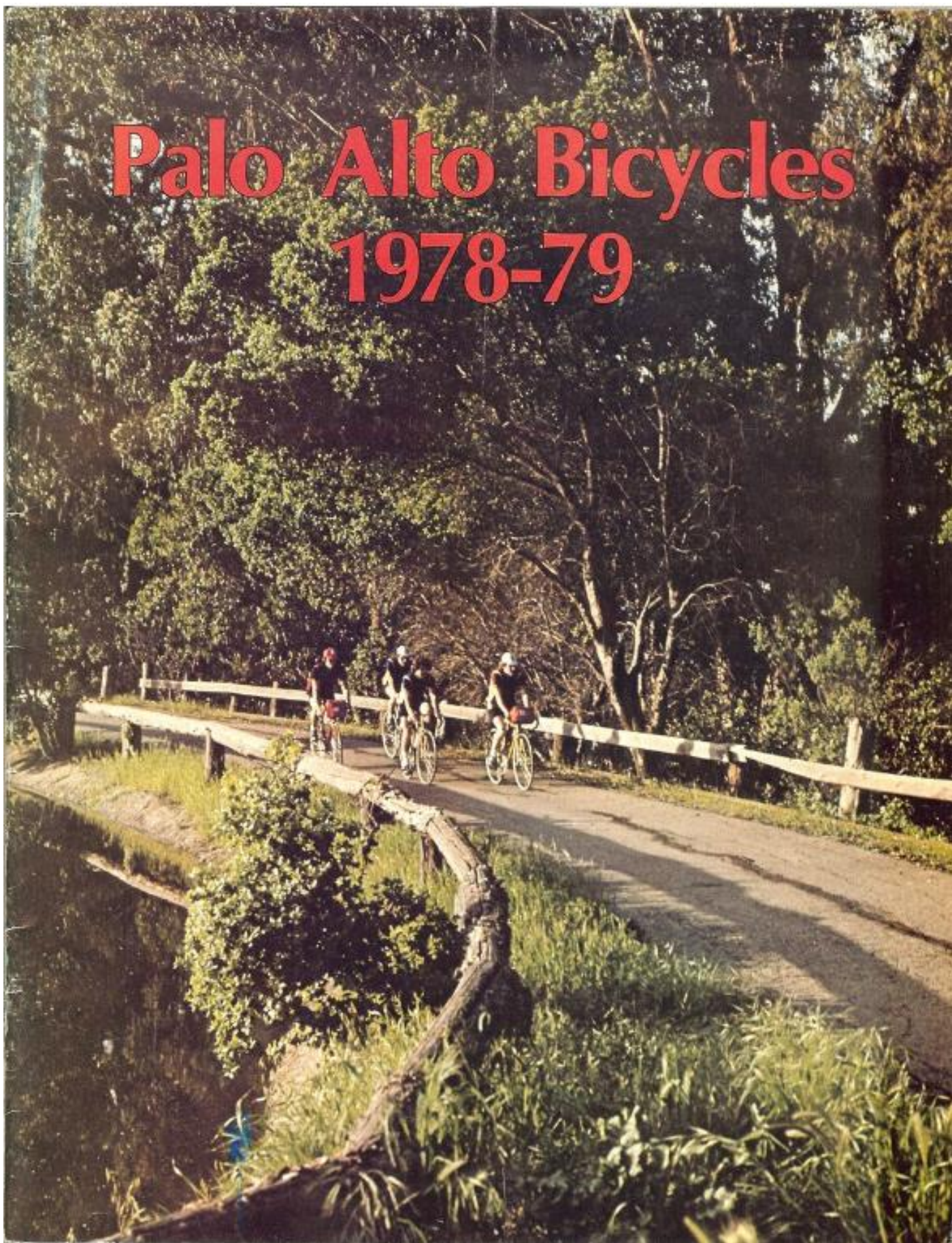


Palo Alto Bicycles 1978-79



Index

Alloy Parts	33	Pumps	40-41
Books	20-21	Racing Application	35
Bottom Brackets	47-48	Rims	17
Brakes	29-30	Rollers	34
Chains	20	Saddles	42-44
Chainwheels	45	Seat Posts	44
Cleats	9	Shift Levers	32
Clothing	6-7,10-11	Shoes	8-9
Cranksets	45-46	Spokes	16
Derailleurs	31	Stems	28
Frames	48-49	Superlight Parts	33
Freewheels	18-19	Tires	
Gloves	5	Accessories	37
Handlebars	27	Advice (Tips)	36
Headsets	29	Clement Sew-Ups	39
Helmets	5	Clinchers and Tubes	40
Hubs	14-15	Vittoria Sew-Ups	38-39
Miscellaneous	22	Toe Clips and Straps	13
Order Forms	23-26	Touring Equipment	1-4
Pedals	12-13	Wheels (Custom Built)	15-16

Introduction

The art and romance of the bicycle has become known to more and more over the years, yet the almost infinite miles of roadways means that bicyclists will never crowd each other.

With our catalog we attempt to keep you updated as to what are the most desirable bicycling components and accessories from throughout the world. We also include technical information to help you to decide without much difficulty which of various items are best suited to your specific cycling habits. Over the years we have built up customer confidence with the scrutiny exercised in selecting quality items for our catalog. We do not emphasize our prices, but for those who have compared they have found us more than competitive.

A new and important added dimension which we achieved and maintained throughout 1977 is the best customer service available in the industry. Through reorganization and careful planning, we were able to ship near 100% of all items ordered the same day they were received. This eliminates the biggest drawbacks of most mail order businesses; namely the wait and inefficiencies. Our service is a critical and necessary ingredient if mail order is to be desirable.

As the sport of cycling has grown in popularity, a number of organizations have formed to create a communication line among those interested. If you require information on racing, touring, etc.; we have listed below some organizations within our industry which we feel will be more than helpful.

Touring

Bikecentennial

Dept. D, Box 8308
Missoula, MT 59807
Phone: (406) 721-1776

BIKECENTENNIAL, a nonprofit, member-supported organization, is continuing promotion and design of a nationwide network of bicycle touring routes. In addition to developing cycling routes, the organization offers tour packages on the TransAmerica Bicycle Trail and other routes. They are currently developing two more long-distance touring routes to be completed by 1981. The first trail will be the Great Parks Bicycle Route, which links several national parks in Canada and the western United States. Research has also begun on the Great River Bicycle Route, which will parallel the Mississippi River from its source in Minnesota to its mouth in New Orleans. BIKECENTENNIAL depends on member support for funds to continue this trail development.

League of American Wheelmen

19 South Bothwell, Dept. P
Palatine, Ill. 60067
Phone: (312) 991-1200

The L.A.W. is a national organization of, by, and for bicyclists that is dedicated to promoting the use of the bicycle and protecting the rights of bicyclists. Founded in 1880, the League is the leading advocacy group today for cyclists who are interested in touring, recreational riding, and commuting. The L.A.W. sponsors large national rallies, annual "century runs", and special holiday rides among local bike clubs, as well as European tours for its members. The \$10.00 individual membership includes a yearly subscription to the L.A.W. BULLETIN, a monthly magazine that keeps L.A.W. members informed about legislative matters, national and local biking activities, and the latest news on medicine, equipment, and safety.

Racing:

United States Cycling Federation
Box 480
East Detroit, Michigan 48021
Phone: (212) 344-2808
See page 35 of our catalog.

Vermont Bicycle Touring

R.D. 2P
Bristol, VT 05443
Phone: (802) 388-4263

1978 is the seventh season of the VERMONT BICYCLE TOURING program for adults and families. Between May 12 and the end of October, VBT will be running bicycle tours for beginning, intermediate, and advanced cyclists plus its Bicycle Repair Clinics, and Bicycle Tour Planning Service. VBT's scheduled tours which range in length from a weekend to twenty-eight days, spend each evening at Vermont country inns and are accompanied by a sag wagon. Last year, 2300 cyclists rode over 215,000 miles with VBT. A free brochure is available upon request.

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Photography: Ted Mock

Photo page 1 Top Courtesy "J. Fredkin, Vermont Bicycle Touring"



Adventure, challenge, exercise, and enjoyment are just some of the rewards cyclists experience while on their bikes. It can occur on the weekend ride or the carefully planned and mapped big tour through one of your favorite scenic areas. The sensation that cycling brings is a very special feeling, one that is often longed for, and one that is never forgotten. When you're out on the road you are alone with your bike.

This interdependence is part of what makes cycling fantastic. Your bike must be designed and equipped for you and the type of riding you do. We list a wide range of components and accessories to enable you to do this. Once you have custom designed your bicycle to your own specifications, the pleasure of the sport is enhanced; and you become inseparable from your true riding partner.

Kirtland Tourpacks

For a number of years we have offered the complete line of Kirtland equipment because of its functional design, its light weight, and its durability. Kirtland remains the leader in its field. Their bags attach and dismount instantly, and once you reach your destination they become convenient and durable luggage with carrying handles and shoulder straps. All bags

are made from rugged 8 oz. nylon cloth which is urethane coated for maximum weather and water proofness. There is a pack designed for every type of cyclist; the weekend rider, the cross country tourer, the economy minded, and the rider who demands the utmost in equipment. Kirtland makes touring a pleasure.



Century 100 Seat Bag

The Century 100 Seat Bag is the perfect companion for the cyclist's day rides where a few tools, wallet, sew up tire, and other small necessities are all he/she needs to take along. It is web reinforced for strength, has two point suspension, and a sturdy foam stiffener. The zipper seam extends around three sides of the bag, allowing a large opening to easily get bigger items in and out. A double zipper is also provided to zip up tightly on both sides of an oversized object which hangs out.

Weight: 4 oz.
Volume: 270 cu. in.
Size: 6" x 9" x 5"
Colors: Navy Blue, Red, Bright Yellow
Cat. No. 1-801 \$10.50



Utility or Sew Up Bag

Ample space is provided within this bag to carry a variety of necessities. It'll fit a touring weight sew up, a chain and lock, and much more. It's excellent for tools, wallets, light spare wind jackets, etc. An envelope pocket on the inside is convenient as a divider to separate the oils and tools, or to protect the sew up. The unique velcro two fastener system securely fastens the bag under the seat. The inner material has been waterproofed to keep the contents safe on all rides.

Weight: 2 oz.
Volume: 100 cubic inches
Size: 3 1/4" x 3 1/4" x 10 1/4"
Colors: Navy Blue, Red, Bright Yellow
Cat. No. 1-802 \$5.98

Kirtland Handlebar Bags

Kirtland offers three models of front bags. All include a teflon-coated front rack. The handlebar bags come with a number of clever features which eliminate potential touring inconveniences, and thus allow the rider to concentrate on the tour. Some of the obvious conveniences are as follows:



1. The main large compartment which opens away from the rider allows easy access into the front bag while riding.

2. Full size clear vinyl map pocket on the top of the main compartment to permit the tourer to navigate while riding. The map pocket is accessible only from the inside of the bag, thus making it waterproof.

3. The quick release K/T bag support. This allows the front bag to be removed from or replaced on the bicycle in seconds by sliding it off or on the front rack. When touring, this is extremely convenient because one can use the bag as a handbag for valuables when stopping to enter a store or go on a hike. This rack is included with all three handlebar bags.

4. A shoulder strap (optional on Century bag) which attaches to hook rings, making the handlebar bag an easy to carry shoulder bag.

5. A shock cord which attaches the front rack directly to the bicycle's head tube. For heavy loads, this is tremendously helpful in eliminating the bounce created when riding over bumps.

6. An aluminum stiffener to prevent overloading.

7. Material is durable 8 oz. nylon pack cloth.



Century 600 Handlebar Bag

This is the least expensive of the handlebar bags. It includes the large main compartment plus a separate front zipper envelope pocket. The shoulder strap is not included with this bag.

Weight: 20 oz. (with support)

Volume: 381 cu. in.

Size: 7 $\frac{1}{2}$ " x 9 $\frac{1}{4}$ " x 5 $\frac{1}{2}$ "

Colors: Navy Blue, Red, Bright Yellow

Cat. No. 2-801 \$24.50



L/T Elite Handlebar Bag

This bag offers a large main compartment as well as a good sized front zipper pocket. A shoulder strap is included if you decide to unfasten the Velcro and slide the bag off your front rack for a carrying bag.

Weight: 24 oz. (with support)

Volume: 600 cu. in.

Size: 10" x 9 $\frac{1}{4}$ " x 5 $\frac{1}{2}$ "

Colors: Navy Blue, Red, Bright Yellow

Cat. No. 2-802 \$34.50



S/T Elite Handlebar Bag

This is identical to the L/T except that in addition it includes two easy-to-get-at pockets plus two slot pockets on the side. These additional pockets are designed for tourers who want maximum compartmentalization and are ideal for carrying small and frequently used items (e.g., food).

Weight: 28 oz. (with support)

Volume: 680 cu. in.

Size: 10" x 9 $\frac{1}{4}$ " x 5 $\frac{1}{2}$ "

Colors: Navy Blue, Red, Bright Yellow

Cat. No. 2-803 \$42.50

Kirtland Rear Panniers

Besides quality 8 oz. pack cloth nylon material and well-planned compartmental pockets, Kirtland panniers offer three unique and vital features.



- 1. The patented suspension system.** This system allows the panniers to snap on and off the rear carrier in seconds. To mount the panniers, you simply mate the "s" hook found between the springs with the provided "dropout" hook, and then pull up on the handle until the carrier hooks snap over the top of the carrier. That's it.
- 2. Heavy duty special carrier hooks** which offer strength and the ability to adjust your panniers in both a vertical and horizontal manner. This adjustment is important for short wheel base frames, odd ball racks, or fine adjustments on standard equipment.
- 3. Snap together luggage feature.** All the panniers can be snapped together and then carried with provided leather handled straps. This is an essential feature for those who fly to a location for a tour and only want to carry one set of luggage.

Besides volume and compartments, the Century panniers differ from the Elite in that their suspension system is controlled by a shock cord rather than a spring, and the carrying handle is not equipped with a leather cover for comfort.



Century 200 Front/Rear Panniers

This pannier is designed for either the front or rear of the bicycle. Designed with a short front-rear, long top-bottom profile, the Front/Rear Pannier has the proper carrier hook distance so that it easily fits on most all front pannier carriers. Like all Kirtland panniers, it is equipped with the quick release suspension system as well as the snap together hand carrying bag feature. This pannier is versatile because it can be used as a front pannier during the long hauls when other rear panniers are being carried, then switched to the rear carrier for trips into town or short tours.

Weight: 24 oz.

Volume: 905 cu. in.

Size: 11½ x 8¾ x 4½ each

Color: Navy Blue, Red, Bright Yellow

Cat. No. 3-801 \$29.50



Century 600 Panniers

The 600 is designed with the lowest center of balance possible. The deeper main compartments allow heavier and large baggage to be carried low. It also features cut away pockets to allow for foot clearance, even on short wheel base bikes.

Weight: 30 oz.

Volume: 1476 cu. in.

Size: 11½" x 11½" x 5" each

Color: Navy Blue, Red, Bright Yellow

Cat. No. 3-802 \$41.98

L/T Elite Panniers

As the name implies, the L/T (Light Touring) panniers are for the individual who keeps his load to a minimum in town or on the road. Four separate pockets are provided to adequately separate a light load.

Weight: 30 oz.

Volume: 1100 cu. in.

Size: 9" x 11¼" x 4¼" each

Colors: Navy Blue, Red, Bright Yellow

Cat. No. 3-803 \$46.50



S/T Elite Panniers

This is the most popular of the panniers. The S/T (Standard Touring) panniers are ideal for almost any touring need from distance riding with a full load to weekend or day trips with a medium to small load. With zippered main compartments and six pockets around the sides, this model is ideal for carrying almost any size load and keeping such things as spare tools and tires away from other items such as food and clothing.

Weight: 38 oz.

Volume: 2000 cu. in.

Size: 12½" x 11¼" x 4½" each

Colors: Navy Blue, Red, Bright Yellow

Cat. No. 4-801 \$64.98



G/T Elite Panniers

Designed for the bicycle tourer and/or camper who needs a large pack volume yet wants flexibility in load capacity and weight distribution. The G/T (Grand Touring) are the ultimate in touring panniers. They are designed with a low center of gravity preferred with the heavy loads. The main compartment is opened and closed with a drawstring and then covered with a top zipper flap. The drawstring closure is extremely useful, because tourists frequently find that their baggage does not repack as neatly as when the trip began, or that they accumulate additional items. The drawstring allows for the main compartment to increase in size, and for some items to partially hang out if necessary. In all, there are ten compartments. This should allow ample compartmentalization for the organizer. This is the ideal set of panniers for the extended tour.

Weight: 46 oz.

Volume: 2400+ cu. in.

Size: 14½" x 11¼" x 5" each

Colors: Navy Blue, Red, Bright Yellow

Cat. No. 4-802 \$77.98

Touring Racks

Blackburn racks are an unusually stiff rack. This is of particular importance when carrying heavy loads. The rack prevents the panniers from swaying, thus allowing the cyclist to maintain riding control even when accelerating. Blackburn racks are

the standard among the well-equipped touring cyclists. The rack is available in two models for rear or for front panniers. The rear rack is now adjustable allowing it to adapt to all frames.



Blackburn Adjustable Rear Rack 14 oz.

Anodized Silver Cat. No. 4-803 \$17.75

Anodized Black Cat. No. 4-804 \$19.75



Front Blackburn Rack 10 oz.

Anodized Silver Cat. No. 4-805 \$17.75

Anodized Black Cat. No. 4-806 \$19.75



Custom Eyelets

A solution for those who have wanted or tried to install a rear rack on their eyeletless Campy Dropouts.

Cat. No. 4-807 \$2.98

Cycling Gloves



Gant Aubisque Glove

This well known and durable French manufactured glove is handmade for bicycling comfort. The palm side is constructed of a rugged suede leather with padding and another layer of suede leather placed where the hand contacts the handlebar. Unlike many other gloves, the padding is extended around the thumb where pressure is often greatest. The backside of the glove is a light beige handmade cotton knitting. The knitting is preferred to a leather back because of coolness, easy on and off fit, and improved aesthetic appeal. For convenience and quickness, a velcro fastener is provided to adjust the glove to your wrist. For proper fitting measure the inch circumference around your knuckles excluding your thumb. Available sizes are in half inch increments ranging from 7 to 10.

Cat. No. 5-801 \$13.75 (Specify size)



Warm Wool Cycling Glove

We offer a solution for the cold fingered Winter cyclist: a new long fingered wool backed glove. There is no skimping of material. The palm side is of a brown suede material. Extra suede and padding are added around the palm for durability and comfort. The backside is of a beautiful close knitted grey wool. This will retain heat for warmth and absorb perspiration as you ride. For maximum warmth and comfort, this glove has a soft inner lining. With this added to the wool, numbness is no longer a problem even in the snow and ice. The glove is equipped with a velcro fastener around the wrist. For proper fitting measure the inch circumference around your knuckles excluding your thumb. Available sizes 7" to 9½" in half inch increments. Ample stretch permits an easy fit.

Cat. No. 5-802 \$19.98 (Specify size)

Bell Helmets

There have always been a variety of helmets on the cycling market. However, not until the Bell Helmet was developed was a cyclist both comfortable and adequately protected. Previous hard helmets have been hot, heavy and just plain uncomfortable. Leather helmets solved these problems, but left the skull vulnerable to sharp objects and other possible contact.

Bell has been in the helmet business for years, and thus their approach to a cycling helmet was not from scratch. They applied the strength and durability concepts of their other helmets to their new helmet molded specifically for cycling. The outer shell is constructed of high impact Lexan. This material offers the combination of lightness and durability. The inner shell is shock-absorbing beaded polystyrene; light enough to float on water, yet strong enough to take the punishment of high impact blows.

The air holes on the helmet are plentiful (11) and angled to force cool air circulation. This has been the shortcoming of all other hard shelled cycling helmets. Other helmets have offered adequate protection, but have been sweat boxes on rides requiring little exertion. The 9



sizing pads on the Bell Helmet's interior create a gap between the inner shell and your skull, thus allowing the forced air to enter, circulate, and exit.

As is obvious from every group of cyclists you spot, there is only one popular and functionally adequate helmet on the market and that is Bell.

Sizing: Unlike other helmets, proper fitting of the Bell Helmet is easily achieved. There are only two shell molds or sizes. What varies in size are the velcro attached comfort pads. Thus if you find a helmet does not properly fit, it is necessary to mail back only the pads and request a larger or smaller set of pads. To

determine your proper helmet size proceed with the following two steps:

1. With a tape measure, measure the inch circumference around your head as indicated in the sizing picture.
2. Convert it to the proper helmet size as indicated on the sizing chart.

Cat. No. 5-803 \$32.50

SIZING CHART	
Inches	Helmet Size
21½	6½
22	7
22½	7½
22¾	7¾
23½	7½
23¾	7¾
24	7½
24½	7¾



Measure as shown.

Clothing



Protog Jerseys

Protogs are an extremely well priced 100% merino wool jersey. Specially treated to be machine washable with no shrinkage. This material will breathe and yet retain body heat. All jerseys have two back pockets.

Deluxe Model Sergal Wool Jerseys

Over the years we have worked very closely with Sergal and we have sold their products in our Palo Alto store. There has never been any question about their quality of workmanship. However, over the past year we have been in constant contact in an effort to design a special deluxe 100% Wool Jersey for our mail order department. By special request, Sergal is knitting our jerseys out of a new heavier and more durable soft wool. This custom made material permits only minimum shrinkage when washed. The jerseys have been tailored to fit, based upon years of customer experience. We have also combined the most popular colors with a different stripe design to create a styled look for cycling. We feel that our specially designed jersey made by Sergal is a new level of achievement in cycle clothing. The emphasis is on durability, comfort, softness, fit, style, and quality of the best material for cycling; namely wool.

Special features include three rear pockets and a nylon zipper. Italian made.

Colors: Dark Blue with light blue stripe, Black with burgundy stripe, Maroon with yellow stripe, Yellow-Orange with brown stripe, and Blue with yellow stripe.

Sizes: Extra Small, Small, Medium, Large, and Extra Large.

Short Sleeve Cat. No. 6-801 \$26.98

Long Sleeve Cat. No. 6-802 \$31.98



Sizes: Small, Medium, Medium Large, Large, Extra Large. **Solid Colors Only:** Red, Yellow, Green, Orange, Blue and Light Blue.

Short Sleeve Cat. No. 6-803 \$26.98

Long Sleeve Cat. No. 6-804 \$31.98

Acrylic Jerseys



Teresa Jackson Acrylic Jerseys are unlike other acrylic clothing articles in that they have the same appearance and texture as soft wool or cotton garments. These jerseys are particularly comfortable during the warmer spring or summer months. The colors are eye catching and pleasantly combined. Two pockets are located on the back, and the front zipper is nylon. Machine washable with no shrinkage.

Sizes: Extra Small, Small, Medium, Large, and Extra Large.
Colors: Light Blue, Champagne, Green, Red, Black, Yellow, and Royal Blue.

Cat. No. 7-801 Short Sleeve \$21.98
Cat. No. 7-802 Long Sleeve \$24.98



Wool Warmups



100% Wool Warmups are difficult to find these days, but you can stop here. Teresa Jackson's self knit wool is soft, smooth, and warm. The nice color selection makes all warm-ups popular. The jacket is long and trim with plenty of shoulder space for vigorous activity. It has a full length zippered front with two pockets designed not to lose the active person's possessions. The pants are tight fitting for smooth, even air flow while riding through cool, moist weather. A drawstring is used for waist adjustability, and zippers are provided to bring the cuffs up snug. An extra layer of wool is provided on the upper thigh and knee to keep muscles warm and loose. The cuffs, sleeves, and collars are tailored to grip close to the body for warmth; and they are made of a very soft wool to prevent irritation experienced from some types of wool. The trim (cuffs, collar, and waist band) is done in world colors.

Sizes: Extra Small, Small, Medium, Large, and Extra Large.
Colors: Royal Blue, Champagne, Black, Red, and Yellow.

Warm-Up Jacket Cat. No. 7-803 \$41.50
Warm-Up Pants Cat. No. 7-804 \$37.98

Shoes

Avocet Cycling Shoes



Avocet has introduced a shoe designed for cycling, but with complete comfort for all day walking. This attractive and comfortable shoe offers the advantages of racing shoes and more.

For the sports rider the Avocet shoe is much more functional and comfortable while on the bike than any tennis shoe. It can be comfortably and quietly worn indoors and outdoors when off the bike unlike racing shoes with cleats. For the cycling commuter, the attractiveness of the shoe permits it to be worn during the job. For the racer, this shoe is totally adequate for training because of the efficiency provided.

The quality of materials used make the Avocet shoe comparable only to the very best in footwear. This shoe is a necessity for comfortable and efficient cycling.

Sizes: 6 through 12 (by half size increments)
Cat. No. 8-801 \$29.95

Shaped insole - designed to fit the wide American foot. Includes arch support.

Steel shank - to prevent discomfort and increase efficiency. The steel shank protects the foot from the sharp edge of the pedal cage and distributes pedal force over a wide area.

Vibram Sole - create the efficiency of a cleat. This sole has deep lateral grooves which grip the pedal cage snugly and prevent up and back or sideways movement. The long wear sole is manufactured by the world-renowned Vibram company.

Pedal



ADDITIONAL FEATURES

Material - the shoe is constructed of 100% top grade suede leather. Because of its breathing characteristics, this material allows good ventilation. Leather will also conform to the foot to create a comfortable fit. The thick suede will provide long wear and its texture results in non-skuff use.

Reinforcement - a double thickness of suede leather is used in where the toe clip and strap come in contact with the shoe and in other stress areas for foot protection and increased shoe life.

Fit - The Avocet fit is snug and comfortable for efficient riding and all day use.

Padded Heel - special padding has been added to protect and comfort the heel and Achilles tendon area.

Flexible Toe - the steel shank does not extend into the toe region which permits comfortable all day walking without notice of the steel shank.



Puma

A professionally designed shoe. This was the most popular shoe ridden on during the 1976 Olympic competition. The Puma shoe is a very stiff shoe with a hard nylon waterproof sole. The fit is very comfortable, and each pair includes three different size cleats. Sizes 6-13. Made for the medium to wide foot.

Puma will be out of stock till late summer.

Cat. No. 8-802 \$39.98



Medalist (Dutch Made)

This is a fantastic bargain buy. There is no skimping of materials or workmanship to justify this low price. This all leather shoe is manufactured in the heart of the racing capital of Holland. Added between the shoe's sole for stiffness is a 4 1/2" x 3/4" spring steel strip. This shoe is available in sizes 8 to 13, and it fits the medium to wide foot best.

Cat. No. 8-803 \$17.98



Cycling Socks

These are a thin 100% stretch nylon sock made for cycling. They are available in two models; a short model which comes up just above the ankles, and a long model which can be pulled up approximately two inches higher. These socks fit any size foot.

Short Sock

Cat. No. 8-804 \$1.50/pair

Long Sock

Cat. No. 8-805 \$1.98/pair



Detto Pietro "Coppi 7"

The Coppi is constructed of calfskin. It has a double leather sole which is pierced underneath and in the heel for excellent ventilation. Inside the sole there is a steel plate creating an extremely stiff shoe which is very beneficial for competition. **Size** 5½ to 13 in half size increments. Shoe width is narrow to medium. **Cat. No. 9-801 \$26.98**

Detto Pietro "Special 72"

The Special, like the Coppi, is Detto Pietro's leading seller. This shoe is a duplicate of the Coppi except for the premounted adjustable cleat. A wrench comes with the shoe to allow you to adjust the shoe to the position you desire. This is a competition shoe. **Size** 5½ to 11½ in half size increments. Shoe width is narrow to medium. **Cat. No. 9-802 \$31.98**

Detto Pietro "Special 74"

The 74 is an extremely comfortable shoe. It comes with a waterproof nylon sole rather than leather. Like the Special 72, the shoe is equipped with adjustable cleats. This model doesn't offer the steel plated sole, but the price is only \$23.98 with cleats. **Size** 6 to 11 in half size increments. Shoe width is narrow to medium. **Cat. No. 9-803 \$23.98**

How To Order Shoes:

To insure proper fit, please follow these directions carefully:

1. Put on regular cycling socks. Stand up on a piece of paper, having the weight of your body equally distributed on both feet. Holding a pencil vertically, clearly define the outline of each foot.
2. State your shoe size for regular or cycling shoes. Indicate type of shoe next to size.
3. Enclose outline and size with order.

NOTE: We guarantee a proper fit. Test shoes on carpet to preserve new condition. Shoes worn out-of-doors will not be accepted for exchange or refund.

Shoe Cleats

Pavarin Cleats

There are many riders who will touch no other cleat. These cleats are unique in that the groove is cut unusually deep and at a slant. The result are cleats which wear well and are extremely efficient. There are three models.



Pavarin Alloy

A very durable cleat. One can walk on this cleat for years before it wears down. It's the deep groove.

Cat. No. 9-804 \$2.98



Pavarin Alloy Adjustable

Same as above, but adjustable with a screwdriver.

Cat. No. 9-805 \$4.98



Pavarin Nylon

A paper light cleat which is designed for alloy pedal cages. It will not wear your black pedal cages. The cost of the cleats beats the price of a new set of alloy pedals.

Cat. No. 9-806 \$2.98

T.A. Cleats



T.A. 42

This is T.A.'s newest cleat. It is constructed of nylon, which means it's lightweight. There is an alloy insert molded into the groove to preserve the cleat's life when walked upon.

Cat. No. 9-807 \$2.98



T.A. 39

Same as the 38 except shorter. Usually used on the better shoes with the steel plate in the sole.

Cat. No. 9-808 \$2.50



T.A. 38

This is referred to as the road cleat. Its length makes this a cleat for the shoes which have no steel plated sole.

Cat. No. 9-809 \$2.50



Cinelli's Uniblock 2000

This hardened nylon cleat fits inside the pedal perimeter.

Cat. No. 9-810 \$3.98

Cycling Shorts



Protogs Shorts

This short is made from luxurious Merino Wool. The Superwash label certifies that these shorts are 100% Wool and are machine washable and machine dryable. Protogs shorts have an elastic and include a chamois. Available in black only.

Sizes: extra small, small, medium, medium large, large, and extra large. **Cat. No. 10-801 \$24.98**



Kucharik Shorts

These are a comfortable Summer cycling short. They are 100% Helanca, a soft material which breathes. The shorts are machine washable with no resulting shrinkage. A chamois is sewn on the inside. The waistband is tightened by use of a drawstring. Available in black only. **Sizes:** small, medium, and large.

Cat. No. 10-803 \$20.98



Chamois

For the replacement of a worn out chamois or to sew into a short for cycling. Increases comfort.

Cat. No. 10-806 \$6.98



Chamois Fat

For the prevention of saddle soreness. Contains fish oil, petroleum oil, vitamins A and D. Net wt. 2 oz.

Cat. No. 10-807 \$2.98



Protogs Racing Shorts

This short includes the same features as the Protog standard short plus two additions. The wool material used throughout is of extra heavy thickness to increase the durability and life of the short. Also, the chamois is larger in size. Available in black only.

Sizes: x-small, small, medium, medium large, large, extra large. **Cat. No. 10-802 \$30.98**



Cycling Suspenders

To prevent your cycling shorts from sagging during long rides, many cyclists find suspenders a surprisingly simple and effective solution.

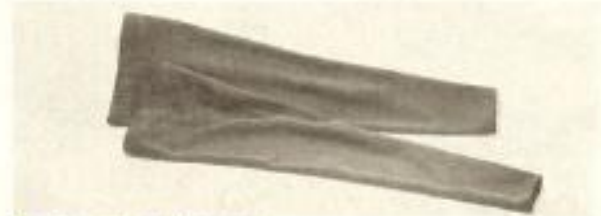
Cat. No. 10-804 \$4.98

Protogs Wool Cycling Tights

This is a one piece warm tight for early mornings or Winter riding.

Color: Black **Sizes:** Small (26 1/2"), Medium (28"), Medium Large (31"), Large (33"), Extra Large (34"). Inseam measurement of tights indicated in parenthesis.

Cat. No. 10-805 \$31.98



Protogs Leg Warmers

For cold days or pre-race warm-ups, leg warmers can be added to cycling shorts to create a long cycling tight. The material is 100% machine washable Merino Wool. This material will retain body heat better than acrylic.

Sizes: (ex. short), (small & medium), (large & ex large), (ex. long) **Cat. No. 10-808 \$12.98**

Protogs Arm Warmers

Cat. No. 10-809 \$7.98

T-Shirts



Over the years we have had numerous requests for bicycle related T-Shirts. This year we are finally offering a variety of cycling shirts. We have designed three logos which should have wide appeal. The logos appear on 100% cotton T-Shirts of superior quality **Men's Sizes: S,M,L,XL.**

Colorful Cyclist. This is a beautiful T-Shirt which only a color photograph can do justice. The five world colors are artistically blended to form the shape of a cyclist on the back of a tan shirt. Our pocket size logo appears on the front. Cyclist is larger than pictured.

Cat. No. 11-801 \$5.98 (specify size)

'Cycling Takes Wheel Power' logo screened on front.

Cat. No. 11-802 \$5.98 (specify size & tan or dark blue shirt)

'I'd Be Lost Without It.' This logo is printed below a road which leads into the shape of a bicycle. On the front is screened a pocket size 'Palo Alto Bicycles' logo.

Cat. No. 11-803 \$5.98 (specify size & tan or dark blue shirt)

Caps & Hats

Cotton Cycling Caps

To keep the perspiration out of your eyes, for your cap collection, or simply for good looks, we offer a variety of quality cycling caps. When ordering state your second choice.



Protogs Wool T-Shirts

For a warm wool undergarment during the cold weather, or just simply a casual shirt during the warm Spring and Summer days. **Colors:** White, Blue, and Black

Sizes: S,M,L,XL. Cat. No. 11-804 \$14.98 (specify color and size)



"Avocet" Cap
Cat. No. 11-806 \$1.98
"Cinelli" Cap
Cat. No. 11-807 \$1.98
"Vittoria" Cap
Cat. No. 11-808 \$.98

Plain Yellow/White
Cat. No. 11-809 \$1.98
Plain Blue/White
Cat. No. 11-810 \$1.98

Protogs Reversible Wool Winter Hat

When the days turn chilly and your ears turn numb, it's time for a wool cap. This cap is guaranteed to warm your brain as well as your ears. On the backside is a stretchable wool flap which can be brought down over the ears and neck.

Colors:

Reversible Black and Black-Red or Blue, or Yellow, or Green, or Orange, or Black.

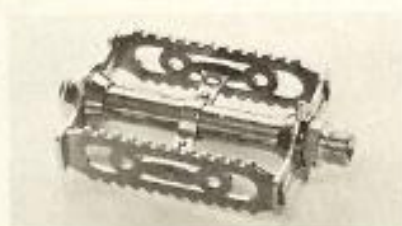
Cat. No. 11-811 \$13.50

Pedals

(Pairs-English threaded only)

Liotard Pedals

The French manufacturer Liotard is one of the original pedal companies. Quality has always been their criteria, and they have continued to control this and even improve it over the years. Years of experience have enabled them to manufacture their products at prices far below those of their competitors. All of their pedals are light, smooth functioning, and have detachable dust caps for maintenance and adjustment. Their selection includes several inexpensive light quality pedals, a top quality professional model, and their very popular platform design.



Liotard Type 460D

Duraluminum pedal. The price can't be beat, and the quality remains.
Cat. No. 12-801 \$5.98



Liotard Type 45

An extremely light pedal for this price and cage type.
Cat. No. 12-802 \$8.98



Liotard Type 23 Platform

The first manufacturer of the unique platform design. Quality smooth bearings and finish at an unbelievable price.
Cat. No. 12-803 \$9.98



Liotard Type 65 Competition

Heat-Treated cast shell, light alloy cage. This is Liotard's top of the line pedal.
Cat. No. 12-804 \$31.98

Campagnolo Pedals



Campagnolo Record Road

A reliable and durable steel pedal that needs little description.
Cat. No. 12-806 \$39.75



Campagnolo Record Track

Steel cage Cat. No. 12-808 \$39.75



Super Record Road Black

Same as Road Black, except titanium spindle included.
Cat. No. 12-805 \$99.98



Campagnolo Road Black

Same as above except anodized black dural cage.
Cat. No. 12-807 \$49.75



Campagnolo Track Black

Black dural cage. Cat. No. 12-809 \$49.75

K.K.T. Pedals



"Top Run" Alloy Pedals

A light, well priced pedal.
Cat. No. 13-801 \$8.98



Cinelli M-71 Pedals

The unusual design is such that no toe clip or toe straps are necessary. Extremely efficient racing pedals.
Cat. No. 13-804 \$69.98



Phil Wood Platform Pedals

Like all Phil parts, the pedals also have sealed bearings.
Cat. No. 13-805 \$50.98



Pro Ace Road

All steel cage
Cat. No. 13-802 \$27.75
 Same as above, except for anodized black alloy cage.
Cat. No. 13-803 \$31.75

Model	Weight Gms.	Cat. No.	Price
Lyotard 460 D	325	12-801	\$5.98
Lyotard 45	315	12-802	\$8.98
Lyotard 23 Platform	367	12-803	\$9.98
Lyotard 65 Competition	340	12-804	\$31.98
K.K.T. Top Run Alloy	365	13-801	\$8.98
K.K.T. Pro Ace Road	432	13-802	\$27.75
K.K.T. Pro Ace Road Black	332	13-803	\$31.75
Campagnolo Record Road	427	12-806	\$39.75
Campagnolo Road Black	327	12-807	\$49.75
Campagnolo Record Track	400	12-808	\$39.75
Campagnolo Track Black	314	12-809	\$49.75
Campagnolo Super Record	260	12-805	\$99.98
Cinelli M-71	384	13-804	\$69.98
Phil Wood Platform	329	13-805	\$50.98

Toe Clips

Christophe Alloy (with straps)

Only durable alloy toe clip made. Manufactured in two sizes only. Includes two lapize straps with alloy buckle. Medium (shoe sizes up to men's 9½). Large (shoe sizes men's 10 up). Weight (med.) clips: 29.0 gr.
Cat. No. 13-806 \$9.98 pair

Christophe Alloy (without straps) Same as above but without straps

Cat. No. 13-807 \$6.75 pair

Christophe Steel The best quality chromed steel toe clip made.

Small (shoe sizes up to men's 6). Medium (up to men's size 9½). Large (men's 10 or above). Weight (med.): 63.5 gr.

Cat. No. 13-808 \$2.98 pair



Toe Straps



Binda Extra

Two leather straps are bonded together with nylon to create a strong strap that has almost no stretch. Only made in white. **Cat. No. 13-809 \$6.98 pair**

Binda Normal
 Colors: Blue
Cat. No. 13-810 \$3.50 pair



Christophe
 Colors: Red, White, Blue or Black
Cat. No. 13-811 \$2.50 pair

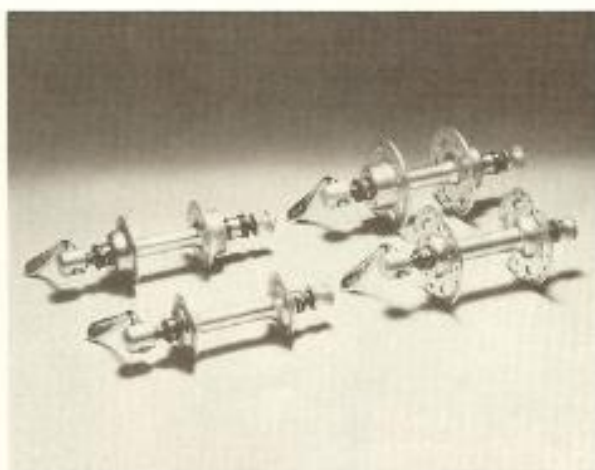


Hubs

Avocet Hubs

For 1978 Avocet has introduced a quality line of professional hubs. Function, rolling resistance, weight, durability, finish, and price are all factors which were considered in the production of these hubs. The machining, engineering, and workmanship are the best on the market. Both the Models I and II offer a remarkable number of features including the

price. Model III is an exotic hub as is indicated by the price. All models are lightweight which is extremely significant on moving bicycle components versus stationary or dead weight components. Each model is designed with a different type of rider in mind, and they are all best buys when compared with the other available hubs.



Avocet Model I Hubs

This is a professional loose ball bearing set of hubs. The races are precision machine ground, and the bearings are of high quality. All parts are interchangeable with Campagnolo Nuovo Record Hubs. The weight is less than the other hubs on the market. The satin finish is of at least an equal quality or better than all other hubs. This is an exceptional buy. Includes set of quick release skewers.

Available in Low or High Flange in 28°, 32°, or 36° for 5 or 6 speeds.

Cat. No. 14-801 Low Flange \$32.95

Cat. No. 14-802 High Flange \$34.95



Avocet Model II Sealed Hubs

This maintenance-free sealed hub set includes four long wearing removable contact sealed bearings. The removability factor is a great advantage over previous sealed hubs because it allows the owner to remove or adjust the bearings if desired. Previous sealed hubs required that they be returned to the manufacturer for bearing adjustment or removal. The Avocet sealed bearings are standard size. The hubs include steel quick releases and alloy axle attachments making these hubs even lighter than the lightweight Model I. An exceptional buy. Includes quick release skewers.

Available in Low or High Flange in 28°, 32°, or 36° for 5 or 6 speeds.

Cat. No. 14-803 Low Flange \$47.95

Cat. No. 14-804 High Flange \$49.95



Avocet Model III Magnesium Hubs

This is a special competition hub designed with efficiency in mind. There is no comparison. Years of engineering combined with the most exotic materials have achieved this magnificent end product. The lightweight materials include magnesium shells and titanium axles. In addition to the incredible light weight, a special non-contact sealed bearing is used to allow for a minimum amount of rolling resistance. The lightweight materials plus the low rolling resistance clearly make this the best hub for competition. Includes quick release skewers. Available in Low Flange in 28°, 32°, or 36°, for 5 and 6 speeds.

Cat. No. 14-805 Low Flange \$124.95





Campagnolo Nuovo Record High/Flange

Availability of parts excellent. 36° standard. For 28° and 32° add \$5.00 per pair. Includes quick release skewers.
Cat. No. 15-801 \$52.98



Campagnolo Nuovo Record Low/Flange

Same as 15-801 but small flange. 36° standard. For 28° and 32° add \$5.00 per pair. Includes quick release skewers.
Cat. No. 15-802 \$44.75



Phil Wood Medium/Flange

Does not come with quick release skewers. The first accepted sealed hub set. A maintenance free hub. 28°, 32°, or 36°.
Cat. No. 15-803 \$54.98

NOTE: All hubs available with 6 speed rear axle
 (For Campagnolo add \$3.00 additional).

Model	Weight Gms. w/skewers	Cat. No.	Price
Avocet Mod. I L/F	495	14-801	\$32.95
Avocet Mod. I H/F	558	14-802	\$34.95
Avocet Mod. II L/F	450	14-803	\$47.95
Avocet Mod. II H/F	500	14-804	\$49.95
Avocet Mod III L/F	340	14-805	\$124.95
Campagnolo H/F	578	15-801	\$52.98
Campagnolo L/F	500	15-802	\$44.75
Phil Wood M/F L/F	540	15-803	\$54.98

Hub Parts

Skewer Avocet front	Cat. No. 15-804	\$5.95
Skewer Avocet rear	Cat. No. 15-805	\$5.95
Skewer Campagnolo front	Cat. No. 15-808	\$7.98
Skewer Campagnolo rear	Cat. No. 15-809	\$8.98
Axle Set Campagnolo front	Cat. No. 15-809	\$6.98
Axle Set Campagnolo rear	Cat. No. 15-811	\$7.98



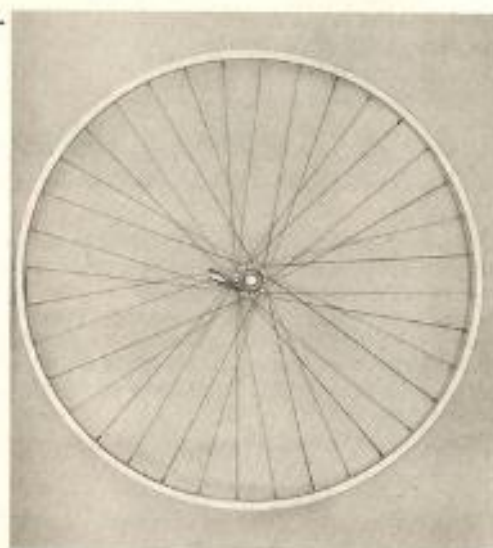
Cone Wrenches Economy Set (13, 14 & 15, 16)
Cat. No. 15-812 \$1.50 each



Cone Wrenches Top Quality (13,14 or 15,16)
 Avocet & Campy hubs require 13,14 wrenches
Cat. No. 15-813 \$1.98 pair

Complete Wheels

Rim	Spoke	Hub	Cat. No.	Price Per Pair
Clincher Wheels				
Super Champion 27 x 1 (13-19mm)	Robergel Sport Double Butted Light Gauge, 3X	Avocet Mod. I Low Flange	15-812	\$75.00
Super Champion 27 x 1 (13-19mm)	Robergel Sport Double Butted Light Gauge, 3X	Avocet Mod. II Sealed Bearing Low Flange	15-813	90.00
Super Champion 700C x 1 (13-19mm)	Robergel Sport Double Butted Light Gauge, 3X	Avocet Mod. I Low Flange	15-814	75.00
Super Champion 700C x 1 (13-19mm)	Robergel Sport Double Butted Light Gauge, 3X	Avocet Mod. II Sealed Bearing Low Flange	15-815	90.00
Tubular Wheels				
Fiamme Red Label	Robergel Sport Double Butted Light Gauge, 3X	Avocet Mod. I Low Flange	15-816	70.00
Fiamme Red Label	Robergel Sport Double Butted Light Gauge, 3X	Avocet Mod. II Sealed Bearing Low Flange	15-817	85.00



Spokes



Robergel Trois Etoiles (three star)

This stainless steel spoke is well known amongst wheel builders. The Stainless steel finish gives built wheels an attractive appearance, and also prevents the spokes from rusting. All Robergel spokes are double butted.

Trois Etoiles 15-17-15 light gauge

Cat. No. 16-801 \$12.98 box of 75 with nipples
Cat. No. 16-802 \$14.98 box of 75 with alloy nipples

Trois Etoiles 14-16-14 heavy gauge

Cat. No. 16-803 \$14.98 box of 75 with nipples

Robergel Sport

This is a galvanized spoke which has a little higher tensile strength and breaking point than the Trois Etoiles.

Sport 15-17-15 light gauge

Cat. No. 16-804 \$8.98 box of 75 with nipples
Cat. No. 16-805 \$10.98 box of 75 with alloy nipples

Sport 14-16-14 heavy gauge

Cat. No. 16-806 \$9.98 box of 75 with nipples

How to order spokes:

To insure proper length of spoke please specify the following -

1. Type of rim (make, model, alloy or steel, number of spoke holes)
2. Hub (make, low or high flange, model, number of spoke holes)
3. Spoke cross (radial, two cross, three cross, four cross)

D.T. Stainless Steel Spokes

D.T. 15-16-15 light gauge (double butted)

Cat. No. 16-807 \$19.98 2 bags of 37 spokes with nipples
Cat. No. 16-808 \$23.98 2 bags of 37 spokes with alloy nipples.

D.T. 14-15-14 heavy gauge (double butted)

Cat. No. 16-809 \$19.98 2 bags of 37 spokes with nipples

D.T. 15 light gauge (straight gauge)

Cat. No. 16-810 \$13.98 2 bags of 37 spokes with nipples

D.T. 14 heavy gauge (straight gauge)

Cat. No. 16-811 \$14.98 2 bags of 37 spokes with nipples

Custom Built Wheels

Our professional wheel builder Bob Hillhouse takes personal pride in each wheel he builds. After 12 years of experience at this art, perfect trueness is guaranteed through the technique he has developed of tension tuning each spoke. Bob's wheels are built to withstand punishment, and it is thus not surprising to find many top national racers riding on his wheels. Our packing department guarantees that your wheels will arrive in perfect condition.

Cat. No. 16-812 \$12.50 Labor per Wheel



Wheel Truing Stand

An easy to assemble and operate truing stand for the wheel builder. It can be placed or bolted on the bench for 27" or 700C wheels.

Cat. No. 16-813 \$26.98

Rims

Tubular (Sew-Ups)

Model	Weight Grams	(1-4 Rims, add \$1.00 for box)		
		Drillings	Cat. No.	Price
Super Champion Arc-en-Ciel Smooth sided rim. An excellent all purpose road rim.	330	36	17-801	\$10.75
Super Champion Record du Monde Smooth sided rim. Especially suited for road racing.	310	28,32,36	17-802	\$10.75
Super Champion Medaille d'Or Smooth sided rim. Popular rim for smoothly surfaced roads. Mainly used for competition. Requires medium to light-weight riders.	260	28,32,36	17-803	\$12.25
Fiamme Ergal (Yellow Label) Smooth sided rim. Good road or criterium rim.	290	28,32,36	17-804	\$13.98
Fiamme Red Label Smooth sided rim. All purpose rim; the most popular of all.	360	36	17-805	\$8.98



Clincher Rims

Narrow Type (measures 13-19 mm)

This is the newer design in clincher rims often referred to as the 1" rim because of the tire it accommodates. The advantages which a narrower rim and tire offer are lighter weight, less rolling resistance, and a stiffer, more responsive ride.

Super Champion 27" x 1" (13-19 mm) Smooth sided rim. Presta valve hole. The strongest and best alloy rim made, now available for the first time.	485	36	17-806	\$11.50
Super Champion 700C x 1" (13-19 mm) Same as above except for diameter size.	470	36	17-807	\$11.50
Rigida 27" x 1" (13-19 mm) Smooth sided rim. Presta valve hole. A quality French manufactured alloy rim similar to Super Champion.	485	36	17-808	\$11.50
Rigida 700C x 1" (13-19mm) Same as above except for diameter size.	470	36	17-809	\$11.50



Standard Type (measures 16-22 mm)

This rim is often referred to as the 1 1/4" or 1 1/2" rim because of the tire it accommodates. The advantages which a wider rim offer are strength, a softer ride, and a greater selection of tires in most bike shops.

Super Champion 27" x 1 1/4" (16-22 mm) Smooth sided rim. Schrader valve hole. The strongest and best alloy rim manufactured	495	36	17-810	\$10.50
Super Champion 700C x 1 1/4" (16-22mm) Same as above except presta valve hole and different diameter.	480	36	17-811	\$10.50
Rigida 27" x 1 1/4" (16-22 mm) Smooth sided rim. Presta valve hole. A quality French manufactured alloy rim similar to Super Champion. Smooth sided, presta hole.	495	36	17-812	\$10.50
Rigida 700C x 1 1/4" (16-22mm) Same as above except for diameter size.	480	36	17-813	\$10.50
Fiamme Yellow Label 27" x 1 1/4" (16-22 mm) Smooth sided rim. Schrader valve hole. A nicely priced light alloy rim.	500	36	17-814	\$6.50
Fiamme Yellow Label 700C x 1 1/4" (16-22 mm) Same as above except presta valve hole and different diameter.	485	36	17-815	\$6.50



Rim Strips

Extra narrow rubber rim strip (for 27 or 700 x 1" rim) Cat. No. 17-816 \$1.00/pr.
Standard 27" or 700C rubber rim strip Cat. No. 17-817 \$1.00/pr.

Freewheels

Regina Super Corsa Oro Freewheels

Regina is one of the original quality bicycle parts manufacturers. Their equipment is known throughout the world, and replacement parts are available everywhere. Their emphasis in freewheels is lightness, long wearing cogs, and versatility in function.

Their oro freewheels are approximately 30-60 grams lighter than Sun Tour Pro Compe, the Sun Tour Winner with steel cogs, and the Shimano Dura Ace Freewheels. The cogs are of hardened steel and are brass plated for both aesthetic appeal and smoother meshing with the chain. The cogs have a range of from 13 to 31 teeth, and the same freewheel body can be used for either five or six speeds.



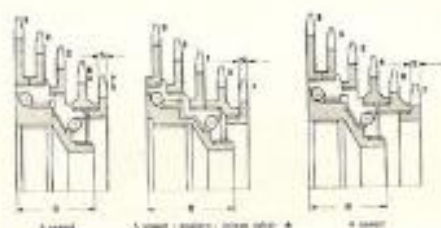
Regina Super Corsa Oro 5 Speed Freewheel
Cat. No. 18-801 \$13.98

Regina Super Corsa Oro 6 Speed Freewheel
Cat. No. 18-802 \$15.98

Stock sizes - 5 Speeds and 6 Speeds

13-14-15-16-17	14-16-18-20-23	13-15-17-19-21-23
13-14-15-17-19	14-16-18-21-24	13-15-18-20-22-24
13-15-17-19-21	14-17-20-23-26	14-15-16-17-18-19
13-15-17-19-22	14-17-20-24-28	14-15-16-17-19-21
13-15-18-21-24	14-17-20-26-31	14-15-17-19-21-23
13-16-20-23-26	15-16-17-18-19	14-16-18-20-22-24
13-16-20-24-28	15-16-17-19-21	14-16-19-22-24-25
13-16-20-26-31	15-17-19-21-23	14-16-19-22-25-28
14-15-16-17-18	13-14-15-16-17-18	12-13-14-15-16-17
14-15-16-18-20	13-14-15-16-18-20	12-13-14-15-17-19
14-15-17-19-21	13-14-15-17-19-21	12-13-14-16-18-20
14-16-18-20-22	13-14-16-18-20-22	

For years Regina has remained by far the most popular racing and touring freewheel, yet they continue to make improvements. This year they are offering English threaded bodies with splined fittings. This is a significant improvement because it allows the freewheel to be removed much more easily than the two pronged body, and the chances of damaging the body are greatly reduced. Another significant improvement is that the freewheel bodies have smoother ground bearing races. Thus the bodies will now have even longer wear, and the freewheels will run more smoothly. The final addition which will be available in late 1978 is a 12 tooth cog for six speeds. This makes Regina the only company to offer this, and it will allow cyclists who push big gears an opportunity for higher gearing. Compared with other equivalently priced freewheels on the market, Regina is an outstanding quality buy.



Custom Made Regina Freewheels

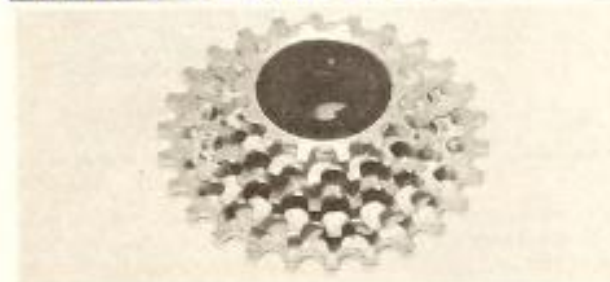
All freewheel ratios not listed as a stock size are custom made. Also, freewheels requiring French threaded bodies are custom made (note: French bodies available in two prong bodies only). For custom made freewheels add \$1.50 to the above price, and list 18-03 as the catalog number. Available cogs 13 through 31 teeth.

Cat. No. 18-803 add \$1.50

Titanium & Alloy 6 spd. Freewheels

Regina Titanium	Cat. No. 18-804	\$150.00
Maillard 700 Alloy	Cat. No. 18-805	\$100.00
Everest Dural Freewheel	Cat. No. 18-806	\$50.00

Sun Tour Pro Compe (Oro)



Sun Tour Pro Compe Stock Sizes

14-15-16-17-18	14-16-18-21-24	14-17-21-26-32
14-15-17-19-21	14-16-19-22-26	14-18-22-28-34
14-15-18-20-22	14-17-20-24-28	

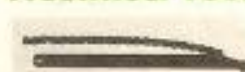
Cat. No. 18-807 \$7.90

Custom-Made Pro Compe Freewheels

If one of the stock models does not meet your needs, just tell us the ratio you would like. Smallest sprocket that can be used is 14. Largest sprocket that can be used is 34. Sprockets not manufactured are 25 tooth, 29 tooth, 31 tooth, 33 tooth.

Cat. No. 18-808 \$8.98

Freewheel Tools



Cog removing tool (to remove sprockets from the cluster body)

Cat. No. 18-809 \$2.98



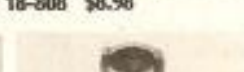
Regina splined cluster removing tool

Cat. No. 18-810 \$3.98



Regina two prong cluster removing tool

Cat. No. 18-811 \$1.50



Sun Tour cluster removing tool

Cat. No. 18-812 \$1.50



Cyclo cluster removing tool

Cat. No. 18-813 \$2.50

Sun Tour Ultra-6 Freewheel

This is a new design in freewheels for 1978. The cogs are more closely spaced so that this six speed freewheel has a similar width as a 5 speed freewheel. The advantages of this are that the same wheel dish is required for this freewheel and five speeds, and that this freewheel can be used with a five speed axle. The Trans-Z chain listed in our chain section must be used with this freewheel because of the closer spacing. This chain will also work with standard freewheels. The cogs are the normal 2mm width.

Available Ratios

Pro Compe Silver Ultra-6 Freewheel Cat. No. 19-802 \$12.98	14-19	14-26
	14-21	14-28
	14-23	14-32
	14-24	14-34

Winner Silver Ultra 6 Freewheel

Available Ratios	Cat. No.	Price
13-18	19-803	\$16.98
13-21	19-804	17.50
13-23	19-805	17.98
13-24	19-806	18.50
13-26	19-807	18.98
13-28	19-808	19.50
13-32	19-809	19.98

Cyclo Pans (French)

Cyclo freewheel kits have the ideal design. They are the simplest and easiest freewheel to work on, and they are by far the most versatile cluster on the road. First, there are only two types of cogs. The lower two cogs thread on, the upper three slide on. Secondly, the freewheels are offered in a kit. This allows the cyclist to select any ratio he desires. The freewheels are available in a kit containing cogs between 13 and 24 teeth, and a larger kit making possible any gearing between 13 and 28 teeth. The kit includes spare parts. Cog color is silver.



Cyclo Pan 13-24 Racing Kit (includes 15 cogs, freewheel body, freewheel removing tool, spacers, spare springs and pawls, and oil). With this freewheel the racer can select the proper ratio for a criterium or road race.

Cat. No. 19-810 \$44.98

Cyclo Pan 13-28 Racing and Touring Kit

(includes 19 cogs, freewheel body, freewheel removing tool, spacers, spare springs and pawls, and oil). With this freewheel the rider can pull out the gear chart and figure the gearing necessary for the ride ahead, and then simply build the proper ratio with the cogs provided.

Cat. No. 19-811 \$54.98

Cyclo Pan Six Speed Kits (available late summer)



Sun Tour Winner Freewheels

This freewheel will accommodate 13 tooth cogs.

Available Ratios

13-14-15-16-17	13-15-17-19-22	13-16-20-24-28
13-14-15-17-19	13-15-18-21-24	13-17-20-26-32
13-15-17-19-21	13-16-19-23-26	

Cat. No. 19-801 \$12.98



Cyclo Alloy Freewheels

After extensive cog wear tests, Cyclo now introduces their alloy freewheel. Tests have clearly indicated that this freewheel rates number one for alloy cog durability, and approaches the wearability of steel cogs. Only the 13 tooth shows any sign of significant wear, and thus this cog is provided in steel only. The alloy cogs interchange with the steel cogs on the Cyclo Pan Kits.

Custom Cyclo Five Speed Alloy Freewheels

(Specify desired cogs between 13 & 28 teeth)

Cat. No. 19-812 \$55.98

Custom Cyclo Six Speed Alloy Freewheels

(available late summer)

Model	Weight Gms.		Price
	for 14/22 ratio	Cat. No.	
Regina Oro	335	18-801	\$13.98
Regina Titanium	257	18-804	150.00
Maillard 700Alloy	180	18-805	100.00
Everest Dural	210	18-806	50.00
Sun Tour Pro Compe	454	18-807	7.98
Cyclo Pan Steel	360	19-810	44.98
Cyclo Alloy	205	19-812	55.98
Winner Steel	365	19-801	12.98
Dura Ace Steel	398	Not Listed	

Chains



Regina Supercorsa Black

This is a well known high quality derailleur chain designed for smooth shifting. 114 links.

Cat. No. 20-801 \$4.75



Regina Oro

This is the same chain as the Supercorsa except that the plates are brass plated. This gold plating improves the aesthetic appeal and increases shifting smoothness with the oro freewheels. 114 links.

Cat. No. 20-802 \$5.98



Regina Record Oro

This chain was designed for Merckx's Mexican World Record. The plates are beveled, and a small hole is drilled in each brass link. The plates are also slimmer than the standard oro chain. 114 links.

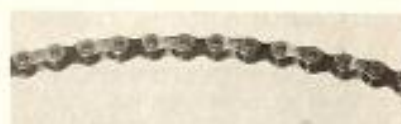
Cat. No. 20-803 \$14.50



Regina Titanium

This is the lightest chain manufactured. Titanium side plates, with hardened pins which reduce wear.

Cat. No. 20-804 \$139.98



Shimano Uniglide Chain

This is Shimano's new chain with their interestingly shaped outer plate.

Cat. No. 20-805 \$6.25



Sun Tour Trans Z Chain

This is Sun Tour's Chain which is compatible with their new Ultra 6 freewheel. Because the distance between the outside of the outer links has been decreased, this is the only chain which will function properly with the Ultra 6 freewheel. It will also accommodate any other freewheel.

Cat. No. 20-806 \$7.98

Model	Weight Gms. 116 links	Cat. No.	Price
Regina Supercorsa Black	395	20-801	\$4.75
Regina Oro	388	20-802	5.98
Regina Record Oro	346	20-803	14.50
Regina Titanium	255	20-804	139.98
Shimano Uniglide	370	20-805	6.25
Sun Tour Trans Z		20-806	7.98

Cyclo Chain Rivet Extractor

Cat. No. 20-836 \$2.98



Books, Magazines, & Maps

COLLECTION OF RACING BOOKS

Tour de France Series

Each book contains a complete recap of each stage of the year's race.

1970	Cat. No. 20-807	\$2.95
1971	Cat. No. 20-808	\$2.95
1972	Cat. No. 20-809	\$2.95
1973	Cat. No. 20-810	\$2.95
1974	Cat. No. 20-811	\$2.95
1975	Cat. No. 20-812	\$3.95
1976	Cat. No. 20-813	\$3.95
1977	Cat. No. 20-814	\$3.95

Giro d'Italia Series

The same approach as the Tour de France Series except the Italian Race.

1972	Cat. No. 20-815	\$2.95
1973	Cat. No. 20-816	\$2.95
1974	Cat. No. 20-817	\$2.95
1975	Cat. No. 20-818	\$3.95
1976	Cat. No. 20-819	\$4.95
1977	Cat. No. 20-835	\$4.95

Cycle Racing Tactics

Not a short-cut to victory, but definitely helpful in this complex sport.

Cat. No. 20-820 \$1.95

Cyclocross

The story of this popular European sport.

Cat. No. 20-821 \$1.95

Merckx, Man & Myth

A flashback on one of the most remarkable years in cycling, 1971, the year that belonged to Merckx.

Cat. No. 20-822 \$1.95

Fausto Coppi

Of all the famous names in cycling history, none is held in greater esteem than that of Fausto Coppi, the peasant lad from Lombardy who became the sporting idol of the continent of Europe. This is an assessment of his life and career.

Cat. No. 20-823 \$2.95

Felice Gimondi

David Armstrong traces Gimondi's career and explains why he is one of cycling's all-time greats.

Cat. No. 20-824 \$1.95

Louison Bobet

The story of a man who combined dedication, scientific application and willpower to become one of the finest all-rounders of cycling.

Cat. No. 20-825 \$1.95

Legends of Cycling

Stories of cycling achievements and quests for glory which make today's legends.

Cat. No. 20-826 \$1.95

King of Sports

A textbook on cycle road racing.

Cat. No. 20-827 \$2.75

Fabulous Fifties

The golden years of cycle racing are brought to you by N.G. Henderson.

Cat. No. 20-828 \$1.95

Uncrowned Kings of Cycling

Recognition is finally given to those who were never destined to wear the rainbow jersey of world champions, but were worthy.

Cat. No. 20-829 \$1.95

Rainbow Jersey

From the kilo to the road races; the story of the 1970 World Championship.

Cat. No. 20-830 \$1.95

Champion of Champions

History of the annual classic cycle race at Herne Hill Stadium on Good Friday — the Champion of Champion's International Sprint Race.

Cat. No. 20-831 \$1.95

More Racing Books

Winning Bicycle Racing by Jack Simes

This is a how-to-do-it book on bicycle racing in the United States. This is an excellent book for those who are thinking about racing, or those who have just obtained their racing license. Included are 83 photos.

Cat. No. 21-801 \$4.95

American Bicycle Racing edited by James McCullagh

The history and scope of bicycle racing in America are covered in this volume. The emphasis is on track racing. Various chapters are written by guest writers.

Cat. No. 21-802 \$3.95

Basic Training

An essential book for the serious racer. This 48 page book lays out the schedule a racer should keep to before, during, and after the racing season. Such topics as interval training, reaching a peak, maintaining fitness, avoiding staleness, and weight training are discussed.

Cat. No. 21-803 \$2.95

Magazines

International Cycle Sport

(6 month back issues in stock.) An English monthly racing publication.

Cat. No. 21-804 \$1.95 per issue

Touring

The Bikecentennial Organization has published a series of books and map guides showing and describing the scenery, flora, and landmarks along the 4,250-mile cross country route. The route has been divided into five sections, and a detailed map and guidebook set is available for each section. Additional information is included to prepare you for a tour along the trail. Thus, for those who wish to re-do a section, or for those who are looking for a tour, or those who live in the area; these guides lay out a well-planned, scenic tour. Each set includes a detailed guidebook plus a mile-by-mile map book of the tour.

Coast Cascade Region (From Astoria, Oregon to Missoula, Montana)

Cat. No. 21-805 \$5.98/set

Rocky Mountain Region (From Missoula, Montana to Pueblo, Colorado)

Cat. No. 21-806 \$5.98/set

Plains-Ozark Region (From Pueblo, Colorado to Ste. Genevieve, Missouri)

Cat. No. 21-807 \$5.98/set

Bluegrass Region (From Ste. Genevieve, Missouri to Berea, Kentucky)

Cat. No. 21-808 \$5.98/set

Appalachian Region (From Berea, Kentucky to Yorktown, Virginia)

Cat. No. 21-809 \$5.98/set

The American Biking Atlas and Touring Guide by Sue Browder

One hundred fifty vacation and weekend tours throughout all 50 states and Canada. Tear-out pages. Each tour is on a separate page with map, restaurant, lodging, camping, local bike shop information, and difficulty indicated. 320 pages.

Cat. No. 21-810 \$5.95



Resource Directory for Bicycle Tourists

A 55-page booklet which is the telephone book for cycling. Listed are addresses for bike-related information centers in all parts of the United States and Canada. Indicated are sources for maps, places to stay, and bicycle-related publications.

Cat. No. 21-811 \$1.00

The Bicycle Tourist's Cookbook

This 48-page booklet lists recipe after recipe of the type of meals which should be consumed by the bicyclist while touring. Advice is also given on cooking equipment necessary for overnight tours.

Cat. No. 21-812 \$1.00

General Maintenance and Technical Manuals

Guide to Bicycles and Bicycling by Fred DeLong

A complete guide to all areas of cycling such as buying a bike, proficiency, techniques, repair, accessories, competition, and safety. The author has dedicated his life to cycling, and thus the knowledge is first hand. Over 400 photos and illustrations. Hardback with 278 8" x 11" pages.

Cat. No. 21-813 \$15.00

The New Complete Book of Bicycling by Eugene A. Sloane

This is the original complete guide to all aspects of bicycles and bicycling. In hard back. 506 pages.

Cat. No. 21-814 \$12.50

Bicycle Frames

A close-up look at frame materials, measurements, and building know-how. 43 pages.

Cat. No. 21-815 \$1.95

Food for Fitness

The proper diet for the active athlete is discussed by Dr. Craig Hoyt. He considers the different types of riding; criteriums, road races, and touring; and then recommends proper diets before and during your ride. 141 pages.

Cat. No. 21-816 \$3.50

Glenn's Complete Bicycle Manual

A 339 page well illustrated book which concentrates just on maintenance. Very complete.

Cat. No. 21-817 \$5.95

Building Bicycle Wheels

This is a book dealing solely with the art of building wheels. 48 pages.

Cat. No. 21-818 \$1.95

Miscellaneous Parts



T.A. Steel Down Tube Cage (Chromed)

Cat. No. 22-801 \$3.25



Lambertini Steel Handlebar Cage

Cat. No. 22-802 \$1.98



T.A. Alloy Down Tube Cage

Weight 47 grams. The T.A. cage is by far the most durable of all alloy cages manufactured. Available in two colors,

T.A. Silver Cat. No. 22-803 \$8.98

T.A. Black Cat. No. 22-804 \$8.98



T.A. Water Bottle or equivalent

Cat. No. 22-805 \$1.50

Body Electrolyte Replacements

While cycling, your body is continually losing through perspiration and other means essential chemicals necessary for your body to produce pedaling energy. E.R.G. contains electrolyte replacements to restore the chemicals lost and thus prevent total fatigue or "burning out". These substances should be taken along on difficult rides and consumed regularly, before fatigue occurs.

E.R.G. Flavors: Lemonade, Fruit Punch, and Natural

Each Package Makes-	Cat. No.	Price Per Package
One Quart	22-806	\$5.55
Twin Pint-Pak	22-807	\$5.55
Water bottle size is one pint		
One Half Gallon	22-808	\$7.75



Cycling Mirror

Clips on to any pair of glasses or helmet.

Cat. No. 22-809 \$4.98



Stopwatch

Doro Timer with 1/10 second addition, 1 jewel, 60 second dial calibration. 1 thru 30 seconds-black numerals. 31 thru 60 seconds-red numerals. 30 minute register. Steel case.

Cat. No. 22-810 \$24.98



Stopwatch Holder

Will attach any stopwatch to handlebar.

Cat. No. 22-811 \$3.50



I.K.U. Speedometer

This is a very light and precise reading speedometer-odometer combination. Almost no friction is caused by wheel contact, and it will fit any wheel size. Reads to 40 m.p.h.

Cat. No. 22-812 \$10.50



Dri-Slide Lubricant

Dri-Slide is a unique dry-film lubricant that does not attract dust and helps resist rust and corrosion. It is recommended to lubricate all moving parts except those requiring grease (bearings).

Dri-Slide Bike-Aid 4 oz. with Spout

Cat. No. 22-813 \$1.75

Dri-Slide Bike-Aid 8 oz. Aerosol

Cat. No. 22-814 \$2.98



Waterless Hand Cleaner

This is an excellent ingredient to carry in your tool or spare tire bag. If an emergency arises and you get grease or rim cement on your hands after working on yours or somebody else's bike, this handy ingredient will remove both. Packaged in a 2 oz. plastic tube, and contains lanolin.

Cat. No. 22-815 \$1.00

New Gold Seal Bicycle Grease

This is a quality grease offering superior lubricity. The grease is stable to 450° Fahrenheit, and will not leak out of bearings under the toughest of road conditions. Because it is waterproof it provides excellent rust protection. Packaged in 2 oz. plastic tube.

Cat. No. 22-816 \$1.00

Phil Wood Waterproof Grease

85 grms. Cat. No. 22-817 \$1.50

Campagnolo Special Grease

100 grms. Cat. No. 22-818 \$2.98

Simichrome Polish

For polishing chrome. 203 gm. tube.

Cat. No. 22-819 \$1.75

Handlebars



To choose a handlebar for proper width fitting, a general rule is to measure from shoulder blade end to shoulder blade end. However, other factors which can affect the width chosen are personal preference or type of riding. For drop, road riders usually prefer less drop than criterium racers. For reach, there is almost no difference between the bars.

SR Handlebars



Sakae Ringyo combines a lightweight design with a satin pearl finish in their top of the line handlebar production. S.R. handlebars should be used with S.R. stems, and Cinelli handlebars should be fitted to Cinelli stems for a workable fit.

S.R. Model WS-SL

Width: 41 cms.

Cat. No. 27-801 \$6.98



Cinelli Handlebar Plugs

Red, White, or Blue

Cat. No. 27-807 \$5.00 pair

Plastic Plugs w/screw

All Colors. Cat. No. 27-808 \$5.00 pair

Padded Handlebar Tape

This tape is more than just another padded tape. It is used by most European professional racers to absorb the shock of the bumpy European roads. The padding is denser and more durable than other padded tapes. Tapered edges, good grip, and breathable. Packaged to wrap one complete handlebar.

Colors: Black

Cat. No. 27-811 \$6.98



CINELLI

Since our previous catalog, Cinelli has slowed their production and substantially increased their prices. Supply is limited, and listed substitutes are suggested.

The Cinelli finish and workmanship remain of the same excellent quality.



Model 63 Campione Del Mondo

Similar to Model 64 except for drop.

Available widths: 38 or 40 cms.

Cat. No. 27-802 \$13.98



Model 64 Giro d'Italia

Least amount of drop of all Cinelli bars.

Available widths: 38 or 40 cms.

Cat. No. 27-803 \$13.98



Model 65 Cinelli

Track-like bend. Available widths: 38 or 40 cms.

Cat. No. 27-804 \$13.98



Model 66 Campione Del Mondo

This is the only bar that is made in a 42 cm width. It has the greatest drop and reach of all the Cinelli road bars.

Available widths: 38, 40, or 42 cms.

Cat. No. 27-805 \$13.98



Model 67 Cinelli Track Bar in aluminum.

For the first time Cinelli now offers a track bar in aluminum. Width 38 cm.

Cat. No. 27-806 \$13.98

Model	Width	Drop	Reach	Weight/Grams	Cat. No.	Price
SR Model WS-SL	41	5 1/8"	3 13/16"	310	27-801	\$6.98
Model 63 Campione	38,40	5 1/4"	3 1/4"	305.3	27-802	\$13.98
Model 64 Giro d'Italia	38,40	5 1/5"	3 1/4"	298.1	27-803	\$13.98
Model 65 Cinelli	38,40	5 1/4"	3 1/4"	298.5	27-804	\$13.98
Model 66 Campione	38,40,42	6 1/4"	3 1/2"	311.3	27-805	\$13.98

Adhesive Cotton Handlebar Tape

This French manufactured quality cloth tape is extra thick for comfort and is available in a variety of colors. Two rolls are necessary to wrap both sides of the handlebar. Colors: Black, Dark Blue, Light Blue, Red, White, Green, Orange, and Yellow.

Cat. No. 27-809 \$5.75 per roll.

Cat. No. 27-810 \$6.50 box of 10 rolls



Stems



Illustration of proper stem length. Racers will usually take this measurement and then add at least 2½ cms.

SR Stems

Of all the items presented in SR's new "Super Light Group", their stem is clearly the most impressive. The forged duraluminum stem has been internally bored out to reduce unnecessary weight. For the extreme weight conscious, their "Extra" super light stem includes an expander bolt and binder bolt of titanium. Both of their stems have the satin finish.



SR Super Light Stem

Available in extensions of 7,9,11, and 13 cms.

Cat. No. 28-801 \$18.98



SR Extra Super Light Stem (Titanium Bolts)

Available in extensions of 7,9,11, and 13 cms.

Cat. No. 28-802 \$29.98

To measure proper stem length, the most common measurement taken is to match the elbow to tip of finger length with the front of seat to beginning of handlebar distance. This is an approximate measurement and will vary by type of riding, other body measurements, and personal preference. It is also important to have proper stem diameter. Two diameters are manufactured. Size 22.2 mm fits Italian, English, and Japanese headsets; size 22 mm fits French. When ordering, a size 22.2 mm will be shipped unless French diameter is specified. SR stems should be used with SR handlebars, and Cinelli stems fit Cinelli bars best.

HANDLEBAR STEM: (Measured from center of stem bolt to center of handle bar at clamp)

Inches	2-3/4	2-61/64	3-0/32	3-11/32	3-35/64	3-3/4	3-15/16	4-0/8	4-21/64	4-23/32	5-1/8	5-33/64
Cms.	7	7.5	8	8.5	9	8.5	10	10.5	11	12	13	14

Cinelli Stems

The design and finish of these stems has been the talk among cyclists for years. As in the past, Cinelli has continued to maintain high quality finish and workmanship. Because Cinelli's production remains very limited, please specify acceptable size and model substitutes. Extremely limited in French diameter stem production.



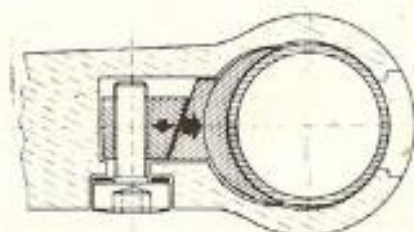
Cinelli Road Stem 1/A

Available extensions with 22.2 mm diameter: 7,8,8.5,9,9.5,10,10.5,11,11.5, 12,12.5,13, and 14 cms.

Cat. No. 28-803 \$18.98

Available extensions with 22 mm (French) diameter: 7,8,9,10,11,12,13, and 14 cms.

Cat. No. 28-804 \$18.98



Cinelli Road Stem 1/Record

This stem has the hidden binder bolt and is tightened by an interior wedge. Smallest size made because of design is 10 cm.

Available extensions with 22.2 mm diameter: 10,10.5,11,11.5,12,12.5,13 and 14 cms.

Cat. No. 28-806 \$26.98

Available extensions with 22 mm (French) diameter: 10,11,12,13, and 14 cms.

Cat. No. 28-807 \$26.98



Cinelli Aluminum Track Stem 2/A

Cat. No. 28-805 \$18.98

Model Stem	Weight Gms. (10 cm. stem)	Cat. No.	Price
SR Super Light	235	28-801	\$18.98
SR Extra Super Light	210	28-802	\$29.98
Cinelli Road Stem Model 1/A	300	28-803	\$18.98
Cinelli Road Stem Model 1/Record	287	28-806	\$26.98

PARTS AND TOOLS FOR STEM

Expander Bolt 1/A and 1/Record

Cat. No. 28-808 \$1.50

Binder Bolt 1/A

Cat. No. 28-809 \$1.50

Slider Wedge for 1/Record

Cat. No. 28-810 \$2.98

6mm Allen Wrench to fit stems

Cat. No. 28-811 \$1.00



Headsets



Edco Alloy

This is unquestionably the most significant improvement in quality that headsets have seen in years.

This Swiss manufacturer has demonstrated a remarkable capability of producing beautifully finished and flawless headsets at surprisingly competitive prices. The finish, the weight, and the design are all the best available. This alloy set includes pressed in steel races, and is offered in French, English, and Italian threads.

Cat. No. 29-801 \$29.98



Campagnolo Super Record

Available in French, English, and Italian threads.

Cat. No. 29-802 \$36.98



Cinelli

This headset has a highly polished chrome finish. Available in English and Italian threads only.

Cat. No. 29-803 \$10.98



Campagnolo Record Road

Available in French, English, and Italian threads.

Cat. No. 29-804 \$25.50

Campagnolo Record Track

Available in French, English, and Italian threads. Cat. No. 29-805 \$25.50



Stronglight V-4 Competition

The V-4 headset is low priced, yet found on many professional bikes because of the functional success it has had over the years.

Available in French, English, or Italian threads.

Cat. No. 29-806 \$10.98

Model	Weight Gms.	Cat. No.	Price
Edco Alloy	109	29-801	\$29.98
Campagnolo Super Record	131	29-802	36.98
Cinelli	166.5	29-803	10.98
Campagnolo Record Road	193.4	29-804	25.50
Stronglight V-4 Competition	193.4	29-806	10.98

Brakes

Brake Sets include: calipers, levers, and cables.
Brake Reach: with the exception of Universal 51's, all of our brakes have the same approximate brake shoe reach. This reach is designed to fit most professional bicycles.



Campagnolo

Campagnolo Complete
 Cat. No. 29-807 \$89.75

Universal CX

Universal's top of the line brake is a definite challenge to the established Campy Brake. Besides being 68 grams lighter, the finish is actually better. The most significant improvement is that the center bolt nut and the brake levers are tightened with a 5 mm allen wrench. A cone wrench is used to center the brakes. Both tools come with the set. This brake has gained in popularity since its first production several years ago.

Universal CX Complete
 Cat. No. 29-808 \$59.98





Galli

Galli has two extremely lightweight quality brake sets which are both competitively priced. The first is their professional Galli 75 at a mere 500 grams (109 grams less than Campy). They were not completely satisfied with this weight, so they added a titanium center bolt and ergal nuts to achieve their goal of a 450 gram brake, the Galli Ti. Available in a nicely finished midnight blue only. Italian.

Galli 75 Complete
Cat. No. 30-804 \$49.98

Galli Ti Complete
Cat. No. 30-805 \$69.98



C.L.B.

With the C.L.B. Professional, the French have designed a lightweight competition brake. This brake is not a copy of any others, but it is a smooth satin finished set which has a unique design. The drilled handles help make this one of the world's lightest brake sets, 465.5 grams (143.5 grams less than Campy), at an extremely competitive price.

The brake pad has a newly engineered design which allows for long pad wear and excellent response. The taper of this pad permits it to act as a wheel guide, thus eliminating the need for the additional heavy steel guides.

C.L.B. Complete
Cat. No. 30-806 \$49.98



Universal Model 77

This is Universal's new brake. It is a copy of their top of the line CX Model, but at an economic price. The workmanship on this brake is excellent, and it is difficult to justify such a low price.

Cat. No. 30-801 \$47.98



Universal 68's, 51's,

The Model 68 is Universal's number one seller. This brake has been on the road for years, and time has proven it to be an excellent quality brake for the price. The Model 51 is the same brake except for lower reaching calipers.

Universal Model 68 Complete
Cat. No. 30-802 \$17.98

Universal Model 51 Complete
Cat. No. 30-803 \$21.98

Model	Weight gms. w/o Cables	Cat. No.	Price
Campagnolo	609	29-807	\$89.75
Universal CX	541	29-808	59.88
Universal Mod 77	521	30-801	47.98
Galli 75 Brake	500	30-804	49.98
Galli Ti Brake	450	30-805	69.98
C.L.B. Professional	465.5	30-806	49.98
Universal Model 68	495.5	30-802	17.98
Universal Model 51	503	30-803	21.98

Brake Parts

Brake Blocks

Campagnolo Brake Blocks
Cat. No. 30-809 \$1.50 each
C.L.B. Brake Blocks
Cat. No. 30-810 \$.50 each
Galli Brake Blocks
Cat. No. 30-811 \$.50 each
Universal 68 & 51 Brake Blocks
Cat. No. 30-812 \$.50 each
Universal 61 Brake Blocks
Cat. No. 30-813 \$.50 each
Universal CX Brake Blocks
Cat. No. 30-814 \$1.00 each
Universal 68 & 51 Brake Blocks
w/holders
Cat. No. 30-815 \$1.00 each
Universal 61 Brake Blocks 2/holders
Cat. No. 30-816 \$1.25 each

Gum Hoods

Campagnolo Brake Lever Gum Hoods
Cat. No. 30-817 \$3.98 each
C.L.B. Brake Lever Gum Hoods
Cat. No. 30-818 \$2.50 each
Galli Brake Lever Gum Hoods
Cat. No. 30-819 \$2.50 each
Universal Brake Lever Gum Hoods
Cat. No. 30-820 \$2.50 each

Brake Cores and Housing

Campagnolo Front Housing
Cat. No. 30-821 \$2.00
Campagnolo Rear Housing
Cat. No. 30-822 \$2.50
Campagnolo Front Cores
Cat. No. 30-823 \$1.50 each

Campagnolo Rear Cores
Cat. No. 30-824 \$1.75 each

Brake Clips and Tools

Brake Cable Clips
Campagnolo (set of 3)
Cat. No. 30-007 \$2.98

Brake Tools

3rd Hand Tool - this tool holds pads to rim so that cable tension can be adjusted.
Cat. No. 30-808 \$1.98

Rear Derailleurs

Campagnolo



Campagnolo Nuovo Record
Freewheel capacity 28T.
With Adapter
Cat. No. 31-801 \$28.98
Without Adapter
Cat. No. 31-802 \$27.98



Campagnolo Super Record with titanium
pivot bolts. Freewheel capacity 28T.
Cat. No. 31-803 \$52.75

(Below each derailleur model is indicated
the largest rear cog that the derailleur can
handle. Keep your gearing in mind when
ordering a derailleur.)

Sun Tour



Sun Tour Cyclone (silver)
Freewheel capacity 24T.
Cat. No. 31-804 \$17.50
Sun Tour Cyclone (black)
Freewheel capacity 24T.
Cat. No. 31-805 \$18.50



Sun Tour Cyclone G.T. (silver). Freewheel
capacity 34T. Cat. No. 31-806 \$19.50
Sun Tour Cyclone G.T. (black). Freewheel
capacity 34T. Cat. No. 31-807 \$19.98



Sun Tour V Lux. Freewheel capacity 24T.
Cat. No. 31-808 \$8.25
Sun Tour VT Lux. Freewheel capacity 30T.
Cat. No. 31-809 \$8.25
Sun Tour VGT Lux. Freewheel capacity
34T. Cat. No. 31-810 \$8.25

Model	Weight Gms.	Cat. No.	Price
Campagnolo Nuovo Record	200	31-802	\$27.98
Campagnolo Super Record	181	31-803	\$52.75
Sun Tour Cyclone	178	31-804	\$17.50
Sun Tour Cyclone G.T.	190	31-806	\$19.50
Sun Tour V Lux	241	31-808	\$8.25
Sun Tour VT Lux	250	31-809	\$8.25
Sun Tour VGT Lux	263	31-810	\$8.25

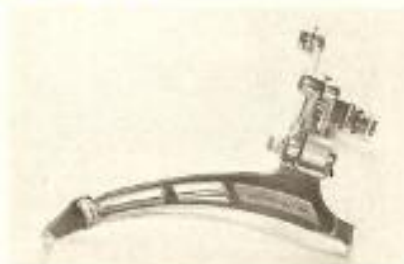
Front Derailleurs

Campagnolo



Campagnolo Cat. No. 31-811 \$17.25

Sun Tour



Sun Tour Cyclone G.T. (Silver)
Cat. No. 31-812 \$12.98
Sun Tour Cyclone G.T. (black)
Cat. No. 31-813 \$13.98



Sun Tour Cyclone (silver)
Cat. No. 31-814 \$11.50
Sun Tour Cyclone (black)
Cat. No. 31-815 \$12.50



Sun Tour Compy V
Cat. No. 31-816 \$5.98

Model	Weight Gms.	Cat. No.	Price
Campagnolo	81	31-811	\$17.25
Sun Tour Cyclone	61.5	31-814	\$11.50
Sun Tour Cyclone GT	61.5	31-812	\$12.98
Sun Tour Compy V	146.5	31-816	\$5.98

End Shifters



Sun Tour Ratchet (complete)
 Cat. No. 32-801 \$10.98
 (includes cable cores, stainless steel housing, double cable stop clip, and end shifters.)

Shift Levers

Down Tube



Campagnolo Cat. No. 32-802 \$9.25



Sun Tour Cyclone (silver)
 Cat. No. 32-803 \$10.25

Sun Tour Cyclone (black)
 Cat. No. 32-804 \$11.75



Sun Tour Standard
 Cat. No. 32-805 \$5.98

Cable Guides and Cable Stops



Campagnolo Chain Stay Cable Stop
 Cat. No. 32-806 \$1.50



Sun Tour Chain Stay Cable Stop
 Cat. No. 32-809 \$.75



Campagnolo Down Tube Cable Guide
 Cat. No. 32-807 \$3.98



Sun Tour Down Tube Cable Stop/Guide
 Cat. No. 32-810 \$.98



Campagnolo Down Tube Double Cable Stop
 Cat. No. 32-808 \$2.25



Sun Tour Double Down Tube Cable Stop
 Cat. No. 32-811 \$.98

Shifting Cables

Model	Cat. No.	Price
Campagnolo Front (down tube)	32-812	\$1.25
Campagnolo Rear (down tube)	32-813	1.50
Standard Front or Rear	32-814	.75
Sun Tour (end shifter)	32-815	1.50



Elephant Housing:

Inner Housing is coated with a delrin material to reduce friction and eliminate lubrication. Black/Silver/White

Cat. No. 32-816 \$.50 per foot



Vinyl Coated Cable Housing

Black/Silver/White/Red/Blue Cat. No. 32-817 \$.25 per foot



Superlight Parts

Because of new designs and improved materials, it is now possible for the racer and serious tourist to make very significant weight savings on his or her already professional machine. This is why we have emphasized weight as well as quality and reasonable prices.

Listed in the following table are exceptionally durable and light parts gathered from within our catalog. This table is only an illustration to demonstrate how significant weight saving becomes if one were to install all or many of the superlight parts on his frame. The comparison is done on the basis that the rider already has a standard equipped professional bike. If he doesn't, the weight savings would be even greater.

Ultimate Superlight Part	Gram Weight	Grams Saved	Gram Weight	Most Commonly Used Parts
Brakes: Galli Ti, CLB	450	159	609	Brakes: Campagnolo
Chain: Regina Titanium	255	169	424	Chain: Regina
Complete Alloy & Titanium Kit	113	147	260	Comparable Steel Parts
Crankset: Stronglight 105 bis	845	80	925	Crankset: Campagnolo
Freewheel: Maillard 700, Regina Titanium, Cyclo Alloy	180	227	407	Freewheel: Ave. of steel Regina, Sun Tour, Shimano.
Headset: Edo	109	84	193	Headset: Campagnolo
Hubs: Avocet Mod III Magnesium	340	161	501	Hubs: Campagnolo Low
Pedals: Campagnolo Super Record	260	169	429	Pedals: Campagnolo Steel Road
Seat: Avocet Racing III	235	205	440	Seats: Unicanitor Buffalo Padded
Seat Post: Avocet	235	80	315	Seat Post: Campagnolo
Spoke Nipples: Robergel Alloy	22	45	67	Spoke Nipples: Steel
Stem: SR Extra Super Light	210	37	247	Stem: Cinelli or TTT with alloy bolts
Toe Clips: Christophe Alloy	28	35	63	Toe Clips: Christophe Steel
Water Bottle Cage: T.A. Alloy	47	43	90	Water Bottle Cage: T.A. Steel
Total Weight Savings				
1,641 Grams				
58 Ounces (28.3 grams equals 1 oz)				
3.62 Pounds				



Alloy Expander Bolt for Stems (Fits all Cinelli, TTT)
Cat. No. 33-801 \$4.98



Alloy Rear Derailleur Bolts (Fits Campagnolo)
(Gear pivot bolt & Gear spring bolt)
Cat. No. 33-802 \$8.50



Alloy Seat Binder Bolt (specify 25mm, 28.5mm or 32 mm)
Cat. No. 33-803 \$3.75



Brake Center Bolt in Titanium (Front) (Fits Campagnolo Only)
Cat. No. 33-804 \$11.50
Brake Center Bolt in Titanium (Rear) (Fits Campagnolo Only)
Cat. No. 33-805 \$11.50



Alloy Binder Bolt (specify stem model when ordering) Cat. No. 33-806 \$3.75



Alloy Brake Nuts (set of 8) (Fits most brakes) Cat. No. 33-807 \$2.50



Alloy Chainwheel Bolts
Set of 5 (fits Campagnolo, Sugino Mighty Comp. Series, Stronglight 93, 105, 105 bis)
Cat. No. 33-808 \$9.98



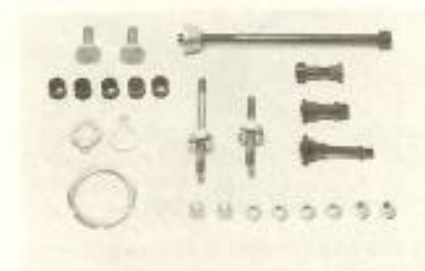
Alloy Washers (2) for Securing Shift Levers Cat. No. 33-809 \$1.98 pr.



Alloy Bottom Bracket Lock Ring (specify threads)
Cat. No. 33-810 \$1.98



Alloy Crank Arm Bolts
14mm (Fits crank arms: Shimano Dura Ace, SR Royal and Custom)
Cat. No. 33-811 \$4.50 pr.
15mm (Fits crank arms: Campagnolo, Sugino Mighty Comp. Series, T.A.)
Cat. No. 33-812 \$4.50 pr.
16mm (Fits crank arms: Stronglight, Zeus)
Cat. No. 33-813 \$4.50 pr.



Complete Alloy and Titanium Kit (includes stem expander bolt, stem binder bolt, seat binder bolt, crank arm bolts, rear derailleur bolts, chainwheel bolts, brake nuts, bottom bracket lock ring, front & rear titanium center bolt, & shift lever washers) See each item above to be certain all items fit your equipment. 113 grams.
Cat. No. 33-814 \$48.98 without titanium brake bolts
Cat. No. 33-815 \$26.98



MTD Rollers

The M.T.D. roller is lightweight, easy to store, quiet, and competitively priced. The rails are constructed of aluminum, the rollers of black vinyl with kiln-dried oak hardwood end plates. The bearings used are a sealed high speed cycle bearing, which runs smoothly and quietly, thus not disturbing the rest of the household. The rollers offer a dual belt drive system, and will accommodate any bicycle with a 38 to 42 inch wheel base (touring, racing, and track). The flanges on the frame are designed to prevent tire damage. This roller is very light for easy mobility and easy storage. The roller is available with or without a Stewart-Warner resettable speedometer.

M.T.D. Rollers Cat. No. 34-801 \$74.98

**M.T.D. Rollers with attached Stewart-Warner resettable speedometer.
Cat. No. 34-802 \$89.98**





UNITED STATES CYCLING FEDERATION, INC.

1978 MEMBERSHIP APPLICATION

If you are interested in becoming involved in cycling as a competitive sport, then you should be a member of the United States Cycling Federation. It was incorporated in 1921 as the Amateur Bicycle League of America and is recognized by the U.S. Olympic Committee, the AAU and the Union Cycliste International as the controlling body for the sport of cycling in the United States. As a part of your membership, you will receive a license to enter time trials, road and criterium races.

1 INSTRUCTIONS: Follow the numbered steps and type or print all required information.

2 CHECK the category that applies to you.

- A. NEW MEMBER (not registered in 1977) All new members (except associate) must provide proof of age. A photocopy of your birth certificate or driver's license is sufficient. Proceed to Step 3.
- B. OLD MEMBER. What was your 1977 USCF License No. _____ Proceed to Step 3.
- C. 1978 MEMBER (applying for replacement license) What is your 1978 license No. _____
Make check payable to TREASURER - USCF for \$2.00 (Skip Step 5)

3 COMPLETE the following:

	(21) _____	(24) _____
(FOR OFFICE USE ONLY)		
(3) NAME _____	(22) CLASS _____	
MAILING ADDRESS _____ _____ _____	(23) BIRTH YEAR MO. DAY	(19) TELEPHONE AREA CODE () ()
(11) CITY (12) STATE (13) ZIP CODE _____	CLUB _____ _____	
	(20) DIST. (26) U.S. CITIZEN () Yes () No	

4 CHECK the class below that corresponds to your age on January 1, 1978.

5 WRITE a check or money order payable to TREASURER-USCF for the dues.

CLASS	AGES (Inclusive)	DUES	CLASS	AGES (Inclusive)	DUES
<input type="checkbox"/> Senior Men	18 through 39	\$12	<input type="checkbox"/> Intermediate Boys	12 through 14	\$8
<input type="checkbox"/> Veteran Men	40 and over	12	<input type="checkbox"/> Intermediate Girls	12 through 14	8
<input type="checkbox"/> Women	18 and over	12	<input type="checkbox"/> Midget Boys	8 through 11	8
<input type="checkbox"/> Junior Men	15 through 17	12	<input type="checkbox"/> Midget Girls	8 through 11	8
<input type="checkbox"/> Junior Men	15 through 17	12	<input type="checkbox"/> Associate	Any Age	8

Read the paragraph below carefully and then sign and date the application.

The undersigned, an Amateur in good standing, hereby desires to register with, and agrees to abide by the Constitution, By-Laws, and the Board of Directors decisions as well as the rules of the United States Cycling Federation. THE USE OF DRUGS IS STRICTLY PROHIBITED. I understand that their use, or the refusal to submit to a medical examination when requested subjects me to disqualification and/or disbarment. I certify that the information on this application is truthful and that misrepresentation is grounds for refusal of this application.

SIGNATURE: _____ DATE: _____

SEND COMPLETED APPLICATION TO: (make payment to TREASURER-USCF)

UNITED STATES CYCLING FEDERATION, INC.
POST OFFICE BOX 480
EAST DETROIT, MICHIGAN 48021



Helpful Tire Tips

Storage of Tubulars

Sew-ups must be stored in a dark and cool room. Keep them away from electric motors because the ozone given off will rot the rubber. Constant high temperature will have a similar effect.

Keeping Punctures to a minimum

1. After passing over debris, immediately wipe tires with your gloved hand as you ride.
2. After every ride check tires for glass or any sharp particles which are attempting to work into the tread.
3. Latex tubes only - after rides deflate tires to prevent the possibility of slow leaks developing over a long period of time.
4. For casing protection use latex solution on your sidewalls. This is especially helpful on tubulars with worn or deteriorating sidewalls.

The Ride of a Tubular

Lower Tire Pressure - will ride softer on a bumpy road and have more traction.

Higher Tire Pressure - there will be less rolling resistance and less traction.

Tire Profile - A wider profiled (cross section) tire will give a softer ride.

Tip - Vary your air pressure according to road conditions and the length of your ride.

Comparison of Latex vs. Butyl Tubes

Resistance to Punctures

Butyl Tubes - has little elasticity.

Latex Tubes - this inner tube has a great amount of elasticity so that when a blunt object penetrates the tire tread the inner tube will stretch with the object and thus not puncture. For sharper objects such as glass, the tube's amount of elasticity decreases. Thus, if penetration is far enough, the tube can puncture.

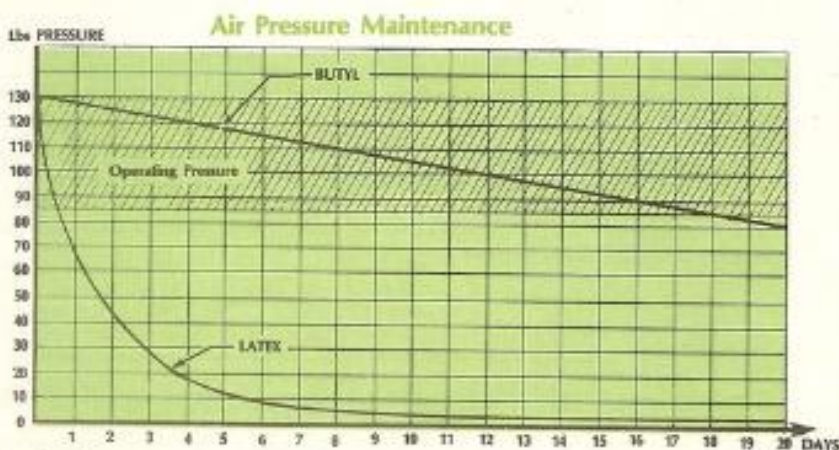
Recommended Tire Pressures

Vulcanized tubulars: 90 to 105 lbs.

Non-Vulcanized tubulars & Silks: 105 to 130 lbs (for higher quality with a narrow profile, 130 lbs or greater is acceptable).

Tire Pressure Tips

Proper tire pressure can vary up to 20 p.s.i., depending upon the weight of the rider and the load carried. Lighter total weight requires less pressure. The rear tire usually requires about 15 lbs. more pressure than the front.



Butyl Tubes - When pumped to the correct air pressure, the tubular will remain in the operating zone for about 18 days.

Latex Tubes - When pumped to the correct air pressure, the tubular will be in the operating zone for about 12 hours.

Sew-Up Accessories

Puncture Resistant Tire Sealant

This is a special formula mixture which has been developed to prevent or fix high pressure leaks. This sealant will not fix large holes or casing cuts. The sealant can be injected before a puncture develops, or brought along on your ride and used after a puncture occurs. This is particularly beneficial for the long tourer short on spare tires, or the cyclist who has a slow leak which cannot be located and patched. In order to insert the sealant you must either have a tube with a schrader valve (car type valve found with most clinchers), or a detachable two piece presta valve. Most Vittoria and Clement tubulars which we offer include the two piece presta valve. We supply the sealant in an easy to carry 4 oz. plastic container.

Directions for sealant use: Shake 4 oz. container before using (sealant is water soluble and will separate). Insert approximately one ounce.

Cat. No. 37-801 \$1.25



Sew-Up Patch Kit

Velox kit includes needle & thread, thimble, glue for patches, patches.

Cat. No. 37-803 \$1.25



Needle & Thread Only

Cat. No. 37-804 50¢



Sew-Up Butyl Inner Tube

This tube includes the two piece presta valve to permit the insertion of sealant.

Cat. No. 37-805 \$2.50



Presta Valve Tip

If the valve tip breaks off on your sew-up and you have the detachable two piece valve, just unscrew the broken piece and replace it with this new one.

Cat. N. 37-806 50¢



Sew-Up Rim Glue

	Cat. No.	
Tubasti Road (White)	37-807	75¢
Vittoria Road (White)	37-808	75¢
Pastali Road (White)	37-809	75¢
Clement Road (Red)	37-810	\$1.00



Tire Savers

Cuts down chances of getting a puncture. Fits all brakes.

Cat. No. 37-811 98¢ per pair



Presta or Schrader Air Pressure Gauge

Schrader Cat. No. 37-812 \$1.98
Presta Cat. No. 37-813 \$1.98

Latex Solution

Anyone who uses sew-ups should have latex on hand to increase the tire life. All tubulars come with latex already on the side walls, but often it rubs off or not enough was applied all around. The latex solution is white in color, but it dries clear. It should also be applied over sidewall cuts, and to glue down the base tape onto the tubular casing after patching a sew-up. Available in a 4 oz. plastic container.

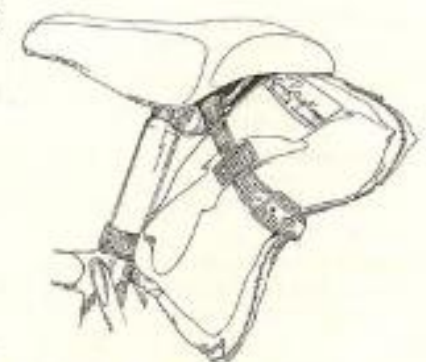
Cat. No. 37-802 \$1.25



Bulshot's Rimstrip

Rimstrip is a product for the easy removal of sew-up tire cement from alloy tubular rims. Just put Rimstrip on the rim, wait for one to two hours, then wipe the rim clean. The 3.75 ounce can will usually clean about six rims.

Cat. No. 37-814 \$2.98



Deluxe Spare Tire Carrier

This waterproof nylon pouch measures 5" x 9" x 2 1/2" and will hold up to two tires and your goodies. A buckle strap attaches the carrier to the seat frame, and a neat velcro fastener eliminates sway by fastening the lower portion of the bag to the seat post. The 16" zipper creates a large opening and when closed, your tires are completely protected from outside elements. Available in dark orange, red, dark blue or yellow. See also page 1, Kirtland bag.

Cat. No. 37-815 \$5.98

Tubular Tires

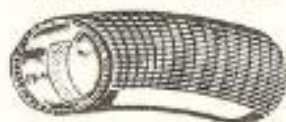
VITTORIA



Ribbed: A fast tread which grips fairly well in corners and on wet surfaces. The rib section on the Vittoria wrap further around the sides than Clement.



Mixed: This pattern tread is very good gripping on corners, and better gripping than ribbed in wet weather.



Nest of Bee: Best gripping of all treads in wet or dry weather. Smoother texture than mat. Light tread. Not fast.



Polished Smooth: Fastest of all treads. Use is for clean roads. Light weight. Slippery on wet surfaces.

CLEMENT



Ribbed: A fast tread which grips fairly well in corners and on wet surfaces.



Mixed: This pattern tread is very good gripping on corners, and better gripping than ribbed in wet weather. A ribbed section in center provided to decrease rolling resistance and increase speed.



Herringbone: Provides excellent grip in corners and even on wet surfaces.



Matt: A very fast and light tread. Good gripping on flat smooth surfaces. Slippery on wet roads.

What is the difference between a Vulcanized and Non Vulcanized Tubular?

A casing is either vulcanized or cold processed (handmade). A vulcanized tubular is made by a heating process where the casing cords are joined to the tread by partially melting the tread into the cords. This process is less time consuming and less expensive than the cold processed method. The heat fac-

tor involved in the vulcanized process has the disadvantage of making the casing more brittle and thus less durable. Non-vulcanized or cold processed tires are handmade by attaching a strip of special rubber compound, molded to a specific tread pattern, to a separately constructed casing. The casing is hand stitched internally and coated with latex.

The quality Name in Racing & Touring Tubulars

VITTORIA

The Italian manufacturer has been known throughout the world for years because of their variety and quality of tubulars. All Vittoria tubulars offer the detachable two piece presta valve. This valve can be unscrewed to permit the replacement of a broken valve tip or the insertion of sealant.

Cotton Vulcanized Road Tubulars

Model

	Weight Grams	Tread Pattern	Catalog Number	Price
Mondiale (butyl tube)	290	Ribbed	38-801	\$9.98
A popular light and inexpensive tubular.				
Granturismo or Butyl (butyl tube)	330	Mixed	38-802	\$10.98
This is the same as the Mondiale, except that it includes an inner protective strip.				
Supersport (butyl tube)	330	Ribbed Mixed	38-803 38-804	\$12.50 \$12.50
The Supersport uses thinner cotton strands and more threads per square inch to increase casing strength than less expensive models.				
Competizione (butyl tube)	290	Ribbed Mixed	38-805 38-806	\$14.50 \$14.50
This model tubular includes a strong sidewall, a protective inner strip, and a thick double black tread.				

Cotton Non Vulcanized Road Tubulars

Tour de France (Natural rubber tube)	290	Mixed	38-807	\$15.98
This is the least expensive of the quality non vulcanized tubulars. Sidewall is of a fine mako cotton.				
Criterion (Natural rubber tire)	240	Ribbed	38-808	\$18.98
Thinner strands of mako cotton are used on this model, and the cross section is narrow.	230	Nest of Bee	38-809	\$18.98
	230	Polished Smooth	38-810	\$18.98
Record (Natural rubber tube)	210	Ribbed	38-811	\$20.98
Extra thin mako cotton strands are woven on this tubular. To be used on smooth surfaces or by light riders.				
Imperforabile (Natural rubber tube)	270	Ribbed	38-812	\$20.98
This tubular is constructed just like the Imperforabile Seta, except mako cotton is used. A double black tread and rubber protective strip are included.	270	Mixed	38-813	\$20.98

High Pressure Clinchers

There has been more improvement in the area of high pressure clinchers in the past several years than there has been in the history of tires. This is a big plus for the touring cyclist.

National High Pressure Clinchers

The National Tire Company has made the most notable progress. Their tires are sold with a variety of labels including Schwinn, Specialized Imports, Univega, etc. Many consumers are familiar with their brands labeled Schwinn 27" x 1 1/4" Le Tour and Schwinn 27" x 1 1/4" Super Record.

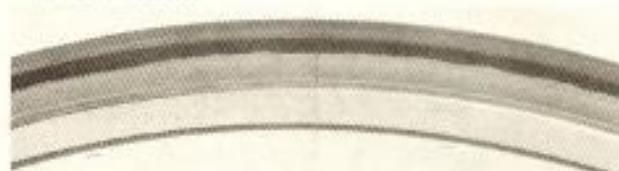


National 27 x 1 1/4 (90 lbs) — 1 1/4" cross-section, can use 27 x 1 1/4 or 1 1/2 inner tube. Will fit any 27" x 1 1/4" rim. 300 grms. **Cat. No. 40-801 \$7.50**

National 700C x 1 1/4 (90 lbs.) — same as the 27" x 1 1/4" except will fit 700C rims only. Requires 27 x 1 1/4 or 1 1/2 inner tube. 300 grms. **Cat. No. 40-802 \$7.50**

Note: The 700C size is identical to the tubular (sew-up) and it is most often used by riders who have a set of both clincher and tubular wheels which they interchange. No brake adjustments are required when making such a change.

We list only National's better quality tires which have widths of 1 1/4" and 1". These are all 90-100 lb. pressure tires which offer low rolling resistance, light weight, easy mounting, and long tread wear. Upon request you can order Michelin Elan or I.R.C. Feather Flite clinchers, but we recommend the National clinchers.



National 27 x 1 (100 lbs.) — 1" cross-section which is the narrowest clincher available. Requires 27 x 1 inner tube only, will fit 27 x 1 rim best. 270 grms. **Cat. No. 40-803 \$7.50**

National 700C x 1 (100 lbs.) — same as 27 x 1 except will fit 700C rims only. Requires 27 x 1 inner tube. 270 grms. **Cat. No. 40-804 \$7.50**

Quality Tubes For Clinchers



Vittoria 27 x 1 1/4 x 1 1/4 (Presta valve)

This lightweight tube is the only presta tube to which sealant can be added, because the valve core is detachable. Sealant must be purchased separately. Tube is black and perfectly sized for high pressure clinchers.

Cat. No. 40-805 \$2.98

Standard 27 x 1 1/4 x 1 1/4 (Schrader valve) Cat. No. 40-806 \$1.98

Standard 27 x 1 1/4 x 1 1/4 (Presta valve) Cat. No. 40-807 \$2.50

Special 27 x 1 (Schrader valve) fits 27 x 1 or 700C x 1 tires only.

Cat. No. 40-808 \$2.25

Special 27 x 1 (Presta valve) fits 27 x 1 or 700C x 1 tires only Cat.

No. 40-809 \$2.50

Floor Pumps



Silca Floor Pump

The best high pressure pump available. Includes air tight presta attachment head. This is an extremely efficient pump which is capable of pumping to 170 lbs. with minimum effort. For presta valves only. **Cat. No. 15-816 \$19.98**



Reservoir Pump with Air Gauge

This pump includes an easy to read air gauge and a vacuum chamber which equalizes air pressure to make for easy pumping at higher pressures. The chamber does require extra pumps before it is filled. Schrader thumb lock fitting. **Cat. No. 15-817 \$14.98**



Quality High Pressure Pump

This is a very inexpensive quality pump. Its narrow body allows you to reach 140 p.s.i. with both ease and quickness. It comes with a thumb lock. Schrader valve fitting.

Cat. No. 15-818 \$7.50

Silk (Seta Road Tubulars)

	Weight Grams	Tread Pattern	Catalog Number	Price
Record Seta (Natural rubber tube)	190	Ribbed	39-801	\$22.98
Special racing handmade tubular of natural silk. This very light silk is designed for smooth surfaces or light riders.		Nest of Bee		\$22.98

The Leading Name on the European Racing Circuit



Manufacturing sew-ups is an art, and Clement has been tremendously successful at it for years. Their tubulars are used by the winners of most major cycling races. They are especially known for their strong tubular casings. Most models of Clement tubulars come with the "latex tube" and the detachable two piece presta valve.

Cotton Vulcanized Road Tubulars

Model	Weight Grams	Tread Pattern	Catalog Number	Price
Clement Evezia75 (latex tube)	330	Herringbone File	39-802	\$9.98
Very popular. This is a good medium-weight tire with a low price.				
Clement Veltro (Extra Primo) (latex tube)	330	Herringbone	39-803	\$10.98
An excellent all-around tire. A good casing, which is narrower in profile than above.				
Clement 50 (latex tube)	290	Ribbed	39-804	\$14.98
Well made medium-light weight tire. This is one of the best known tubulars. Good for touring or training.				
Clement 70 (latex tube)	260	Herringbone File	39-805	\$15.98
The lightest vulcanized cotton. Another Clement classic. A very responsive tire, which is excellent for training, racing or touring.				

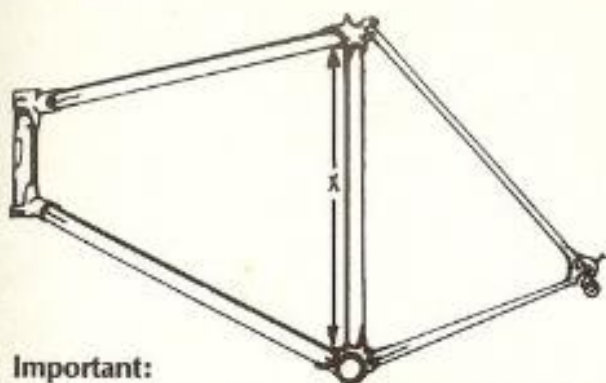
Cotton Non-Vulcanized Road Tubulars

Clement Criterium (Latex tube)	260	Mixed	39-813	\$26.98
Racing and touring tubular. A fast tire, very good gripping on the corners.				

Silk (Seta Road Tubulars)

Clement Campionato del Mondo Seta (latex)	290	Ribbed	39-806	\$29.98
Touring tire. Tire wear and dependability are excellent for longer rides. Will outwear cotton tires.				
Clement Paris-Roubaix Seta (latex tube)	275	Ribbed	39-807	\$29.98
Very similar to Del Mondo. This tire is 15 grs. lighter because tread does not come up as far on sidewalls. Narrower profile than Del Mondo.				
Clement Criterium Seta (latex tube)	250	Mixed	39-808	\$26.98
The Criterium Seta is the most popular racing and touring tire made.	220	Mat.	39-809	\$22.98
Clement Criterium Seta Extra (latex tube)	230	Mixed	39-810	\$33.98
All of the Seta Extras have a narrower and lighter silk casing than the Criterium Setas. Tread thickness is about the same as the 250s.	195	Mat.	39-811	\$33.98
Clement Campionissimo Seta Extra (latex tube)	185	Herringbone	39-812	\$39.98
This tire has a much lighter casing than the 230s and the 195. The tread is heavier than that of the 195 Seta Extra. Can be used for Criteriums if surface is excellent. Also a nice time trialing tire.				

Silca Impero Pumps



Important:

For proper pump length measure and note the indicated distance in inches. Note: this is not frame size.

Pump Heads Only

Silca Plastic Head	Cat. No. 41-801	\$1.00
Campagnolo Plastic Head	Cat. No. 41-802	\$4.00
Campagnolo Steel Head	Cat. No. 41-803	\$6.00

Non Frame Fit Type

This model requires some type of clip to hold it in place. Available colors: black, silver, and white.

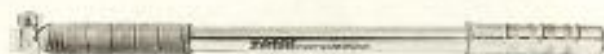
Non frame fit without pump head	Cat. No. 41-809	\$6.50
Non frame fit with Silca Head	Cat. No. 41-810	\$7.50
Non frame fit with Campy Plastic Head	Cat. No. 41-811	\$9.50
Non frame fit with Campy Steel Head	Cat. No. 41-812	\$10.98



Frame Fit Type

This model is the most popular and fits between the top and down tubes by compression. Available colors: black, white, red, dark blue, sky-blue, green, yellow, orange, and silver.

Frame fit without pump head	Cat. No. 41-805	\$6.50
Frame fit with Silca Head	Cat. No. 41-806	\$7.50
Frame fit with Campy Plastic Head	Cat. No. 41-807	\$9.50
Frame fit with Campy Steel Head	Cat. No. 41-808	\$10.98



Zefal High Pressure Thumb Lock Pump

This pump is capable of reaching high pressures on tires with either presta or schrader attachments. The thumb lock prevents air loss when applying or removing the pump. Umbrella clip included. Available in three sizes: 19", 20" (standard), or 21". Cat. No. 41-813 \$9.50

Campagnolo Umbrella Clip

Cat. No. 41-814 \$4.75



Presta Floor Pump Adapters



This head is used by those who want the best presta head available and do not need a Schrader adapter. You must cut off hose end and insert and tighten with hose clamp. Cat. No. 41-815 \$2.75



The Schrader thumb lock will fit over this adapter, making it then suitable for the presta valve. Cat. No. 41-816 \$1.98

Saddles

1977 proved a significant breakthrough year for the saddle industry. Previously, very few cyclists were satisfied with the comfort offered by available saddles. However, in 1977 Avocet introduced a line of saddles with each type of cyclist in mind. The results proved nothing short of total acceptance and total comfort. Their unique design is now accepted as the "state of the art" in bicycling saddles. The saddles have received favorable reviews in bicycling publications, and most

women and men racers and tourists are changing or have changed over to this new line of saddles. In the future other saddle companies may attempt to copy different aspects of the Avocet design, however the Avocet system is a functional design which is more than just appearance. You know the saddle is comfortable by the name Avocet.



Men's Touring

The Tourist's riding position is more upright than the racer's. Consequently, the tourist has more body weight on the saddle, and this causes a greater impact on the delicate and moving body parts. It is thus important to have increased body support, and a means to relieve pressure areas for utmost comfort. The shell has been redesigned for additional body support. First the width of the saddle has been increased from 5 3/8" to 6 1/4" (most professional saddles measure 5 3/8" wide). Then a special mold has been used to create an anatomical nylon shell which increases support around the pelvic bone region. Special padding has been added to maximize comfort. This special thick orthopedic padding material has been carefully placed to relieve the pressure points where the pelvic bones come in contact with the saddle's surface. To eliminate contact between the soft parts of the crotch and the saddle, note how the midline has been indented.

	Price	Smooth Black Leather	Smooth Brown Leather	Textured Buffalo Leather
Avocet Touring I	17.95	42-801	42-802	42-803
Avocet Touring II	26.95	42-804	42-805	42-806
Avocet Touring III	37.95	42-807	42-808	42-809

Men's Racing

Through the utilization of special materials, the racing model has been designed to be the world's lightest saddle. Comfort over other racing saddles is also achieved via unique additions. The nylon shell has been thinned slightly to relieve pressure points, thus adding comfort. Thick nylon is used around the perimeter to keep the saddle rigid. A firm padding material is then added for additional comfort.

	Price	Smooth Black Leather	Textured Buffalo Leather
Avocet Racing I	14.95	42-810	42-811
Avocet Racing II	22.95	42-812	42-813
Avocet Racing III	33.95	42-814	42-815

Differences in Avocet Saddles

Model I

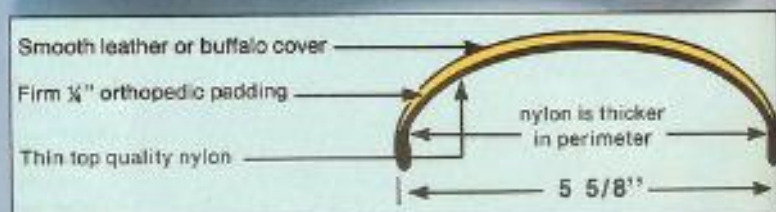
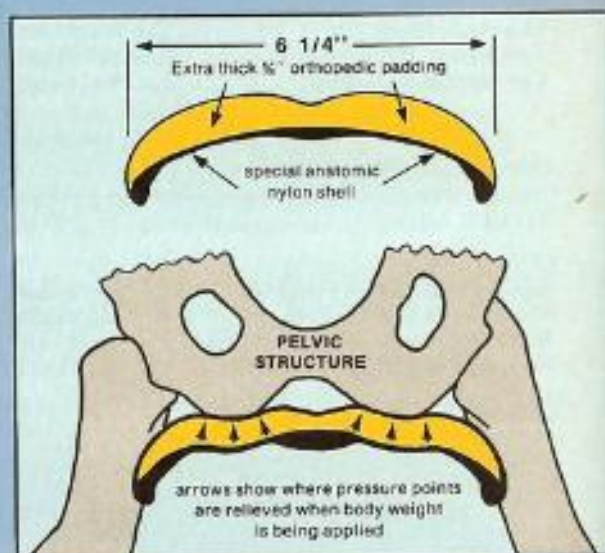
Has a slightly softer nylon shell and is an excellent choice for the casual rider with comfort in mind.

Model II

Has a less flexible shell molded of a special high quality firmer nylon. The more serious cyclist will find this shell both more comfortable and more efficient for longer or more frequent rides.

Model III

Has the same shell and padding as the Model II, except that it offers an extremely light heat treated alloy rather than steel rail.



Avocet Women's Saddles

For years, the women's complaints about saddle comfort went unanswered. Unfortunately, this resulted in an unwillingness for many females to become involved in cycling, and comfort dissatisfaction for most who did. With 1977 finally came the answer.

Avocet tackled the problem from a scientific approach. They were well aware of the fact that females were not comfortable on saddles which males were, and the reason for this was improper fit. The solution involved studying the varying riding positions of female cyclists, analyzing their skeletal structure, and molding a saddle of the best materials to fit them. A team of doctors specializing in orthopedics was consulted in the design stages. They studied the differences between the male and female pelvic structure, the best angle of contact between pelvic bones and saddle surface, the location and causes of saddle discomfort, and the relationship between the thickness and density of padding and saddle comfort. They discovered that the female's pelvic bones should rest flat on a saddle's surface, that areas of major saddle contact should be absorbed and cushioned in the pelvic region, and that different types of padding are needed.

The Avocet end product is a totally new concept in cycling. Some of the new features include increased width, shorter length, flatter surface area in the rear, orthopedic padding, and a newly molded shell. This anatomic nylon shell is thinned in the areas of pelvic contact to permit weight absorption and thus release pressure on contact points. The width is 7 inches. The saddles have successfully undergone tests throughout the 1977 season.



Touring

Women's Touring

This seat is for the rider who finds herself most often in the upright position on racing or touring handlebars. The saddle includes 3/8" extra thick orthopedic padding for additional comfort. This padding has been carefully placed to coincide with the woman's pelvic structure for optimum comfort. The midline of the saddle surface has been slightly indented because contact in this area is often irritating.

Avocet Touring WI \$18.95

Smooth black leather Cat. No. 43-801

Smooth brown leather Cat. No. 43-802

Textured buffalo leather Ct. No. 43-803

Avocet WII \$27.95

Smooth black leather Cat. No. 43-804

Smooth brown leather Cat. No. 43-805

Textured buffalo leather Cat. No. 43-806

Women's Racing

This seat offers a firm 1/4" padding for efficiency and ultimate comfort. For the rider who is more often in the racing position, body weight is further forward, and the area of pelvic contact is altered. Thus a different type of padding is required as well as thickness and placement alterations.

Avocet Racing WI \$15.95

Smooth black leather Cat. No. 43-807

Textured buffalo leather Cat. No. 43-808

Avocet Racing WII \$25.95

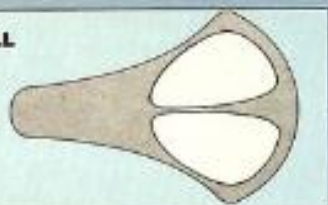
Smooth black leather Cat. No. 43-809

Textured buffalo leather Ct. No. 43-810

ANATOMIC SHELL

THICK NYLON

THIN NYLON



Unicanitor

Unicanitor Models 2 & 4

These are the most popular of the Unicanitor saddles. All of these saddles include an added padding for comfort. Each model is available in a 1/4 inch wider saddle which is designated with an "L."

Unicanitor Model 2 or 2L Suede/Padded Cat. No. 43-811 \$24.98

Unicanitor Model 4 or 4L Smooth/Padded Cat. No. 43-812 \$24.98

Unicanitor Model 65's

These are the same as the Models 2 and 4, but without padding.

Unicanitor Model 65/c Suede Cat. No. 43-813 \$19.98

Unicanitor Model 65/cm Smooth Leather Cat. No. 43-814 \$19.98

Unicanitor Model 65/n Buffalo Cat. No. 43-815 \$19.98



Ideale

In the traditional fashion, Ideale has continued to produce the best in leather saddles. We offer their 90 series which consists of the best quality leather available. All saddles are factory treated to decrease the time and pain necessary to break in an all leather seat. Each model is available in brown or black leather. Brown is often preferred because it does not leave black dye on your clothing after riding.

Model	Weight (gms)	Cat. No.	Price
Avocet Touring I	385	42-801	\$17.95
Avocet Touring II	370	42-804	26.95
Avocet Touring III	275	42-807	37.95
Avocet Racing I	345	42-810	14.95
Avocet Racing II	335	42-812	22.95
Avocet Racing III	235	42-814	33.95
Avocet Touring W-1 (Womens)	350	43-801	18.95
Avocet Touring W-2 (Womens)	340	43-804	27.95
Avocet Racing W-1 (Womens)	340	43-807	15.95
Avocet Racing W-2 (Womens)	330	43-809	25.95
Unicanitor Mod 65's covered	350	43-813	19.98
Unicanitor Mod 2, 4 padded	450	43-811	24.98
Ideale 90 Steel Rail	575	44-801	22.98
Ideale 90 Titanium Rail	440	44-802	69.98
Ideale 90 Alloy Rail & Clamp	550	44-803	26.98

Plastic Seat Cover. Protects saddle in wet weather.
Cat. No. 44-804 \$1.98



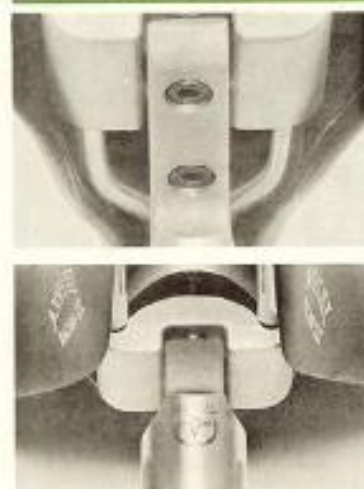
Ideale 90 Steel Rail. Specify black or brown leather.
Cat. No. 44-801 \$19.75

Ideale 90 Titanium Rail. Identical to the above, except with a titanium rail for lightness. Specify black or brown leather.
Cat. No. 44-802 \$59.98



Ideale 90 Alloy Rail & Clamp. This saddle offers alloy for lightness, and a micro adjustable seat clamp. Adapts only to the standard tube seat post. Specify black or brown leather.
Cat. No. 44-803 \$26.98

Seat Posts



Campagnolo Record Seat Post

This is a one piece forged post. Like all Campagnolo components, the post has a satin finish.

Cat. No. 44-806 \$22.98

Avocet Seat Post

Avocet has engineered a new high quality professional lightweight seat post. Their cleverly designed seat clamping system makes that of the other name seat posts obsolete. The tightening and adjusting allen bolts are easily accessible and an allen key is included with each post. This eliminates the need to lift the saddle cover to fit a wrench on the bolts.

These clamps are molded to wrap fully around the seat rail to increase gripping strength. The Avocet seat post is a one piece aluminum forge to insure the greatest possible strength. The satin finish is of the highest quality available. Post weight is an extremely light 235 grams.

Cat. No. 44-805 \$21.95

Note: All seat posts are 180mm in length, and are available in the following diameters: 25.0, 25.8, 26.0, 26.2, 26.4, 26.6, 26.8, 27.0, 27.2, 27.4.

Model	Weight (gms)	Post in mm	Cat. No.	Price
Avocet Seat Post	235	26.6	44-805	\$21.95
Campagnolo Seat Post	315	26.6	44-806	22.98

Cranksets

T.A. Cyclotouriste Crankset

This crankset is a tourist's dream come true. T.A. offers the World's widest selection of chainwheels from which to choose. Chainwheels range as low as an inner 26 tooth, and as high as an outer 55 tooth. With this selection of chainwheels, it is not only popular for double chainwheels,

but ranks number one for use on 15 speeds. Chainwheels are readily available at most bike shops throughout the country. Another positive feature of this crankset is that it is the lightest of all available touring cranksets. T.A. has a highly polished chrome-plated finish.



Specifications:

Cup Thread: French, English, or Italian.

Crank Arm Lengths: 165mm, 167.5mm, 170mm (standard), 172.5mm, 175mm, 177.5mm, or 180mm.

Inner Chainwheels (also middle for 15 spd): 26 thru 50.

Outer Chainwheels: 40 thru 55.

T.A. Double (10 spd.) Cat. No. 45-801 \$63.98 complete

T.A. Triple (15 spd.) Cat. No. 45-802 \$69.98 complete

Stronglight 105 Bis Cranksets

This is the finest of all Stronglight products, and the crankset used by Bernard Thevenet to win the prestigious and grueling Tour de France. The 105 bis series offers aesthetic appeal, ingenuity in design, lightness in machining, and strength of materials. The appearance matches that of the well known Campy set. This crankset is offered with a selection of three bottom brackets. Both sealed bearing sets include alloy cups to save weight. The most expensive model comes with a hollowed wide diametered titanium spindle for lightweight and stiffness. Chainwheels are interchangeable with the earlier Stronglight Models 93 & 105.



Specifications:

Cup Thread: French, English, or Italian

Crank Arm Lengths: 170 only

Chainwheels: (42 x 52 is standard): 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, or 55 (inner and outer rings are interchangeable).

Stronglight Model 105 bis Crankset (complete. With Standard B.B.)

Cat. No. 45-803 \$79.98

With B.B. sealed bearings, steel spindle, and alloy cups. Cat. No. 45-804 \$92.98

With B.B. sealed bearings, titanium spindle, and alloy cups. Cat. No. 45-805 \$148.98



Sugino Cranksets

The Sugino line of cranksets are an inexpensive copy of Campy. All Sugino parts are interchangeable with the Campy set.



Sugino Mighty Competition

Specifications:

Cup Thread: French, English, or Italian.

Crank Arm Lengths: 171mm only.

Choice of Chainrings (42x52 is standard): 42 thru 55 (inner or outer rings interchangeable).

Mighty Competition

Cat. No. 46-801 \$46.98 complete



Sugino Mighty Custom

With drilled cups and drilled chainrings.

Specifications:

Cup Thread: French, English, or Italian.

Crank Arm Lengths: 171mm only.

Choice of Chainrings (42x52 is standard): 42 thru 55 in anodized silver or black (black chainwheels add \$2.00). Inner or outer rings interchangeable.

Sugino Mighty Custom

Cat. No. 46-802 \$51.98 complete



Sugino Mighty Victory

With drilled cups and chainrings. Special chainrings for smooth fast shifting.

Specifications:

Cup Thread: French, English, or Italian.

Crank Arm Lengths: 171mm only.

Choice of Chainrings (42x52 is standard): inner 42 thru 53; outer 46 thru 54. Available in anodized silver or black (black chainwheels add \$2.00).

Sugino Mighty Victory

Cat. No. 46-803 \$59.98 complete



Campagnolo Nuovo Record

This crankset needs little description. It has been the traditional crankset among many racers.

Specifications:

Cup Thread: French, English, or Italian.

Crank Arm Lengths: 165mm, 167.5mm, 170mm (standard), 172.5mm, 175mm, or 180mm.

Choice of Chainrings (42x52 is standard): 42 thru 55 (inner or outer rings interchangeable).

Chainwheels & Bottom Bracket Set

Cat. No. 46-804 \$89.98 complete.

Add \$5.00 if crank arm lengths or chainring selection is not standard.

All cranksets are complete and include the following:

- Right & Left Crank Arms (with English pedal thread)
- Chainwheels
- Spacers and Chainwheel fixing bolts
- Cupset with locking and ball bearings
- Bottom Bracket axle with bolts & washers

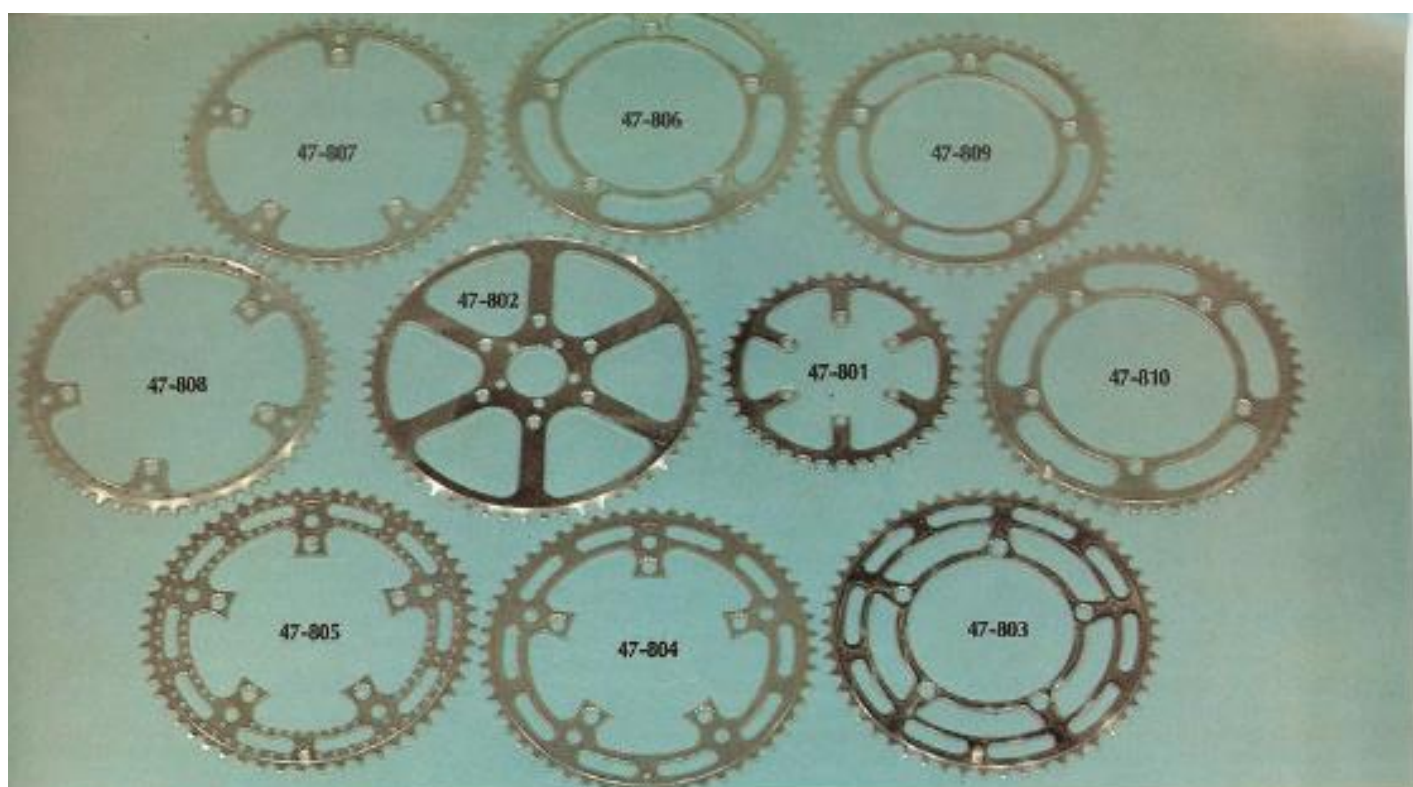
When ordering cranksets specify the following:

1. Crank arm Length (170mm is standard)
2. Chainwheel selection (42x52 standard)
3. Bottom Bracket Thread (French, English, or Italian). If threads not known, specify brand of frame.

Note: Japanese and American frames have English bottom bracket threads.

Model	Weight Complete (gms)	Cat. No.	Price
T.A. Cyclotouriste (Double)	915	45-801	\$63.98
T.A. Cyclotouriste (Triple)	950	45-802	69.98
Stronglight 105 bis (Standard B.B.)	945	45-803	79.98
Stronglight 105 bis (Sealed steel B.B.)	900	45-804	92.98
Stronglight 105 bis (Sealed titanium B.B.)	845	45-805	148.98
Sugino Mighty Competition	935	46-801	46.98
Sugino Mighty Custom	900	46-802	51.98
Sugino Mighty Victory	900	46-803	59.98
Campagnolo Nuovo Record	925	46-804	89.98

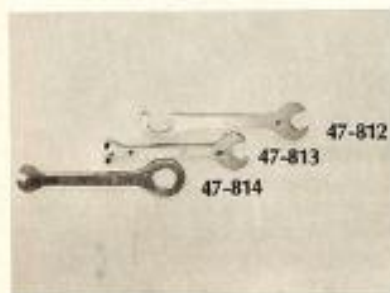




Chainwheels

Model	Chaining Range (No. of Teeth)	Weight (gms)		Cat. No.	Price
		42 Tooth	52 Tooth		
T.A. Cyclotouriste Inner	26-50	67	—	47-801	\$7.98
T.A. Cyclotouriste Outer	40-55	—	150	47-802	9.98
Stronglight 93	45-52	72	120	47-803	10.98
Stronglight 105	41,43-56	67	120	47-804	10.98
Stronglight 105 bis	38,40-55	63	103	47-805	13.98
Sugino Mighty Competition	42-55	60	115	47-806	8.98
Sugino Mighty Custom	42-55	53	88	47-807	12.98
Sugino Mighty Victory	46-54	—	88	47-808	15.98
Sugino Mighty Track	44-54	—	125	47-809	8.98
Campagnolo Nuovo Record	42-55	56	104	47-810	18.98
Campagnolo Super Record	42-55	53	88	47-811	24.98

Bottom Bracket Tools & Accessories

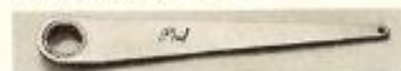


Artisan Lock Ring/Headset Tool for Campy
Cat. No. 47-812 \$5.50
Artisan Adjustable Cup Tool for Campy
Cat. No. 47-813 \$5.50
Artisan Fixed Cup Tool for Campy
Cat. No. 47-814 \$5.50

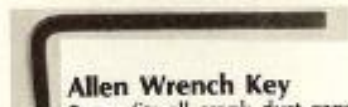


Sugino Bottom Bracket Tool Set (3pc.)
Cat. No. 47-815 \$7.98

Phil Wood
Portable Tool
Cat. No. 47-816 \$4.98



Phil Wood Shop Tool (for Italian and French threads, two tools are necessary; for English, one tool)
Cat. No. 47-817 \$10.98



Allen Wrench Key
5mm, fits all crank dust caps and chainwheel bolts
Cat. No. 47-818 \$.75

Protective Sleeve
Cat. No. 47-819 \$.98



Crank Removing Tools

Model	Cat. No.	Price
T.A.	47-820	\$5.98
Stronglight	47-821	3.98
Sugino	47-822	3.25
Campagnolo Puller	47-823	6.98
Campy Arm For Puller	47-824	4.98

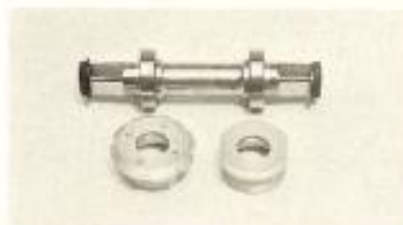
Bottom Brackets

Sealed Bearing Bottom Brackets

When ordering, specify the following:

1. Bottom bracket threads (French, English, or Italian). If threads not known, specify brand of frame (Japanese and American frames have English threads).

2. For T.A., Stronglight, and Phil Wood, specify if for double or triple crankset.



Stronglight 651 with Steel Spindle

This well-priced sealed bearing bottom bracket has been tremendously popular over the first years. Maintenance and installation are simple, and alloy cups are included for light weight. The quality of machining and finish are consistent and excellent, and at least match that of any of its competitors.

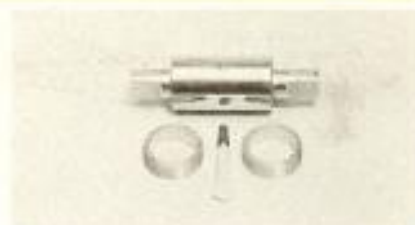
Stronglight 651 Bottom Bracket
Cat. No. 48-801 \$33.98



Stronglight 650 Titanium Spindle

Several manufacturers have attempted to save weight in the bottom bracket with the use of a titanium spindle. Most efforts resulted in spindles which were more flexible than steel. Stronglight solved this problem by increasing the spindle diameter for stiffness, and hollowing out the interior to retain the light weight. Thus, the Stronglight 650 is the ultimate in bottom brackets. For long wear and easy maintenance, it includes sealed bearings.

Stronglight 650 Bottom Bracket
Cat. No. 48-802 \$84.98



Phil Wood

This sealed bearing bottom bracket has been on the market for years, and can be ordered to fit all quality cranksets. Specify shaft number when ordering:

Number Chainwheels

Single	Double	Triple	Type of Cranks
1	2	3	Campagnolo & Copies
2	3	4	T.A. & Stronglight

Phil Wood Bottom Bracket
Cat. No. 48-803 \$39.98

Non-Sealed Bearing Bottom Brackets

Model	Bottom Bracket Complete (includes spindle, bolts & washers, cups, lockring, bearings)	Bottom Bracket Spindle Only (includes bolts & washers)	Cup Set Complete (includes cups, lockring, & bearings)
TA	Cat. No. 48-804 \$17.98	Cat. No. 48-805 9.98	Cat. No. 48-806 \$9.98
Stronglight	Cat. No. 48-807 17.98	Cat. No. 48-808 9.98	Cat. No. 48-809 9.98
Sugino Mighty			
Competition	Cat. No. 48-810 17.98	Cat. No. 48-811 11.98	Cat. No. 48-812 7.98
Sugino Mighty			
Custom-Victory (Drilled Cups)	Cat. No. 48-813 19.98	Cat. No. 48-814 11.98	Cat. No. 48-815 9.98
Campagnolo			
Nuovo Record	Cat. No. 48-816 30.98	Cat. No. 48-817 15.98	Cat. No. 48-818 19.98



Model	Weight (gms)	Cat. No.	Price
Sealed Bottom Brackets			
Stronglight 651 Steel	270	48-801	\$33.98
Stronglight 650 Titanium	215	48-802	84.98
Phil Wood	290	48-803	39.98
Non Sealed Bottom Brackets			
T.A.	292	48-804	17.98
Stronglight	315	48-807	17.98
Sugino Competition	315	48-810	17.98
Sugino Custom & Victory	315	48-813	19.98
Campagnolo	295	48-816	30.98

Colors for Palo Alto & Tom Ritchey Frames

The cyclist who invests in a custom frame takes extreme pride in the appearance of the end product. Because of this we paint our frames with only the most expensive, durable and attractive paint available—Imron by DuPont. Imron is notorious for its resistance to chipping and scratching.



Frames

Palo Alto Frames

All frames will be built with Reynolds 531 double butted tubing throughout, Campagnolo dropouts, Prugnat lugs (on lugged frames), round-oval-round chain stays, and DuPont Imron paint. Lugless frames will come with a sloping fork crown; lugged with a finely finished semi-flat fork crown. A lugless frame guarantees you extra strength because the brass can flow fully and evenly around the joints. Delivery starts in August.

Touring Model

The tourist is concerned with having a frame which will ride comfortably, carry loads, accommodate clincher wheels, racks and fenders, and withstand the punishment of long and bumpy roads. We have kept all of these objectives in mind when designing the touring model. To achieve a comfortable ride, the touring model has less steep head and seat tube angles (72°) and longer fork rake, wheelbase and chain stay measurements than the racing frame. The seat stay attaches to the side of the seat lug so that the touring model can accommodate center pull brakes and any rack if necessary. All touring models also include rear and front eyelets on the Campagnolo dropouts for fenders and racks. Specify frame size and color.

Cat. No. 49-801 \$295.00 Lugless

Cat. No. 49-802 \$310.00 Lugged

Special Order Frame

1. Please specify for what purpose the bike is to be used (be specific).
2. Give height, inseam, and weight.
3. Required special features.

Cat. No. 49-805 \$295.00 Lugless

Cat. No. 49-806 \$310.00 Lugged

Cat. No. 49-807 Add \$50.00 Frames over 25"



Racing Model

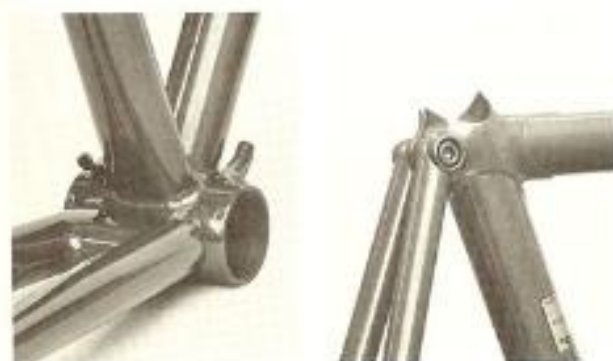
This frame is designed for strength, stiffness, and response. Compared with the touring model, the wheelbase is short, the angles are steep (73°) and the bottom bracket is of a medium height. The result is a frame which handles excellently in the curves and provides an instant response in the sprints. The seat stay attachment is fastback, and the Campagnolo dropouts are without eyelets. Specify frame size and color.

Cat. No. 49-803 \$295.00 Lugless

Cat. No. 49-804 \$310.00 Lugged

Optional Braze-on Fittings

Down Tube Shifter Bosses	Cat. No. 49-808	\$7.00 set
Down Tube Water Bottle Fittings (w/bolts)	Cat. No. 49-809	\$7.00 set
Campy Bottom Bracket Cable Guides	Cat. No. 49-810	\$7.00 set
Top Tube Brake Cable Guides (set 3)	Cat. No. 49-811	\$9.00 set
Pump Peg	Cat. No. 49-812	\$3.00
Rear Derailleur Cable Stop	Cat. No. 49-813	\$3.00
Other braze-ons upon request	Cat. No. 49-814	\$3.50 ea.



Tom Ritchey Frames

All frames are built with Columbus Double Butted Tubing throughout, Campagnolo Dropouts, Prugnat Lugs, and an investment cast fork crown. Tom Ritchey's unique bottom bracket design decreases lateral movement by adapting to an oval seat tube and by allowing a reinforced chain stay brace. This results in a stiffer, more responsive handling bicycle. All lugs are filed to the ultimate in aesthetics. This frame is truly the best. Delivery starts August. Colors and ordering instructions are identical to the Palo Alto frames.

Cat. No. 49-815 \$395.00

Custom orders upon request.



Graftek G-1 Frames

The Graftek is a very light frame which is stiff and keeps its stiffness year after year. Body fatigue is minimized because of the special cushioning characteristic of the graphite material. Handling is both smooth and responsive. The Graftek tubes don't scratch, dent, rust, or corrode. The frame is sold with fork, seat post, and head set. Frame sizes are: 50cm, 54cm, 57cm, 60cm, 63cm. By special order, the frame is also available at the same price with a shorter top tube for cyclists with shorter arms or midbody.

Cat. No. 49-816 with Steel Fork \$675.00

Cat. No. 49-817 with Graphite Fork \$725.00



Palo Alto Bicycles

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P.O. Box 1276
Palo Alto, CA 94302
(415) 328-7411
Hours: 9-6, Mon-Sat

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