SHIMANO BICYCLE SYSTEM COMPONENTS

SHIMANO



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SHIMANO BICYCLE SYSTEM COMPONENTS

Over sixty countries around the world are receiving Shimano exports in cycling and fishing products. That network of diverse markets has been built by Shimano's ability to come up with innovative answers to old problems.

This has been fully illustrated by the complete system concept which Shimano has introduced to the world. Each component is designed to work perfectly with the other and produce results unequalled anywhere else.

The rapid growth of the Shimano organization has been thanks to the diligent labor of many imaginative researchers, people who gather volumes of data and analyze trends for the future.

The combined efforts of the whole Shimano team—in engineering, marketing, distribution and, most of all, the newly developed component systems philosophy—have made the distinctive difference between Shimano and its competitors.

SHIMANO SYSTEM COMPONENTS SPECIAL INNOVATIONS

10mm Pitch

In recent years, the search for lighter components has been the prime concern of most bicycle manufacturers. This has been important to the bicycle racer because even the slightest decrease in weight can be an increase in speed.

Many techniques have been tried, such as drilling out light alloy components, and although components were lightened, structural weaknesses always occurred.

No one has been able to produce components which are the lightest, strongest, and most efficient in their transmission of energy, and still sell for a reasonable price—until now.

Shimano has changed the pitch of the chain from 1/2 inch (12.7mm) to 10mm, and in the process created a new generation of components, the "Dura-Ace 10" Series.

The 10mm pitch system reduces the overall weight and size of the components and offers the following outstanding features:

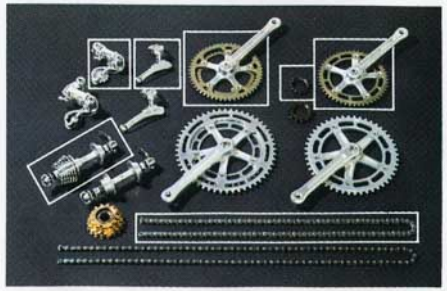
1. Miniaturization of Components—
   The components are smaller in scale—and because they're smaller, they are lighter. By changing the chain pitch from 12.7mm to 10 mm, the front chainwheel and rear sprocket wheel diameter have also been reduced by a corresponding factor of 10/12.7. In terms of percentage the front chainwheel can be made 21.2% smaller and an amazing 38% lighter.
2. Increased Efficiency—
   When the rotating parts are made lighter, the accelerating efficiency is increased. The rider's energy is transmitted to the bicycle faster and with less power loss due to components' mass and friction. This means that hills can be climbed faster, and pedalling on the straights is easier too.
3. Better Withstanding of Deflection—
   Since the front chainwheel diameter is smaller, bending or warping due to deflection is kept at a minimum. This results in less wasted effort and also contributes to increased speed.
4. Greater Ease in Gear-Shifting—
   Because the teeth of the rear sprocket are shorter, the derailleur need not raise the chain so high in the shifting process. Therefore, the shifts are faster and smoother with less power loss.



10mm and 12.7mm Comparison

DURA-ACE 10—DURA-ACE Comparison Chart Weight Comparison (Track Models)

	Dura-Ace 10	Dura-Ace	Saving
Right Hand Crank	8.4 oz. (239 g.)	9.7 oz. (277 g.)	1.3 oz. (38 g.)
Chainwheel (49T)	2.2 oz. (63 g.)	4.1 oz. (116 g.)	1.9 oz. (53 g.)
Chain	11.6 oz. (330 g.)	11.8 oz. (335 g.)	0.2 oz. (5 g.)
Rear Hub W/Lock Ring	10.7 oz. (303 g.)	11.0 oz. (313 g.)	0.3 oz. (10 g.)
Rear Sprocket (14T)	0.8 oz. (24 g.)	1.3 oz. (38 g.)	0.5 oz. (14 g.)
TOTAL	33.7 oz. (959 g.)	37.9 oz. 1,079 g.	4.2 oz. (120 g)



Dura-Ace 10 series marked with a white square is shown together with Dura-Ace.

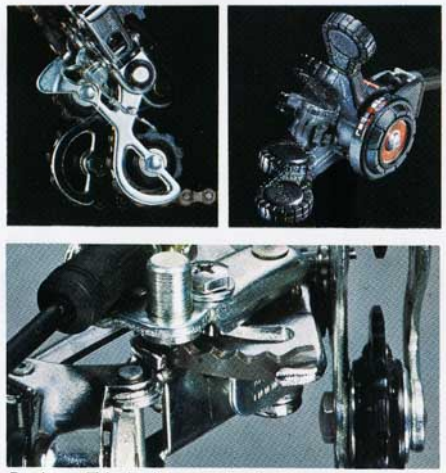
Positive Mechanism

Shimano's Positron rear derailleur made shifting positive. Shimano's second generation of Positrons, the PPS (Positive Pre-Select) System, have further simplified the positive shift.

The PPS System consists of three components; the shift lever, the gear cable, and the rear derailleur. Each unit complements the function of the other.

The PPS rear derailleur is connected to the shifting lever via a single cable. The lever itself is labled "L-2-3-4-H" to indicate low gear through high gear. The rider can select gears with a distinctive "click" and always see which gear is engaged.

The PPS System can be used on any bicycle without having to make special modifications, and also with the FF (Front Freewheeling) System.



Positron-II indexing mechanism.

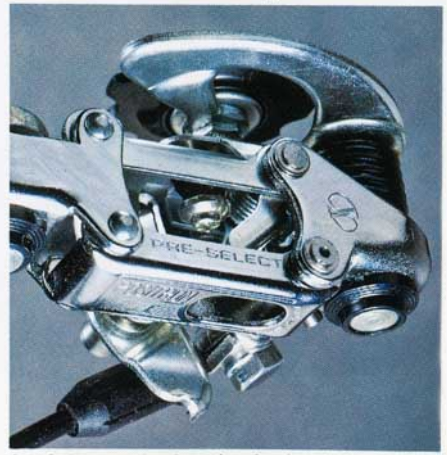
Pre-Select Mechanism

Pre-selection of which gear a rider prefers is possible before mounting the bicycle, during coasting, or while waiting for a traffic signal to change. Simply push the shift lever next to the desired gear on the index, and when the bicycle is rolled forward a few feet the chain will automatically be programed by the derailleur to move to that gear.

Now a rider can start off in low gear when the light turns green, when slowing down as the gradient increases, or even before starting the ride. With the Pre-Select feature of the PPS System, riding is easier and safer than ever before.



Pre-Select mechanism housing.



Pre-Select mechanism showing internal posi-spring.

Push-Pull Cable

The cable of the PPS System is of a special design which functions on a "push-pull" principle. The strands of the cable are very tightly wound, then placed within a unique cable housing which has eight embedded wires surrounding the inner cable. These wires give the housing the stiffness required to push the derailleur from low gear back to high gear, after the inner wire has pulled it from high to low.

The return spring of the conventional derailleur is not necessary in the PPS System, thus a smoother lighter shift is experienced. Also, the tighter wound push-pull cable means the stretching problem found in conventional cables is virtually eliminated. The troublesome periodic derailleur adjustment is a thing of the past.





Numbered gear lever cable assembly.



Derailleur cable assembly.

Front Freewheeling Mechanism

Shimano's revolutionary gearing innovation utilizes a freewheel mechanism combined with the front chainwheel. This allows the chain to revolve even after pedalling has stopped. Shifting can be done smoothly and effortlessly anytime the bike is in motion whether coasting, back-pedalling—or without pedalling at all. Whatever the situation the FF System gives unmatched performance in gear shifting.



The advantages of the FF System are:

1. A particular gear can be pre-selected before riding by shifting the lever and pushing the bicycle forward. This allows the rider to shift from high to low gear before mounting the bike.
2. The rider can continue to shift the gears even while slowing down to a stop, thereby being in the proper gear when starting again.
3. As shifting can be done without putting pressure on the pedals, the shift itself will be easier and more precise. The tension on the chain becomes uniform while coasting, and this results in unprecedented smoothness in shifting.
4. Backlash due to shifting while pedalling backwards is totally eliminated. Proper shifting can be accomplished even while the rider is pedalling backwards.
5. Although the front crank is freewheeling, if an object such as a pants cuff gets caught in the chain, the rear freewheel will engage and over-ride the front freewheel, causing the chain to stop moving. This safety feature eliminates any potential hazard.
6. Many riders find it difficult to properly co-ordinate their shifting while pedalling up a hill. With the "FF System", a rider can shift into a lower gear without pedalling.
7. Shimano's unique "Para-Adjust" mechanism limits the movement of the chain in both high and low gears so that even if the derailleurs are out of adjustment, the chain will not fall off the sprockets.



Servo-Panta Mechanism

Shimano's derailleurs are unique in that they are designed to curve slightly forward in relationship to their position on the rear fork dropout, thus improving the wrap of the chain around the freewheel sprockets.

In addition, the complete line of Shimano derailleurs utilizes the "servo-panta" mechanism. "Panta" (Pantograph) signifies any mechanism in the shape of a parallelogram. The "servo" is a device used to provide automatic control over another device. By placing a spring tensioner around the derailleur pivot bolt, the derailleur can maintain the distance of the chain from the sprockets when it is shifted. Efficient controlling of rather violent mechanical movement has allowed Shimano's derailleurs to gain the reputation they have for smoothness.



SHIMANO SYSTEM COMPONENTS SPECIAL INNOVATIONS

Uniglide Chain

Double The Life For Drive Train

Intensive research into the functions of each component in a bicycle gear system caused Shimano's engineers to closely examine the chain. Bicycle components designed for high performance can be undermined by the low efficiency of a conventional chain.

Shimano engineers redesigned the traditional shape of the bicycle chain and developed the unique Uniglide chain.

The Uniglide chain has a bowed link instead of the common straight link. This widening of the link means it is level with the chain-pins and, therefore, friction due to uneven contact is minimized. Also, this bowed link is closer to the next sprocket on the freewheel. Hence, the rider experiences faster shifting, almost no overshifting and less noise for quieter chain action.

Features of Uniglide Chain

1. Accurate speed shifting control is always possible.
2. Stretches half as much and lasts twice as long as a conventional chain.
3. Fast, accurate shifting means less slipping when engaging gears resulting in reduced friction to double the life of the drive train.
4. A constant deflection, necessary for effecting smooth gear changes, is obtainable for a much longer period.
5. No slipping on the teeth of the gear while climbing hills or while under great tension.
6. Overshifts are eliminated for quicker shifts.
7. Faster shifting means less irritating chain noises.



Uniglide's widened outer plates.

Chamfered Sprocket Teeth

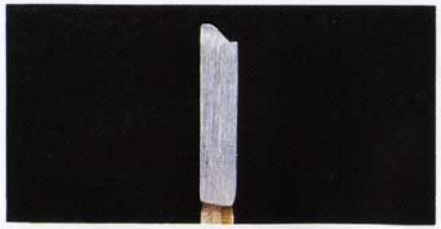
Very little has been done in the way of design to help make sprocket teeth easier to engage when changing gears.

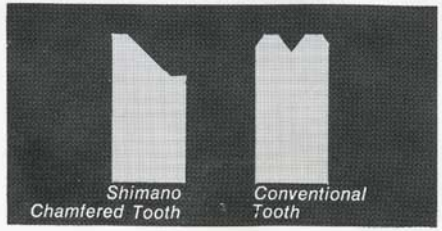
The conventional tooth sprocket has been the standard for very many years. A broad tooth with a small notch in the center, designed to catch an evasive chain link, is not condusive to a smooth gear change every time.

To allow a better engagement, Shimano's tooth has been chamfered away, on the side nearest the larger gear, at the point where the conventional chain is notched. This narrows the tooth head, and means the outer chain plate has less than half the distance to travel across the head when engaging a lower (larger) gear.

Whether the chain is changing up or down, the chamfered teeth are designed to offer the best possible engagement. The result is a surer, faster gear change every time.

Designed to work in perfect unison with the Uniglide Chain, Shimano's chamfered sprocket teeth are yet another example of the thorough investigation each part gets.



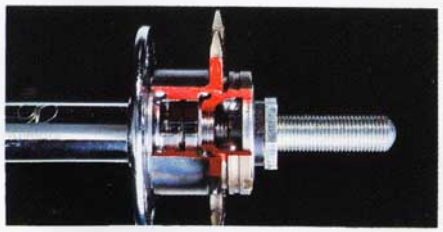


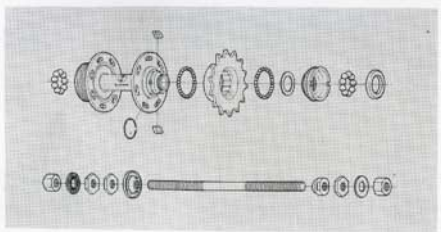
Freehub

The Freehub, named because it combines both the freewheel and hub into one component, is stronger, smaller, lighter, and more economical than any conventional hub.

Because the load applied by the rider's muscles must be transferred from the bicycle chain to the rear freewheel sprockets, there is always a chance of the rear hub axle bending under this stress. The freewheel normally transmits force to the ball bearings of the hub. However, the Freehub design spreads the ball bearings closer to the position where the axle is tightened against the bicycle frame. Thus, the stress on the axle is more evenly distributed, and bending is less likely to occur.

The smaller size of the Freehub means smaller sprocket sizes can be installed for a better selection of gearing. The size reduction allows a weight saving of 27 percent; that's in a rotating part of the bicycle-where it really counts. The Freehub is available for both adults'(A) childrens' (C) bicycles.





Auto Adjust Mechanism

When brakes get worn and cables stretched, the rider grabs a handful of mushiness, and the brake lever goes all the way to the handlebar.

Shimano's Auto Adjust brake mechanism compensates for worn out caliper or disc brake pads, as well as cable sloppiness. The Auto Adjust maintains the proper space between the brake pad and the brake surface (rim or disc).

A bike equipped with the Auto Adjust can stop more efficiently, due to the constant minute adjustments made by the exclusive one way clutch. It's ideal for the person who doesn't like to tinker around making periodic adjustments, or who tends to forget the needed maintenance of his bicycle.



AUTO ADJUST

Synpul Mechanism

Side-pull caliper brakes are continually pulling to one side and requiring re-alignment. This problem is due to the design of the side pull arms which allows unequal force against the brake shoes, and thus, uneven braking.

Shimano's new "Synpul" design synchronizes the brake arms so that the same force from the rider's hand is distributed equally to the brake arms; and the brake shoes grip the wheel at the same time. Smooth, even braking means safer, more controlled stops.





Link Mechanism

Adjusting a centerpull caliper brake has always required more than two hands. Shimano's innovative new "Link-type" centerpull caliper brake eliminates the need for the center cable, which connects the two brake arms, and the cable carrier assembly, which acts as a yoke in suspending the center cable.

The speed of adjusting a centerpull brake is greatly increased due to the simplicity of the Link-type CC. The result of this new design is a cleaner-looking, more efficient caliper, which makes cycling more fun.



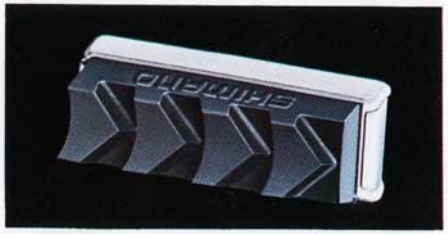
The Chevron Shoe Brake

Riding in wet weather spotlights one of the most vulnerable components on a bicycle.... the shoe brake. The safety of the rider using a caliper braking system depends, as much as anything else, on this small, but highly significant part.

Much research has gone into finding a suitable material which is long lasting and grips well in both fine and wet weather. But even with these factors taken care of there is still a problem with water deposits. When it rains, water deposits are liable to build up in between and around the treads of the shoe brake. Gripping efficiency is then impeded.

To counter this problem, Shimano redesigned the shoe brake so that it now spearheads its way through water. Four chevron shaped treads are set upon an angled base. The Chevron Shoe Brake gives oncoming rain or water simply nowhere to build up. Each chevron tread channels the water off. The result is a better shoe brake for wet weather.

Safety is a necessary requisite and the Chevron Shoe Brake makes its contribution.



Self-Energizing Disc Brake

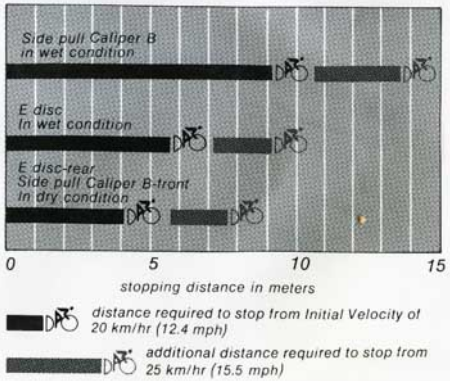
Shimano has developed a highly successful self-energizing Disc Brake which combines maximum safety control with minimal stopping distance. Equipped with an Auto Adjust mechanism, the unit is constantly kept in adjustment.

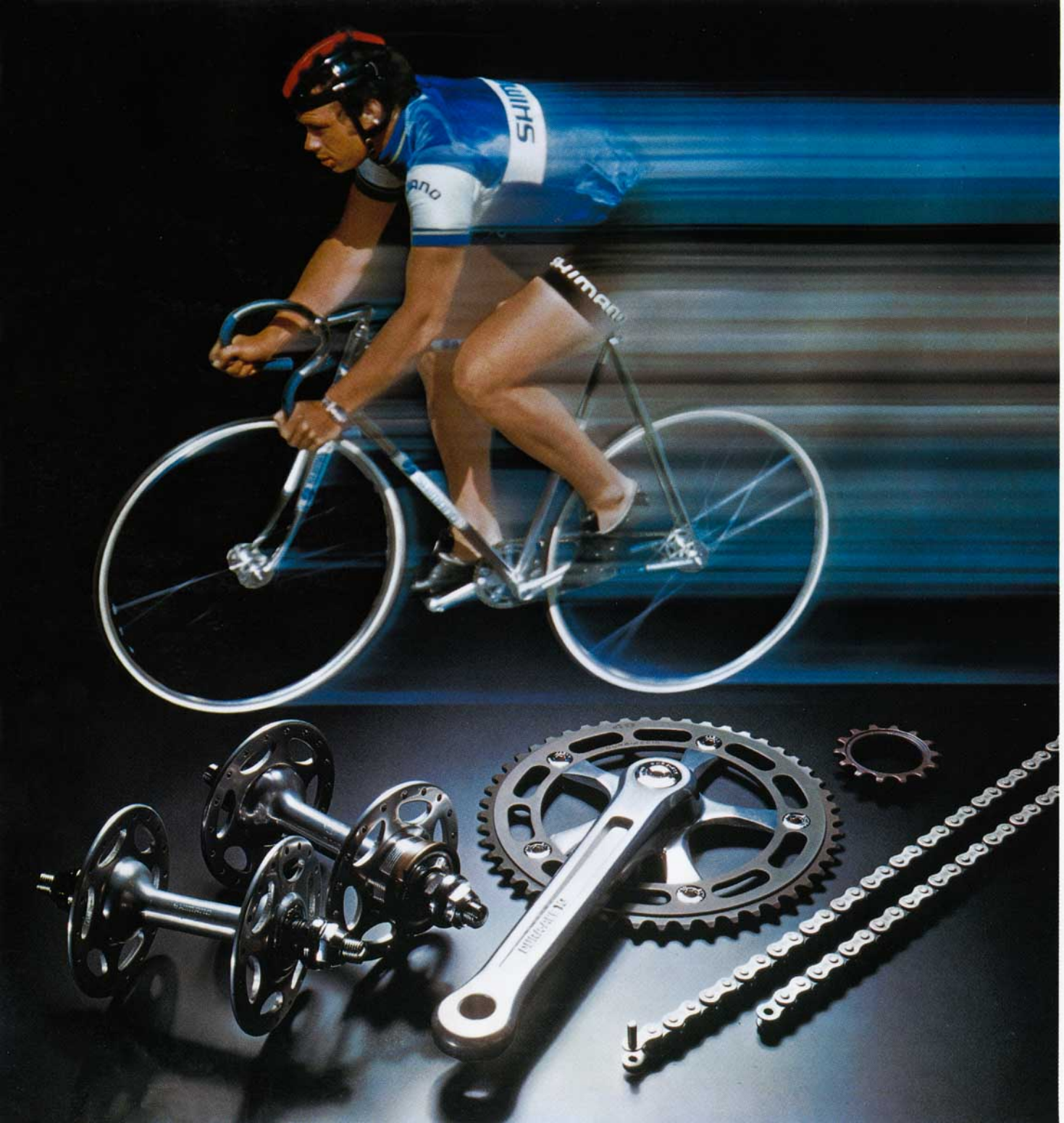
Features

1. Powerful, shockless braking with a minimum of effort.
2. Reduced slippage, even in wet weather. The all weather performance means greater safety for cyclists.
3. The Auto Adjust mechanism compensates for cable stretch and pad wear so that the best braking force is always maintained.
4. Compact and lightweight for easy operation and installation.

Steel ball and casing responsible for smooth braking force.







SHIMANO
DURA-ACE
10
System Compo Series

The Pitch Revolution That Has Changed The World Of Racing.....10mm. Pitch Series.

John Nicholson was crowned World Professional Sprint Champion after successfully defending his 1975 title in Italy during September, 1976.

Nicholson did more than prove himself the world's best sprinter.....he proved Shimano's new Dura-Ace 10 Track System is the new standard among competitive bicycle components.

Dura-Ace 10 is the first major deviation from a standard that has existed in the bicycle industry since mass-production of bikes began some 100 years ago.

It was so simple; Shimano reduced the distance between the sprocket teeth from the old 1/2″ to the new 10mm. dimension. Ten millimeter pitch allows the front chainwheel and the rear sprockets to be made smaller, and the chain shorter. The smaller size means less weight and more rigidity and when rotating parts are lightened acceleration is increased.

Now competitors on Dura-Ace 10 can climb hills faster, jump out of corners more quickly, and get the lead in the sprint. If there were any doubts about the acceptance of Dura-Ace 10 then World Champion John Nicholson has successfully erased them.

Dura-Ace 10 Road System Components Ensemble will be introduced in 1977.



DURA-ACE 10 SERIES TRACK ENSEMBLE

10mm Pitch Chaindriving System

Front Chainwheel

Model GA-110 (without Bottom Bracket Set)
GB-100 (Bottom Bracket Set)

DURA-ACE 10

SPECIFICATIONS

Material: 75S Extra Super Duralumin•
Special Surface Treatment
Type: Cotterless
Chain Ring: 10mm. x 3mm.
Teeth: 46-55T
Crank Lengths: 6-1/2″ (165mm.), 6-3/4″ (170mm.)
Available by request 6-19/32″ (167.5mm.)
Crank Thread: 9/16″ x 20t
Cup Thread: English 1.37″ x 24t, French 35 x 1.0, Italian 36 x 24t

NEW 10





Front & Rear Hubs with Lock Ring

Model HA-310

DURA-ACE 10

SPECIFICATIONS

Weight: Front 8.4 oz. (240 g.) Rear 10.6 oz. (303 g.)
Material: Duralmin • Almite Finish
Over Lock Nut Dimensions:
Front 3.94″ (100mm.)
Rear 4.33″ (110mm.) 4.72″ (120mm.)
Fork End Slot Width:
Front 3.54″ (90mm.), 3.15″ (80mm.)
Rear 3.94″ (100mm.), 3.15″ (80mm.)
Sprocket Thread: BC33 x 24 T.P.I.
Spoke Holes: 28H, 32H, 36H
Lock Ring Thread: BC32 x 24 T.P.I. (Left)
Polished Ball Race

NEW 10



Sprocket for Track Hub

Model FA-210

DURA-ACE 10

SPECIFICATIONS

Material: Nickel Chromium
: Molybdenum Steel
Standard Sprocket: 10mm. x 3mm.
Thread: BC33 x 24 T.P.I.
Teeth: 14, 15, 16

NEW 10



Chain

Model QA-100

DURA-ACE 10

SPECIFICATIONS

Material: Chromium
: Molybdenum Steel
Type: Bushed Chain

NEW 10

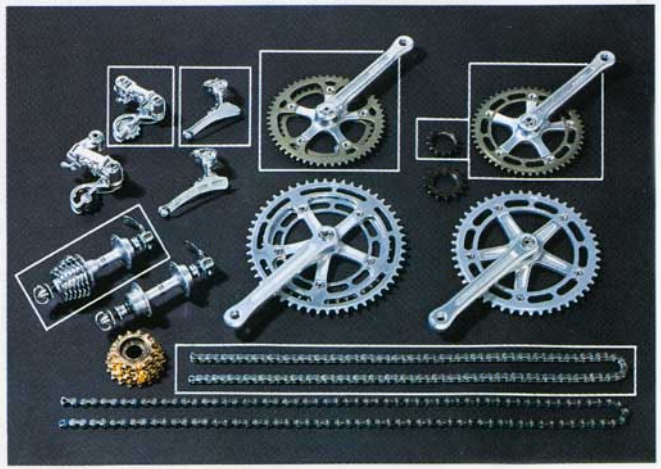


DURA-ACE 10 — DURA-ACE Comparison Chart

* Weight Comparison (Track Models)

	Dura-Ace 10	Dura-Ace	Saving
Right Hand Crank	8.4 oz. (239 g.)	9.7 oz. (277 g.)	1.3 oz. (38 g.)
Chainwheel (49T)	2.2 oz. (63 g.)	4.1 oz. (116 g.)	1.9 oz. (53 g.)
Chain	11.6 oz. (330 g.)	11.8 oz. (335 g.)	0.2 oz. (5 g.)
Rear Hub W/Lock Ring	10.7 oz. (303 g.)	11.0 oz. (313 g.)	0.3 oz. (10 g.)
Rear Sprocket (14T)	0.8 oz. (24 g.)	1.3 oz. (38 g.)	0.5 oz. (14 g.)
TOTAL	33.7 oz. (959 g.)	37.9 oz. 1,079 g.	4.2 oz. (120 g)

DURA-ACE 10 — DURA-ACE Comparison Photo



Dura-Ace 10 series marked with a white square is shown together with Dura-Ace.





SHIMANO
DURA-ACE
System Compo Series

Designed For The Business Of Road Racing

The Dura-Ace Road Ensemble is more than just individual components assembled under one name; Dura-Ace is a total set of the finest racing equipment; each piece designed to work in perfect harmony with the other.

This coordinated engineering cannot be achieved when a bicycle is equipped with different parts from different manufacturers.

The Dura-Ace Road Ensemble is designed for the business of road racing. Shimano has refined Dura-Ace from its experience gained through sponsorship of professional cyclists, pro teams and top class amateurs.

Precision is the byword in the Dura-Ace division of Shimano. Skilled craftsmen personally handle each product, some requiring 40 to 50 steps in finishing and assembly. Close tolerances result in the smooth functioning of the Dura-Ace product, and also increase resistance to contamination by water, grit, and other foreign particles. Final touches to the Dura-Ace Road Ensemble include either a lustrous finish, or a corrosion-resistant black anodized finish.

The Dura-Ace Ensemble has been proven on the toughest road circuits in the world. It is designed for the business of racing.



DURA-ACE SERIES ROAD ENSEMBLE

Rear Derailleur

Model DA-100

DURA-ACE

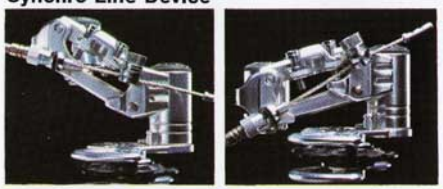
SPECIFICATIONS

Capacity: Front Difference/13 Teeth or Less
: Rear Largest Sprocket/24 Teeth or Less
Weight: 6.2 oz. (176 g.)
Material: Light Alloy • Almite Finish
Type: Servo Panta Mechanism

NEW



Synchro-Line Device



This mechanism keeps the adjusting barrel and the cable fixing pin constantly aligned during the Dura-Ace derailleur's speed changes. So that the cable wire is always kept in a straight line. This means there's less strain on the wire and less chance of the wire snapping, also, the lever is easier to operate.



All the bolts on the Dura-Ace derailleur are either 3 mm. or 6 mm. hexagonal bolts. The derailleur is lighter, better designed, and easier to maintain.

Model DB-100

CRANE

SPECIFICATIONS

Capacity: Front Difference/14Teeth or Less
: Rear Largest Sprocket/28 Teeth or Less
Weight: 7.2 oz. (206 g.)
Material: Light Alloy • Almite Finish
Type: Servo Panta Mechanism
Option: Adaptor



Front Derailleur

Model EA-200

DURA-ACE

SPECIFICATIONS

Capacity: 16 Teeth or Less
Weight: 3.9 oz. (110 g.)
Material: Light alloy • Almite Finish (Body),
: Steel • Chromium Finish (Chain Guide)
Type: Lower Inlet Type 1-1/8″
Panta Mechanism

NEW



Model DB-110

CRANE-GS

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/34 Teeth or Less
Weight: 7.6 oz. (216 g.)
Material: Light Alloy • Almite Finish
Type: Servo Panta Mechanism
Option: Adaptor



Model EA-100

DURA-ACE

SPECIFICATIONS

Capacity: 16 Teeth or Less
Weight: 3.9 oz. (110 g.)
Material: Light Alloy • Almite Finish (Body),
: Steel • Chromium Finish (Chain Guide)
Type: Lower Inlet Type 1-1/8″
Panta Mechanism



Shifting Lever

Model LA-100

DURA-ACE

SPECIFICATIONS

Weight: 2.5 oz. (71 g.)
Material: Light Alloy • Almite Finish
Type: Double Lever
Attachment Position: Down Tube
Lever Clamp Diameter: 1-1/8″



Model LD-500

BAR-END CONTROL

SPECIFICATIONS

Weight: 5.6 oz. (160 g./Pair)
Material: Light Alloy • Black Almite Finish
Use: 10-speed
Attachment Position: Bar-End
Type: With Spiral Spring (Balance Spring)

NEW



DURA-ACE Black Series



Front Chainwheel

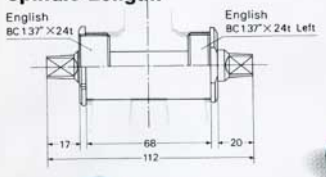
Model GA-200 (without Bottom Bracket Set)
GB-100 (Bottom Bracket Set)

DURA-ACE

SPECIFICATIONS

Material: 14S Super Duralumin • Almite Finish
Type: Cotterless
Chain Ring: 1/2″ x 3/32″ Chain (2mm.)
Teeth: Inner Chain Ring 39～48T
Outer Chain Ring 48～55T
Crank Lengths: 6-1/2″ (165mm.), 6-3/4″ (170mm.), 6-7/8″ (175mm.)
Available by request 6-19/32″ (167.5mm.), 6-13/16″ (172.5mm.)
Crank Thread: 9/16″ x 20t
Cup Thread: English 1.37″ x 24t, French 35 x 1.0, Italian 36 x 24t
Material of Chain Ring:
Standard: 14S Duralumin (For Touring & Light Racing)
Option: 75S Extra Super Duralumin (For Serious Racing)

Spindle Length:



Multiple Freewheel

Model FA-100 (5 Speed Gold)
FA-110 (6 Speed Gold)

DURA-ACE

SPECIFICATIONS

Standard Sprocket: 1/2″ x 3/32″ Chain (2mm.)
Thread: 1.37″ x 24 T.P.I. (English)
Available by request 35 x 1.0 (French)
Sprocket: Golden Finish
Polished Ball Race
Standard Sprocket Combinations:

5-speed	13, 15, 17, 19, 21T
	14, 16, 18, 20, 22T
	15, 17, 19, 21, 24T
6-speed	13, 14, 15, 16, 17, 18T
	13, 15, 17, 19, 21, 23T



Light Alloy Hub

Model HA-100: Small Flange Hub

DURA-ACE

SPECIFICATIONS

Weight: Front 7.8 oz. (220 g.)
: Rear/5-speed/10.7 oz. (305 g.)
: Rear/6-speed/10.9 oz. (310 g.)

Model HA-200: Large Flange Hub

DURA-ACE

SPECIFICATIONS

Weight: Front 9.2 oz. (260 g.)
: Rear/5-speed/11.6 oz. (330 g.)
: Rear/6-speed/11.8 oz. (335 g.)
Material: Duralumin • Almite Finish
Type: Quick release
Thread: 1.37″ x 24 T.P.I. (English)
Available by request 35 x 1.0 (French)
Over Lock Nut Dimensions: Front 3.94″ (100mm.)
Rear/5-speed/4.72″ (120mm.)
Rear/6-speed/4.96″ (126mm.)
Spoke Holes: 28H, 36H
Available by request 24H, 32H, 40H
Polished Ball Race



Cable Parts

Model KA-100

CABLE GUIDE

SPECIFICATIONS

Clamp Diameter: 1-1/8″
Material: Steel
Use: 10 Speed

Model KA-110

OUTER STOPPER

SPECIFICATIONS

Clamp Diameter: 5/8″
Material: Steel

Model KB-110

Clamp Diameter: 1-1/8″
Material: Steel
Use: 10 Speed and Bar-End Control



Brazed on Parts

Model KA-300

CABLE GUIDE

SPECIFICATIONS

Material: Steel

Model KA-310

OUTER STOPPER

SPECIFICATIONS

Material: Steel

Model KA-320

LEVER AXLE

SPECIFICATIONS

Material: Steel



DURA-ACE Black Series



Caliper Brake

Model BA-100

DURA-ACE

SPECIFICATIONS

Weight: Front 6.8 oz. (195 g.)
: Rear 6.7 oz. (193 g.)
Material: Duralumin • Almite Finish
Type: Side Pull with Quick Release and Tire Guide



Brake Lever

Model MA-100

DURA-ACE

SPECIFICATIONS

Weight: 7.7 oz. (220 g.)/Pair (Including Rubber Cover)
Material: Light Alloy • Almite Finish
Type: Hooded Lever with Rubber Cover
Lever Clamp Diameter: 23.8ø
Drilled Out Finish

new



Head Parts

Model UA-100

DURA-ACE

SPECIFICATIONS

Material: Chromium Bearing Steel (Main Parts)
Type: Road Type
Polished Ball Race



Fork Ends

Model NB-100

SHIMANO-SF

SPECIFICATIONS

Weight: 8.8 oz. (250 g.)
/Including Front & Rear
Material: Steel
Type: Road Type
With Adjusting Bolt
Specially Ground Hub Connection Face



Model NB-120

SHIMANO-SFR

SPECIFICATIONS

Weight: 5.1 oz. (147 g.)
/Rear Only
Material: Steel
Type: Touring Type
Vertical Drop Out
Specially Ground Hub Connection Face





Pump Holder

Model KD-100

PUMP HOLDER

SPECIFICATIONS

Clamp Diameter: 1-1/8″
Material: Steel



Outer Band

Model KA-210

OUTER BAND

SPECIFICATIONS

Clamp Diameter: 1″
Material: Steel



DURA-ACE Black Series



Shimano also makes the complete range of Dura-Ace in an attractive corrosion resistant black anodized finish.



SHIMANO
DURA-ACE
System Compo Series

The Racing Components Professionals Choose.

When sprinting at top speed a 10th of a second equals about 15 feet...too big a gap to close against a good competitor. To shave off those fractions of a second the pro sprinter must use the lightest but strongest possible equipment.

Dura-Ace track components are already the choice of the best professionals in the world. John Nicholson, twice world champion, has ridden to his titles both times on Dura-Ace. Four thousand track cyclists in Japan's Keirin, the Japanese professional sprinting sport, are also testimony of the fact that when you make your living on the bike you must use equipment that keeps you in business.

Dura-Ace track products are constructed of "super duralumin 75 S", an alloy so light and strong that it is rarely used for bicycle components because of its difficulty to form. Shimano's advanced metallurgical techniques, including the cold-forging process, have overcome the obstacles and produced the best track products available.

Dura-Ace Track means performing at your best.



DURA-ACE SERIES TRACK ENSEMBLE

Front Chainwheel

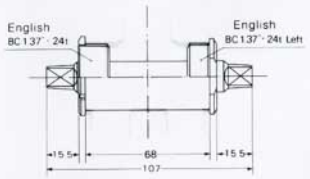
Model GA-100 (without Bottom Bracket Set)
GB-100 (Bottom Bracket Set)

DURA-ACE

SPECIFICATIONS

Material: 75S Extra Super Duralumin • Almite Finish
Type: Cotterless
Chain Ring: 1/2″ x 1/8″ Chain
Teeth: 45~52T
Crank Lengths: 6-1/2″ (165mm.), 6-3/4″ (170mm.), 6-7/8″ (175mm.)
Available by request 6-19/32″ (167.5mm.), 6-13/16″ (172.5mm.)
Crank Thread: 9/16″ x 20t
Cup Thread: English 1.37″ x 24t, French 35 x 1.0, Italian 36 x 24t

Spindle Length:





Sprocket for Track Hub

Model FA-200

DURA-ACE

SPECIFICATIONS

Standard Sprocket: 1/2″ x 1/8″ Chain
Thread: 1.37″ x 24 T.P.I.
Material: Chromium Molybdenum Steel
75S Extra Super Duralumin • Special Surface Treatment
Teeth: 13, 14, 15, 16.



Weight:

	Light Alloy	Steel
13	0.39 oz. (11.0 g.)	1.07 oz. (30.4 g.)
14	0.48 oz. (13.5 g.)	1.36 oz. (38.5 g.)
15	0.55 oz. (15.7 g.)	1.67 oz. (47.3 g.)
16	0.63 oz. (18.0 g.)	1.89 oz. (53.5 g.)



Front & Rear Hubs with Lock Ring

Model HA-300

DURA-ACE

SPECIFICATIONS

Weight: Front 8.5 oz. (240 g.) Rear 10.9 oz. (313 g.)
Material: Duralumin • Almite Finish
Type: Solid Axle
Thread: 1.37″ x 24 T.P.I.
Over Lock Nut Dimensions:
Front 3.94″ (100mm.)
Rear 4.33″ (110mm.), 4.72″ (120mm.)
Spoke Holes: 28H, 32H, 36H
Lock Ring Thread:
1.29″ x 24 T.P.I. (Left)
Polished Ball Race



Fork Ends

Model NC-100

SHIMANO-SFP

SPECIFICATIONS

Material: Steel
Specially Ground Hub Connection Face—on Both Sides



Head Parts

Model UA-200

DURA-ACE

SPECIFICATIONS

Material: Chromium Bearing Steel (Main Parts)
Polished Ball Race







SHIMANO 600 System Compo Series

Built To Withstand The Demands Of Club Racing And The Rigors Of Touring.

Recreational cycling requires reliable components which are light in weight, but rugged enough to perform under all types of road conditions. The Shimano-600 Series was created with these needs in mind. Special attention has been given to the design of the components to deliver the maximum in performance and reliability. Cold forging has been used to form those parts which must withstand maximum stress. Other parts, like the cages of the derailleurs, have been heat treated to a satin finish to reduce wear and increase the components' life.

No detail was overlooked in creating the 600 Series. The side pull caliper brakes are designed to allow for the mudguards of a touring bicycle. The cotterless crankset uses a three-pin design to allow the cyclist the choice of chainrings from 30 to 53 teeth.

The 600 Series gives the club cyclist many of the features of Dura-Ace, but at a reduced cost.

Good looking. Top performers. The Shimano-600 Series. For those cyclists who want the best out of their machines.



SHIMANO-600 SERIES ROAD & TOURING ENSEMBLE

Rear Derailleur

Model DC-200

SHIMANO-600

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/28 Teeth or Less
Weight: 8.2 oz. (235 g.)
Material: Light Alloy • Almite Finish (Body)
: Steel • Satin Nickel Finish (Cage Plate)
Type: Servo Panta Mechanism
Option: Adaptor



Model DC-210

SHIMANO-600GS

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/34 Teeth or Less
Weight: 8.8 oz. (250 g.)
Material: Light Alloy • Almite Finish (Body)
: Steel • Satin Nickel Finish (Cage Plate)
Type: Servo Panta Mechanism
Option: Adaptor



Front Derailleur

Model EC-600

SHIMANO-600

SPECIFICATIONS

Capacity: 14 Teeth or Less
Weight: 4.66 oz. (133 g.)
Material: Steel • Satin Nickel Finish (Body and Chain Guide)
: Light Alloy • Almite Finish (Clamp)
Clamp Diameter: 1-1/8″

new



Shifting Lever

Model LB-600

SHIMANO-600

SPECIFICATIONS

Weight: 3.6 oz. (103 g.)
Material: Light Alloy
Type: One Way Clutch
Attachment Position: Down Tube
Lever Clamp Diameter: 1-1/8″

new



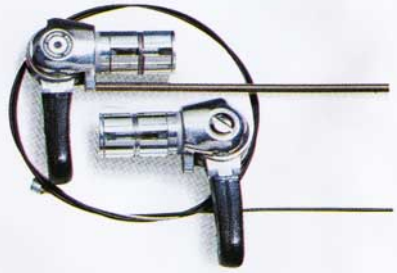
Model LD-500

BAR-END CONTROL

SPECIFICATIONS

Weight: 5.6 oz. (160 g.)/Pair
Material: Light Alloy
Attachment Position: Bar-End
Type: with Spiral Spring (Balance Spring)

new



Model LB-180

QB-LEVER DX

SPECIFICATIONS

Weight: 3.1 oz. (88 g.)
Material: Light Alloy
Type: Friction Type
Attachment Position: Down Tube
Lever Clamp Diameter: 1-1/8″



Cable Parts

Model KB-160

CABLE GUIDE

SPECIFICATIONS

Clamp Diameter: 1-1/8″
Material: Steel
Use: 10-speed



Model KA-110

OUTER STOPPER

SPECIFICATIONS

Clamp Diameter: 5/8″
Material: Steel



Model KB-110

OUTER STOPPER

SPECIFICATIONS

Clamp Diameter: 1-1/8″
Material: Steel
Use: 10-speed and Bar-End Control



Brazed on Parts

Model KA-300

CABLE GUIDE

SPECIFICATIONS

Material: Steel



Model KA-310

OUTER STOPPER

SPECIFICATIONS

Material: Steel



Model KB-300 (FOR QB-LEVER DX)
Model KB-310 (FOR SHIMANO-600)

LEVER AXLE

SPECIFICATIONS

Material: Steel



KB-310



KB-300

Front Chainwheel

Model GC-100 (without Bottom Bracket Set)
GB-200 (Bottom Bracket Set)

SHIMANO-600

SPECIFICATIONS

Material: 17S Duralumin • Almite Finish
Type: Cotterless
Chain Ring: 1/2″ x 3/32″ Chain (2 mm.)
Teeth: 30~53T
Crank Lengths: 6-1/2″ (165mm.), 6-3/4″ (170mm.)
Crank Thread: 9/16″ x 20t
Cup Thread: English 1.37″ x 24t,
French 35 x 1.0, Italian 36 x 24t
Material of Chain Ring: 14S Super Duralumin
Available by Request: Triple Sprocket

Multiple Freewheel

Model FC-600

SHIMANO-600

SPECIFICATIONS

Standard Sprocket: 1/2″ x 3/32″ Chain
Sprocket: Black Finish
Standard Sprocket Combinations:

5-speed	13, 14, 15, 16, 17 teeth 9.6 oz. (272 g.)
	13, 15, 17, 19, 21 teeth 11.7 oz. (331.5 g.)

new



Model QA-400

UNIGLIDE-600 (UG-600)

SPECIFICATIONS

Material: Steel
Surface Treatment: Roller Link Plate/Black finish, Pin Link Plate/Golden finish
Type: Roller Chain

new UNIGLIDE



Light Alloy Hub

Model HB-100 (Large Flange Hub)

SHIMANO-600

SPECIFICATIONS

Weight: Front 9.7 oz. (275 g.)
: Rear 12.4 oz. (350 g.)
Material: Light Alloy
Type: Quick Release
Thread: 1.37″ x 24 T.P.I. (English)
Over Lock Nut Dimensions:
Front 3.94″(100mm.), Rear 4.72″(120mm.)
Spoke Holes: 36H

Model HB-200(Small Flange Hub)

SHIMANO-600

SPECIFICATIONS

Weight: Front 8.3 oz. (235 g.)
: Rear 12.0 oz. (340 g.)
Material: Light Alloy
Type: Quick Release
Thread: 1.37″ x 24 T.P.I. (English)
Over Lock Nut Dimensions:
Front 3.94″(100mm.), Rear 4.72″(120mm.)
Spoke Holes: 36H



Fork Ends

Model ND-100

SHIMANO-LF

SPECIFICATIONS

Weight: 8.2 oz. (235 g.)/Including Front & Rear
Material: Steel
Option: Axle Stopper Set

Model NF-100

SHIMANO-PR

SPECIFICATIONS

Weight: 4.4 oz. (127 g.)/Rear Only
Material: Steel
Type: Vertical Drop Out



Caliper Brake

Model BB-300

SHIMANO-600

SPECIFICATIONS

Weight: Front 6.0 oz. (170 g.)
: Rear 5.9 oz. (165 g.)
Material: Light Alloy • Almite Finish
Type: Side pull with Quick Release and Tire Guide
Size: A-A′ (43mm.～57mm.)



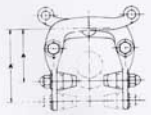


Model BB-400

SHIMANO-600

SPECIFICATIONS

Material: Light Alloy • Almite Finish
Type: Center Pull with Link Mechanism



Type	A-A′	Weight (Pair)
CC-62	47mm.—62mm.	12.6 oz. (360 g.)
CC-75	57mm.—75mm.	12.95 oz. (370 g.)





Model BE-100

CANTILEVER BRAKE

SPECIFICATIONS

Weight: 11.9 oz. (338 g.)
Material: Light Alloy and Steel
With Brake Mounting Shaft
Option: Cable Hanger



Outer Band

Model KA-210

OUTER BAND

SPECIFICATIONS

Clamp Diameter: 1″
Material: Steel



Brake Lever

Model MB-200

SHIMANO-600

SPECIFICATIONS

Weight: 7.3 oz. (209 g.)/Pair (Including Rubber Cover)
Material: Light Alloy • Almite Finish
Type: Hooded Lever with Rubber Cover Drilled Out Finish
Lever Clamp Diameter: 23.8ϕ



Model MB-210

SHIMANO-600

SPECIFICATIONS

Weight: 7.4 oz. (212 g.)/Pair (Including Rubber Cover)
Material: Light Alloy • Almite Finish
Type: Hooded Lever with Quick Release and Rubber Cover
Lever Clamp Diameter: 23.8ϕ

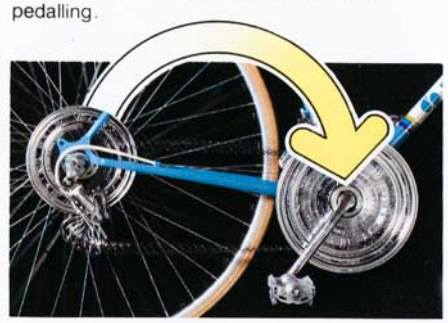




FRONT FREEWHEELING FF SYSTEM

Freewheel Moves Up Front For Foolproof Shifting

Shimano's FF (Front Freewheel) System moves the freewheel mechanism up to the chainwheel — where you pedal. This allows the chain to revolve even when your feet stop pedalling.



Now you can shift effortlessly. Smooth FF System shifting can be done while coasting, back-pedalling, even with your feet off the pedals! The FF System is a new standard of 10-speed gear shifting performance.

The FF System is the result of Shimano's research on the problems of 10-speed gear-changes. The 10-speed bicycle has gained prominence as a recreational and transportational vehicle. Both young and old enjoy the convenience of multi-speeds, but many new riders have difficulty shifting correctly.

Shimano's goal has been to combine the shifting ease of a three speed with 10-speed performance.

Now with the FF System anyone can ride and enjoy the benefits of a multi-speed bicycle.

FRONT FREEWHEELING FF SYSTEM

FF SYSTEM

Front Chainwheel



For One-piece Crank

DOUBLE CHAINWHEEL

Model GF-210

INTEGER

SPECIFICATIONS

Use: FF System Only
Material: Steel
Standard Sprocket Teeth:
Inner Chain Ring 39T
Outer Chain Ring 52T
Chain Ring: 1/2 x 3/32″ Chain (2mm.)
Without Bottom Bracket Set and Crank
available SINGLE CHAINWHEEL

Bottom Bracket Set

(Freewheel Mechanism, R.H. Ball Cup and Ball Retainer)

Model GG-100

SPECIFICATIONS

Type: One-Piece Crank
Crank Length: 6-1/2″ (165mm.)
Material: Steel

For Three-Piece Crank

DOUBLE CHAINWHEEL

Model GF-400

SPECIFICATIONS

Material: Steel
Standard Sprocket Teeth:
Inner Chain Ring 36T
Outer Chain Ring 48T
Chain Ring: 1/2″ x 3/32″ Chain (2mm.)
Without Bottom Bracket Set and Crank

DOUBLE CHAINWHEEL

Model GF-410

INTEGER

SPECIFICATIONS

Use: FF System Only
Material: Steel
Standard Sprocket Teeth:
Inner Chain Ring 39T
Outer Chain Ring 52T
Chain Ring: 1/2″ x 3/32″ Chain (2mm.)
Without Bottom Bracket Set and Crank

DOUBLE CHAINWHEEL

Model GF-420

SPECIFICATIONS

Material: Steel
Standard Sprocket Teeth:
Inner Chain Ring 40T
Outer Chain Ring 52T
Chain Ring: 1/2″ x 3/32″ Chain (2mm.)
Without Bottom Bracket Set and Crank
available SINGLE CHAINWHEEL

Bottom Bracket Set & Crank

Model GG-200, GG-210

SPECIFICATIONS

Type: Three-Piece Crank, Cottered
Crank Length: 6-1/2″ (165mm.)
Cup Thread: 1.37″ x 24 T.P.I.
Material of Crank:
Steel (Model GG-200)
Light Alloy(Model GG-210)



Rear Derailleur



Model DC-400F

SHIMANO-400FF

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/34 Teeth or Less
Weight: 11.1oz. (315g.)
Material: Steel and Light Alloy
Type: Servo Panta Mechanism with Pre-Select

Model DE-100F **Model DD-100F**

EAGLE-II, LARK-II

See page 26.

Rear Cog

Model FF-300

FRICTION FREEWHEEL

SPECIFICATIONS

Use: FF System Only
Weight: 18.7 oz. (530 g.)
Standard Sprocket: 1/2″ x 3/32″ Chain (2mm.)
Thread: 1.37″ x 24 T.P.I.
Standard Sprocket Combination
With Top Protector: 14, 17, 20, 24, 28AT* (5-Speed)
*Alternate Teeth Sprocket



Features of the FF System

1. A particular gear can be preselected before mounting by shifting the lever and pushing the bicycle forward.



2. As shifting can be done without putting pressure on the pedals, the shift itself is easier and more precise.



3. Backlash due to shifting while pedalling backwards is totally eliminated.
4. If an object, such as a pants cuff, gets caught in the chain, the rear freewheel engages. This over-rides the FF mechanism and the chain stops moving.
5. Changing gear while riding uphill is possible without pedalling.



6. While slowing to a stop, the correct gear can be selected for restarting again.
7. Shimano's unique "Para-Adjust" mechanism helps prevent the chain from falling off the sprockets.
8. The FF System can be combined with the New Shimano PPS System.

NEW POSITRON
PPS
SYSTEM

Positive and Pre-Select Shifting System

Multiple speeds make a bicycle both fun and easy to ride. Cyclists can ride over varied terrain with minimum effort by using the proper gear. However, shifting a derailleur requires a certain amount of skill.....skill that usually comes with practice. But many people will not even consider using a 10-speed bicycle because shifting gears sounds too complicated.



Gear shifts were simplified recently when Shimano introduced the Positron rear derailleur. The Positron centers the gear automatically. Thus, the guess-work of shifting was eliminated.

The Positron was the beginning of a new era of easy shifting.....positive shifting.

Shimano's engineering research has developed a second generation of Positrons for still more convenience.

The introduction of a numbered gear lever means the rider can now accurately pre-select a gear at any time, and always know which one is engaged.

The all new PPS (Positive Pre-Select) System is the perfect answer, to trouble-free multi-speed cycling.

POSITRON
PRE-SELECT

NEW POSITRON PPS SYSTEM

Rear Derailleur

Model DG-200

POSITRON-II

SPECIFICATIONS

Use: PPS System Only
Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/28 Teeth or Less
Weight: 10.9 oz. (310 g.)
Material: Steel
Type: Positive Mechanism with Pre-Select Mechanism and Servo Panta Mechanism

NEW



Cable

PUSH-PULL CABLE

NEW



Model DG-300

POSITRON-400

SPECIFICATIONS

Use: PPS System Only
Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/28 Teeth or Less
Weight: 11.2 oz. (320 g.)
Material: Light Alloy • Steel
Type: Positive Mechanism with Pre-Select Mechanism and Servo Panta Mechanism

NEW



Shifting Lever

Model LE-400

POSITRON CONSOLE

SPECIFICATIONS

Use: PPS System Only
Type: Click
: Single Lever
Attachment Position: Top Tube
Lever Clamp Diameter: 1″

NEW



Model LB-700

POSITRON DOWN TUBE

SPECIFICATIONS

Use: PPS System Only
Material: Light Alloy
Type: Friction Type

NEW



Model LC-410

POSITRON STEM

SPECIFICATIONS

Use: PPS System Only
Material: Resin
Type: Friction Type

NEW



Model LD-600

POSITRON-EM

SPECIFICATIONS

Use: PPS System Only
Type: Friction Type
Attachment Position: Handle-Bar
Lever Clamp Diameter: 22.2ϕ

NEW



Features of the PPS System

1. Gears can be "pre-selected" at anytime. A rider can "click" the derailleur into any desired gear while pedalling, coasting, or even before mounting the bicycle.



2. A "Positive Indexing Mechanism" is built into the Positron rear derailleur to automatically center the chain on the rear sprocket.



3. The Positron will remain in gear even if the cable breaks.
4. A single cable both pushes and pulls the derailleur through the gears.
5. The PPS shifting lever has been redesigned with a larger gripping surface. This gives the rider more precise control when shifting.
6. The rider can glance at the numbered gear lever and "know" which gear is engaged.



7. The Positron works independently from the front derailleur. Therefore, it can be used on either 5 or 10 speed bicycles without difficulty.
8. The PPS System can be combined with the Shimano FF System.

SHIMANO positron system

POSITRON SYSTEM

The Positron rear derailleur represents the first major departure from traditional derailleur design since the invention of the 10 speed bicycle.

The Positron has a "positive indexing mechanism" which controls the alignment of the derailleur cage. When the rider selects a gear with the shifting lever the Positron centers the chain precisely over the desired sprocket, automatically.

Accuracy of shifting is assured because of five recessed cups on the derailleur cage which correspond to the positions of the five freewheel sprockets. A steel ball rolls into one of the cups when the rider shifts the lever. Movement through a wide range of gears or a single gear is accomplished with equal ease.

Shifting Lever

Model LB-500

POSITRON LEVER

SPECIFICATIONS

Use: Positron Rear Derailleur Only
Material: Light Alloy

Type	Attachment Position	Clamp Diameter
Double Lever	Down Tube	1-1/8″
	Handle Stem	0.833″
Single Lever	Down Tube	1-1/8″
	Handle Stem	0.833″

Model LB-510

POSITRON-EM

SPECIFICATIONS

Use: Positron Rear Derailleur Only
Attachment Position: Handle Bar
Clamp Diameter: 22.2φ
Type: Clamp or with BRAKE LEVER





Rear Derailleur

Model DG-100

POSITRON

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/34 Teeth or Less
Weight: 12.0 oz. (340g.)
Material: Steel
Type: Positive Mechanism with Servo Panta Mechanism

SHIMANO front derailleur

FRONT DERAILLEUR

Model EC-500

SHIMANO-500

SPECIFICATIONS

Capacity: 14 Teeth or Less
Weight: 5.6 oz. (160 g.)
Material: Steel • Satin Nickel Finish
Type: Panta Mechanism
Clamp Diameter: 1″, 1-1/8″

NEW

Model EC-400

SHIMANO-400

SPECIFICATIONS

Capacity: 14 Teeth or Less
Weight: 5.6 oz. (160 g.)
Material: Steel
Type: Panta Mechanism
Clamp Diameter: 1″, 1-1/8″

NEW

Model EB-200

TITLIST

SPECIFICATIONS

Capacity: 14 Teeth or Less
Weight: 4.7 oz. (133 g.)
Material: Steel • Satin Nickel Finish (Body and Chain Guide)
Light Alloy • Almite Finish (Clamp)
Type: Panta Mechanism
Clamp Diameter: 1-1/8″

NEW

Model ED-300

THUNDER BIRD-II

SPECIFICATIONS

Capacity: 16 Teeth or Less
Weight: 5.9 oz. (168 g.)
Material: Steel
Type: Panta Mechanism
Clamp Diameter: 1″, 1-1/8″

NEW







SHIMANO rear derailleur

REAR DERAILLEUR

Model DC-100

SHIMANO-500

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/28 Teeth or Less
Weight: 10.5 oz. (300 g.)
Material: Light Alloy • Steel
Type: Servo Panta Mechanism



Model DC-110

SHIMANO-500GS

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/34 Teeth or Less
Weight: 11.4 oz. (325 g.)
Material: Light Alloy • Steel
Type: Servo Panta Mechanism



Model DC-400

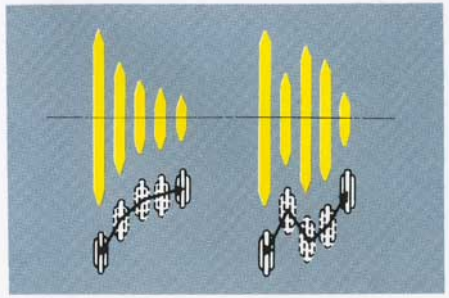
SHIMANO-400

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/28 Teeth or Less
Weight: 10.4 oz. (298 g.)
Material: Light Alloy • Steel
Type: Servo Panta Mechanism

new





Model DC-410

SHIMANO-400GS

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/34 Teeth or Less
Weight: 10.2 oz. (292 g.)
Material: Light Alloy • Steel
Type: Servo Panta Mechanism

new



Servo Panta Mechanism

With the servo pantograph system, no matter how the teeth are assembled, or even if the front double gear is used, the distance between the sprocket teeth and the guide pulley remains practically the same. The special automatic movement of the guide pulley leads the chain, so lever operation is light and gear changes are smooth.

Model DB-600

TITLIST

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/28 Teeth or Less
Weight: 8.2 oz. (235 g.)
Material: Light Alloy (Body), Steel (Cage Plate)
Type: Servo Panta Mechanism



Model DB-610

TITLIST-GS

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/34 Teeth or Less
Weight: 8.7 oz. (250 g.)
Material: Light Alloy (Body), Steel (Cage Plate)
Type: Servo Panta Mechanism



Model DB-400

TOURNEY

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/28 Teeth or Less
Weight: 10.4 oz. (298 g.)
Material: Light Alloy • Steel
Type: Servo Panta Mechanism



Model DB-410

TOURNEY-GS

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/34 or Less
Weight: 10.2 oz. (292 g.)
Material: Light Alloy • Steel
Type: Servo Panta Mechanism



Model DE-100F

EAGLE-II

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/34 Teeth or Less
Weight: 12.3 oz. (350 g.)
Material: Steel
Type: Pre-Select Mechanism with Servo Panta Mechanism



Model DD-100F

LARK-II

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/34 Teeth or Less
Weight: 10.4 oz. (298 g.)
Material: Steel
Type: Pre-Select Mechanism with Servo Panta Mechanism



Model DD-510

SKY LARK

SPECIFICATIONS

Capacity: Front Difference/14 Teeth or Less
: Rear Largest Sprocket/34 Teeth or Less
Weight: 10.2 oz. (292 g.)
Material: Steel
Type: Servo Panta Mechanism



Capacity

A. Front Derailleur Capacity

This represents the range of a front derailleur in terms of the difference in the number of teeth between the largest and the smallest chain rings of the front chainwheel.

EXAMPLE: Capacity: 14 teeth or less. In this case, the difference should be 14 teeth or less. If it is greater than 15, the front derailleur will not function properly.

B. Rear Derailleur Capacity

This expresses the range of a rear derailleur in terms of the difference in number of teeth between the largest and the smallest chain rings of the front chainwheel and the number of teeth of the largest multiple freewheel sprocket (low side).

EXAMPLE: Capacity: Front chainwheel difference: 14 teeth or less. Rear Largest Sprocket: (low side) 28 teeth or less.

Should this be the case, the difference in tooth number mentioned above must be 14 teeth or less, and the tooth number of the largest multiple freewheel sprocket (low side) 28 or less.

SHIMANO shifting lever

MULTI-SPEED SHIFTING LEVER

Model LB-160

QB-LEVER

SPECIFICATIONS

Material: Light Alloy
Type: Friction Type

Type	Attachment Position	Clamp Diameter
Double Lever	Down Tube	1-1/8″
	Handle Stem	0.833″
Single Lever	Down Tube	1-1/8″
	Handle Stem	0.833″



Model LB-170

QP-LEVER

SPECIFICATIONS

Material: Resin
Type: Friction Type

Type	Attachment Position	Clamp Diameter
Double Lever	Down Tube	1-1/8″
	Handle Stem	0.833″
Single Lever	Down Tube	1-1/8″
	Handle Stem	0.833″



Model LB-400

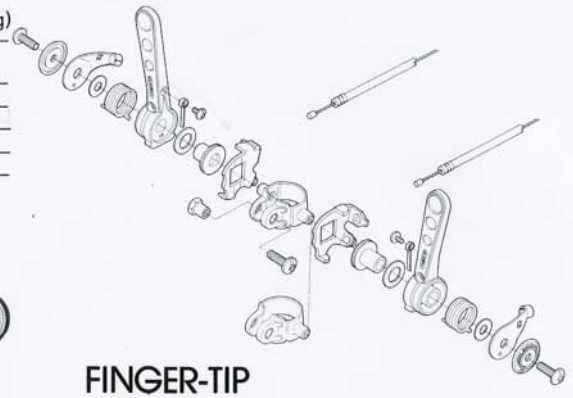
FINGER-TIP

SPECIFICATIONS

Material: Light Alloy
Type: With Spiral Spring (Balance Spring)

Type	Attachment Position	Clamp Diameter
Double Lever	Down Tube	1-1/8″
	Handle Stem	0.833″
Single Lever	Down Tube	1-1/8″
	Handle Stem	0.833″





FINGER-TIP

The lever with the spiral spring is epoch-making with its function of offsetting the derailleur spring resistance. The lever is operated easily, effectively and swiftly.

Model LB-150

QS-LEVER

SPECIFICATIONS

Material: Light Alloy
Type: Friction Type

Type	Attachment Position	Clamp Diameter
Double Lever	Down Tube	1-1/8″
	Handle Stem	0.833″
Single Lever	Down Tube	1-1/8″
	Handle Stem	0.833″



Model LB-100

ALMI-LEVER

SPECIFICATIONS

Material: Light Alloy
Type: Friction Type

Type	Attachment Position	Clamp Diameter
Double Lever	Down Tube	1-1/8″
	Handle Stem	0.833″
Single Lever	Down Tube	1-1/8″
	Handle Stem	0.833″



Model LB-200

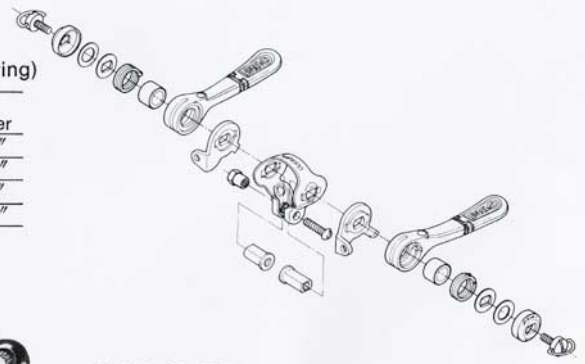
UNI-SHIFT

SPECIFICATIONS

Material: Light Alloy
Type: One Way Clutch (With Spiral Spring)

Type	Attachment Position	Clamp Diameter
Double Lever	Down Tube	1-1/8″
	Handle Stem	0.833″
Single Lever	Down Tube	1-1/8″
	Handle Stem	0.833″





UNI-SHIFT

One-way clutches designed for light lever action. A specially designed cam is built into the SUPER SHIFTER. The UNI SHIFT incorporates a special spring.

SHIMANO freewheel Multiple & Single

FREEWHEEL

Model FC-300 (Standard)
FC-330 (with Seal & Top Protector)

MULTIPLE FREEWHEEL

SPECIFICATIONS

Standard Sprocket: 1/2″ x 3/32″ Chain
1/2″ x 1/8″ Chain
(5BSP•5BWP•3B1•4B1)

Thread: 1.37″ x 24T.P.I.

STANDARD TYPE

Type	Standard Sprocket Combinations
3B1	16T · 19T · 24T
4B1	15T · 17T · 20T · 24T
4B2	15T · 17T · 20T · 24T
5BS	15T · 17T · 19T · 21T · 24T
5BW	14T · 17T · 20T · 24T · 28T
5BUS	14T · 17T · 22T · 28T · 34T
5BSP	15T · 17T · 19T · 21T · 24T
5BWP	14T · 17T · 20T · 24T · 28T
5BW-L	14T · 17T · 20T · 24T · 28T

(L: With Seal)

GOLD TYPE

Type	Standard Sprocket Combinations
5BW GOLD	14T · 17T · 20T · 24T · 28T
5AUS GOLD	14T · 17T · 22T · 28AT · 34AT

(A: Alternate Teeth Sprocket)

ALTERNATE TEETH SPROCKET TYPE

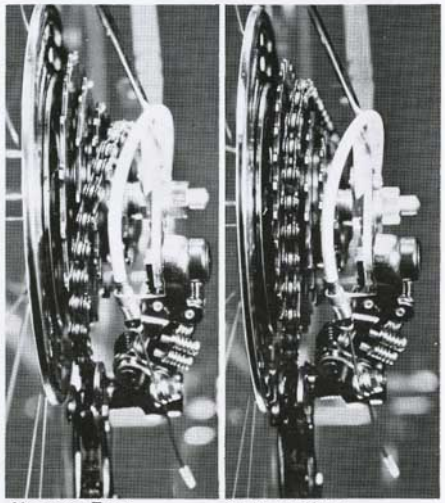
Type	Standard Sprocket Combinations
5AUW	14T · 17T · 21T · 26AT · 32AT
5AUS	14T · 17T · 22T · 28AT · 34AT
5AUS-T	14T · 17T · 22T · 28AT · 34AT

(T: With Top Protector)
(A: Alternate Teeth Sprocket)



Alternate

A new wide range of freewheels has just been introduced by Shimano. This rear cluster has a broad range of gears, for example, starting with 14, and going to 17-22-28 and 34 teeth. Available in Regular Type with Seal and Alternate Teeth Type. Easily removed from the hub with a special tool. The spline system makes it possible to change the sprockets. Every other tooth in the two ultra-low (big) gears has been removed. This makes it easier to shift up into these low gears because the chain does not "hang up".



Alternate Type *Ordinary Type*

Model FB-100

SINGLE FREEWHEEL

SPECIFICATIONS

Thread: 1.37″ x 24 T. P. I.

Sprocket:

1/2″ x 1/8″ x 16 teeth	1/2″ x 1/8″ x 20 teeth
1/2″ x 1/8″ x 18 teeth	1/2″ x 1/8″ x 22 teeth
1/2″ x 1/8″ x 19 teeth	1/2″ x 1/8″ x 24 teeth



SHIMANO uniglide chain

UNIGLIDE CHAIN

Double The Life For Drive Train

A constant deflection is necessary for chain and gears to continually mesh smoothly. Tests show that in the course of 2,500 to 10,000 shifts, the Uniglide's deflection decreases by only 5mm and the conventional chain by as much as 14mm. The more shifts the more pronounced the difference. (See chart below). As equally impressive, the Uniglide stretched by only 0.8mm and 1.0mm after 10,000 and 15,000 shifts as against 2.0mm and 2.4mm by the conventional chain.

These tests, and others, fully illustrate the enormous superiority the Uniglide Chain has over the conventional chain.

The smooth gear shift performance of the Uniglide Chain has doubled the service life of the whole drive train. The widened outer plates of the Uniglide Chain are responsible for the elimination of excessive friction caused by the necessity to overshift when changing from top to lower gears.

Tests have proved beyond all doubt that the Uniglide Chain outlasts the conventional chain in all departments by at least as twice as much. For example, deflection and elongation are two major factors which determine the working efficiency of the chain.

UNIGLIDE

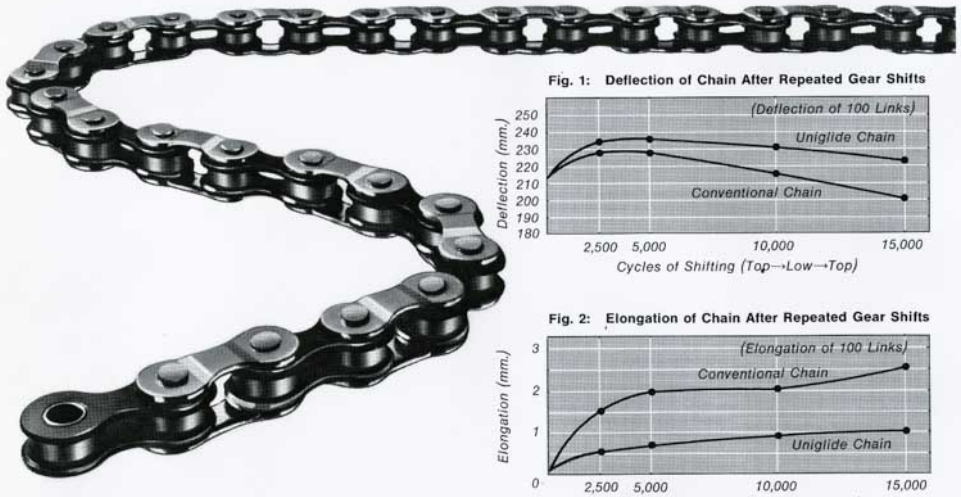


Fig. 1: Deflection of Chain After Repeated Gear Shifts

Fig. 2: Elongation of Chain After Repeated Gear Shifts

Model QA-200

UNIGLIDE-II (UG-II)

SPECIFICATIONS

Material: Steel
Surface Treatment: Roller Link Plate/Black finish, Pin Link Plate/Brown finish
Type: Roller Chain

NEW UNIGLIDE

Model QA-400

UNIGLIDE-600 (UG-600)

SPECIFICATIONS

Material: Steel
Surface Treatment: Roller Link Plate/Black finish, Pin Link Plate/Golden finish
Type: Roller Chain

NEW UNIGLIDE

SHIMANO freehub

FREEHUB

The freehub combines the rear freewheel and hub in one integral unit.

It's stronger. There are no screws to come loose. And one integral unit can withstand a load better than two parts attached by screws.

It's lighter. While a hub and freewheel assembly normally weighs 650g., the freehub weighs 475g. (470g. for children's use)—about 27% less.

It's smaller. Gears with less teeth (14T) are possible on the freehub.

It's more economical. Less raw material, no assembly work goes into its making.

And the freehub is available for both adult use (A) and child use (C).

Features of the Type A Freehub

1. Weight reduction of about 27%.
2. Enhanced compactness, following the trend towards more compact bicycles.
3. Can be fitted with gears with fewer teeth, making a smaller front gear assembly possible.
4. Assures light and smooth revolution, as there are no screws to come loose.
5. Increased strength and safety.
6. More economical. 30% less material is used, and no assembly work is necessary.

Model HE-300

FREEHUB-A (FH-A)

SPECIFICATIONS

Material: Steel
Type: Small Flange Hub
Weight: 16.8 oz. (480 g.)
Over Lock Nut Dimensions: 4.5″ (114mm.)
Spoke Holes: 20H, 28H, 36H
Sprocket Combinations: 14 Teeth
Standard Sprocket: 1/2″ x 1/8″ Chain

Features of the Type C Freehub

1. Weighs only 470g.
2. An ideal size for children's bicycles.
3. Can be fitted with gears with less teeth (14T), making a smaller front gear assembly possible.
4. High strength at a reasonable price.
5. Elimination of assembly work.
6. "For children's use" is clearly marked on the product.

Model HE-400

FREEHUB-C (FH-C)

SPECIFICATIONS

Material: Steel
Type: Small Flange Hub
Weight: 16.8 oz. (480 g.)
Over Lock Nut Dimensions: 4.5″ (114mm.)
Spoke Holes: 20H, 28H, 36H,
Sprocket Combinations: 14 Teeth
Standard Sprocket: 1/2″ x 1/8″ Chain

NEW

NEW



SHIMANO hub Small & Large

HUB

Model HC-210

SMALL FLANGE HUB WITH QUICK RELEASE

SPECIFICATIONS

Weight: Front 8.3 oz. (235 g.), Rear 12.3 oz. (350 g.)
Material: Light Alloy
Type: Quick Release
Thread: 1.37″ x 24 T.P.I.
Over Lock Nut Dimensions:
Front 3.78″ (96mm), Rear 4.88″ (124mm.)
Spoke Holes: 36 x 36H

Model HC-200

SMALL FLANGE HUB

SPECIFICATIONS

Weight: Front 6.3 oz. (180 g.), Rear 10.9 oz .(310 g.)
Material: Light Alloy
Type: Solid Axle Type with Hub Nut
Thread: 1.37″ x 24 T.P.I.
Over Lock Nut Dimensions:
Front 3.66″ (93mm.), Rear 4.88″ (124mm.)
Spoke Holes: 36 x 36H

Model HC-110

LARGE FLANGE HUB WITH QUICK RELEASE

SPECIFICATIONS

Weight: Front 9.5 oz. (270 g.), Rear 12.7 oz. (360 g.)
Material: Light Alloy
Type. Quick Release
Thread: 1.37″ x 24 T.P.I.
Over Lock Nut Dimensions:
Front 3.78″ (96mm.), Rear 4.88″ (124mm.)
Spoke Holes: 36 x 36H

Model HC-100

LARGE FLANGE HUB

SPECIFICATIONS

Weight: Front 7.4 oz. (210 g.) 11.6 oz. (330 g.)
Material: Light Alloy
Type: Solid Axle Type with Hub Nut
Thread: 1.37″ x 24 T.P.I.
Over Lock Nut Dimensions:
Front 3.66″ (93mm.), Rear 4.88″ (124mm.)
Spoke Holes: 36 x 36H









Model HD-100

STEEL HUB

SPECIFICATIONS

Weight: 15.9 oz. (450 g.)
Material: Steel
Type: Solid Axle with Hub Nut
Over Lock Nut Dimensions:
Front 3.66″ (93mm.), Rear 4.88″ (124mm.)
Spoke Holes: 28H and 36H

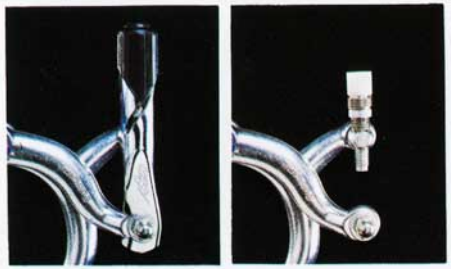


SHIMANO caliper brake

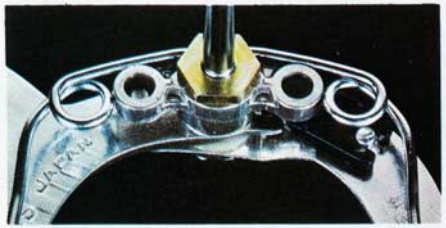
CALIPER BRAKE & BRAKE LEVER

Auto Adjust Mechanism

The Auto Adjust is designed to execute the automatic compensation of the rim-brake shoe clearances which change as brake shoes are worn or the brake wire is stretched. With the Auto Adjust, an optimum gap can always be maintained between the brake lever and the handle bar. As a result, greater riding safety is insured.



Synpul Mechanism



Side-pull caliper brakes are continually pulling to one side and requiring re-alignment. This problem is due to the design of the side pull arms which allows unequal force against the brake shoes, and thus, uneven braking.

Shimano's new "Synpul" design synchronizes the brake arms so that the same force from the rider's hand is distributed equally to the brake arms; and the brake shoes grip the wheel at the same time. Smooth, even braking means safer, more controlled stops.

Auto Adjust with Synpul

Model BB-240

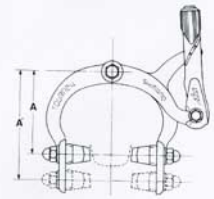
TOURNEY

SPECIFICATIONS

Material: Light Alloy
Type: Side Pull Auto Adjust with Synpul Mechanism

Type	A-A′	Weight (Pair)
CS-S72A	54mm.—72mm.	11.9 oz. (341 g.)
CS-S79A	61mm.—79mm.	12.3 oz. (351 g.)
CS-S88A	70mm.—88mm.	12.6 oz. (361 g.)

NEW





Auto Adjust

Model BB-210

TOURNEY

SPECIFICATIONS

Material: Light Alloy
Type: Side Pull Auto Adjust

Type	A-A′	Weight (Pair)
CS-72A	54mm.—72mm.	11.5 oz. (325 g.)
CS-79A	61mm.—79mm.	11.8 oz. (335 g.)
CS-88A	70mm.—88mm.	12.2 oz. (345 g.)



Synpul

Model BB-230

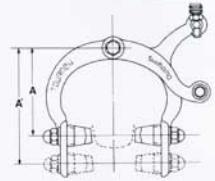
TOURNEY

SPECIFICATIONS

Material: Light Alloy
Type: Side Pull with Synpul Mechanism

Type	A-A′	Weight (Pair)
CS-S72	54mm.—72mm.	10.5 oz. (301 g.)
CS-S79	61mm.—79mm.	10.9 oz. (311 g.)
CS-S88	70mm.—88mm.	11.4 oz. (325 g.)

NEW





Model BB-200

TOURNEY

SPECIFICATIONS

Material: Light Alloy
Type: Side Pull

Type	A-A′	Weight (Pair)
CS-72	54mm.—72mm.	10.1 oz. (285 g.)
CS-79	61mm.—79mm.	10.4 oz. (295 g.)

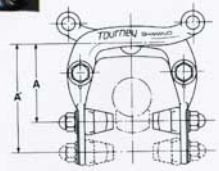


Link Mechanism

Adjusting a centerpull caliper brake has always required more than two hands. Shimano's innovative new "Link-type" centerpull caliper brake eliminates the need for the center cable, which connects the two brake arms, and the cable carrier assembly, which acts as a yoke in suspending the center cable.

The speed of adjusting a centerpull brake is greatly increased due to the simplicity of the Link-type CC. The result of this new design is a cleaner-looking, more efficient caliper, which makes cycling more fun.





Model BB-120

TOURNEY

SPECIFICATIONS

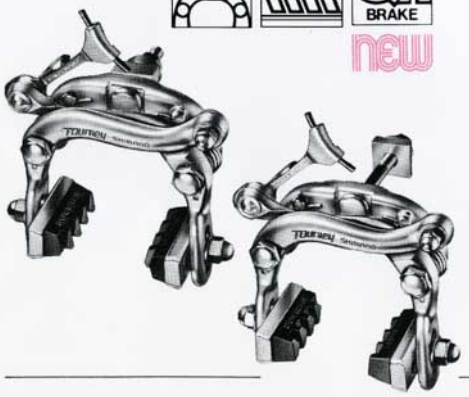
Material: Light Alloy

Type: Center Pull with Quick Release and Link Mechanism

Type	A-A′	Weight (Pair)
CC-L62	47mm.—62mm.	12.2 oz. (378 g.)
CC-L75	57mm.—75mm.	12.6 oz. (392 g.)

QR BRAKE

new



Auto Adjust

Model BB-110

TOURNEY

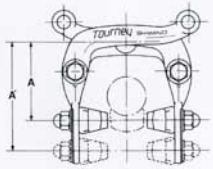
SPECIFICATIONS

Material: Light Alloy

Type: Center Pull Auto Adjust with Quick Release

Type	A-A′	Weight (Pair)
CC-62A	47mm.—62mm.	18.2 oz. (515 g.)
CC-75A	57mm.—75mm.	18.5 oz. (525 g.)

QR BRAKE



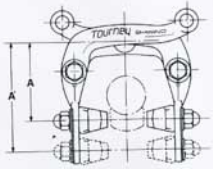
Model BB-100

TOURNEY

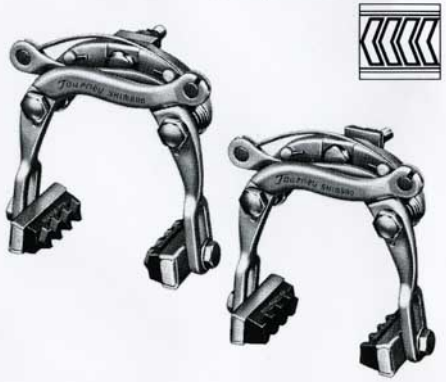
SPECIFICATIONS

Material: Light Alloy

Type: Center Pull



Type	A-A′	Weight (Pair)
CC-62	47mm.—62mm.	12.7 oz. (360 g.)
CC-75	57mm.—75mm.	13.1 oz. (370 g.)



Brake Lever

Model MB-110

DUAL EXTENSION LEVER

SPECIFICATIONS

Material: Light Alloy

Clamp Diameter: 22.2ϕ, 23.8ϕ



Model MB-100

HOODED LEVER

SPECIFICATIONS

Material: Light Alloy

Clamp Diameter: 22.2ϕ, 23.8ϕ



Model MD-100

POPULAR LEVER

SPECIFICATIONS

Material: Light Alloy

Clamp Diameter: 22.2ϕ



DISC BRAKE

Shimano has developed a self-energizing disc brake that successfully combines maximum safety control with minimum stopping distance. Equipped with Auto Adjust, which keeps the unit constantly adjusted, this high-performance brake always functions at maximum efficiency.



Model BC-300

DISC BRAKE E-TYPE

SPECIFICATIONS

Material:
Disc Plate/Stainless Steel
Pad/Wear Resistant Asbestos
Disc Brake Body/Chrome Plated Steel
Arm Assembly/Carbon Tool Steel
Weight: 17.7 oz. (505 g.) (Body)
8.05 oz. (230g.) (Disc)
Disc Plate Diameter: 147mm./5-3/4″
Disc Plate Thickness: 2.0mm.
Type: Disc Brake with Auto Adjust

Features:

The features of this revolutionary braking system are:

1. Powerful, shockless braking with a minimum of effort.
2. Reduced slippage, even in wet weather. The all weather performance means greater safety for cyclists.
3. The Auto Adjust mechanism compensates for cable stretch and pad wear so that the best braking force is always maintained.
4. Compact and lightweight, the self-energizing Disc Brake is easy to operate and install.

Model HD-200

SMALL FLANGE HUB

SPECIFICATIONS

Use: Disc Brake Only
Material: Steel
Type: Small Flange Hub
Over Lock Nut Dimensions: Choice of Sizes
Spoke Holes: 28H, 36H



COASTER BRAKE

Model CC-100

MIGHTY MITE

Economical Coaster Brake with lightweight and compact design.
Safe and easy to operate for children weighing less than 70 pounds.

SPECIFICATIONS

Weight: 21.9 oz. (620 g.)
Teeth: 14, 15, 18, 19, 20
Over Lock Nut Dimension: 4.29″ (109mm.)
Sprocket: 1/2″ x 1/8″ Chain
Spoke Holes: 20H, 24H, 28H
Riders Weight: 70 lb. or less
Wheel: 20″ or less

Model CB-100

COASTER BRAKE B-TYPE

SPECIFICATIONS

Weight: 30.0 oz. (850 g.)
Teeth: 14, 15, 16, 18, 19, 20
Over Lock Nut Dimension: 4.29″ (109mm.)
Sprocket: 1/2″ x 1/8″ Chain
Spoke Holes: 20H, 24H, 28H, 36H



SHIMANO hub gear

HUB GEAR & LEVER

Model TB-100

THREE SPEED HUB

SPECIFICATIONS

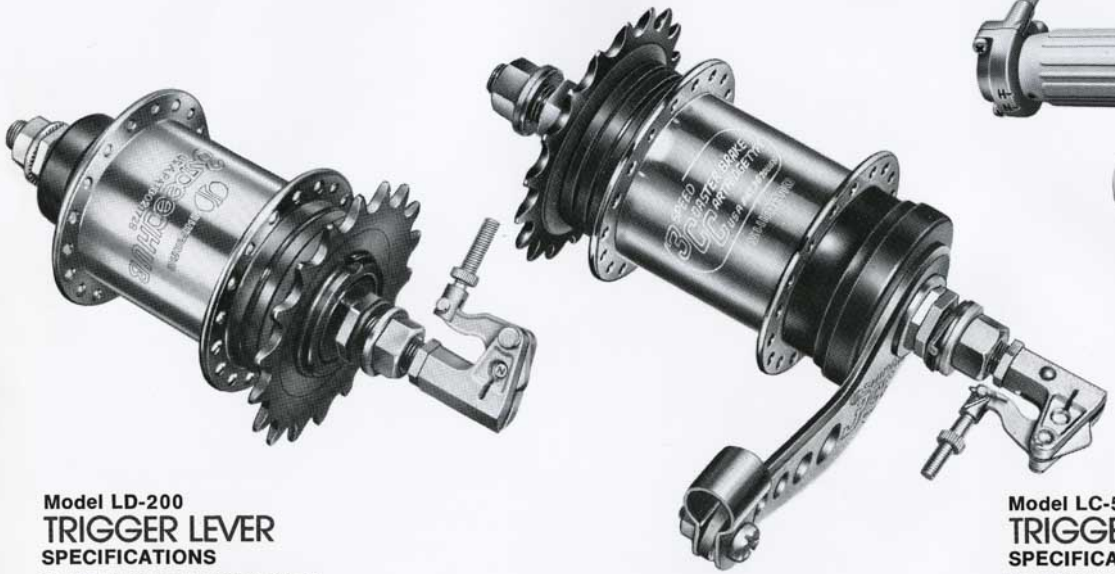
Weight: 38.8 oz. (1,100 g.)
Teeth: 14, 15, 16, 18, 19, 20
Gear Ratio: (H)1:1.33/(N) 1:1/(L) 1:0.75
Over Lock Nut Dimension: 4.37″ (110.9mm.)
Sprocket: 1/2″ x 1/8″ Chain
Spoke Holes: 28H, 36H

Model TC-100

THREE SPEED HUB WITH COASTER BRAKE

SPECIFICATIONS

Weight: 47.5 oz. (1,320 g.)
Teeth: 14, 15, 16, 18, 19, 20
Gear Ratio: (H) 1:1.33/(N) 1:1/(L) 1:0.75
Over Lock Nut Dimension: 4.76″ (120.0mm.)
Sprocket: 1/2″ x 1/8″ Chain
Spoke Holes: 28H, 36H



Model LD-300

TWIST GRIP CONTROL LEVER

SPECIFICATIONS

Use: Three Speed Hub Only
Attachment Position: Handle Bar-End



Model LD-200

TRIGGER LEVER

SPECIFICATIONS

Use: Three Speed Hub Only
Attachment Position: Handle Bar



Model LC-500

TRIGGER STEM

SPECIFICATIONS

Use: Three Speed Hub Only
Attachment Position: Handle Stem

new



SHIMANO spoke protector

SPOKE PROTECTOR

Model PB-100

SPOKE PROTECTOR

SPECIFICATIONS

Diameter: 4-1/2″ (110mm.)
Material: Steel
Use Range: Low Sprocket 24 teeth or less



Model PB-150

SPOKE PROTECTOR

SPECIFICATIONS

Diameter: 5.4″ (137mm.)
Material: Steel
Use Range: Low Sprocket 26 & 28 teeth



Model PB-130

SPOKE PROTECTOR

SPECIFICATIONS

Diameter: 7-1/2″ (190mm.) Material: Steel
Use Range: Low Sprocket
26 & 28 teeth



Model PB-140

SPOKE PROTECTOR

SPECIFICATIONS

Diameter: 8-1/2″ (215mm.)
Material: Steel
Use Range: Low Sprocket 32 & 34 teeth



SHIMANO cable

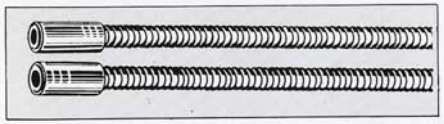
CABLE

Outer Casings and Inner Cables

Model WC-100

STAINLESS OUTER CASING WITH BOTH CAPS

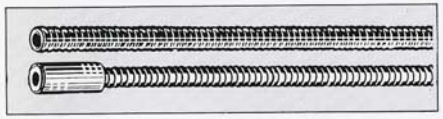
Length: 170mm, 280mm



Model WC-110

STAINLESS OUTER CASING WITH ONE CAP

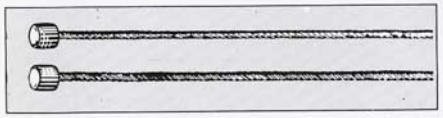
Length: 600mm, 630mm, 670mm



Model WJ-110

INNER CABLE (1.5mmϕ)

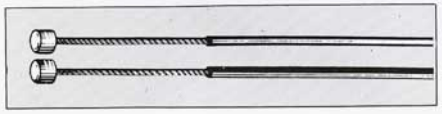
Length: 1,180mm, 670mm



Model WL-100

COATED INNER CABLE (1.2mmϕ)

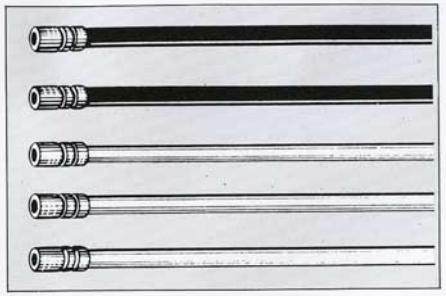
Length: 1,800mm, 1,850mm, 1,900mm, 1,320mm, 1,360mm, 1,400mm



Model WB-100

OUTER CASING WITH BOTH CAPS

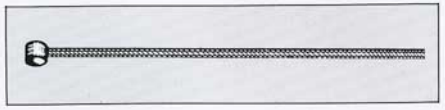
Length: 180mm, 250mm, 280mm, 360mm, 530mm, 1,030mm, 1,360mm, 1,550mm



Model WK-100

INNER CABLE (1.5mmϕ)

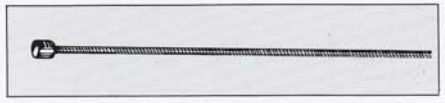
Length: 670mm, 750mm, 1,030mm, 1,180mm, 1,360mm, 1,550mm, 1,650mm



Model WJ-100

INNER CABLE (1.2mmϕ)

Length: 670mm, 750mm, 1,030mm, 1,180mm, 1,360mm, 1,550mm, 1,650mm



Universal Cables



①



②



③



④



⑤



⑥



⑦

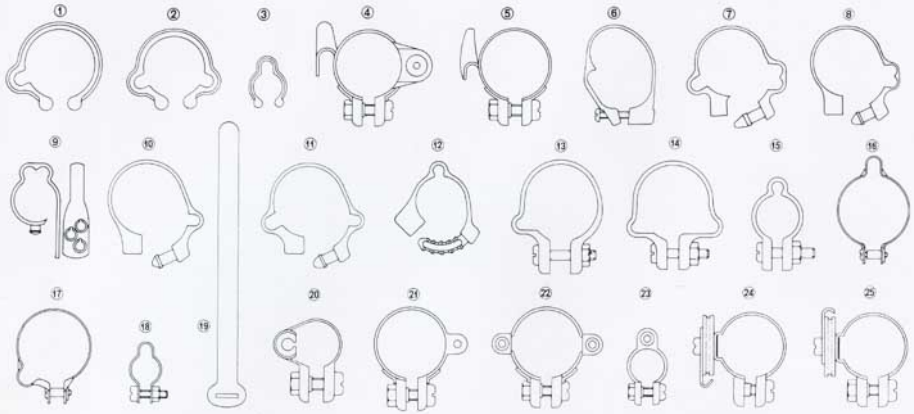


⑧

Item	Model No.	Description	Usage
1	KB-220	Universal Joint	
2	WS-100	#3SU Three Speed Universal Spare Cable With Universal Joint	All Kinds of SHIMANO Three Speed Hub and Three Speed Coaster Brake Control Lever
3	WT-100	#5DU-A 5 and 10 Speed Universal Spare Cable Shape of Cable End —⊖ 1.5ϕ	5 Speed Click Stick and Console Lever
4	WT-110	#5DU-B 5 and 10 Speed Universal Spare Cable Shape of Cable End —⊃ 1.2ϕ	5 and 10 Speed Ordinary Lever
5	WT-120	#DU-C 5 and 10 Speed Universal Spare Cable Shape of Double Cable End ⊃—⊖ 1.5ϕ	5 and 10 Speed Shifting Lever
6	WU-100	#BU-A Brake Universal Spare Cable Shape of Double Cable End ⊃—⊖ 1.8ϕ	All SHIMANO Brakes Except DURA-ACE
7	WA-100	#OCU-A Universal Outer Casing White	All Cables Except DURA-ACE
8	WV-110	#OCU-B Universal Outer Casing Black	

SHIMANO outer band

OUTER BAND



Item No.	Part No.	Description	
1	62010700	Outer Clip	1-1/8″(28.6)
	62010710	Outer Clip(Black)	1-1/8″(28.6)
	62010500	Outer Clip	1″(25.4)
	62010510	Outer Clip(Black)	1″(25.4)
2	62010800	Outer Clip	1-1/8″(28.6)
	62010810	Outer Clip(Black)	1-1/8″(28.6)
	62010600	Outer Clip	1″(25.4)
	62010610	Outer Clip(Black)	1″(25.4)
3	62010400	Outer Clip	7/8″(22.2)
	62010410	Outer Clip(Black)	7/8″(22.2)
	62010300	Outer Clip	3/4″(19.0)
	62010310	Outer Clip(Black)	3/4″(19.0)
	62010200	Outer Clip	5/8″(15.9)
	62010210	Outer Clip(Black)	5/8″(15.9)
	62010100	Outer Clip	1/2″(12.7)
	62010110	Outer Clip(Black)	1/2″(12.7)
4	62291101	Cable Guide	1-1/8″(28.6)
5	62290101	Cable Guide	1-1/8″(28.6)
6	83190320	Outer Band	1″(25.4)
	83190340	Outer Band(Black)	1″(25.4)
7	68711010	Outer Band for Positron	1″(25.4)
	68711030	Outer Band for Positron(Black)	1″(25.4)
	68712010	Outer Band for Positron	1-1/8″(28.6)
	68712030	Outer Band for Positron(Black)	1-1/8″(28.6)
8	68711000	Outer Band for Positron	1″(25.4)
	68711020	Outer Band for Positron(Black)	1″(25.4)
	68712000	Outer Band for Positron	1-18″(28.6)
	68712020	Outer Band for Positron(Black)	1-1/8″(28.6)
9	68713000	Outer Band for Positron	φ15. φ16. φ17.5
	68713010	Outer Band for Positron (Black)	φ15. φ16. φ17.5
	68713020	Outer Band for Positron	φ19. φ22.2
	68713030	Outer Band for Positron(Black)	φ19. φ22.2
10	69214000	Outer Band for PPS System	1-1/8″(28.6)
	69214020	Outer Band for PPS System (Black)	1-1/8″(28.6)
	69215000	Outer Band for PPS System	1″(25.4)
	69215020	Outer Band for PPS System(Black)	1″(25.4)

Item No.	Part No.	Description	
11	69214010	Outer Band for PPS System	1-1/8″(28.6)
	69214030	Outer Band for PPS System (Black)	1-1/8″(28.6)
	69215010	Outer Band for PPS System	1″(25.4)
	69215030	Outer Band for PPS System(Black)	1″(25.4)
12	69217000	Outer Band for PPS System	7/8″(22.2)
	69217010	Outer Band for PPS System(Black)	7/8″(22.2)
	69216000	Outer Band for PPS System	5/8″(15.9)
	69216010	Outer Band for PPS System(Black)	5/8″(15.9)
	69218000	Outer Band for PPS System	1/2(12.7)
	69218010	Outer Band for PPS System(Black)	1/2″(12.7)
13	69290220	Hose Band for PPS System(Black)	1″(25.4)
14	69290210	Hose Band for PPS System (Black)	1-1/8″(28.6)
	69290230	Hose Band for PPS System(Black)	1″(25.4)
15	69290270	Hose Band for PPS System(Black)	3/4″(19.0)
	69290260	Hose Band for PPS System(Black)	5/8″(15.9)
	69290250	Hose Band for PPS System(Black)	1/2″(12.7)
16	85590031	Outer Band for DURA-ACE & 600	1″(25.4)
17	85590032	Outer Band for DURA-ACE & 600	1″(25.4)
18	65191070	Outer Band	1/2″(12.7)
	65191080	Outer Band	7/16″(11.1)
19	61105010	Almi Band	5.9″(150)
	61105000	Almi Band	4.52″(115)
	61106000	Almi Band	3.14″(80)
20	61190052	Stopper Band	1-1/8″(28.6)
	61190062	Stopper Band	1″(25.4)
	91190101	Stopper Band	3/4″(19.0)
	61190111	Stopper Band	11/16″(17.5)
	64390441	Stopper Band	5/8″(15.9)
	64390451	Stopper Band	1/2″(12.7)
21	62291061	Outer Stopper	1-1/8″(28.6)
22	62291071	Outer Stopper	1-1/8″(28.6)
23	62291141	Outer Stopper	5/8″(15.9)
24	61190011	Guide Roller	1-1/8″(28.6)
25	61190022	Guide Roller	1″(25.4)

SHIMANO special tool

SPECIAL TOOL

Model XB-310
Plier for Three Speed Hub snap ring removal



Model XB-300
Spanner for cone, lock nut adjustment of Three Speed Hub; Three Speed Hub with Coaster Brake; and Coaster Brake



Model XA-160
(5mm. Key x 8mm. Hole) T-Type Wrench with Hexagon Wrench key

Model XA-170
(6mm. Key x 10mm. Hole)



Model XB-320
Tool for removing ball cup for Three Speed Hub



Model XA-130
Cotterless crank extractor



Model XA-110
Spanner for DURA-ACE Hubs



Model XA-150 (5mm.)
Model XB-100 (6mm.)
Hexagon wrench keys



Model XA-100
DURA-ACE Multiple Freewheel Removal Tool



Model XB-200
Boss type Multiple Freewheel Removal Tool



Model XA-120
DURA-ACE Grease

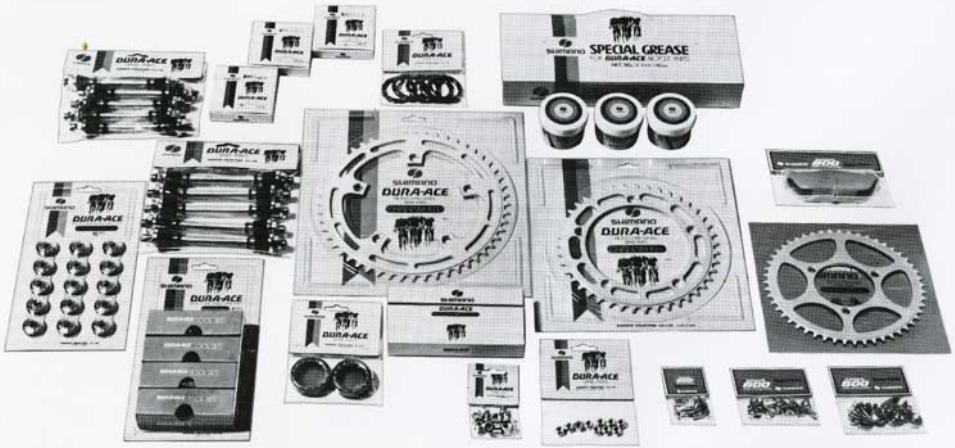


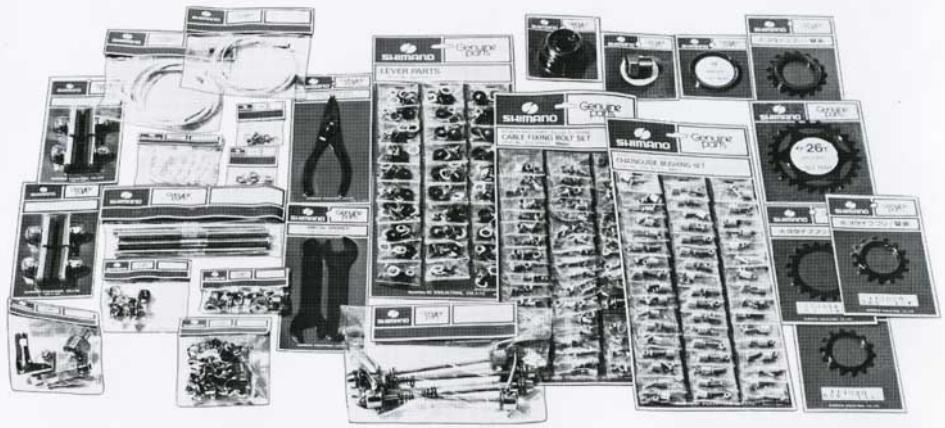
Model XA-140
Chainwheel screw peg spanner



SHIMANO small parts

SMALL PARTS



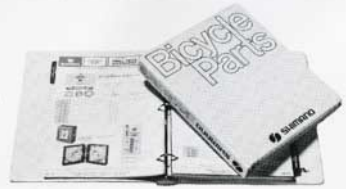


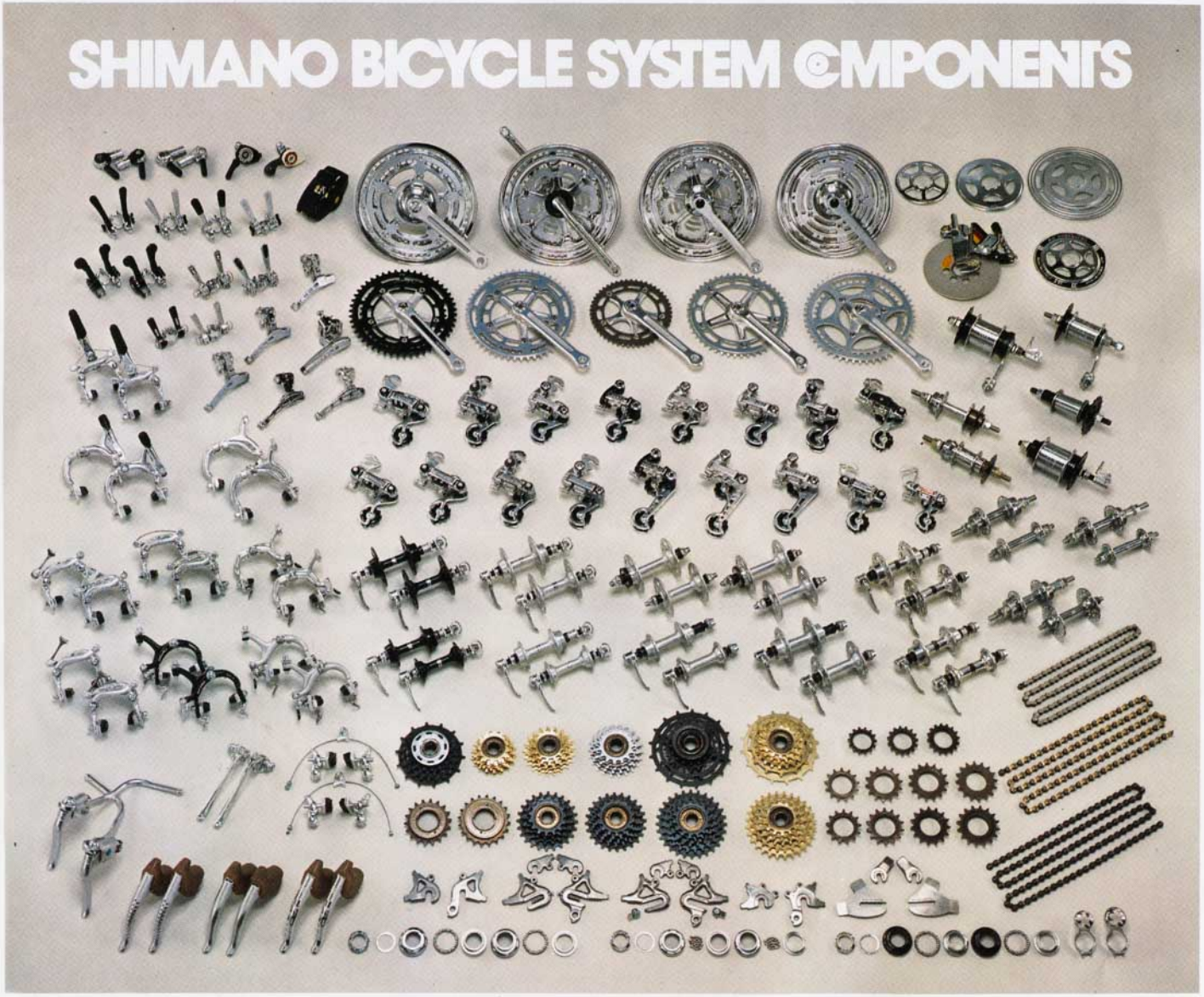
Item	Package Style	Contents	Q'ty
Sprocket for Front Chainwheel	Blister Packed	Sprocket	1
Brake Shoe Set	Blister Packed	Brake Shoe Complete (left)	2
		Brake Shoe Complete (right)	2
Outer Band Set for Caliper Brake	Polyester Bag with Header	Outer Band	3
		Bolt	3
		Nut	3
Complete Quick Release Unit for Front Hub (Over Lock Nut Dimension: 100mm)	Polyester Bag with Header	Hub Axle Set	5
		Quick Release Set	5
Complete Quick Release Unit for Rear Hub (Over Lock Nut Dimension: 120mm/ 5-speed, 126mm/6-speed)	Polyester Bag with Header	Hub Axle Set	5
		Quick Release Set	5
Rubber Cover Set for Brake Lever	Polyester Bag with Header	Rubber Cover Set	2
Crank Arm Dust Cap for Front Chainwheel	Blister Packed	Crank Arm Dust Cap	15
Adjusting Bolt, Nut and Spring for Fork End	Polyester Bag with Header	Adjusting Bolt	2
		Nut	2
		Spring	2
Ball Retainer for Head Parts	Special Polyester Case	Ball Retainer	2
Ball Retainer for Bottom Bracket	Blister Packed	Ball Retainer	20
Bottom Bracket Spindle Set for Front Chainwheel	Package	Spindle	1
		Ball Retainer	2
		L.H. Adjustable Cap	1
		Lock Ring	1
		R.H.Fixed Cap	1
		Spindle Bolt	2
		Spindle Washer	2
Crank Set for Front Chainwheel	Package	Left Crank Arm	1
		Right Crank Arm	1
		Crank Arm Dust Cap	2
		Chainwheel Fixing Bolt	5
		Chainwheel Fixing Nut	5

Item	Package Style	Contents	Q'ty
Lever Parts	Card	Wing screw	30
		Spring Washer	30
		Non-Turn Washer	30
		Pressure Plate	30
		Washer	60
Pulley Set for Rear Derailleur	Card	Pulley Bushing	30
		Pulley	30
		Pulley Cap	60
Cable Fixing Bolt Set for Rear Derailleur	Card	Cable Fixing Bolt	50
		Cable Fixing Washer	50
		Cable Fixing Nut	50
Adapter Screw Set for Rear Derailleur	Card	Adapter Nut	50
		Adapter Screw	50
Derailleur Cap Set	Card	Derailleur Cap	100
Cable Fixing Bolt Set	Card	Cable Fixing Bolt	50
		Cable Fixing Nut	50
		Cable Fixing Washer	50
Chain Guide Bushing Set	Card	Chain Guide Spacer Bolt	50
		Chain Guide Spacer	50
		Toothed Lock Washer	50
		Nut	50
Brake Shoe Set for Caliper Brake	Card	Brake Shoe Complete (left)	10
		Brake Shoe Complete (right)	10
Cable Anchor Set for Side Pull Caliper Brake (Tourney)	Card	Cable Anchor Bolt	50
		Washer	50
		Cap Nut	50

Item	Package Style	Contents	Q'ty
Cable Carrier Set for Center Pull Caliper Brake (Tourney)	Card	Cable Anchor Bolt	50
		Cable Carrier	50
		Cable Anchor Washer	50
		Cable Anchor Nut	50
Outer Band Set for Caliper Brake(Tourney)	Card	Outer Band	60
		Screw	60
Outer Clip Set for Caliper Brake	Card	Outer Clip	60
Bell Crank Set for Three-Speed Hub	Card	Bell Crank	20
		Bell Crank Lock Nut	20
Three-Speed Hub Axle	Polyester Bag with Header	Three-Speed Hub Axle	1
Tension Spring for Rear Derailleur	Polyester Bag with Header	P-Tension Spring	1
		B-Tension Spring	1
Wing Nut for Hub	Polyester Bag with Header	Wing Nut for Front Hub BC 5/16″	2
		Wing Nut for Rear Hub BC 3/8″	2
Complete Quick Release Unit for Hub Over Lock Nut Dimension: 96mm (Front) 124mm (Rear)	Polyester Bag	Complete Quick Release Unit (Front or Rear)	10
Hub Axle Set	Polyester Bag	Hub Axle Set (Front or Rear)	10
Sprocket for Multiple Freewheel	Vacuum Packed	Sprocket	1

- We have a complete line of small parts for DURA-ACE, 600 Series and all other Shimano products.
- Only a limited sample of our entire range is shown here.
- Please refer to the "Shimano Bicycle Parts" catalog which contains the complete line of Shimano parts.



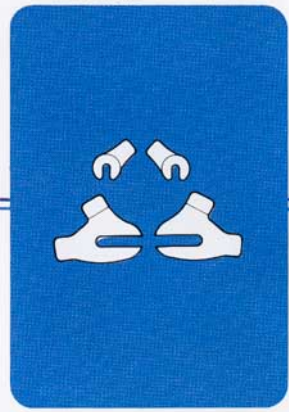
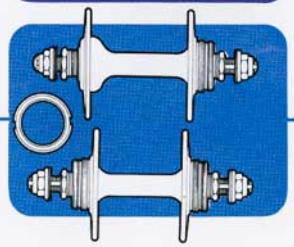


SHIMANO INDUSTRIAL CO.,LTD.

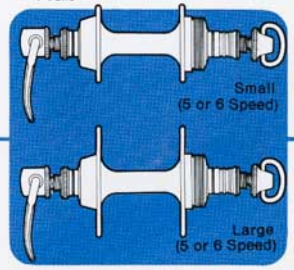
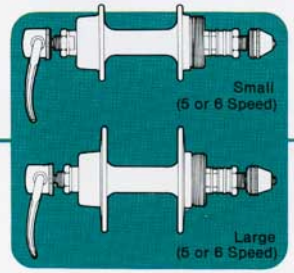
Established: February, 1921
Capital: ¥1,932,612,000 (about $6,442,000)
Number of Employees: 1,200
Head Office and Main Plant:
Shimano Industrial Co., Ltd.
3-77 Oimatsucho, Sakai, Osaka, Japan
Total Area: 37,308 sq. meters
Plant: 36,247 sq. meters
Tokyo Office:
Shimano Industrial Co., Ltd.
1-17-17 Omori-Minami, Ohtaku, Tokyo, Japan
Nagoya Office:
Shimano Industrial Co., Ltd.
2-37-1 Otobashidori, Nakagawaku, Nagoya, Japan
American Office:
Shimano American Corporation
1133 Avenue of the Americas, New York, New York 10036
TEL: (212) 586-2350
TELEX: 23224069 SACN UR
Shimano Sales Corporation
9259 San Fernando Road, Sun Valley, California 91352
TEL: (213) 767-7777
European Office:
Shimano (Europa) GmbH.
4 Düsseldorf 1, Hüttenstrasse 5, West Germany
TEL: 372007/08
TELEX:8587249 SEGH D
Shimonoseki Plant:
Shimano Yamaguchi Co., Ltd.
1414 Higashishinden, Ozukicho, Shimonoseki, Yamaguchi, Japan
Total Area: 127,303 sq. meters
Plant: 12,163 sq. meters
Singapore Plant:
Shimano (Singapore) Pte. Ltd.
No. 20, Benoi Sector, Jurong Town, Singapore 22
Tokyo Plant:
Shimano Adachi Co., Ltd.
1-50-26 Ogimachi, Adachiku, Tokyo, Japan
Total Area: 386 sq. meters
Plant: 317 sq. meters
Service Centers (Fishing Tackle):
Sapporo, Sendai, Tokyo, Nagoya, Tokushima, Fukuoka, Hiroshima, Osaka
NFT:
Nippon Fishing Tackle Co., Ltd.
2-37-5 Kamiuma, Setagayaku, Tokyo, Japan

SYSTEM COMPONENTS CHART

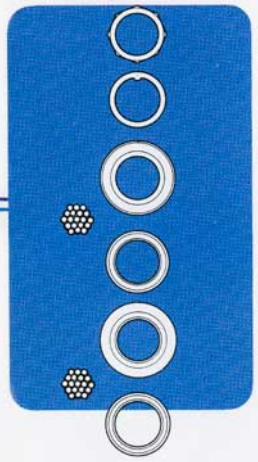
TRACK RACING COMPONENTS

	Front Chainwheel	Sprocket	Hub	Chain	Fork Ends
DURA-ACE 10 Series	 Teeth: 46~55T	 Teeth: 14, 15, 16			
DURA-ACE Series	 Teeth: 45~52T	 Teeth: 13, 14, 15, 16			

ROAD RACING COMPONENTS

	Front Chainwheel	Multiple Freewheel	Hub	Front Derailleur	Rear Derailleur
DURA-ACE Series	 Teeth: Inner Chain Ring 39~48T Outer Chain Ring 48~55T	 Standard Sprocket Combinations: 5-speed: 13, 15, 17, 19, 21T / 14, 16, 18, 20, 22T / 15, 17, 19, 21, 24T; 6-speed: 13, 14, 15, 16, 17, 18T / 13, 15, 17, 19, 21, 23T	 Small (5 or 6 Speed) Large (5 or 6 Speed)		
SHIMANO-600 Series	 Teeth: 30~53T	 Standard Sprocket Combinations: 5-speed: 13, 14, 15, 16, 17 teeth / 13, 15, 17, 19, 21 teeth	 Small (5 or 6 Speed) Large (5 or 6 Speed)		

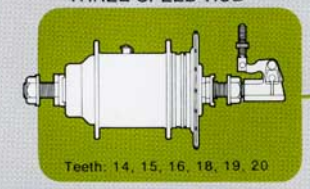
Head Parts



3 SPEED COMPONENTS

Gear Hub

THREE SPEED HUB



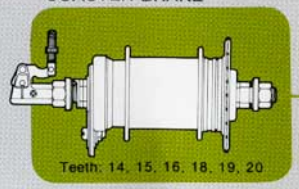
TWIST GRIP CONTROL LEVER



TRIGGER LEVER



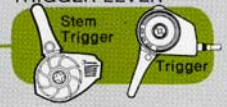
THREE SPEED HUB WITH COASTER BRAKE



TWIST GRIP CONTROL LEVER



TRIGGER LEVER

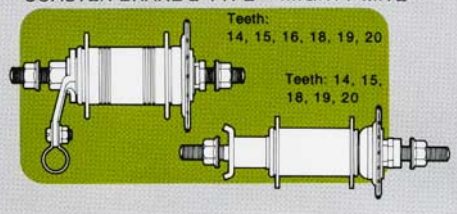


BRAKES

Coaster Brake

COASTER BRAKE B-TYPE

MIGHTY MITE

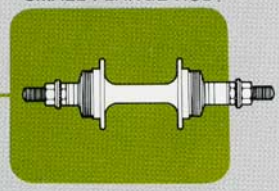


Disc Brake

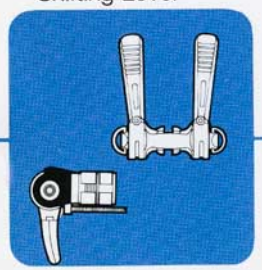
DISC BRAKE E-TYPE



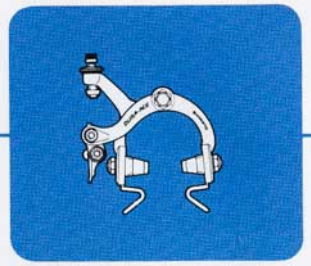
SMALL FLANGE HUB



Shifting Lever



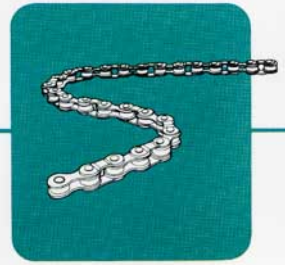
Brake



Brake Lever



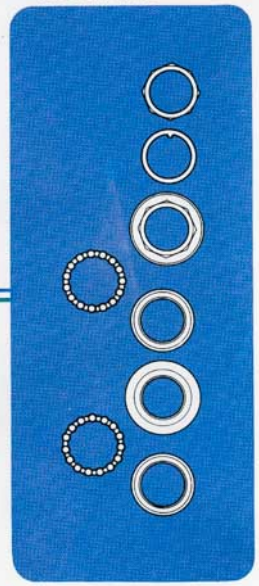
Chain

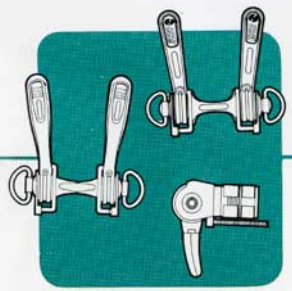


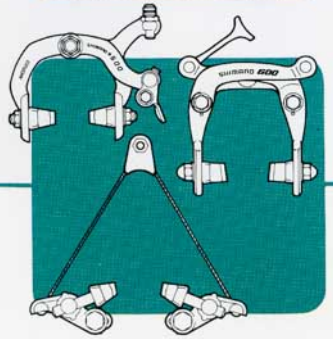
Fork Ends

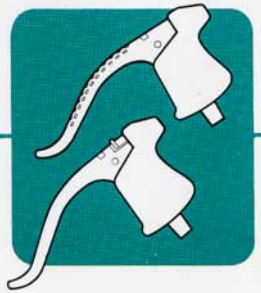


Head Parts











SYSTEM COMPONENTS CHART

5 & 10 SPEED COMPONENTS

Shifting Lever	Front Derailleur	Rear Derailleur
QB-LEVER QS-LEVER QP-LEVER ALMI LEVER FINGER-TIP UNI SHIFT	SHIMANO-500 TITLIST SHIMANO-400 THUNDER BIRD-II	SHIMANO-500 SHIMANO-500GS SHIMANO-400 SHIMANO-400GS TITLIST TITLIST-GS TOURNEY TOURNEY-GS EAGLE-II LARK-II SKY LARK

FF SYSTEM COMPONENTS

Front Chainwheel

SINGLE CHAINWHEEL (1-Piece)
DOUBLE CHAINWHEEL INTEGER (1-Piece)
SINGLE CHAINWHEEL (3-Piece)
DOUBLE CHAINWHEEL INTEGER (3-Piece)
DOUBLE CHAINWHEEL (3-Piece)



Integer

Shifting Lever	Front Derailleur	Rear Derailleur
SAME AS 5 & 10 SPEED COMPONENTS	SAME AS 5 & 10 SPEED COMPONENTS	SHIMANO-400F EAGLE-II LARK-II



Lark II

NEW POSITRON PPS SYSTEM

Shifting Lever	Front Derailleur	Rear Derailleur
POSITRON STEM POSITRON-EM POSITRON CONSOLE POSITRON DOWN TUBE	SAME AS 5 & 10 SPEED COMPONENTS	POSITRON-400 POSITRON-II



Positron Stem



Positron-II

FF SYSTEM PLUS PPS SYSTEM

Front Chainwheel

SINGLE CHAINWHEEL (1-Piece)
DOUBLE CHAINWHEEL INTEGER (1-Piece)
SINGLE CHAINWHEEL (3-Piece)
DOUBLE CHAINWHEEL INTEGER (3-Piece)
DOUBLE CHAINWHEEL (3-Piece)



Integer

Shifting Lever	Front Derailleur	Rear Derailleur
POSITRON STEM POSITRON-EM POSITRON CONSOLE POSITRON DOWN TUBE	SAME AS 5 & 10 SPEED COMPONENTS	POSITRON-400 POSITRON-II



Positron Stem



Positron-II

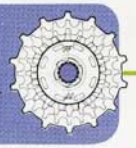
POSITRON SYSTEM COMPONENTS

Shifting Lever	Front Derailleur	Rear Derailleur
POSITRON LEVER POSITRON-EM	SAME AS 5 & 10 SPEED COMPONENTS	POSITRON

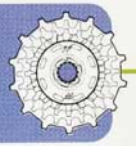




Multiple Freewheel	Hub	Caliper Brake	Brake Lever	Chain
MULTIPLE FREEWHEEL SINGLE FREEWHEEL	SMALL FLANGE HUB WITH QUICK RELEASE SMALL FLANGE HUB LARGE FLANGE HUB WITH QUICK RELEASE LARGE FLANGE HUB STEEL HUB	SIDE PULL WITH AUTO ADJUST & SYNPUL SIDE PULL WITH AUTO ADJUST SIDE PULL WITH SYNPUL SIDE PULL CENTER PULL WITH AUTO ADJUST CENTER PULL WITH LINK CENTER PULL	POPULAR LEVER HOODED LEVER DUAL EXTENSION LEVER	UNIGLIDE-II
Freehub	FREEHUB (FH-A) FREEHUB (FH-C)			

Multiple Freewheel	Hub	Caliper Brake	Brake Lever	Chain
FRICTION FREEWHEEL 	SAME AS 5 & 10 SPEED COMPONENTS	SAME AS 5 & 10 SPEED COMPONENTS	SAME AS 5 & 10 SPEED COMPONENTS	UNIGLIDE-II

Multiple Freewheel	Hub	Caliper Brake	Brake Lever	Chain	Shifting Cable
SAME AS 5 & 10 SPEED COMPONENTS	SAME AS 5 & 10 SPEED COMPONENTS	SAME AS 5 & 10 SPEED COMPONENTS	SAME AS 5 & 10 SPEED COMPONENTS	UNIGLIDE-II	PUSH-PULL CABLE

Multiple Freewheel	Hub	Caliper Brake	Brake Lever	Chain	Shifting Cable
FRICTION FREEWHEEL 	SAME AS 5 & 10 SPEED COMPONENTS	SAME AS 5 & 10 SPEED COMPONENTS	SAME AS 5 & 10 SPEED COMPONENTS	UNIGLIDE-II	PUSH-PULL CABLE

Multiple Freewheel	Hub	Caliper Brake	Brake Lever	Chain	Shifting Cable
SAME AS 5 & 10 SPEED COMPONENTS	SAME AS 5 & 10 SPEED COMPONENTS	SAME AS 5 & 10 SPEED COMPONENTS	SAME AS 5 & 10 SPEED COMPONENTS	UNIGLIDE-II	DOUBLE WIRE CABLE

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Specifications are subject to change without notice.

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Please check the boxes for requirements

(1) Please send the following shop service manuals:

- ☐ Disc Brake
- ☐ Coaster "B" Brake
- ☐ Auto Adjust Brake
- ☐ Positron Derailleur
- ☐ FF System

(2) Please send the following sales aids:

- ☐ FF System consumer brochures
- ☐ FF System bicycle POP Display Arrow (Limit: 2 per shop)
- ☐ Complete replacement parts catalog w/binder ($6.50 plus Calif. sales tax)

(3) Please send order forms for the following items:

- ☐ Racing Posters
- ☐ Complete Shimano Dura-Ace Professional Cycling clothing ensemble
- ☐ Uniglide Chain

SHIMANO

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Sun Valley, California 91352

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