

## MARKETING CORNER

By Amos York, Campagnolo Marketing Manager

## Campagnolo Announces New Marketing Thrust For 1983



Amos York – Campagnolo Marketing Manager discusses new Campagnolo components at 1982 Las Vegas Bicycle Show.

The 1983 Campagnolo marketing plan is designed to assist the bicycle dealer in a more effective manner. This objective will be satisfied by improving and streamlining communication, service and support.

A new series of technical advertisements is being developed and will appear in several selected publications. These consumer-oriented announcements will be directed to both racing

and touring enthusiasts and will be carried by racing and touring magazines as well as certain extra-sportif publications.

In addition, a new Campagnolo technical manual is in the works and will be ready for distribution in early June.

The Campagnolo trade show program has been modified to include the February International Show in New York and Interbike '83, scheduled for Las Vegas, Nevada. Campagnolo will be present at several other shows assisting various members of the Campagnolo distributor network.

This schedule will permit Campagnolo to direct more energy toward the development of the dealer technical clinics, thus approaching the dealer in a more effective manner.

A series of 15 technical clinics is currently being scheduled in major cities in key markets across the United States. These clinics will be presented on a dealer level and will include Campagnolo product information (what is available and how it works,) Campagnolo tools (the proper applica-

tion and use,) sales tips (how to start and continue customers on Campagnolo) and discussion of cycling in general, training, racing, touring and new markets. The series is scheduled to start in April.

In addition to the newly printed condensed parts catalog (printed Sept. 82 and now available from your Campagnolo distributor,) several other dealer aids are under consideration. These items will be announced in *Record News* as they become available.

The Campagnolo technical support program has also been expanded for 1983. In addition to the continued support of the most outstanding bicycle races in the country, Campagnolo plans to expand its endorsement of cycling activities to include the area of bicycle touring. Certain other markets have also been targeted by Campagnolo for support in the future.

This new program represents a more comprehensive marketing mix and will result in a highly effective relationship between Campagnolo-U.S.A., Inc., the American Bicycle Industry and the entire cycling community in general.

## Technologue

### The Campagnolo Bottom Bracket

The bottom bracket is the assembly of the axle, bearings and bearing cups that support the crank arms in the bicycle frame. Campagnolo currently produces bottom brackets in four series (A "series" is comprised of all of the various applications, i.e.: road, track, cyclo-cross and triple, in a particular group). Gran Sport, Record, Nuovo Record and Super Record are the proper designation of each series and are available in English, French and Italian threading (see charts at end of article).

The **Gran Sport** bottom bracket (#3331) can be easily identified by the black finish on the axle. Gran Sport cups (#745-fixed, and #746-adjustable [see: CUP-CHART]) are the same as the Record series, and are used with the Gran Sport axle (#3332-68SS or #3332-70SS).

The **Record** bottom bracket series is the most functionally versatile group manufactured by Campagnolo. Record bottom brackets (#1046, #1046/3) are available for single, double and triple chainwheel combinations. These as-

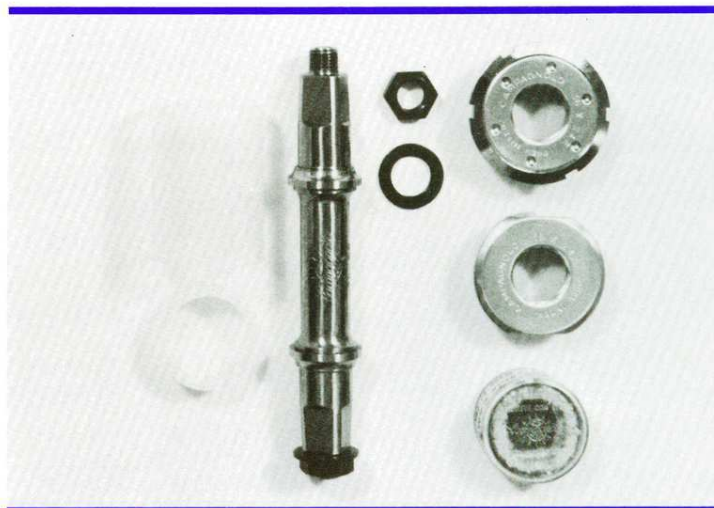
semblies are designed to suit the needs of track (#1046 P), road (#1046 SS), cyclocross (#1046 C) and touring (#1046/3) cyclists.

The **Nuovo Record** bottom bracket (1046/A) is for double chainwheel road use only. The bottom bracket parts have the same silver finish as the Record parts. The cups (#745/A, #746/A)<sup>1</sup> can be identified by the rifling found in the opening for the axle (This feature pumps contaminating materials

away from the bearings and extends the unit's life between servicings).

Note 1: Also available in Swiss (#745/A Swiss)  
editor's note: The Nuovo Record axle (#744/A) may be differentiated from Record axles (#744, #744/1, #744/2) by the distance between the bearing shoulders (Fig. 1, measurement "A").

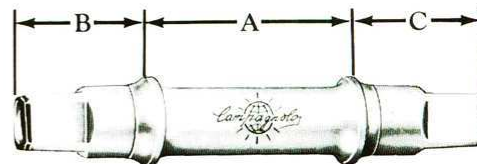
The **Super Record** bottom bracket (#4031, #4131) consists of a titanium axle (#4032, #4132) and aluminum cups (#4033, #4034, #4133, #4134). Both axle and cups have pressed-on steel bearing races. The Super Record





**CHART 1 AXLES GRAN SPORT**  
**BLACK OXIDE FINISH — WINGS LOGO BETWEEN BEARING RACE SHOULDERS “A”**

STYLE	INSCRIPTION	MEASUREMENT MILLIMETERS			APPLICATION	PART NUMBER — COMMENTS
		A	B	C		
OLD STYLE	68 SS 120	54	27	30	Road Double Chainwheel	3332 68 SS 120 — No Longer Produced See: Gran Sport New Style — 68 SS
	70 SS 120	56	27	30	Road Double Chainwheel	3332 70 SS 120 — No Longer Produced See: Gran Sport New Style — 70 SS
NEW STYLE	68 SS 120 (+1.0, +1.5) or 68 SS	54	28	31.5	Road Double Chainwheel	3332 68 SS
	70 SS 120 (+1.0, +1.5) or 70 SS	56	28	31.5	Road Double Chainwheel	3332 70 SS
	68 SS X3	54	30	38	Road Triple Chainwheel	3332 68 SS X3
	70 SS X3	56	30	38	Road Triple Chainwheel	3332 70 SS X3



bottom bracket is available only for road (double chainwheel) and track (single chainwheel).

**Gran Sport, Record and Nuovo Record** bottom brackets all have steel type-one axles (type one axles are hollow with threaded ends to accept a bolt). All use steel cups and require eleven (11), one-quarter inch (1/4") ball bearings per side. The balls may be purchased in specially selected and caged sets (#2100) that have been ground and polished to tolerances of one thousandth of a millimeter ( $\pm 0.001\text{mm}$ ). Cups and axles are ground to corresponding tolerances.

**Nuovo Record** (#1046/A) and **Super Record** (#4031) bottom brackets both feature the rifled axle aperture, to minimize external contamination. Each of the assemblies is also supplied with a special dust sleeve (#2110, #2110/I) to prevent anything from penetrating the bottom bracket from inside the frame tubing.

*Note: This dust sleeve may be purchased separately and used with all Campagnolo bottom brackets.*

Present **Super Record** axles (#4032, 4132) are solid type-two design (type two axles are solid with solid threaded ends to accept a nut [see: NOTE 1]). These axles have pressed-on steel races and use fourteen (14) three-sixteenth inch (3/16") ball bearings (#4035) per side ground to tolerances of one thousandths of a millimeter ( $\pm 0.001\text{mm}$ ).

*NOTE: Prior to 1982, the Super Record axle was a hollow type-one.*

All Campagnolo bottom brackets use the same lockring (#747). The **English-threaded** lockring may be identified by a single inscribed ring on the outboard surface. The **Italian-threaded** lockring can be identified by the fact that it will easily slide over English and/or French cups without thread engagement. The **French-threaded** lockring can be identified by the fact that it will only thread onto French threaded cups. The standard lockring is 3.5mm thick (4.5mm lockrings are available).

*NOTE: An oversized diameter of 0.5mm is also available for use with special oversized Campagnolo cups in English, French and Italian threading only in Nuovo Record.*

**CHART 2 AXLES RECORD**  
**GRAY FINISH — “CAMPAGNOLO” BETWEEN BEARING RACE SHOULDERS “A”**

STYLE	INSCRIPTION	MILLIMETERS			APPLICATION	PART NUMBER — COMMENTS
		A	B	C		
OLD STYLE	68 SS 120	54	27	30	Road Double Chainwheel	744 68 SS 120 — No Longer Produced See: Record New Style — 68 SS
	70 SS 120	56	27	30	Road Double Chainwheel	744 70 SS 120 — No Longer Produced See: Record New Style — 70 SS
	74 SS 120	60	27	30	Road Double Chainwheel	744 74 SS 120 — No Longer Produced No Replacement
	68 SS 120 X3	54	27	35	Road Triple Chainwheel	744/1 68 SS 120 X3 — No Longer Produced See: Record New Style — 68 SS X3
	70 SS 120 X3	56	27	35	Road Triple Chainwheel	744/1 70 SS 120 X3 — No Longer Produced See: Record New Style — 70 SS
	68 C 120	54	27	31	Cyclocross Single/Double Chainwheel	744/2 68 C 120 — No Longer Produced See: Record New Style — 68 C
	70 C 120	56	27	31	Cyclocross Single/Double Chainwheel	744/2 70 C 120 — No Longer Produced See: Record New Style — 70 C

**CHART 3 AXLES RECORD (NEW STYLE)**  
**GRAY FINISH — “CAMPAGNOLO” BETWEEN BEARING RACE SHOULDERS “A”**

STYLE	INSCRIPTION	MILLIMETERS			APPLICATION	PART NUMBER — COMMENTS
		A	B	C		
NEW STYLE	68 SS 120 (+1.0, +1.5) or 68 SS	54	28	31.5	Road Double Chainwheel	744 68 SS
	70 SS 120 (+1.0, 1.5) or 70 SS	56	28	31.5	Road Double Chainwheel	744 70 SS
	68 SS 120 X3 (+1.0, 1.5) or 68 SS X3	54	28	38	Road Triple Chainwheel	744/1 68 SS X3
	70 SS 120 X3 (+1.0, 1.5) or 70 SS X3	56	28	38	Road Triple Chainwheel	744/1 70 SS X3
	68 C 120 (+1.0, +1.5) or 68C	54	28	32.5	Cyclocross Single/Double Chainwheel	744/2 68 C
	70 C 120 (+1.0, +1.5) or 70 C	56	28	32.5	Cyclocross Single/Double Chainwheel	744/2 70 C



## CUPS CHART

Origin	Threads	Cup (Adjustable)	Cup (Fixed)
English	1.370" x 24 T.P.I.	RH Thread	LH Thread
French	35mm x 1.0mm	RH Thread	RH Thread
Italian	36mm x 24 T.P.I.	RH Thread	RH Thread
Swiss	35mm x 1.0mm	RH Thread	LH Thread

## Identification of Campagnolo Bottom Bracket Axles

The application of Campagnolo axles can be determined by certain measurements and surface markings (see Charts 1-7 at end of text). In 1977, the Campagnolo front changer, crank arm and bottom bracket axle were re-designed. The axle modifications affected only measurements "B" & "C" on the road axles (FIG. 1), the cups and track bottom brackets were not affected by this change. Thus, the mixing of old and new styles and crank arms is not advised, as the resultant chain-line may deviate from the optimum.

## UNDERSTANDING THE CHARTS

By comparing the inscriptions on the axle with those on the charts, one can determine the exact recommended use of the axle in question. Since Record and Nuovo Record axles have the same finish and markings, it is necessary to use measurement "A" (Fig. 1) for positive identification.

### Definitions of Markings

- A. Letters indicate function  
 SS (Serie Strada) — Road  
 P (Pista) — Track  
 C (Cyclocross) — Cyclocross
- B. The first number is the recommended bottom bracket width, in millimeters.  
 NOTE: "68", "70" are standard  
 "65", "74" are available
- C. The numbers "110", & "120" are the recommended widths (in mm) for the rear hub measured from locknut to locknut (overall locknut dimension). New style axles do not have these markings and can be used with 5, 6 or 7 speed cluster spacings.
- D. The "+1.0", "+1.5" markings indicate the amount (in mm), the axle was lengthened to satisfy CPCS requirements.
- E. "x3" means for triple chainwheels.
- F. "SL", "Z" may be found on some old axles. They were production codes and have no significance in identification.

CHART 4 AXLES NUOVO RECORD  
 GRAY FINISH — "CAMPAGNOLO" BETWEEN BEARING RACE SHOULDERS "A"

STYLE	INSCRIPTION	MILLIMETERS			APPLICATION	PART NUMBER — COMMENTS
		A	B	C		
OLD STYLE	68 SS 120	49	29	32	Road Double Chainwheel	744/A 68 SS 120 — No Longer Produced See: Nuovo Record New Style — 68 SS
	70 SS 120	51	29	32	Road Double Chainwheel	744/A 70 SS 120 — No Longer Produced See: Nuovo Record New Style — 70 SS
NEW STYLE	68 SS	49	30	33.5	Road Double Chainwheel	744/A 68 SS
	70 SS	51	30	33.5	Road Double Chainwheel	744/A 70 SS

CHART 5 AXLES SUPER RECORD  
 SILVER REFLECTIVE FINISH — "CAMPAGNOLO" BETWEEN BEARING RACE SHOULDERS "A"

STYLE	INSCRIPTION	MILLIMETERS			APPLICATION	PART NUMBER — COMMENTS
		A	B	C		
OLD STYLE	68 SS 120	52	29	32	Road Double Chainwheel	4032 68 SS 120 — No Longer Produced See: Super Record New Style — 68 SS
	70 SS 120	54	29	32	Road Double Chainwheel	4032 70 SS 120 — No Longer Produced See: Super Record New Style — 70 SS
NEW STYLE	68 SS 120 (±1.0, +1.5 OR	52	30	33.5	Road Double Chainwheel	4032 68 SS Current Production — Type 2 (Some Type 1, Available)
	68 SS					
	70 SS 120 (±1.0, +1.5) OR	54	30	33.5	Road Double Chainwheel	4032 70 SS Current Production — Type 2 (Some Type 1, Available)
	70 SS					

CHART 6 AXLES RECORD — TRACK  
 GRAY FINISH — "CAMPAGNOLO" BETWEEN BEARING RACE SHOULDERS "A"

STYLE	INSCRIPTION	MILLIMETERS			APPLICATION	PART NUMBER — COMMENTS
		A	B	C		
OLD STYLE	65 P 110	51	26	26	Track Single Chainwheel	744 65 P 110
	68 P 110	54	24.5	25	Track Single Chainwheel	744 68 P 110
	68 P 120	54	27	27	Track Single Chainwheel	744 68 P 120
	70 P 120	56	26	26	Track Single Chainwheel	744 70 P 120

Note: Record Track Axles are NOT AFFECTED by C.P.S.C. Standards — Only one style exists. Finish same as Record Road.

CHART 7 AXLES SUPER RECORD — TRACK  
 SILVER REFLECTIVE FINISH — "CAMPAGNOLO" BETWEEN BEARING RACE SHOULDERS "A"

STYLE	INSCRIPTION	MILLIMETERS			APPLICATION	PART NUMBER — COMMENTS
		A	B	C		
OLD STYLE	65 P 110	54	26	26	Track Single Chainwheel	4132 65 P 110
	68 P 110	57	24.5	25.5	Track Single Chainwheel	4132 70 P 120
	68 P 120	57	27	27	Track Single Chainwheel	4132 70 P 120
	70 P 120	59	26	26	Track Single Chainwheel	4132 70 P 120

Note: Super Record Track Axles are NOT AFFECTED by C.P.S.C. Standards — only one style — Finish same as Super Record Road  
 PRE 1982 = TYPE 1, CURRENT PRODUCTION = TYPE 2