is not discouraged by wet weather.

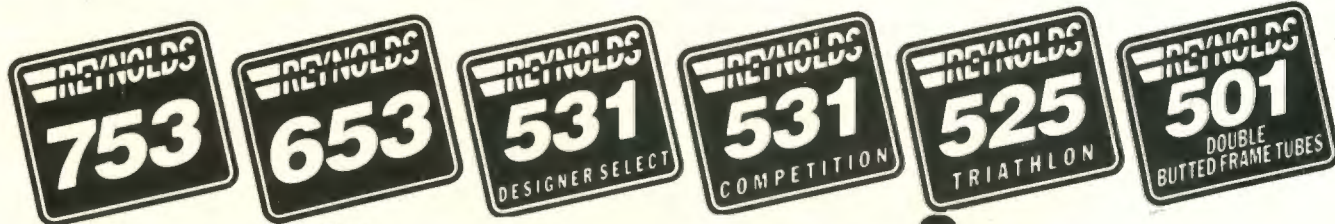
With a second set of wheels (fitted with nobby tread tyres) your city bike easily converts to a bush basher on weekends. The only problem you may experience when changing wheels is that the chain may be worn in to the most used freewheel and will not run smoothly on the other. In this case it may be best to replace the chain or swap wheels on a regular basis so that the chain wears into both freewheels.

### Competitive riding

After five years and four national championships the sport of mountain biking has finally arrived but there is still severe shortage of events. There are now a number of clubs around the country organising regular recreational rides and races for their members but apart from the odd public race (usually once a year for each club) the sport is still struggling to give its supporters and participants regular competition.

Even though the Nationals, held in Canberra during November 1988 and 1989, were a great success the sport is still in desperate need of a race series based on the major eastern cities which could provide a proper build up for a national title event.

Such a series will get underway in 1990 and there will be ten events initially in NSW, QLD, VIC and SA with the West participating hopefully in 1991. A ►



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► series of this type will help the sport build up its major events and allow riders to develop within a strong framework.

The National Mountain Bike Association is now well established and clubs are beginning to form at an increasing rate (see list at the end of this article). Already a large number of these clubs have affiliated with AMBA and the sport looks headed for a bright future.

Racing in Australia will be conducted in future on three levels: National/international; open inter club events and club only events. Inter club meets often have only one or two starts and depending on numbers some categories will be raced together often with a different number of laps being raced for each group.

### Join a club

If you are new to the world of mountain biking and want to learn the ropes then the best thing to do is to join a club. In the past mountain bike clubs have often been appendages of older touring clubs but now they are branching out onto their own and are giving their members the kind of activities that only a specialist club can provide. Most groups have both recreational and competitive events and the life of the club revolves around the rides

This means that the club functions best when its members are racing or riding for fun. Of course some organisation is essential to produce the program of rides that most groups maintain and this usually produces a regular newsletter to keep members informed and educated.

The list of clubs we have provided below is growing all the time. If you are starting a club please write to us so we can put yours on it. If you publish a newsletter we would like to swap copies for *Freewheeling* on a regular basis. Please get your secretary to drop our Publisher a line so we can enter you on our mailing list.

**The Australian Mountain Bike Association** is the sanctioning body for all mountain bike races on a state and national level. Local clubs can affiliate and offer their members the benefits of insurance coverage for their inter club events. Enthusiasts interested in contacting a local MTB club in an area not listed below should contact AMBA on (02) 27 2977 AH (02) 92 1922 as the list is growing all the time.

All of these clubs offer both competitive and non competitive events and are a good source of information on what equipment to buy and the best places to ride.

#### Queensland

Brisbane Mountain Bikers Paul Hargraves (07) 344 1907  
Velo Club Brisbane Mike Roberts (07) 359 1244  
Sunshine Bushbashers (Sunshine Coast) Pete Smith (071) 428 572

#### New South Wales

North Shore Nobbies (Sydney) Steve Nesbitt (02) 411 5466 (Business hours)  
East Side Ground Hogs (Eastern Sydney) Chuck Smeaton (02) 371 5278  
Brookvale Fatheads (Sydney) Laurent Vignes (02) 982 2574  
Western Suburbs MTB Club (Sydney) Jeff Blackman (02) 622 8196  
St George Mountain Bike Club Phil Higgins PO Box 50 Padstow NSW 2211  
Southern Cross Cycle Club (Sydney sth) Tony Marsh (02) 520 4600

Central Coast Mountain Bike Club Lewis O'Keefe (043) 284 927 (H) (02) 438 3466 (W)  
Hunter Valley Mountain Bike Club Bruce Richards (049) 32 7820  
Taree Mountain Bike Club Chris Nesbitt c/- SST Cycles Taree  
Blue Mountains MTB Club Kerry Barlow (02) 264 2994 (W)

#### Australian Capital Territory

Canberra Mountain Bike Club Mark Vardy (062) 491 806 (w) or (062) 489 301 (h)

#### Victoria

Fat Tyre Flyers (Melbourne) Mick Jamison (03) 817 2917

#### Tasmania

Northern Tassie MTB Club (Latrobe) Stephen Foster (004) 262 107 (H) (004) 265 263 (W)

#### South Australia

Adelaide Mountain Bike Club Peter Heal (08) 289 1420

#### West Australia

Perth Mountain Bikers Jack Thornley (09) 453 1434  
Cycle Touring Assn of WA (09) 330 3659.

If you live outside one of these areas you could consider contacting AMBA for information on how to set up a club and tie in with other groups. ●



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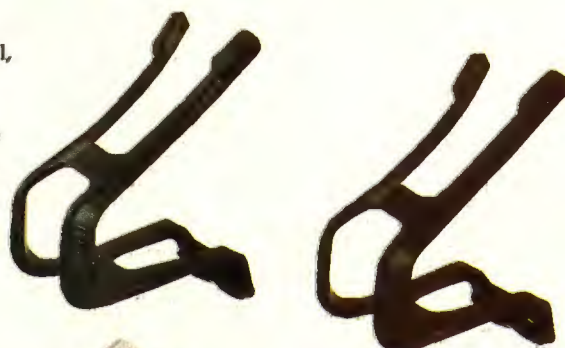
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The Miyata Alumitech aluminium framed road bike is equipped with Shimano 105 gear and is one of Miyata's star attractions for the 1990 season. Note the internal cable routing.

# SPEED THRILLS

## How to buy a competition bicycle

BY CYNDI HOLMES

**Y**OU'VE MADE THE BIG decision to race. Whether it be mass-start racing or the cycling leg in triathlons, you know that you want your new bike to maximise your performance.

Racing bikes shift quicker, handle quicker and are more efficient, compared to their sports-touring counterpart. Looking at them, it can sometimes be hard to tell the difference because the specifications may only vary by a degree, a centimetre or several hundred grams. But these small differences have a major effect on the performance of the bike.

Somewhere between the top-of-the-line, custom-made funny bike to the all-round road racer is a racing bicycle that can meet your needs and your budget.

As you start your journey through bicycle world, in search of your new machine, evaluate the shops you are visiting and not just the bicycles they are

offering. You'll want to buy from a shop that will back-up what they sell. If you don't have a coach, you'll want some help setting-up your position and you'll need a reliable place to go for service and accessories.

But before you even enter your first shop, take stock of what you want from your new bike. The salesperson is bound to ask you what type of racing you plan to do. Do you have another bike you train on, or will you also train on this bike? What price range are you looking at? What do you like or dislike about your current bike?

The first shop you visit will probably help you decide what frame size of bicycle you need. The frame size is the measurement from the centre of the top tube, where the top tube and seat tube come together. A common formula used is the measurement of your inseam (in bare feet) multiplied by .65. This will give you your frame size in centimetres, to within 1/2 centimetre accuracy. Most models of bicycles are available in two centimetre increments - 52, 54, 56, etc. Many top-of-the-line bikes are available in one-centimetre increments.

Especially considering that it's performance that you are after, ensure that you can obtain your proper position on

any bicycle you are considering. (For more information on frame design and positioning see *Understanding Your Framebuilder* elsewhere in this issue). If it's your upper body position that needs adjusting, most shops will swap different size handlebar stems if that will help fit the bike to you.

The frame geometry determines most of the bikes ride and handling characteristics. Racing bikes tend to have angles ranging from 72 to 75 degrees. Combined with other factors, the steep head angle makes for quicker handling. Such a "tight" bike has a minimum of flex and handles crisply. Don't be put-off if a bike you're considering has "toe-clip overlap". This refers to the toe-clip hitting the front tyre when the wheel is turned. The only problems you might have with this is balancing at street lights or trying to pedal through very tight U-turns; it's something you'll get used to.

Accounting for the remainder of a bike's characteristics is the material the frame is made from. Chrome moly, manganese-molybdenum and manganese-steel are the steels used in most framesets. Generally, frames made with "butted" or double-butted tubes are lighter, yet still strong. The "butt" is the thicker wall thickness at the end of the tube for greater strength at the joints. Tubing manufacturers are now touting "triple-butted" and "quad-butted" tubes. For a bicycle that is going to be used for racing and training, a steel frame is a wise choice because of their durability and ability to often be flexible after a prang.

Some aluminium frames now available can also be noted for their durability. Some models use oversized tubes to gain strength, yet lose weight by using thinner walled tubing. Construction methods include gluing, welding, and press-fitting. You'll find an aluminium bicycle to be very rigid, yet it can absorb road shock well.

Carbon fibre and composite framesets have a major obstacle in their path of total acceptance: cost. They are generally lighter than steel frames and are popular with climbers. However, they are fragile and one prang could spell the end of a \$1500 frame. If you're loaded with dollars (or sponsored) you might consider one just for use in races only.

Wheels are the next area to consider in terms of performance. A set of lightweight wheels with fast-rolling tyres offer quick acceleration and reduced friction. Most performance bicycles are sold with high-pressure tyres on narrow, 700c size lightweight rims with quick release hubs. High performance narrow, high-pressure tyres are cheaper to main-▶

Opposite page: The thrill of a chase and much more are waiting you on your lightweight sports bike. Inset: Our cover girl Kathy Hart racing in the Ore Ida Women's Challenge as one of the 1989 Australian Womens Cycling Team who recently competed in a series of races in the USA. Photo by Jim Stafford.



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Now you can really pound on the pedals. Shimano introduces The Carbon. The most efficient tool ever designed for transferring energy from foot to drive train.

Pick it up and you'll see why it's the first shoe good enough to wear the Shimano name. Try it on and you'll experience the most comfortable shoe ever made. Ride away with it and you'll never go back to your old shoes.

So if you want to put the hammer down, break away to your Shimano shoe dealer and step into The Carbon.

Now available  
in Australia

**SHIMANO**  
CYCLING FOOTWEAR

From Selected Specialist  
Bicycle Dealers

Pressure points on the foot are virtually eliminated by the use of two straps whose strategic location was determined by computer analysis. Dual straps also offer optimum load distribution during pedaling stress for more efficient pedaling.



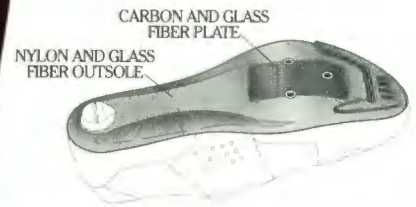
A computer designed upper is made from a special water and ultra-violet-resistant, supple pearlized leather and high-strength ballistic mesh. Additional computer analysis helped determine which material was best suited for each particular part of the shoe.

Made on American lasts, The Carbon is available in 23 different sizes. However, for a better fit, the European sizing method is used. Color choices are either graphite grey or pearl white.

Several hours in the saddle can leave a rider with hot feet. So Shimano designed cooling vents that help force cool air into the shoe. Built into the sole are grates that work to keep the vents free of debris.



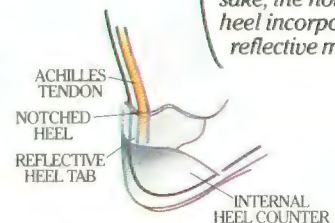
In addition to our cycling leadership, Shimano is the world leader in fishing tackle design, development, and manufacturing, and the world's largest commercial user of carbon fiber. This expertise helped us develop a carbon and glass fiber plate that gives The Carbon extra stiffness for excellent power transmission. Without this plate the sole of the shoe would have to be two to three times thicker to achieve the same degree of stiffness.



Biomechanical research done in Shimano laboratories taught us that a thinner, more stable pedaling platform would mean increased pedaling efficiency and power transfer. The sole of The Carbon gives you that platform.



An internal heel counter prevents stretch and reduces lateral foot movement. An anatomically designed heel notch takes pressure off the Achilles tendon. For safety's sake, the notched heel incorporates reflective material.



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tain than the "singles" (glued-on tubular tyres) traditionally used by racers. Friction tests even show many of the high-pressure tyres to have less rolling resistance than singles. If you weight over 70 kg, you would do well to ask the shop to swap the narrow profile tyres for a wider profile. These will be less prone to punctures and will give you a more comfortable ride.

The standard spoking for performance wheels is gradually changing from 36 spokes to 32 spokes, as this is the proven standard of pro racing teams. Although a heavyweight may do well to stick to 36 spokes. You can race on the wheels that come standard on your bike, with maybe only an investment in some high-performance tyres if the bike isn't so equipped.

After some time, you may wish to invest in a second set of wheels that you use only for racing. Triathletes could benefit from an aero front wheel and a disk or aero rear wheel. (See "Aerodynamic Wheels" in this issue). Standard racing wheels feature 280 or 330 gram rims with 28 or 32 spokes (both depending on rider's weight) and double-buttressed stainless steel spokes and 250 gram singles.

Looking at the bike's drive train, you may want to consider one of the clipless pedal systems now available. They are not yet standard equipment on complete bicycles. They may look daunting, but they are really quite quick and simple to get into and out-of, not requiring you to use your hands. Your shop may give you a small discount for swapping them for the pedals that come on your bike. If your budget doesn't include new shoes and pedals, check that your bike has aero or quill-type pedals with toe-clips and straps.

The crankset will come with a 42/52 or 42/53 replaceable chainring combination. The 39/53 combination is gaining in popularity as well. Check that the right crankarm is cast or cold-forged in one piece; a two-piece arm will most likely loosen and creak with the heavy use you will give it.

Most racing bikes come with 13-24 tooth freewheels. This is a good range for most beginning racers who have a few hills to climb in the area. While a 13-19 straight block is common for racing, for training it's good to have a 22 or 23 to handle the hills on an easy day. Juvenile and Junior-aged racers have gear restrictions. A racing shop will know these and will help you change the gearing on the new bike to suit.

Virtually all of the derailleur systems offered on racing bikes feature index or "click" shifting. The shift levers are mounted on the down tube to keep the cable short and the shifting more precise. All levers come with a non-index node. This is commonly used in racing

when you have to borrow a wheel that has a non-index freewheel. Racing derailleurs have shorter pulley cages than touring bikes. This makes racing derailleurs crisper shifters.

The brakesets on racing bikes are virtually always aluminium sidepulls, with short arms to minimize flex. During a test ride, note the feel of the brakes, they should feel precise and powerful. High-quality cable and casing influence brake feel as well. If the bike doesn't come with heavy casing, you may want to consider replacing it. "Aero" brake levers give no real aero advantage, but they do offer greater freedom of movement. The cable casing with aero levers cause a slightly increased drag because of all the bends in the cable.

Next check that the handlebars are wide enough to allow easy breathing. Sit on the bike, leaning against a wall, and

**The flagship of the new Malvern Star range is the Equipe**

have the salesperson check to see if the stem length needs to be changed and/or the saddle moved forward or back. Is the saddle comfortable? If not, now is the time to trade-up to a better one. Finally, check to see that the frame and thoroughly-applied paint and decals has at least one, preferably two, sets of waterbottle bosses and perhaps a pump peg.

Now that you've narrowed your choices and perhaps even selected the bike, spend some time setting-up your position. You can expect the shop will help you with the basics as part of their sale of the bike. But if you want an in-depth fitting, some more-experienced shops charge for this. It would involve setting the position of your saddle, stem, handlebars and cleats and may take 1 1/2 to 2 hours.

You've got the performance bike. Now wear a helmet every time you go out to perform! ●





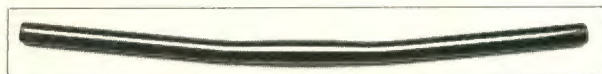


# I'M FINISHED BAR HOPPING!

I used to be a real barfly. Always jumping from bar to bar in search of the ideal riding partner. Those days are history. Now, I handle the bar scene with Prestige II.

The new TIOGA Prestige II handlebar, made of heat-treated Prestige triple-butt tubing, is the perfect combination of strength and lightness. It keeps me from falling head over heels while living in the fast lane!

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## SPECS

SIZES: 560mm width

BEND: 6° Flat

WEIGHT: 260 Grams

FINISH: Chrome and black chrome plated

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# BUILT FOR SPEED

## A guide to aero handlebars

BY CYNDI HOLMES

IN THAT FINAL 24.5 km time trial from Versailles to Paris Greg Lemond gained 58 seconds and Laurent Fignon lost the 1989 Tour de France. Fignon learned a tough lesson that day. He learned what triathletes around the world have known for years; that aero handlebars and helmets are a necessity in top-level competition.

Lemond and Fignon used similar funny bikes, with rear disk wheels. The main differences were Lemond's Giro Aerohead helmet to Fignon's bare head and pony tail, Lemond's Scott Clip-on handlebars to Fignon's standard time trial bars and Lemond's radial-laced front wheel to Fignon's Campagnolo front disk wheel.

Recent wind-tunnel testing in the U.S. compared a test rider using the two different sets of equipment.

The testers came to the conclusion that Lemond took no chances in using the latest technology to win. He had a significant aerodynamic advantage over Fignon. Lemond even had the inventor of Scott DH handlebars, Boone Lennon, at the Tour as his aerodynamic consultant to set up his bike for the time trials.

The wind tunnel testing confirmed that the aero bar provided the fastest position, other than riding with both hands behind the back.

Why has it taken amateur and professional cyclists years to accept this?

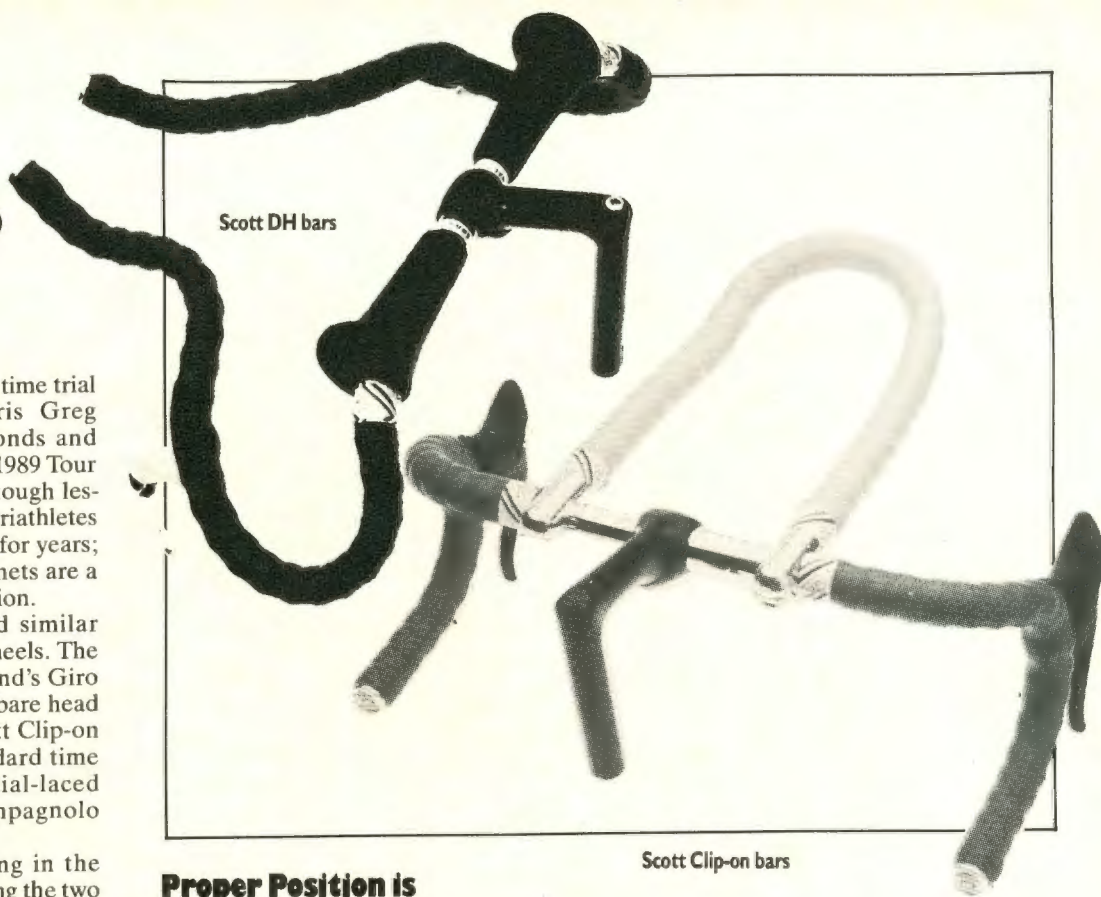
Cyclists in the home of aero bars, the US, took to the bars enthusiastically after the 1988 National Time Trial Championships were won, the records broken, with Scott handlebars.

At the 1989 championships, well over half of the riders in the individual and team time trials sported aero handlebars or bolt-ons as the add on type is called.

### Narrow Profile = Fast Time.

Aero bars put you in a position with substantially reduced frontal area. Less frontal area to the wind means less wind resistance. Air-flow is important in seeking less drag. Having the hands in and the elbows out redirects the air flow to advantage.

Think of it this way; the traditional wide-arm position on normal handlebars creates a wind scoop, which fills with wind, slowing the rider. Aero bars close the scoop, directing the air around the rider.



### Proper Position is Important.

Recent wind tunnel testing on Scott Molina showed his most aerodynamic position to be using a Coors-Lemond funny bike with the bars positioned flat, elbows close together, hands close to his face and sitting out on the nose of his saddle.

On traditional bikes, it is generally accepted that a position with the saddle far-back is better biomechanically. This doesn't appear to be the case when using aero handlebars.

Even Lemond, whose road bike is set up with the saddle far back, used a longer stem with his aero bars to put him further forward and he rode on the front of his saddle.

Some debate still exists on how to position the bars. If using full aero bars, the ones that replace your drop bar, you'll usually need a stem with an extension 2.5 cm shorter than used with your drop bar. Your stem also needs to be positioned higher. Some use mountain bike stems, which are shorter and angled upward.

Bolt-on bars, which can be attached to your drop bars or bull-horn time trial bars, vary in their designs. Some are adjustable for length and some have raised armrests.

When positioning either type of bar, aim for the most aerodynamic and efficient position. The ideal is for your knees to just miss touching your elbows and for your thighs to almost graze your chest.

If you can't ride in this position, adjust the stem so it is level with your sad-

Scott Clip-on bars

dle and gradually lower it to this position. You've gone too low if your breathing becomes impaired or your back gets sore. To prevent shoulder strain, you can tilt the bar up slightly. This positioning should allow you to see just over your hands when looking down the road.

### Learning a New Technique

Many triathletes and top cyclists have installed the bars one day and won races on them the next. So, the break-in period is not long. However, there are several differences to get used to.

The bike will be more touchy because your steering will respond quicker to any arm movement. You'll need to learn to steer with your forearms as well as your hands.

Drafting another rider will require more attention, although you'll find that because of your narrow profile position, you won't need to sit as close to the other rider to get a good rest.

To get used to the steering, practice on little-used roads. Expect a rougher ride on rough roads because the road shock that used to be absorbed by your bent elbows now travels more directly to your arms, hence the padded armrests.

Most aero bars do not provide a position for gaining the leverage you need for hill climbing. These bars are good for flat or gently rolling courses without tight corners.

A good combination being used by cycle racers who expect to encounter hills or tight corners are the bull horn time trial bars with bolt-on aero bars. ►



► This allows for a stable climbing position and flat-out narrow profile position.

It's long been accepted that being able to hold an aerodynamic position on a road bike, with your back flat, head low and elbows tucked in, was worth a time savings of 3-4 1/2 minutes in a 40 km time trial. However, being able to hold such a position is not easy and takes a bit of training.

With aero bars, you get an aerodynamic position that can save you another 90 seconds over the person who can hold an aerodynamic position on a road bike with drop bars. In addition, you'll be relatively more comfortable than this cyclist because your aero bars are supporting your upper body through your forearms, reducing fatigue.

The following listing of aero bars available in Australia includes a recommended retail price which should be near what you can expect to pay. Ask for the bars through your bicycle dealer.

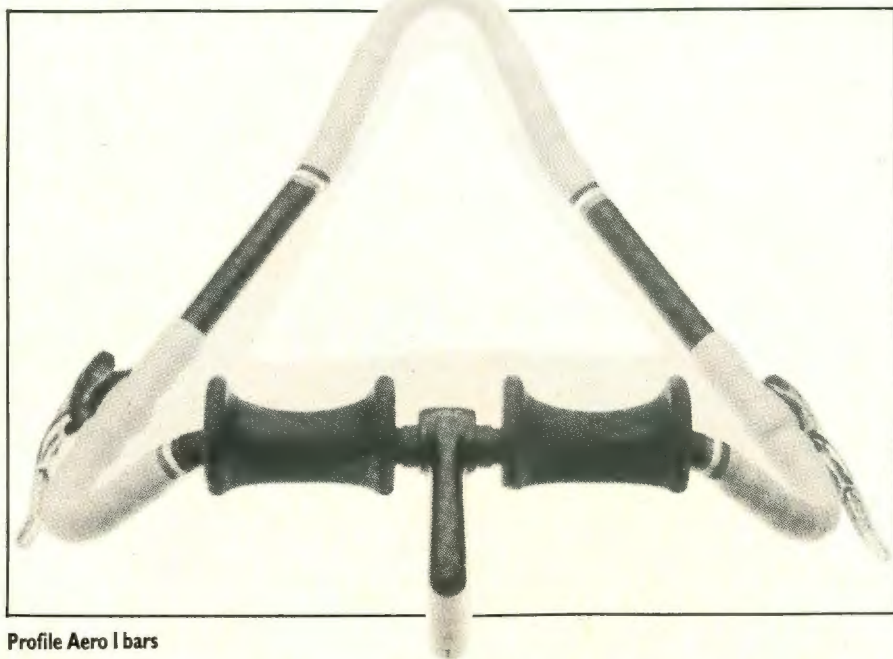
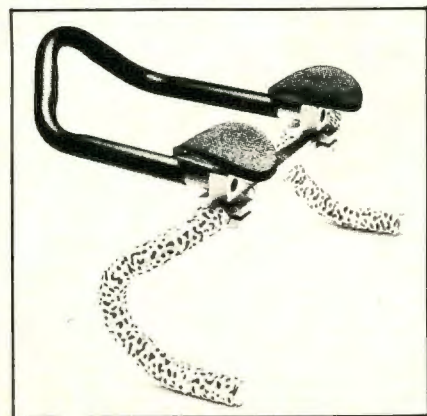
### Full Aero Bars

**Aero Advantage Bar.** Made in Australia, these bars have a similar bend as the Scott DH bars. The big difference is that they are made of double butted tubing, making them stiffer and stronger. The armrest pads are wider, to cradle the arm in more comfort. The bars are powder-coated black or white. The pads and bridge come in black, blue, red and yellow. The bars are available in three sizes, small, medium and large. Recommended retail price is \$135. (Go-Body Pty., Ltd. (02) 913 9840).

**Profile For Speed, Aero I.** Available in two lengths, this bar is provided with padded armrests. It is triangular with a movable bridge that is designed to reduce flex. The design of the bar features a shallow drop near the brakes to allow for a better grip when climbing. Three sleeves are available to fit different size stem openings along with short stems designed specifically for Aero I bars. Recommended retail price is \$139. (Barracuda Sports Products. (02) 550 6555).

**Scott USA, DH.** The DH offers eight hand positions with its numerous bends.

### Profile Aero II clip-on bars



Profile Aero I bars

A plastic bridge reduces flex. Climbing is easier as you can grasp the brake hoods since the design allows the brake levers to be placed almost vertically. Sprinting and cornering are accommodated with deep drops near the brake levers. Padded armrests are provided and the bars are made of 7000 series heat-treated aluminium. Recommended retail price is \$135. (Triaction Imports. (08) 276 5511).

**Scott USA, A-T Four.** Mountain bikes are catered for with this aero bar offering four hand positions. One is similar to a standard off-road bar. Grasping the curves on the outside is like resting on the brake hoods of a racer. You gain added climbing leverage by using the forward flat section. For smooth roads, you have the fully extended position. It is made of 6061 T-6 aluminium. Recommended retail price is \$80. (Triaction Imports).

### Bolt-On Bars

**Profile for Speed, Aero II.** The elevated, padded armrests may mean you won't have to adjust the stem height. The length is adjustable by loosening two hex bolts and sliding the bars forward or back. They bolt to the tops of drop bars. Recommended retail price is \$118.50 (Barracuda Sports Products).

**Scott USA, Clip-ons.** Used by LeMond, these fasten to bars with four hex bolts. It is tilted slightly up at the front and comes with padded armrests. Recommended retail price is \$90. (Triaction Imports).

**Velocity Specialities, Bullet Bars.** The padded, elevated armrests are built into the clamp. The bars are adjustable for length by loosening four hex bolts on the clamp and they are made in Australia. Recommended retail price is \$110. (Velocity Specialities. (07) 289 9262.) ●

## ALL ABOUT DISC WHEELS

BY CYNDI HOLMES

**D**ISK WHEELS TOOK THE cycling world by storm in 1984 when the Italian professional Francesco Moser smashed Eddy Merckx's 1972 hour record. In the space of sixty minutes, Moser rode 51.151 kilometres, beating Merckx's record of 49.431 km by an astounding 1720 metres.

The cycling press speculated that Moser would not even have equalled Merckx's record, let alone surpassed it, if not for the disk wheels he used.

Back in 1938, the world governing body for cycling, the Union Cycliste Internationale (UCI), ruled that "...no device intended to reduce air resistance..." could be used in competition. This essentially outlawed fairings and other aerodynamic appendages.

Moser's disk wheels got around this rule by using the disks to structurally support the rim, rather than using spokes.

The acceptance of this interpretation of the UCI rule led to a controversy centred around the expense; the "haves" could afford to use disks and benefit from the time savings, but the "have-nots" had to settle for standard wheels which they were not allowed to attach wheel covers that would give some aero advantage.

That controversy still rages in Australia, although the triathlon federations in the U.S. and Australia and the cycling federation in the U.S. now allows wheel covers. ►53





# 1990 WINNER'S CATALOGUE

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**MAVIC**

 **SUNTOUR XC**  
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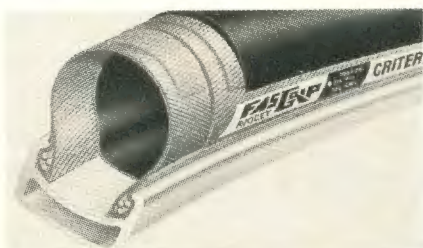


## 2 WINNER'S CATALOGUE



### COMFORT PLUS AVOCET GELFLEX

Next time you head for the hills make sure you take comfort with you when you ride on an Avocet Gelflex Mountain 30 saddle. Avocet Gelflex saddles use the hydrostatic properties of Spenco Gel to give you a comfortable ride over the roughest terrain. Avocet's patented ThicThin cushion support system positions Spenco Gel in an extra thick layer directly under the pelvic contact zone. Skin and muscle are protected because pressure is evenly distributed over the entire contact area. Controlled saddle flex directly under the same contact zones is achieved by reducing the thickness of the saddle base. This controlled flex increases shock absorption, support and overall comfort.



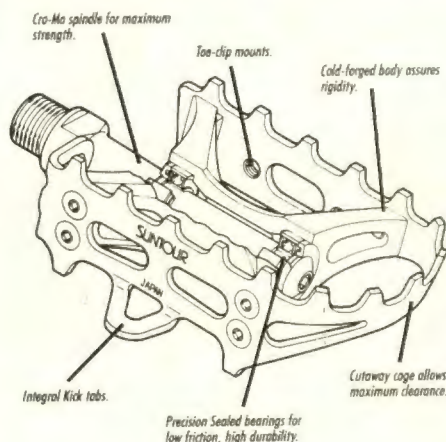
### FAST CORNERING FASGRIP

The Fasgrip's performance is on par with some of the best tubulars with a slick tread that grips on tight corners rain or shine. Fasgrip's special rubber compound and wall construction combines to give for the first time a clincher tyre with the feel and ride of a tubular. Fasgrip slicks from Avocet are available in 700x25c, 700x20c and 27x1" and 27x7/8" sizes with a fold up version available for 700c rims.



### HANDS ON AVOCET

Fine quality track and road mitts with leather palms and featuring thick padding. These finely crafted gloves are double stitched for increased durability and have closed cell foam padding right up the thumb for extra comfort. The lightweight stretchy polypropylene back is perforated for ventilation and quick drying comfort. Available in sizes from XS through to XL.



### BULLET PROOF SUNTOUR XC

Helping the rider and the bike function as one – as a well oiled machine – that's the SunTour philosophy. And this approach has produced the incomparable XC 9000 component group with the amazing XC 10 self energising brake that delivers true power braking for the first time on a bicycle.

SunTour mountain bike component groups all feature Accushift indexed gear shift mechanisms to give you fast accurate shifting in the most rugged conditions. SunTour equipment is the logical equipment replacement choice to keep your off road machine in peak condition.

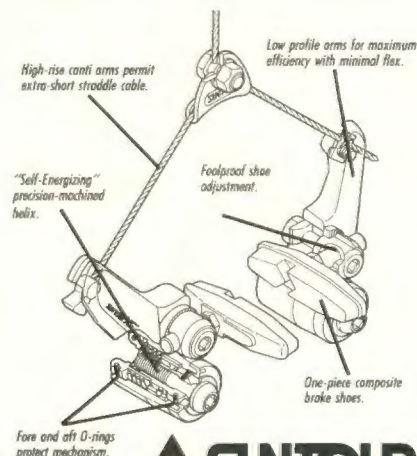
Why are mountain bike pedals heavy, clumsy and ugly? Not the new SunTour XC. These pedals are bullet proof as well as elegantly shaped offering the proven road heritage of SunTour's famous Superbe Pro pedal. Because of its concave profile, high ground clearance and integral kick tabs the XC-9000 is a snap to get into. Add fully sealed bearing assemblies, toe clip and strap capability and a cro-mo spindle you can see why SunTour puts your best foot forward.



### TRAIN AT HOME WITH TACX

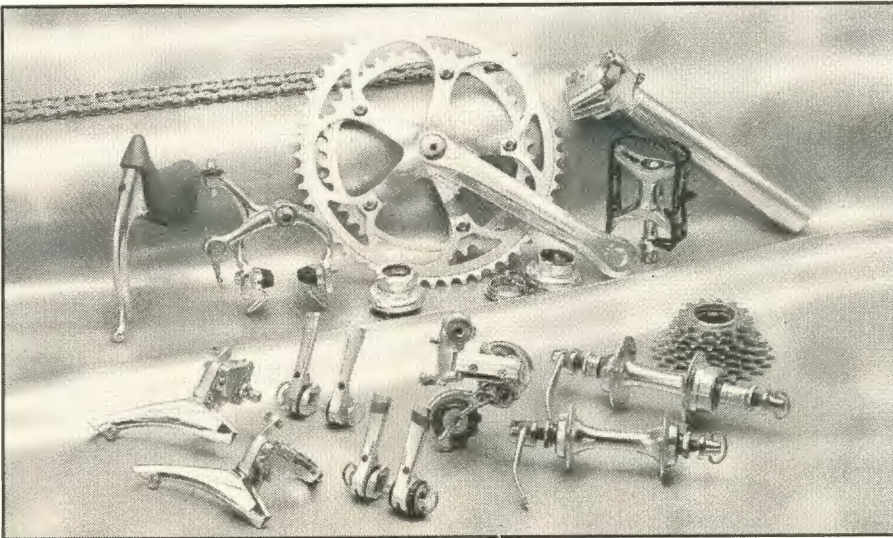
Indoor training is even more fun with the most up to date fitness equipment – the Tacx Variomatic. Since you have your bicycle already set up for comfortable riding why use a separate trainer? Just slip your bicycle into the Variomatic and in an instant you are ready to begin your training session.

The Variomatic is compact and easy to store away – a big plus for flat dwellers. It is adjustable for racing bike frame sizes from 48 through to 65 cm and it weighs 8.6 kg. A handlebar mounted control switch allows you to adjust the magnetic pressure from your riding position. So, don't wait for the winter chill – convert your bicycle now with the Tacx Variomatic.



**SUNTOUR**  
"When the components really matter"





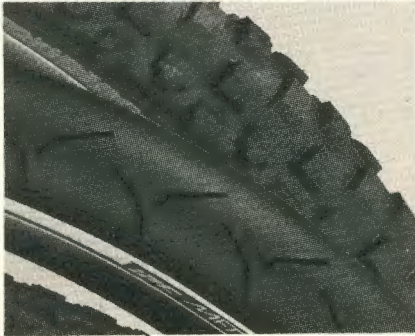
## IL GRANDE CICLISMO: CINELLI

The name behind the men behind the bars is always Cinelli that is if the man is a Tour or Classic winner. Makers of the world's best handlebars and stems Cinelli is continually the preferred choice of the majority of European Pro racers who want the quality and performance that only Italian design and manufacture can produce. Don't settle for ordinary handle bars and stem: insist on Cinelli when you upgrade your machine.



## SUNTOUR SUPERBE PRO

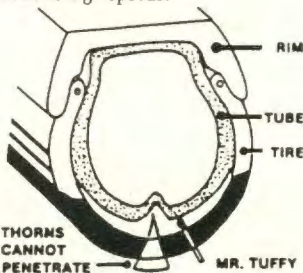
Lean and light SunTour's top of the range Superbe Pro component group has eliminated every gram of excess weight to give you the winner's edge. Superbe Pro minimises friction and aims for maximum efficiency with quick precise Accushift indexed gear shifting on the best rear derailleur mechanism on the market. SunTour Superbe Pro is the choice of some of the world's and Australia's top competitors. Try it for your self and experience the performance difference.



## IRC ARE STREETS AHEAD

When you need to get around town take a smooth comfortable ride on IRC's Metro tyre. The Metro's slick centre tread reduces rolling resistance and improves cornering performance on asphalt and concrete. The unique shoulder tread channels water away on wet roads and improves handling in poor weather conditions.

IRC off road tyres for competitive and recreational rough riding have set the standard by which other tyres are judged. The Racer X-1 Peak has a directional tread pattern based on one of IRC's winning motocross designs. This is a lightweight tyre for those who enjoy superb drift control when cornering even at high speeds!

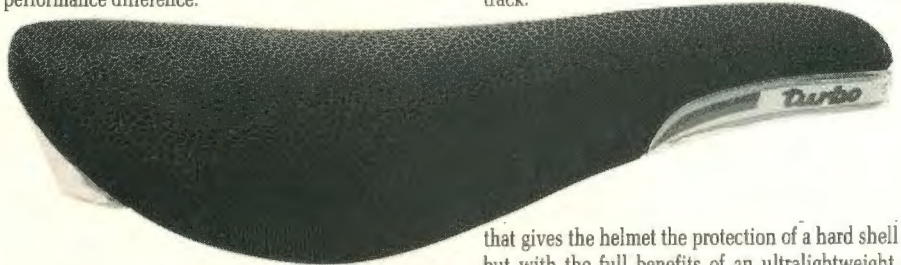


## NO FLATS WITH MR TUFFY TAPE

Sick of flat tyres? You bet you are. That's why Mr Tuffy tyre protector tape is the best invention since the bike wheel. Just insert Mr Tuffy tape inside your tyre and forget about flats. Mr Tuffy tape protects your tube from sharp objects and pinch punctures. It comes in a variety of sizes for most popular tyre sizes. Mr Tuffy protects your tyres against flats.

## ITALIAN DESIGN SELLE ITALIA

Top saddle maker Selle Italia combines comfort with speed to create the Turbo the world's most popular racing saddle. The Turbo has a high quality leather cover, just the right amount of padding to produce a sleek platform for any winning performance. Selle Italia also make a wide range of saddles for off road and general recreational use as well as competition models for triathlon, road or track.



## BELL HELMETS: AHEAD IN SAFETY

Since 1957 Bell has been the worldwide leader in helmet technology making helmets lighter, cooler, more comfortable and safer. Bell helmets come in a wide range of shapes and sizes for every head all with fully adjustable strapping and comfort pad fitting systems. With the advent of ultra lightweight helmets Bell has lead the way with the development of the Microshell - an ultrathin plastic shell

that gives the helmet the protection of a hard shell but with the full benefits of an ultralightweight. The Microshell is available on the new Image model for competition and general adult use and the Li'l Bell Shell the helmet designed especially to protect infants and small children.

In traditional hard shell helmets the popular V1-Pro is still the lightest and coolest. The ultralightweight Quest model has a special internal reinforcing ring embedded in the helmet to further protect the wearer - all the more reason why you should be safe and buy Bell.







## MOUNTAIN MAVIC

When you have to replace original equipment use only pro quality Mavic lightweight components. Mavic rims, the number one choice of the European pro racer, are now available for competition or recreational off road use. Mavic's 12 years of experience with hollow profile narrow rims has enabled them to produce an exceptionally strong and durable rim. Try either the Oxygen M6 or the incomparable M6CD with heat treated grey anodised surface finish. Both have stainless steel double eyelets. Mavic for the serious mountain biker.

Mavic Paris Dakar hub sets were originally developed for and named after this famous mountain bike cross country race and were made to combine extreme lightness with Mavic durability. They're lighter and stronger than most alloy MTB hubs and have with sealed bearings, Mavic's exclusive clamping system and a unique hard anodised axle.

Like Mavic's renowned bullet proof rims and hubs the Mavic mountain bike headset is made to last with its longer top cone thread length and its easy to service allen key bolt clamping device to give superior vibration resistance where it counts.

## QUICK-FIT: EASY AS 1-2-3

From the makers of Australia's most popular bicycle carrier for cars, the Kangaroo Bike Beak, comes the Quick Fit bike carrier. If your bike has quick release wheels then your car should have a Quick Fit bike carrier fitted to its tow bar. It's easy to fit the Quick Fit. Just slide the foot into the main housing and secure the simple two step locking device, load on up to three bikes and you're on the road. Easy safe and strong: the Quick Fit Kangaroo Bike Beak.

## AVOCET CYCLOMETER 30

Still the smallest cyclometer on the market the Avocet Cyclometer 30 now comes in a dazzling range of colours as well as basic black. The Avocet 30 has a large easy to read display that gives you a read out for six critical facts: speed, maximum speed, trip distance, total distance, elapsed time and clock time. Its controls are easy to operate even in race conditions which is why it is the choice of the top professional racing cyclists.

## BYTE SIZE SIMPLICITY







**48►** If you're looking for an aero advantage, the first place to start is the front wheel. Reducing frontal area by using an aero front wheel can save you 40 seconds in a 40 km time trial.

You'll usually only see disks used on the front when the wind is very light, or better, non-existent. The surface area of the disk can make handling of the bike very difficult in a cross wind.

When it's windy, you're best bet is a wheel built with a narrow V-section rim, narrow tyre, and 28 or 32 bladed spokes (depending on your weight) laced on a radial pattern.

The new three and five-spoke composite wheels give you another option for the front wheel. These have the advantage over front disks because they would not be affected by crosswinds.

Disk wheels used on the rear are said to save about one minute in a 40 km time trial.

Here's a listing of disk and aero wheels available in Australia. As most are imported, note that prices are highly subject to change.

**Aerosport** make two wheels that can be used for road or track. The Trialist is a 1050 gram rear wheel selling for about \$999. It has a nomex honeycomb core with a replaceable aluminium rim. The Accel is the lightest available at 706 grams. For \$2999, you get kevlar/epoxy disks with a graphite/epoxy rim and a special lightweight hub. They can be used as back or front wheels and are available in 24" and 700c sizes. (Baracuda Sports Products (02) 550 6555.)

**Ambrossio Roulett.** You won't be gambling with this 1350 gram rear wheel. It's made of a composite of PVC, fibreglass and honeycomb. It can be used for road or track and retails for about \$900. (CWC Imports (03) 328 1867).

**Araya's** carbon fibre disk is available in a rear wheel road version that has been popular with triathletes. It's black and sells for about \$750. Weight was unavailable. (Repco Cycles).

**HED** rear disk wheels are the most-used disk in the U.S. The most popular model in Australia is the 1100 gram Carbon Fibre model, selling for \$900. The Light model at 850 grams is one of the lightest available. There is also the 950 gram Professional model. These wheels are lenticular (convex) and hollow in design. This gives the wheels better shock absorption and easier handling. (Tri-Action Imports. (08) 276 5511 and Baracuda Sports Products (02) 550 6555).

**Lollipop's** disk wheels have a fibreglass model selling for \$690 and a carbon fibre model for \$900. Their weights are 1200 and 990 grams respectively. These new generation wheels have aluminium rim inserts that protect the rim and a lighter inner foam core. The hubs are lighter and can be reversed to suit road or track. Made in New Zealand, they are available in black, white, red, blue and yellow. The carbon wheel is available in black and white only. (Sports Plus (02) 360 4644).

**Mavic** make three models of front and rear disks that can be used on road or track. The popular Challenger is an alloy wheel that weighs-in at 2600 grams for the 650c (25") front and 2300 grams for the rear. Prices are in the \$500-600 range (Hanley Trading Pty Ltd 02 666 9633).

**Comete** wheels are carbon fibre, with an 18mm rim width. The hubs have sealed bearings. The front 650c wheel weighs 950 grams and the rear weighs 1140 grams. Prices would top the \$1600 mark.

**Bulb 'Air** front wheel was designed to make handling more precise. This 650c

carbon fibre front wheel is lenticular and weighs only 780 grams. Price not available. (Hanley Trading (02) 666 9675).

**Sugino** 75 carbon fibre rear wheel can be used on the road or track. Price and weight unavailable. (Hanley Trading (02) 666 9675).

**Uni Disk Cover** is an option for triathletes. Weighing only 140 grams, this urethane-coated nylon cover stretches over alloy hoops. The maker claims it reduces spoke-drag by 40%. Available in black, red, yellow, white or blue, each sells for about \$75. Tri-Sports (02) 918 3910).

**Wolber** makes several models of its widely-used Discjet. All can be used on the road or track and feature carbon fibre rims with a honeycomb core. The more expensive models have Kevlar disks. All models are not stocked, but can be specially-ordered through your shop. (Cycle Circuit (02) 997 6606).

**Zipp** have both a disk and a tri-spoke. The Predator features a lightweight 240-gram composite rim that reduces peripheral mass and is durable. It is a flat-sided disc made from carbon fibre laid over a foam core. The black model weighs 1150 grams, selling for \$900. The white, red, blue and yellow models weigh 1250 grams and sell for \$950. The Zipp Eliminator 3000 is a tri-spoke composite wheel available as a front or rear. They are less affected by the problem of crosswinds. They may not be quite as aerodynamic as disks, but they are the answer for windy courses, like the Hawaii Ironman where disks are banned. RRP is \$1330 for the front and \$1430 for the rear. The front weighs 850 grams, available in black, white, red, blue and yellow. (Tri-Sports (02) 918 3910). ●





Cartoon by Phil Somerville

# FROM FLAB TO FITNESS

Getting started in bicycle riding – a true story

BY JOHN THORPE

**T**HERE WAS NO DOUBT about it; it was time. I didn't need anyone to tell me – I knew the truth. I looked like the before side of a Weight Watchers add, and out of shape, let me tell you. Some people get tired walking from the bus to the office; I got tired just thinking about it. To some people a few flights of stairs can be a problem; to me they were like the north face of Mount Everest in mid winter. And my idea of roughing it: why black and white TV of course.

So there I stood on my lunch break, meat pie in right hand, chocolate milk in

left, stomach hanging over belt and shirt buttons straining to contain their cargo of lard. I was looking at my reflection in a shop window, thinking, "it's time, look at yourself, you have to do something".

Then I saw it, behind the very pane of glass which was reflecting my pitiful form back at me, it was magnificent, it gleamed and shone: the answer; my salvation. It said to me in a voice only I could hear, 'I will save you, I will return your once healthy body to its former glory. Come to me, I am the answer to your prayers'.

Slowly I walked into this curious tem-

ple of fitness, I found myself surrounded by strange sights and even stranger sounds. Lycra clad bodies passed by me their lips giving voice to a language strange to my ears, worlds like Netti, Minoura, Shimano, Dia-Compe and Campagnolo filled the air.

As I walked passed row after row of the strangely shaped machines, memories of my childhood came flooding back. Fit taught and terrific, tearing around the streets on my trusty treadingly without a care in the world.

I made my way to the window, to the heavenly creation which had drawn me into its presence as if by some mystic force. I stood before it, marvelling at the shape of it, its fine lines, its total completeness.

"You've got good taste," came a voice from behind me. I turned to be greeted by the smiling face of a man whose face was my age but whose body was one that any twenty year old would be proud of.

"How much would something like this run to?" I asked.

"Oh about \$2,800 depending on the type of gearing you want".

"Good God!" I reeled back in horror. "Who would pay that much for a push bike?"

"Well it's a little more than a push bike, it's what you would buy if you were dead serious about competition road racing".



"I just want to get fit and lose some weight, how much would I have to spend on something to ride to and from work?"

"Let's have a look" said my new friend as he guided me off towards one of the rows of bikes.

Half an hour later I left the store proudly pushing my brand new twelve-speed touring bike, complete with lights, reflectors, stand and carry rack. I had listened intently as the gearing was explained to me, but chose to ignore the advice on riding pants and helmet as a sales pitch, 'Didn't need them when I was a kid, don't need them now.' Besides with my rear end it would look like two Koala Bears fighting under a lycra blanket as I peddled along.

I declined the offer to deliver my new mode of transport, "No, no I want to get straight into it, I shall ride home" I stated with consummate ease.

The afternoon ticks by. I phone my wife, "I will be a bit late tonight dear, I have a surprise". My mind fills with visions of me whistling down the road, home to wife and family, on the way to a new me.

Five o'clock arrives, I make my preparations for departure, my work colleagues gather around to watch in amused amazement. Trouser legs are tucked into socks, tie is loosened, I mount with the grace of a geriatric elephant. A wobble, a nervous smile, an attempt at a wave (which almost costs my life), and it's off on the eleven kilometre trek home.

How far do I get? Half way? One kilometre? Five hundred metres? Not even close, try two blocks, well almost. Oh the pain, the lack of air, the feeling of stupidity. Now what did he say about the gears, oh yes, stay on the small gear, and pull the one which controls the what's-it towards me when I am going slow and push it away when I am going fast.

I drew back on the lever the derailleur clicks wildly, the chain rattles, my legs begin to pump like out of control pistons, I lose control and my feet fly from the side of the road. Where is that bloke who said "once you learn to ride a bike you never forget" maybe he would like to ride this contraption home for me?

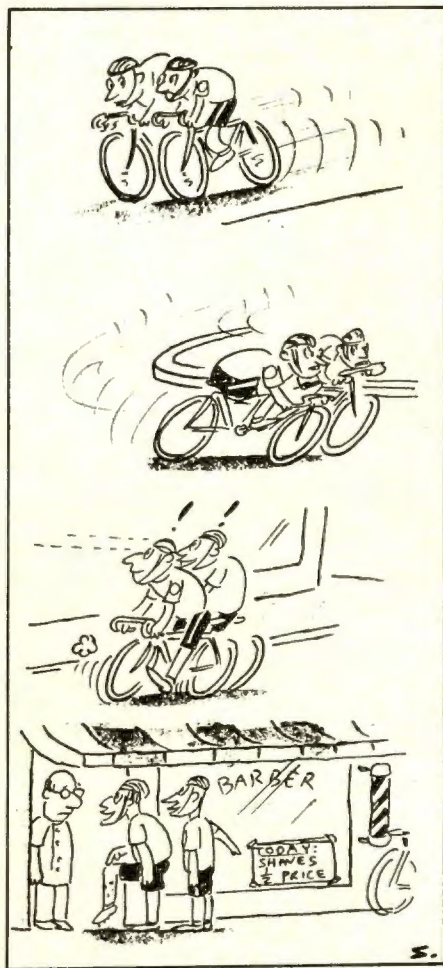
Night draws close, dusk settles, the home light is lit. Where is dad I imagine my children lament to their brave faced mother. At least I see it in the distance, our three bedroom terra cotta paradise, it never looked to so good.

The family rush out to greet the all concerning road warrior, as his sweat drenched body slumps from his speed machine, imagine eleven kilometres in only a touch over one and a half hours,

most of which was spent trying to work out the gears. Oh the speed of the man, the mind blowing soul tearing speed.

My wife looks at me, looks at the bike, looks back at me again with that (why did I marry this fool) look. Children squeal with delight, I try to smile a reassuring smile in between handfuls of water from the garden hose, and vain attempts to recover my breath.

I wake next day to discover that, I cannot walk, the inside of my legs are red raw, and I am aching in places that I have long forgotten existed. Thank God it's Saturday. Half an hour in a hot tub full of Radox while outside there are stifled snickers from the wife and cries of: "lets go for a ride dad".



Monday comes, I am ready, Sunday spent with my ten year old son and eight year old daughter learning the finer points of the gearing. I have put powder down the front of my electric blue track suit, change of attire is placed on rack with my (captain of industry) brief case. I mount. It's seven am; will he make it by nine? And more to the point will he be able to walk if he does?

"Have no fear" I cry. Does he make it? Of course he does, red faced puffing

like a bull on heat, insides of legs chafed to bits, but there he is.

Lunch comes, salad is consumed, off I waddle to the bike shop. Five o'clock arrives, howls of laughter from fellow workers as I emerge from the mens locker room wearing my brand new Netti shorts, liberally greased with a soothing lotion purchased from the bike shop. I console myself with the fact that, perhaps it's better to look like a couple of pugilistic koalas than to have a crotch which looks like an over cooked crayfish.

Then it's off home in a blistering one hour and ten minutes, twenty minutes off my P.B.

As the weeks go by I make some remarkable discoveries about cycling, such as: a rider who rides in the rain gets wet; a rider who rides behind a bus gets his lungs full of diesel fumes; the rider who pays to close attention to young ladies' rear end ends up crashing into parked car and then is forced to lie to the wife about the true nature of the mishap; and the rider who falls off bike while trying to avoid old lady in 64 VW usually ends up with large bump on head.

A helmet makes the rider look like escapee from cheap science fiction novel, but at least the rider feels safer.

Goldie the neighbours very placid friendly, loveable German Shepherd is transformed into a satanic beast at the sight of this rider, and most amazing of all, car doors mystically spring open when the rider approaches.

As the months go by the desired results come. Slowly at first, my weight starts to drop, the one hour and ten minutes becomes forty minutes, then thirty five and then it drops below thirty.

I become friendly with the folks at the bike shop. As I change and improve so does my bike, new pedals with toe clips, then my first pair of cleats. Around comes my birthday, I meet it 13 kg lighter, and discover that socks and ties have been replaced with riding gloves and tunics.

My new lifestyle is creeping in to my work. Gone is the suit and tie, now I am the height of fashion in my slacks and Lacoste tops (why did I ever wear a suit in the first place?) I am constantly hearing the three most desired words in the English language: "you've lost weight."

Oh what a sight the family now makes on the weekends, all in the park, cycling to our favourite picnic places. Mum on her (second hand got it from a friend, pink and practical 3 speed), my son on ▶



►his BMX engaged in a constant search for any light rise or bump on which he can become airborne if only for a few seconds and our little girl, so cute on her bike peddling like mad trying to catch her big brother.

And so it went on for a few more months, then it happened: the madness started. It was all so innocent at first, I dropped into the bike shop one Saturday morning to pick up a new tube for my son's bike, while I was standing there chatting, my attention was caught by a poster near the counter "Heart Foundation Fun Ride - 50 km - age groups and novice section - breakfast and tee-shirts included in entry fee".

Why not, I thought, a tinge of excitement running through me. I entered on the spot, and raced home to tell the family.

So there I was on the big day, bike striped, gone was the stand, the lights and the carry rack. I am grouped with the 40s and over novice section, polite chat as we wait for the starters gun, then with a flurry of excitement we are off. The young bucks sprint off never to be seen again. The older of our group of oldies slowly fall behind us. I try to stay out of trouble and remember what I have learnt from my magazines and chatting to the guys at the cycling shop.

10 km and to my astonishment I am doing all right, still with the bunch. 25 km and we are thinning out, but I am

still there, concentrating. Remember: spin, 90 rpm, use your gears, try to draft, don't let anyone get too large a break.

35 km and there are only a few of us left from the original group, I have settled into a rhythm which has placed me behind the others.

40 km and things are getting serious. We are drafting, making little sprints, trying to shake one another and I am in there with them, mixing it up, giving as good as I am getting.

Ten kilometres to go. This may not be the Tour de France but it sure as hell feels like it. The adrenalin pumps, I feel alive, the sound of the tyres humming, the click of the gears, the grunts as riders go up onto their pedals to strive for a few extra metres.

One kilometre left. It's down to the three of us now. I am in second place, tucked in tight behind the leader. I hear the sound of the other rider fading. Good, I think, it's just him and me now.

Gears click, I move out from behind him. I feel a surge of euphoria as I go past him. I glance at his face as I pass. It's there for me to see: he is beaten.

Five hundred metres and I can see the line. I am so excited I hardly notice him: the guy who was behind me before I went after the leader. He is next to me - no he is in front. I am struck by a conflict of emotions: surprise; disappointment; and then, thank God, anger.

I attack. Yes, that's right, me! I throw everything I have at him. My lungs want to burst, my legs scream for mercy, I don't listen. I want him so bad I can taste it.

A hundred metres to the line; we are both out of the saddle, bikes rocking wildly, wheel for wheel. Who will cross first is the only thing in our universe at the moment. It doesn't matter that 30 other riders have already finished - it's us now - him and me. No one else exists.

We come up to the line and I put my last bit of strength into one final burst. Oh the pain and yes I go to the lead: a half a wheel; then a wheel. He slips back. I have beaten him.

I go across first.

I can't begin to describe the feeling. My wife and I kiss and she congratulates me on my effort. The other guys I was racing with come over to greet me with lines like "hell of a finish" and "been racing long?"

I think to myself, I have won. Oh not the race - I didn't even rate a mention there - but I won something more important: I won MY race and that is what is important.

That was 18 months ago and I can still see the look in my wife's face as she walked around my new bike the day after the big race. "It looks like your old bike darling, can you explain to me again why it cost \$2800?"

DON HATCHER

## TIPS FOR THE TRACK

WHILE ENSURING A GOOD START IS AN ESSENTIAL PART OF HANDICAP RACING ON THE TRACK...

REMEMBER WHAT THE WORLD'S GREAT RELIGIOUS LEADERS SAY ABOUT 'MODERATION IN ALL THINGS!'





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# BIKES FOR WOMEN

A guide to the special needs of women riders

BY WARREN SALOMON

**A** WOMAN AND A MAN OF equal height differ fundamentally in their body dimensions. Most women (every person has their own shape and body size it's up to you to find out yours) have longer legs, shorter torsos, shorter arms, smaller hands and feet, narrower shoulders and a wider pelvis.

Opposite page: Look carefully; this woman mountain biker is riding a 1987 Shogun 4x6 mountain bike. In order to keep the top tube horizontal Shogun's frame designers resorted to a 24" front wheel along with the conventional size 26" rear wheel. Photo courtesy Shogun/Bikecorp. Above: The latest approach to women's frames is to embrace the sloping top tube and use the same size 26" wheels. In fact even the larger size Shoguns will have sloping top tubes this season. Photo courtesy Diamond Back.

As bicycles are sized on a person's leg length this should be put another way: for men and women with the same leg length the woman will have the shorter torso, smaller arms, wider pelvis shorter overall height, narrower shoulders and smaller hands and feet. Get the picture?

Translated to the bicycle frame women who have been sold men's bikes in the last one hundred years have probably been putting up with a lot of discomfort and pain while their men friends have all the cycling fun. A woman on a man's bike will find that: the top tube is too long; the handlebars too wide and possibly too greater drop (if it is a racing bike); the saddle too narrow and too long; and the brake levers to big.

In the USA there are more women riding bikes than men. Sure those

women are not racing cyclists but then again competitive cyclists are only a small minority. Recreational cycling is where the numbers are and that's the way the situation is developing here in Australia as more people of both sexes take up cycling.

For anyone looking for a reason why women have up until only recently been the minority group in the cycling world one only has to look at the bicycles women have been sold. A bicycle which does not fit one's body is uncomfortable to ride not at all like the ideal of a good machine: that it should disappear under you. A properly sized and fitted bike is only the vehicle to a pleasurable experience. You shouldn't have to put up with pain; the bicycle *should* be comfortable.

Maybe its all because of a lack of proper marketing. Marketing is not about forcing products down the throats of the customers but responding to their valid needs and finding the right product to aid their cycling enjoyment. Sure the industry has its problems supplying all the mens sizes without adding women's bikes to their inventories but in a field where fit is all important the additional sizes *have* to be stocked if the industry is to progress and flourish. To hell with colours – the right size is the most important factor in the successful bicycle purchase.

Because of the small size of the Australian bike industry very little real marketing can be done. All of our products come from USA, Asia or Europe and what happens in those markets is sooner or later picked up by the local importers. Luckily for the growing group of women cyclists a couple of the smaller entrepreneurial wholesalers have picked up on the trend started in the USA by an east coast frame builder Georgina Terry.

Terry is an interesting person with a passion for cycling and a degree in mechanical engineering to boot. She began building frames for women because she could not buy a correctly fitted frame for herself. Her back yard business has grown and has become so successful that the major companies are now following her lead and are actively promoting their own women's bikes.

## The bikes

In Australia at the moment there is a growing awareness of women's needs but the few bikes built with competitive road racing women in mind are still looking like products a little ahead of their time. Last year when we studied the women's bike markets there were only two companies offering bikes designed for women: Atom and Shogun.

Some of the other brands are now, at last, offering smaller frame sizes which will satisfy many women but often a bike with a smaller frame (shorter seat tube) is still not a good women's bike – its top tube is still too long etc. ▶





**Even dogs look good in black.**

**SVNSKI<sup>®</sup>**  
**BLACK**  
LABEL  
S U N G L A S S E S



► The Atom Women's Sprinter (and some shops still sell this bike) is a single model bike in five frame sizes (44.5, 48, 52, 54.5 and 57 cm). The bike is based on the original Georgina Terry frame geometry and so women will find all the frame sizes built for them.

The three smaller sizes have a 24" front wheel and 700c rear to maintain a horizontal top tube a good size head tube and adequate wheel clearance on the toe clip. The Sprinter's frames are made from Tange 900 chrome moly tubing and are fitted with Shimano indexed gears. The bikes come with other features such as wider saddle, narrower handlebars and short reach brake levers.

Some riders may balk at the idea of having two tyre and tube sizes to contend with but for smaller riders (shorter than 162 cm - 5' 4") there is really no other practical alternative if a sloping top tube is to be avoided. It is a shame that this seemingly minor point has turned many retailers against this otherwise good machine. With the popularity of this style of bike growing in the States the range of 24" tyres is improving all the time.

Atom were the first onto the market with a true women's bike and they should be congratulated for doing it so well. However unlike the USA the numbers of women cyclists wanting a top quality racing machine is still very small and it would be a shame to see this worthy development abandoned at a time when competitive womens cycling is beginning to grow.

Almost all models in the Shogun mountain bike ranges have frame sizes as small as 40 cm (16") and they also have racing bikes down to 46 cm (18"). All the smaller size Shoguns try to match the componentry to the size of the rider. Because the manufacturer is attempting to be all things to all sexes the larger frames still favour the "boys".

Tall girls may still find the frames a bit long in the top tube. In spite of these compromises the Shogun system has to be applauded for at least recognising that smaller riders (mostly women) have to be considered in all areas of bicycle and component assembly.

### Custom frames

Frame builders are like exclusive fashion designers, dressmakers and tailors. They should be able to build a frame to fit you like a smart fitting jacket, skirt or full length dress.

Most frame builders these days work in with bicycle retailers so start your search by checking what the dealers have to offer. Ask them if their frame builder has built frames for women before. If they have then it's a reasonable indication that they will do a thorough job and you will get the right size frame. Frame builders need to take measure-

ments to determine inside leg, torso arm lengths etc to size the frame. This is usually done by your dealer so wear your cycling clothes (shoes too) when you turn up to get measured.

### Clothing

Much of the cycle clothing sold at present is cut for the male body so always make sure you try before you buy. All the major cycle shops have clean change rooms (or should have). Avoid buying cycle clothing from department stores as this type of clothing is cut for ordinary street wear and is often not suitable for cycling.

### Equipment

The biggest breakthrough for women came about ten years ago when the US

Avocet company released its popular range of womens anatomic saddles. The latest and greatest in this range is the women's Gelflex saddle. This superbly comfortable bike seat is shaped for the female pelvic anatomy and is topped with inserts made of Spenco Gel a type of synthetic body fat which absorbs most of the road shock that would ordinarily reach your posterior.

The women's saddle apart from being wider than the men's type is also shorter and has a smaller snout. If you don't like the saddle on your bike it only takes 5 minutes to fit a new one unlike the handlebars which take ages (you have to remove the brake levers and tape). Handle bars should be the same width as your shoulders.



### When is a woman's bike a ladies bike?

In the latter part of the twentieth century throughout the English speaking world we have become used to calling the female of the species women and girls as we do the male: men and boys. Nowadays one can forgive the occasional public debater for their overuse of the terms "ladies and gentlemen" as a form of colourful rhetoric as we also forgive municipal authorities for laziness in not painting over similar terms often used to separate the sexes in public toilets. Why even our politicians now refer to "men and women of Australia".

Not so in the bike trade it seems. That quaint old term "ladies" is still used widely and selectively to denote bicycles with a step through frame. Terms such as "women's frame bike" "woman's bike" seem too radical to contemplate.

Let's face it fellahs the bike industry IS ready for the nineteen nineties but your terminology needs to catch up or you will be left behind in the marketing scramble. Bikes that address the special needs of women are sorely needed in this most male dominated of all sports (not counting footy) so there should not be a problem in calling step through framed bikes women's bikes.



Apollo places great hope in the younger generation. This year the company has six kids models.



# HOT STUFF

## What's new in bikes for kids

**BY WARREN SALOMON**

**W**HY SHOULD ADULTS have all the fun. Kids invented the BMX bike and that sure is fun to ride but what about all these oldies, now seen everywhere, screaming around the bush tracks on those big chunky fat tyres. Why can't kids have that type of bike to ride too?

Hold tight kids because the big news this season is the arrival on the Oz scene of full featured mountain bikes for kids.

Big bad Repco are streets ahead of the rest this year with their range of kids' machines headed by the Hornet—a 20" wheeled model with proper mountain bike handlebars, brake levers and stem as well as five-speed gears. This steel rimmed machine also has unicrown forks and an anatomic saddle. Great for leaving the BMX kids in your dust.

The Malvern Star Fury is definitely a

step up from BMX with its five speed gears MTB style controls unicrown front forks and straight black handlebars. It has 20" chrome steel wheels a steel one piece crankset plus steel caliper brakes front and rear.

For bigger kids Mongoose has THE bike. Maneuver is the first lightweight 24" wheeled 18-speed mountain bike built only with kids in mind. Forget the steel wheel brigade Maneuver has Araya 7X alloy rims fitted with 24x1.95" Tioga Farmer John's Nephew skin wall tyres. The frame is made from Tange chrome moly tubing and designed by Mongoose to give better handling (for a bike this size) than any scaled down MTB replica could.

Like a full size MTB this bike has indexed bar mounted controls and alloy triple chainrings. Mongoose alloy front cantilevers and a rear U brake give smooth powerful braking; power like you've never experienced before on a

small wheel bike. The Biotex saddle is fitted to an alloy extra long seat pillar fixed to the frame with a quick release clamp.

Ricardo has also introduced a 24" wheeled version of the Bombora in its 1990 range. This bike has ten-speed gears, alloy cotterless cranks, alloy side pull brakes and steel rims. It's no lightweight but it's certainly built to take rough treatment.

Like Ricardo Apollo, Repco and Malvern Star all have 24" wheeled mountain bikes in the low end of their ranges. These bikes are heavy but robust machines and typically have 10 or 12-speed gears, alloy crankset, (the Malvern Star Mustang has steel), steel rims, alloy caliper brakes and non-indexed gear controls.



None of the Shogun range of mountain bikes has 24" wheels but they do build their frame sizes down to 45 cm (17") as do some of the other mountain bike makers like Repco, Miyata, (Apollo's two top models come in 16" frame sizes).

In the straight BMX area there is plenty to choose from this year with the GT range all looking like the top pro machines they are. GT's BMX range consists of four racing models and four freestyle (one of the freestyle bikes is a junior. The Pro Series Team model has a chrome moly frame and fork, GT light alloy cranks and alloy rims. Other models in the range are Pro Series, Mach One and Interceptor. In addition to GT bikes the Australian distributor Dojolorn also imports Robinson BMX competition machines. There are three top quality models in their range: the top of the line Pro Team; Pro and MX.

The traditional Mongoose BMX lineup consists of Californian Pro, Mini Californian (fitted with 20x1 1/8" skin wall tyres), Expert and M1. All models feature the Mongoose whishbone style rear stay assembly. The M1 has a hi-tensile frame while all the others use chrome moly tubing.

### New season trends

What a lot of people are wondering this season is whether the current strong and continuing interest in adult mountain bikes will trickle down to kids' machines. Uppermost in the minds of those who run the industry is the thought that as a rule parents in the past have preferred not to spend large sums of money on their kid's bikes primarily because they grow out of them too quickly.

However there is another motive for the apparent lack of concern for quality in children's bikes (compared with the

bikes adults buy them selves) and that is the fact that up until now few adults have ridden bikes anywhere near as much as their children. When adults ride more often for fitness and pleasure they get to realise the benefits of riding good quality equipment. Sooner or later, if they are really concerned about their kids, they will want them to have a bike of at least the same quality as the one they ride.

This trend is already obvious in the USA where experienced cyclists are now demanding (and are being supplied with) bikes for their kids with alloy wheels, better braking systems (cantilevers on mountain bikes) and wide range indexed gears. In short these people want kids' versions of the types of bikes they ride.

If you have ever taken your kid out on a longish trip and watched how they huffed and puffed to keep up with your multi speed lightweight while their little legs pushed around those tiny but heavy steel cranks you will welcome this trend. I only hope that our children won't have the same frustrating experiences that we had when they become parents. The way things are heading I am hopeful they will not.

## BUYING A FIRST BIKE FOR YOUR CHILD

**K**IDS GROW FAST. THAT'S the first problem which confronts any parent who wants to provide their children with good quality bicycles through to their teenage years. How long will the current bike last before they grow out of it?

It is often the obsession with this problem that sends most parents into the department stores looking for the lowest possible price. Even if the bike is obviously poor quality its purchase can be justified by the easy statement: "Oh they'll grow out of it quick enough".

It's also a problem which confronts the specialist dealer committed to a better quality product backed by professional after sales service.

Unfortunately most parents take the cheap option and eventually these bikes end up in the dealers' shops for repair. This type of approach is poor economics because the resale value of a cheap chain store clunker is usually zero after a year in the hands of any vigorous kid whereas a well built quality bike will last longer and fetch a higher price when the time comes to trade it in for a bigger size.

Kids' bikes usually come in three basic sizes determined by the wheel size not as adult bikes are by frame size: 12" for really little kids up to 4 years; 16" for kids 3 to 7 and 20" for 6 to 12 year olds. As the 20" BMX type bike is so widely used by children of all ages it is not uncommon to see strapping adolescents pedalling around on these little machines long after they should have progressed to an adult size bike.

When shopping for a kid's bike use the same fitting procedure as you would to fit yourself to an adult bike. Get your ▶

Sure to be a trend setter is the Mongoose Maneuver with chrome moly frame and mountain bike features.





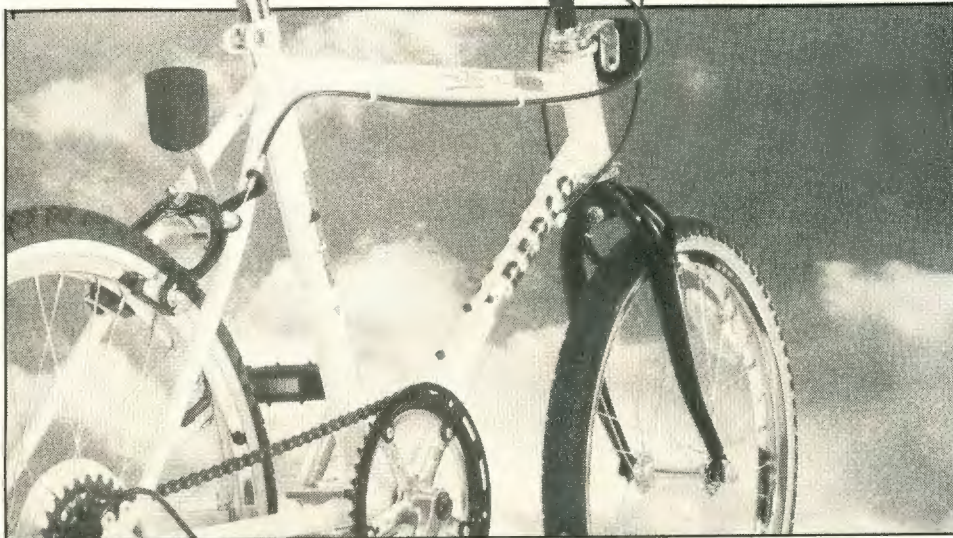
► child to straddle the frame and check to see that there is sufficient clearance above the top tube. Then sit them on it and holding them upright check their pedalling action to be sure that they are not too big or too tiny.

Trainer wheels are usually fitted to little kid's bikes as a matter of course because the smaller the child the less developed is their sense of balance and motor skills. Many parents prefer to wait until they are big enough for a 16" bike or even a 20" bike before letting them ride a bike of their own.

Bike shop professionals all agree that the best type braking system for a kid's bike is a back pedal coaster brake. The Australian standard now requires that all bikes have both front and rear brakes so all but the 12" bikes have front caliper brakes in addition to the coaster brake.

Most little kids will not have enough strength in their hands to work the front brake which is not a bad thing because the back pedal coaster brake is usually quite adequate and you, the parent, won't have to worry about them toppling over the handlebars when they accidentally lock the front wheel by applying the brake too strongly and too quickly.

Unfortunately the bike industry still is heavily into the pink-is-for-girls syndrome though they have moved on from the blue-is-for-boys colour schemes of



the past. Hot pink is decidedly this year's colour for girls but if you find this type of soft pedalling gender stereotyping a bit much shop around. You will eventually find that some bike makers are a little more creative with their kids' bike colour schemes.

When shopping for a bike make sure that you end up with one that has real

Repco's kid's bike in hot demand this year is the Hornet a 20" wheeled 5-speed mountain bike.

bearings. Often cheap bikes do not have ball bearing headsets, pedals and bottom bracket. If you must buy from a department store take along someone who knows a bit about bike mechanics so that you don't end up buying your child a complete lemon. ●

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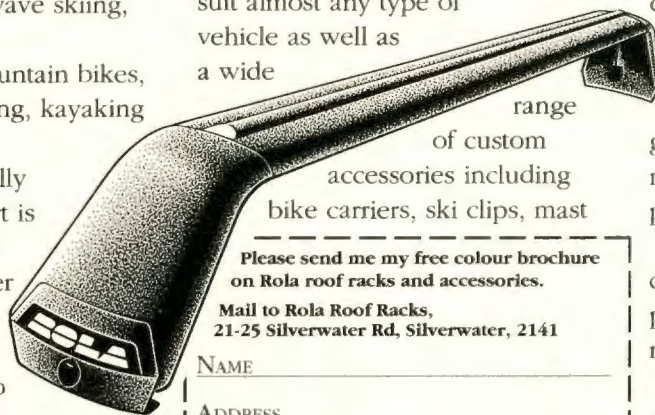
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Darrell at the plane table checking on the alignment of one of his Llewellyn frames.

# CUSTOM MADE

Buying a custom frame and building your dream machine

BY CYNDI HOLMES

**W**HEN YOU'RE READY TO plunk down several weeks wages for a custom frame, you should be damn well sure you're being a good shopper. Here are some tips to help ensure a happy purchase:

Choose a reputable builder: ask around. When was the last time you saw a glossy advertisement for a frame builder? They thrive on word-of-mouth, so you'll probably hear about one. If you find one that you haven't heard about, ask for names of a few satisfied customers. How many frames have they built?

A few have built thousands and many have built hundreds. To play it safe, you might want to pass over the person who has only built a small handful so far. Don't expect to see certificates or licenses gracing their walls; most builders learn from other builders or are self-taught.

Tell them what you want: But be careful not to tell them how to do it! Remember that you're paying for a builder's knowledge and experience; chances are that they know a lot more about frame building than you do. You'll get on with your builder well if you tell

them what sort of riding you will be doing (be honest). Tell them about what you've liked or disliked about your current and previous bikes. If you have a definite idea of how you want the bike to handle in different situations, tell them.

Only a few experienced cyclists will know enough to specify a particular angle or dimension; this will usually be because they are getting a copy of an existing bike made. So, leave it to the frame builder to toy with different combinations of tubing, lugs, angles and dimensions.

Conversely, you should definitely specify what parts you are going to put on the bike as these could affect the design. Things like brake reach, type of pedals, length of cranks, brand of headset and type of gear levers could all make a difference.

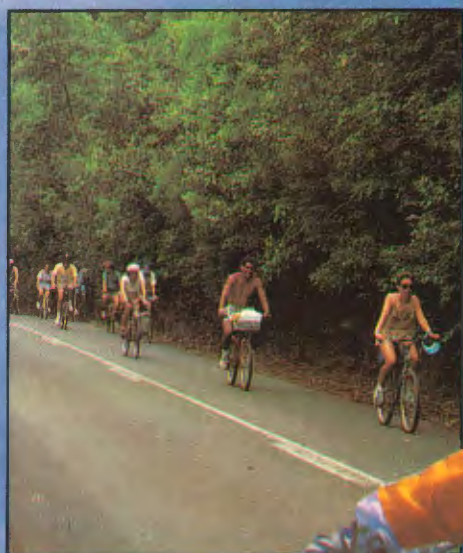
Avoid colour paralysis when it's time to decide on the paint job. As most builders use paints that are also used on cars, if you ask what brand of paint he uses, you can ponder over the multitude of paint chip books at the paint store, providing your builder with the colour numbers of your selections.

Get it in writing: To avoid future hassles, get a copy of the order, listing the specifications, price and delivery date. ►



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► Expect to pay a deposit of maybe 25% in advance. Often you won't get to speak to the builder. This shouldn't overly concern you as long as you're confident in the salesperson and see that he or she has taken your specifications accurately.

Leave the frame builder alone: Okay, most builders are friendly people. Indeed, if given the chance, some would talk your ear off about the ins and outs of various types of tubing or whatever. Don't let them! You figure it out; frames can take from 10-20 hours to complete. Less materials, equipment and perhaps a bike shop commission, how much is this person really making? So, if you visit your's at their workshop, be polite and make it brief.

Some builders don't mind you watching, if you're really that into flying metal and hot torches. But don't say much, as distractions are probably their biggest cause of mistakes.

Tell your frame builder if you are dissatisfied: Give them the first opportunity to make it right. Remember word-of-mouth? they'll most likely try to do whatever they can to keep you happy. If you need the frame for a long-planned tour or the national titles, make sure you tell them when, ad nauseam, when you first place your order.

Be flexible and remember that you are most likely dealing with a one person owner/operator type concern and you'll enjoy your new frame all the more when you finally get to ride it.



Frame builder Darrell McCulloch

## UNDERSTAND YOUR FRAME BUILDER

BY DARRELL MCCULLOCH\*  
WITH CYNDI HOLMES

**T**here's nothing quite like taking delivery of a shiny, new frame that was made just for you. Most shops stock, or can easily get, top-quality handmade frames. While not custom frames, one of these may suit you just fine. But if your body is built a bit differently and the available frames won't work or if you simply want something a bit chic so you don't meld into the pack, then a custom frame may be the go.

Economically, it can even be a wise decision as many of the imported handmade frames sell for about the same or are even more expensive than a locally-built custom frame.

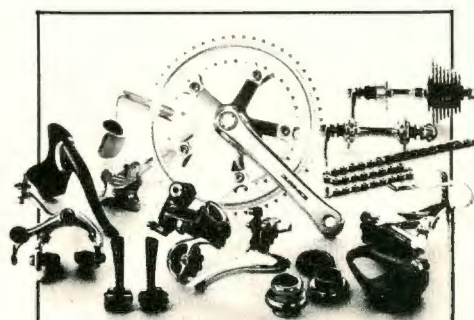
\* Darrell McCulloch has built over 300 frames under other frame builders. He is the head mechanic at Lifecycle bike shop in Brisbane where his own brand of frames, called "Llewellyn", are exclusively sold.

Your main concern when choosing any bicycle or frame should be whether or not you can obtain a correct position by fine-tuning the stem, handlebar and saddle placements. Positioning is the key to performance. That holds true whether you are racing, touring or mountain biking.

There are many legitimate theories regarding the proper position as well as many myths. When I design a frame, I find my customer fits into one of two categories: either they have a proper position on their current bike and my job is to then design the best frame to suit that position; Or they have never had a proper position. In that case, my job is to help them find their position and design a frame to suit.

### In the Showroom

Reynolds, Columbus or Tange. SLX, 653 or Tange No 1. Which is best? This is where you make full use of the frame builder's knowledge. All brands of tubing offer different models with various wall thicknesses and now even different shapes. A large or heavy rider needs a tubing with greater wall thickness to give the frame greater stability and better pedalling efficiency by reducing frame flex. Conversely a smaller rider can take advantage of a lighter frame ►



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▶ while still retaining stability and efficiency.

The steel alloys most used in frame building are chrome molybdenum (usually shortened to chrome moly) and manganese molybdenum. Metallurgically, they offer the same riding characteristics in the finished frame. These two steels have excellent strength-to-weight ratios. They are not lighter than ordinary water pipe, but they are far stronger and have a higher fatigue life. The greater strength allows for thinner tubing, and hence lighter weight.

Tubing manufacturers are now offering more expensive, higher strength tubing. These allow for the use of thin, hence light tubes, but with a loss of rigidity because of the thinner tubes. This loss of rigidity makes these tubes unsuitable for some uses.

Different models of tubing are available as double butted. This allows for thinner walls in less-stressed areas of the tube, generally in the centre of the tube.

It all boils down to the frame builder selecting various wall thicknesses of tubing to match the rider's needs.

Here's how I go about assessing a rider's position before I design a frame:

Having the right size crank length increases efficiency. The selection of size depends on the rider's leg length, body size and the type of riding they will be doing.

Saddle height and set-back are determined by looking at the rider's body type and using formulas that help determine parameters for this measurement. The saddle set-back largely depends upon the length of the thigh and the type of riding the rider does.

Handlebar position is a function of the torso and the arm length. This measurement is only a parameter and I have to look at the rider's posture to determine the position more precisely.

### To the drawing board

My first task at the drawing board is to plot the saddle and handlebar positions, starting with the bottom bracket. The frame is then designed to give the optimum shape, size and handling characteristics for the rider.

In designing the frame, I start with the bottom bracket height. It is determined by the crank length, type of pedals and type of riding. An important consideration in the height is the amount of stability and cornering clearance the rider wants. A racer will often want greater cornering clearance, whereas a long-distance road racer and tourist would require a lower height for greater comfort and stability.

Seat angles are determined to allow the proper positioning of the saddle. There are a lot of myths about what ang-

les should be used for optimum performance. But the most important consideration should be the rider's anatomy and making the bike biomechanically efficient.

Seat angles that were once considered suitable only for touring are now being used by even the world's top professionals. For instance, to give five-time Tour de France winner Bernard Hinault his best position, a seat angle of about 72 was used.

Getting the right ratio of top tube and stem lengths and determining head angle, fork rake and trail are the next steps. They are the basis of the handling characteristics of the bike. The final solution will depend upon the type of riding done and any preferences the rider may have, for perhaps a quick handling bike or maybe a stable descender.

For instance, a quick handling road bike will have a steeper head angle, which sacrifices stability. A loaded touring bike would do better with a shallower head angle which is more stable, but slower to respond.

Wheelbases are often referred to when talking about frame dimensions. A frame builder does not set out to make a bike with a particular wheelbase, it is simply a by product of all the other design factors. Generally, racing bikes have shorter wheelbases and touring bikes have longer ones. ▶

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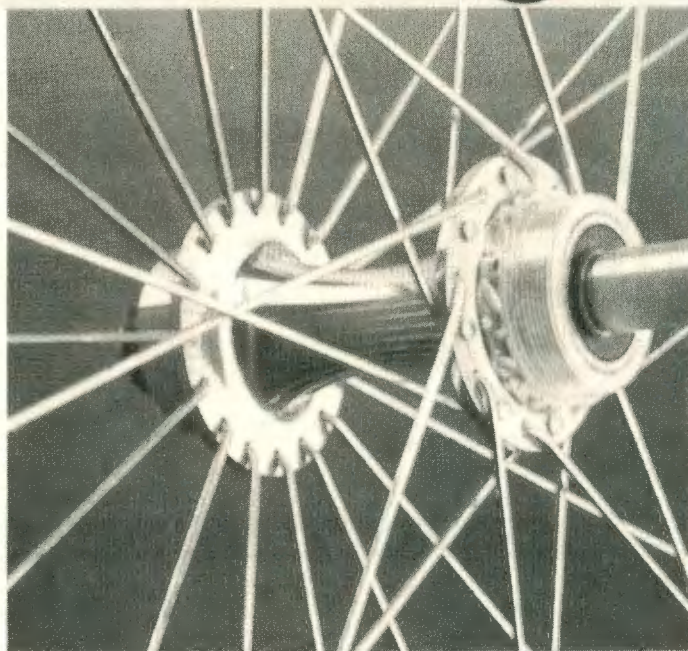
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The Klein Quantum frame.

► A more important consideration is the front centre measurement. For instance, a larger rider will have a longer front centre because his weight should be spread over a longer wheelbase. Whereas a small woman will require a small frame and a shorter front centre.

Most bicycles off the showroom floor tend to have longer front centres because the bikes are designed so that the toe clips do not overlap the front wheel. While this may sound like it could be dangerous, competition cyclists do not find it a worry. In fact, many small frames have to be built that way.

The angle of the seat tube will affect the chain-stay length. Generally their length is as short as possible while still allowing unhindered wheel removal.

When I've completed a design I'll often go over it with the customer before heading for the workshop.

Emerging from the workshop, your shiny new frame will satisfy all your expectations, perhaps unlike any bicycle on the showroom floor could.

## Off the hook frames for custom building

The local market has now developed to such a level of sophistication where not only are there a number of specialised locally based frame makers building to order but there is also a number of off the shelf frames available in exotic materials like titanium and aluminium.

### Ultralight titanium

This Melbourne based frame builder makes both mountain bike and road/sports models in the glamour lightweight metal titanium. Ultralight also has fully assembled models in a number of configurations. The MTB frame in its built up form handles beautifully and weighs in at an amazingly low 1.36 kg! That's three imperial pounds! Titanium is a corrosion resistant material and is not subject to the same fatigue as other frame materials.

The Ultralight frame makes the basis for an extremely light and responsive mountain bike.

### Klein Aluminium

Aluminium road frames from this US company are now available in Oz. The Quantum frame is made from oversize aluminium tubing and comes with standard braze ons for shift lever bosses, double water bottle mounts and pump peg.

The forks are Sakae Prism aluminium and a low maintenance sealed bottom bracket is fitted as standard equipment. Quantum frames are available in 53, 55, 57, 59, 61 and 63 cm sizes and three colours. They retail for around \$1,325.





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# BEYOND FITZROY FALLS

A classic mountain bike adventure

BY WARREN SALOMON

**A**BOUT 200 KILOMETRES south of Sydney the mighty Shoalhaven River cuts its way through the southern extremities of the Sydney basin sandstone country to reach the Pacific Ocean near the town of Nowra. One of the Shoalhaven's larger tributaries is the Kangaroo River which falls off the Southern Highlands into deep chasms and gorges which eventually widen out to form spectacular Kangaroo Valley.

It's an area of moist rainforest filled gullies and lush green pastures overshadowed by towering cliffs of yellow and brown sandstone.

The coming of the Europeans during the early nineteenth century brought huge changes to the valley and that pattern has continued up until the present decade when a huge dam project to capture the waters of both the Kangaroo and Shoalhaven rivers was completed by the Sydney Water Board.

In spite of the power lines, aqueducts, dammed rivers and sealed roads the Valley still retains a lazy rural ambience and is nowadays more of a retreat for the embattled urbanites and playground for hobby farmers rather than a genuine rural community.

The most breathtaking aspect of Kangaroo Valley comes from the fact that it is virtually landlocked. The river (and its branches) flows in over high vertical cliffs at one end and exits to the south through a rugged forested wilderness area largely uncrossed by roads. And like the waters of the Kangaroo River, in order to pick a path into this magic place, you too have to wind your way down through tall trees and breaks in the cliff line to eventually reach the valley floor.

For this reason a visit to the valley on bicycle is always a strenuous affair but well worth the effort.

There are six known routes into Kangaroo Valley – two from the Southern Highlands in the west and four over the

Opposite page: "At Gales Flat the road levels out near an old farm clearing. It's a fabulous location with honeycombed cliffs in shades of red and orange rearing up out of the tall eucalypts as a backdrop". Above: "Along here on a clear day the views are spectacular with the mesa like features of Mt Carrialoo (left) dominating the scene from across the chasm. Beyond that is Kangaroo Valley with the bulk of Cambewarra Mountain on the horizon". Photography by the author.

range from the east. The most commonly used motoring route is the main road from Moss Vale to Nowra via Baringarry and Camberwarra mountains. In addition to the Cambewarra route there are two lesser used roads over the coastal range to the little town of Berry.

The remaining coastal route is the unsealed and seldom used (by vehicles that is) road via Budgong Gap to Nowra. The only other route, which also happens to be the original coach road, used in the days of horse drawn transportation, is closed to vehicles and can only be traversed by foot or mountain bike.

To the west of Kangaroo Valley the waters of Yarrunga Creek leap spectacularly off the sharp edge of the Southern Highlands plateau into a wild and remote canyon. The point where the creek makes its plunge is well known to travelers as Fitzroy Falls and this landmark acts as the northern boundary of the 130,000 hectare Morton National Park.

Eventually the fast flowing creek reaches the backed up waters of Lake Yarrunga and a kilometre or so on from this point, before the coming of the dam builders and thirsty sprawling cities to the north and east, the creek was forded by a road built to carry the first cart and coach traffic from the adjacent Kangaroo Valley out to the Great Southern Railway at Moss Vale. ►



► The road had fallen into disuse long before it was cut by the rising waters of the lake but it is still rideable by mountain bike – at least as far as the lake. In order to get through to Kangaroo Valley and the coast it is necessary to take an alternative fire trail route which crosses the creek further upstream.

**W**ITH AN EARLY START IT is possible to ride from Moss Vale to the railway at Bomaderry (Nowra) via Meryla Pass and Budgong Gap in a day. It is much better, however, to take your time and camp overnight in the Yarrunga Creek valley wilderness area and if possible also stay overnight in or around the pretty Kangaroo Valley village.

To get to Meryla Pass from Moss Vale you begin by riding south on the road to Bundanoon. This branches off the main street immediately north of the railway bridge. Just out of town the road forks and the left (northern) branch is taken. Further along this road there is another turnoff to the right (east) signposted "Manchester Square". By taking this road you will leave the ordered agricultural world of the Highlands behind and begin your journey to the coast in earnest.

A few kilometres from the turnoff the bitumen surface gives way to a reason-

ably good gravel road and at this point the road begins a long steady descent to cross Bundanoon Creek. There is a fine vantage point here and looking out across the bright green fields below you can see beyond to the heavily timbered slopes of the low ridge that divides Bundanoon Creek from the vast chasms of Yarrunga and Kangaroo Valleys.

Don't stop for a break at the pretty crossing on Bundanoon Creek. The steel girder bridge spanning a wonderful miniature canyon is certainly worth a look but there are better treats further on up the road.

About a kilometre on the road crosses Gun Rock Creek on an old timber decked bridge. In summer this is a wonderful place to have a long and leisurely lunch break in the shade under the bridge.

A short distance downstream the creek has cut a large deep circular plunge pool in solid sandstone and this too makes for a refreshing diversion from the flies and heat of a summer's day.

Any time of year this is one those really 'special' places that we all hope will not be ravaged by uncaring human contact.

On from the creek crossing there are a number of short steep and longer climbs before the rim of Yarrunga valley is finally reached in the vicinity of Meryla

Pass. Along here on a clear day the views are spectacular with the mesa like features of Mt Carrialoo dominating the scene from across the chasm. Beyond that is Kangaroo Valley with the bulk of Cambewarra Mountain on the horizon.

The road along the edge of the valley wall eventually ends at a lookout but long before that the road down through the broken cliff line at Meryla Pass cuts off down the hill to the east. The first stage of the 500 metre descent to the floor of the valley is usually wet and dripping and lined with small patches of rain forest and tree ferns.

At Gales Flat the road levels out near an old farm clearing. It's a fabulous location with honeycombed cliffs in shades of red and orange rearing up out of the tall eucalypts as a backdrop and the pale blue depths of Yarrunga valley ahead.

Further on down the road there is a gate on a side road off to the left (east). This marks the start of the Griffin fire trail which is the only way through to Kangaroo Valley now that the coach road has been cut by the impounded waters of the lake.

Originally the road was built as access to Griffin's farm house in a very remote part of the valley. The farm land has since been absorbed into the National Park and the house destroyed in a bushfire. The area has been allowed to revert to natural bush but the clearings,

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house foundations and some evidence of stone fence work still remain.

Around dusk, if you are lucky, you will possibly see some of the many marsupials which live in the area and keep the grass closely clipped in the pretty clearings that surround the old homestead site. This area also makes for a wonderful overnight campsite.

About a kilometre before the old farm site the trail reaches the bottom of its 'terrible (depending on the condition of the trail) descent' at a concrete culvert on Crankeys Creek. There are small pools suitable for bathing further down stream and the rocks near the culvert make a wonderful place to rest and sip the clean waters of the creek. If the journey is done in the reverse direction this point is also a good place to draw breath before beginning one of the biggest climbs on any road in eastern Australia. Whew!

The ford across Yarrunga Creek is about a kilometre past the farm site and is easy to miss because the track continues on upstream for some distance before petering out. You should lookout for a small cutting down to the creek which faces back in a downstream direction making it easy to miss if you are not alert. When travelling in the opposite direction turn hard left once you have come up the steep sandy section out of the creek bed.

Usually the water level is such that you can wheel a fully laden bike across without the need for a full portage. You do have to take your shoes off however. In flood the creek becomes swollen, fast flowing and dangerous. Be prepared to retrace your steps if you are travelling the trail during heavy rains.

On the eastern side of valley the track rises steeply until it reaches a natural bench about 150 metres up from the creek bed. The trail then levels out and heads south to another locked gate just before the intersection with the Jack's Corner road at the south western end of Kangaroo Valley. The climb out of Yarrunga Creek when travelling in this direction is about a third the size of the climb encountered when leaving the creek in the opposite direction.

To get to Kangaroo Valley township take the left branch of the Jack's Corner road and follow it until it eventually becomes sealed again near the Bendeela pumping station and pondage. From here it is an easy down hill run to the Hampden Bridge on the Kangaroo River (turn right at the highway).

There is a picturesque caravan park (with good on-site vans) and a shop on the other side of the bridge or alternatively you can stay in cabin style accommodation five kilometres up the Tallowa Dam road which branches right (south) off the highway a short distance down

the road. The village proper is about 500 metres further on down the highway from this road junction.

The best way out of the valley by mountain bike is the little used gravel road to Nowra via Budgong Gap which leaves the Tallowa Dam road about six kilometres south of the highway intersection. Close to the Budgong turnoff there is a large orchard and if you are lucky enough to be passing by during stone fruit season you can feast on all sorts of fruity treats.

The climb over Budgong Gap is not difficult (about 200 metres) but the road does rise steeply. However there are rewards of terrific views awaiting you at the summit. On the other side of the gap the countryside quickly changes from hobby farms and orchards to natural bushland and marginal agricultural enterprise. There is another ford to be traversed and you will have to take your shoes off again to cross it safely. This crossing too can be difficult in periods of intense rainfall.

Eventually the hills, sandstone cliff lines and eucalypt forests give way to open agricultural land once more and this eventually turns into the suburban streetscapes of North Nowra. The railway station and a regular train service to Sydney is only a kilometre to the east once you finally reach the Princes Highway just north of the Shoalhaven River. ▶



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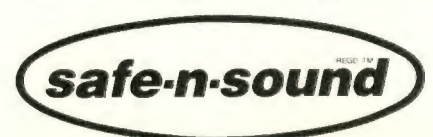
The Jockey has a quick fit and release mechanism which makes it easy to attach to the bike and just as easy to transfer from one bike to another without using any tools.

The Jockey is fully adjustable, has a four point safety harness, padded seat and back, molded armrests and in-built spoke shields to prevent the child's feet from being caught in the wheel.

The Jockey will carry a child up to 22 kilos, and adjusts to suit the passenger's height.

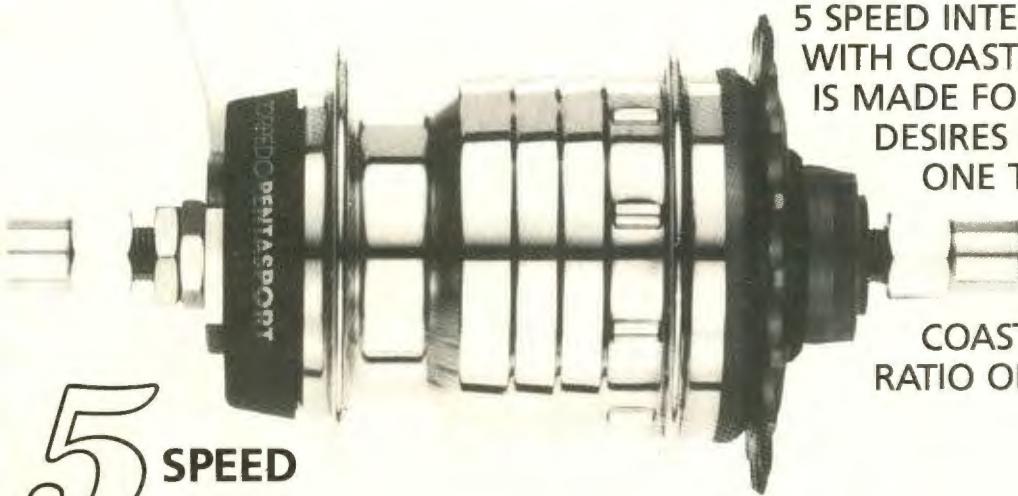
You'll find the Jockey wherever Safe-n-Sound products are sold. It's not inexpensive, but then quality never is.

## JOCKEY



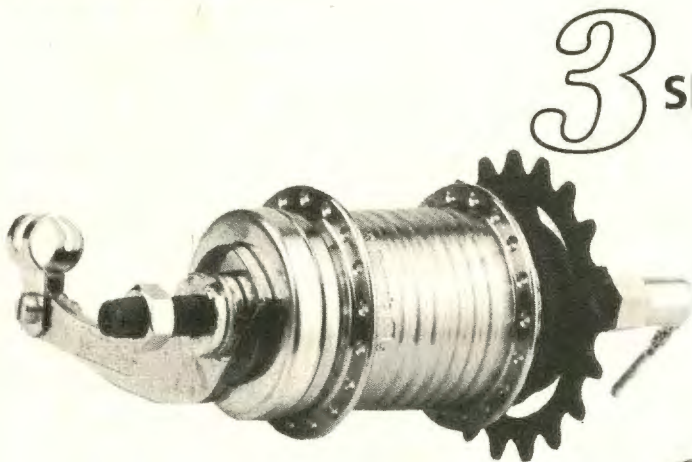


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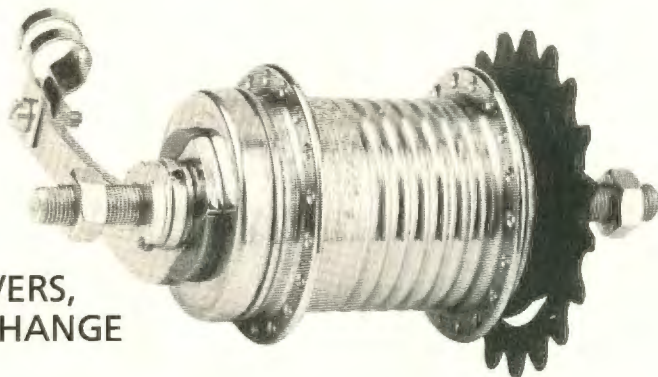
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## Trip details

Km	Place/elevation in metres
00	Moss Vale 680
06	Turnoff-Manchester Sq 700
22	Meryla Pass 600
27	Crankeys Creek 100
29	Ford/Yarrunga Ck 80
34	Jacks Corner Rd 260
47	Tallowa Dam T/O in Kangaroo Valley 100
51	Bugong Gap rd T/O 170
55	Bugong Gap 360
79	Princes Hwy Nth Nowra 10

ONE OF THE BENEFITS OF mountain bike riding is that it is often possible to ride into remote areas which are difficult to reach on foot or impossible to get to by vehicle. The trip described above is not possible in a vehicle because the roads are closed to cars in order to preserve the wilderness values of the region. On an overnight hike into the valley tent, food and equipment would all have to be packed into rucksacks and lugged in during the period of a day. By mountain bike the arduous even becomes comfortable – as long as the route is down hill.

The other aspect of a classic ride involves the terrain itself. Any trip that does not provide some kind of physical challenge is probably not worth the bother of planning it. It then becomes a trip and certainly not an adventure. The element of physical challenge is important. One has to struggle with the elements and the terrain before one can feel part of the environment.

And most of all a classic ride of any sort is one which is so good that you never seem to tire of it no matter how

**"The first stage of the 500 metre descent to the floor of the valley is usually wet and dripping and lined with small patches of rain forest and tree ferns".**



often you ride it. The Meryla Pass route is a classic.

This journey came about almost by accident. For years I had been involved in a property in Kangaroo Valley. One of my favourite touring trips was naturally the easy ride from Bowral into the Valley and out to Berry on the second day. I've ridden this route so many times on a touring bike that I have lost count.

Not long after I was badly bitten by the mountain bikin' bug I began to search about for new places to ride other than the more obvious locations in the Blue Mountains. I am a great collector of leaflets and brochures and one day during a periodic clean out of my desk drawer I chanced upon an old crumpled copy of a leaflet detailing walks in Morton National Park.

I knew that the old coach road had been cut by the dam waters but what I didn't know was that there was an alternative route that would provide access to the same area and could be ridden through into Kangaroo Valley.

The prospect of an unriden route into the valley fired my imagination and the next day saw me down at the Lands Dept map office buying the most detailed topographical maps of the area. Sure enough the 1:25,000 topographical maps showed that Griffin fire trail was a through route – closed to cars but open to walkers and cyclists.

My first trip along the route took place in winter a number of years ago. The rain commenced as my companion and I left Moss Vale following a disgusting lunch at a take away (Moss Vale is still the culinary pits – be warned!) and didn't let up until we returned to Sydney four days later.

By dusk we had reached the old farm site and set up our tent in the low light. Neither of us was feeling very bright though we did manage to cook a delicious meal by torchlight (thank heavens for the Trangia stove and a little camping headlamp).

The high point of this part of the trip came when Sue, my companion discovered some jonquils growing wild in the grassy paddock down from our tent. Though the mist and cloud swirled above us we never did get a clear view of Carrialoo or the cliffs of Meryla.

Fording the swollen Yarrunga creek was a dodgy affair. The creek was up to about crotch level and flowing very fast as we waded through with the first load of our portage. It took three cold clammy trips to get all of our bikes and gear across the creek and fortunately we didn't slip and fall on the slippery round river rocks underfoot.

Riding up the hill on the other side gave us a chance to regain body heat and by the time we reached the locked gate at the end of the trail we almost felt dried out under our rain jackets. The unsealed road on to the start of the bitu-

men at the Pumping station was very sloshy and muddy and in terrible condition so we were very pleased to reach the Hampden Bridge and a cup of hot brew taken over lunch in the picnic shelter near by.

The next two nights were spent on our property in the valley and still the rain fell steadily. On the final day out to Nowra the ford on the other side of Budgong Gap was running only a little higher than normal so we could at least push our bikes through with out the need to take the pannier bags off.

We had a wonderful lunch in a patch of rainforest nearby and counted only two vehicles along this road during the entire time we were travelling through to Nowra.

I am an optimist. I only remember the good things of any trip. And for this one there are many so it's easy to forget a bit of rain. The last time I travelled the Meryla Pass road I met a group of young mountain bikers in high spirits heading down the big hill as my partner and I slogged away on the low gear ascent.

They were riding through to Nowra in a day so they were pleased to take my suggestion of the easier, quicker and quieter Budgong road as an alternative to the busy Cambewarra road. Once again it was raining but neither we or they could have cared.

## FITZROY FALLS AND BEYOND

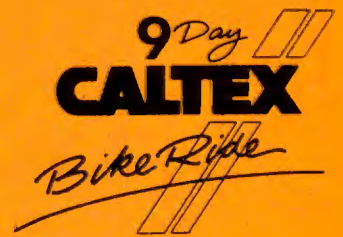
**A guide to the Shoalhaven – Ettrema wilderness and Bungonia State Recreation area written edited and published by the Budawang Committee. 350 pp \$26.00 paperback.**

Though there is a small section in this book (by this writer) describing the Meryla Pass route the scope of this wonderful publication goes far beyond that of a simple walking or touring guide. *Fitzroy Falls and Beyond* is the first detailed history, environmental study and practical reference to be written on the region during the fifty year life of Morton National Park.

The book follows another very successful publication by the same group of people on the Budawang region further to the south. Both books are packed with practical information such as bird and plant identification and walks into the area.

*Fitzroy Falls and Beyond* is a must for any lover of the great outdoors. It has detailed information about walks to other places in the area and within its pages there are probably many other mountain bike adventures just waiting to be realised. It's a pity that it wasn't available when I planned my first trip through Meryla Pass. I might have then discovered more wonderful things about this spectacular region. ●





MARCH 1990

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# BUYER BE AWARE

## A look at warranties and mechanical servicing in the bike industry

BY WARREN SALOMON

**A**S OMINOUS AS THE TITLE of this article might sound, buying a bicycle from a reputable dealer is a fairly easy task with very few hidden traps. However, it always pays to be aware of your rights as a customer and know what type of guarantees and servicing arrangements apply to your new bike.

When you buy a new bicycle the distributor/manufacture always offers some form of warranty. Though there is no statutory requirement to provide a warranty there is still what is known as an implied warranty. It is required by law for traders to sell goods in a fit and safe condition for use by the consumer. Therefore it is to the benefit of both the manufacturer and the customer for a clearly stated warranty to be given and at the point of sale.

If, for example, a warranty is not provided and the bicycle breaks after a week in use a claim can still be made because bicycles are expected to last longer than a week before breaking down.

The usual warranty given by the Australian bicycle industry takes the form of a guarantee of replacement on frame and forks, for a set period, and a similar guarantee of replacement on components for a different time period.

The object of this guarantee is to protect, you the user/buyer, from faulty manufacture in the fabrication and assembly of the bicycle. The extent of the guarantee that is offered differs from company to company and is usually stated in a written form in the owners manual you should receive with your new machine.

The Standards regulations to which all new bicycles must comply require that an owners manual must always be supplied with the new bicycle but sometimes in the hurry of picking up the new machine it is often forgotten. As most manufacturers begrudgingly supply a manual because they have to in order to comply with the standard the quality of the information contained in these booklets varies from company to company.

You should always read the printed guarantee carefully as it will inform you of the extent to which the manufacturer guarantees their product.

The bicycle industry must be one of the few industries in the world which offers a lifetime guarantee on any manufactured product. What this means is that the company feels that their frames (and this lifetime guarantee is only offered on frames) will never break or wear out.

Though a bike frame does not have any moving parts it is subject to the stresses and strains of everyday use. So it is extremely generous of a manufacturer to provide a guarantee which extends for the lifetime of the user. Imagine if other consumer items were guaranteed for similar lengths of time – a veritable consumer paradise.

A cynic would say that the lifetime guarantee is just a marketing gimmick because very few customers ever invoke it. By the time the bike is ten years old you don't feel like arguing with a dealer you just want a complete new bike.

On the other hand the three or six months guarantee on components by comparison with other consumer equipment seems rather inadequate. A much better system all round would be to bring both guarantees into line and to offer a 12 month guarantee on the bike as a whole.

This is not unreasonable for both the customer to expect and the manufacturer to offer. And it would mean that the bicycle industry would be then offering the same kind of realistic guarantees as other industries do.

In Australia with a multitude of different guarantees offered by the manufacturers it is always the dealer who comes off worst in any disputed warranty claim. It is common knowledge that within the industry a number of wholesalers are meaner and less responsible than others and will always dispute warranty claims with the dealers. This leaves the dealer in the invidious position of either losing a long term customer (if they go along with the wholesaler), damaging their business

reputation in the process, or carrying out the work at their own expense.

If the wholesaler disputes the claim against the advice of the dealer it then puts the dealer into a no win situation where either way the dealer is out of pocket. Often this is why some brands are noticeably absent from some showroom floors.

### Before you buy

The main thing is that you, the customer, do not loose out in any transaction. To avoid any possibility here are a few simple precautions you can take:

- Always read the written guarantee before you purchase. Check any things you do not understand with the dealer first.

- Ask if there are any additional guarantees offered by the dealer. These are often given verbally but are usually written somewhere (signs in the shop or leaflets). If possible always obtain a copy of these for your records.

- Be clear in your own mind just what each offered warranty entails. A vaguely worded document may mean a guarantee that is worth next to nothing in the long run.

### When you buy

- Always obtain a dated receipt. This is your proof of purchase and you must always retain this as a record for at least the period of guarantee. Write the frame number on the receipt and keep it in a safe place. It's always best to do this regardless of warranty provisions because if your bike is ever stolen you should always have a record of frame number and purchase details for Police and insurance purposes.

- Check the servicing arrangements with the dealer – especially if a free one month tune-up service is provided as part of, or in addition to, the warranty. The practice of providing a check up service within thirty days of purchase is commonplace in the industry and makes good sense both for the purchaser and the dealer. When bikes are assembled there are a number of parts and controls which take time to seat and settle into normal long term use.

Gear and brake cables for example tend to stretch within the first week of use and after that they perform consistently until they become worn and corroded and need replacement. Most importantly, spoked wheels always need a gentle run-in period and a tune-up adjustment if they are to give good service throughout their useful lives. ►



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► For this reason it is vitally important that you take up any offer of a tune up service. For the dealer it is a way to make sure that the bike has been correctly assembled and that all parts and components are operating properly and will continue to do so until the next major service is required at least a year on.

If you ignore this service you will put your self in a powerless position should you have to argue your case with a dealer over a component breakage or damage later on. Looking after the bike and making sure it is properly serviced is your part of the deal.

In some cases you could invalidate part of your warranty if you do not undertake the necessary servicing procedures that the manufacturer or the dealer considers necessary in order to ensure a well set up and operating machine.

### Making claims

If you experience a component failure or frame breakage within the period of the warranty you should take your bike along to the dealer from whom it was purchased. You should also take with you your proof of purchase just in case they do not remember you and need to see evidence.

Component repairs/replacements are usually easily fixed and often there is very little dispute in these matters. Frame claims, however, are often messy as it is usually hard to break a frame unless the bike is ridden dangerously or is involved in an accident. Both of these type of incidents and other types of exclusions should always be stated clearly in the warranty.

To be clear: the warranty is designed to protect you against faulty manufacture and assembly. If you crash into a fence, car door or anything else – even if it is not your fault, you have to wear the damages.

If the frame welding fails while you are careering down a hill at speed and you end up in hospital with resultant medical expenses amounting to thousands of dollars the maker of the bike is only liable for the replacement of the frame. The warranty should not be seen as a replacement for other forms of liability or accident insurance.

Should your claim be disputed by the dealer and/or the wholesaler and you feel that you have been unjustly dealt with you can then take the matter to the state Department of Consumer Affairs who will then try to negotiate a settlement agreeable to all parties.

If this does not achieve success you can then refer the matter to a consumer claims tribunal. Claims are limited to a maximum value of \$6,000 and in NSW it only costs \$10 to lodge a claim. Your case will be dealt with promptly and you will then have to present your case and

back it up with the correct documentation and evidence (usually written rather than verbal).

The idea of the consumer claims tribunal is to get both parties together with an adjudicator who hears the claim in an informal atmosphere where both parties can present their cases and the matter resolved without the heavy costs of a full court case. As consumer laws differ from state to state you should phone your local Department office for full information and advice on costs, claims and the exact procedure for taking action.

In any warranty claim it is important above all to know your rights and be prepared to discuss the matter sensibly

with the dealer. Always remember that the dealer is in the middle of any complaint you may have with the manufacturer so it is important not to burn any bridges and alienate them by a hostile, demanding or attacking approach.

If you are well informed on your rights and you try to preserve your good relations with the dealer you have a very good chance of settling your claim in a quick and satisfactory manner without any need to carry the matter any further.

The latin saying *caveat emptor* is often used to shrug of consumer claim actions where guarantees do not exist. In the case of a new bicycle purchase you do have some protection and it is up to you to use it effectively – buyer *be aware*. ●

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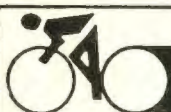
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# THE GOOD GEAR

We look in detail at some of the very latest equipment

## REVIEWS BY WARREN SALOMON

**F**OR THIS EDITION OF OUR buyer's guide we have chosen a number of new and attractive items available to the modern Aussie biker and have subjected each to a period of active use. The selection is just that and by no means is an indication that we prefer these products over others. Let them all stand or fall on their own merits.

It is worth pointing out at this point that *Freewheeling* does have a small active test program and we are always looking for products to review. In the past the industry has not pushed equipment on us so we have tended to pick and chose. That way we can sort out the good from the bad in advance and only present to our readers products of high quality. The equipment reviewed on the following pages certainly fits the bill.

## FISHER ADVANCE

**I**n the past Australian companies have only dabbled with Fisher but this year the Apollo company has decided to bite the bullet and import a representative range from one of the United States' most prestigious mountain bike makers.

Perhaps one should make it quite clear that although Gary Fisher and his Californian company is American to his bootlaces his bikes are made in Asia from mostly Japanese componentry. Such is the current state of the market.

The Fisher Advance is the cheapest of the Fisher range of four bicycles and is the only one not to feature the oversize

Evolution headset system that Fisher has pioneered with their 1989 range.

It has a chrome moly frame made of True Temper tubing. The frame is built with a steep 73.5 degree seat tube angle to put you more over the bottom bracket for a better pedal spinning action and a lazy 70 degree head tube angle to soften the feel of the steering. In all it's a pleasant frame to ride with still plenty of shock absorption in the Fisher chrome moly unicrown forks.

Advance's frame is finished in a deep cherry (maroon) colour and comes in sizes from 16" up to 21". It has a Shimano LX headset which is one of those all too common types with the dreadful plastic dust covers over the bearing chambers. My dislike of this type of headset comes from the first time I ever saw this type of thing fitted to a bike (not a Fisher). The plastic had been smashed in transit.

The Shimano mountain LX transmission and worked faultlessly and the Hyperglide freewheel and chain shifted effortlessly and with out problems.

Araya's 7S alloy rims are fitted with Fisher Fattrax 26x1.9" nobbies and the quick release hubs are Shimano Mountain LX as are the cantilever brakes. The brake levers, however, are Shimano Exage with resin levers.

The Fisher Turbo seat is mounted onto a Kalloy 300 mm seat post and clamped with a Kalloy quick release clamp. ▶

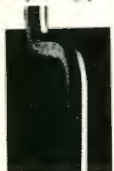
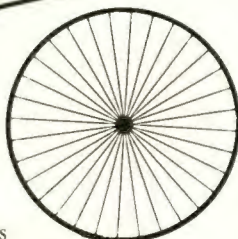


# WINNING EDGE

## Hoshi Bladed Spokes

Engineering excellence, the Hoshi Bladed Spoke is designed to perform.

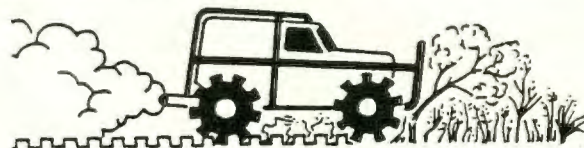
The aerodynamic shape not only looks great, the blades cut through the air with the minimum resistance, improving performance.



The hook design makes installation a simple task, just hook the end into the hub hole, once the wheel is assembled, the tension on the hook end holds it securely to the hub. Unlike other bladed spokes, the unique Hoshi Spoke eliminates the time consuming duty of enlarging spoke holes and threading. Simple hook the end into the hub hole.

The HOSHI BLADED SPOKES,  
A Winning Edge

## HOSHI SPOKES



*Some Recreational  
Vehicles cost the Earth...*

**OURS**



**DON'T**

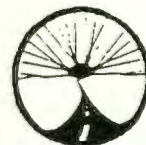


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quality,  
performance  
and reliability..."*

*I demand  
TIOGA!"*

JOHN  
TOMAC



TRADE INQUIRIES, BIKECORP (03) 587-3466





► Like the other Fishers the Advance is equipped with Fisher Bulge bars which are made from chrome moly tubing and have a 9 degree bend. These bars can be cut down for smaller riders. A Fisher Rhino stem with a 145 mm extension was fitted to the test model.

No name Taiwanese pedals came fitted to the Shimano Mountain LX chain-wheel set. The toeclips fitted to these pedals seem to only come in one size more suited to a size 12 footy boot than my size foot.

The Fisher Advance is a good quality chrome moly framed mountain bike with all alloy components. You should check it out at your local bikeshop before you decide to take the plunge and buy your first fat tyred machine. Advance sells for approximately \$849.

## INTEGRA BIKE HELMET

**T**HE NEW SPORTY DESIGN of the Integra safety helmet is set to revolutionise young cyclists' attitudes towards sporting protective equipment according to its makers Britax Child Care Products manufacturers of the Safe-N-Sound Guardian and Sprinter helmets.

Integra is functional, comfortable and safe and looks like a helmet should. There's a great range of safety colours and a choice of co-ordinated modern attachable accessories. The Integra options include the sports peak, the BMX shield and the racy visor.

This totally new concept in safety helmets is the result of three years of extensive research and development by Britax in Australia. Integra is a world class technically advanced product and its launch in this country answers young consumer demand for better design in safety helmets.

Britax is now exporting the locally produced product to West Germany, Italy and Britain.

The Integra is tough yet weighs only 400 grams. The retention system incor-

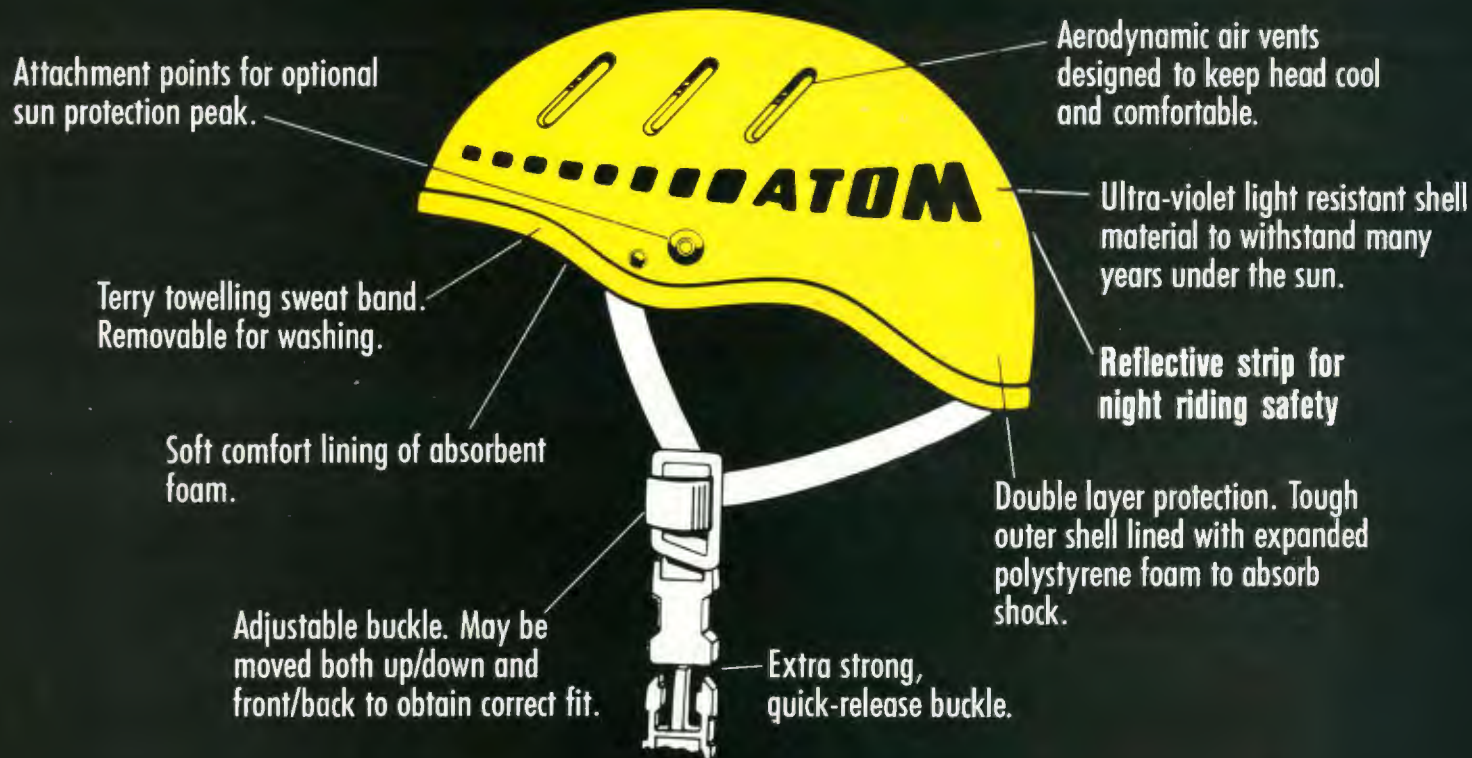
porates an easy release clip with a chin pad. Extensive flow-through cavities allow for better ventilation and a solar shield keeps heads cool. Four sets of sizing pads provide fractional fitting to suit varying head sizes.

## BIGFOOT BIKE TRAVEL BAG





# ***It not only looks great...***



## ***... it is a great helmet!***



**COLOURS: WHITE, YELLOW, PINK, RED, BLUE, BLACK.**

Sleek aerodynamic styling, plus a range of colours to choose from, means you can now buy a helmet that is not only a superior safety device but a fashionable sporting accessory, too. The ATOM helmet exceeds **every** rigorous test to pass the 2063.2 standard and yet has also managed to keep its stylish good looks.

Now there's no reason for risk: you **can** comfortably wear the ultimate in safety and still look great doing it! ATOM safety helmets come in your choice of six brilliant colours in the widest available range of sizes. You might only **need** your safety helmet once. . . but that could be the time it saves your life. Buy yours now.



# **ATOM**



**Because it is important that a helmet be correctly fitted,  
ATOM is available only through bicycle shops  
and sports stores.**

Enquiries to: ATOM, 75a Burrows Road, Alexandria NSW 2015. (02) 550 1655



**T**HE PROSPECT OF AN air journey around the country might not be terribly appealing with the airlines currently in disarray but planes are still flying out of the country to exotic locations every day so there is no excuse to put off your travel plans. When you do travel it is always good to be able to take your own bike with you. In most cases the airlines will include it as part of your baggage allowance provided that it is properly packed.

The Bigfoot bike bag is an Australian made heavy duty carry bag designed to carry a road or mountain bicycle with you as luggage when you travel. The sample I used came in a light blue nylon outer shell. It unzips on three sides to allow full access to the interior which has two full size padded dividers to protect the frame from the wheels.

There are a number of internal straps and ties to secure both the frame and wheels and the padding on both the dividers and the outside walls should protect the machine from both being damaged and doing damage to other items of baggage.

The bag has a broad carry strap which can be fixed to four possible anchor points. There is also a carry handle so you can give your shoulder relief when lugging the bulky object through the inevitable customs queues.

The Bigfoot sells for \$295 through bicycle retailers. Distribution enquiries to (02) 938 4949.

## AVANCE PANNIERS

**B**ICYCLE TOURING BAGS for the serious traveller should most of all fix firmly to the bike and not flap about over bumpy terrain. In the past very few bags have been able to meet this apparently simple criteria. The Avance pannier bags manufactured by the Melbourne touring specialist shop Christie Cycles and sold in selected outlets across the country are the tightest fitting bags I have seen or used in over two decades of bicycle travel.

Their secret is the positive sliding hook device called the Superlock System positioned at the very bottom of the back of the bags and tensioned by means of a locking cord. The beauty of these bags is that the fastening hook at the bottom of the bag fastens directly to the bottom of your rack and there is no room for movement in the system.

This results in bags which are firmly secured at the top AND the bottom. ▶

## Expedition Outfitters

Christie Cycles are the bicycle travel experts with years of experience to help you equip your next overseas expedition, day trip or weekend adventure. Bicycles, panniers, camping gear, accessories and friendly advice - Christies have the lot!

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**If this ad  
doesn't make  
you rush out  
and buy a light,  
tough Forza  
helmet, you  
must have a  
very thick skull.**

The new OGK Forza bicycle helmet makes a lot of sense, no matter what kind of sense you happen to have.

Those with common sense will be impressed by the fact that Forza is one of the lightest helmets on the market, weighing a tiny 250 grams.

Those with a sense of self-preservation will be relieved to hear that Forza's microtough hard shell has passed stringent impact standards here and in the USA.\*

Those with fashion sense will be struck by Forza's sleek, simple lines and range of colours.

So if you are still trying to make sense of the bewildering array of helmets available, try taking a long hard look at the OGK Forza.

\*ANSI Z90.4 and Snell Standards. Impact Energy Attenuation Requirement of Australian Standard 2063.1.





► And that means that on the road the bags do not flap around or bounce off in extremely rough conditions. I think you would break a rear axle before these bags would shift from their position.

In order for the bags to fit different racks (and ensure a precise fit) the bags come in either Karrimor or Blackburn rack configurations. Strong aluminium hooks bolted through the stiffener provide an excellent top mounting system.

The bags are made from bright red heavy duty Cordura type fabric (proofed nylon) with a heavy PVC backing to resist water thrown up by the wheel.

These bags come in three models and the top of the range is designed for the type of rider who wants a pair of bags they can live out of. The model 1 has one external pocket and one main compartment while the model 2 has in addition an internal bracket which supports the top of the bag and allows them to keep their shape even when empty.

The model 2 also has provision to fit an additional tube shaped external pocket and these are available for an additional \$25. The model 1 bags retail for \$175 per pair and the model 2 for \$189.

The top of the range, the model 1 has two external pockets (the detachable pocket is supplied as standard on these bags) and the large main compartment has a zipper fastened internal divider and is accessible from either the top or bottom through what looks like a large external pocket.

The main body of the bag also has the aluminium brace which keeps the bags in shape even if they are empty. The main compartment is covered by a generous elasticised flap fastened by easy to adjust straps fitted with snap lock type fasteners. Model 1 bags retail ►



## BACK ISSUES

Freewheeling back issues are cheaper by the kilogram. A set of back issues (less out of print rare issues 1, 2, 10 & 20) costs \$50 plus \$15 postage for 6.6 kg – years of reading – delivered to your home address. Set A also includes a free index of the first fifteen issues.

Also available are three smaller (and lighter) sets:  
Set B – Issues 3-15 (12 issues plus index) \$15 + \$12 postage

Set C – Issues 16-35 (19 issues) \$25 plus \$15 postage

Set D – Issues 36-53 (18 issues) \$25 plus \$15 postage

Send your cheque or money order to:  
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# GOULBURN YURTFARM ATB CHALLENGE

## WHEN AND WHERE

Sunday 29th October 1989, 9:30AM

Goulburn Yurtworks, "Gunningbar", Grabben Gullen Road  
20 km west of Goulburn

## PRIZES

Cash and bicycle accessories to the value of  
over \$2000.00

## REGISTRATION

On the day, 7-9AM or in advance, ring  
Maroubra Cycles on (02) 349 2154

## ENTRY FEE

\$10.00. Helmets must be worn in this event

## CATEGORIES

Expert – 7 laps	Novice – 3 laps
Sport – 4 laps	Women – 3 laps
Veterans – 4 laps	Juniors – 3 laps
Lap Distance – 5 km	

## FACILITIES

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further information call Maroubra Cycles on (02) 349 2154  
Proudly sponsored by Goulburn Yurtfarm, Atom Imports,  
Apollo Bicycles, Hanley Trading and Maroubra Cycles.





It's amazing how much gear can be stowed away in a well packed touring bike. All the equipment (for a long term camping trip) fits into the bike bags - with artful packing.

► for \$259 per pair.

The bags are all fitted with carry handles (the most comfortable I've used) which are fixed to the top back of the bags at wide spaced centres. Reflective tape strips are also sewn to the rear

edges of these attractive and very practical touring bags.

The Avance bags are highly recommended as grand touring bags and the extendable throat on the main compartment means that you can load up on

food etc for extended periods on the road without having to resort to external additional bags. The model 3's can also be used as low mount front bags. Call Christie cycles for the name of a retailer in your state.

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## APOLLO TEAM

**T**HIS AUSTRALIAN BASED company has always had a range of mountain bikes which have sold well and in volume. In the

past it has tended to concentrate on the volume selling area (below \$800) and has not had a flagship model above the \$1000 mark. This year Apollo has gone further up market with its \$1059 Team model.

The Team has a Tange MTB chrome moly frame finished in the Apollo colours similar to the racing team model in their sports range. The frame is available in 40, 46, 50 and 54 cm (16, 18, 20 and 21.5") sizes.

The bike is equipped with a mixture of Shimano alloy equipment which includes a 21-speed Hyperglide gear assembly, Deore chainwheel set, Deore gearing and brakes. However the pedals are Taiwanese and though they look like the Shimano Deore originals are not in the same class.

It has a long 300 mm alloy seatpost and the black Araya RM-20 rims are fitted with Tioga Farmer John's Nephew tyres. The handlebar stem is also made by Tioga, a company at the cutting edge of mountain bike equipment design. A Tange Levin headset is fitted.

The Team has entered the market at a time where competition is fierce especially in the price range around the \$1000 mark. The bike rides and handles well though the small frame supplied by the manufacturer could not be properly put through its paces. ●

The Apollo mountain bike flagship, the Team, is available in a very small 40 cm (16") frame size suitable for women riders.







# PRICE CON\$CIOUS\$

## How bike makers keep prices down

**BY WARREN SALOMON**

**T**here you are standing in the middle of your dealer's bike showroom glistening machines all around you and you're confused — terribly, terribly confused. You can't see the logic in it. Both mountain bikes have the latest Shimano Deore II group componentry and similar frames yet there is more than \$100 difference in their prices. Why?

There are a number of ways manufacturers cut corners in order to keep the price of their bikes as low as possible. Usually your bike dealer will explain the subtle differences but in order to help you become better prepared here's a list of the likely corners to be cut in the quest for the cheaper priced bike:

### 1. Frame

When a dealer says proudly that: "This bike has a chrome moly frame" you should always counter with the question: "Which tubes". It is a common practice for makers to use a mixture of plain gauge steel and chrome moly tubing on their down market frames. Typically this would see the main triangle built from the lighter chrome moly material while the rear triangle and often the forks are made from heavier high tensile steel.

There is nothing structurally wrong with this practice but where things get a bit underhand is when this type of frame is presented as a full chrome moly frame by implication. That is it is not stated clearly that not all of the frame tubes

and forks are made from the lighter (and more expensive) tubing.

Brazed-on fittings also cost money to add to a frame which can be a real saving if you have no need of them but if you would rather pay for an extra set of water bottle mounts and rack lugs expect to buy a dearer bike. As well as braze-ons the fork tips and rear drop-outs can often be cheapened by using fittings of a lesser quality. Here you will have to rely on the experience of your dealer in such matters. Get them to explain why each frame is different and you will then be able to decide if the extra cost is warranted or if you really need the additional or race quality fittings on a bike intended only for street use.

### 2. Pedals

The most common way to keep costs down on a bike is to use cheap pedals. Bike riders are notorious for bashing around their pedals so most makers justify the cost cutting procedure of fitting cheap pedals as giving the customer the opportunity to fit quality pedals of their choice.

Of course any component bought as original equipment (on a new bike) will be cheaper than if you bought it as a spare part so it is better to pay a little extra and buy the bike with the better quality pedals. Then again, bike riders (and especially mountain bike riders) are rough on their pedals so if you wreck your fancy new pedals soon after buying your new machine don't blame me.

### 3. Rims

Some rims are better than others and this really matters if you are a hard riding competitor who pushes equipment to the limits. If you are a sedate cyclist you may not want to pay a premium for hardened competition rims. It is, however, always advisable to get alloy rims because of their superior braking performance and low overall weight.

### 4. Seat pillar

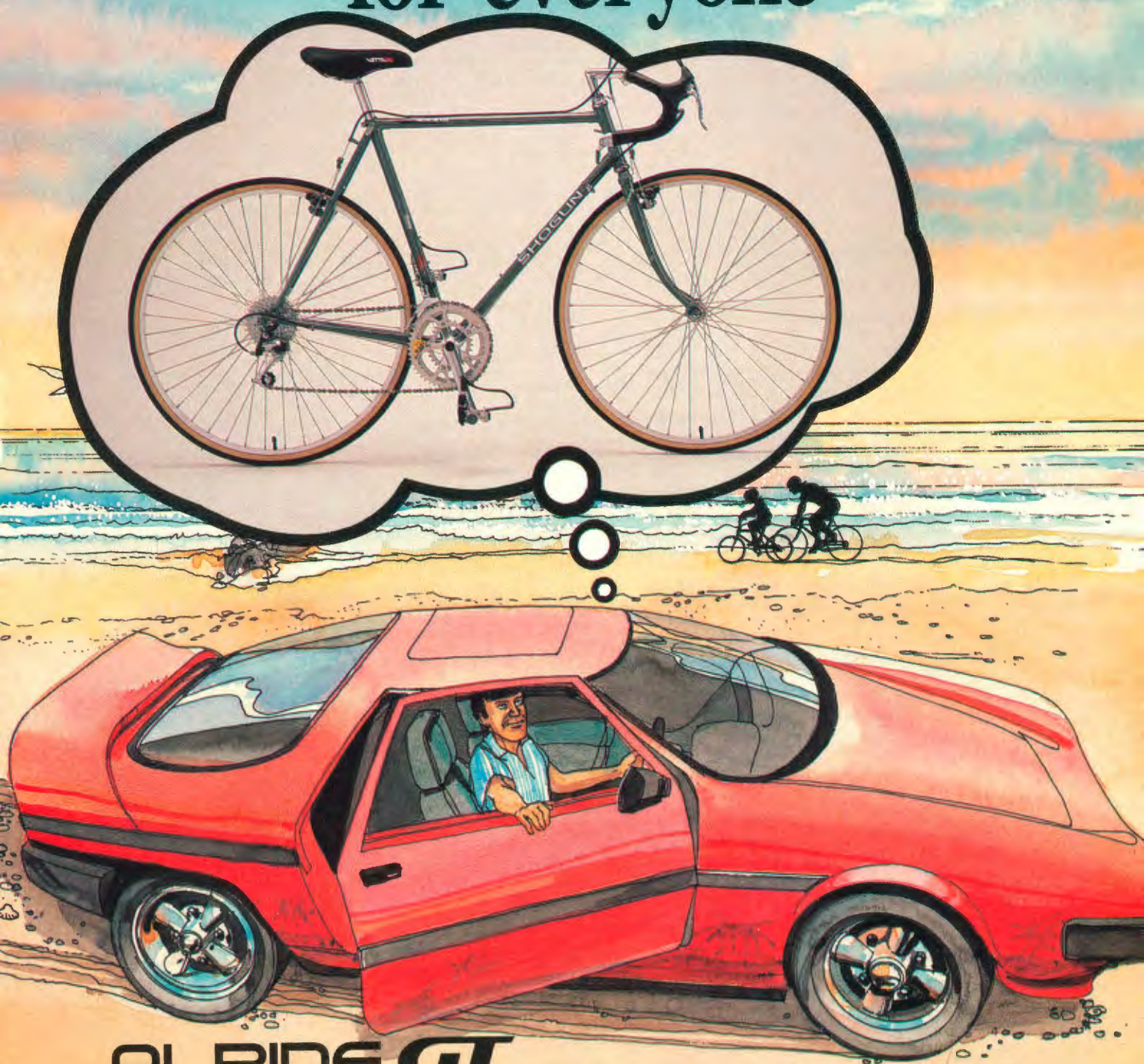
Some makers cut costs on mid range sport bikes by fitting a straight alloy seat pillar instead of a micro adjust cast seat pillar. On mountain bikes it is sometimes the practice to fit short seat pillars when always a long pillar should be used. Always look under the saddle to see what type of seat pillar is used and on mountain bikes always remove the post from the frame to check its length.

### 5. Accessories

Toe clips, water bottle cages and racks all cost money and may be useful items to have on a bike provided that you use them. These days most manufacturers fit toe clips and straps to all their serious machines and leave the lower end models clean of any other bits. They can always be added on at a later date.



# Now there's a Shogun for everyone



## ALPINE GT

The new 1989 Shogun Alpine GT is everything that a top class touring bicycle should be, a perfect combination of lightness durability and comfort. It features Tange's lightweight chromoly tubing, Shimano's new 18 speed Exage Trail drive train with SIS indexing and Biopace triple chainrings and at a recommended retail price

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THE TRADITION CONTINUES



## TRAVEL & TOURS

### TOUR MATES

**T**OUR MATES is a FREE service for readers wishing to find companions for bicycle trips and holidays. Entries are limited to thirty words (excluding your name and contact details). There is a charge of thirty cents per word for any long entries exceeding the limit. Payment (if applicable) must accompany your listing. Name, address and phone number should be attached for verification purposes.

**Nullarbor Crossing** Leave Kalbarrie WA on Sydney 24 September via Ceduna to Port Lincoln by October 20. Fully self supported. Contact David Hulett (08) 339 1056

**English guy 34**, adventurous spirit searching for female cycling companion who enjoys regular trips in Sydney, NSW, Australia or OS. Any tour considered. Phone John (02) 514 206 or write to John Gunning 3/27 Johnson St Annandale NSW 2037.

**Across the USA** Companion wanted for tour from Boston to the Pacific Ocean. Leaving early September and mostly camping. Contact Ken Moylan on (062) 431 014 (W) or (062) 477 617 (H).

### HIRE

**RENT-A-CYCLE TASMANIA** 10-speed low gearing, all frame sizes, ladies and gents. Completely equipped for touring. Postal bookings accepted. Seven years hiring experience. Brochure, rates, your questions. 36 Thistle St Launceston, Tasmania Phone (003) 44 9779

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## CALENDAR

Club secretaries, race directors and event organisers help us to publicise your event by sending details to us early. If you are planning a ride in the coming twelve month period you should send your notice to the *Freewheeling Calendar* now. We publish advance notice of all bicycle events both competitive and non competitive but because of our publication lead-times we need your copy at least eight weeks in advance of the month of publication. Phone or fax your copy through to *Freewheeling Editorial* tel: (02) 264 8544 fax: (02) 264 8357 or post to PO Box K26 Haymarket NSW 2000.

## COMPETITIVE EVENTS

### NOVEMBER

**Saturday and Sunday 11 & 12 AMBA National Mountain Bike Titles** A weekend of cycling events to decide the top riders in uphill, downhill, trials and cross country events. All classes. Basic camping available at site and good spectator facilities. Contact AMBA or your local mountain bike club for entry forms (02) 27 2977 or the promoter Active Australia (062) 95 9498. Full details elsewhere in this issue.

### FEBRUARY

**Saturday 24 Sunday 25 National Penny Farthing Championships** held in conjunction with the Evandale (TAS) fair. Full details of this popular event from: Gill Head 40 Russell St Evandale TAS 7212.

## NON COMPETITIVE EVENTS

### NOVEMBER

**Saturday 4 to Tuesday 7 Bicycle Victoria Benalla Rally** a four day rally featuring rides of varying lengths with a central camping site at Benalla Airfield and funded by Victorian Health Promotion Foundation in support of the National Heart Foundation. Contact Bicycle Victoria (03) 670 9911.

**Saturday 4 to Tuesday 7 Four day Caltex Ride A Melbourne Cup** weekend tour through Victoria's South Central districts with an all inclusive price to cover camping, meals, support vehicle and nightly entertainment. Contact Australian Bicycle Events (03) 781 3755.

**Saturday 11 EBTC's Hard Hundred** Begins at 8:00 am in Bayswater, Melbourne and travels through Belgrave, Narre Warren, Berwick and Five Ways (turn around for metric century riders) to Hastings (for imperial century riders) before returning to Bayswater. Entry fee \$6.00. Contact Ian Pengelly (03) 728 3180. John Richards (03) 729 6405 or John Weller (03) 870 5894.

**Sunday 26 Eighth annual Citibank Sydney to the Gong Bicycle Ride** in aid of the Multiple Sclerosis Society. This year bigger and better than ever. A one day fun and fitness ride through Royal National Park. Some say its the London to Brighton Ride with scenery. This year a time trail option will be available for sports riders.

### DECEMBER

**Saturday 2 to Sunday 10 Great Victorian Bike Ride** A two week ride from Yarrowonga to Melbourne. Organisers take good care of you, from entertainment to a sag wagon for your luggage. Camping, meals and full medical and mechanical support provided. Organiser is Bicycle Victoria. Contact (03) 670 9911 for entry forms and prices.

### FEBRUARY

**Friday 23 to Sunday 4 March Great Tasmanian Bike Ride** The first event of this kind to hit Tasmania, starting at Devonport and travelling out to the East coast and then south to finish at Hobart. Meals are provided and all equipment is carried for you. Contact Bicycle Victoria for entry forms, telephone (03) 670 9911.

### MARCH

**Saturday 24 to Sunday April 1 Nine Day Caltex Bike Ride** From Mount Gambier to Melbourne with visits to caves, lakes and forests and passing through Portland. Price includes transport from Melbourne to the start, meals, baggage shuttle and entertainment. Contact Australian Bicycle Events (03) 781 3755.

### RACING CLUB CONTACTS

The Australian Cycling Federation and the state cycling federations will direct you to a club in your area if you want to get involved in bicycle road or track racing. Phone numbers and contacts for each state are: NSW George Nelson (02) 241 1870; VIC Ruth Birnie (03) 328 4391; QLD Mike Victor (07) 390 1489; WA Mike Poyner (09) 384 4130; SA Bruce Quinn (08) 381 2398; TAS Joy Bestwick (003) 31 2712; NT Shirley Davis (089) 208 798.

Riders wishing to take out a professional licence should contact the National Secretary of the Australian Professional Cycling Council, Reg Marriner, PO Box 329 Torquay VIC 3228 Phone (052) 61 4067.

### MOUNTAIN BIKE CLUB CONTACTS

The Australian Mountain Bike Association is the sanctioning body for all mountain bike races on a state and national level. Local clubs can affiliate and offer their members the benefits of insurance coverage for their inter club events. Enthusiasts interested in contacting a local MTB club in an area not listed below should contact AMBA on (02) 27 2977 AH (02) 92 1922 as the list is growing all the time. All of these clubs offer both competitive and non competitive events and are a good source of information on what equipment to buy and the best places to ride.

**QUEENSLAND** - Brisbane Mountain Bikers Paul Hargraves (07) 344 1907, Velo Club Brisbane Mike Roberts (07) 359 1244, Sunshine Bushbushers (Sunshine Coast) Pete Smith (071) 428 572; **NEW SOUTH WALES** - North Shore Nobbies (Sydney) Steve Nesbitt (02) 411 5466 (Business hours), East Side Ground Hogs (Sydney) Chuck Smeaton (02) 371 5278, Brookvale Fatheads (Sydney) Laurent Vignes (02) 982 2574, Western Suburbs MTB Club (Sydney) Jeff Blackman (02) 622 8196, St George Mountain Bike Club Phil Higgins PO Box 50 Padstow NSW 2211, Southern Cross Cycle Club (Sydney sth) Tony Marsh (02) 520 4600, Central Coast Mountain Bike Club Lewis O'Keefe (043) 284 927 (H) (02) 438 3466 (W), Hunter Valley Mountain Bike Club Bruce Richards (049) 32 7820, Taree Mountain Bike Club Chris Nesbitt c/- SST Cycles Taree, Blue Mountains MTB Club Kerry Barlow (02) 264 2994 (W); **AUSTRALIAN CAPITAL TERRITORY** Canberra Mountain Bike Club Mark Vardy (062) 491 806 (w) or (062) 489 301 (h); **VICTORIA** - Fat Tyre Flyers (Melbourne) Mick Jamison (03) 817 2917; **TASMANIA** Northern Tassie MTB Club (Latrobe) Stephen Foster (004) 262 107 (H) (004) 265 263 (W); **SOUTH AUSTRALIA** Adelaide Mountain Bike Club Peter Heal (08) 289 1420; **WEST AUSTRALIA** Perth Mountain Bikers Jack Thornley (09) 453 1434, Cycle Touring Assn of WA (09) 330 3659.

### TOURING CLUB CONTACTS

These clubs regularly run rides in their cities and welcome new comers. Some even publish touring calendars listing forthcoming rides. Contact them for details.

**Armidale** Community Cyclists (067) 72 8951. **Audax Australia** (03) 435 4437 (02) 608 1125. **Bathurst** Bicycle Touring Group (063) 31 9459. **Bicycle Australia** (046) 27 2186 (after 9 pm). **Brisbane** Bicycle Touring Association (07) 369 9326. **Canberra** Pedal Power ACT (062) 49 7167. **Darwin** Huffers & Puffers (089) 81 2141. **Geelong** Bicycle Touring Club (052) 75 6661. **Illawarra** Touring Cyclists' Club (042) 83 6524. **Melbourne** Bicycle Touring Club (03) 818 4011. **Melbourne eastern suburbs** - Knox Bicycle Touring Club (03) 754 4069. **Eastern** Bicycle Touring Club (03) 543 5970. **Essendon** Mountain Bicycle Touring Club (03) 337 1379. **Victorian Pedal Clubs** provide fun and training in bike handling skills for children of bicycle riding age. Call for information on a club near you: (03) 337 6399. **Newcastle** Cycleways Movement (049) 46 8298. **Bicycle Institute of New South Wales** (02) 212 5628. **South Australian** Touring Cyclists Association (08) 213 0637 or (08) 388 8331. **Sydney** region bicycling clubs can be contacted through the Bicycle Institute of NSW (02) 212 5628. **Tandem** Club of Australia (03) 241 4453. **Bicycle Victoria** (03) 670 9911. **Cycle Touring Association of West Australia** (09) 330 3659. **Wagga** Bicycle Touring Group (069) 21 6787. **Vintage Cycle clubs** Vintage Cycle Club of Victoria (03) 527 5759. **Southern Veterans** (Sydney Vintage Cycle Club) (02) 587 8017.



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