

catalogue n. 17







**S.p.A. Brevetti Internazionali CAMPAGNOLO**  
**36100 VICENZA - ITALY**  
**Fully paid-up Company's capital Lit. 1.100.000.000**  
**Corso Padova 168**  
**P.O. Box No. 822**  
**phone: 500055 (8 lines)**  
**telex: 48074 CAMPA**  
**Registration number of Vicenza's Court 4265**



"Brevetti Internazionali Campagnolo S.p.A." is a leading Company that through the high qualifications of its technicians and the experience of its skilled workers has established a worldwide reputation for products in various technological sectors. It has created all the cycle racing articles presented in this catalogue.

Campagnolo products are held in highest repute by qualified engineers and leading sportsmen alike, because of their superior quality confirmed by the numerous victories gained in every field, not only by the leading professional riders but also amateurs in every country.

Articles which have been often imitated but never equalled.

N. B. Any person infringing Campagnolo patents, trade marks, and registered designs will be prosecuted.



CAMPAGNOLO®

BREV. INTER. CAMPAGNOLO®



Brevetti Internazionali Campagnolo is identified with its founder, the current President and Managing Director - Tullio Campagnolo.

On the 11th November 1927 Tullio Campagnolo, by that time a recognised amateur racing cyclist, is competing in a hard cycle race being run on roads in the Dolomites. Suddenly the weather turns to intense cold with snow on the scene resembles winter on the difficult twisting road on the Aune Cross Pass.

Campagnolo is in a good position but punctures. His fingers are so numb with the cold that he cannot unscrew the wing-nuts which hold his wheel in the frame. He loses valuable time but thereby conceives ideas which will change the mechanics of racing cycles.

A clever and imaginative engineer - Campagnolo begins to produce and patent a series of prototypes of cycle accessories which will eventually make him famous throughout the world.

Though an undisputed leader in the field of special racing components, Campagnolo also has interested himself in other fields such as special lightweight magnesium wheels for racing, Grand Touring, Sporting and Production cars. He also excels in this field and from wheels for Formula One racing cars has moved into special parts for the automotive field of motor cycle, aviation and aerospace industries.



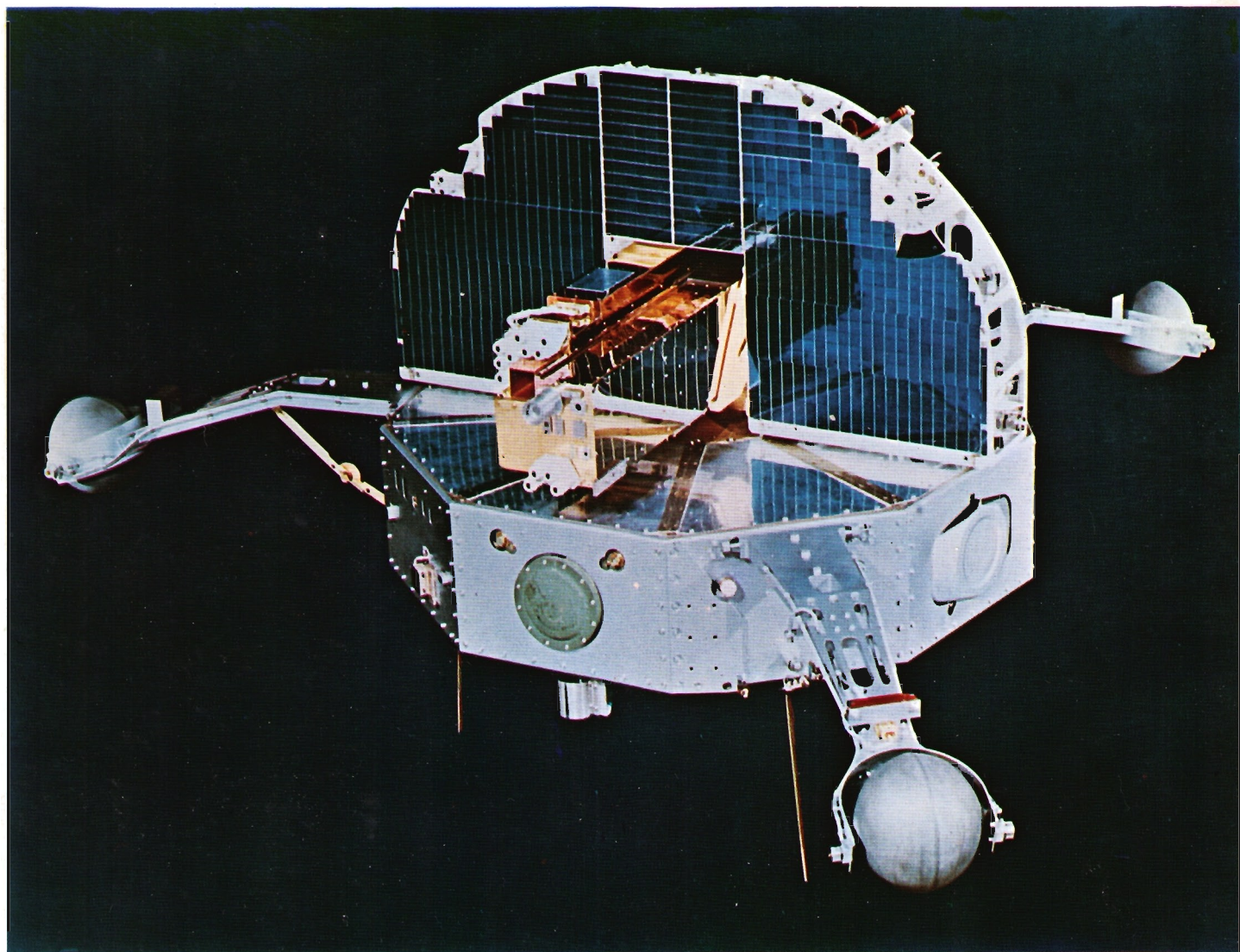


Campagnolo - Tullio

Tullio Campagnolo competing on the Aune Cro  Pass during a cycle race November 11th 1927.



This short introduction is an abbreviation of the many and varied activities of Brevetti Internazionali Campagnolo S.p.A. and what it produces in several factories all controlled to the same standards of scientific and technical accuracy.

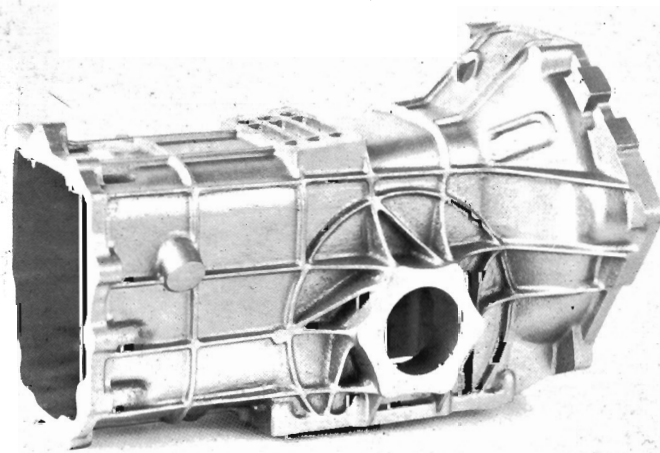
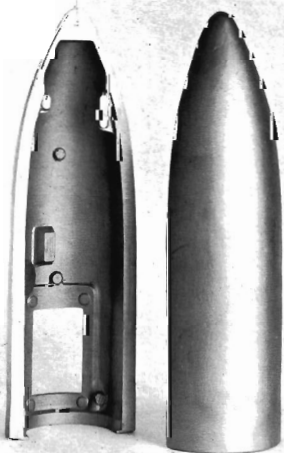
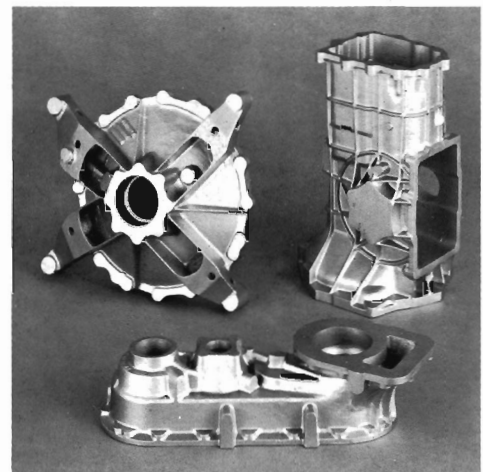
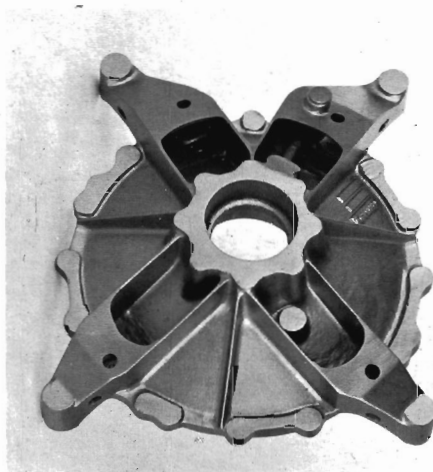
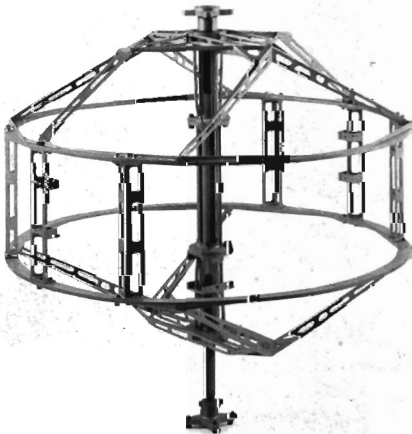




Campagnolo produces for:

**The Aviation and Aerospace Industry** components for aeroplanes, helicopters, scientific research rockets, sounding balloons, satellites... etc...

It is this a field wherein a few highly qualified companies only may operate, able to guarantee the highest degree of accuracy and quality of the rigidly controlled production.

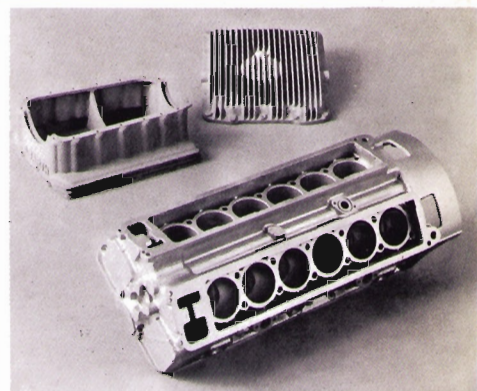
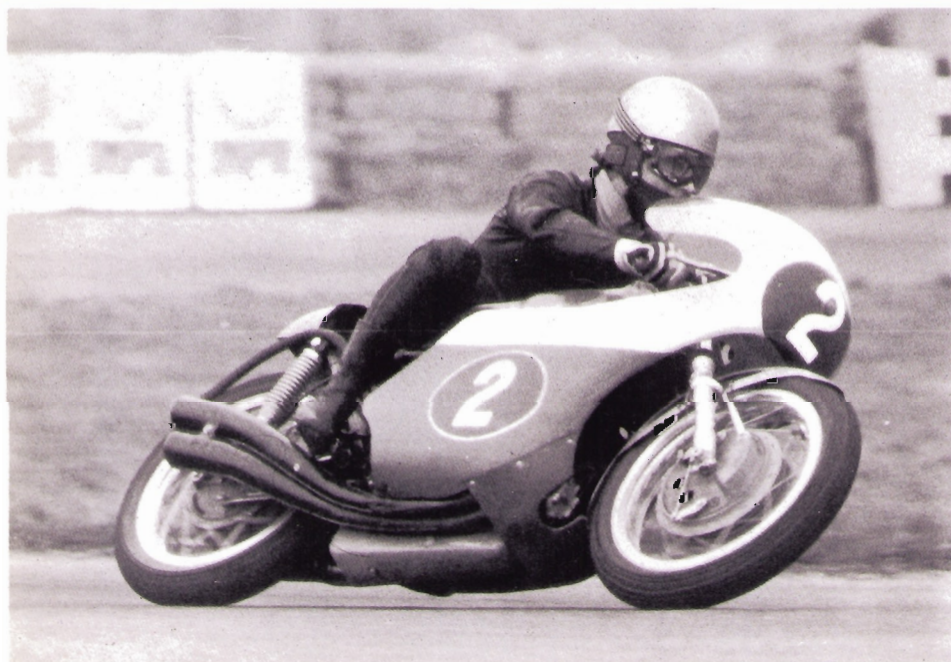




**The Motor-Car manufacturing Industry** wheels made of superlightweight Elektron alloy for sports, racing and touring motor-cars, as well as special engine and carframe components. Motor-car manufacturers such as: Ferrari, Abarth, De Tomaso, Autodelta, Lancia, Alfa Romeo, Maserati, Lamborghini, Tecno, Iso Rivolta... etc..., use Campagnolo wheels because they are the lightest in weight, the most durable, the safest.

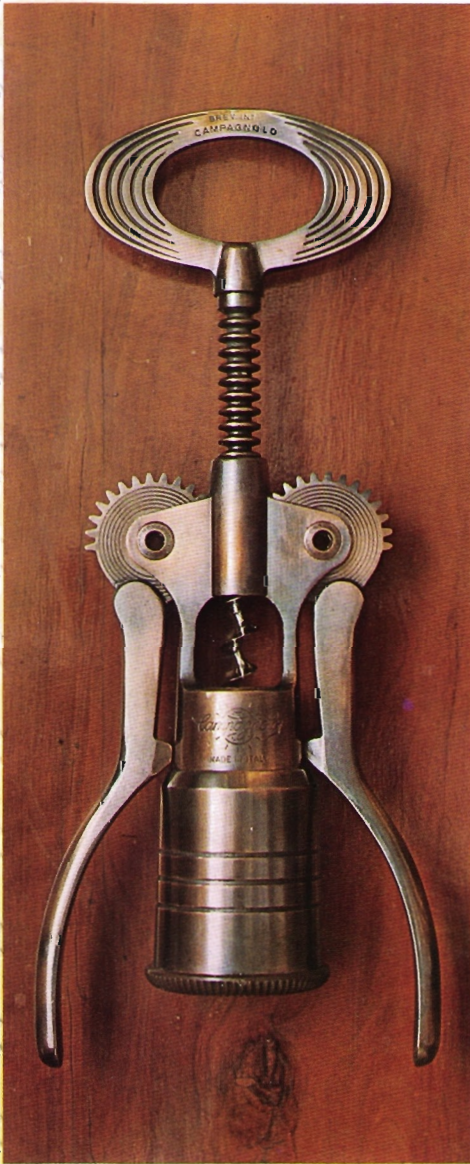
**The Motor-Cycle Industry** alloy wheels, hubs and special parts for racing and sports motor-cycles.

**The Mechanical Industry in general** pieces for any appliance or plant or operating machines, for which it is necessary to combine maximum lightness with maximum strength.





Campagnolo also produces articles for the gifts and sports trades. Among the former let us remember the patented giant cork-screws permitting even the most resistant corks to be easily and safely extracted, and the nut-crackers, which do not break but do crack the nuts. With the latter are now included tennis rackets made of special ultralightweight alloys.





*Campagnolo*





Campagnolo employs more than 2,000 skilled production workers and is constantly expanding. It exports directly to approximately 100 countries including all european markets, every american state, and a large number of African and Asian nations. Exports account for approximately 80% of the total production.





The most modern production processes, the use of high-grade materials, the most stringent controls, the most accurate workmanship distinguish all Campagnolo articles.

This catalogue, renewed in its general lines also with the introduction of colours for ease in reading it and making easier the identification of pieces and sets which they belong to, supersedes the previous ones.

This catalogue revised in its general layout has had colours introduced for ease of reading and identifying component parts of the various articles. It supercedes all previous issues.

## IMPORTANT

Orders not stating catalogue part reference numbers against each article will not be executed.

"Brevetti Internazionali Campagnolo S.p.A." reserves the right to make design changes when necessary for technical advancement, without previous notice.



# **catalogue of special bicycle products**







# GENERAL INDEX

SUPER RECORD ROAD GROUP

from page 5 to page 19

SUPER RECORD TRACK GROUP

from page 21 to page 28

RECORD ROAD GROUP

from page 29 to page 43

RECORD TRACK GROUP

from page 45 to page 52

GRAN SPORT GROUP

from page 53 to page 64

VALENTINO EXTRA GROUP

from page 65 to page 70

TRIPLE AND CROSS CHAINWHEEL SETS  
RALLY GEAR FOR LARGE RATIOS

from page 71 to page 78

VARIOUS ITEMS

from page 79 to page 81

TOOLS

from page 83 to page 89

TECHNICAL TABLES

from page 91 to page 96







# GENERAL INDEX

SUPER RECORD ROAD GROUP

from page 5 to page 19

SUPER RECORD TRACK GROUP

from page 21 to page 28

RECORD ROAD GROUP

from page 29 to page 43

RECORD TRACK GROUP

from page 45 to page 52

GRAN SPORT GROUP

from page 53 to page 64

VALENTINO EXTRA GROUP

from page 65 to page 70

TRIPLE AND CROSS CHAINWHEEL SETS  
RALLY GEAR FOR LARGE RATIOS

from page 71 to page 78

VARIOUS ITEMS

from page 79 to page 81

TOOLS

from page 83 to page 89

TECHNICAL TABLES

from page 91 to page 96







*Campagnolo*



Continued



|   |                 |
|---|-----------------|
| SUPER RECORD ROAD GROUP   | pages 6-7       |
| SUPER RECORD GEAR - RECORD FRONT CHANGER<br>AND ALTERNATIVE RECORD CONTROL LEVERS | pages 8-9-10-11 |
| SUPER RECORD ROAD HUBS  | page 12         |
| SUPER RECORD ROAD PEDALS  | page 13         |
| SUPER RECORD CHAINWHEEL SET -<br>ROAD BOTTOM BRACKET SET                          | pages 14-15     |
| SUPER RECORD ROAD HEAD SET<br>SUPER RECORD SEAT PINS                              | page 16         |
| FORK ENDS - SPECIAL CONNECTORS  | page 17         |
| SUPER RECORD BRAKES   | pages 18-19     |



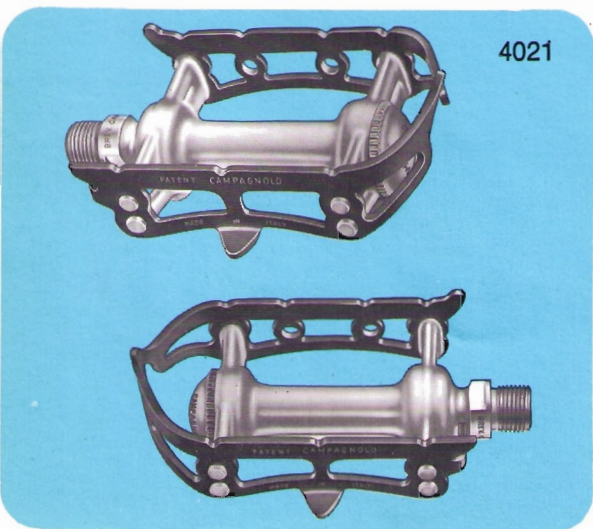
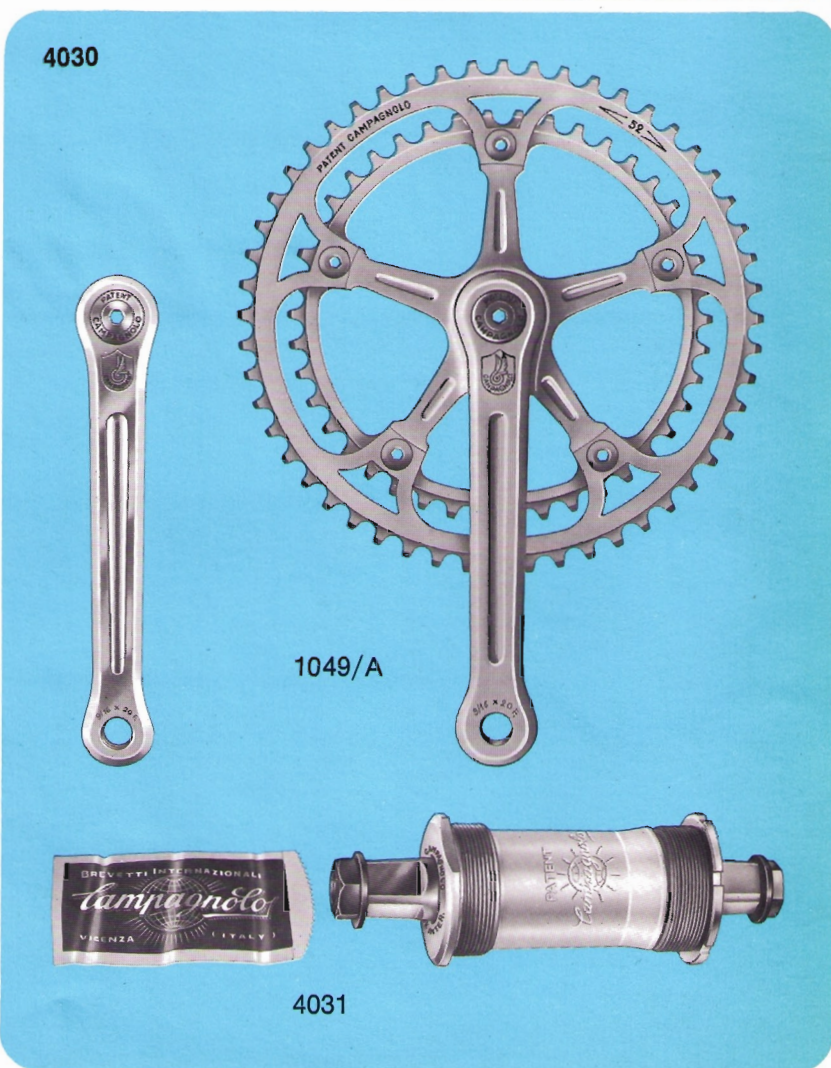
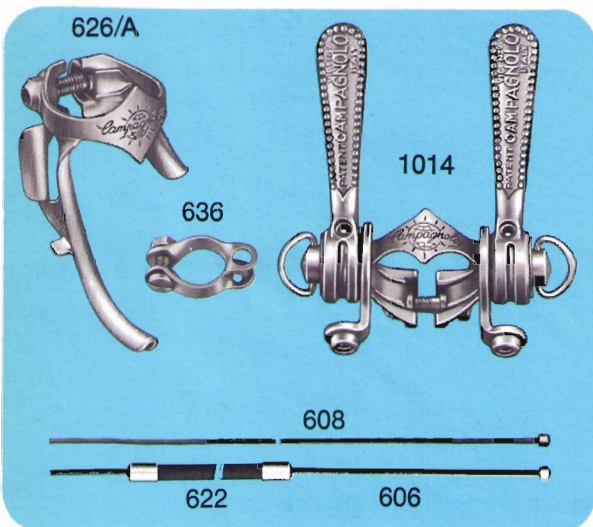
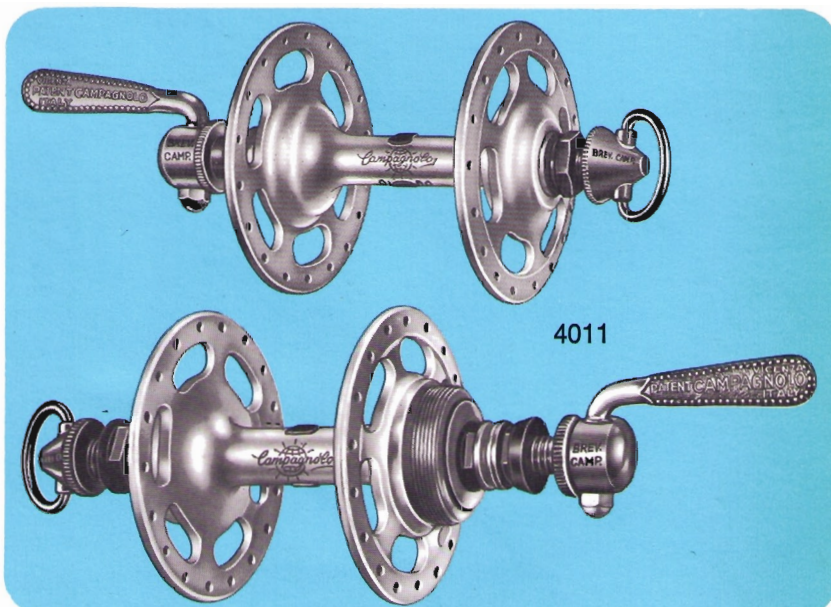
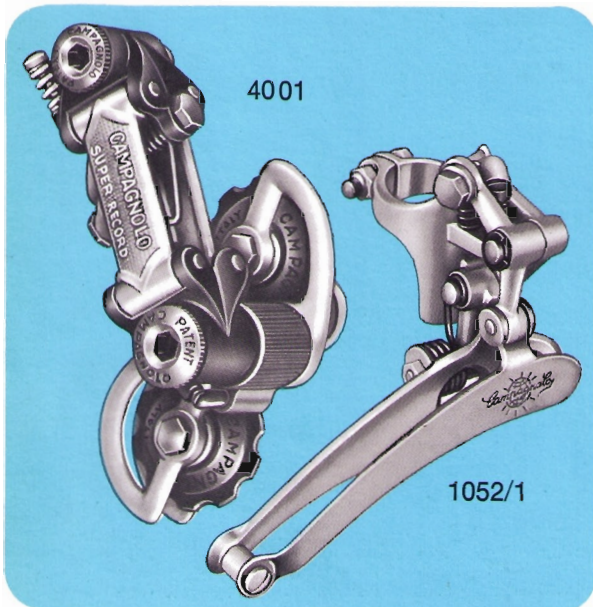
# 4000/F CAMPAGNOLO SUPER RECORD ROAD GROUP

(Particular components of this group are illustrated from page 8 to page 19)



- 606 Down tube control gear inner wire (118 cm.)
- 608 Down tube control front changer inner wire (72 cm.)
- 622 Gear stainless steel outer casing (21 cm.)
- 626/A Twin gear cable clip
- 636 Chainstay clip
- 649 Stainless steel brake cable clip
- 1010/A Set Record front and rear fork ends without eyelet
- 1014 Twin down tube control lever.
- 1030/2 Pump connector

1049/A Super Record road chainset (with cranks 170 mm. pedal hole  $\varnothing$  9/16" x 20 F. and chainrings for chain 1/2" x 3/32" [2 mm.]). Specify the number of teeth of the chainrings available from 42T to 57T. Upon request are furnished cranks with lengths 165 - 167,5 - 172,5 - 175 - 177,5 and 180 mm.

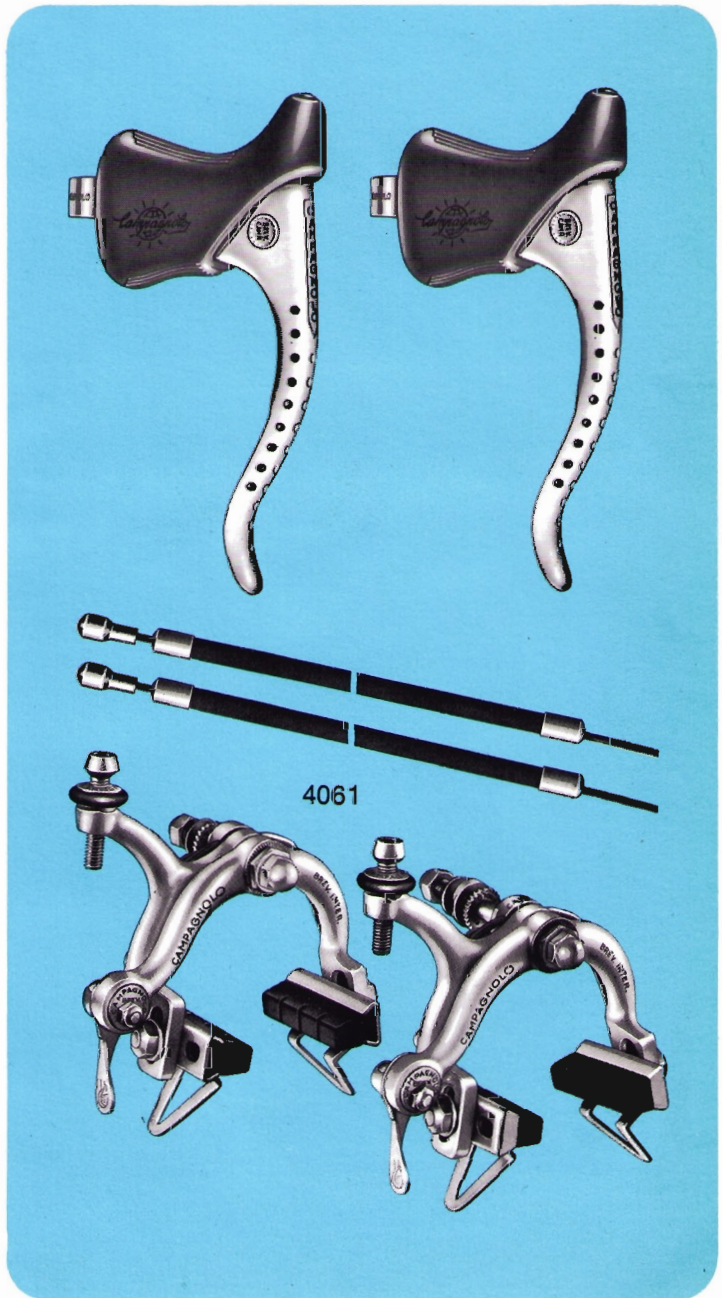
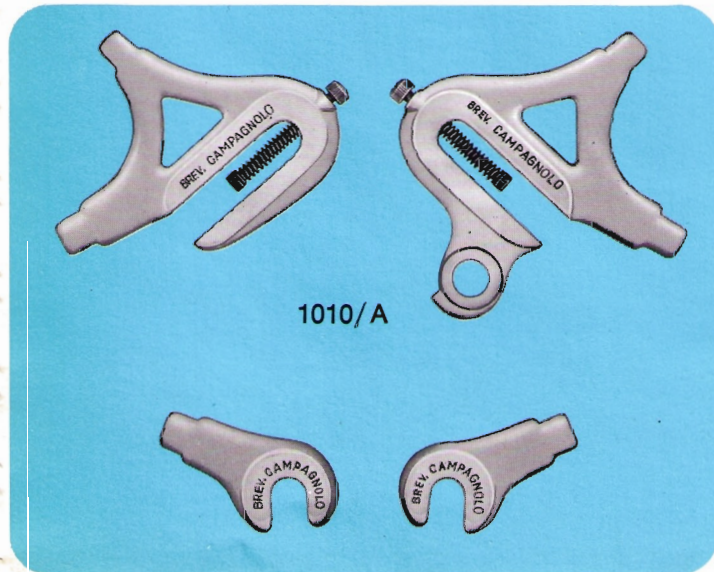




**1052/1** Record front changer  
**4001** Super Record gear  
 (without hanger)  
**4011** Pair Super Record large flange  
 quick release road hubs with  
 Titanium spindle (front width  
 100 mm. - rear width 120 mm.,  
 flanges with 36 holes,  
 thread  $\varnothing 35 \times 24F.$ ).  
 Upon request furnished with  
 rear hub suitable for  
 6 sprockets, width 125 mm.,  
 flanges with 24 - 28 - 32 - 40

holes, thread  $\varnothing 34.7 \times 1$  M. or  
 $\varnothing 1,370'' \times 24$  Tpi-BSC.  
 See other alternatives on page 12  
**4021** Pair Super Record road pedals  
 with Titanium spindle  
 (spindle thread  $\varnothing 9/16 \times 20F.$ ).  
 The pedals are supplied with  
 unassembled screws and washers  
 for fixing toe clips  
**4030** Super Record road chainwheel  
 set  
**4031** Super Record bottom bracket  
 road set with Titanium spindle  
 (bracket width 70 mm. and cups

threaded  $\varnothing 36 \times 24F.$ ).  
 See alternatives on pages 14-15  
**4041** Super Record road head set  
 (thread  $25,4 \times 24F.$ ).  
 Upon request furnished with  
 thread  $\varnothing 25 \times 1M.$  or  
 $\varnothing 1'' \times 24$  Tpi-BSC  
**4051** Super Record seat pin.  
 (pin length 147 mm.)  
 Specify diameter stem: 25 -  
 25,8 - 26 - 26,2 - 26,4 - 26,6 - 26,8  
 - 27 - 27,2 - 27,4 mm.  
**4061** Set Super Record brakes.  
 See alternatives on pages 18-19





## 8

|       |                             |
|-------|-----------------------------|
| 814/A | Outer cage plate            |
| 815/A | Inner cage plate            |
| 930/A | Roller                      |
| 931/A | Roller bush                 |
| 937   | Roller dust cover           |
| 4002  | Upper body                  |
| 4003  | Spring cage                 |
| 4004  | Upper pivot Titanium bolt   |
| 4005  | Spring cage Titanium bolt   |
| 4006  | Front arm                   |
| 4007  | Adjusting bolt upper spring |
| 4008  | Adjusting bolt lower spring |
| 4009  | Spring cage cover           |

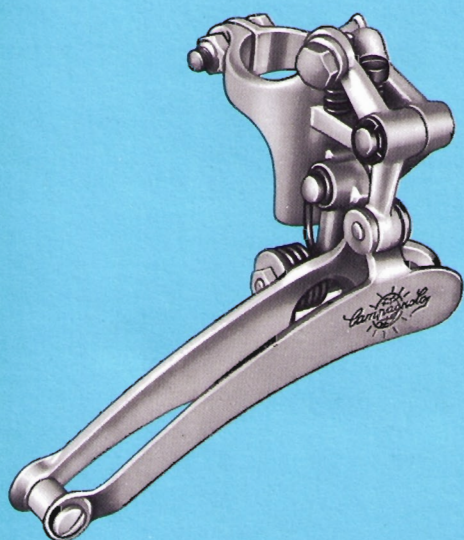




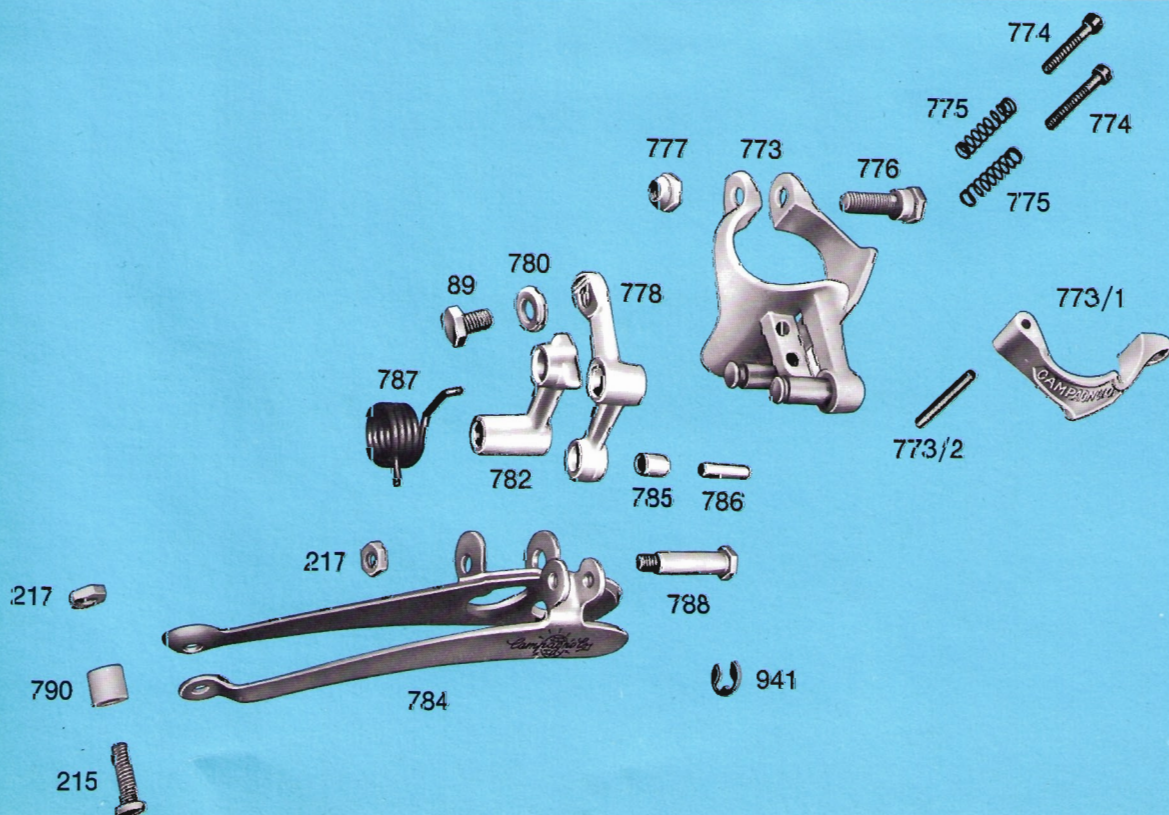
# PARTICULAR COMPONENTS OF CAMPAGNOLO SUPER RECORD ROAD GROUP 4000/F

1052/1 Record front changer  
89 Clamp washer  
215 Cage spanner bolt  
217 Nut  
773 Record front changer body  
(complete with clip and hinge)  
773/1 Hinge  
773/2 Hinge pin  
774 Adjusting screw  
775 Adjusting bolt spring  
776 Clip fixing screw

777 Clip nut  
778 Upper arm  
780 Cable clamp bolt washer  
782 Lower arm  
784 Front changer cage  
785 Ferrule for front changer cage  
786 Spindle for front changer cage  
787 Front changer return spring  
788 Cage shank bolt  
790 Bush  
941 Circlip



1052/1

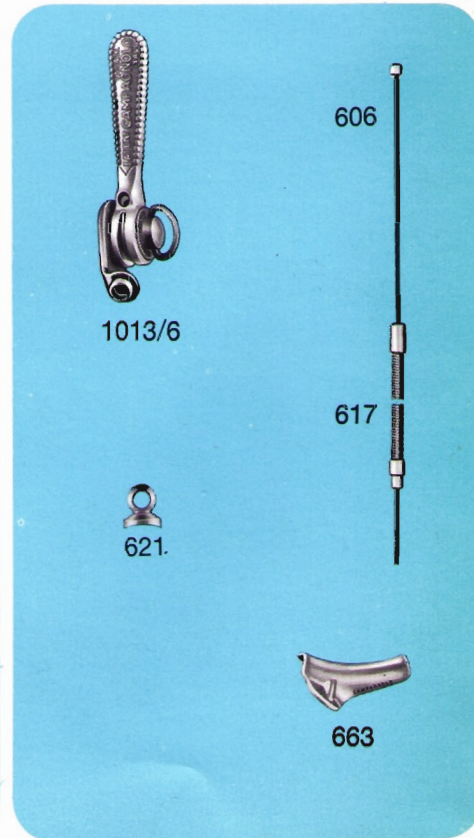
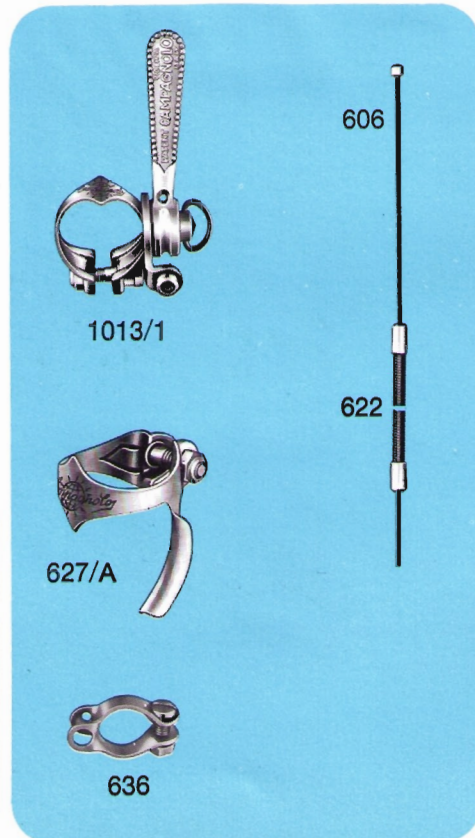
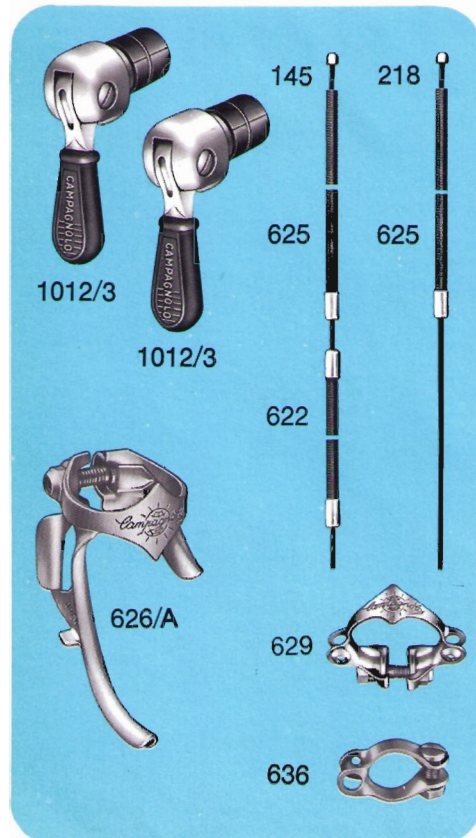
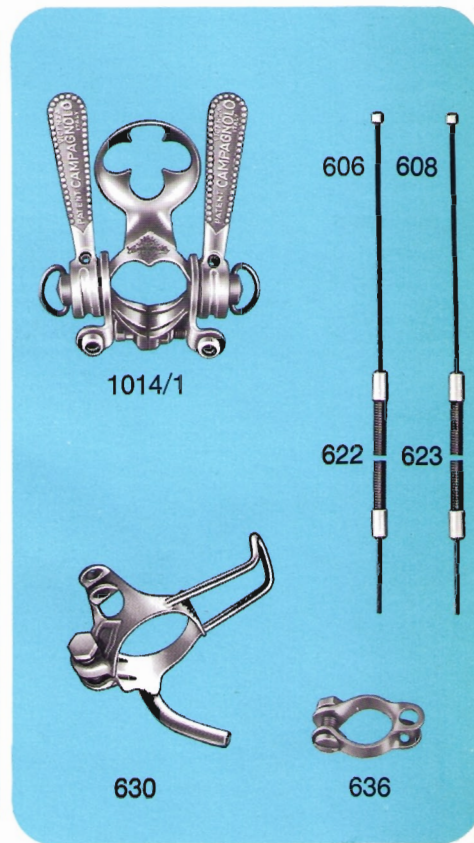
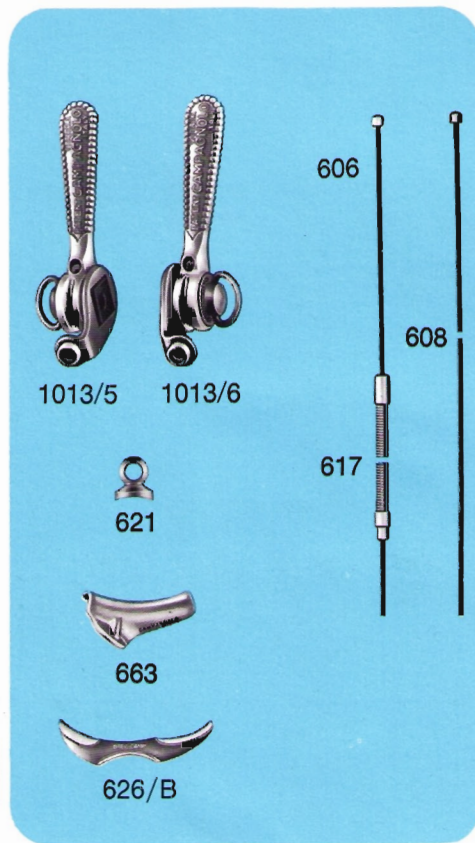
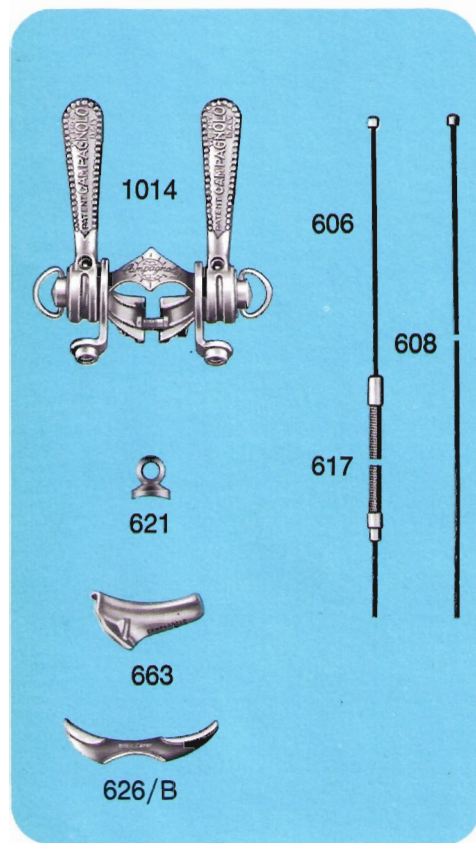




# PARTICULAR COMPONENTS OF CAMPAGNOLO SUPER RECORD ROAD GROUP 4000/F

- 137 Segment expanding screw
- 138 Segment
- 139/1 Counter-nut
- 139/2 Hexagonal screw
- 140/1 Tension adjusting screw
- 142 Spring segment holder
- 145 Gear cable to handlebar control (197 cm.)
- 173 Handlebar lever rubber
- 174 Handlebar friction plate
- 174/1 Lever friction plate
- 200/2 Handlebar control body
- 201 Handlebar lever

- 218 Front changer cable to handlebar control (150 cm.)
- 600 Right hand collar (without screw and nut)
- 600/2 Right hand braze-on control lever plate
- 601 Gear control lever only
- 602 Front changer control lever only
- 603 Cover plate
- 604/1 Friction adjusting wing nut
- 606 Down tube control gear inner wire (118 cm.)

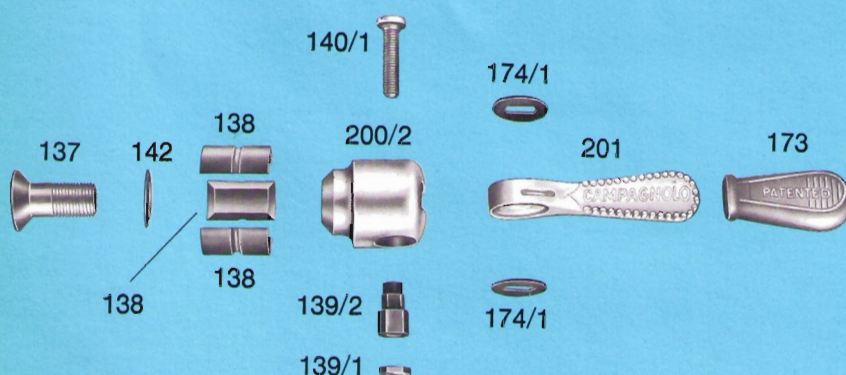
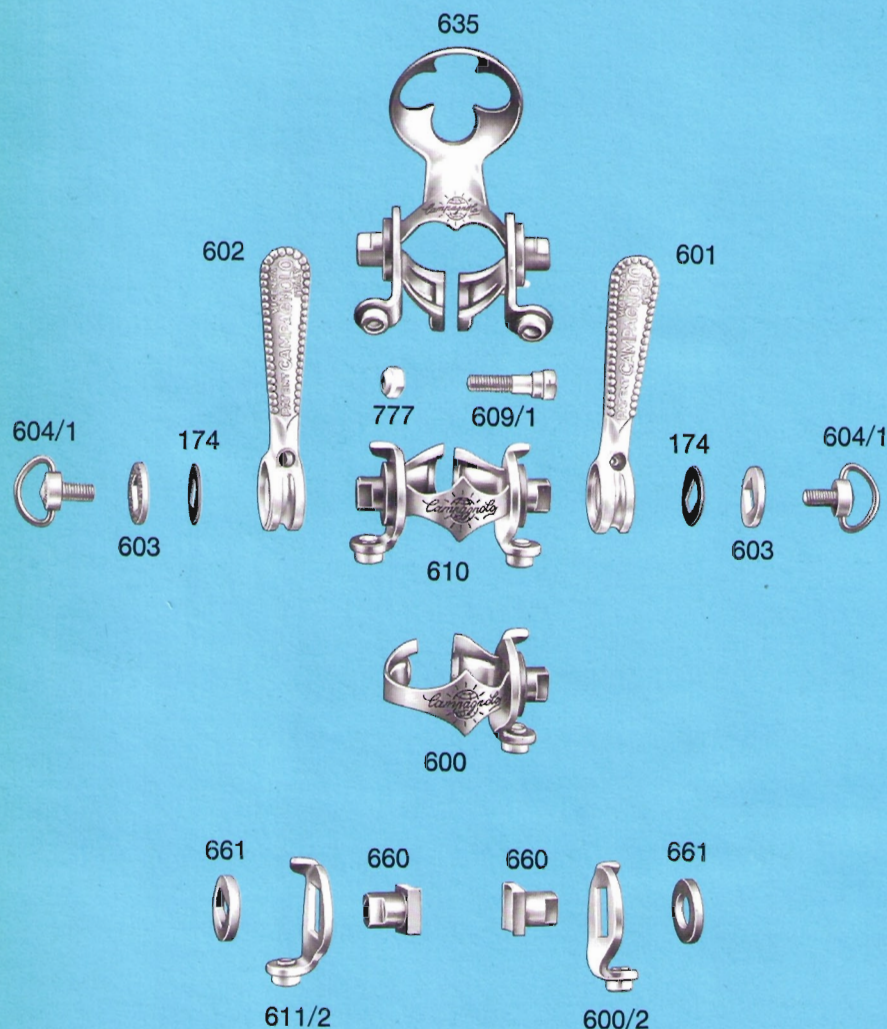




**608** Down tube control front changer  
inner wire (72 cm.)  
**609/1** Fixing clip bolt  
**610** Record twin control clip  
**611/2** Left hand braze-on control lever  
plate  
**617** Braze-on gear stainless steel  
outer casing (21 cm.)  
**621** Braze-on cable stop  
**622** Gear stainless steel outer casing  
(21 cm.)  
**623** Front changer stainless steel

**625** outer casing (15,5 cm.)  
Stainless steel outer casing to  
down tube handlebar control  
(75 cm.)  
**626/A** Twin gear cable clip  
**626/B** Braze-on cable ferrule  
**627/A** Down tube tunnel R/H for gear  
**629** Twin handlebar control clip  
**630** Clip-on-tunnel and stop with  
pump holder D/T  
**635** Pump holder twin control Record  
lever bosses

**636** Chainstay clip  
**660** Braze-on boss  
**661** Brazed boss collar  
**663** Braze-on cable ferrule  
**777** Clip nut  
**1012/3** Handlebar control  
**1013/1** Right hand down tube control  
**1013/5** Front changer braze-on control  
**1013/6** Gear braze-on control  
**1014** Twin down tube control lever  
**1014/1** Twin down tube control lever  
with pump clip





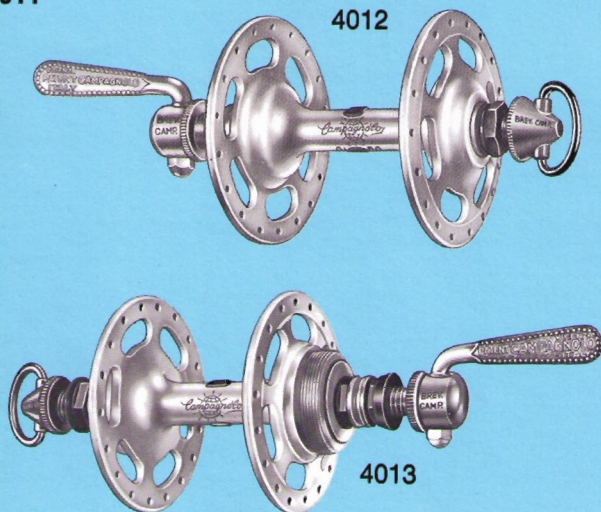
# PARTICULAR COMPONENTS OF CAMPAGNOLO SUPER RECORD ROAD GROUP 4000/F

- 4011** Pair Super Record large flange quick release road hubs with Titanium spindle (front width 100 mm., rear width 120 mm., flanges with 36 holes, thread  $\varnothing$  35 x 24F.). Upon request furnished with rear hub suitable for 6 sprockets, width 125 mm., flanges with 24 - 28 - 32 - 40 holes, thread  $\varnothing$  34,7 x 1M. or  $\varnothing$  1.370" x 24 Tpi-BSC
- 4012** Super Record large flange front road hub
- 4013** Super Record large flange rear road hub

- 4014** Pair Super Record small flange quick release road hubs with Titanium spindle (front width 100 mm., rear width 120 mm., flanges with 36 holes, thread  $\varnothing$  35 x 24F.). Upon request furnished with hub suitable for 6 sprockets, width 125 mm., flanges with 24 - 28 - 32 - 40 holes, thread  $\varnothing$  34,7 x 1M. or  $\varnothing$  1.370" x 24 Tpi-BSC
- 4015** Super Record small flange front road hub
- 4016** Super Record small flange rear road hub

4011

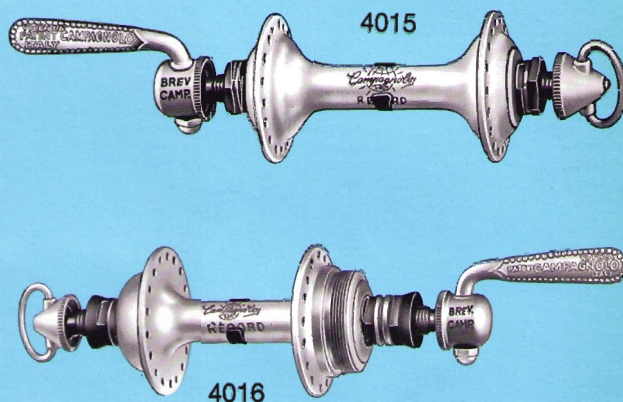
4012



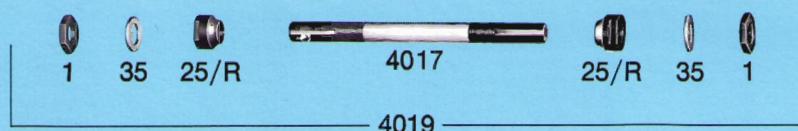
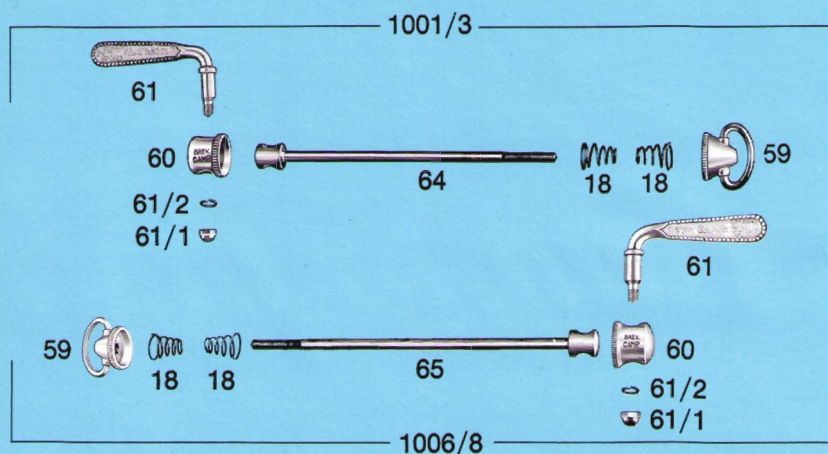
4013

4014

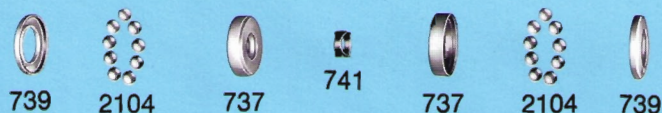
4015



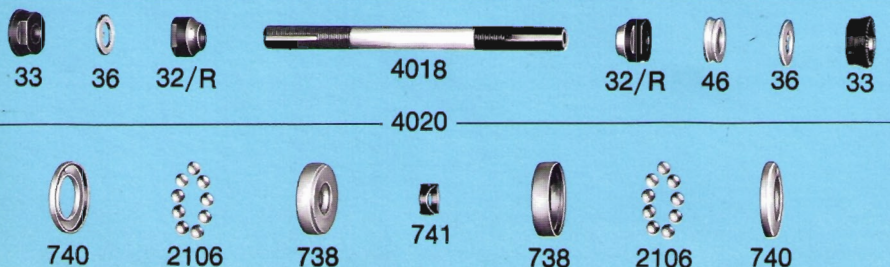
4016



4019



4020



- 1** Front lock nut  
**18** Conical spring  
**25/R** Front cone  
**32/R** Rear cone  
**33** Rear lock nut  
**35** Front hub lock washer  
**36** Rear hub lock washer  
**46** Rear spacing collar  
**59** Quick release conical adjuster  
**60** Quick release cap  
**61** Quick release lever  
**61/1** Spring washer  
**61/2** Grower washer  
**64** Quick release front skewer  
**65** Quick release rear skewer  
**737** Front ball cup  
**738** Rear ball cup  
**739** Front dust cover  
**740** Rear dust cover  
**741** Spring clip  
**1001/3** Complete front quick release skewer for Record hub  
**1006/8** Complete rear quick release skewer for Record hub  
**2104** Set (9+9) special  $\varnothing$  7/32" balls selected with 1/1000 of mm. tolerance  
**2106** Set (9+9) special  $\varnothing$  1/4" balls selected with 1/1000 of mm. tolerance  
**4017** Front hollow Titanium axle for Super Record road hub  
**4018** Rear hollow Titanium axle for Super Record road hub (129 mm. long). Upon request are furnished spindles 132 - 134 and 140 mm. long  
**4019** Complete front axle for Super Record road hub  
**4020** Complete rear axle for Super Record road hub

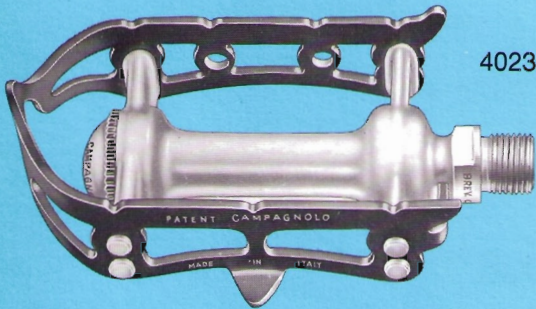


# PARTICULAR COMPONENTS OF CAMPAGNOLO SUPER RECORD ROAD GROUP 4000/F

- 4021 Pair Super Record road pedals with Titanium spindle (spindle thread  $\varnothing$  9/16" x 20F.). The pedals are supplied with unassembled screws and washers for fixing toe clips.
- 89 Toe clip locking screw for superlight pedals
- 673 Pedal axle washer
- 675 Pedal axle lock nut
- 677 Toe clip washer
- 678 Inner dust cap
- 679/A Pedal dust cap

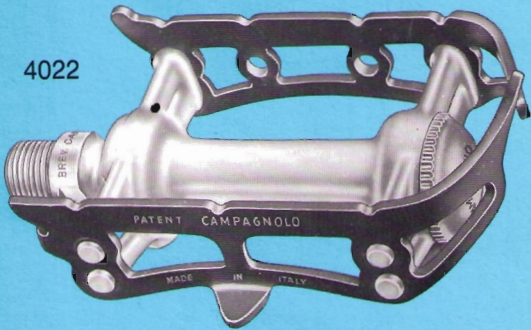
- 4022 Super Record right hand road pedal
- 4023 Super Record left hand road pedal
- 4024 Super Record right hand Titanium pedal
- 4025 Super Record left hand Titanium pedal
- 4026 Inserted pedal race (available also in oversize)
- 4027 Pedal axle cone
- 4028 Set (64) special  $\varnothing$  1/8" pedal balls selected with 1/1000 of mm. tolerance

4021



4023

4022



4026



4026



4027



673



675



678



679/A



677



89



4028



4025



4024

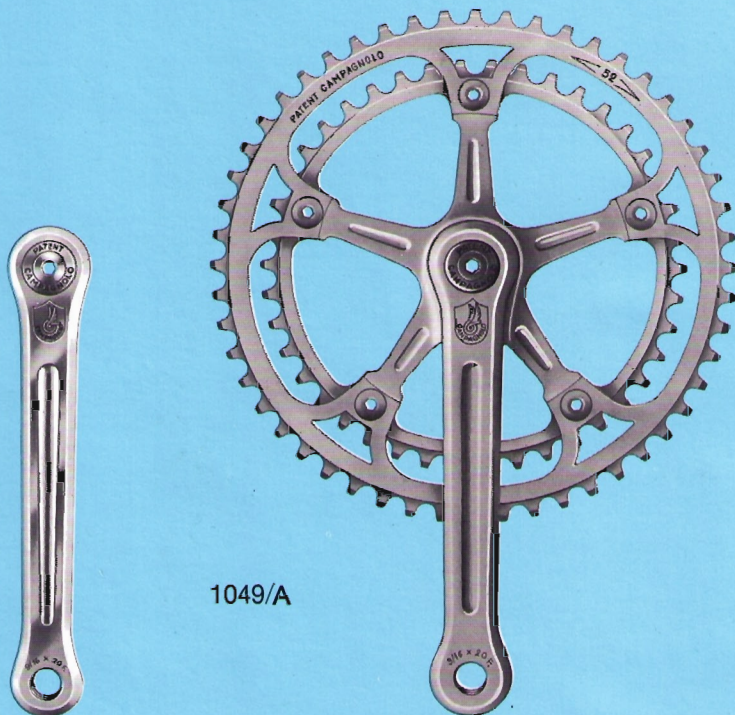


# PARTICULAR COMPONENTS OF CAMPAGNOLO SUPER RECORD ROAD GROUP 4000/F

- 4030** Super Record road chainwheel set
- 1049/A** Super Record road chainset (with cranks 170 mm., pedal hole  $\varnothing$  9/16" x 20F. and chainrings for chain 1/2" x 3/32" [2 mm.]). Specify the number of teeth available from 42T to 57T. Upon request furnished cranks with lengths

- 165 - 167,5 - 172,5 - 175 - 177,5 and 180 mm.**
- 4031** Super Record bottom bracket road set with Titanium spindle (bracket width 70 mm. and cups threaded  $\varnothing$  36 x 24F.).
- 747** Lockring with normal 3.5 mm. thickness (available also with 4 mm. and 4.5 mm. thickness) Indicate required thread

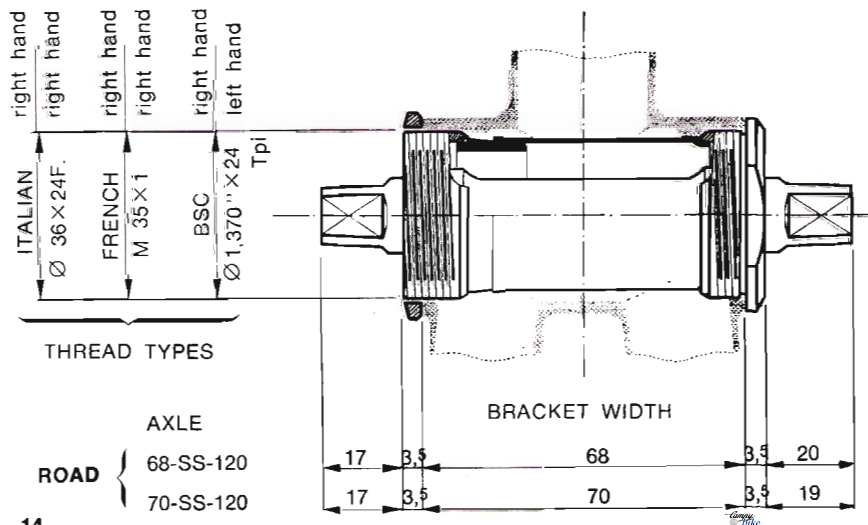
4030



1049/A



4031



Details of bracket number:

- The first number indicates the bracket width
- SS indicates road
- Number 120 indicates the suggested width of the rear hub for a perfect chain alignment (see pages 92-93)

**UPON REQUEST WE SUPPLY THE CUPS WITH THREAD INCREASED BY 0,5 mm.**



748  
749  
751

Fixing screw  
Fixing washer  
Right hand road crank  
(complete with cover 756,  
170 mm. long). Upon request are  
furnished the following  
sizes: 165 - 167,5 - 172,5 - 175 -  
177,5 and 180 mm. long  
Left hand road crank  
(complete with cover 756,  
170 mm. long). Upon request are  
furnished the following

753/A

754

755

756

801

2110

2110/1

sizes: 165 - 167,5 - 172,5 - 175 -  
177,5 and 180 mm. long  
Super Record road chainring for  
1/2 x 3/32" (2 mm.) chain.  
Specify the number of teeth  
available from 42T to 57T  
Road chainwheel fastening screw  
Road chainwheel fastening nut  
Crank cover plate  
Spacer for single chainring  
Record sleeve  
Cone for sleeve

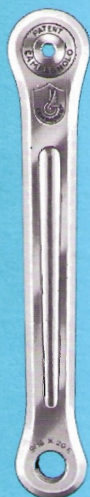
4032

4033

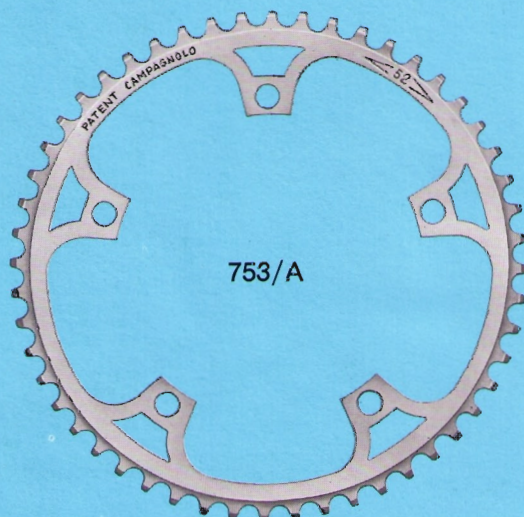
4034

4035

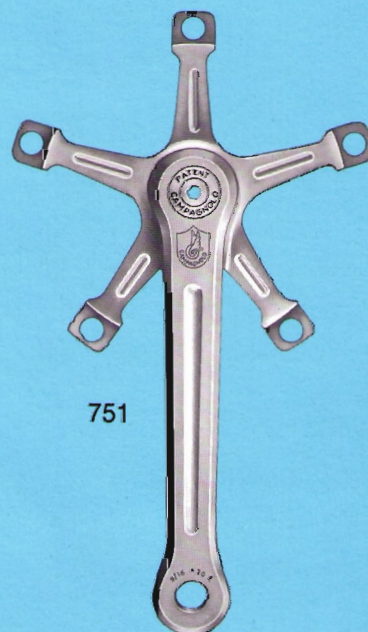
Super Record cotterless  
Titanium road spindle.  
See measurements and indicate  
spindle size  
Fixed cup.  
Indicate required thread  
Adjustable cup.  
Indicate required thread  
Set (14+14) special  $\varnothing$  3/16" b/b  
balls selected with 1/1000 of  
mm. tolerance



752



753/A



751



756



755



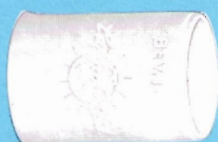
754



801



2110/1



2110



4035



748



749



747



4034



4032



4033



749



748



# PARTICULAR COMPONENTS OF CAMPAGNOLO SUPER RECORD ROAD GROUP 4000/F

- 4041** Super Record road head set  
**2101** Set (20+20) special b/b  
 $\varnothing$  3/16" balls selected with  
1/1000 of mm. tolerance
- 4042** Super Record locking nut  
(specify type of threading)
- 4043** Super Record locking washer
- 4044** Super Record screwed road race  
(specify type of threading)

- 4045** Super Record road top head  
race (0,5 mm. larger  
gauge available)
- 4046** Super Record road bottom head  
race (0,5 mm. larger  
gauge available)
- 4047** Super Record road crown race  
(smaller diameter available)

**4041**



**4051**



**4054**



**4055**



**4056**



**4052**



**4053**



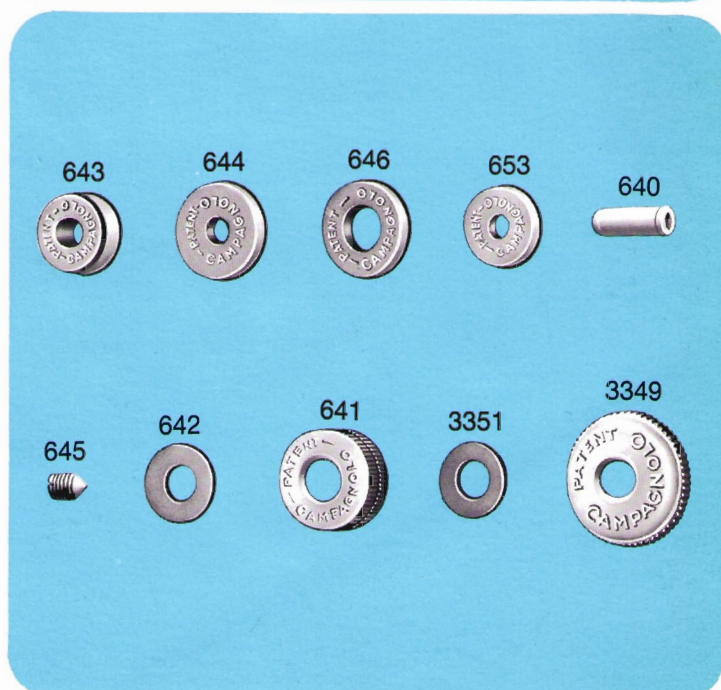
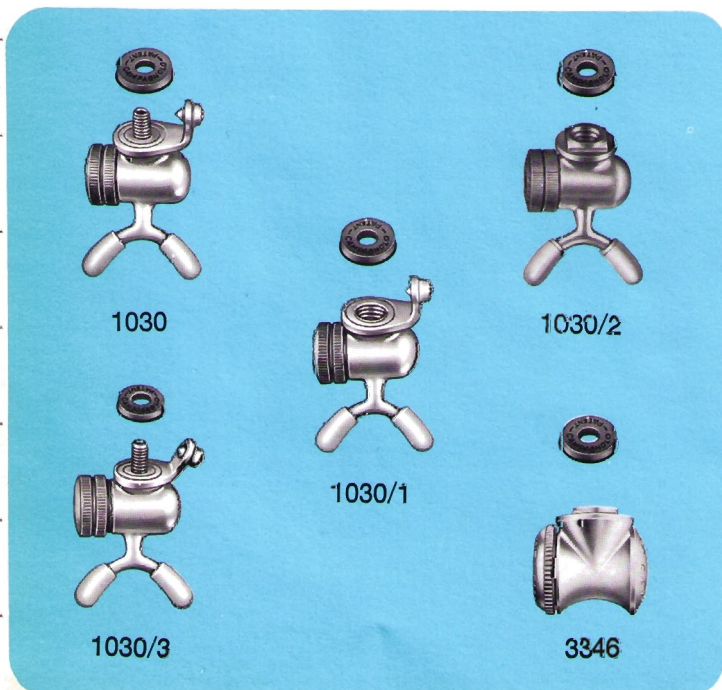
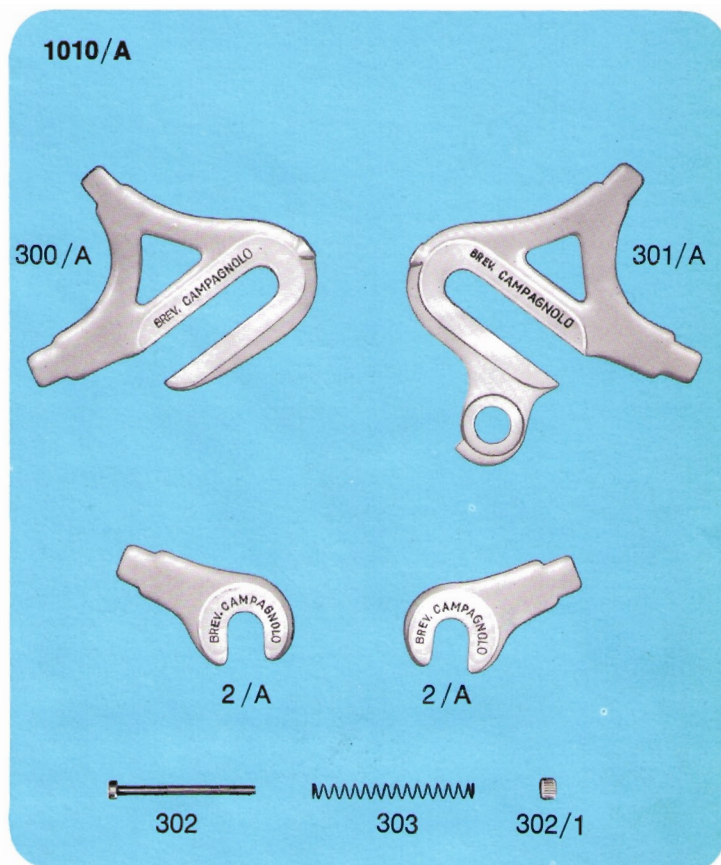
**4057**

- 4051** Super Record seat pin.  
(pin length 147 mm.)  
Specify diameter stem:  
25 - 25,8 - 26 - 26,2 - 26,4 - 26,6  
26,8 - 27 - 27,2 - 27,4 mm.
- 4052** Left hand side support
- 4053** Right hand side support
- 4054** Front bracket
- 4055** Rear bracket
- 4056** Fixing and adjusting bolt
- 4057** Bolt nut



# PARTICULAR COMPONENTS OF CAMPAGNOLO SUPER RECORD ROAD GROUP 4000/F

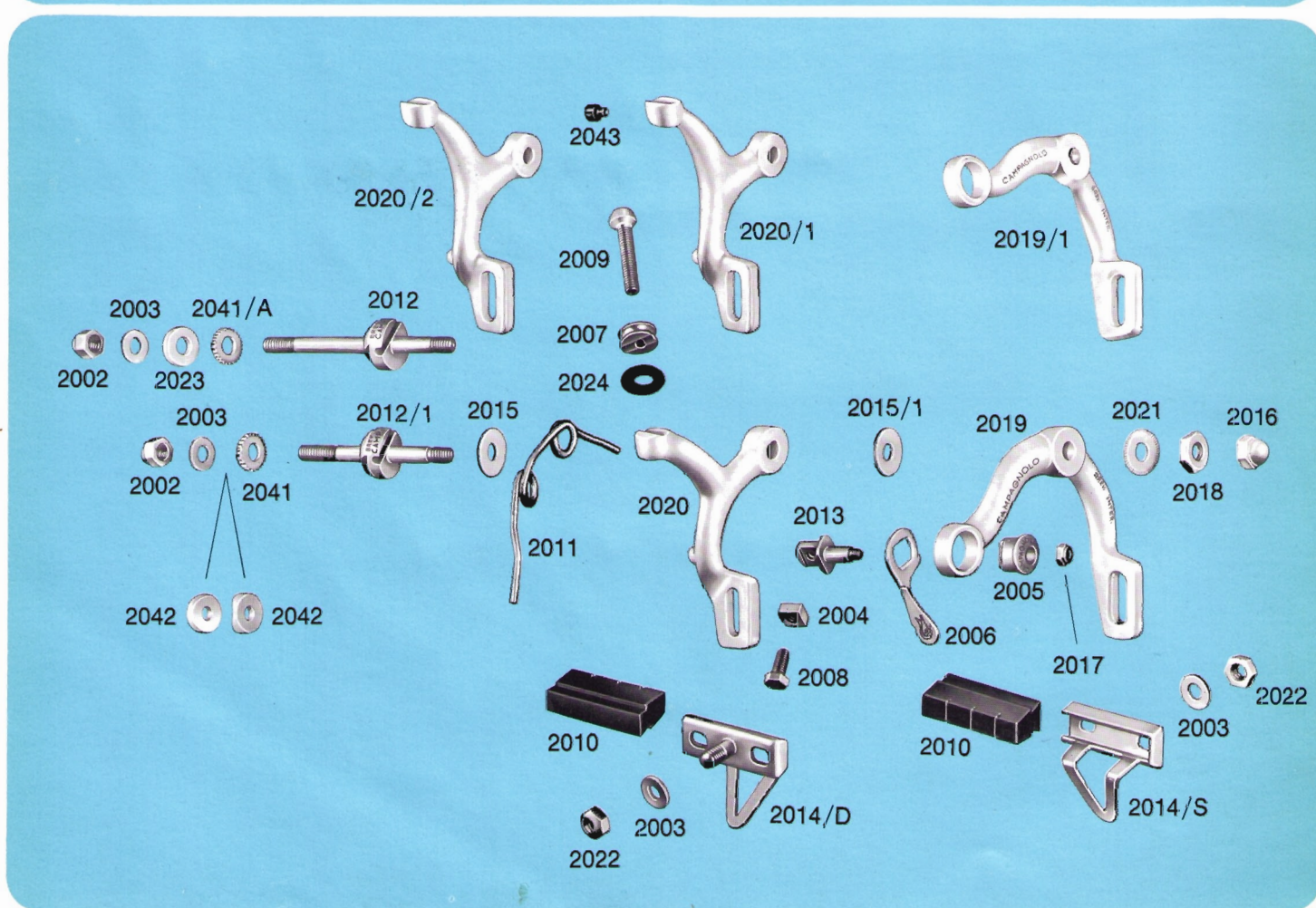
- 2/A Record right and left hand front fork ends without eyelet
- 300/A Record left hand rear end without eyelet
- 301/A Record right hand rear end without eyelet
- 302 Adjusting bolt
- 302/1 Nut for bolt 302
- 303 Adjusting bolt spring
- 640 Rubber cap
- 641 Milled nut
- 642 Rubber washer
- 643 Rubber washer for tubular valves
- 644 Rubber washer for pump connector 1030
- 645 Connecting screw
- 646 Rubber washer for pump connectors 1030/1 and 1030/2
- 653 Rubber washer for pump connector 1030/3
- 1010/A Set Record front and rear fork ends without eyelet
- 1030 Pump connector with  $\varnothing 7/32''$  or M7 x 1 locking screw
- 1030/1 Pump connector with M9 x 1,25 locking screw
- 1030/2 Pump connector with M9 x 1,25 locking screw
- 1030/3 Pump connector with M5 x 1 or M7 x 1 locking screw (French type)
- 3346 Superlight connector ensemble with square boss (with M9 x 1,25 locking screw)
- 3349 Cover for superlight pump connector
- 3351 Washer for superlight pump connector





**4000/F**

- |        |                         |
|--------|-------------------------|
| 2007   | Adjusting nut           |
| 2008   | Cable clamp bolt        |
| 2009   | Adjusting screw         |
| 2010   | Brake block             |
| 2011   | Tension spring          |
| 2012   | Front brake center bolt |
| 2012/1 | Rear brake center bolt  |
| 2013   | Cable clamp             |
| 2014/D | Right hand brake shoe   |
| 2014/S | Left hand brake shoe    |
| 2015   | Friction washer         |
| 2015/1 | Inner friction washer   |
| 2016   | Domed nut               |

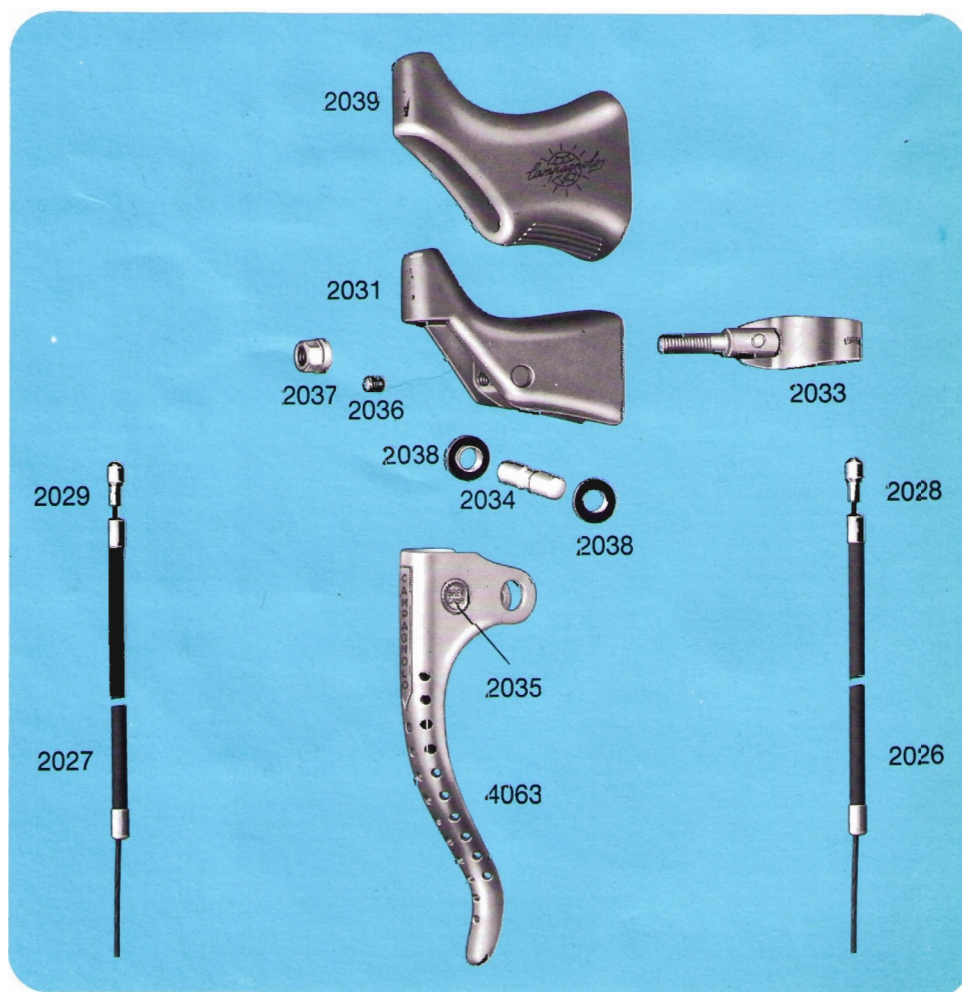
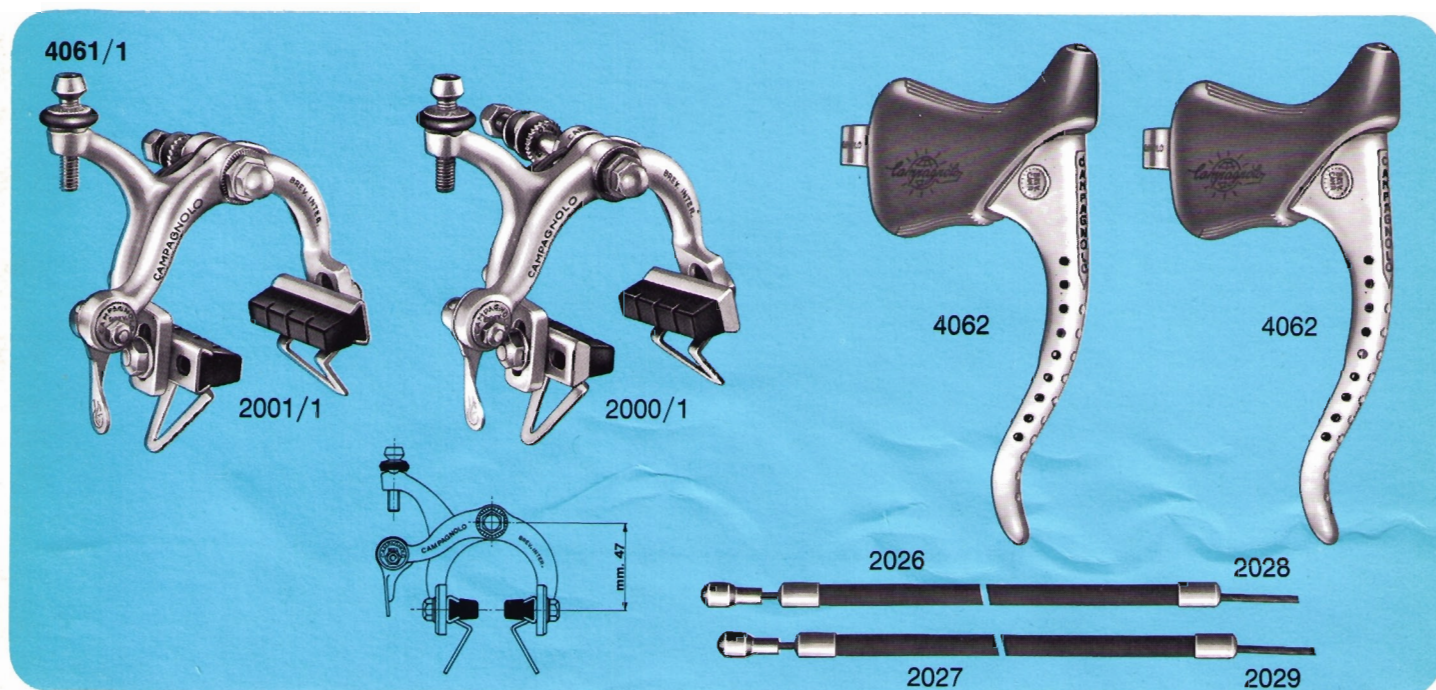




2017 Cam locking nut  
 2018 Locking nut  
 2019 Front stirrup  
 2019/1 Small brake front stirrup  
 2020 Rear stirrup  
 2020/1 Small brake front stirrup  
 2020/2 Small brake rear stirrup  
 2021 Milled washer  
 2022 Brake shoe nut  
 2023 Concave washer for front brake  
 2024 Adjusting rubber

2026 Front brake outer casing  
 (61 cm.)  
 2027 Rear brake outer casing  
 (119 cm.)  
 2028 Front inner cable (73 cm.)  
 2029 Rear inner cable (131 cm.)  
 2031 Lever hood  
 2033 Brake lever clip  
 2034 Lever pivot pin  
 2036 Grub screw  
 2037 Clamp nut

2038 Lever bush  
 2039 Rubber lever hood  
 2041 Serrated washer for rear brake  
 2041/A Serrated washer for front brake  
 2042 Concave washer for rear brake  
 (upon request is furnished for  
 round breast band)  
 2043 Lever rubber for small brake  
 4063 Drilled lever control (complete  
 with cable holder 2035)







*Campagnolo*



10/10/10

10/10/10

SUPER RECORD TRACK GROUP

pages 22-23

SUPER RECORD TRACK HUBS

page 24

SUPER RECORD TRACK PEDALS

page 25

SUPER RECORD CHAINWHEEL SET  
- TRACK BOTTOM BRACKET SET

pages 26-27

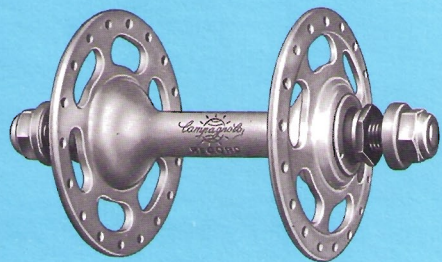
SUPER RECORD TRACK HEAD SET  
SUPER RECORD SEAT PINS - FORK ENDS

page 28

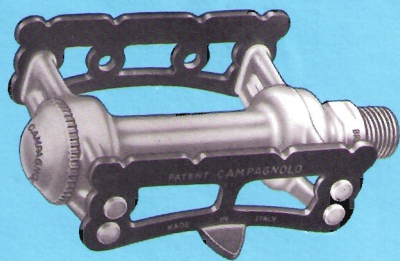
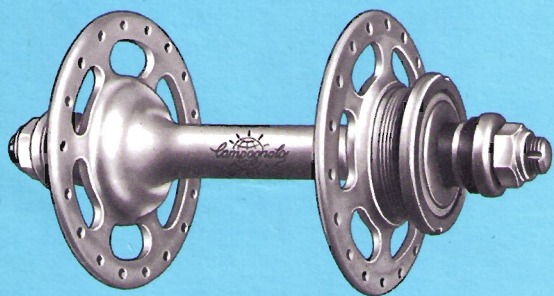


# 4100 CAMPAGNOLO SUPER RECORD TRACK GROUP

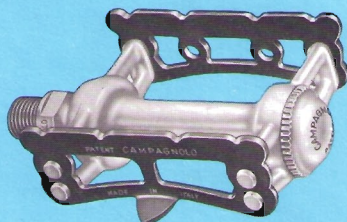
(Particular components of this group  
are illustrated from page 24 to page 28)



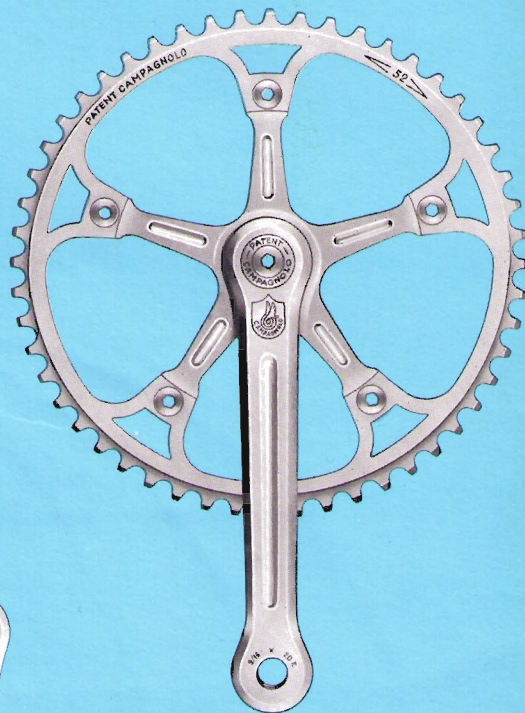
4101



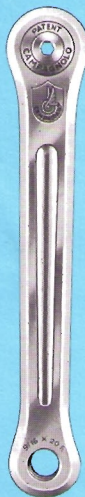
4121



4130



4151



4131



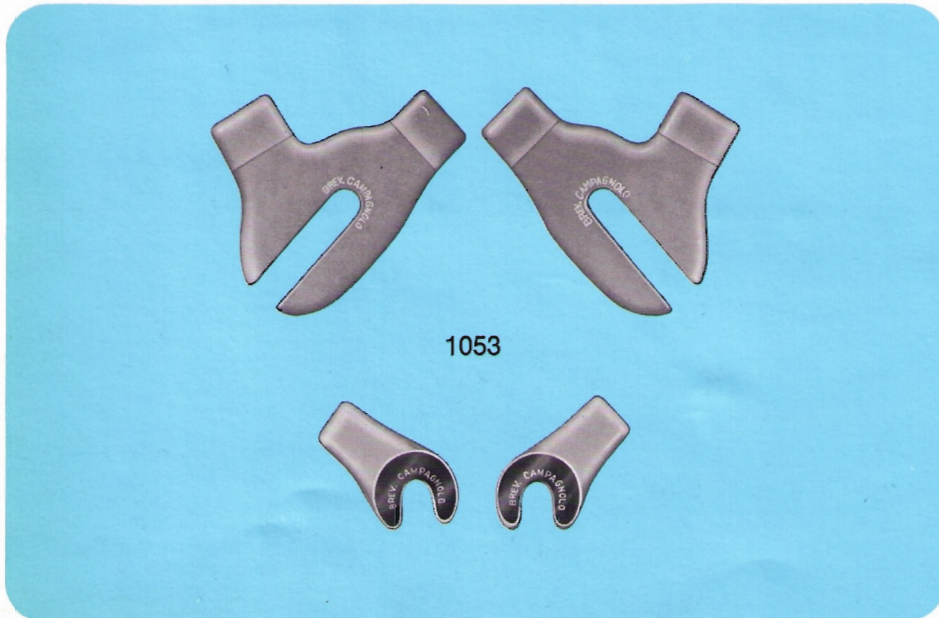




4141



4051



1053

- 1053** Set track front and rear fork ends
- 4051** Super Record seat pin.  
(pin length 147 mm.)  
Specify diameter stem: 25 - 25,8  
- 26 - 26,2 - 26,4 - 26,6 - 26,8 -  
27 - 27,2 - 27,4 mm.
- 4101** Pair Super Record large flange  
with Titanium spindle track hubs  
(front width 100 mm., rear width  
110 mm., flanges with 36 holes,  
thread  $\varnothing$  35 x 24F.).  
Upon request are furnished with  
rear hub width 120 mm., flanges  
with 24 - 28 - 32 - 40 holes,  
thread  $\varnothing$  34,7 x 1 M. or  
 $\varnothing$  1,370" x 24 Tpi-BSC  
See alternatives on page 24
- 4121** Pair Super Record track pedals  
with Titanium spindle (spindle  
thread  $\varnothing$  9/16" x 20F.).  
The pedals are supplied with  
unassembled screws and washers  
for fixing toe clips
- 4130** Super Record track chainwheel  
set
- 4131** Super Record bottom bracket  
track set with Titanium spindle  
(bracket width 70 mm. and cups  
threaded  $\varnothing$  36 x 24F.).  
See alternatives on pages 26-27  
Upon request is furnished the  
bracket safety sleeve  
ref. 2110 - 2110/1. See page 81
- 4141** Super Record track head set  
(thread  $\varnothing$  25,4 x 24F.).  
Upon request are furnished with  
thread  $\varnothing$  25 x 1M. or  
 $\varnothing$  1" x 24 Tpi-BSC
- 4151** Super Record track chainset  
(with cranks 170 mm.,  
pedal hole  $\varnothing$  9/16" x 20F. and  
chainring for chain 1/2" x 1/8"  
(3 mm.)). Specify the number  
of teeth of the chainrings  
available from 44T to 70T.  
Upon request are furnished  
cranks with lengths 165 -  
167,5 - 172,5 - 175 -  
177,5 and 180 mm. and chainrings  
for chain 1/2" x 3/32" (2 mm.)  
P.S. For the sprockets see  
page 81

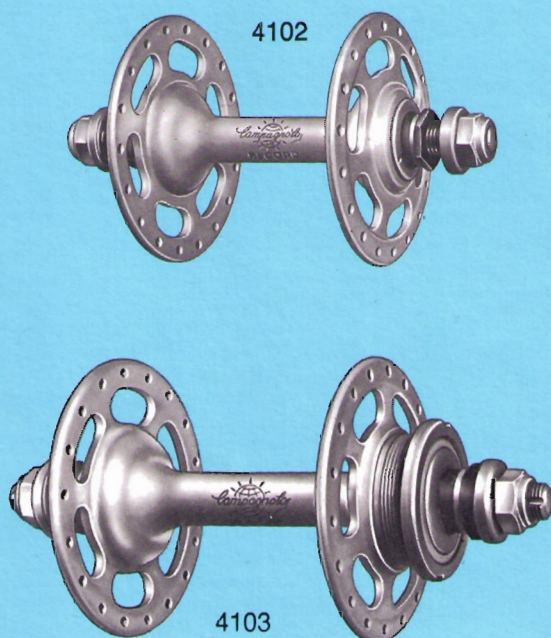


# PARTICULAR COMPONENTS OF CAMPAGNOLO SUPER RECORD TRACK GROUP 4100

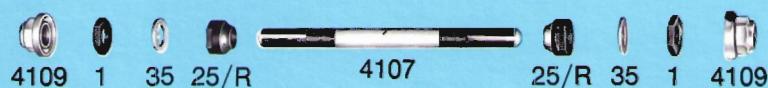
- 4101** Pair Super Record large flange track hubs with Titanium spindle and nuts (front width 100 mm., rear width 110 mm., flanges with 36 holes, thread  $\varnothing$  35 x 24F.). Upon request are furnished with rear width 120 mm., flanges with 24 - 28 - 32 - 40 holes, thread  $\varnothing$  34,7 x 1M. or  $\varnothing$  1,370" x 24 Tpi-BSC
- 4102** Super Record large flange front track hub
- 4103** Super Record large flange rear track hub

- 4104** Pair Super Record small flange track hubs with Titanium spindle and nuts (front width 100 mm., rear width 110 mm., flanges with 36 holes, thread  $\varnothing$  35 x 24F.). Upon request are furnished with 24 - 28 - 32 - 40 holes, thread  $\varnothing$  34,7 x 1M. or  $\varnothing$  1,370" x 24 Tpi-BSC
- 4105** Super Record small flange front track hub
- 4106** Super Record small flange rear track hub

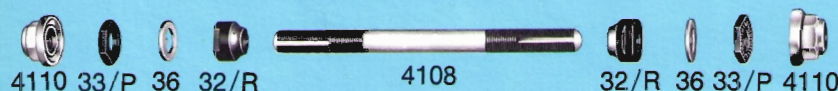
4101



4104



4111



4112



- 1** Front lock nut  
**25/R** Front cone  
**32/R** Rear cone  
**33/P** Rear lock nut for track hubs  
**35** Front hub lock washer  
**36** Rear hub lock washer  
**737** Front ball cup  
**738** Rear ball cup  
**739** Front dust cover  
**740** Rear dust cover  
**743** Track lock ring  
**2104** Set (9+9) special  $\varnothing$  7/32" balls selected with 1/1000 of mm. tolerance  
**2106** Set (9+9) special  $\varnothing$  1/4" balls selected with 1/1000 of mm. tolerance  
**4107** Front Titanium axle for Super Record track hub  
**4108** Rear Titanium axle for Super Record track hub  
**4109** Titanium lock nut for Super Record track front hub  
**4110** Titanium lock nut for Super Record track rear hub  
**4111** Complete front axle for Super Record track hub  
**4112** Complete rear axle for Super Record track hub

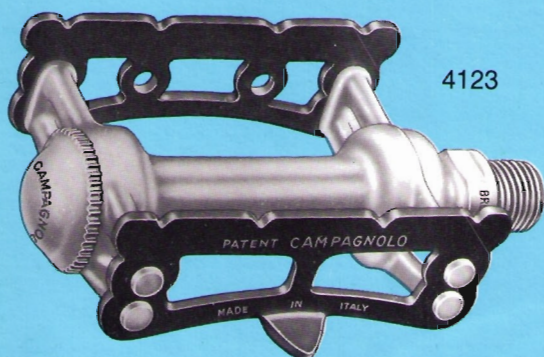


# PARTICULAR COMPONENTS OF CAMPAGNOLO SUPER RECORD TRACK GROUP 4100

- 4121 Pair Super Record track pedals with Titanium spindle (spindle thread  $\varnothing$  9/16" x 20F.). The pedals are supplied with unassembled screws and washers for fixing toe clips
- 89 Locking screw for superflight pedals
- 673 Pedal axle washer
- 675 Pedal axle lock nut
- 677 Toe clip washer
- 678 Inner dust cap
- 679/A Pedal dust cap

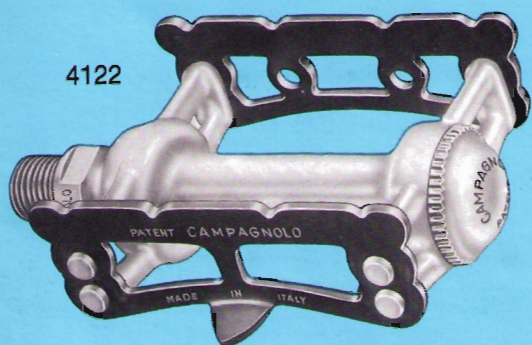
- 4122 Super Record right hand track pedal
- 4123 Super Record left hand track pedal
- 4024 Super Record right hand Titanium pedal spindle
- 4025 Super Record left hand Titanium pedal spindle
- 4026 Inserted pedal race (available also in oversize)
- 4027 Pedal axle cone
- 4028 Set (64) special  $\varnothing$  1/8" pedal balls selected with 1/1000 of mm. tolerance

4121



4123

4122



4026



4026



4027



673



675



678



679/A



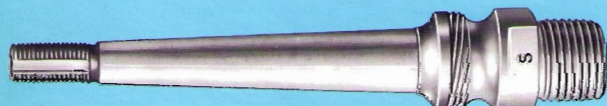
677



89



4028



4025



4024



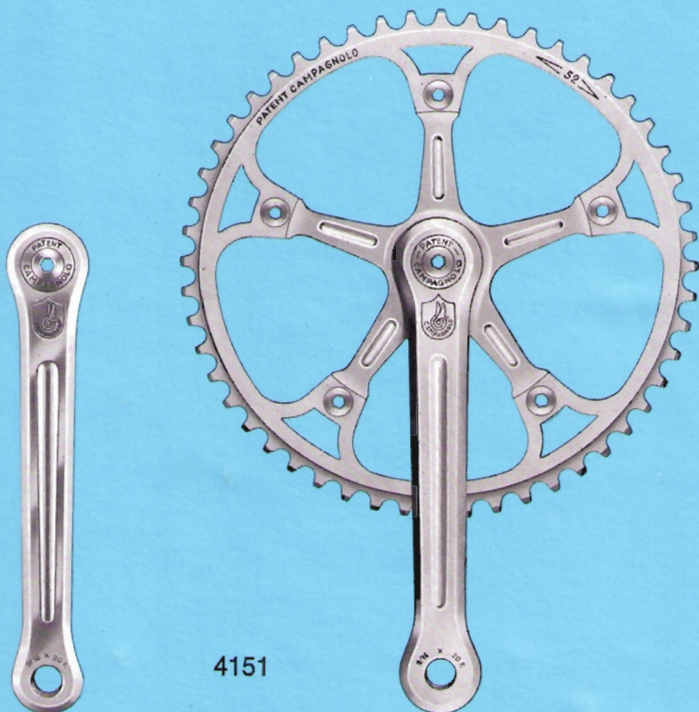
# PARTICULAR COMPONENTS OF CAMPAGNOLO SUPER RECORD TRACK GROUP 4100

- 4130** Super Record track chainwheel set
- 4131** Super Record bottom bracket track set with Titanium spindle (bracket width 70 mm. and cups threaded  $\varnothing 36 \times 24F.$ ). Upon request is furnished the bracket safety sleeve ref. 2110/2110/1. See page 81
- 4151** Super Record track chainset (with cranks 170 mm., pedal hole  $\varnothing 9/16'' \times 20F.$  and

chainring for chain  $1/2'' \times 1/8''$  [3 mm]). Specify the number of teeth of the chainring available from 44T to 70T. Upon request are furnished cranks with lengths 165 - 167,5 - 172,5 - 175 - 177,5 and 180 mm. long and chainrings for chain  $1/2'' \times 3/32''$  (2 mm.). Lockring with normal 3.5 mm. thickness (available also with 4 mm. and 4.5 mm. thickness)

**747**

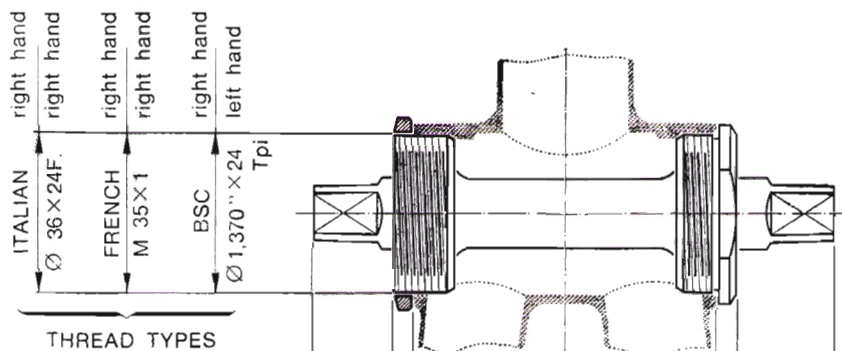
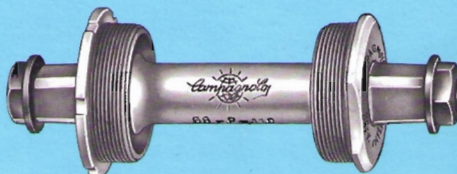
**4130**



**4151**



**4131**



Details of bracket number:

- The first number indicates the bracket width
- P indicates track
- SS indicates road
- C indicates cross
- Number 110 or 120 indicates the suggested width of the rear hub for a perfect chain alignment (see pages 92-93)

**UPON REQUEST WE SUPPLY THE CUPS WITH THREAD INCREASED BY 0,5 mm.**

TOTAL AXLE LENGTH

|      |     |    |     |      |         |
|------|-----|----|-----|------|---------|
| 16   | 3,5 | 65 | 3,5 | 16   | 104 mm. |
| 14,5 | 3,5 | 68 | 3,5 | 15,5 | 105 mm. |
| 17   | 3,5 | 68 | 3,5 | 17   | 109 mm. |
| 16   | 3,5 | 70 | 3,5 | 16   | 109 mm. |



- 748** Fixing screw  
**749** Fixing washer  
**756** Crank cover plate  
**757** Track right hand crank  
 (complete with cover 756,  
 170 mm. long). Upon request are  
 furnished the following sizes:  
 165 - 167,5 - 172,5 - 175 -  
 177,5 and 180 mm. long  
**758** Track left hand crank

**760/A**

**761**

(complete with cover 756,  
 170 mm. long). Upon request are  
 furnished the following sizes:  
 165 - 167,5 - 172,5 - 175 -  
 177,5 and 180 mm. long  
 Super Record track chainring for  
 1/2" x 1/8" (3 mm.)  
 chain. Specify the number of  
 teeth available from 44T to 70T  
 Track chainwheel fastening screw

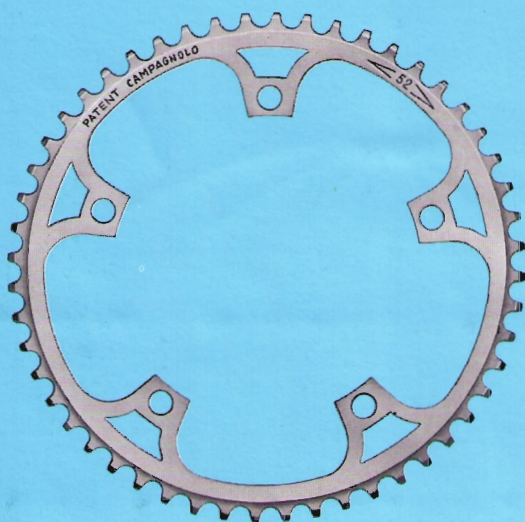
- 762** Track chainwheel fastening nut  
**4035** Set (14+14) special  $\varnothing$  3/16" b/b  
 balls selected with 1/1000 of  
 mm. tolerance  
**4132** Super Record cotterless Titanium  
 track spindle. See measurements  
 and indicate spindle size  
**4133** Fixed cup. Indicate required  
 thread  
**4134** Adjustable cup. Indicate required  
 thread



758



756



760/A



757



761



762



748



749



747



4134



4132



4133



749



748



4035



# PARTICULAR COMPONENTS OF CAMPAGNOLO SUPER RECORD TRACK GROUP 4100

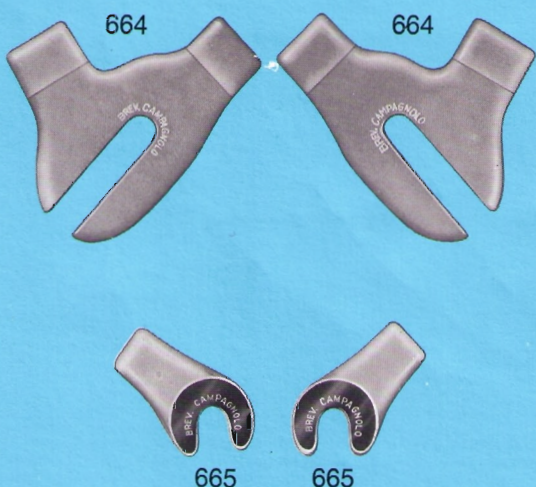
- 4141** Super Record track head set  
(thread  $\varnothing$  25.4 x 24F.).  
Upon request are furnished with  
thread  $\varnothing$  25 x 1M. or  
1" x 24 Tpi-BSC
- 4051** Super Record seat pin.  
(pin length 147 mm.)  
Specify diameter stem: 25 - 25,8  
- 26 - 26,2 - 26,4 - 26,6 - 26,8 -  
27 - 27,2 - 27,4 mm.
- 664** Right and left hand track fork  
ends
- 665** Right and left hand track fork  
ends
- 2102** Set (25+25) special b/b  
 $\varnothing$  5/32" balls selected with  
1/1000 of mm. tolerance
- 4042** Super Record locking nut

- (specify type of threading)
- 4043** Super Record locking washer
- 4053** Left hand side support
- 4054** Right hand side support
- 4055** Front bracket
- 4056** Rear bracket
- 4057** Fixing and adjusting bolt
- 4058** Bolt nut
- 4142** Super Record track screwed race  
(specify type of threading)
- 4143** Super Record track top head  
race (0,5 mm. larger gauge  
available)
- 4144** Super Record track bottom head  
race (0,5 mm. larger gauge  
available)
- 4145** Super Record track crown race  
(smaller diameter available)

4141



4051



4054



4055



4056



4052



4053



4057

*Campagnolo*



1000000

1000000

|   |                   |
|---|-------------------|
| RECORD ROAD GROUP   | pages 30-31       |
| RECORD GEAR - RECORD FRONT CHANGER<br>AND ALTERNATIVE RECORD CONTROL LEVERS | pages 32-33-34-35 |
| RECORD ROAD HUBS  | page 36           |
| RECORD AND SUPERLIGHT RECORD ROAD PEDALS                                    | page 37           |
| ROAD RECORD CHAINWHEEL SET AND<br>BOTTOM BRACKET SET                        | pages 38-39       |
| RECORD ROAD HEAD SET - RECORD SEAT PIN                                      | page 40           |
| FORK ENDS - SPECIAL CONNECTORS  | page 41           |
| RECORD BRAKES   | pages 42-43       |



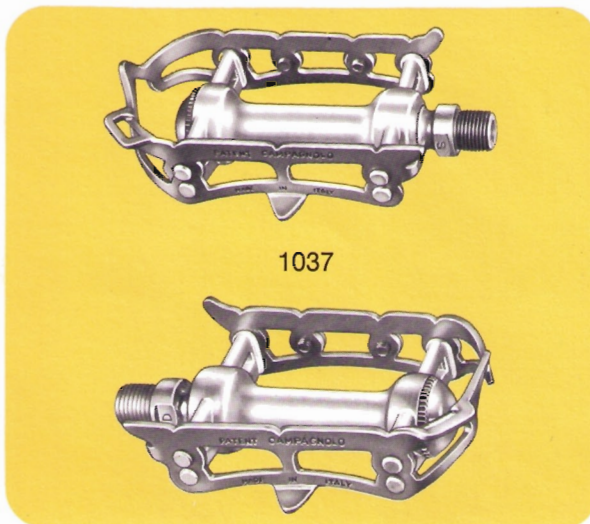
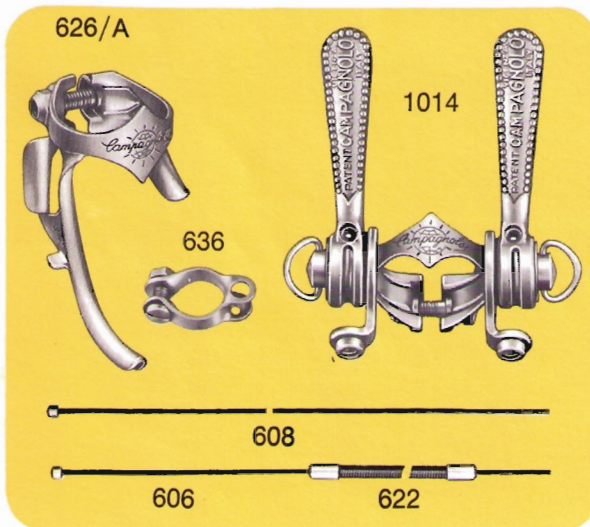
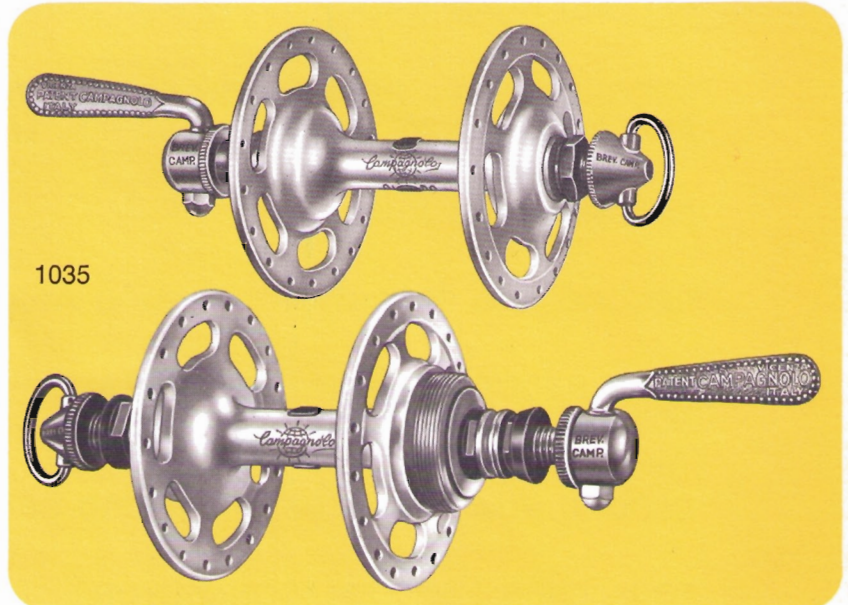
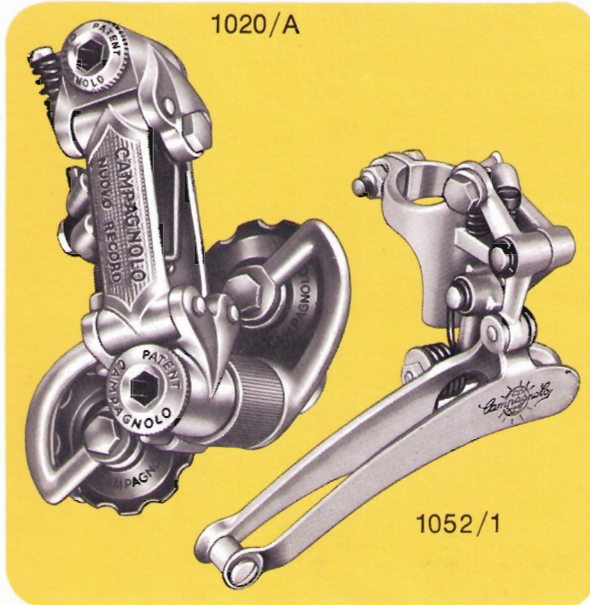
# 1032/F CAMPAGNOLO RECORD ROAD GROUP

(Particular components of this group are illustrated from page 32 to page 43)



- 606 Down tube control gear inner wire (118 cm.)
- 608 Down tube control front changer inner wire (72 cm.)
- 622 Gear stainless steel outer casing (21 cm.)
- 626/A Twin gear cable clip
- 636 Chainstay clip
- 649 Stainless steel brake cable clip
- 1010/A Set Record front and rear fork ends without eyelet.
- 1014 See alternatives on page 41
- 1014 Twin down tube control lever.

- 1020/A See alternatives on pages 34-35
- Nuovo Record gear (without hanger)
- 1030/2 Pump connector (thread M9 x 1,25). Any pump connectors shown on page 41 can be supplied instead
- 1035 Pair Record large flange quick release road hubs (front width 100 mm., rear width 120 mm., flanges with 36 holes, thread Ø 35 x 24F.). Upon request are furnished with rear hub suitable





for 6 sprockets, width 125 mm., flanges with 24 - 28 - 32 - 40 holes, thread  $\varnothing$  34.7 x 1M. or  $\varnothing$  1.370" x 24 Tpi-BSC. See other alternatives on page 36

Pair Record road pedals with steel spindle (spindle thread  $\varnothing$  9/16" x 20F.). Upon request furnished spindles threaded M.14 x 1,25

Record road head set (thread 25,4 x 24F.). Upon request furnished with thread

**1044**  $\varnothing$  25 x 1M. or 1" x 24 Tpi-BSC Seat pin. Specify diameter stem: 25 - 25,8 - 26 - 26,2 - 26,4 - 26,6 - 26,8 - 27 - 27,2 - 27,4 mm. and if pin length in 130 mm. normal or in 180 mm. long

**1046/A** Nuovo Record bottom bracket set (bracket width 70 mm. and cups threaded  $\varnothing$  36 x 24F.). See alternatives on pages 38-39

**1048** Record road chainwheel set with Nuovo Record bottom bracket

**1049** Record road chainset (with crank 170 mm. pedal hole  $\varnothing$  9/16" x 20F. and chainrings for chain 1/2" x 3/32" [2 mm.]). Specify the number of teeth of the chainrings available from 42T to 57T. Upon request furnished cranks with lengths 165 - 167,5 - 172,5 - 175 - 177,5 and 180 mm.

**1052/1** Record front changer

**2040** Set Record brakes. See alternatives on pages 42-43

1037

1039



1039



1044



649

649

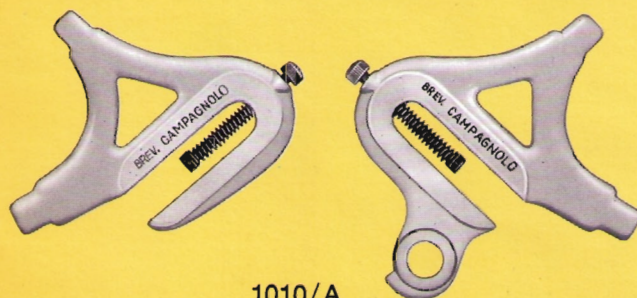
649



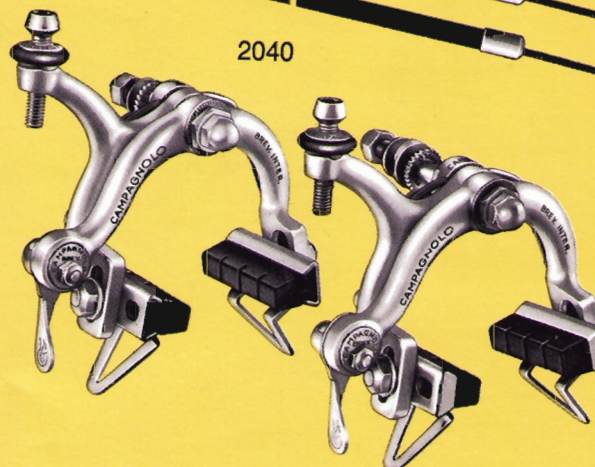
1030/2



2040



1010/A

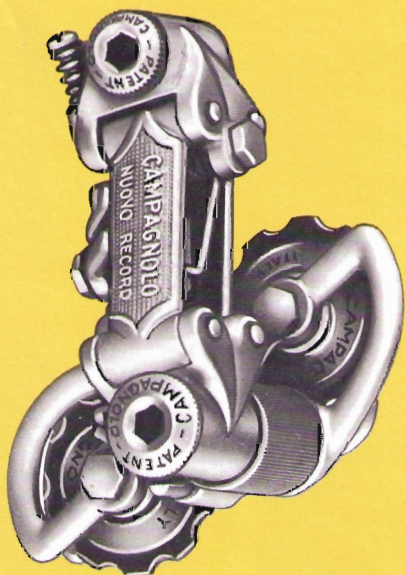




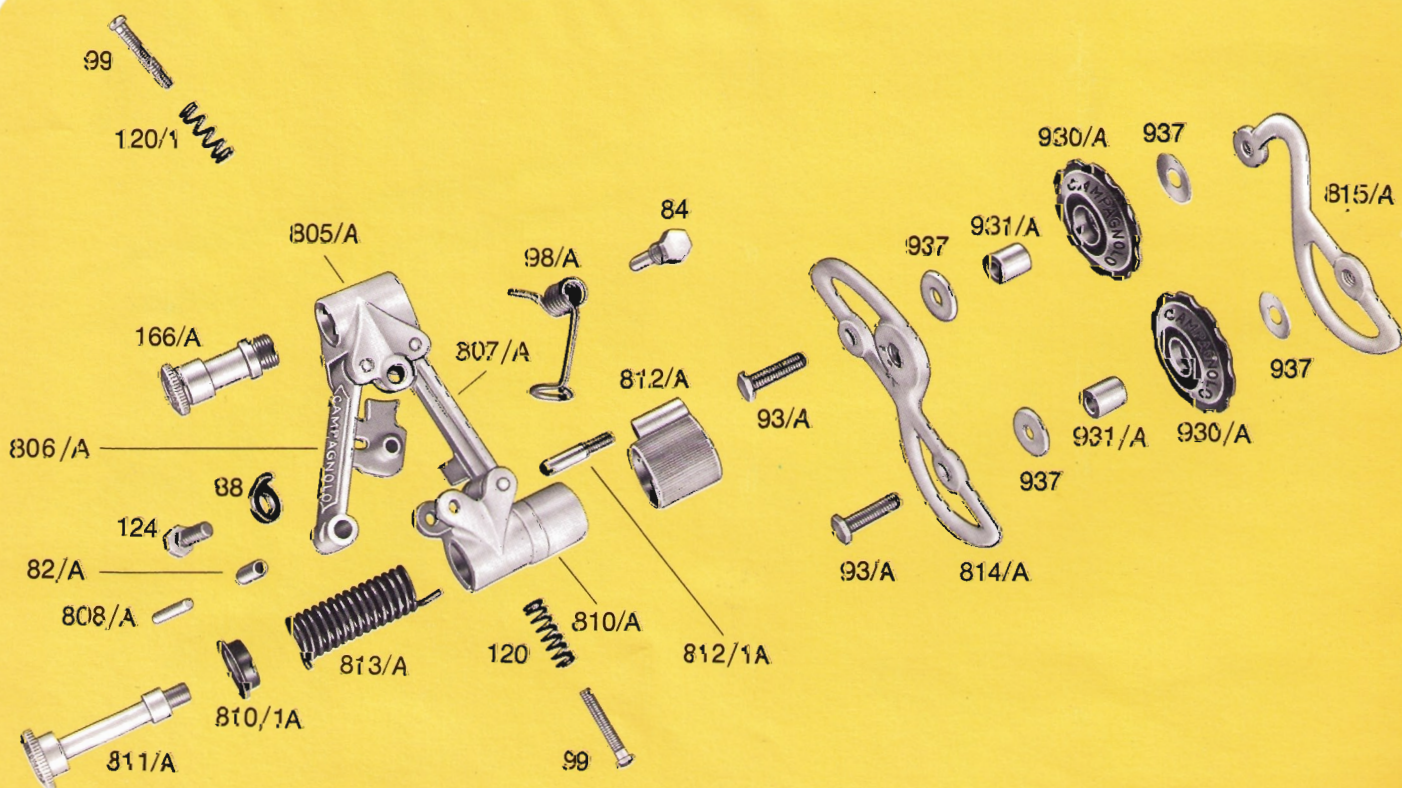
# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD ROAD GROUP 1032/F

1020/A Nuovo Record gear  
82/A Body ferrule  
84 Gear return spring screw  
88 Clamp washer  
93/A Sprocket bolt  
98/A Gear return spring  
99 Gear adjusting screw  
120 Lower adjuster spring  
120/1 Upper adjuster spring  
124 Fixing screw  
166/A Upper pivot bolt  
805/A Upper body  
806/A Front arm

807/A Inner arm  
808/A Spindle  
810/A Lower body  
810/1A Lower body bush  
811/A Gear spring bolt  
812/A Spring cage cover  
812/1A Grub screw  
813/A Tension spring  
814/A Outer cage plate  
815/A Inner cage plate  
930/A Roller  
931/A Roller bush  
937 Roller dust cover



1020/A

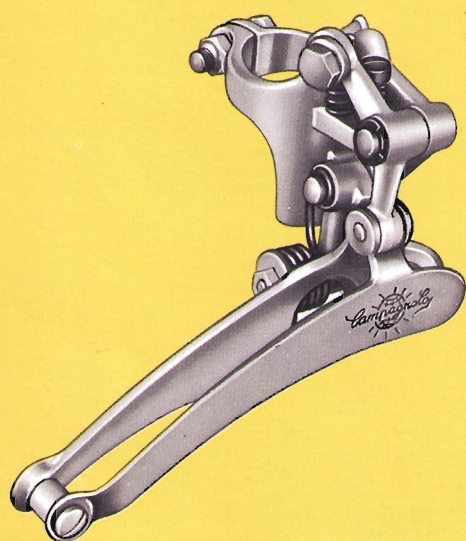




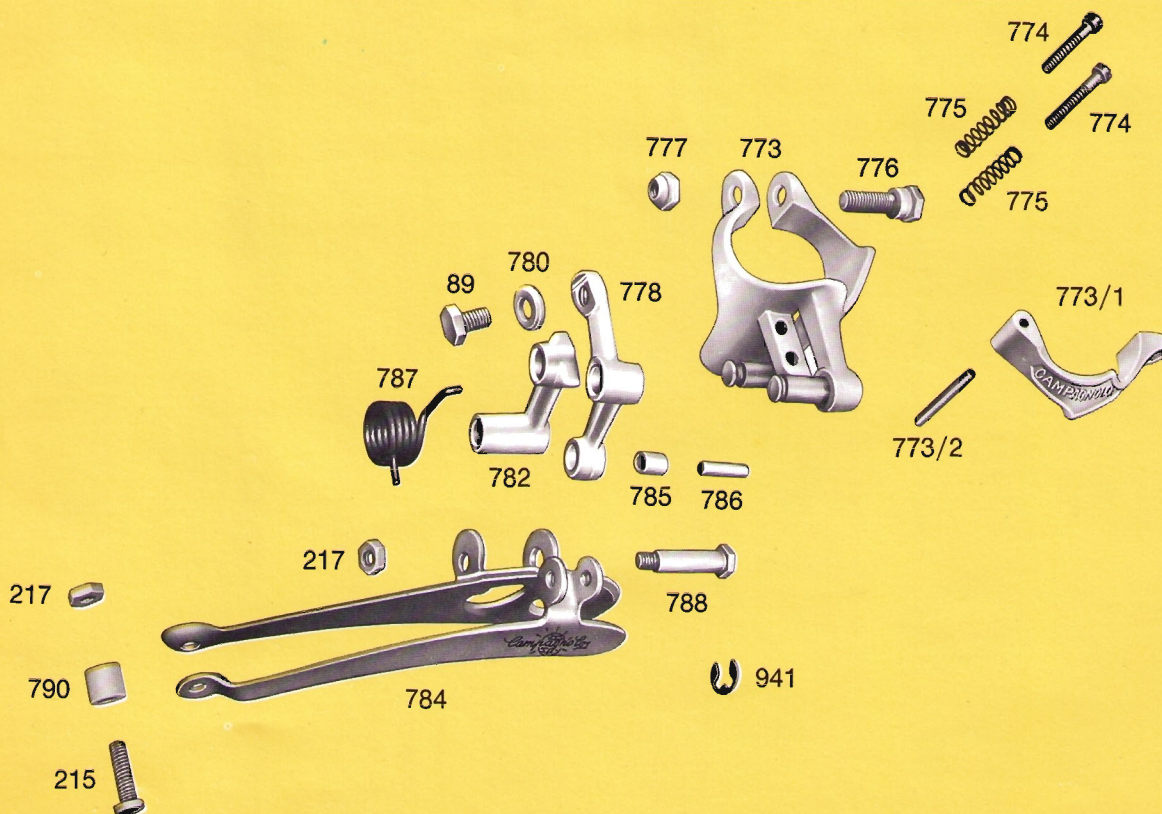
# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD ROAD GROUP 1032/F

|        |   |
|--------|---|
| 1052/1 | Record front changer  |
| 89     | Locking screw   |
| 215    | Cage spacing bolt   |
| 217    | Cage spacer bolt nut  |
| 773    | Record front changer body<br>(complete with clip and hinge) |
| 773/1  | Hinge   |
| 773/2  | Hinge pin   |
| 774    | Adjusting screw   |
| 775    | Adjusting bolt spring                                       |
| 776    | Clip fixing screw   |

|     |                                |
|-----|--------------------------------|
| 777 | Nut                            |
| 778 | Upper arm                      |
| 780 | Cable clamp bolt washer        |
| 782 | Lower arm                      |
| 784 | Front changer cage             |
| 785 | Ferrule for front changer cage |
| 786 | Spindle for front changer cage |
| 787 | Front changer return spring    |
| 788 | Cage shank bolt                |
| 790 | Bush                           |
| 941 | Circlip                        |



1052/1

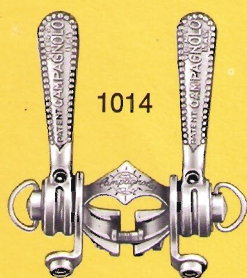




# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD ROAD GROUP 1032/F

- 137 Segment expanding screw
- 138 Segment
- 139/1 Counter-nut
- 139/2 Hexagonal screw
- 140/1 Tension adjusting screw
- 142 Spring segment holder
- 145 Gear cable to handlebar control (197 cm.)
- 173 Handlebar lever rubber
- 174 Handlebar friction plate
- 174/1 Lever friction plate
- 200/2 Handlebar control body
- 201 Handlebar lever

- 218 Front changer cable to handlebar control (150 cm.)
- 600 Right hand collar (without screw and nut)
- 600/2 Right hand braze-on control lever plate
- 601 Gear control lever only
- 602 Front changer control lever only
- 603 Cover plate
- 604/1 Friction adjusting wing nut
- 606 Down tube control gear inner wire (118 cm.)



1014

606

608



621

617



663



626/B



1013/5

1013/6

606

608



621

617



663



626/B



1014/1

606

608

622

623



630



636



1012/3

1012/3

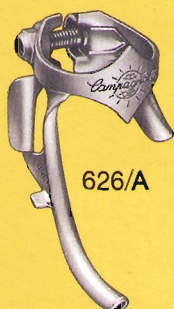
145

218

625

625

622



626/A

629

636



1013/1

606

622



627/A



636



1013/6

606

617



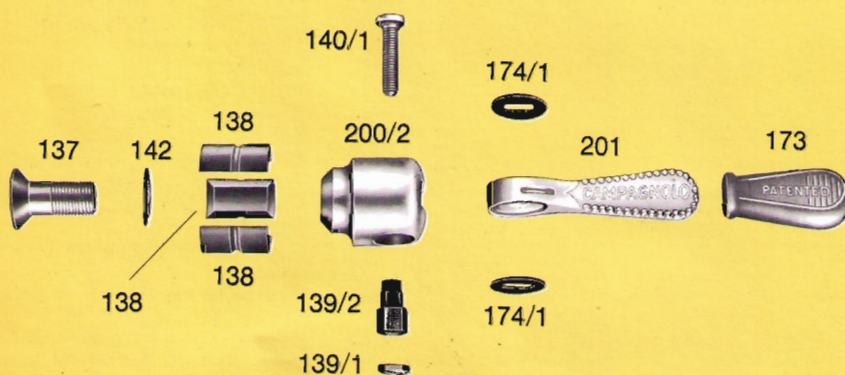
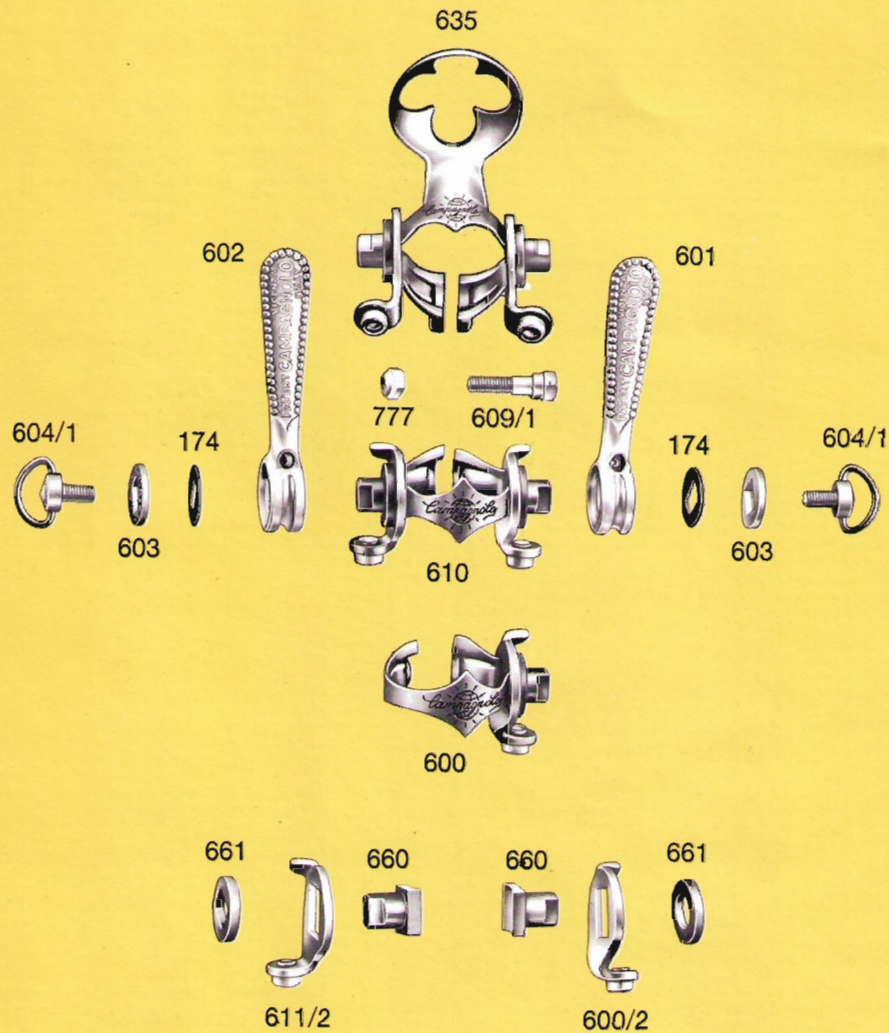
621



663



|       |   |       |  |        |   |
|-------|---|-------|--|--------|---|
| 608   | Down tube control front changer inner wire (72 cm.) | 625   | outer casing (15,5 cm.)  | 636    | Chainstay clip                                |
| 609/1 | Fixing clip bolt                                    |       | Stainless steel outer casing to down tube handlebar control (75 cm.) | 660    | Braze-on boss                                 |
| 610   | Record twin control clip                            | 626/A | Twin gear cable clip   | 661    | Brazed boss collar                            |
| 611/2 | Left hand braze-on control lever plate              | 626/B | Braze-on cable ferrule   | 663    | Braze-on cable ferrule                        |
| 617   | Braze-on gear stainless steel outer casing (21 cm.) | 627/A | Down tube tunnel R/H for gear  | 777    | Nut   |
| 621   | Braze-on cable stop                                 | 629   | Twin handlebar control clip  | 1012/3 | Handlebar control                             |
| 622   | Gear stainless steel outer casing (21 cm.)          | 630   | Clip-on-tunnel and stop with pump holder D/T                         | 1013/1 | Right hand down tube control                  |
| 623   | Front changer stainless steel                       | 635   | Pump holder twin control Record lever bosses                         | 1013/5 | Front changer braze-on control                |
|       |   |       |  | 1013/6 | Gear braze-on control                         |
|       |   |       |  | 1014   | Twin down tube control lever                  |
|       |   |       |  | 1014/1 | Twin down tube control lever with pump holder |





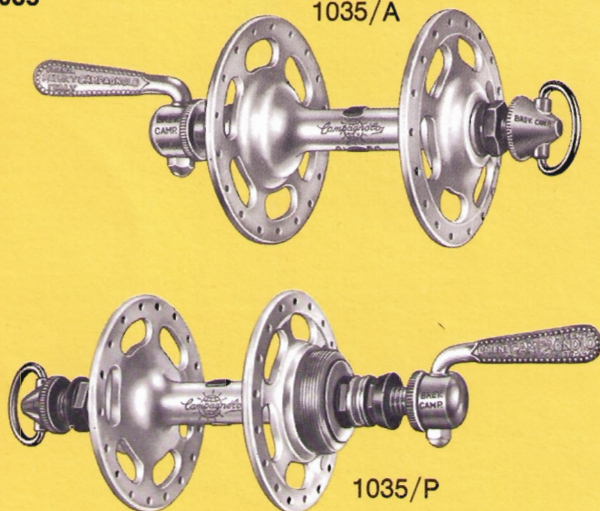
# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD ROAD GROUP 1032/F

- 1034** Pair Record small flange quick release road hubs (front width 100 mm. - rear width 120 mm., flanges with 36 holes, thread  $\varnothing 35 \times 24F.$ ). Upon request furnished with rear hub suitable for 6 sprockets, width 125 mm., flanges with 24 - 28 - 32 - 40 holes, thread  $\varnothing 34,7 \times 1M.$  or  $\varnothing 1,370'' \times 24$  Tpi-BSC
- 1034/A** Record road small flange front hub
- 1034/P** Record road small flange rear hub

- 1035** Pair Record large flange quick release road hubs (front width 100 mm. - rear width 120 mm., flanges with 36 holes, thread  $\varnothing 35 \times 24F.$ ). Upon request furnished with rear hub suitable for 6 sprockets, width 125 mm., flanges with 24 - 28 - 32 - 40 holes, thread  $\varnothing 34,7 \times 1M.$  or  $\varnothing 1,370'' \times 24$  Tpi-BSC
- 1035/A** Record road large flange front hub
- 1035/P** Record road large flange rear hub

1035

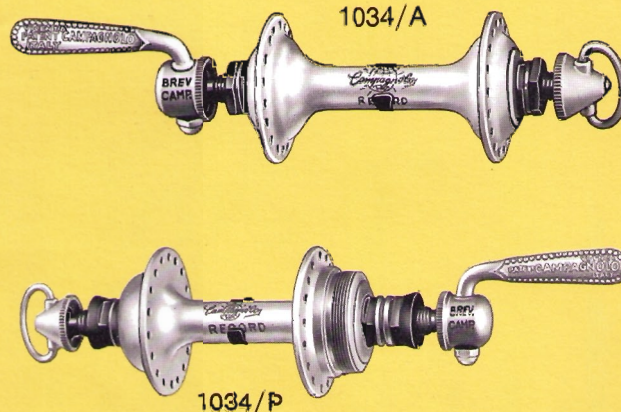
1035/A



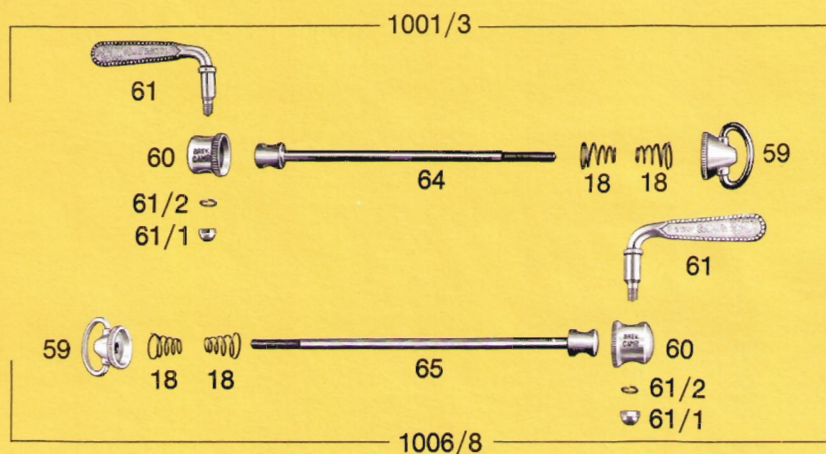
1035/P

1034

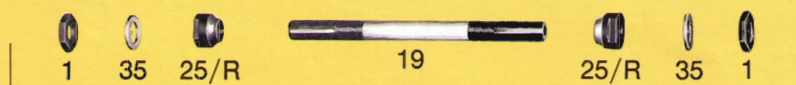
1034/A



1034/P



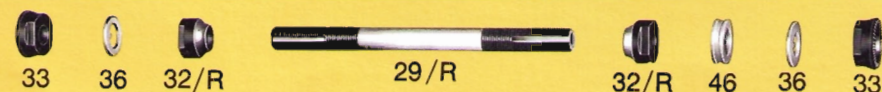
1006/8



1001/4S



1006/5S



- 1** Front lock nut
- 18** Conical spring
- 19** Front hollow axle
- 25/R** Front cone
- 29/R** Rear hollow axle (129 mm. long). Upon request are furnished spindles 132 - 134 and 140 mm. long
- 32/R** Rear cone
- 33** Rear lock nut
- 35** Front hub lock washer
- 36** Rear hub lock washer
- 46** Rear spacing collar
- 59** Quick release conical adjuster
- 60** Quick release cap
- 61** Quick release lever
- 61/1** Domed nut
- 61/2** Grower washer
- 64** Quick release front skewer
- 65** Quick release rear skewer
- 737** Front ball cup
- 738** Rear ball cup
- 739** Front dust cover
- 740** Rear dust cover
- 741** Spring clip
- 1001/3** Complete front quick release skewer for Record hub
- 1001/4S** Complete front axle for Record road hub
- 1006/5S** Complete rear axle for Record road hub
- 1006/8** Complete rear quick release skewer for Record hub
- 2104** Set (9+9) special  $\varnothing 7/32''$  balls selected with 1/1000 of mm. tolerance
- 2106** Set (9+9) special  $\varnothing 1/4''$  balls selected with 1/1000 of mm. tolerance



# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD ROAD GROUP 1032/F

**1037** Pair Record road pedals  
(spindle thread  $\varnothing$  9/16" x 20F.).  
Upon request are furnished  
threaded M.14 x 1,25

**1037/D** Record road right hand pedal

**1037/S** Record road left hand pedal

**1037/A** Pair superlight Record road  
pedals

**1037/AD** Superlight Record road right  
hand pedal

**1037/AS** Superlight Record road left  
hand pedal

**89** Locking screw for superlight  
pedal

**669** Left hand pedal axle with  
thread  $\varnothing$  9/16" x 20F.

Upon request are furnished with

**670** thread M.14 x 1,25  
Right hand pedal axle with  
thread  $\varnothing$  9/16" x 20F.  
Upon request are furnished with  
thread M.14 x 1,25

**672** Inserted race  
(available also in oversize)

**673** Pedal axle washer

**674** Pedal axle cone

**675** Pedal axle lock nut

**676** Toe clip bolt

**677** Toe clip washer

**678** Inner dust cap

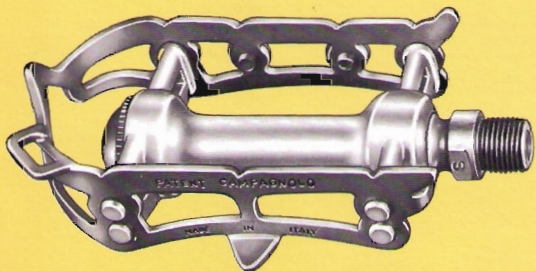
**679** Record pedal dust cap

**679/A** Superlight pedal dust cap

**2103** Set (48) special  $\varnothing$  5/32" pedal  
balls selected with 1/1000 of mm.  
tolerance

**1037**

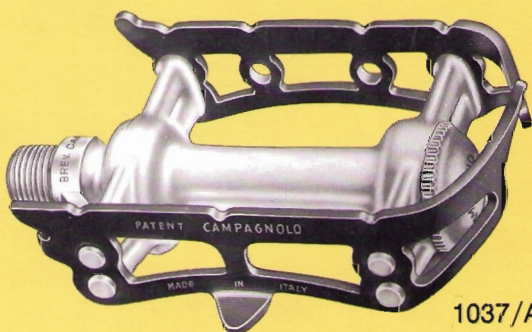
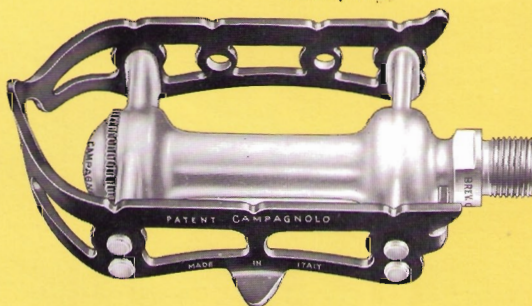
**1037/S**



**1037/D**

**1037/A**

**1037/AS**



**1037/AD**



**672**



**672**



**674**



**673**



**675**



**678**



**679**



**89**



**677**



**676**



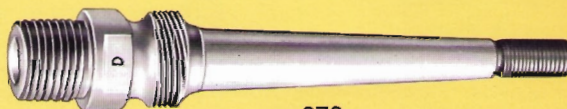
**2103**



**679/A**



**669**



**670**

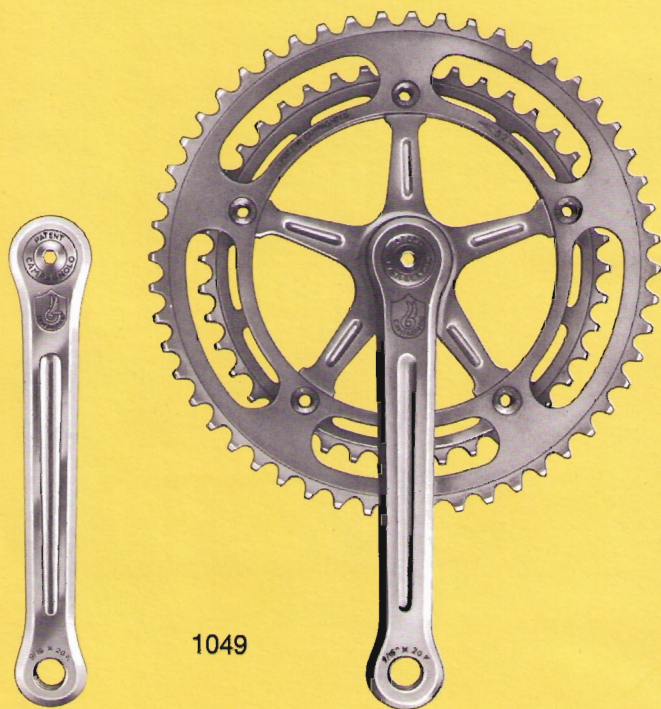


# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD ROAD GROUP 1032/F

- 1048** Record road chainwheel set with Nuovo Record bottom bracket
- 1049** Record road chainset (with cranks 170 mm., pedal hole  $\varnothing$  9/16" x 20F. and chainrings for chain 1/2" x 3/32" [2 mm]). Specify the number of teeth of the chainrings available from 42T to 57T. Upon request furnished cranks with lengths 165 - 167,5 - 172,5 -

- 175 - 177,5 and 180 mm.
- 1046/A** Nuovo Record bottom bracket set (bracket width 70 mm. and cups threaded  $\varnothing$  36 x 24F.).
- 744/A** Nuovo Record cotterless road spindle. See measurements and indicate spindle size
- 745/A** Fixed cup. Indicate required thread
- 746/A** Adjustable cup. Indicate required thread
- 747** Lockring with normal 3,5 mm.

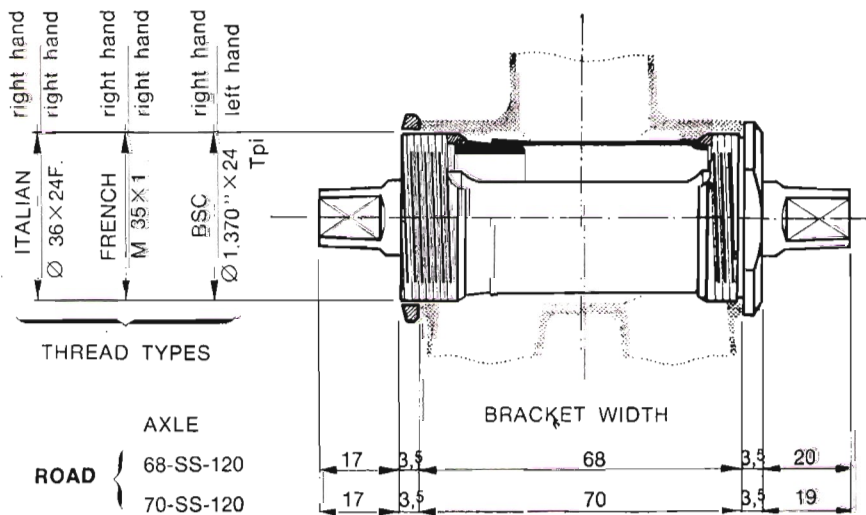
1048



1049



1046/A





thickness (available also with 4 mm. and 4,5 mm. thickness).  
Indicate required thread  
Fixing screw  
Fixing washer  
Right hand road crank (complete with cover 756, 170 mm. long). Upon request are furnished in the following sizes: 165 - 167,5 - 172,5 - 175 -

177,5 and 180 mm. long  
Left hand road crank (complete with cover 756, 170 mm. long). Upon request are furnished in the following sizes: 165 - 167,5 - 172,5 - 175 - 177,5 and 180 mm. long  
Road chainring for 1/2" x 3/32" (2 mm.) chain. Specify the number of teeth available from

42T to 57T  
Road chainwheel fastening screw  
Road chainwheel fastening nut  
Crank cover plate  
Spacer for single chainring Set (11+11) special Ø 1/4" balls selected with 1/1000 of mm. tolerance  
Record sleeve  
Cone for sleeve

748  
749  
751

752

753

754

755

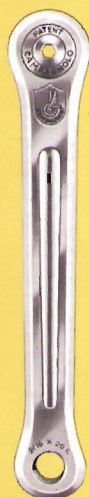
756

801

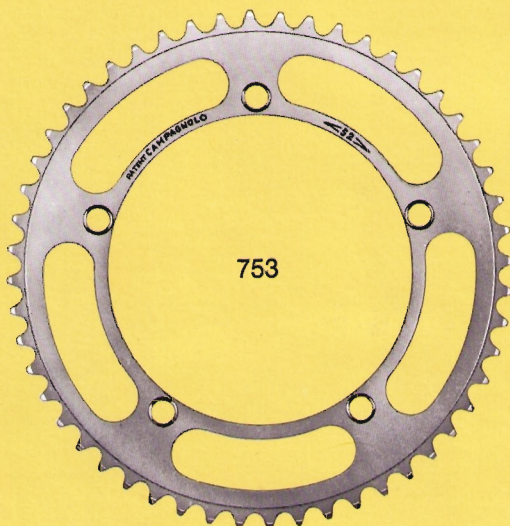
2100

2110

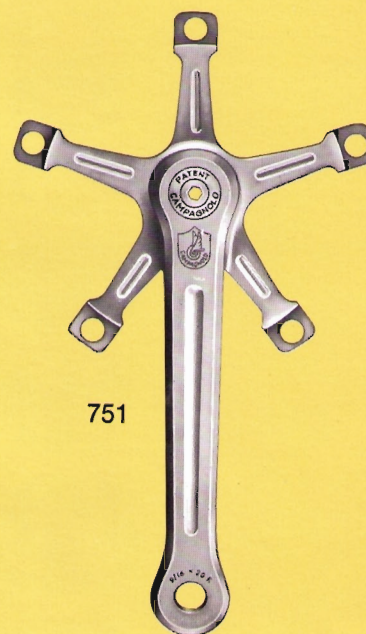
2110/1



752



753



751



756



755



754



801



2110/1



2110



2100



748



749



747



746/A



744/A



745/A



749



748



# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD ROAD GROUP 1032/F

- 1039** Record road head set  
thread 25,4 x 24F.). Upon request  
are furnished with thread  
Ø 25 x 1M. or 1" x 24 Tpi-BSC
- 681** Locking nut  
(specify type of threading)
- 682** Locking washer
- 683** Screwed road race  
(specify type of threading)

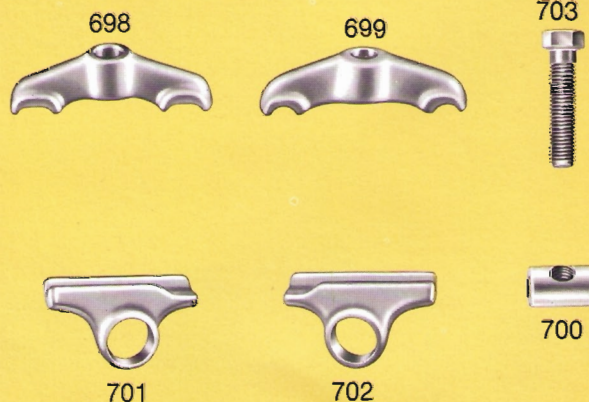
- 684** Road top head race  
(0,5 mm. larger gauge available)
- 685** Road bottom head race  
(0,5 mm. larger gauge available)
- 686** Road crown race  
(smaller diameter available)
- 2101** Set bearings with (20+20)  
special b/b Ø 3/16" balls  
selected with 1/1000 of mm.  
tolerance

1039



1044

- 1044** Seat pin. Specify diameter stem:  
25 - 25,8 - 26 - 26,2 - 26,4 -  
26,6 - 26,8 - 27 - 27,2 - 27,4 mm.  
and if pin length in 130 mm.  
normal or in 180 mm. long
- 698** Front bracket
- 699** Rear bracket
- 700** Bolt nut
- 701** Left hand side support
- 702** Right hand side support
- 703** Fixing and adjusting bolt

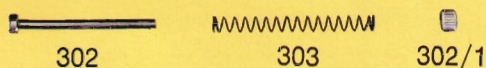
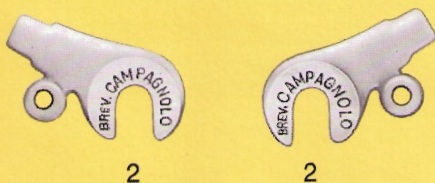
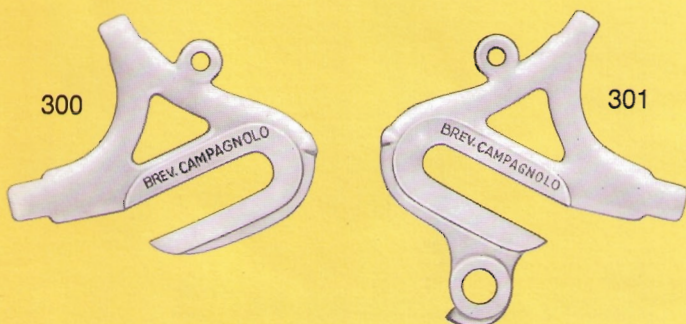
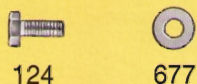




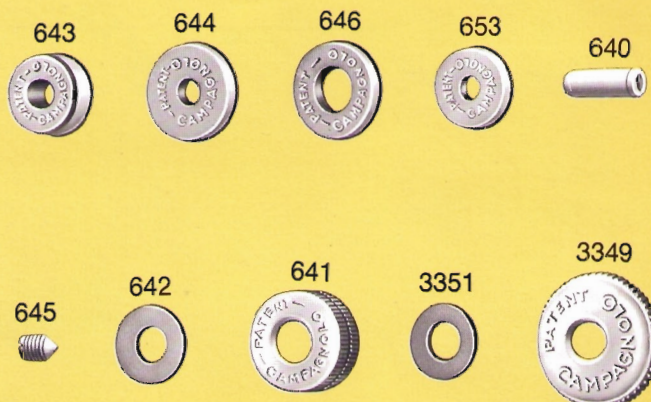
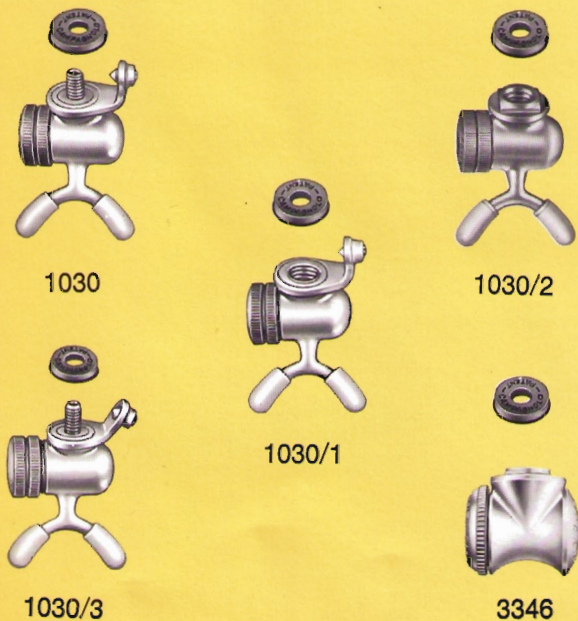
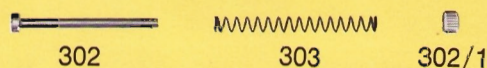
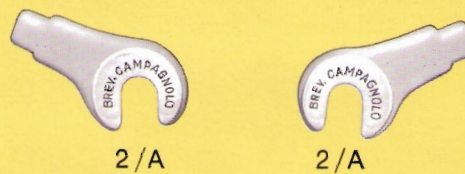
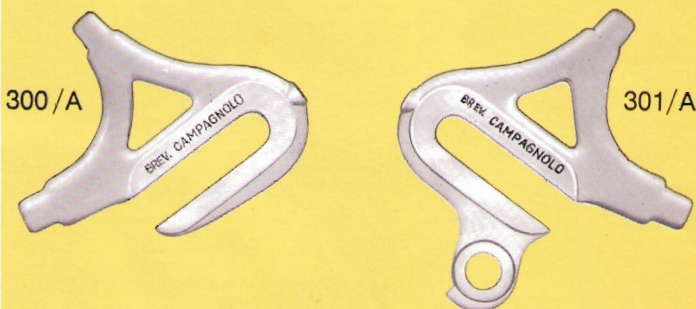
# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD ROAD GROUP 1032/F

|        |   |        |  |
|--------|---|--------|--|
| 1010   | Set Record front and rear fork ends                 | 644    | Rubber washer for pump connector 1030                            |
| 1010/A | Set Record front and rear fork ends without eyelet  | 645    | Connecting screw   |
| 2      | Record right and left hand fork ends                | 646    | Rubber washer for pump connectors 1030/1 and 1030/2              |
| 2/A    | Record right and left hand fork ends without eyelet | 653    | Rubber washer for pump connector 1030/3                          |
| 124    | Fixing screw  | 677    | Washer   |
| 300    | Record left hand rear end                           | 1030   | Pump connector with $\varnothing 7/32''$ or M7 x 1 locking screw |
| 300/A  | Record left hand rear end without eyelet            | 1030/1 | Pump connector with M9 x 1,25 locking screw                      |
| 301    | Record right hand rear end                          | 1030/2 | Pump connector with M9 x 1,25 locking screw                      |
| 301/A  | Record right hand rear end without eyelet           | 1030/3 | Pump connector with M5 x 1 or M7 x 1 locking screw (French type) |
| 302    | Adjusting bolt                                      | 3346   | Superlight pump connector with M9 x 1,25 locking screw           |
| 302/1  | Nut for bolt 302                                    | 3349   | Cover for superlight pump connector                              |
| 303    | Adjusting bolt spring                               | 3351   | Washer for superlight pump connector                             |
| 640    | Rubber cap  |        |  |
| 641    | Milled nut  |        |  |
| 642    | Rubber washer                                       |        |  |
| 643    | Rubber washer for tubular valves                    |        |  |

1010



1010/A

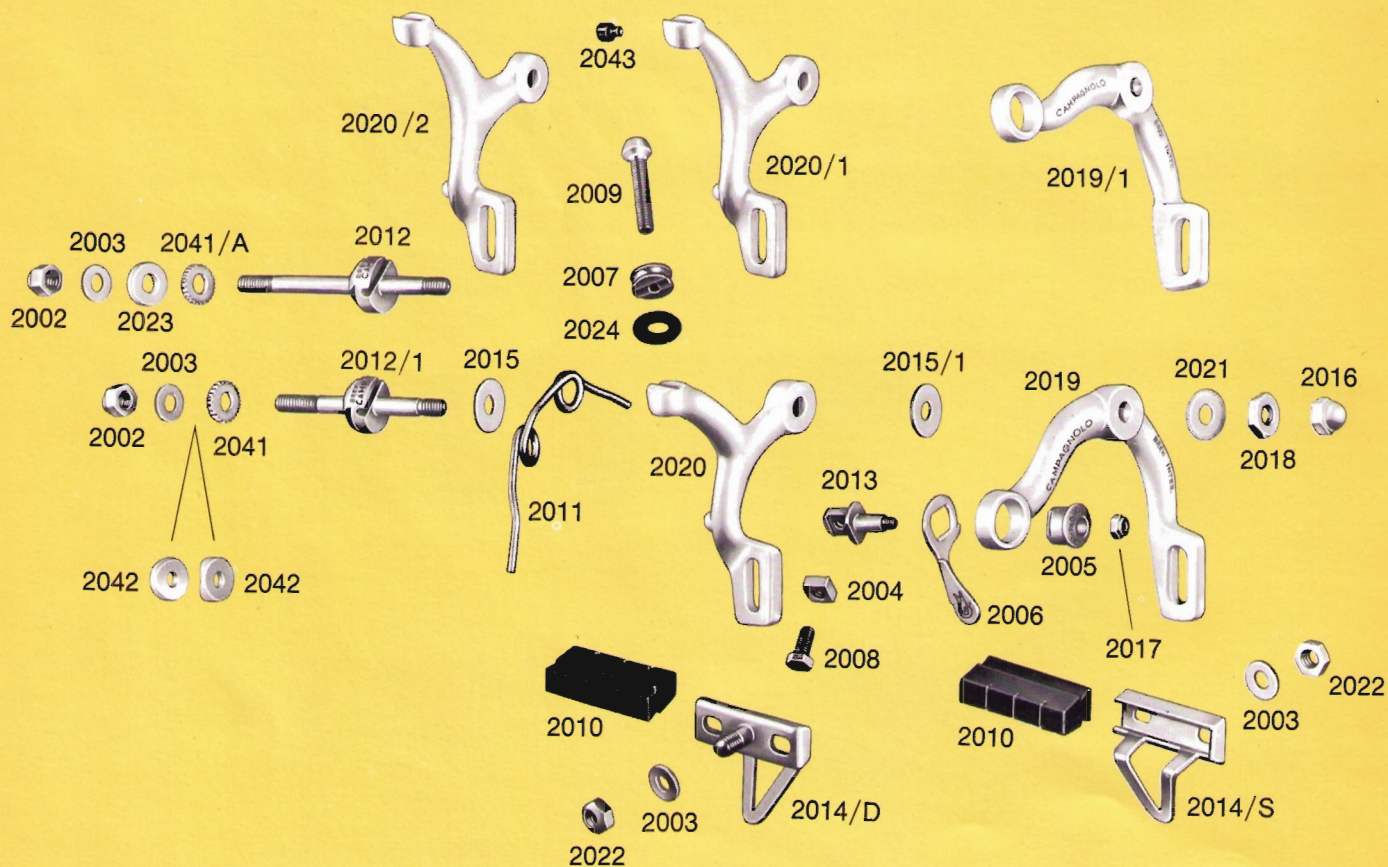
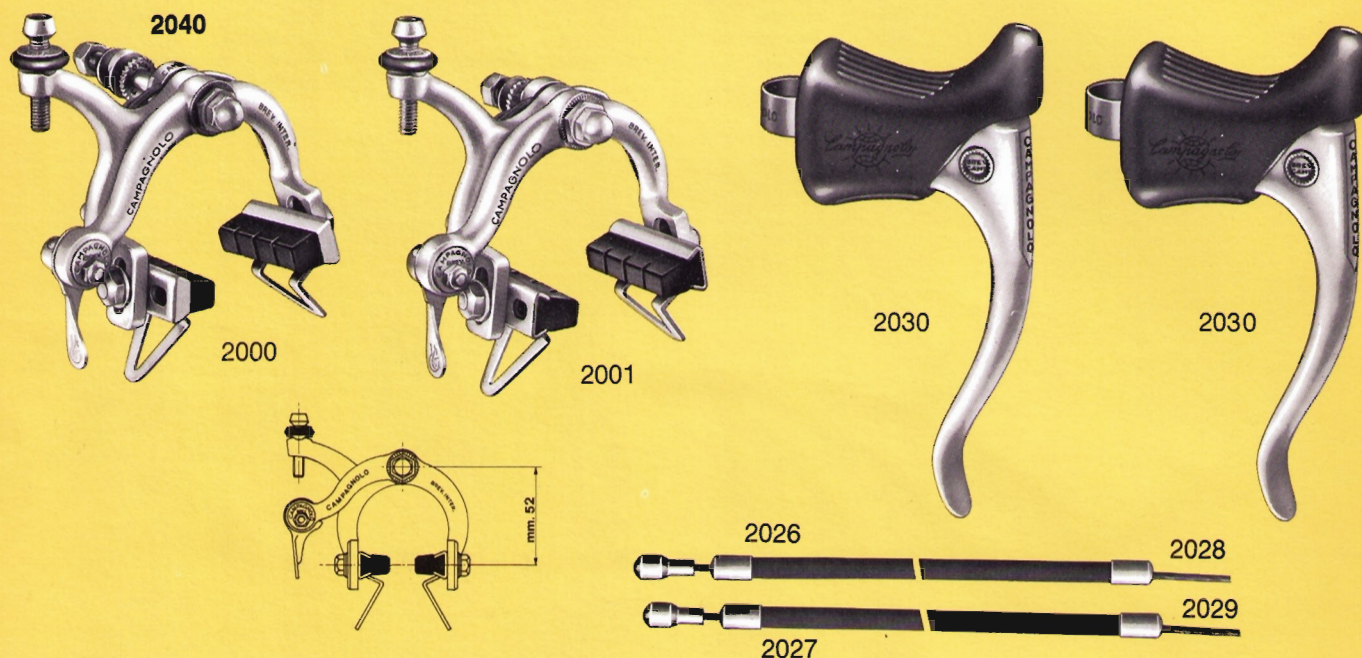




# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD ROAD GROUP 1032/F

|        |                         |
|--------|-------------------------|
| 2040   | Set Record brakes       |
| 2040/1 | Set Record small brakes |
| 2030   | Brake lever             |
| 2000   | Front brake             |
| 2000/1 | Small front brake       |
| 2001   | Rear brake              |
| 2001/1 | Small rear brake        |
| 2002   | Center bolt fixing nut  |
| 2003   | Washer                  |
| 2004   | Clamp bolt washer       |
| 2005   | Cam                     |

|        |                         |
|--------|-------------------------|
| 2006   | Quick release cam lever |
| 2007   | Adjusting nut           |
| 2008   | Cable clamp bolt        |
| 2009   | Adjusting screw         |
| 2010   | Brake block             |
| 2011   | Tension spring          |
| 2012   | Front brake center bolt |
| 2012/1 | Rear brake center bolt  |
| 2013   | Cable clamp             |
| 2014/D | Right hand brake shoe   |
| 2014/S | Left hand brake shoe    |

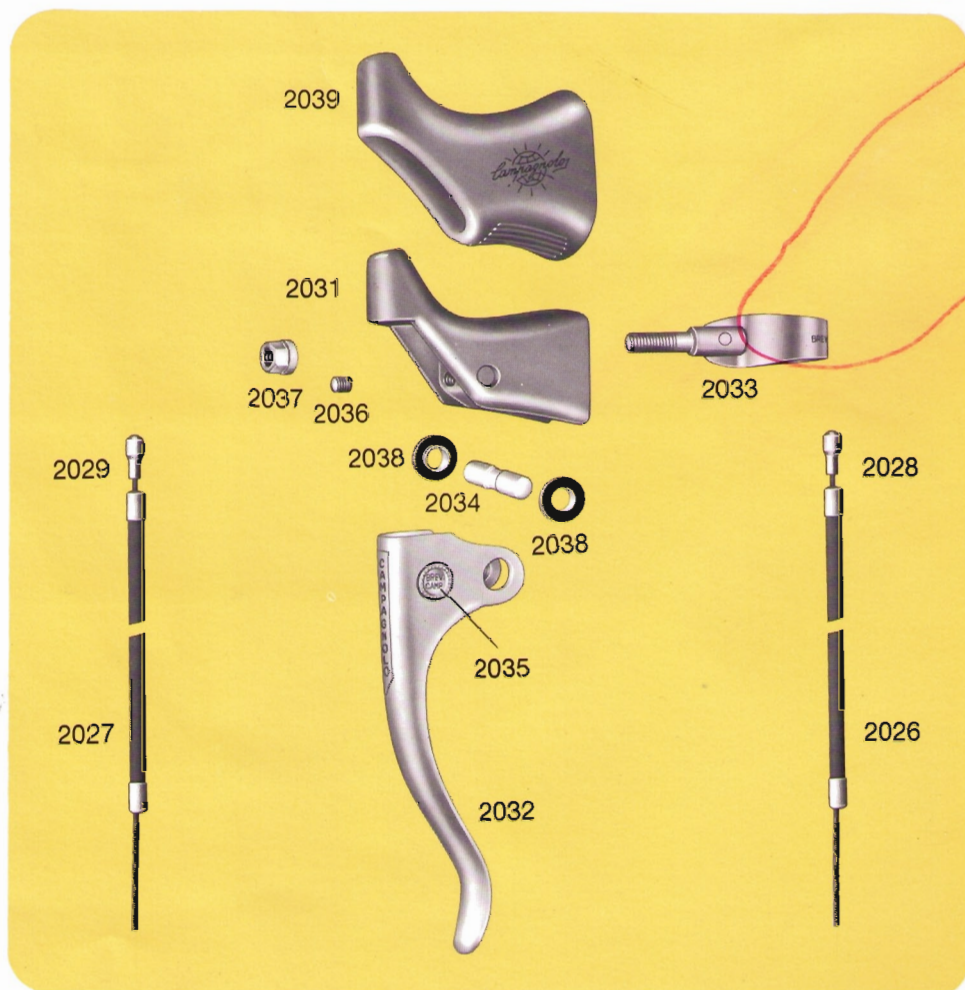
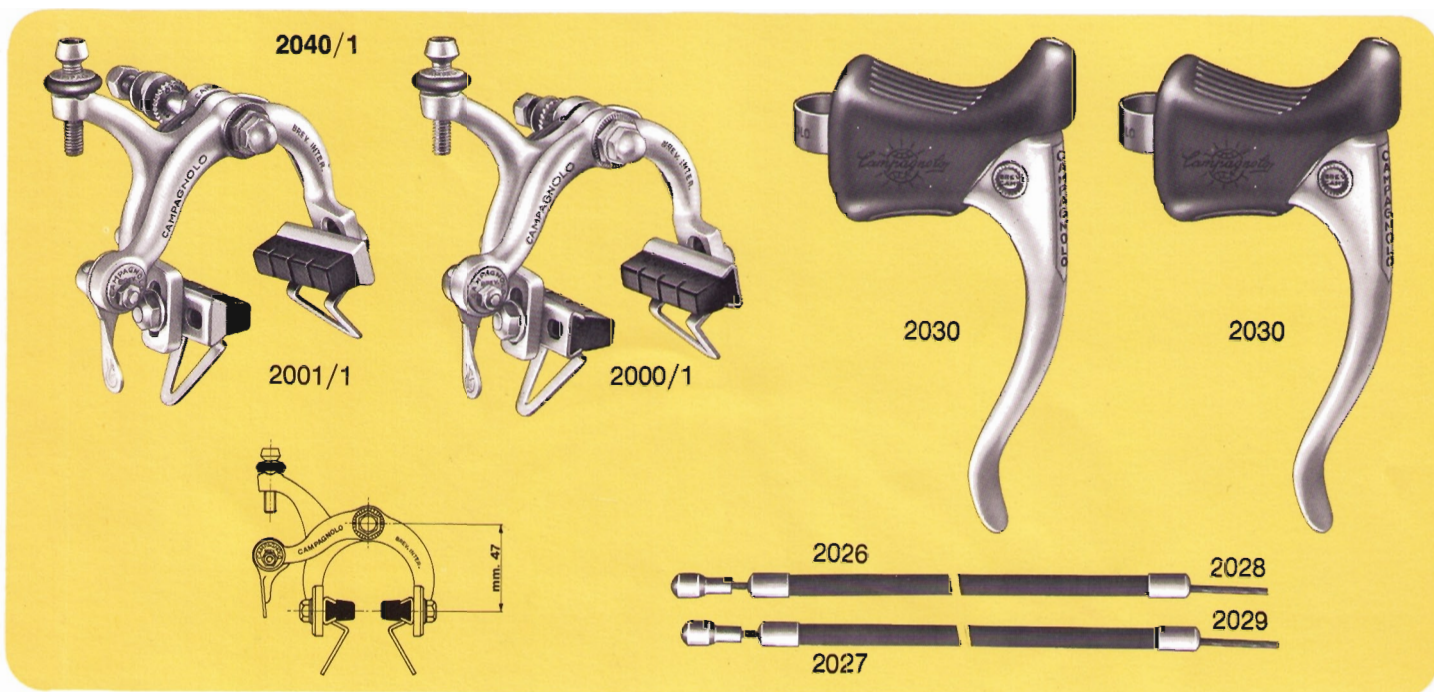




**2015** Friction washer  
**2015/1** Inner friction washer  
**2016** Domed nut  
**2017** Cam locking nut  
**2018** Locking nut  
**2019** Stirrup arm  
**2019/1** Small brake front stirrup  
**2020** Rear stirrup  
**2020/1** Small front brake rear stirrup  
**2020/2** Small rear brake rear stirrup  
**2021** Milled washer

**2022** Brake shoe nut  
**2023** Concave washer for front brake  
**2024** Adjusting rubber  
**2026** Front brake outer casing (61 cm.)  
**2027** Rear brake outer casing (119 cm.)  
**2028** Front inner cable (73 cm.)  
**2029** Rear inner cable (131 cm.)  
**2031** Lever hood  
**2032** Lever control  
 (complete with cable holder 2035)  
**2033** Brake lever clip

**2034** Lever pivot pin  
**2036** Grub screw  
**2037** Clamp nut  
**2038** Lever bush  
**2039** Rubber lever hood  
**2041** Serrated washer for rear brake  
**2041/A** Serrated washer for front brake  
**2042** Concave washer for rear brake.  
 (Upon request is furnished  
 for round breast band)  
**2043** Lever rubber for small brake









*Campagnolo*



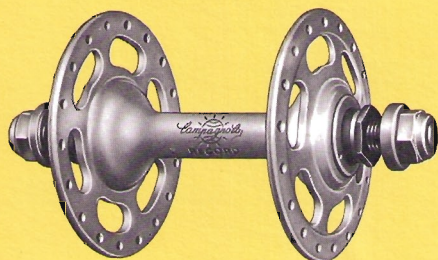
11/11/11

|   |             |
|---|-------------|
| RECORD TRACK GROUP  | pages 46-47 |
| RECORD TRACK HUBS   | page 48     |
| RECORD AND SUPERLIGHT RECORD TRACK PEDALS                   | page 49     |
| RECORD TRACK CHAINWHEEL SET<br>AND BOTTOM BRACKET TRACK SET | pages 50-51 |
| RECORD TRACK HEAD SET -<br>RECORD SEAT PIN-FORK ENDS        | page 52     |

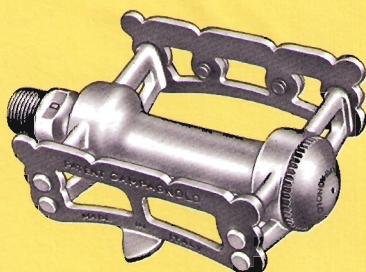
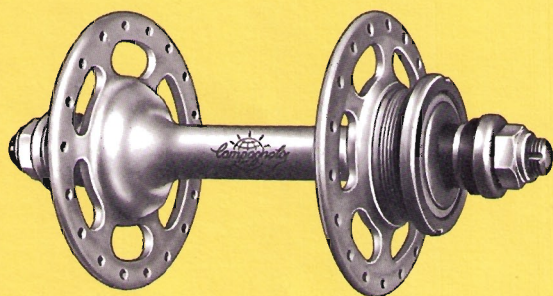


# 1033 CAMPAGNOLO RECORD TRACK GROUP

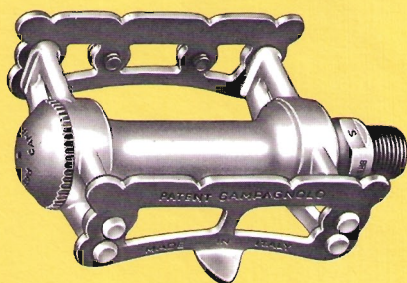
(Particular components of this group are illustrated from page 48 to page 52)



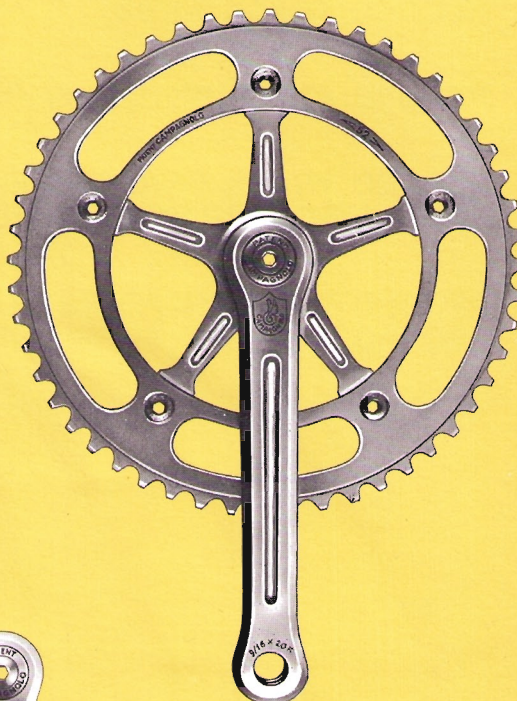
1036



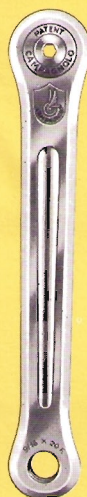
1038



1050



1051



1046



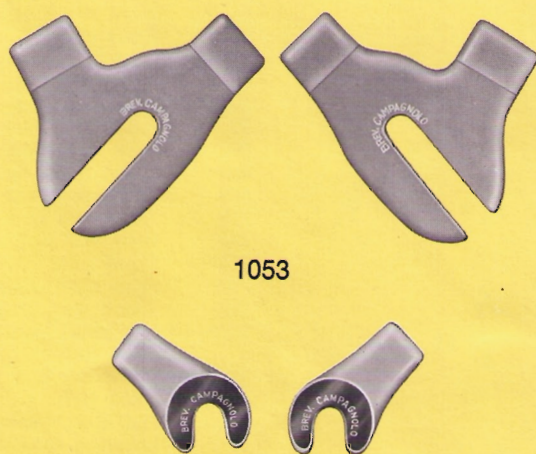




1040



1044



1053

- 1036** Pair Record large flange solid spindle track hubs (front width 100 mm., rear width 110 mm., flanges with 36 holes, thread  $\varnothing 35 \times 24F.$ ). Upon request furnished with rear hub width 120 mm., flanges with 24 - 28 - 32 - 40 holes, thread  $\varnothing 34,7 \times 1M.$  or  $1,370'' \times 24$  Tpi-BSC. See other alternatives on page 48
- 1038** Pair Record track pedals (spindle thread  $\varnothing 9/16'' \times 20F.$ ). Upon request furnished spindles threaded M. 14 x 1,25. See page 49
- 1040** Record track head set (thread  $\varnothing 25,4 \times 24F.$ ). Upon request furnished with thread  $\varnothing 25 \times 1M.$  or  $1'' \times 24$  Tpi-BSC
- 1044** Seat pin. Specify diameter stem: 25 - 25,8 - 26 - 26,2 - 26,4 - 26,6 - 26,8 - 27 - 27,2 - 27,4 mm. and if length stem in 130 mm. normal or in 180 mm. long
- 1046** Record bottom bracket set (bracket width 70 mm. and cups threaded  $\varnothing 36 \times 24F.$ ). See alternatives on pages 50-51. Upon request is furnished the bracket safety sleeve ref. 2110-2110/1. See page 81
- 1050** Record track chainwheel set with track bottom bracket
- 1051** Record track chainset (with cranks 170 mm., pedal hole  $\varnothing 9/16'' \times 20F.$  and chainring for chain  $1/2'' \times 1/8''$  [3 mm.]). Specify the number of teeth of the chainring available from 44T to 70T. Upon request furnished cranks with lengths 165 - 167,5 - 172,5 - 175 - 177,5 and 180 mm. and chainring for chain  $1/2'' \times 3/32''$  (2 mm.). P.S.: For the sprockets see page 81
- 1053** Set track front and rear fork ends

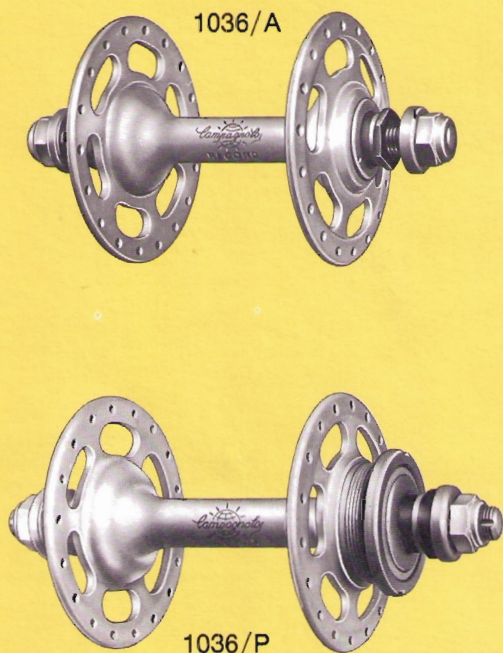


# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD TRACK GROUP 1033

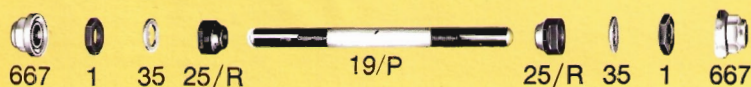
- 1036** Pair Record large flange solid spindle track hubs (front width 100 mm., rear width 120 mm., flanges with 36 holes, thread  $\varnothing 35 \times 24F.$ ). Upon request furnished with rear hub width 110 mm., flanges with 24 - 28 - 32 - 40 holes, thread  $\varnothing 34,7 \times 1M.$  or  $\varnothing 1,370'' \times 24$  Tpi-BSC
- 1036/A** Record track large flange front hub
- 1036/P** Record track large flange rear hub

- 1036/2** Pair Record small flange solid spindle track hubs (front width 100 mm., rear width 120 mm., flanges with 36 holes, thread  $\varnothing 35 \times 24F.$ ). Upon request furnished with rear hub width 110 mm., flanges with 24 - 28 - 32 - 40 holes, thread  $\varnothing 34,7 \times 1M.$  or  $\varnothing 1,370'' \times 24$  Tpi-BSC
- 1036/2A** Record track small flange front hub
- 1036/2P** Record track small flange rear hub

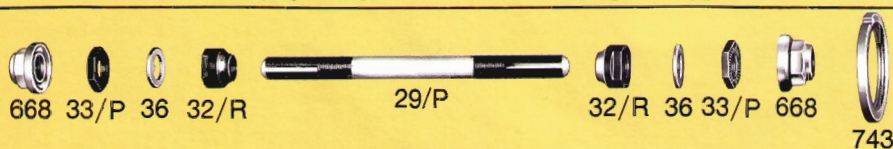
1036



1036/2



1001/4P



1006/5P



- 1** Front lock nut
- 19/P** Front track solid spindle axle
- 25/R** Front cone
- 29/P** Rear track solid spindle axle
- 32/R** Rear cone
- 33/P** Rear lock nut
- 35** Front hub lock washer
- 36** Rear hub lock washer
- 667** Track front nut
- 668** Track rear nut
- 737** Front ball cup
- 738** Rear ball cup
- 739** Front dust cover
- 740** Rear dust cover
- 743** Track lock ring
- 1001/4P** Complete front axle for Record track hub
- 1006/5P** Complete rear axle for Record track hub
- 2104** Set (9+9) special  $\varnothing 7/32''$  balls selected with 1/1000 of mm. tolerance
- 2106** Set (9+9) special  $\varnothing 1/4''$  balls selected with 1/1000 of mm. tolerance



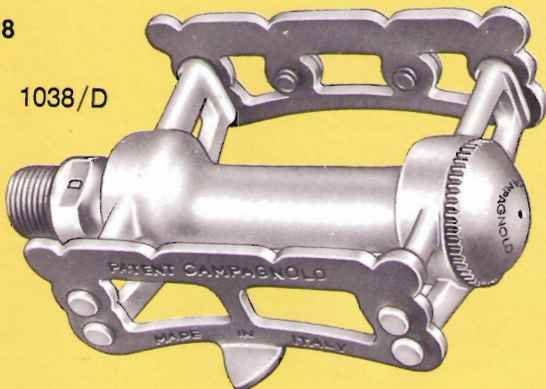
# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD TRACK GROUP 1033

- 1038** Pair Record track pedals (spindle thread  $\varnothing$  9/16" x 20F). Upon request furnished spindles threaded M.14 x 1,25
- 1038/D** Record track right hand pedal
- 1038/S** Record track left hand pedal
- 1038/A** Pair Record superlight track pedals
- 1038/AD** Superlight Record track right hand pedal
- 1038/AS** Superlight Record track left hand pedal
- 89** Locking screw for superlight pedals
- 669** Left hand pedal axle with thread  $\varnothing$  9/16" x 20F. Upon request furnished with thread M.14 x 1,25

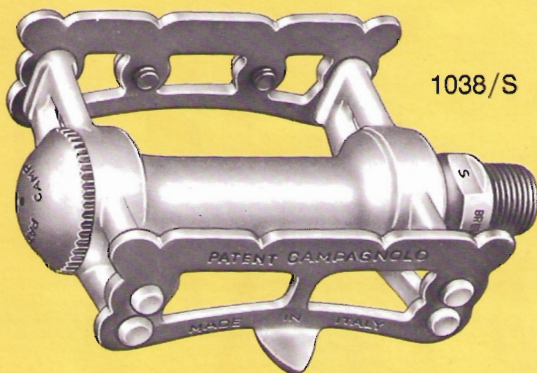
- 670** Right hand pedal axle with thread  $\varnothing$  9/16" x 20F. Upon request furnished with thread M.14 x 1,25
- 672** Inserted race (available also in oversize)
- 673** Pedal axle washer
- 674** Pedal axle cone
- 675** Pedal axle lock nut
- 676** Toe clip bolt
- 677** Toe clip washer
- 678** Inner dust cap
- 679** Record pedal dust cap
- 679/A** Dust cap for superlight pedals
- 2103** Set (48) special  $\varnothing$  5/32" pedal balls selected with 1/1000 of mm. tolerance

1038

1038/D

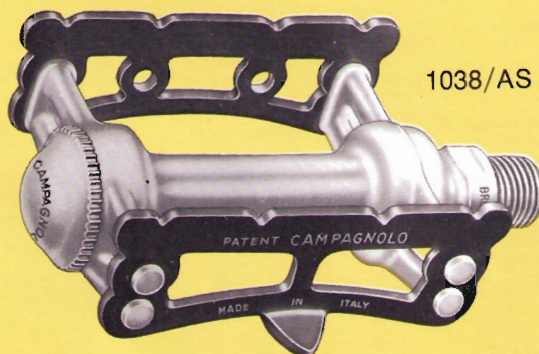


1038/S

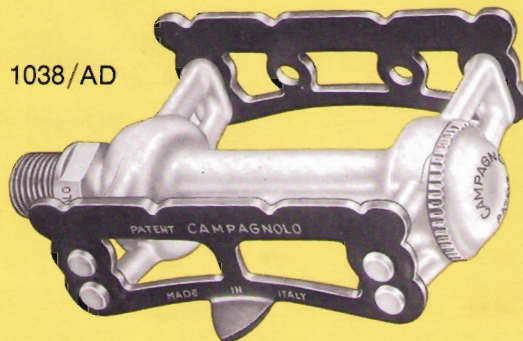


1038/A

1038/AS



1038/AD



672



672



674



673



675



678



679



89



677



676



2103



679/A



669



670



# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD TRACK GROUP 1033

- 1050 Record track chainwheel set with track bottom bracket
- 1046 Record bottom bracket set (bracket width 70 mm. and cups threaded  $\varnothing 36 \times 24F.$ ). Upon request is furnished the bracket safety sleeve ref. 2110-2110/1. See page 81
- 1051 Record track chainset (with cranks 170 mm., pedal hole  $\varnothing 9/16'' \times 20F.$  and chainring for chain  $1/2'' \times 1/8''$  [3 mm.]). Specify the number of teeth of the chainring available from

1050



1051



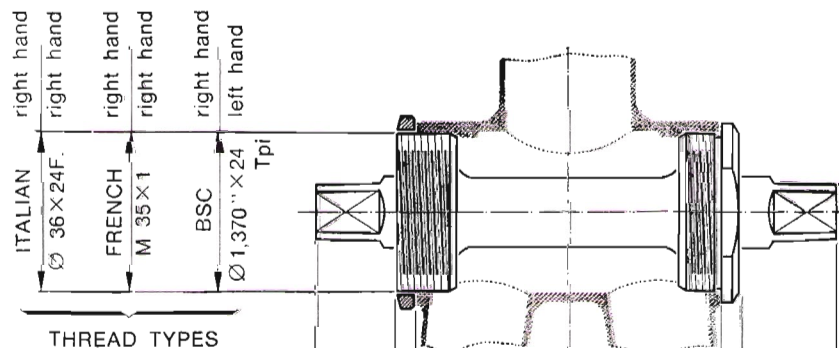
1046



Details of bracket number:

- The first number indicates the bracket width
- P indicates track
- SS indicates road
- C indicates cross
- Number 110 or 120 indicates the suggested width of the rear hub for a perfect chain alignment (see pages 92-93)

**UPON REQUEST WE SUPPLY THE CUPS WITH THREAD INCREASED BY 0,5 mm.**



TRACK  
RECORD  
AND SUPER  
RECORD

AXLE  
65-P-110  
68-P-110  
68-P-120  
70-P-120

| BRACKET WIDTH |     | TOTAL AXLE LENGTH |         |
|---------------|-----|-------------------|---------|
| 16            | 3,5 | 65                | 104 mm. |
| 14,5          | 3,5 | 68                | 105 mm. |
| 17            | 3,5 | 68                | 109 mm. |
| 16            | 3,5 | 70                | 109 mm. |



44T to 70T. Upon request are furnished cranks with lengths 165 - 167,5 - 172,5 - 175 - 177,5 and 180 mm.

- 744 Cotterless spindle. See measurements and indicate spindle size
- 745 Fixed cup. Indicate required thread
- 746 Adjustable cup. Indicate required thread
- 747 Lockring with normal 3.5 mm. thickness (available also with 4 mm. and 4.5 mm. thickness)

748  
749  
756  
757

Indicate required thread

Fixing screw  
Fixing washer  
Crank cover plate  
Track right hand crank (complete with cover 756, 170 mm. long). Upon request furnished in the following sizes: 165 - 167,5 - 172,5 - 175 - 177,5 and 180 mm. long  
Track left hand crank (complete with cover 756, 170 mm. long). Upon request are furnished in

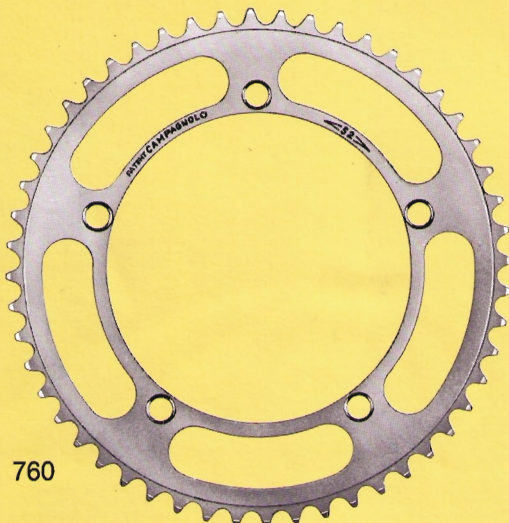
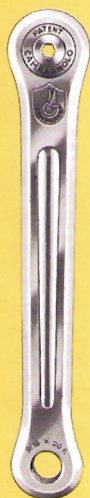
758

the following sizes: 165 - 167,5 - 172,5 - 175 - 177,5 and 180 mm. long and chainrings for chain 1/2" x 3/32" (2 mm.).  
Record track chainring for 1/2" x 1/8" (3 mm.) chain. Specify the number of teeth available from 44T to 70T  
Track chainwheel fastening screw  
Track chainwheel fastening nut  
Set (11+11) special b/b Ø 1/4" balls selected with 1/1000 of mm. tolerance

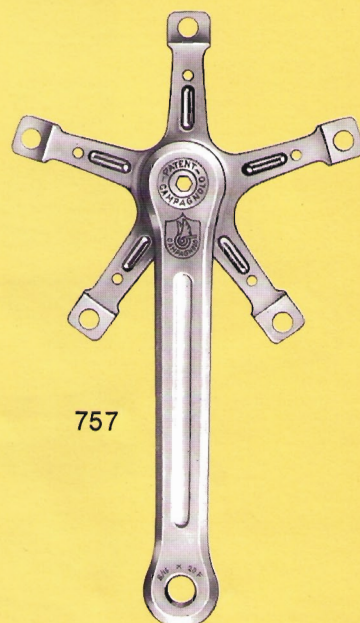
760

761  
762  
2100

758



760



757



756



761



762



2100



748



749



747



746



744



745



749



748



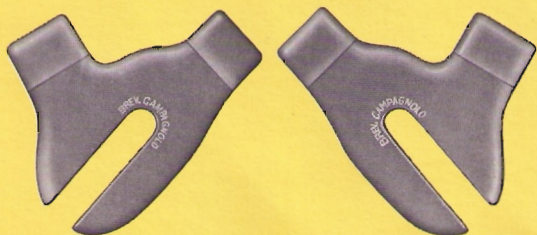
# PARTICULAR COMPONENTS OF CAMPAGNOLO RECORD TRACK GROUP 1033

- |      |  |      |   |
|------|--|------|---|
| 1040 | Record track head set<br>thread $\varnothing$ 25,4 x 24F.).<br>Upon request furnished with<br>thread $\varnothing$ 25 x 1 M. or<br>$\varnothing$ 1" x 24 Tpi-BSC       | 688  | Track top head race<br>(0,5 mm. larger gauge available)                                       |
| 1044 | Seat pin. Specify diameter stem:<br>25 - 25,8 - 26 - 26,2 - 26,4 -<br>26,6 - 26,8 - 27 - 27,2 - 27,4 mm.<br>and if length stem in 130 mm.<br>normal or in 180 mm. long | 689  | Track bottom head race<br>(0,5 mm. larger gauge available)                                    |
| 1053 | Set track front and rear fork ends   | 690  | Track crown race<br>(smaller diameter available)  |
| 681  | Locking nut<br>(specify type of threading)   | 698  | Front bracket   |
| 682  | Locking washer   | 699  | Rear bracket  |
| 687  | Track screwed race<br>(specify type of threading)  | 700  | Bolt nut  |
|      |  | 701  | Left hand side support  |
|      |  | 702  | Right hand side support   |
|      |  | 703  | Fixing and adjusting bolt   |
|      |  | 2102 | Set (25+25) special b/b<br>$\varnothing$ 5/32" balls selected with<br>1/1000 of mm. tolerance |

1040



1044



1053



698



699



703



701



702



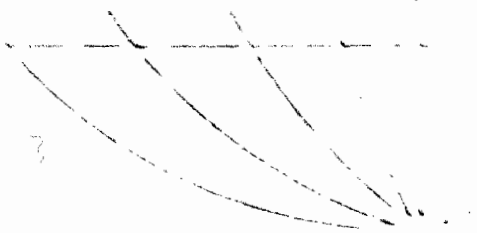
700



*Campagnolo*



—Guthrie—



GRAN SPORT GROUP

pages 54-55

NUOVO GRAN SPORT GEAR - FRONT CHANGERS  
WITH ALTERNATIVE GRAN SPORT CONTROL LEVERS

pages 56-57-58-59-60

NUOVO TIPO HUBS

page 61

ROAD SPORT CHAINWHEEL SET AND  
BOTTOM BRACKET SET

pages 62-63

SPORT HEAD SET - FORK ENDS

page 64

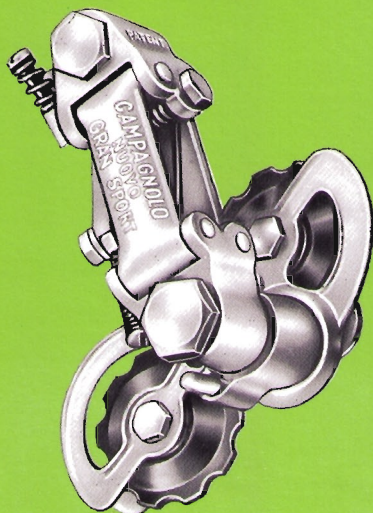


# 2240 CAMPAGNOLO GRAN SPORT GROUP

(Particular components of this group are illustrated from page 56 to page 64)

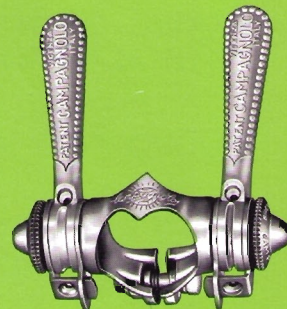


- 606 Down tube control gear inner wire (118 cm.)
- 608 Down tube control front changer inner wire (72 cm.)
- 622 Gear stainless steel outer casing (21 cm.)
- 626/A Twin gear cable clip
- 636 Chainstay clip
- 1010 Set Record front and rear fork ends
- 1014/1A Gran Sport twin down tube control lever. See alternatives on pages 58-59



3500

2050



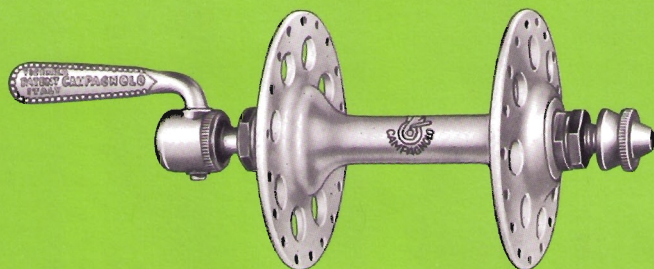
1014/1A

608

606



622



1253



626/A



636

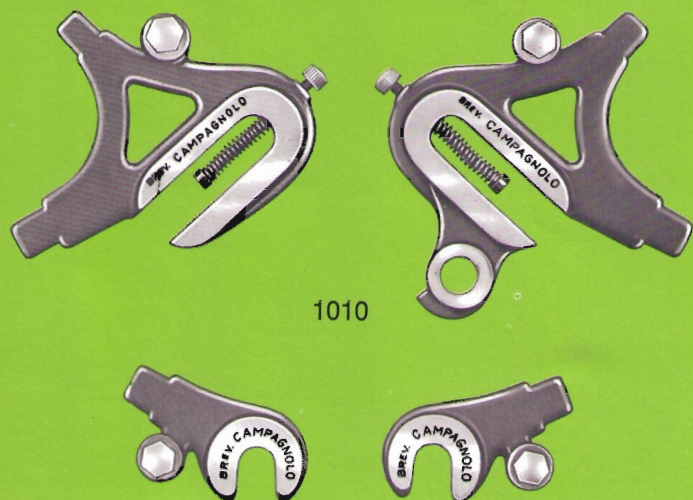


- 1040/A** Sport head set (thread  $\varnothing$  25,4 x 24F.). Upon request are furnished with thread  $\varnothing$  25 x 1M. or  $\varnothing$  1" x 24 Tpi-BSC
- 1253** Pair Nuovo Tipo large flange quick release hubs (front width 100 mm., rear width 120 mm., flanges with 36 holes, thread  $\varnothing$  35 x 24F.). Upon request furnished with thread  $\varnothing$  34,7 x 1M. or  $\varnothing$  1,370" x 24 Tpi-BSC. See other alternatives on page 61

- 2050** Front changer. See alternatives on page 60
- 3320/A** Sport road chainset (with cranks 170 mm., pedal hole  $\varnothing$  9/16" x 20F. and fixed couple of chainrings for chain 1/2" x 3/32" [2 mm.]). Specify the number of teeth of the fixed couple of chainrings available as follows: 42/49T - 42/50T - 42/51T - 42/52T - 42/53T. Upon request

- furnished cranks with pedal hole M.14 x 1,25
- 3330/A** Sport chainwheel set
- 3331** Sport bottom bracket set (bracket width 70 mm. and cups threaded  $\varnothing$  36 x 24F.). See alternatives on pages 62-63. Upon request is furnished the bracket safety sleeve ref. 2110 - 2110/1. See page 81
- 3500** Nuovo Gran Sport gear (without hanger)

**3330/A**



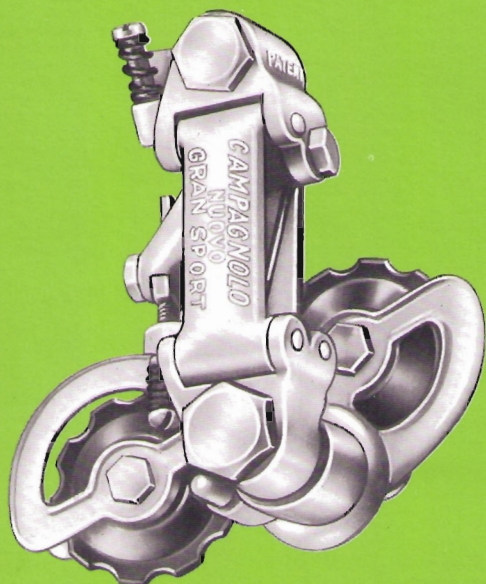
**1040/A**



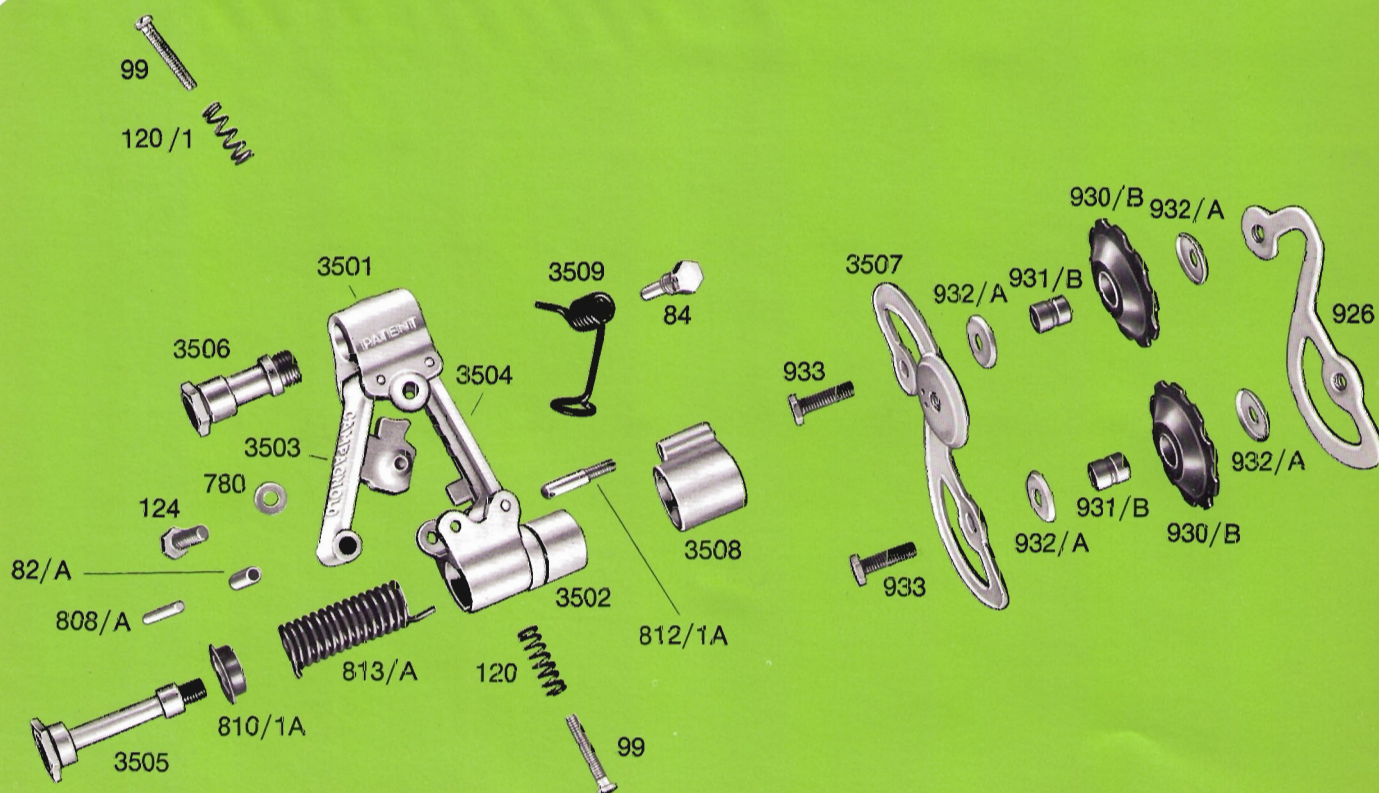
# PARTICULAR COMPONENTS OF CAMPAGNOLO GRAN SPORT GROUP 2240

|        |   |
|--------|---|
| 3500   | Nuovo Gran Sport gear<br>(without hanger) |
| 82/A   | Body ferrule                              |
| 84     | Gear return spring screw                  |
| 99     | Gear adjusting screw                      |
| 120    | Lower adjuster spring                     |
| 120/1  | Upper adjuster spring                     |
| 124    | Fixing screw                              |
| 780    | Cable clamp screw washer                  |
| 808/A  | Spindle                                   |
| 810/1A | Lower body bush                           |
| 812/1A | Grub screw                                |
| 813/A  | Tension spring                            |
| 926    | Inner cage plate                          |

|       |                    |
|-------|--------------------|
| 930/B | Roller             |
| 931/B | Roller bush        |
| 932/A | Roller dust cover  |
| 933   | Roller bolt        |
| 3501  | Upper body         |
| 3502  | Lower body         |
| 3503  | Front arm          |
| 3504  | Inner arm          |
| 3505  | Spring cage bolt   |
| 3506  | Upper pivot bolt   |
| 3507  | Outer cage plate   |
| 3508  | Cover              |
| 3509  | Gear return spring |



3500



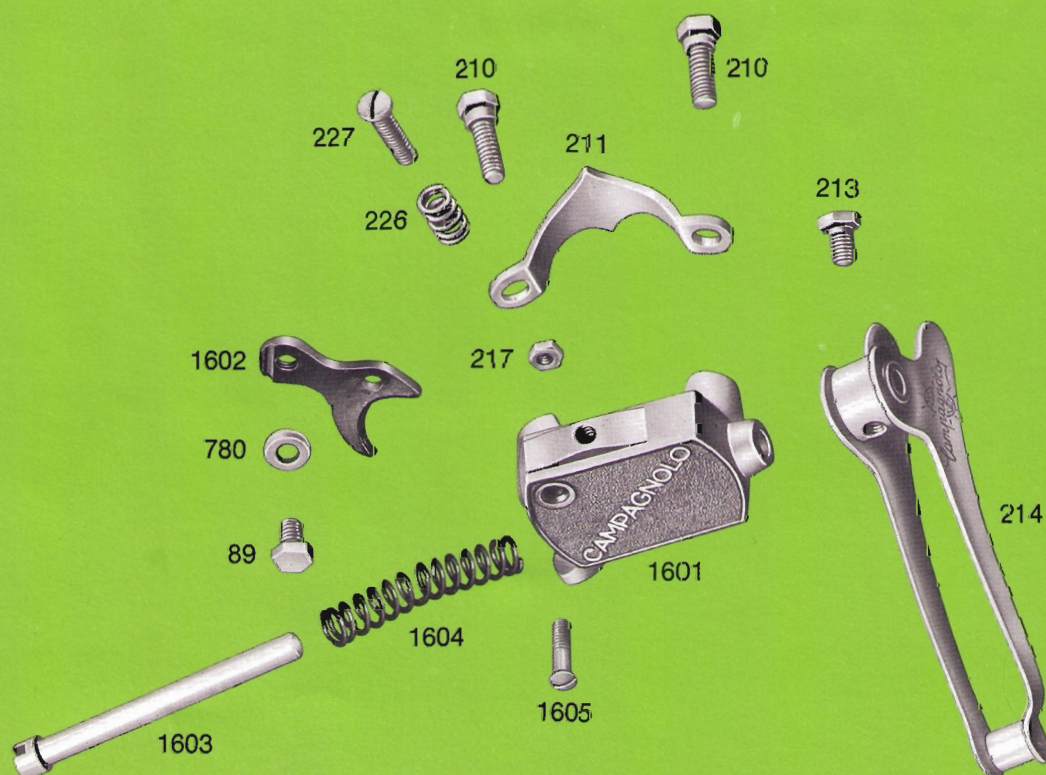


# PARTICULAR COMPONENTS OF CAMPAGNOLO GRAN SPORT GROUP 2240

|      |                             |
|------|-----------------------------|
| 2050 | Front changer               |
| 89   | Clamp washer                |
| 210  | Body clip bolt              |
| 211  | Body fixing clip            |
| 213  | Fork fixing bolt            |
| 214  | Fork cage                   |
| 217  | Nut                         |
| 226  | Adjusting bolt spring       |
| 227  | Adjusting lever screw       |
| 780  | Cable clamp bolt washer     |
| 1601 | Front changer body          |
| 1602 | Control fork                |
| 1603 | Spindle                     |
| 1604 | Front changer return spring |
| 1605 | Bolt                        |



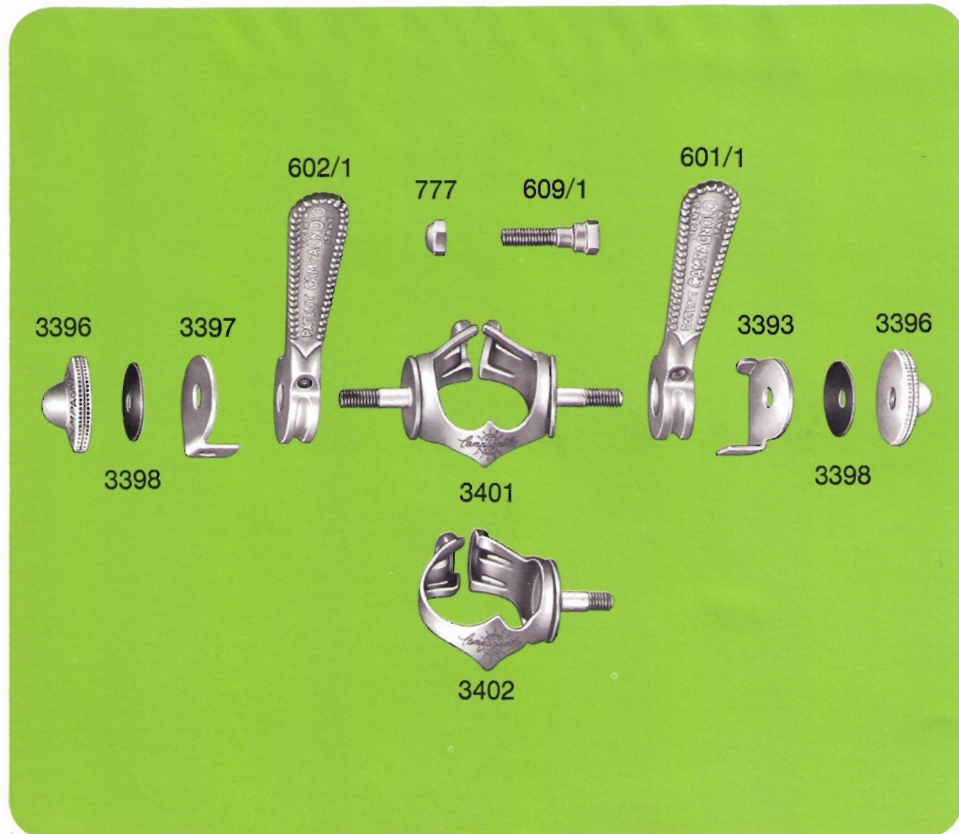
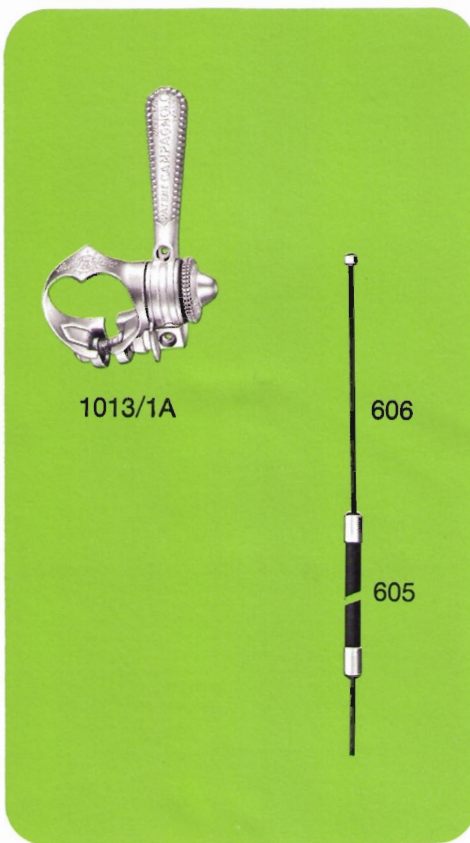
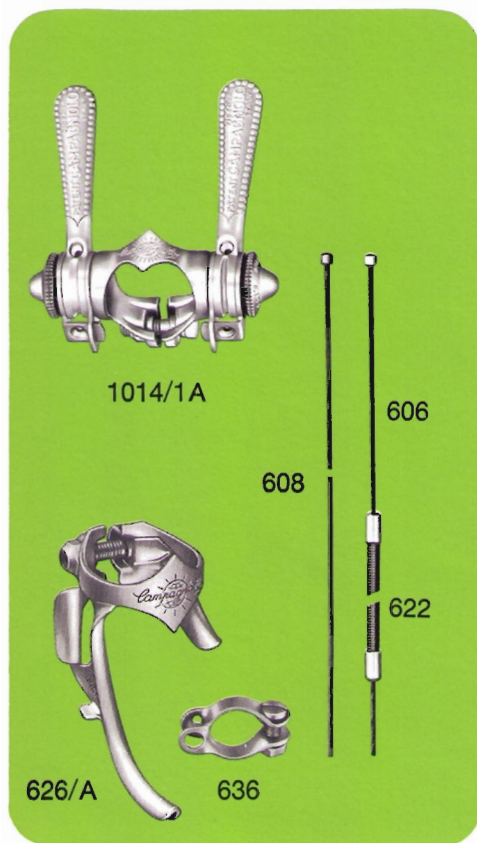
2050





# PARTICULAR COMPONENTS OF CAMPAGNOLO GRAN SPORT GROUP 2240

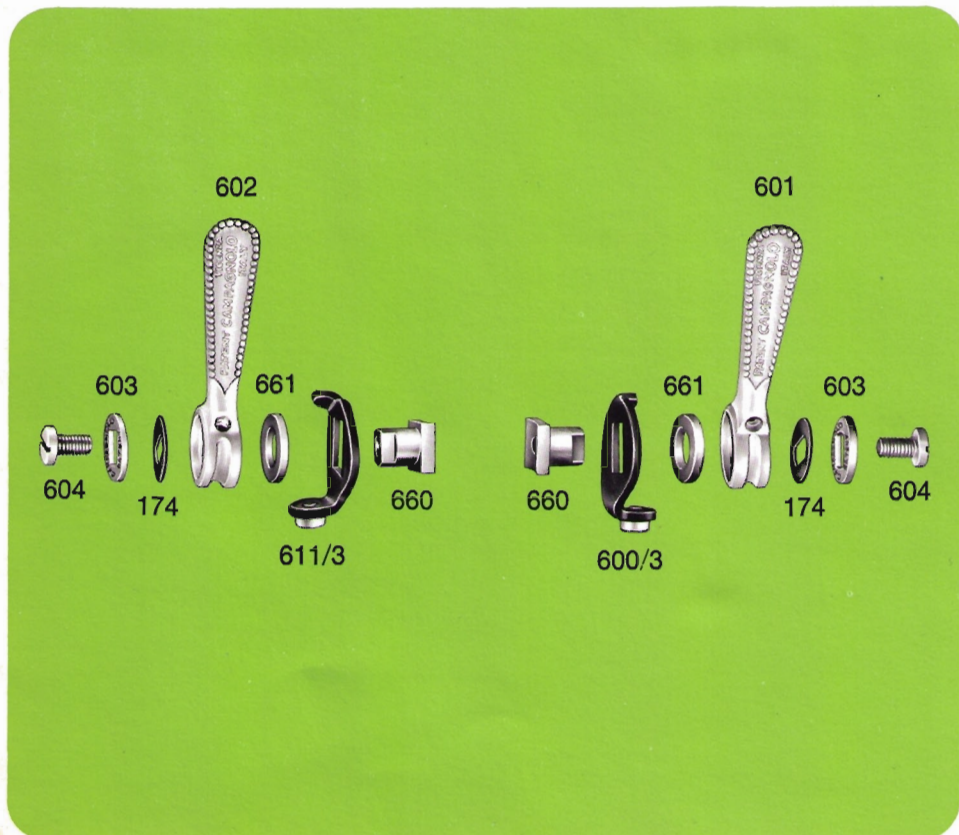
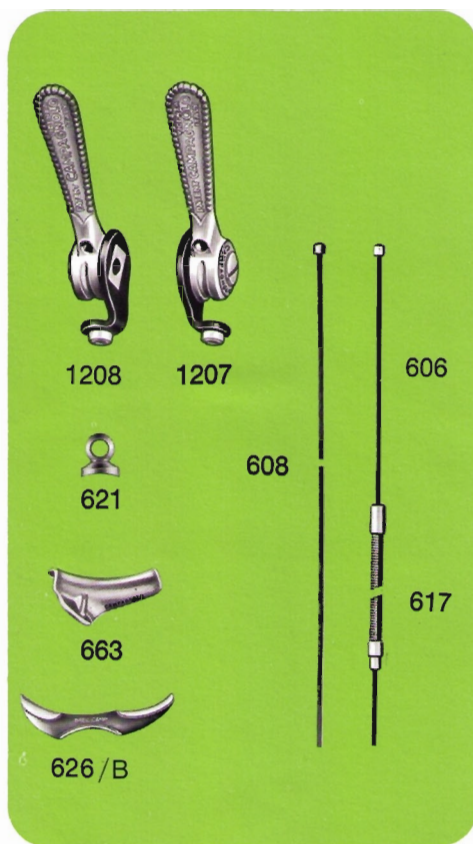
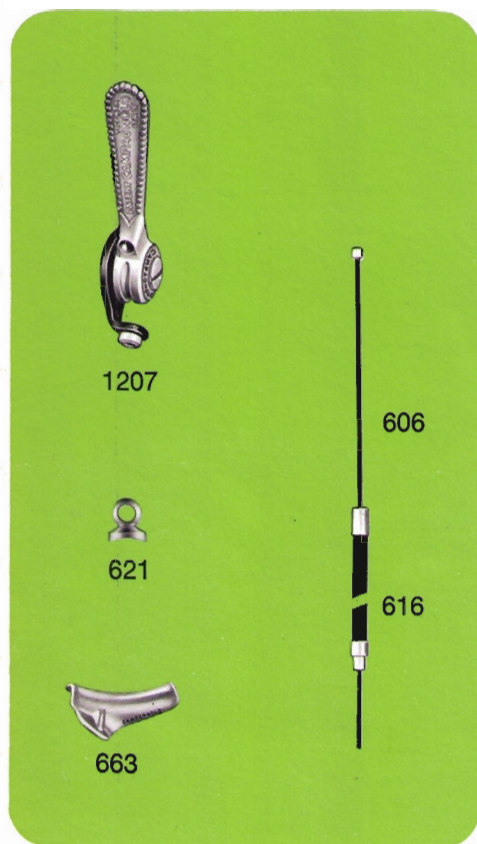
- 1013/1A Right hand Gran Sport down tube control
- 1014/1A Gran Sport twin down tube control lever
- 1207 Braze-on gear control
- 1208 Braze-on front changer control
- 174 Friction plate
- 600/3 Right hand braze-on control lever plate with ferrule
- 601 Right hand control lever only



**601/1** Right hand control lever only  
**602** Left hand control lever only  
**602/1** Left hand control lever only  
**603** Cover plate  
**604** Friction adjusting screw  
**605** Gear outer casing (105 cm.)  
**606** Down tube control gear inner wire (118 cm.)  
**608** Down tube control front changer inner wire (72 cm.)  
**609/1** Fixing clip bolt

**611/3** Left hand braze-on control lever plate  
**616** Gear vipla outer casing (23 cm.)  
**617** Braze-on gear stainless steel outer casing (21 cm.)  
**621** Braze-on cable stop  
**622** Gear stainless steel outer casing (21 cm.)  
**626/A** Twin gear cable clip  
**626/B** Braze-on cable ferrule  
**636** Chainstay clip

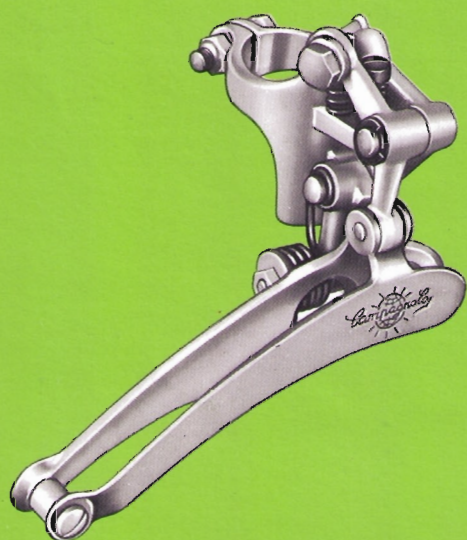
**660** Braze-on boss  
**661** Brazed boss collar  
**663** Braze-on ferrule  
**777** Nut  
**3393** Right hand toothed washer  
**3396** Milled nut for Gran Sport lever  
**3397** Left hand toothed washer  
**3398** Elastic washer  
**3401** Gran Sport twin control clip  
**3402** Gran Sport right hand control clip



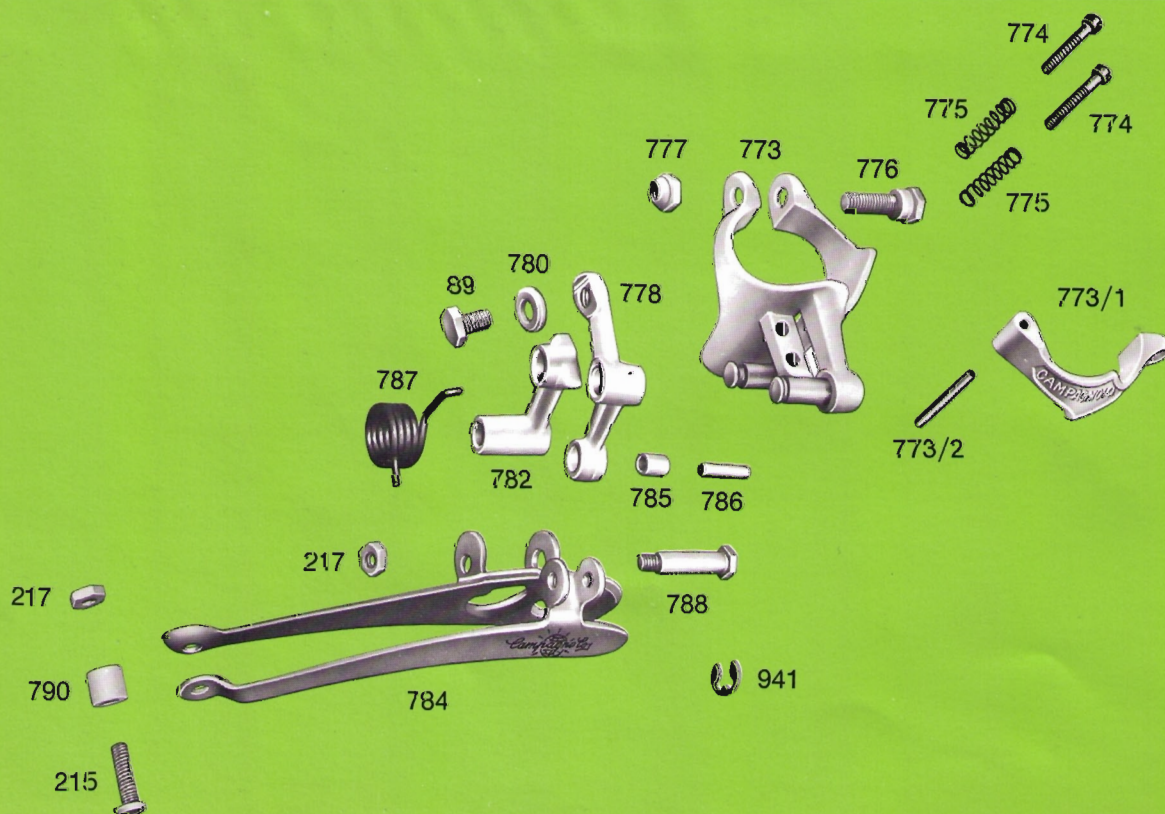


# PARTICULAR COMPONENTS OF CAMPAGNOLO GRAN SPORT GROUP 2240

|        |   |     |                                |
|--------|---|-----|--------------------------------|
| 1052/1 | Record front changer  | 777 | Nut                            |
| 89     | Locking screw   | 778 | Upper arm                      |
| 215    | Cage spanner bolt   | 780 | Cable clamp bolt washer        |
| 217    | Cage spacer bolt nut  | 782 | Lower arm                      |
| 773    | Record front changer body<br>(complete with clip and hinge) | 784 | Front changer cage             |
| 773/1  | Hinge   | 785 | Ferrule for front changer cage |
| 773/2  | Hinge pin   | 786 | Spindle for front changer cage |
| 774    | Adjusting screw   | 787 | Front changer return spring    |
| 775    | Adjusting bolt spring                                       | 788 | Cage shank bolt                |
| 776    | Clip fixing screw   | 790 | Bush                           |
|        |   | 941 | Circlip                        |



1052/1



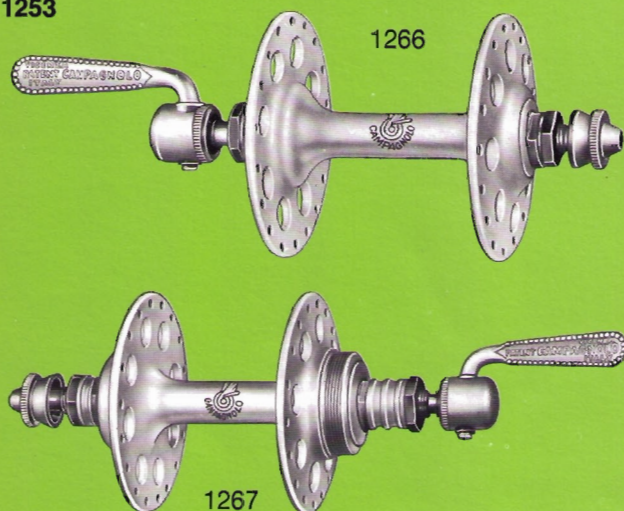


# PARTICULAR COMPONENTS OF CAMPAGNOLO GRAN SPORT GROUP 2240

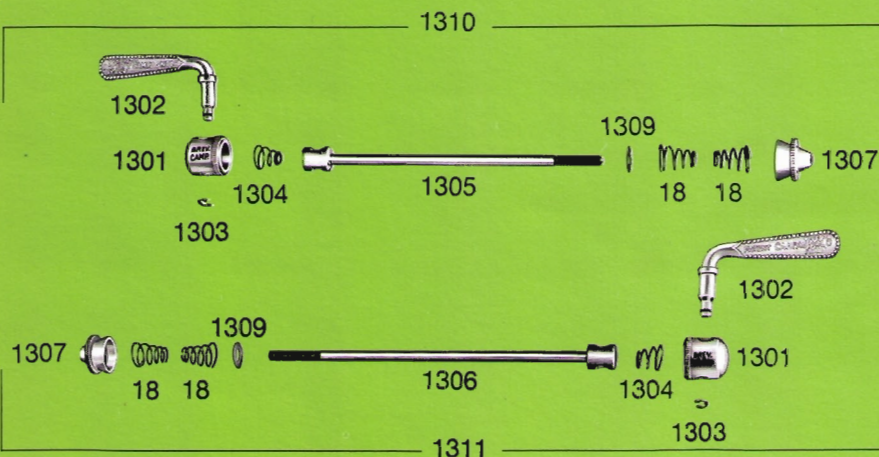
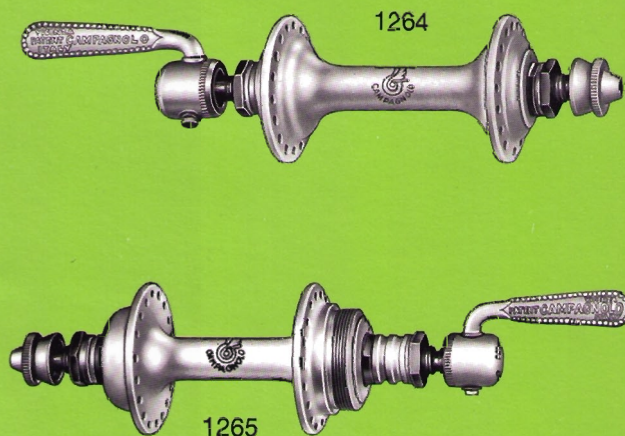
- 1251** Pair Nuovo Tipo small flange quick release hubs (front width 100 mm., rear width 120 mm., flanges with 36 holes, thread  $\varnothing$  35 x 24F.). Upon request are furnished with thread  $\varnothing$  34,7 x 1M. or  $\varnothing$  1,370" x 24 Tpi-BSC
- 1264** Nuovo Tipo small flange front hub
- 1265** Nuovo Tipo small flange rear hub

- 1253** Pair Nuovo Tipo large flange quick release hubs (front width 100 mm., rear width 120 mm., flanges with 36 holes, thread  $\varnothing$  35 x 24F.). Upon request are furnished with thread  $\varnothing$  34,7 x 1M. or  $\varnothing$  1,370" x 24 Tpi-BSC
- 1266** Nuovo Tipo large flange front hub
- 1267** Nuovo Tipo large flange rear hub

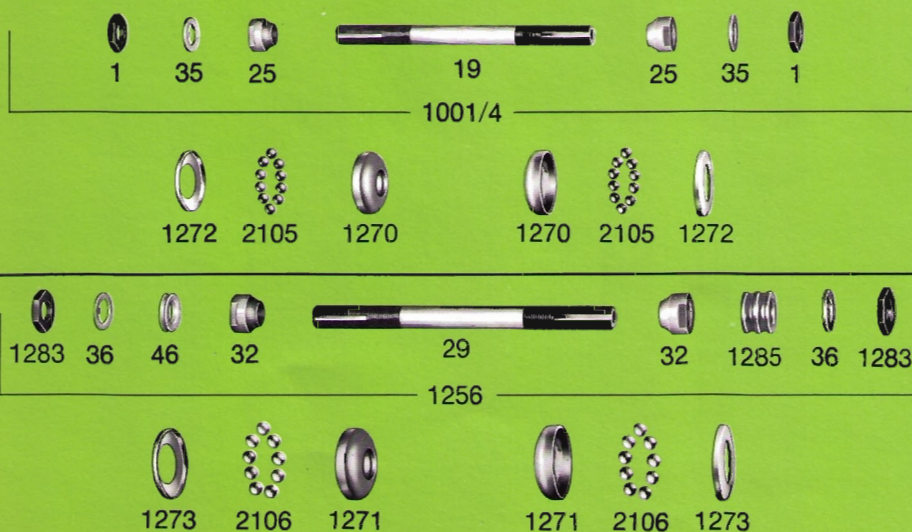
**1253**



**1251**



- 1** Front lock nut
- 18** Conical spring
- 19** Front hollow axle
- 25** Front cone
- 29** Rear hollow axle (127 mm. long). Upon request are furnished spindles 132 and 134 mm. long
- 32** Rear cone
- 35** Front hub lock washer
- 36** Rear hub lock washer
- 46** Rear spacing collar
- 1001/4** Complete front hollow spindle for Nuovo Tipo hub
- 1256** Complete rear hollow spindle for Nuovo Tipo hub
- 1270** Front ball cup
- 1271** Rear ball cup
- 1272** Front dust cover
- 1273** Rear dust cover
- 1283** Rear lock nut
- 1285** Large spacing collar
- 1301** Quick release cap
- 1302** Quick release lever
- 1303** Circlip for lever
- 1304** Conical tension spring
- 1305** Quick release front skewer
- 1306** Quick release rear skewer
- 1307** Knurled adjusting nut
- 1309** Washer for skewer
- 1310** Complete front quick release skewer for Nuovo Tipo hub
- 1311** Complete rear quick release skewer for Nuovo Tipo hub
- 2105** Set (10+10) special  $\varnothing$  3/16" balls selected with 1/1000 of mm. tolerance
- 2106** Set (9+9) special  $\varnothing$  1/4" balls selected with 1/1000 of mm. tolerance





# PARTICULAR COMPONENTS OF CAMPAGNOLO GRAN SPORT GROUP 2240

- 3330/A** Sport chainwheel set  
**3320/A** Sport road chainset (with cranks 170 mm., pedal hole  $\varnothing$  9/16" x 20F. and fixed couple of chainrings for chain 1/2" x 3/32" [2 mm.]). Specify the number of teeth of the fixed couple of chainrings available as follows: 42/49T - 42/50T - 42/51T - 42/52T - 42/53T. Upon request furnished cranks with pedal hole M.14 x 1,25  
**3331** Sport bottom bracket set

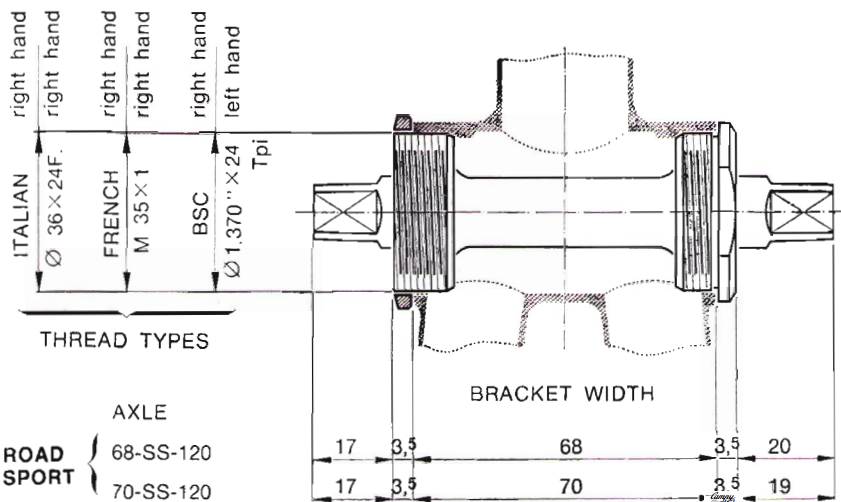
3330/A



3320/A



3331



Details of bracket number:

- The first number indicates the bracket width
- P indicates track
- SS indicates road
- C indicates cross
- Number 110 or 120 indicates the suggested width of the rear hub for a perfect chain alignment (see pages 92-93)

**UPON REQUEST WE SUPPLY THE CUPS WITH THREAD INCREASED BY 0,5 mm.**



(bracket width 70 mm. and cups threaded  $\varnothing$  36 x 24F.). Upon request is furnished the bracket safety sleeve ref. 2110 - 2110/1. See page 81

**745** Fixed cup.  
Indicate required thread

**746** Adjustable cup.  
Indicate required thread

**747** Lockring with normal 3,5 mm. thickness (available also with 4 mm. and 4,5 mm. thickness)  
Indicate required thread

**748** Fixing screw

**749** Fixing washer

**756** Crank cover plate

**2100** Set (11+11) special  $\varnothing$  1/4" balls selected with 1/1000 of mm. tolerance

**3321/A** Sport left hand crank (complete with cover 756, 170 mm. long, pedal hole  $\varnothing$  9/16" x 20F.). Upon request are furnished cranks with pedal hole M.14 x 1,25

**3322/A** Sport right hand crank (complete with cover 756, 170 mm. long, pedal hole

$\varnothing$  9/16" x 20F.). Upon request are furnished cranks with pedal hole M.14 x 1,25

**3325** Sport chainwheel fastening screw

**3327** Sport double chainrings for 1/2" x 3/32" (2 mm.) chain. Please specify the number of teeth of the fixed double chainrings 42/49 - 52/50 - 42/51 - 42/52 - 42/53

**3329** Collar nut for 3325

**3332** Sport cotterless spindle. See measurements and indicate spindle size

**756**

**3329** **3325**



**3321/A**



**3327**



**3322/A**



**748**



**749**



**747**



**746**



**3332**



**745**



**749**



**748**

**2100**

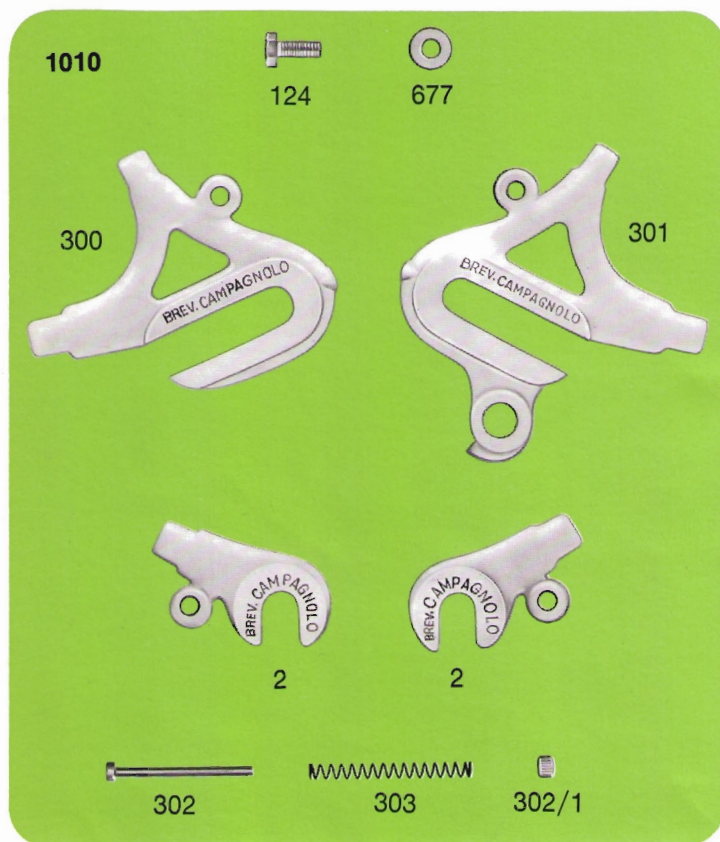




# PARTICULAR COMPONENTS OF CAMPAGNOLO GRAN SPORT GROUP 2240

- 1010 Set Record front and rear fork ends
- 1040/A Sport head set (thread  $\varnothing$  25,4 x 24F.). Upon request furnished with thread  $\varnothing$  25 x 1M. or  $\varnothing$  1" x 24 Tpi-BSC
- 2 Record right and left front fork ends
- 124 Fixing screw
- 300 Record left hand rear end
- 301 Record right hand rear end
- 302 Adjusting bolt
- 302/1 Nut for bolt 302
- 303 Adjusting bolt spring
- 677 Toe clip washer

- 681 Locking nut (specify type of threading)
- 682 Locking washer
- 687/A Sport screwed race (specify type of threading)
- 688/A Sport top head race (0,5 mm. larger gauge available)
- 689/A Sport bottom head race (0,5 mm. larger gauge available)
- 690/A Sport crown race (smaller diameter available)
- 2102 Set (25+25) special  $\varnothing$  5/32" balls selected with 1/1000 of mm. tolerance



*Campagnolo*



1870

VALENTINO EXTRA GROUP

page 66

VALENTINO EXTRA GEAR - FRONT CHANGER  
WITH ALTERNATIVE VALENTINO CONTROL LEVERS

pages 67-68-69-70

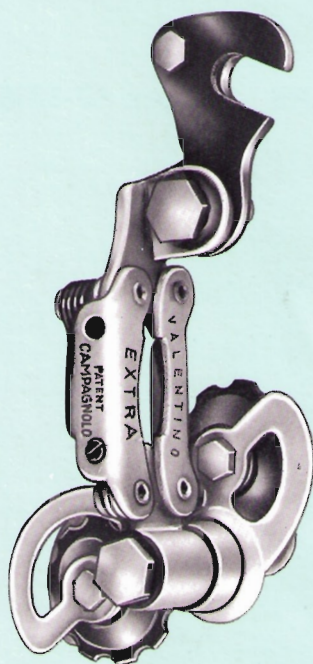


# VALENTINO EXTRA GROUP

(Particular components of this group are illustrated from page 67 to page 70)



- 606 Down tube control gear inner wire (118 cm.)
- 608 Down tube control front changer inner wire (72 cm.)
- 1206 Valentino twin control lever
- 2050 Front changer
- 2170 Valentino Extra gear with hanger



2170



2050

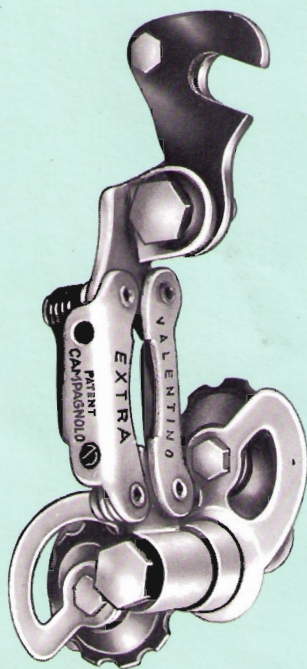


1206

608

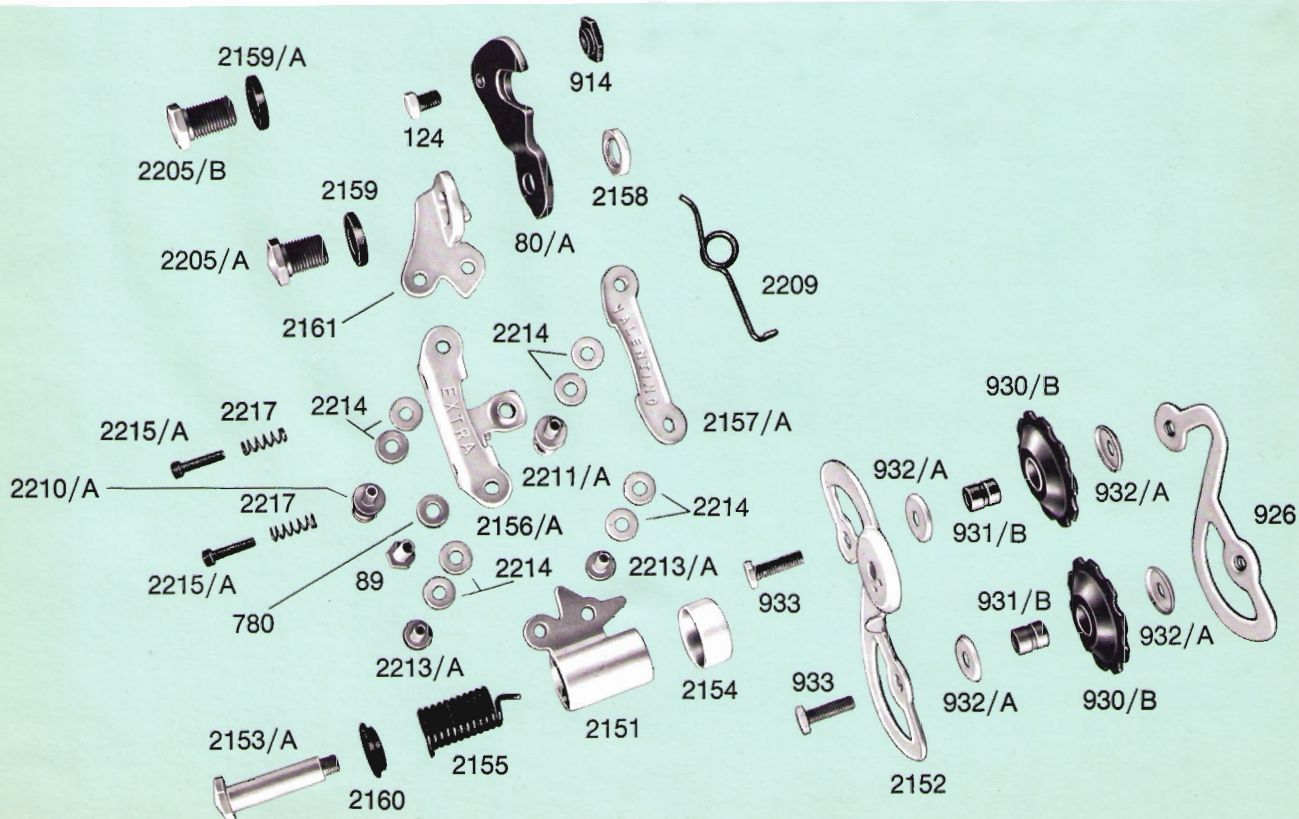
606

# PARTICULAR COMPONENTS OF VALENTINO EXTRA GROUP



2170

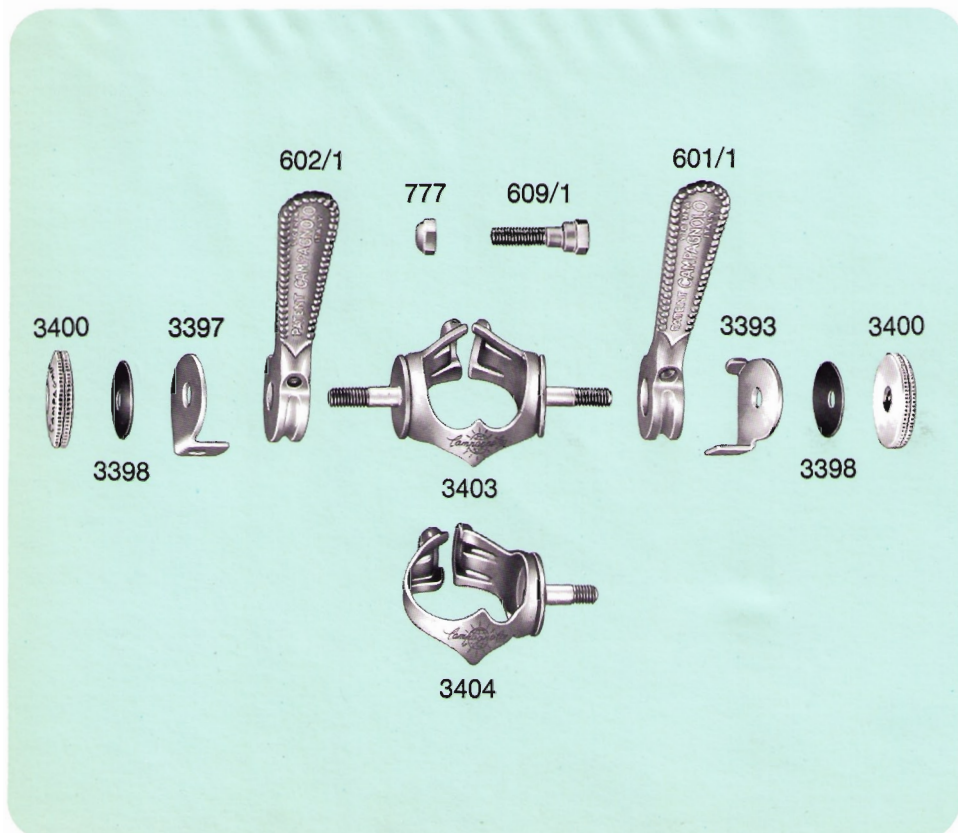
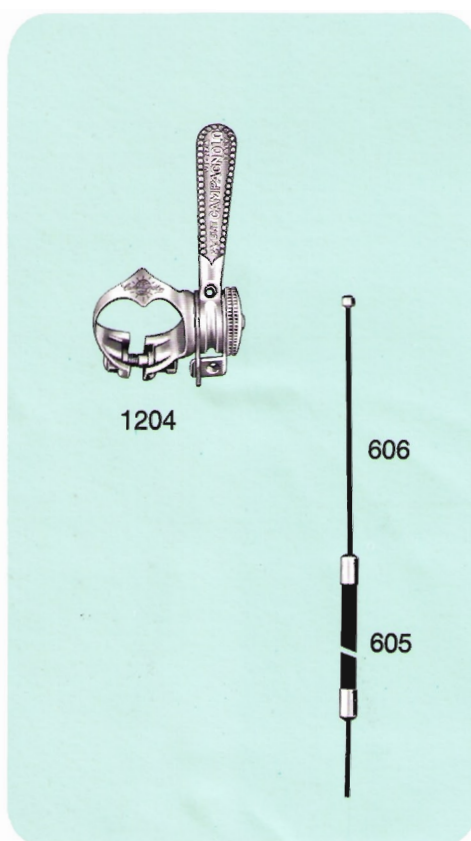
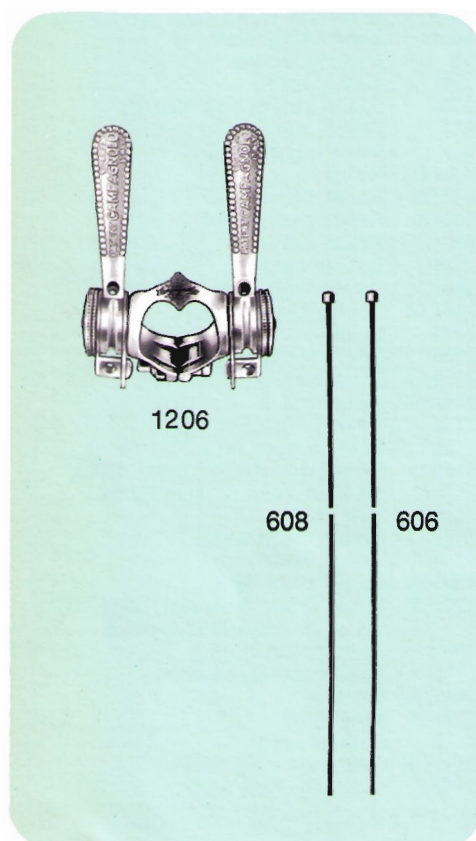
- |        |   |
|--------|---|
| 2170   | Valentino Extra gear with hanger                                  |
| 80/A   | Gear fixing plate   |
| 89     | Locking screw   |
| 124    | Fixing screw  |
| 780    | Cable clamp bolt washer   |
| 914    | Clamp nut   |
| 926    | Inner cage plate  |
| 930/B  | Roller  |
| 931/B  | Roller bush   |
| 932/A  | Roller dust cover   |
| 933    | Roller bolt   |
| 2151   | Spring cage   |
| 2152   | Outer cage plate  |
| 2153/A | Spring cage bolt  |
| 2154   | Cover   |
| 2155   | Gear tension spring   |
| 2156/A | Front arm   |
| 2157/A | Inner arm   |
| 2158   | Gear fixing lock nut  |
| 2159   | Gear hanger bolt  |
| 2159/A | Nylon washer (for gear fixing plate to Record and Sport fork end) |
| 2160   | Spring cage bush  |
| 2161   | Upper body  |
| 2205/A | Fixing pivot bolt   |
| 2205/B | Upper body bolt (for gear fixing plate to Record fork end)        |
| 2209   | Gear return spring  |
| 2210/A | Return spring spindle   |
| 2211/A | Spindle   |
| 2213/A | Arm rivets  |
| 2214   | Spring washer   |
| 2215/A | Gear adjusting screw  |
| 2217   | Adjusting bolt spring   |





# PARTICULAR COMPONENTS OF VALENTINO EXTRA GROUP

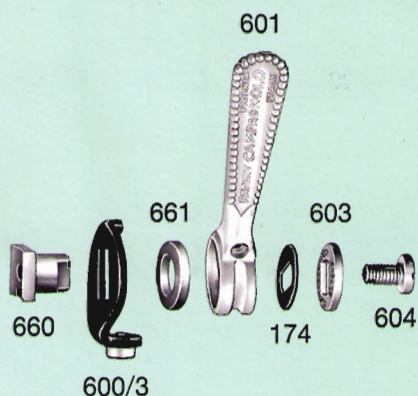
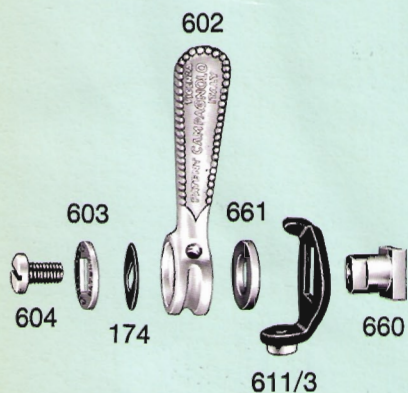
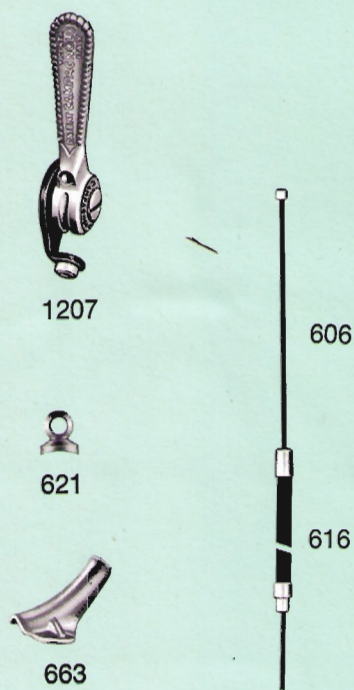
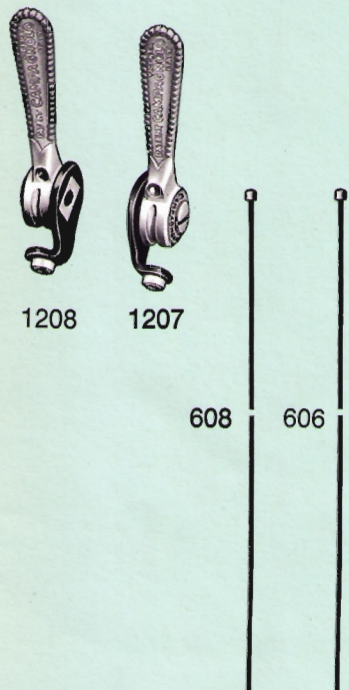
- 1204 Valentino right hand down tube control lever
- 1206 Valentino twin control lever
- 1207 Braze-on gear control
- 1208 Braze-on front changer control
- 174 Friction plate
- 600/3 Right hand braze-on control lever plate with ferrule



**601** Right hand control lever only  
**601/1** Right hand control lever only  
**602** Left hand control lever only  
**602/1** Left hand control lever only  
**603** Cover plate  
**604** Friction adjusting screw  
**605** Gear outer casing (105 cm.)  
**606** Down tube control gear inner wire (118 cm.)

**608** Down tube control front changer inner wire (72 cm.)  
**609/1** Fixing clip bolt  
**611/3** Left hand braze-on control lever plate  
**616** Gear vipla outer casing (23 cm.)  
**621** Braze-on cable stop  
**660** Braze-on boss  
**661** Brazed boss collar

**663** Braze-on cable ferrule  
**777** Nut  
**3393** Right hand toothed washer  
**3397** Left hand toothed washer  
**3398** Elastic washer  
**3400** Toothed nut for Valentino lever  
**3403** Valentino twin control lever clip  
**3404** Valentino right hand lever clip



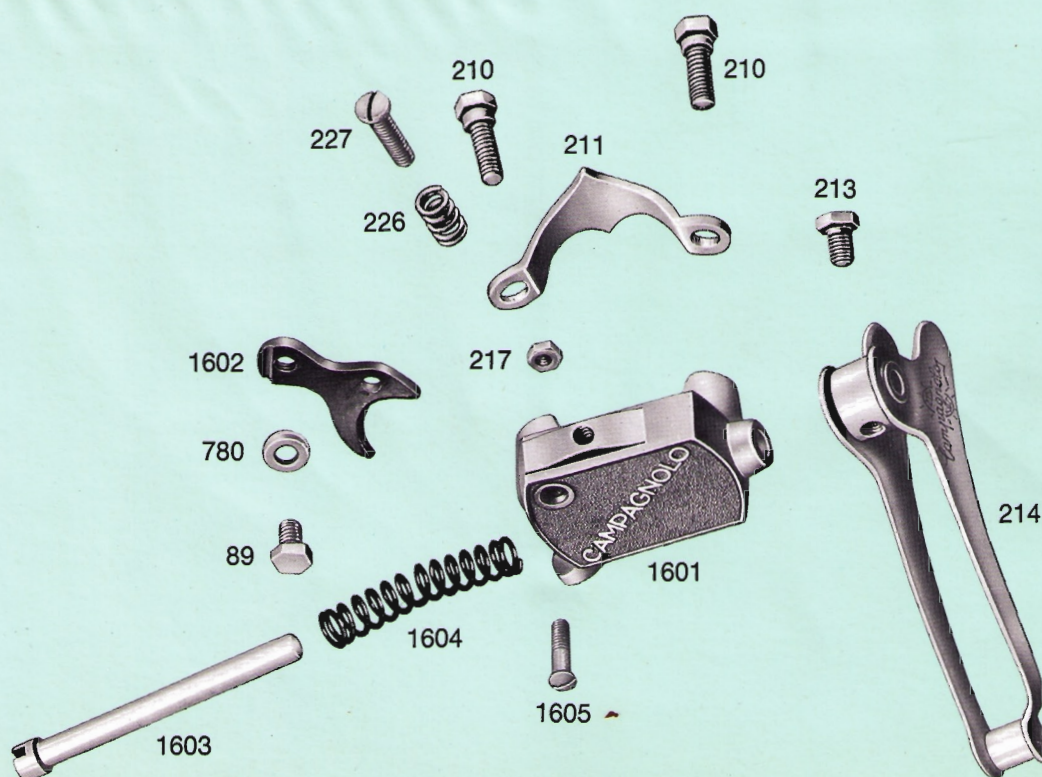


# PARTICULAR COMPONENTS OF VALENTINO EXTRA GROUP

|      |                             |
|------|-----------------------------|
| 2050 | Front changer               |
| 89   | Clamp washer                |
| 210  | Body clip bolt              |
| 211  | Body fixing clip            |
| 213  | Fork fixing bolt            |
| 214  | Fork cage                   |
| 217  | Nut                         |
| 226  | Adjusting bolt spring       |
| 227  | Adjusting lever screw       |
| 780  | Cable clamp bolt washer     |
| 1601 | Front changer body          |
| 1602 | Control fork                |
| 1603 | Spindle                     |
| 1604 | Front changer return spring |
| 1605 | Bolt                        |

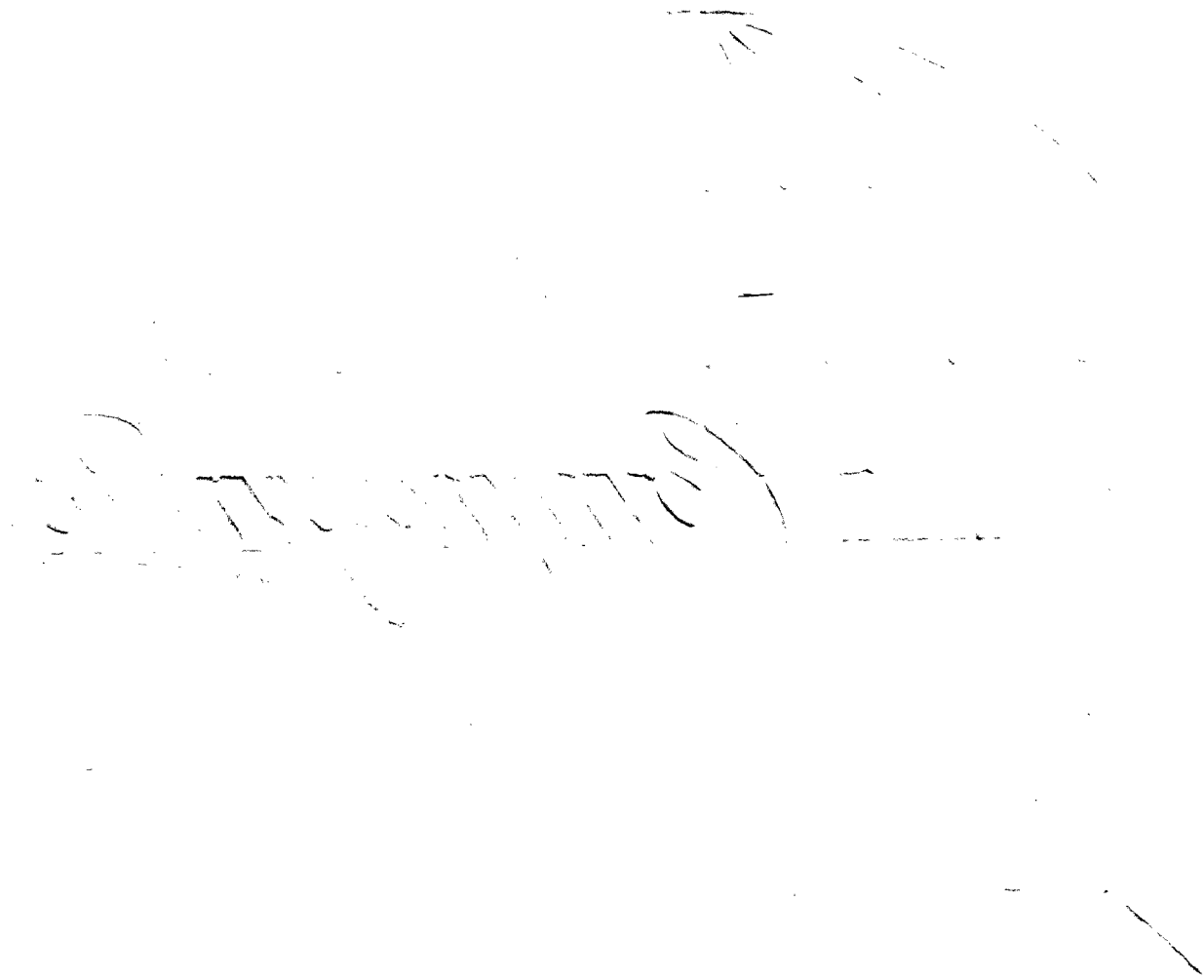


2050



*Campagnolo*





RECORD CHAINWHEEL SETS WITH BOTTOM  
BRACKET SET FOR TRIPLE CHAINRING

pages 72-73-74-75

RECORD CHAINWHEEL SET WITH BOTTOM  
BRACKET SET FOR CYCLOCROSS

pages 76-77

RALLY GEAR FOR LARGE RATIOS

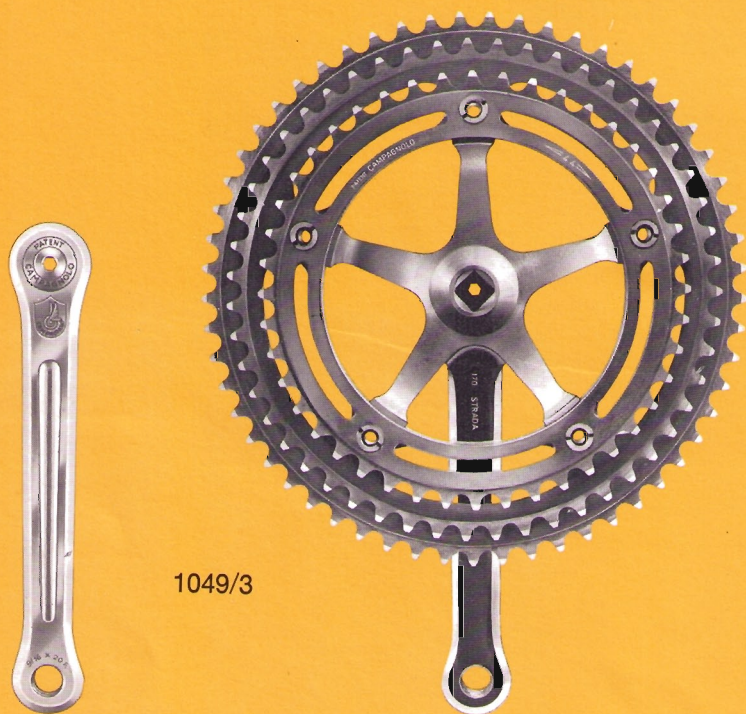
page 78



# 1048/3 CAMPAGNOLO SPECIAL RECORD CHAINWHEEL SET WITH BOTTOM BRACKET SET FOR TRIPLE CHAINRING

- 1046** Record bottom bracket set (with spindle 65-P-110 and cups threaded  $\varnothing 36 \times 24F.$ ). Upon request is furnished the bracket safety sleeve ref. 2110 - 2110/1. See page 81
- 1049/3** Record road chainset for normal triple chainring (with cranks 170 mm., pedal hole  $\varnothing 9/16'' \times 20F.$  and chainrings for chain  $1/2'' \times 3/32''$  [2 mm.]). Specify the number of teeth of the 3 chainrings available from 42T to 57T. Upon request

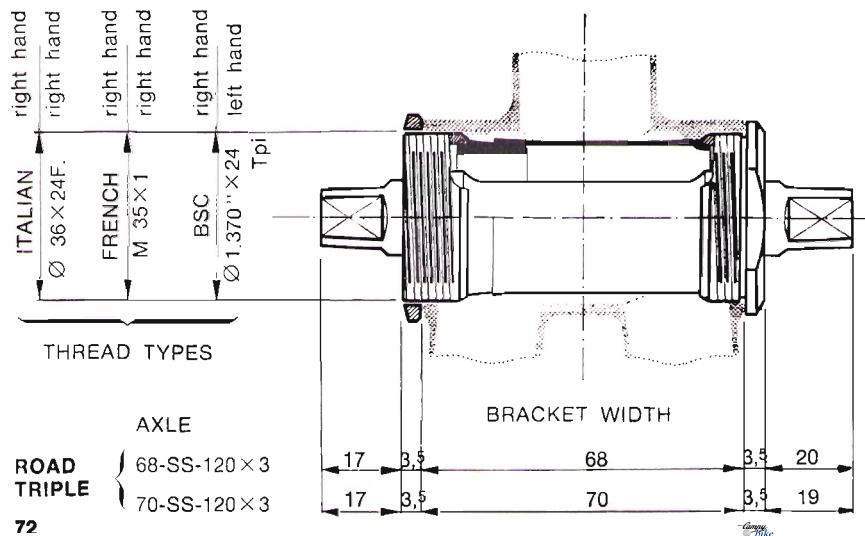
1048/3



1049/3



1046



Details of bracket number:

- The first number indicates the bracket width
- P indicates track
- SS indicates road
- C indicates cross
- Number 110 or 120 indicates the suggested width of the rear hub for a perfect chain alignment (see pages 92-93)

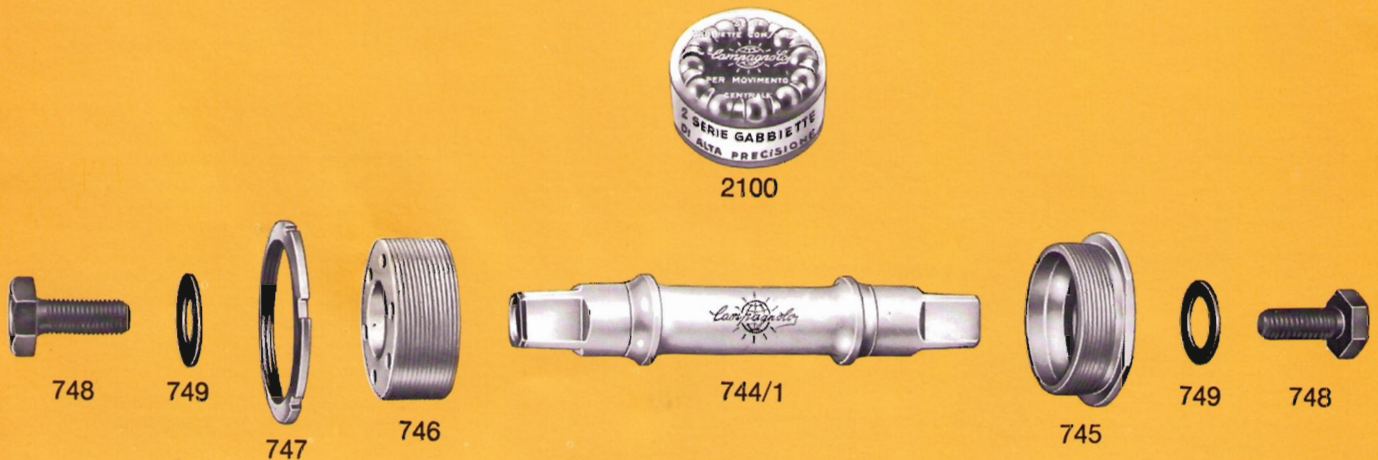
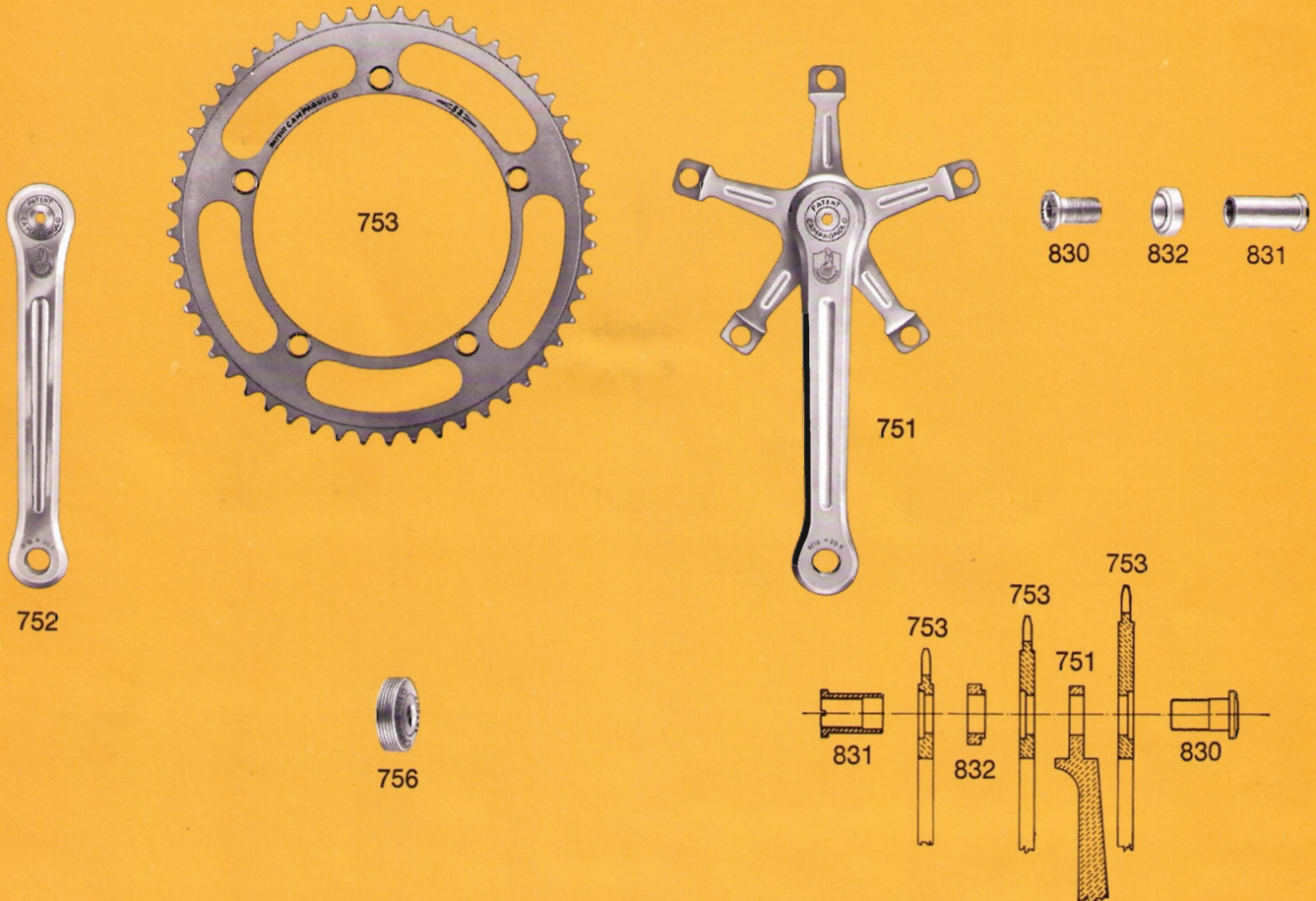
UPON REQUEST WE SUPPLY THE CUPS WITH THREAD INCREASED BY 0,5 mm.



- furnished cranks with  
lengths 165 - 167,5 - - 172,5 -  
175 - 177,5 and 180 mm.
- 744/1** Triple chainring cotterless  
spindle. See measurements and  
indicate spindle size
- 745** Fixed cup.  
Indicate required thread
- 746** Adjustable cup.  
Indicate required thread
- 747** Lockring with normal 3,5 mm.  
thickness (available also with  
4 mm. and 4,5 mm. thickness)  
Indicate required thread

- 748** Fixing screw
- 749** Fixing washer
- 751** Right hand road crank  
(complete with cover 756,  
170 mm. long). Upon request  
are furnished the following  
sizes: 165 - 167,5 - 172,5 - 175 -  
177,5 and 180 mm. long
- 752** Left hand road crank  
complete with cover 756,  
170 mm. long). Upon request  
are furnished the following  
sizes: 165 - 167,5 - 172,5 - 175 -  
177,5 and 180 mm. long

- 753** Road chainring for 1/2" x 3/32"  
(2 mm). chain. Specify the  
number of teeth available from  
42T to 57T
- 756** Crank cover plate
- 830** Triple chainring and  
cyclocross fixing bolt
- 831** Nut for bolt 830
- 832** Triple chainring and cyclocross  
spacer
- 2100** Set (11+11) special Ø 1/4"  
balls selected with 1/1000 of  
mm. tolerance

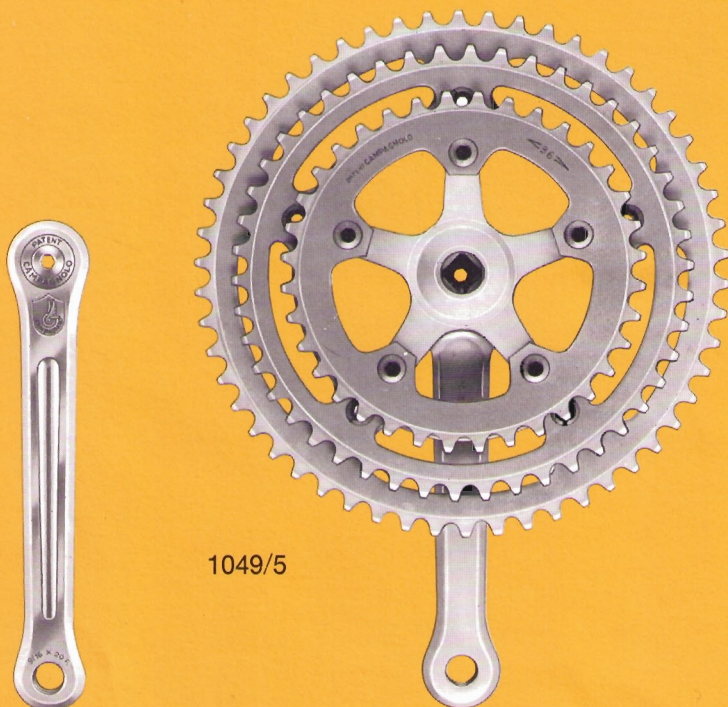




# 1048/5 CAMPAGNOLO RECORD CHAINWHEEL SET WITH BOTTOM BRACKET SET FOR TRIPLE CHAINRING

- 1046** Record bottom bracket set (with spindle 65-P-110 and cups threaded  $\varnothing 36 \times 24F.$ ). Upon request is furnished the bracket safety sleeve ref. 2110 - 2110/1. See page 81
- 1049/5** Triple Record chainset (with cranks 170 mm., pedal hole  $\varnothing 9/16'' \times 20F.$  and chainrings for chain  $1/2'' \times 3/32''$  (2 mm). with small ring in 36T only. Specify the number of the other two chainrings available from 42T to 57T

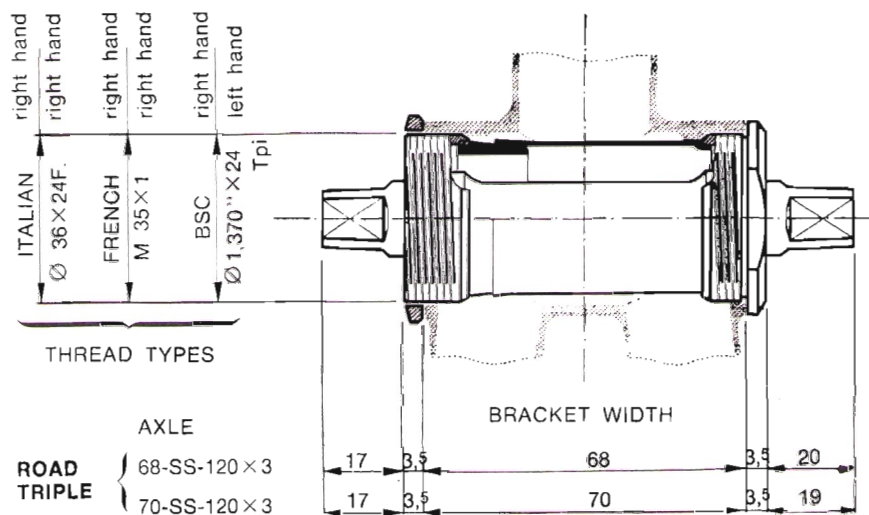
1048/5



1049/5



1046



Details of bracket number:

- The first number indicates the bracket width
- P indicates track
- SS indicates road
- C indicates cross
- Number 110 or 120 indicates the suggested width of the rear hub for a perfect chain alignment (see pages 92-93)

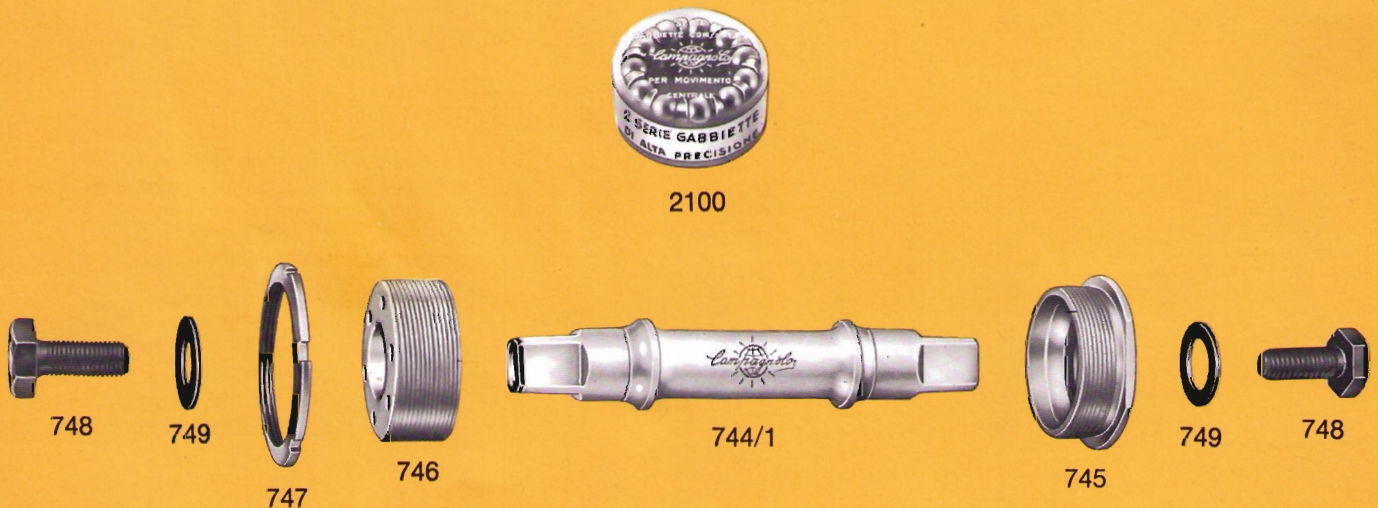
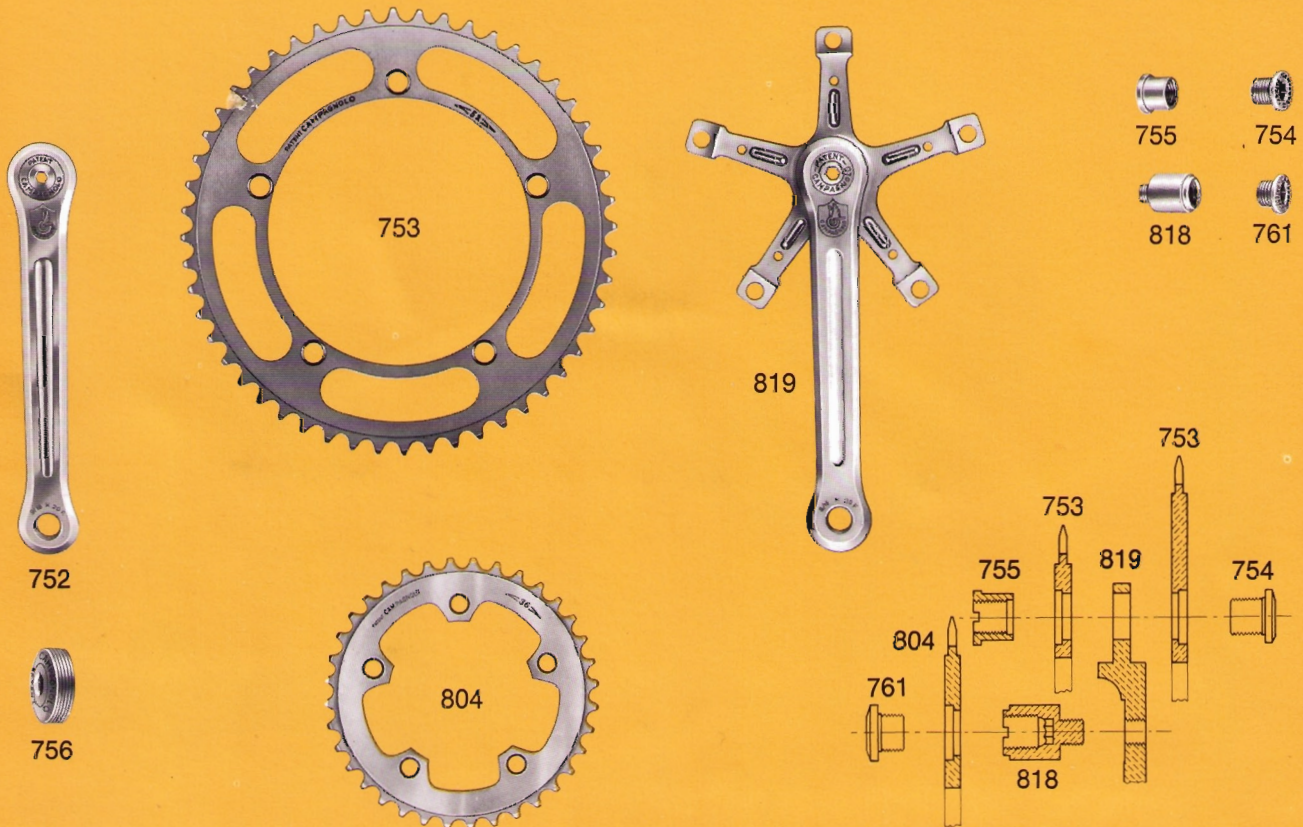
**UPON REQUEST WE SUPPLY THE CUPS WITH THREAD INCREASED BY 0,5 mm.**



- 744/1** Triple chainring cotterless spindle. See measurements and indicate spindle size  
**745** Fixed cup.  
**746** Indicate required thread  
**746** Adjustable cup.  
**746** Indicate required thread  
**747** Lockring with normal 3,5 mm. thickness (available also with 4 mm. and 4,5 mm. thickness)  
**747** Indicate required thread

- 748** Fixing screw  
**749** Fixing washer  
**752** Road left hand crank (complete with cover 756, 170 mm. long)  
**753** Road chainring for 1/2" x 3/32" (2 mm.) chain. Specify the number of teeth available from 42T to 57T  
**754** Road chainwheel fastening screw  
**755** Road chainwheel fastening nut  
**756** Crank cover plate

- 761** Track chainwheel fastening screw  
**804** Chainring for 1/2" x 3/32" (2 mm.) chain with fixed 36 teeth  
**818** Triple chainring spacer  
**819** Right crank for special triple chainring (complete with cover plate 756 - 170 mm. long)  
**2100** Set (11+11) special Ø 1/4" balls selected with 1/1000 of mm. tolerance



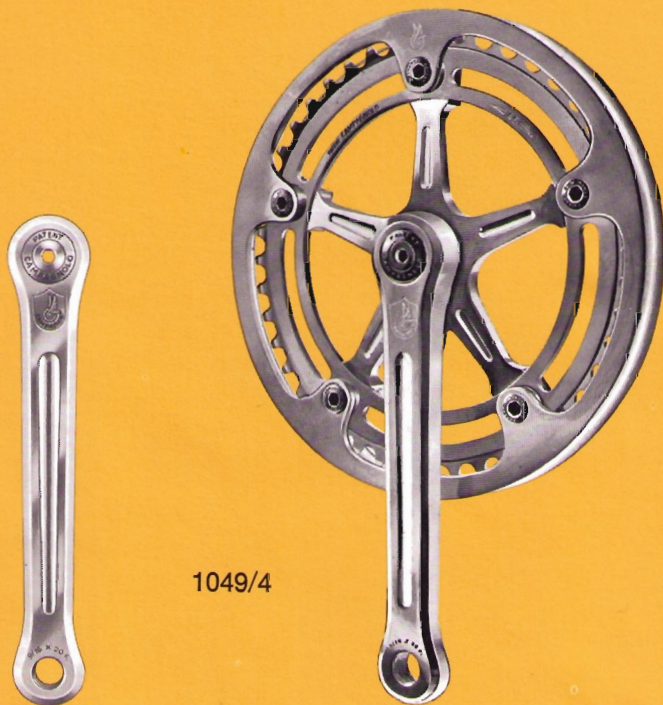


# 1048/4 CAMPAGNOLO RECORD CHAINWHEEL SET WITH BOTTOM BRACKET SET FOR CYCLOCROSS

- 1046** Record bottom bracket set (with spindle 65-P-110 and cups threaded  $\varnothing 36 \times 24F.$ ). Upon request is furnished the bracket safety sleeve ref. 2110 - 2110/1. See page 81
- 1049/4** Cyclocross Record chainset (with cranks 170 mm., pedal hole  $\varnothing 9/16'' \times 20F.$  and chainring for chain  $1/2'' \times 3/32''$  [2 mm.]). Specify the number of teeth of the chainrings

- 744/2** available from 42T to 57T. Upon request furnished cranks with lengths 165 - 167.5 - 172.5 - 175 - 177.5 and 180 mm. Cyclocross cotterless spindle. See measurements and indicate spindle size
- 745** Fixed cup. Indicate required thread
- 746** Adjustable cup. Indicate required thread
- 747** Lockring with normal 3,5 mm.

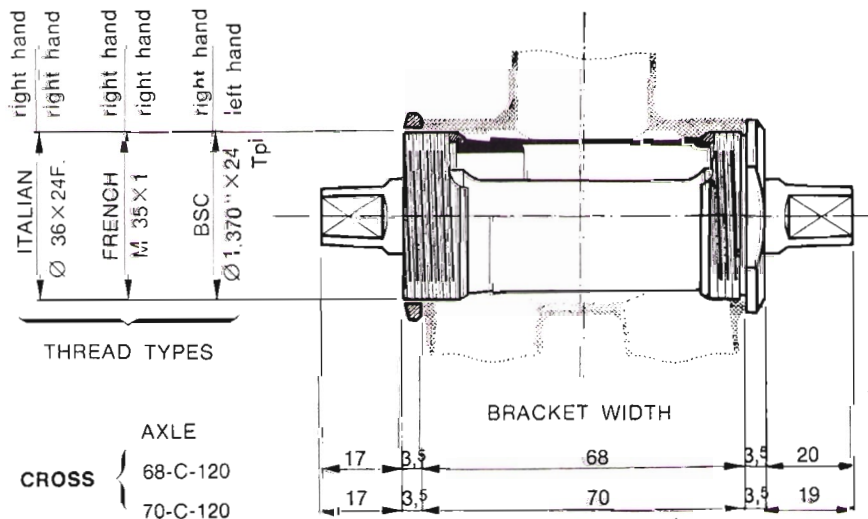
1048/4



1049/4



1046



Details of bracket number:

- The first number indicates the bracket width
- P indicates track
- SS indicates road
- C indicates cross
- Number 110 or 120 indicates the suggested width of the rear hub for a perfect chain alignment (see pages 92-93)

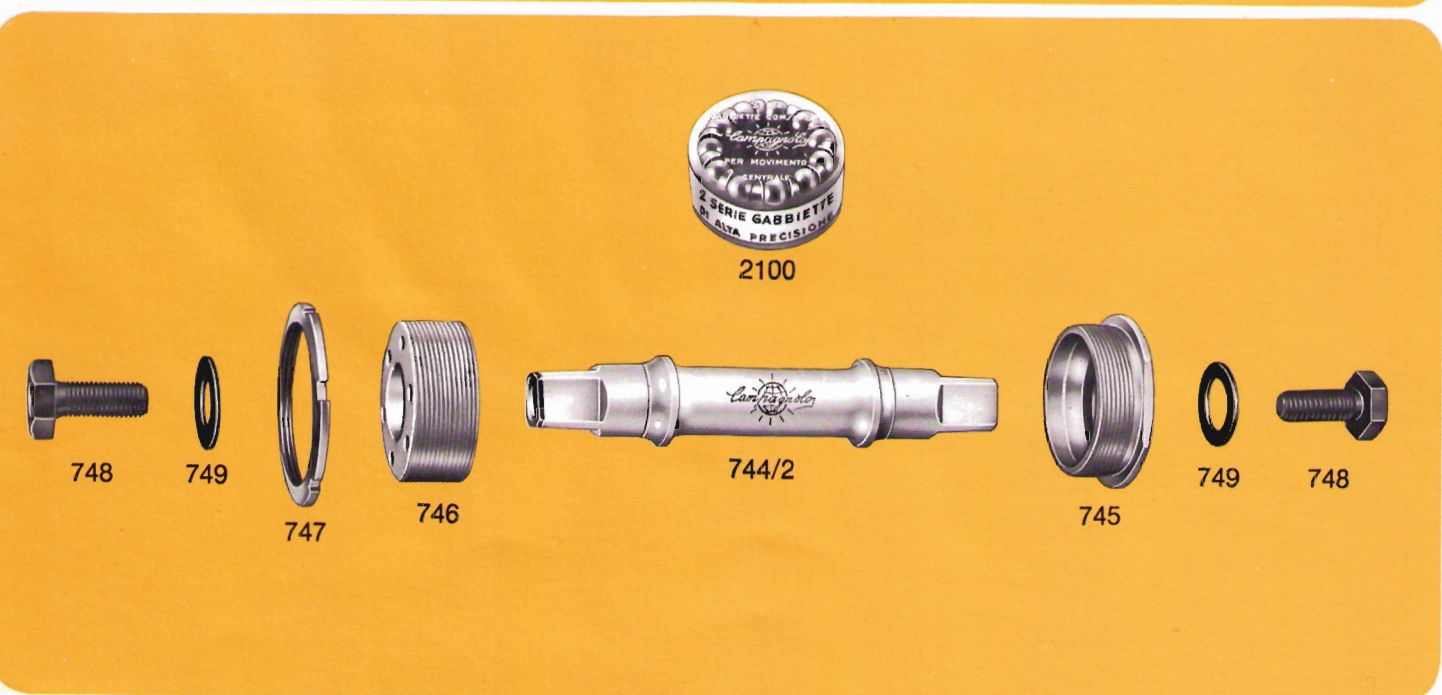
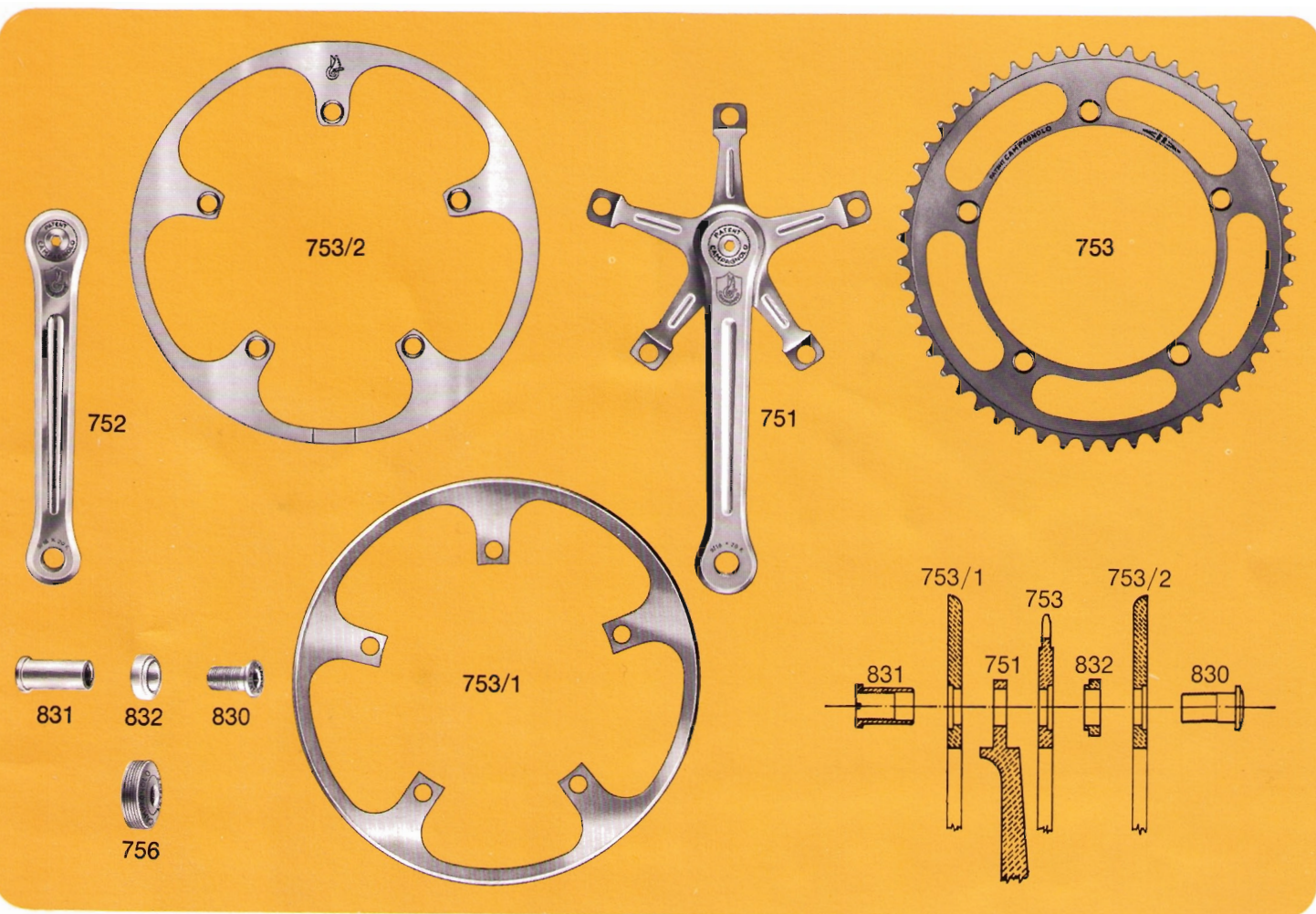
**UPON REQUEST WE SUPPLY THE CUPS WITH THREAD INCREASED BY 0,5 mm.**



- thickness (available also with 4 mm. and 4,5 mm. thickness).  
 748 Indicate required thread  
 749 Fixing screw  
 751 Fixing washer  
 751 Right hand road crank (complete with cover 756, 170 mm. long). Upon request furnished in the following sizes: 165 - 167,5 - 172,5 - 175 - 177,5 and 180 mm. long  
 752 Left hand road crank (complete with cover 756,

- 170 mm. long). Upon request furnished in the following sizes: 165 - 167,5 - 172,5 - 175 - 177,5 and 180 mm. long  
 753 Road chainring for 1/2" x 3/32" (2 mm.) chain. Specify the number of teeth available from 42T to 57T  
 753/1 Cyclocross inner flange. Specify the required diameter. Are furnished with Ø 186 mm. - Ø 198 mm. - Ø 210 mm. and Ø 222 mm.

- 753/2 Cyclocross outer flange. Specify the required diameter. Are furnished with Ø 186 mm. - Ø 198 mm. - Ø 210 mm. and Ø 222 mm.  
 756 Crank cover plate  
 830 Triple chainring and cyclocross fixing bolt  
 831 Nut for bolt 830  
 832 Triple chainring and cyclocross spacer  
 2100 Set (11+11) special Ø 1/4" balls selected with 1/1000 of mm. tolerance





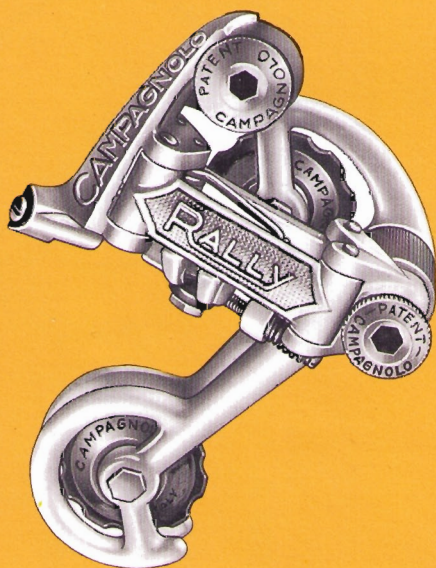
# 3450 CAMPAGNOLO RALLY GEAR FOR LARGE RATIOS

See spares on pages 58-59

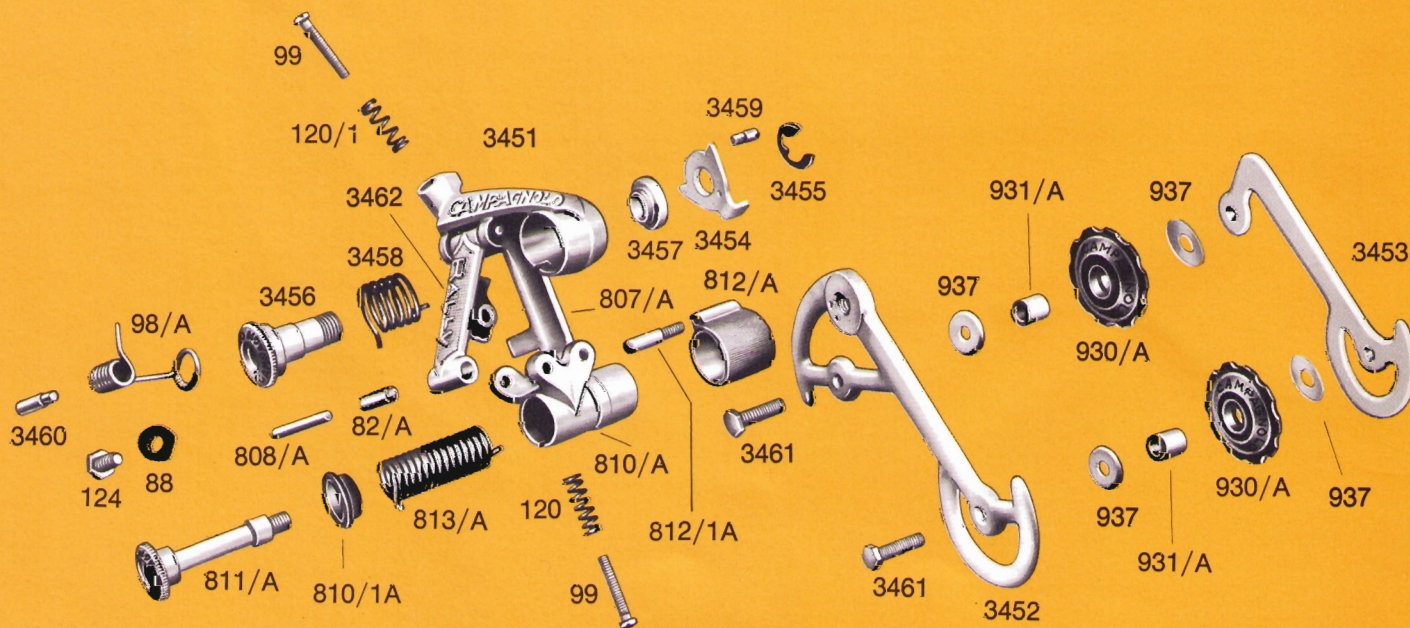
|        |                       |
|--------|-----------------------|
| 82/A   | Body ferrule          |
| 88     | Clamp washer          |
| 98/A   | Gear return spring    |
| 99     | Gear adjusting screw  |
| 120    | Lower adjuster spring |
| 120/1  | Upper adjuster spring |
| 124    | Fixing screw          |
| 807/A  | Inner arm             |
| 808/A  | Spindle               |
| 810/A  | Lower body            |
| 810/1A | Lower body bush       |
| 811/A  | Gear spring bolt      |
| 812/A  | Spring cage cover     |
| 812/1A | Grub screw            |
| 813/A  | Tension spring        |

|       |                     |
|-------|---------------------|
| 930/A | Roller              |
| 931/A | Roller bush         |
| 937   | Roller dust cover   |
| 3451  | Upper body          |
| 3452  | Outer cage plate    |
| 3453  | Inner cage plate    |
| 3454  | Toothed washer      |
| 3455  | Circlip             |
| 3456  | Gear fixing screw   |
| 3457  | Upper body bush     |
| 3458  | Upper body spring   |
| 3459  | Upper body grub     |
| 3460  | Gear return screw   |
| 3461  | Roller fixing screw |
| 3462  | Front arm           |

P.S. For the selection of levers see pages 34-45



3450





*Campagnolo*





11

11

CLIPS - GEAR HANGERS - FORK ENDS  
SPROCKETS - SPECIAL GREASE - SCREWS AND NUTS  
FOR SEAT PIN AND SUNDRIES

pages 80-81



# CAMPAGNOLO VARIOUS SPARES

|       |  |       |  |
|-------|--|-------|--|
| 55    | Spoke disc (specify if for 4 or 5 sprockets)                           | 310   | Sport left hand rear end                           |
| 80/1  | Gear fixing plate  | 311   | Sport right hand rear end                          |
| 80/2  | Fixing plate for Super Record, Nuovo Record and Nuovo Gran Sport gears | 312   | Sport right and left hand fork ends                |
| 80/A  | Fixing plate for Rally and Valentino Extra gears                       | 609/1 | Fixing clip bolt                                   |
| 124   | Fixing screw   | 619   | Outer casing ferrule                               |
| 125   | Clamp nut  | 620   | Spindled ferrule                                   |
| 128/1 | Rear fork end bolt   | 629   | Twin handlebar control clip                        |
| 171   | Clip bolt  | 631   | Clip-on-tunnel and stop with pump holder S/T       |
| 172   | Nut for bolt 171   | 632   | Pump holder  |
| 215   | Cage spanner bolt  | 633   | Clip with pump holder for 10-speed handlebar stops |
| 217   | Cage spacer bolt nut   | 647   | Adaptor shim when fitting 632 to top tube 25 mm.   |



629

777

609/1



631

777

609/1



633

777

609/1



2045



619



620



652



647



649



171



172



648



215



217



632



215



217



2012/2

1010/1



310



311



312



312

1060



1061



1062



1063



1063



128/1



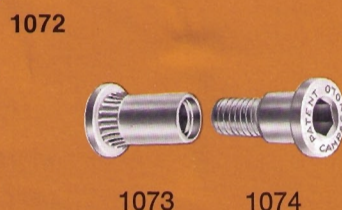
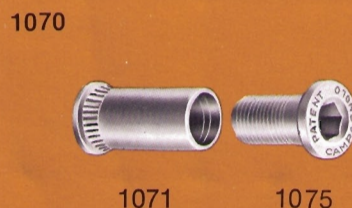
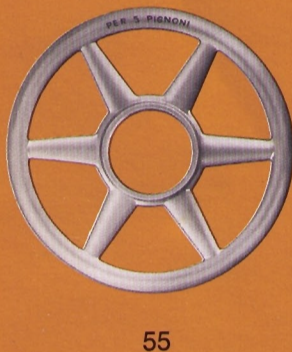
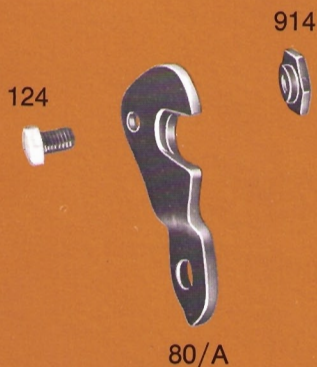
80/1



- 648 Pump peg holder  
 649 Stainless steel brake cable clip  
 651 Freewheel spacer  
 (1 - 1,5 - 2 mm. thick)  
 652 Safety cable  
 763 Standard sprocket for 1/2" x 1/8"  
 (3 mm.) chain (sprockets with  
 12 - 13 - 14 - 15 - 16 teeth  
 available). Upon request are  
 furnished sprockets for chain  
 1/2" x 3/32" (2 mm.).  
 763/A Superlight sprocket for  
 1/2" x 1/8" (3 mm.) chain  
 (sprockets with 12 - 13 - 14 - 15 -  
 16 teeth available).  
 Upon request furnished

- 777 sprockets for chain 1/2" x 3/32"  
 (2 mm.).  
 914 Nut  
 914 Clamp nut  
 1010/1 Set Sport front and rear fork  
 ends  
 1060 Set Corsa front and rear fork  
 ends  
 1061 Corsa left hand rear fork ends  
 1062 Corsa right hand rear fork ends  
 1063 Corsa right and left hand fork  
 ends  
 1070 Screw and nut for fixing seat pin  
 to frame (Ø 10)  
 1071 Nut for fixing seat pin to frame  
 (Ø 10)

- 1072 Screw and nut for fixing seat pin  
 to frame (Ø 8)  
 1073 Nut for fixing seat pin to frame  
 (Ø 8)  
 1074 Bolt for fixing seat pin to frame  
 (Ø 8)  
 1075 Bolt for fixing seat pin to frame  
 (Ø 10)  
 2012/2 Rear brake center bolt  
 2045 Brake outer casing ferrule  
 2110 Record sleeve  
 2110/1 Cone for sleeve  
 3385 100 grs. tin special grease  
 3386 500 grs. tin special grease  
 3387 1 kg. tin special grease







A wireframe globe is centered on the page. It consists of a grid of lines representing latitude and longitude. The word "Campagnolo" is written in a blue, stylized script font across the middle of the globe, slightly overlapping the grid lines.

*Campagnolo*



Handwritten text, possibly a signature or name, written in cursive script across the middle of the page.

TOOL CASES

pages 84-85-86-87-88

SPECIAL TOOLS AND BICYCLE  
ASSEMBLING STAND

pages 88-89

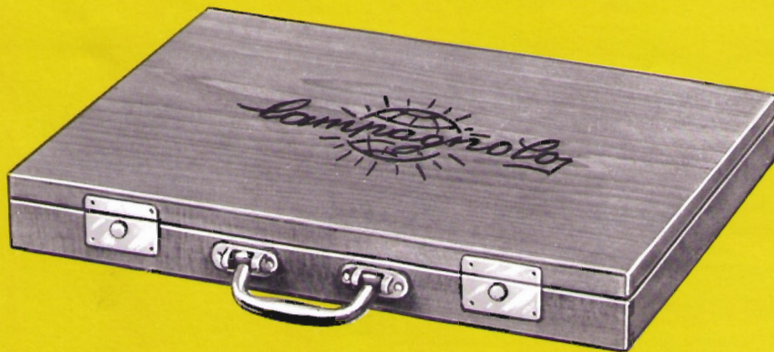






### 3381 CAMPAGNOLO REDUCED TOOL CASE

(USED ONLY FOR THE FITTING OF HEAD SET AND BOTTOM BRACKET SET)





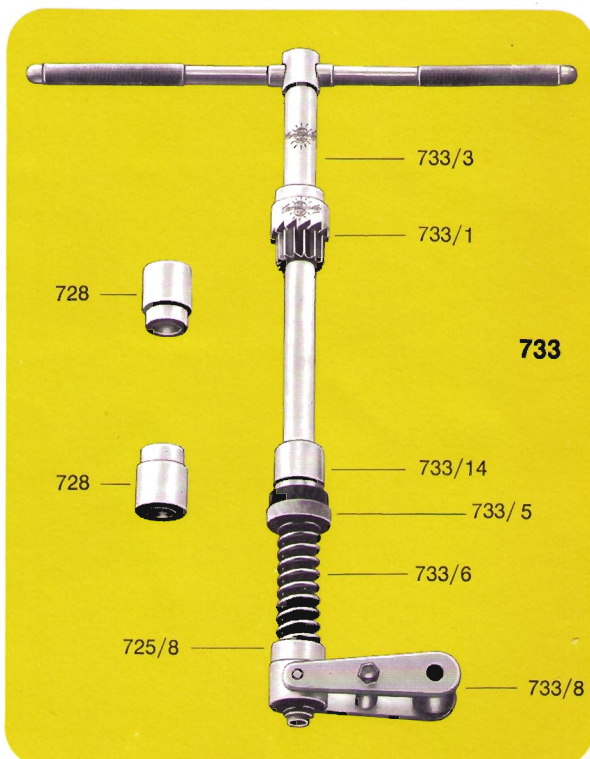
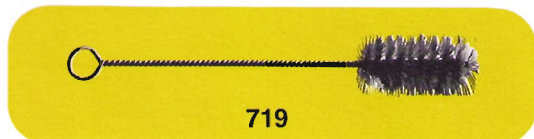
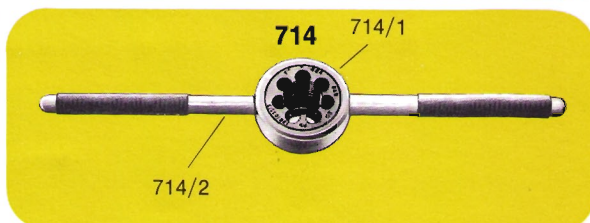
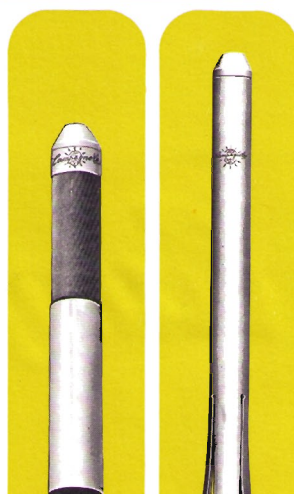
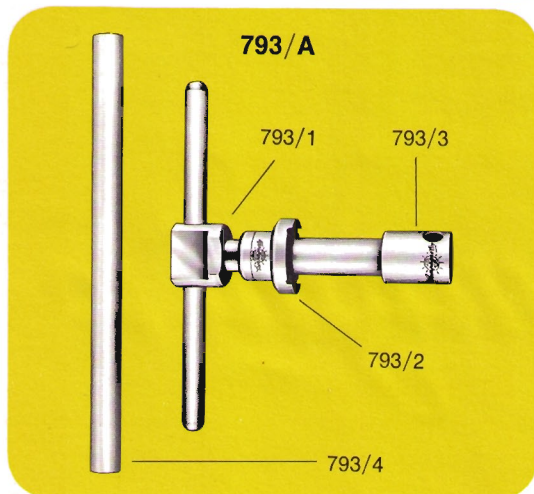
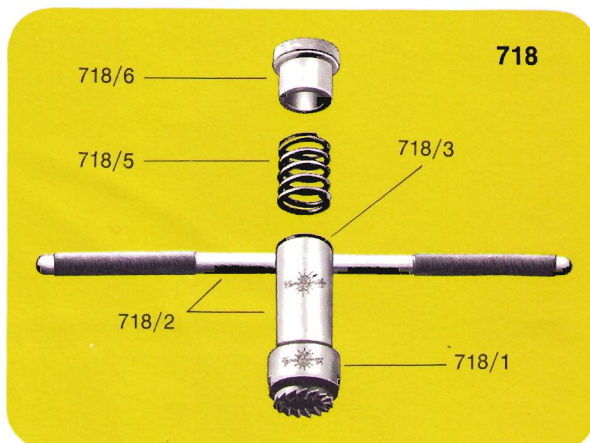
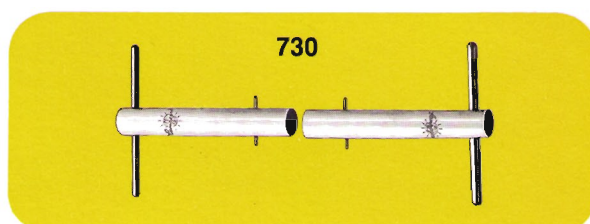
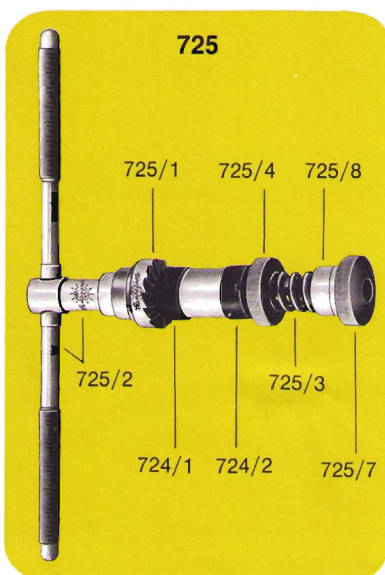
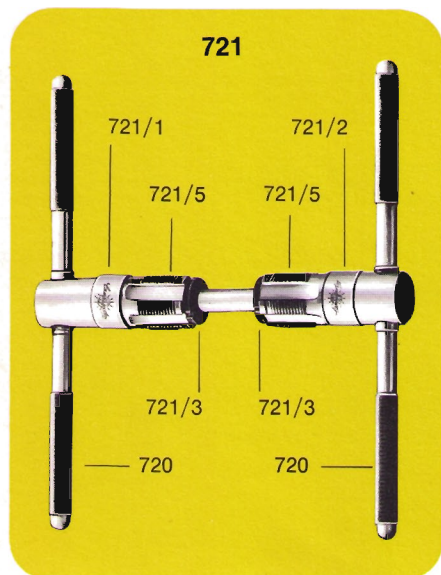
# TOOLS CONTAINED IN TOOL CASES 3380 - 3381

P.S. ALL TOOLS MARKED WITH AN ASTERISK (\*) ARE THOSE  
CONTAINED IN THE REDUCED TOOL CASE 3381

- 712 \* Bottom bracket locking tool  
712/1 \* Bottom bracket adjusting cup tool  
712/2 \* Spacing spring for 712/1  
712/3 \* Spacing spring for head set tool  
713 \* Bottom bracket fixed cup tool  
714 \* Fork column die (specify size of threading), composed by:

- 714/1 Fork column die (specify size of threading)  
714/2 Die holder body  
718 \* Crown race cutter, composed by:  
718/1 \* Crown race mill  
718/2 \* Cutter holder with rotation lever  
718/3 \* Guide ring  
718/5 \* Tension spring

- 718/6 \* Threaded locking (specify size of threading)  
719 Brush  
721 \* Bottom bracket double tap (specify size of threading) composed by:  
720 \* Rotation lever  
721/1 \* Tap body with stem  
721/2 \* Tap body with stem guide hole  
721/3 \* Tap locking nut  
721/5 \* Spare tap (specify size of threading)  
722 \* Headset cup punch  
723 Headset cup remover  
725 \* Bottom bracket face cutter, composed by:

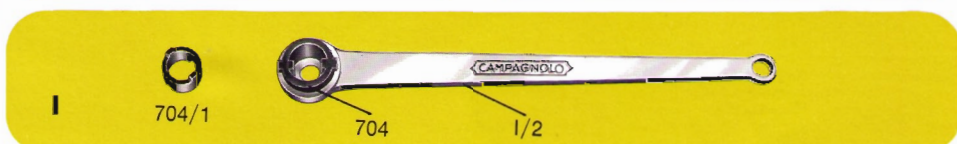
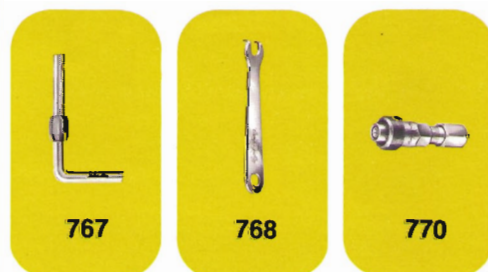
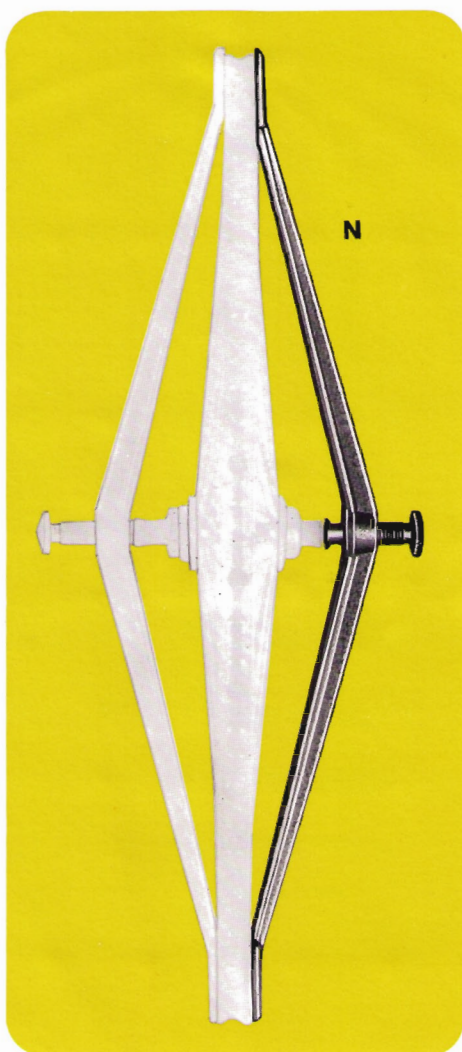
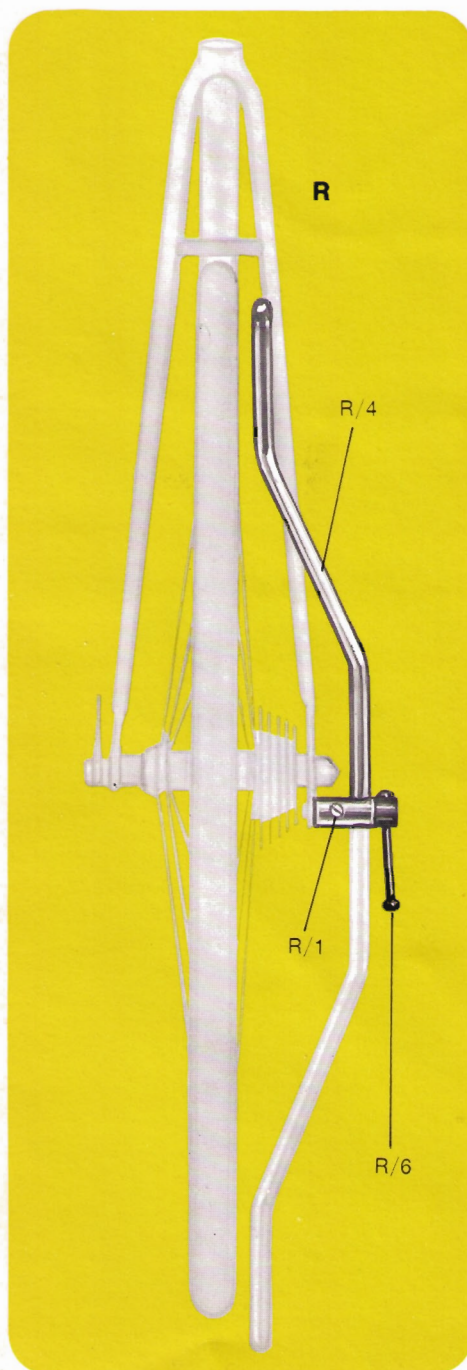
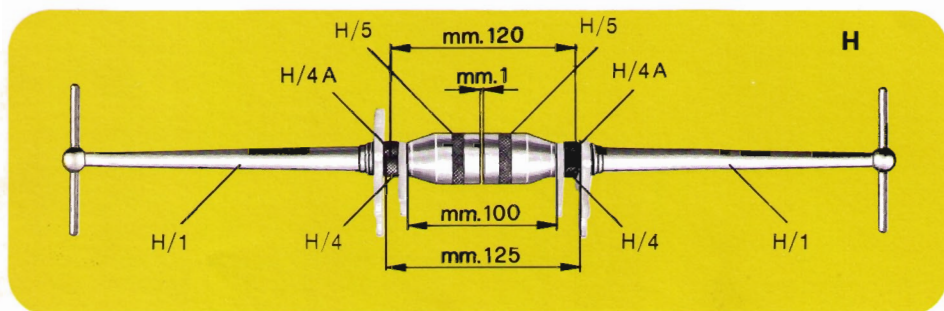




- 724/1 \* Inner threaded guide sleeve for cutter 725 (specify size of threading)
- 724/2 \* Outer threaded guide sleeve for cutter 725 (specify size of threading)
- 725/1 \* Mill
- 725/2 \* Cutter holder stem with rotation lever
- 725/3 \* Tension spring
- 725/4 \* Washer
- 725/7 \* Threaded locking
- 725/8 \* Toothed washer
- 729 \* Fork crown race remover
- 730 \* Set of keys for sleeve 724/1 and 724/2
- 731 Headset jig
- 732 Fork crown jig
- 733 \* Head race mill, composed by:
- 725/8 \* Toothed washer
- 728 \* Sleeve for art. 733
- 733/1 \* Head race mill
- 733/3 \* Cutter holder with rotation lever
- 733/5 \* Washer
- 733/6 \* Tension spring
- 733/8 \* Locking stirrup
- 733/14 \* Centraliser sleeve
- 767 \* « L » shaped chainwheel screw alley key - 5 mm.
- 768 Chainwheel screw peg spanner
- 769 \* Cotterless b/b axle spanner
- 770 \* Cotterless crank extractor

- 793/A Right hand bottom bracket tool, composed by:
- 793/1 Tool holder body with rotation lever
- 793/2 36 mm. tool
- 793/3 Cutter sleeve
- 793/4 Tube for rotation tool
- G Straight edge for the alignment of the rudder pedals
- H Back stay tool for the perfect alignment of forks and fork ends, composed by:
- H/1 Stem with lever
- H/4 Spacer for 120 mm. width
- H/4A Additional spacer for 125 mm. width (to match with spacer H/4)
- H/5 Cup
- I 14t. freewheel tool, composed by:
- I/2 Ring nut lever holder
- 704 Insert for freewheel removing tool fig. I
- 704/1 Reducing insert tool fig. I for 13t. freewheel.  
(This tool is furnished only upon specific request)
- N Wheel dish tool for checking the centering of the rim to the locknuts of hubs
- R Back stay tool for checking the hanger of the right hand fork end, composed by:
- R/1 Screw
- R/4 Rotating rod
- R/6 Spindle with lever

(follows at page 88)





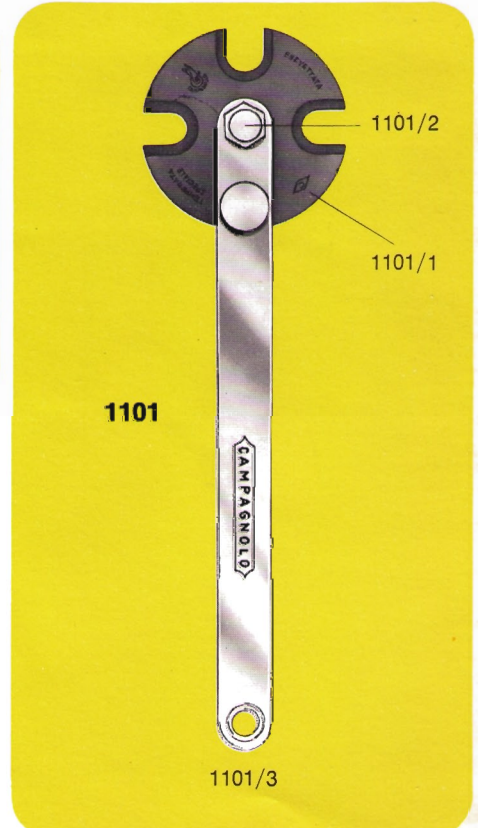
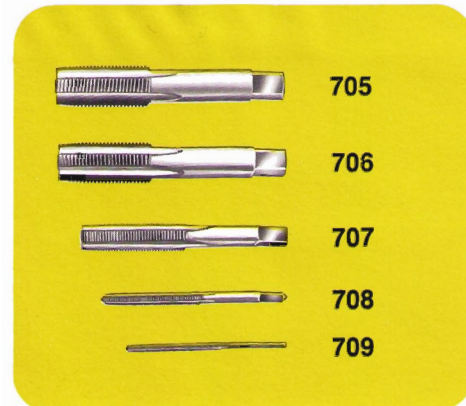
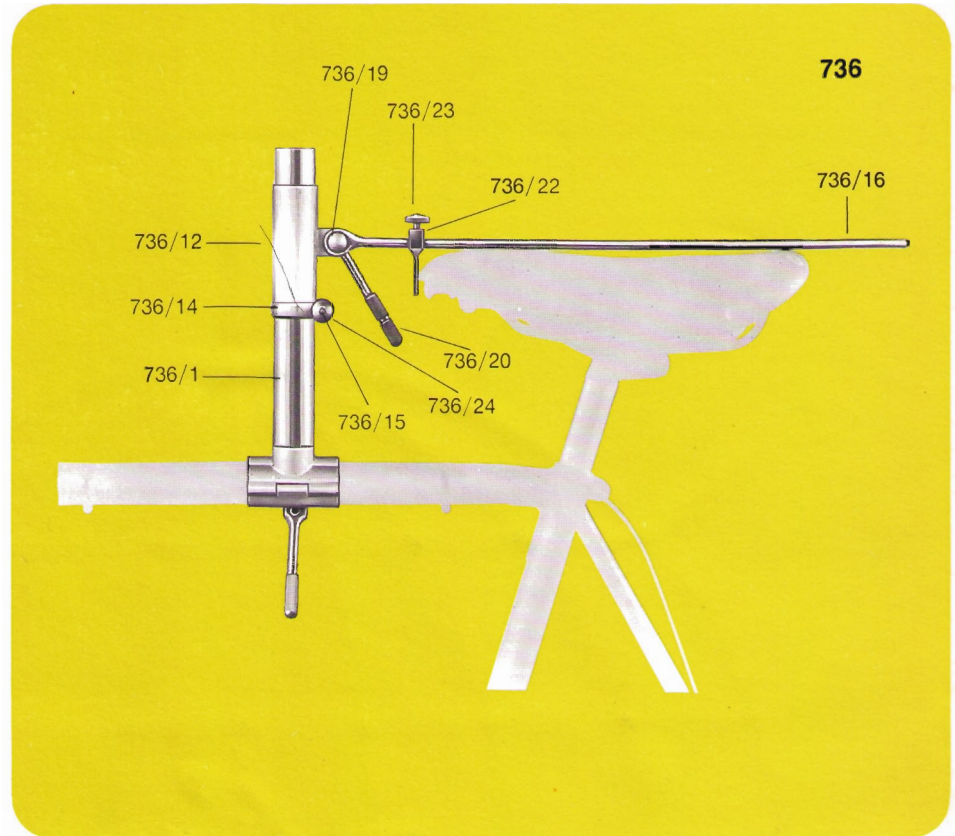
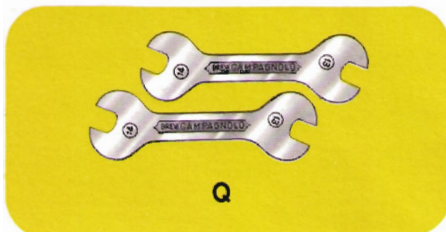
(continues from page 87)

- 143/2 T wrench 6-8 mm.  
 710 Pedal wrench  
 771 Saddle spanner  
 2025 Special brake spanner  
 P Axle holding tool  
 Q Set of tools for cones and locknuts (13-14 mm.).  
 Upon request the set is furnished with tools 15-16 mm.

## CAMPAGNOLO SPECIAL TOOLS

NON CONTAINED IN TOOL CASES 3380 - 3381

- |       |  |        |                              |
|-------|--|--------|------------------------------|
| 705   | Pedal tap right hand<br>Ø 9/16" x 20F. thread  | 736/12 | Sliding rod holder           |
| 706   | Pedal tap left hand<br>Ø 9/16" x 20F. thread   | 736/14 | Sliding adjusting clip       |
| 707   | Gear hanger tap Ø 10 x 26F. thread   | 736/15 | Clip fixing screw            |
| 708   | Mudguard eye tap M5 x 0,8  | 736/16 | Saddle positioning rod       |
| 709   | Rear end adjuster tap M3 x 0,5   | 736/19 | Rod locking screw            |
| 736   | Alignment to maintain in position the saddle when replacing the seat pin and the pin, composed by: | 736/20 | Rod quick release lever      |
|       |  | 736/22 | Saddle positioning plate     |
|       |  | 736/23 | Plate quick release screw    |
|       |  | 736/24 | Clip locking stirrup         |
|       |  | 1101   | Pedal spanner, composed by:  |
|       |  | 1101/1 | Multiple head (15-16-17 mm.) |
|       |  | 1101/2 | Head locking screw           |
| 736/1 | Stanchion with hinge   | 1101/3 | Multiple tool lever          |





## 1102 CAMPAGNOLO BICYCLE ASSEMBLING STAND



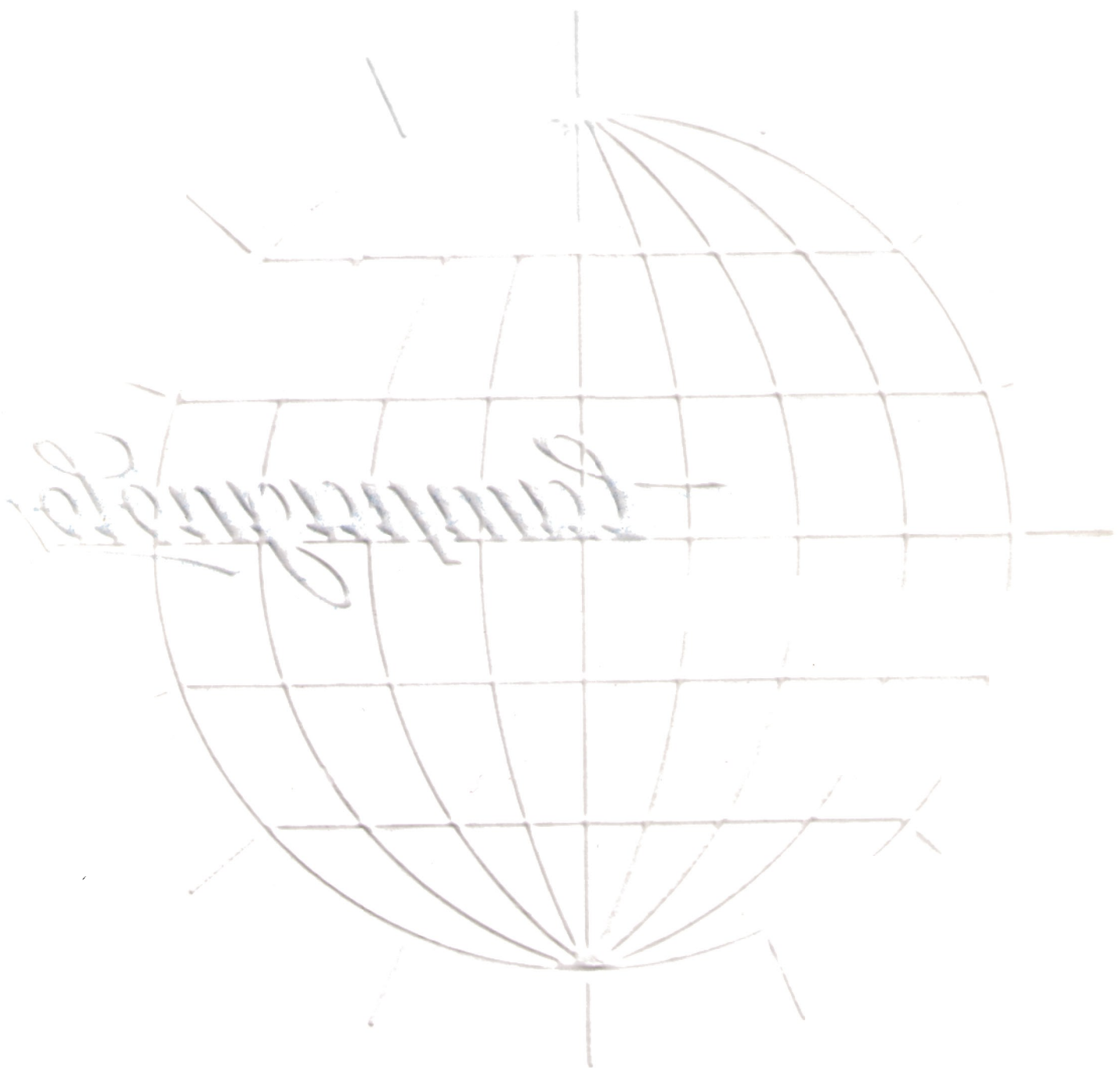
1102





*Campagnolo*





CHAIN LINES

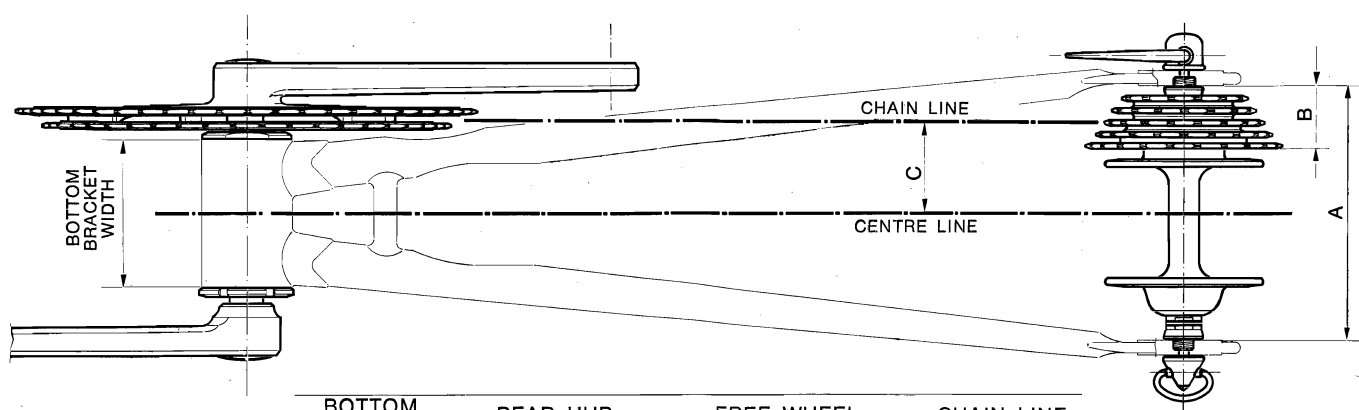
pages 92-93

GEAR RATIO TABLES

pages 94-95-96

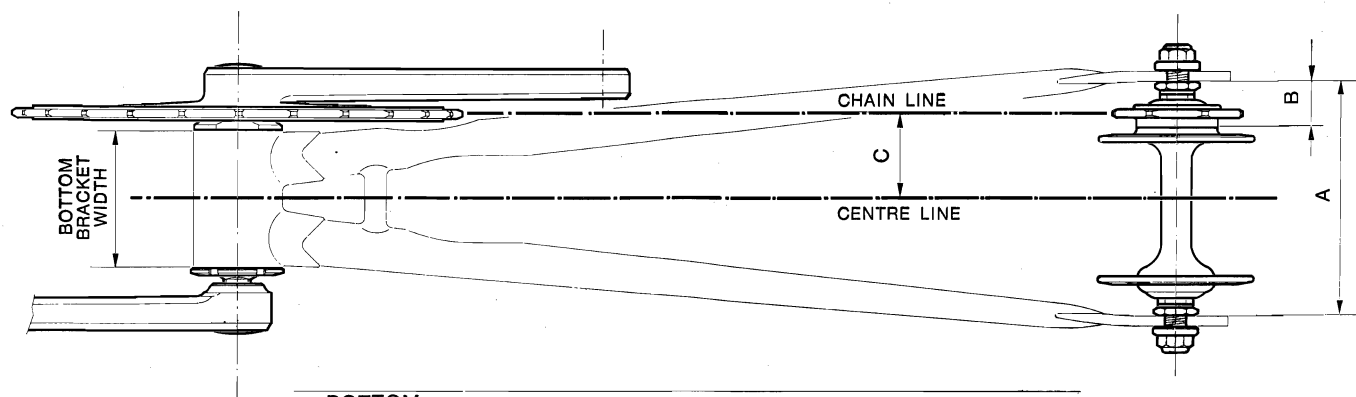


## ROAD CHAIN LINE



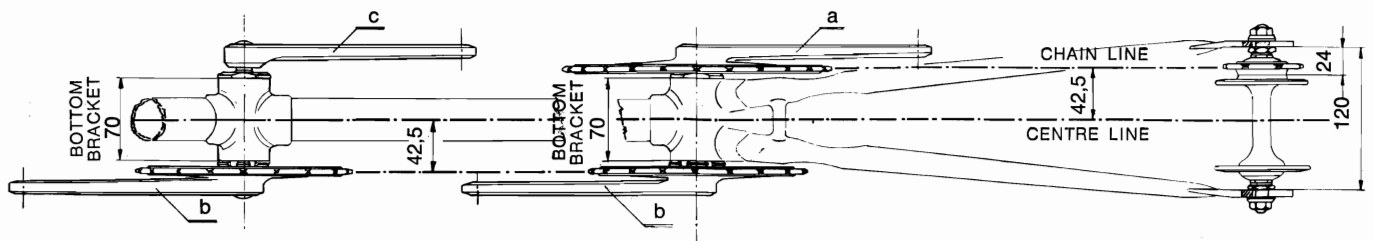
| BOTTOM<br>BRACKET<br>WIDTH | REAR HUB<br>WIDTH « A » | FREE WHEEL<br>WIDTH « B » | CHAIN LINE<br>« C » |
|----------------------------|-------------------------|---------------------------|---------------------|
| 68                         | 120                     | 29                        | 43,5                |
| 70                         | 120                     | 29                        | 43,5                |
| 74                         | 120                     | 29                        | 43,5                |

## TRACK CHAIN LINE



| BOTTOM<br>BRACKET<br>WIDTH | REAR HUB<br>WIDTH « A » | SPROCKET<br>WIDTH « B » | CHAIN LINE<br>« C » |
|----------------------------|-------------------------|-------------------------|---------------------|
| 65                         | 110                     | 21.5                    | 40                  |
| 68                         | 110                     | 21.5                    | 40                  |
| 68                         | 120                     | 24                      | 42,5                |
| 70                         | 120                     | 24                      | 42,5                |

## TANDEM CHAIN LINE



- |          |  |
|----------|--|
| <b>a</b> | TRACK RIGHT HAND STANDARD CRANK              |
| <b>b</b> | TRACK RIGHT HAND CRANK WITH LEFT HAND THREAD |
| <b>c</b> | TRACK LEFT HAND CRANK WITH RIGHT HAND THREAD |



# GEAR TABLES

Development in metres for a complete turn of cranks

$$\text{Ratio} = \frac{\text{Number of teeth on chainring}}{\text{Number of teeth on sprocket}} \times \text{diameter of wheel 670}$$

| Number of teeth on sprocket | Number of teeth on chainring |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                             | 6                            |      | 7    |      | 8    |      | 9    |      | 10   |      | 11   |      | 12   |      | 13   |
|                             | 12                           | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   |
| 20 o 40                     | 7,01                         | 6,47 | 6,01 | 5,61 | 5,26 | 4,95 | 4,67 | 4,42 | 4,20 | 4,00 | 3,82 | 3,66 | 3,50 | 3,36 | 3,23 |
| 41                          | 7,19                         | 6,63 | 6,16 | 5,75 | 5,39 | 5,07 | 4,79 | 4,53 | 4,31 | 4,10 | 3,92 | 3,75 | 3,59 | 3,44 | 3,31 |
| 21 o 42                     | 7,36                         | 6,79 | 6,31 | 5,89 | 5,52 | 5,19 | 4,90 | 4,65 | 4,41 | 4,20 | 4,01 | 3,84 | 3,68 | 3,53 | 3,39 |
| 43                          | 7,54                         | 6,96 | 6,46 | 6,03 | 5,65 | 5,32 | 5,02 | 4,76 | 4,52 | 4,30 | 4,11 | 3,93 | 3,77 | 3,61 | 3,47 |
| 22 o 44                     | 7,71                         | 7,12 | 6,61 | 6,17 | 5,78 | 5,44 | 5,14 | 4,87 | 4,63 | 4,40 | 4,20 | 4,02 | 3,85 | 3,70 | 3,56 |
| 45                          | 7,89                         | 7,28 | 6,76 | 6,31 | 5,91 | 5,57 | 5,26 | 4,98 | 4,73 | 4,50 | 4,30 | 4,11 | 3,94 | 3,78 | 3,64 |
| 23 o 46                     | 8,06                         | 7,44 | 6,91 | 6,45 | 6,04 | 5,69 | 5,37 | 5,09 | 4,84 | 4,60 | 4,39 | 4,21 | 4,03 | 3,86 | 3,72 |
| 47                          | 8,24                         | 7,60 | 7,06 | 6,59 | 6,18 | 5,81 | 5,49 | 5,20 | 4,94 | 4,70 | 4,49 | 4,30 | 4,12 | 3,95 | 3,80 |
| 24 o 48                     | 8,42                         | 7,77 | 7,21 | 6,73 | 6,31 | 5,94 | 5,61 | 5,31 | 5,05 | 4,80 | 4,59 | 4,39 | 4,20 | 4,03 | 3,88 |
| 49                          | 8,59                         | 7,93 | 7,36 | 6,87 | 6,44 | 6,06 | 5,72 | 5,42 | 5,15 | 4,91 | 4,68 | 4,48 | 4,29 | 4,12 | 3,96 |
| 25 o 50                     | 8,77                         | 8,09 | 7,51 | 7,01 | 6,57 | 6,19 | 5,84 | 5,53 | 5,26 | 5,01 | 4,78 | 4,57 | 4,38 | 4,20 | 4,04 |
| 51                          | 8,94                         | 8,25 | 7,66 | 7,15 | 6,70 | 6,31 | 5,96 | 5,64 | 5,36 | 5,11 | 4,87 | 4,66 | 4,47 | 4,28 | 4,12 |
| 26 o 52                     | 9,12                         | 8,41 | 7,81 | 7,29 | 6,83 | 6,43 | 6,07 | 5,75 | 5,47 | 5,21 | 4,97 | 4,75 | 4,56 | 4,37 | 4,20 |
| 53                          | 9,29                         | 8,58 | 7,96 | 7,43 | 6,96 | 6,56 | 6,19 | 5,86 | 5,57 | 5,31 | 5,06 | 4,84 | 4,62 | 4,45 | 4,28 |
| 27 o 54                     | 9,47                         | 8,74 | 8,11 | 7,57 | 7,10 | 6,68 | 6,31 | 5,97 | 5,68 | 5,41 | 5,16 | 4,94 | 4,73 | 4,54 | 4,36 |
| 55                          | 9,64                         | 8,90 | 8,26 | 7,71 | 7,23 | 6,80 | 6,42 | 6,08 | 5,78 | 5,51 | 5,25 | 5,03 | 4,82 | 4,62 | 4,45 |
| 28 o 56                     | 9,82                         | 9,06 | 8,41 | 7,85 | 7,36 | 6,93 | 6,54 | 6,19 | 5,89 | 5,61 | 5,35 | 5,12 | 4,91 | 4,70 | 4,53 |

$$\text{Ratio} = \frac{\text{Number of teeth on chainring}}{\text{Number of teeth on sprocket}} \times \text{diameter of wheel 680}$$

| Number of teeth on sprocket | Number of teeth on chainring |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                             | 6                            |      | 7    |      | 8    |      | 9    |      | 10   |      | 11   |      | 12   |      | 13   |
|                             | 12                           | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   |
| 20 o 40                     | 7,12                         | 6,57 | 6,10 | 5,69 | 5,34 | 5,02 | 4,74 | 4,50 | 4,27 | 4,07 | 3,88 | 3,71 | 3,56 | 3,42 | 3,28 |
| 41                          | 7,30                         | 6,73 | 6,25 | 5,84 | 5,47 | 5,15 | 4,86 | 4,60 | 4,37 | 4,17 | 3,98 | 3,80 | 3,64 | 3,50 | 3,36 |
| 21 o 42                     | 7,47                         | 6,90 | 6,40 | 5,98 | 5,60 | 5,27 | 4,98 | 4,72 | 4,48 | 4,27 | 4,07 | 3,90 | 3,73 | 3,58 | 3,45 |
| 43                          | 7,65                         | 7,06 | 6,56 | 6,12 | 5,74 | 5,40 | 5,10 | 4,83 | 4,59 | 4,37 | 4,17 | 3,99 | 3,82 | 3,67 | 3,53 |
| 22 o 44                     | 7,83                         | 7,23 | 6,71 | 6,26 | 5,87 | 5,52 | 5,22 | 4,94 | 4,70 | 4,47 | 4,27 | 4,08 | 3,91 | 3,76 | 3,61 |
| 45                          | 8,01                         | 7,39 | 6,86 | 6,40 | 6,00 | 5,65 | 5,34 | 5,05 | 4,80 | 4,57 | 4,37 | 4,18 | 4,00 | 3,84 | 3,69 |
| 23 o 46                     | 8,18                         | 7,55 | 7,01 | 6,55 | 6,14 | 5,78 | 5,45 | 5,17 | 4,91 | 4,67 | 4,46 | 4,27 | 4,09 | 3,93 | 3,78 |
| 47                          | 8,36                         | 7,72 | 7,17 | 6,69 | 6,27 | 5,90 | 5,57 | 5,28 | 5,02 | 4,78 | 4,56 | 4,36 | 4,18 | 4,01 | 3,86 |
| 24 o 48                     | 8,54                         | 7,88 | 7,32 | 6,83 | 6,40 | 6,03 | 5,69 | 5,39 | 5,12 | 4,88 | 4,66 | 4,45 | 4,27 | 4,10 | 3,94 |
| 49                          | 8,72                         | 8,05 | 7,47 | 6,97 | 6,54 | 6,15 | 5,81 | 5,50 | 5,23 | 4,98 | 4,75 | 4,55 | 4,36 | 4,18 | 4,02 |
| 25 o 50                     | 8,90                         | 8,21 | 7,63 | 7,12 | 6,67 | 6,28 | 5,93 | 5,62 | 5,34 | 5,08 | 4,85 | 4,64 | 4,45 | 4,27 | 4,10 |
| 51                          | 9,07                         | 8,38 | 7,78 | 7,26 | 6,81 | 6,40 | 6,05 | 5,73 | 5,44 | 5,18 | 4,95 | 4,73 | 4,54 | 4,35 | 4,19 |
| 26 o 52                     | 9,25                         | 8,54 | 7,93 | 7,40 | 6,94 | 6,53 | 6,17 | 5,84 | 5,55 | 5,29 | 5,04 | 4,83 | 4,62 | 4,44 | 4,27 |
| 53                          | 9,43                         | 8,70 | 8,08 | 7,54 | 7,07 | 6,66 | 6,29 | 5,95 | 5,66 | 5,39 | 5,14 | 4,92 | 4,71 | 4,52 | 4,35 |
| 27 o 54                     | 9,61                         | 8,87 | 8,23 | 7,69 | 7,20 | 6,78 | 6,40 | 6,07 | 5,76 | 5,49 | 5,24 | 5,01 | 4,80 | 4,61 | 4,43 |
| 55                          | 9,79                         | 9,03 | 8,36 | 7,81 | 7,31 | 6,87 | 6,49 | 6,16 | 5,83 | 5,59 | 5,33 | 5,10 | 4,89 | 4,69 | 4,51 |
| 28 o 56                     | 9,97                         | 9,20 | 8,54 | 7,97 | 7,47 | 7,03 | 6,64 | 6,29 | 5,98 | 5,69 | 5,43 | 5,20 | 4,98 | 4,78 | 4,60 |

$$\text{Ratio} = \frac{\text{Number of teeth on chainring}}{\text{Number of teeth on sprocket}} \times \text{diameter of wheel 690}$$

| Number of teeth on sprocket | Number of teeth on chainring |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                             | 6                            | 7    | 8    | 9    | 10   | 11   | 12   | 13   |      |      |      |      |      |      |      |
|                             | 12                           | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   |
| 20 o 40                     | 7,22                         | 6,67 | 6,19 | 5,78 | 5,41 | 5,09 | 4,81 | 4,56 | 4,33 | 4,12 | 3,94 | 3,76 | 3,61 | 3,46 | 3,33 |
| 41                          | 7,40                         | 6,83 | 6,34 | 5,92 | 5,55 | 5,22 | 4,93 | 4,67 | 4,44 | 4,23 | 4,03 | 3,86 | 3,70 | 3,55 | 3,41 |
| 21 o 42                     | 7,58                         | 7,00 | 6,50 | 6,07 | 5,68 | 5,35 | 5,05 | 4,79 | 4,54 | 4,33 | 4,13 | 3,95 | 3,79 | 3,64 | 3,49 |
| 43                          | 7,76                         | 7,16 | 6,65 | 6,21 | 5,82 | 5,47 | 5,17 | 4,90 | 4,65 | 4,43 | 4,23 | 4,05 | 3,88 | 3,72 | 3,58 |
| 22 o 44                     | 7,94                         | 7,33 | 6,81 | 6,35 | 5,95 | 5,60 | 5,29 | 5,01 | 4,76 | 4,54 | 4,33 | 4,14 | 3,97 | 3,81 | 3,66 |
| 45                          | 8,12                         | 7,50 | 6,96 | 6,50 | 6,09 | 5,73 | 5,41 | 5,13 | 4,87 | 4,64 | 4,43 | 4,24 | 4,06 | 3,90 | 3,74 |
| 23 o 46                     | 8,31                         | 7,67 | 7,12 | 6,64 | 6,22 | 5,86 | 5,53 | 5,24 | 4,98 | 4,74 | 4,53 | 4,33 | 4,15 | 3,98 | 3,83 |
| 47                          | 8,49                         | 7,83 | 7,27 | 6,79 | 6,36 | 5,98 | 5,65 | 5,35 | 5,09 | 4,85 | 4,63 | 4,42 | 4,24 | 4,07 | 3,91 |
| 24 o 48                     | 8,67                         | 8,00 | 7,43 | 6,93 | 6,49 | 6,11 | 5,78 | 5,47 | 5,20 | 4,95 | 4,72 | 4,52 | 4,33 | 4,16 | 3,99 |
| 49                          | 8,85                         | 8,16 | 7,58 | 7,08 | 6,63 | 6,24 | 5,90 | 5,58 | 5,30 | 5,05 | 4,82 | 4,61 | 4,42 | 4,24 | 4,08 |
| 25 o 50                     | 9,03                         | 8,33 | 7,74 | 7,22 | 6,76 | 6,37 | 6,02 | 5,70 | 5,41 | 5,16 | 4,92 | 4,71 | 4,51 | 4,33 | 4,16 |
| 51                          | 9,21                         | 8,50 | 7,89 | 7,37 | 6,90 | 6,50 | 6,14 | 5,81 | 5,52 | 5,26 | 5,02 | 4,80 | 4,60 | 4,42 | 4,24 |
| 26 o 52                     | 9,39                         | 8,66 | 8,05 | 7,51 | 7,03 | 6,62 | 6,26 | 5,92 | 5,63 | 5,36 | 5,12 | 4,89 | 4,69 | 4,50 | 4,33 |
| 53                          | 9,57                         | 8,83 | 8,20 | 7,65 | 7,17 | 6,75 | 6,38 | 6,04 | 5,74 | 5,47 | 5,22 | 4,99 | 4,78 | 4,59 | 4,41 |
| 27 o 54                     | 9,75                         | 9,00 | 8,35 | 7,80 | 7,30 | 6,88 | 6,50 | 6,15 | 5,85 | 5,57 | 5,31 | 5,08 | 4,87 | 4,68 | 4,49 |
| 55                          | 9,93                         | 9,16 | 8,51 | 7,94 | 7,44 | 7,00 | 6,62 | 6,27 | 5,95 | 5,67 | 5,41 | 5,18 | 4,96 | 4,76 | 4,58 |
| 28 o 56                     | 10,11                        | 9,33 | 8,66 | 8,09 | 7,57 | 7,13 | 6,74 | 6,38 | 6,06 | 5,77 | 5,51 | 5,27 | 5,05 | 4,85 | 4,66 |

**GEAR TABLE 27" WHEELS**

|    | 36   | 38   | 40   | 42   | 44   | 45    | 46    | 47    | 48    | 49    | 50    | 51    | 52    | 54    |
|----|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 12 | 81.0 | 85.5 | 90.0 | 94.5 | 99.0 | 101.2 | 103.5 | 105.0 | 108.0 | 110.3 | 112.5 | 114.7 | 117.0 | 121.5 |
| 13 | 74.7 | 78.9 | 83.1 | 87.2 | 91.4 | 93.4  | 95.5  | 97.6  | 99.7  | 101.8 | 103.8 | 105.9 | 108.0 | 112.1 |
| 14 | 69.4 | 73.3 | 77.1 | 81.0 | 84.8 | 86.7  | 88.7  | 90.6  | 92.6  | 94.5  | 96.4  | 98.3  | 100.3 | 104.1 |
| 15 | 64.8 | 68.4 | 72.0 | 75.6 | 79.2 | 80.9  | 82.8  | 84.6  | 86.4  | 88.2  | 90.0  | 91.8  | 93.6  | 97.2  |
| 16 | 60.8 | 64.1 | 67.5 | 70.9 | 74.2 | 76.0  | 77.6  | 79.3  | 81.0  | 82.7  | 84.4  | 86.1  | 87.7  | 91.1  |
| 17 | 57.2 | 60.3 | 63.5 | 66.7 | 69.9 | 71.5  | 73.0  | 74.6  | 76.2  | 77.8  | 79.4  | 81.0  | 82.6  | 85.7  |
| 18 | 54.0 | 57.0 | 60.0 | 63.0 | 66.0 | 67.5  | 69.0  | 70.5  | 72.0  | 73.5  | 75.0  | 76.5  | 78.0  | 81.0  |
| 19 | 51.2 | 54.0 | 56.8 | 59.7 | 62.5 | 64.0  | 65.4  | 66.8  | 68.2  | 69.6  | 71.0  | 72.5  | 73.9  | 76.7  |
| 20 | 48.6 | 51.3 | 54.0 | 56.7 | 59.4 | 60.8  | 62.1  | 63.4  | 64.8  | 66.1  | 67.5  | 68.8  | 70.2  | 72.9  |
| 21 | 46.3 | 48.9 | 51.4 | 54.0 | 56.6 | 57.9  | 59.1  | 60.4  | 61.7  | 63.0  | 64.3  | 65.5  | 66.8  | 69.4  |
| 22 | 44.2 | 46.6 | 49.1 | 51.5 | 54.0 | 55.2  | 56.4  | 57.7  | 58.9  | 60.1  | 61.4  | 62.6  | 63.8  | 66.2  |
| 23 | 42.3 | 44.6 | 47.0 | 49.3 | 51.6 | 52.8  | 54.0  | 55.2  | 56.3  | 57.5  | 58.7  | 59.9  | 61.0  | 63.4  |
| 24 | 40.5 | 42.7 | 45.0 | 47.2 | 49.5 | 50.7  | 51.7  | 52.9  | 54.0  | 55.1  | 56.2  | 57.3  | 58.5  | 60.7  |
| 25 | 38.9 | 41.1 | 43.2 | 45.4 | 47.5 | 48.6  | 49.7  | 50.8  | 51.8  | 52.9  | 54.0  | 55.1  | 56.2  | 58.3  |
| 26 | 37.4 | 39.5 | 41.5 | 43.6 | 45.7 | 46.7  | 47.8  | 48.8  | 49.8  | 50.9  | 51.9  | 53.7  | 54.0  | 56.1  |

GEAR RATIOS NOT SHOWN ABOVE MAY BE CALCULATED AS FOLLOWS

$$\text{GEAR} = \frac{\text{Number of teeth on C/ring}}{\text{Number of teeth on Sprocket}} \times \text{Diameter of rear wheel in inches}$$



# TRACK GEAR TABLES

◆ Development in metres for a complete turn of cranks.

● Gear =  $\frac{\text{number of teeth on chainring}}{\text{number of teeth on sprocket}} \times \text{diameter rear wheel in inches.}$

| Number of teeth on sprocket |   | Number of teeth on chainring |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|-----------------------------|---|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                             |   | 28                           | 29       | 30       | 31       | 32       | 33       | 34       | 35       |          |          |          |          |          |          |          |          |
|                             |   | 55                           | 56       | 57       | 58       | 59       | 60       | 61       | 62       | 63       | 64       | 65       | 66       | 67       | 68       | 69       | 70       |
| 6 o 12                      | ◆ | m. 9,87                      | m. 10,04 | m. 10,22 | m. 10,40 | m. 10,58 | m. 10,76 | m. 10,94 | m. 11,12 | m. 11,30 | m. 11,48 | m. 11,66 | m. 11,84 | m. 12,02 | m. 12,20 | m. 12,38 | m. 12,56 |
|                             | ● | 123.7                        | 126.0    | 128.2    | 130.5    | 132.7    | 135.0    | 137.2    | 139.5    | 141.7    | 144.0    | 146.2    | 148.5    | 150.7    | 153.0    | 155.2    | 157.5    |
| 13                          | ◆ | m. 9,11                      | m. 9,27  | m. 9,44  | m. 9,60  | m. 9,77  | m. 9,93  | m. 10,10 | m. 10,27 | m. 10,43 | m. 10,60 | m. 10,76 | m. 10,93 | m. 11,09 | m. 11,26 | m. 11,43 | m. 11,60 |
|                             | ● | 114.2                        | 116.3    | 118.4    | 120.5    | 122.5    | 124.6    | 126.7    | 128.8    | 130.8    | 132.9    | 135.0    | 137.1    | 139.1    | 141.2    | 143.3    | 145.4    |
| 7 o 14                      | ◆ | m. 8,46                      | m. 8,61  | m. 8,76  | m. 8,92  | m. 9,07  | m. 9,22  | m. 9,38  | m. 9,53  | m. 9,69  | m. 9,84  | m. 9,99  | m. 10,15 | m. 10,30 | m. 10,46 | m. 10,61 | m. 10,76 |
|                             | ● | 106.0                        | 108.0    | 109.9    | 111.8    | 113.8    | 115.7    | 117.6    | 119.5    | 121.5    | 123.4    | 125.3    | 127.3    | 129.2    | 131.1    | 133.0    | 135.0    |
| 15                          | ◆ | m. 7,89                      | m. 8,04  | m. 8,18  | m. 8,32  | m. 8,47  | m. 8,61  | m. 8,75  | m. 8,90  | m. 9,04  | m. 9,19  | m. 9,33  | m. 9,47  | m. 9,62  | m. 9,76  | m. 9,90  | m. 10,05 |
|                             | ● | 99.0                         | 100.8    | 102.6    | 104.4    | 106.2    | 108.0    | 109.8    | 111.6    | 113.4    | 115.2    | 117.0    | 118.8    | 120.6    | 122.4    | 124.2    | 126.0    |
| 8 o 16                      | ◆ | m. 7,40                      | m. 7,53  | m. 7,67  | m. 7,80  | m. 7,94  | m. 8,07  | m. 8,21  | m. 8,34  | m. 8,48  | m. 8,61  | m. 8,75  | m. 8,88  | m. 9,02  | m. 9,15  | m. 9,28  | m. 9,42  |
|                             | ● | 92.8                         | 94.5     | 96.2     | 97.9     | 99.5     | 101.2    | 102.9    | 104.6    | 106.3    | 108.0    | 109.7    | 111.4    | 113.0    | 114.7    | 116.4    | 118.1    |





