TRIUMPH

Guarantee

This TRIUMPH bicycle is guaranteed against defects of manufacture for a period of 12 months from the date of sale provided it remains during that period the property of the first retail purchaser. This Guarantee does not apply to damage caused by wear and tear, misuse or neglect. The employment of a motor-attachment constitutes misuse for the purposes of this Guarantee.

All conditions or warranties implied by statute or otherwise as to the quality or fitness for the purpose of cycling are hereby excluded. THE LIABILITY WHICH WE ACCEPT UNDER THIS GUARANTEE IS LIMITED TO THE FREE SUPPLY OF A NEW PART IN EXCHANGE FOR THE PART WHICH MAY HAVE PROVED DEFECTIVE, OR AT OUR DISCRETION TO THE REPAIR OF THE ORIGINAL PART, EXCLUDING IN EITHER CASE THE COST OF FITTING, AND DOES NOT EXTEND TO ANY RESULTING LOSS OR INJURY.

If a defective part shall be found in any of our machines within the period specified above it must be sent to us carriage paid with a request that it be replaced free of charge under the Guarantee. The number of the bicycle (which will be found stamped on the Seat Lug of the Frame) the name of the Dealer from whom it was purchased and the date of purchase must also be stated.

This Guarantee extends only to those bicycles which are purchased either direct from us or from one of our duly appointed Dealers and does not apply to bicycles which have been used for hiring out purposes or from which our Trade Mark or manufacturing numbers have been removed.

This Guarantee applies only to those parts of the bicycle manufactured by us and in the case of defects in components such as tyres, rims and saddles, the purchaser should refer to the respective manufacturers of these components.

KEEP THIS GUARANTEE AND MAINTENANCE BOOK FOR FUTURE REFERENCE

This TRIUMPH Cycle

was made in the World's largest and most up-to-date cycle factory where employees enjoy all benefits of National Engineering Awards.

TRIUMPH CYCLE COMPANY LTD.

Nottingham, England.

A Product of Raleigh Industries Ltd.

Date.....M/C. No.....

Owner's Name.....

Address.....

.....

Dealer.....

S 9291

KEEP THIS GUARANTEE AND MAINTENANCE BOOK FOR FUTURE REFERENCE

CARE FOR YOUR CYCLE

PUBLISHED BY
RALEIGH
INDUSTRIES
LIMITED
NOTTINGHAM
ENGLAND

CYCLE USERS' HANDBOOK

TROUBLE-FREE CYCLING!

We hope you will be proud of the bicycle you now own—we are. It is a precision-built machine, the product of over 70 years research and manufacturing " know-how ".

Within the 60 acres of our factory in Nottingham there are huge machines, designers, technicians, skilled workers, all uniting to produce—your bicycle.

We at Raleigh want you to keep your bicycle in first-class running order. Naturally, we are happy for people to see and admire our bicycles on the road and we aim to help you to be as proud of your machine in years ahead as you are today.

That is why we have written this handbook to show you how simply you can maintain your cycle with the minimum of effort and expense. Any adjustments your cycle may need are fully and simply explained. Equally important, this book tells you when you should seek the help of your cycle dealer.

Remember, your bicycle is a precision machine designed to give you trouble-free cycling for many years. If replacement parts are needed at any time get them from your dealer and make sure they are made by Raleigh. RI parts have been made to fit your cycle exactly and designed to do their job to perfection.

We give you this book in the hope that it will help you to enjoy many years of trouble-free service from your bicycle.

HAPPY CYCLING!

Ready for the Road

Your dealer will have seen that your bicycle is ready for the road, but before riding adjust saddle and handlebar to give comfortable riding position.

After the first few miles the following points should be checked :

1. Tighten all nuts.
2. Make sure that pedals are tightly screwed to cranks.
3. Verify correct adjustment of brakes.
4. Check correct gear adjustment if variable gear is fitted.
5. Ensure wheels run true.
6. Check that steering is free but not loose.
7. Lubricate as shown on chart.
8. Check tyre pressure.

Care for your Cycle

Ensure longer life for your cycle by cleaning and oiling regularly.

CLEANING. All the metal parts of the machine can be cleaned with warm soapy water and rinsed with clean water, then finished with a dry duster.

CHROMIUM PLATING. DO NOT USE METAL POLISH OR RUB HARD. Finish with a dry cloth with a slight trace of oil which will keep your plating bright.

ENAMEL. A good wax polish may be used periodically. Polish containing silicones should not be used on colour finishes.

CHAINS AND FREEWHEELS. Your chain and freewheel should be lubricated every two weeks. If a gearcase is fitted, this can be done by inserting about a teaspoonful of oil through lubricator while revolving cranks.

SADDLE. Keep saddle dry. If it should become wet, allow to dry naturally. Do not ride on a wet saddle—it will do neither you nor the saddle any good.

Care for your Tyres

Your tyres will last longer if the following points are observed:

1. Always keep tyres inflated hard. It will repay you in extra mileage gained and easier riding. A soft tyre is dangerous and costly.

2. Use your brakes intelligently. Hard unnecessary braking causes undue wear.

3. Ensure when oiling your cycle that oil does not run down the spokes to the tubes.

Never let petrol (gasoline), paraffin (kerosene), naphtha or other solvents of rubber come in contact with your tyres.

PUNCTURES

A puncture outfit should be carried and instructions for use are usually included in the outfit. Removal of tyres for carrying out repairs is as follows:

Completely deflate; push the two wire edges off the shoulder of the rim right down into the well. With a small tyre lever, lift a portion of the wire edge near the valve over the side of the rim. Care should be taken not to nip tube.

FITTING

See that the rim tape is correctly positioned in the centre of the rim. Fit one side of cover. Slightly inflate the inner tube and place it within the cover. Pass the valve through the valve hole and secure with the knurled valve nut. Fit the opposite side of cover at a point opposite the valve, working a little on each side, keeping the wire in the rim well. The last few inches are preferably pushed over by hand or may be gently levered over with a small tyre lever, but if a lever is used be careful not to nip the inner tube. Inflate a little and make quite certain that the cover is correctly seated on the shoulders of the rim by pushing it away from the rim with the fingers. Fully inflate and tighten the knurled valve nut. Finally check for truth by rotating the wheel.

When buying new tubes or covers, ensure that the correct size is obtained. Sizes are shown on cycle rim and on tubes and covers. They must agree.

Riding Position

The correct riding position is the one that gives *you* the most comfort and balance; no two riders are alike, but a few points may assist you to find the best position for yourself.

Correct saddle-height can be determined by placing the heel on the pedal when at its lowest position, with the leg fully extended. This allows for a slight bend in the knee when pedalling with the ball of the foot on the pedal. The nose of the saddle should be tilted slightly upwards and be about two inches behind a vertical line cutting through the centre of the bottom bracket.

With the handlebar grips approximately in line with the top of the saddle, your weight should be so balanced that the hands rest lightly on the handlebars, thus preventing strain on the wrists and forearms.

Instructions for adjusting saddle and handlebars appear on Page 8.

Patent Front Fork Lock

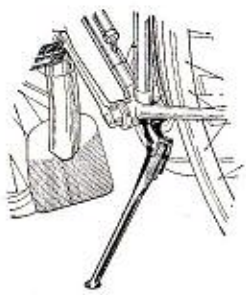
The lock has three positions determined by the holes in the locking plate. When parking on kerb or by prop stand it is advisable to lock in either right- or left-hand position. Do not lubricate lock as oil will attract dirt which may clog the mechanism. An occasional smear of oil on locking bolt is all the maintenance required.

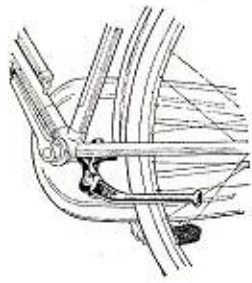
DO NOT RIDE WITH KEY IN LOCK
MAKE A NOTE OF KEY NUMBER

Prop Stand

This requires no lubrication, but keep return spring free of mud and dirt and ensure that in "up" position it does not foul crank or wheel.

DO NOT SIT ON MACHINE
WITH STAND DOWN





MINOR ADJUSTMENTS

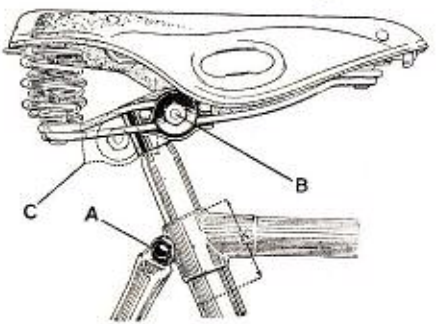
The next few pages show adjustments which you may wish to carry out yourself, but if you are in any doubt your dealer will do them for you. It could be dangerous to attempt even a small adjustment unless you are sure you can do it properly.

Saddle

Raise or lower by loosening nut " A ". *Ensure that at least 2½" of the pillar remain in the frame.*

By loosening nuts " B " on either side of saddle the chassis can be adjusted forward or back. The saddle can be set back still further if the clip is reversed as shown on dotted line " C ".

TIGHTEN ALL NUTS AFTER ADJUSTMENT.



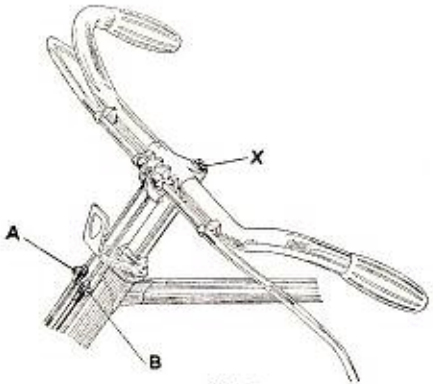


Fig. 1

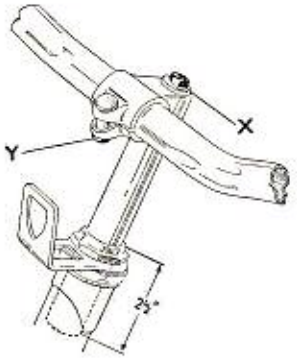


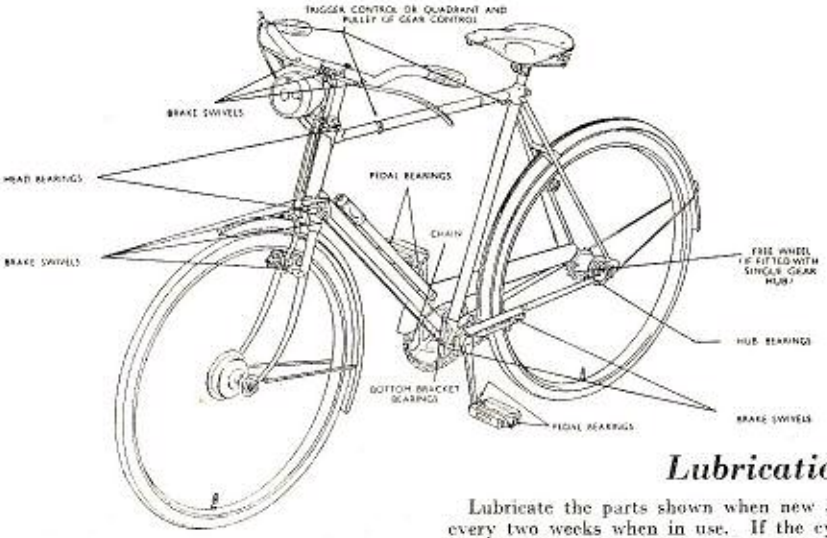
Fig. 2

Handlebars

Raise or lower by loosening expander bolt " X " two turns and giving it a gentle tap. This will release expander cone and allow stem to move. Tighten bolt " X " when bars are at the desired height.

With Rod Brakes (fig. 1) loosen nuts A and B to allow the brake rods to take up the new position, then re-adjust as shown on pages 18–19. Calliper brakes (fig. 2) are not affected, but if the angle of the handgrips needs adjustment, loosen nut " Y " and rotate bars to desired angle.

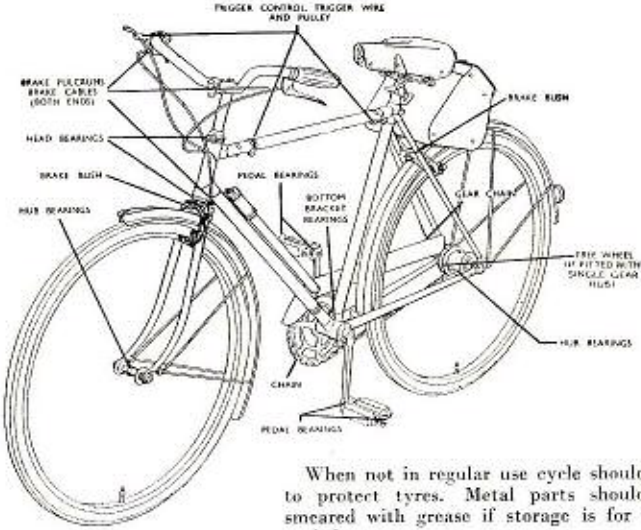
ENSURE THAT AT LEAST 2½" OF HANDLEBAR STEM REMAIN IN FORK STEERING TUBE



Lubrication

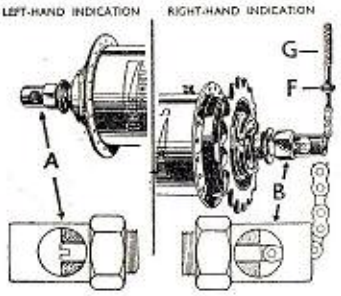
Lubricate the parts shown when new and every two weeks when in use. If the cycle has been idle for some time, lubricate before using. DO NOT OVER-OIL.

DO NOT ALLOW SURPLUS OIL TO RUN DOWN SPOKES AND RUIN TYRES



When not in regular use cycle should be hung up to protect tyres. Metal parts should be lightly smeared with grease if storage is for an extended period.

AFTER USING A NEW CYCLE FOR ONE WEEK, CHECK ALL NUTS AND BOLTS FOR TIGHTNESS



Sturmey-Archer Hub Gears

Unless correctly adjusted, variable speed gears will not function properly, and slipping and damage can soon occur.

New cables give, therefore it is advisable to check adjustment frequently in the first few weeks.

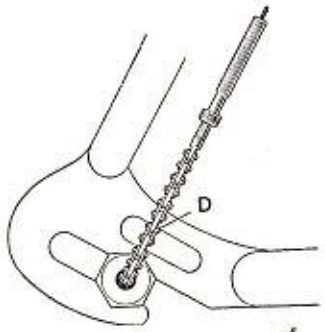
Correct adjustment is shown by *either* a left hand (" A ") or right hand (" B ") indicator, and the accompanying diagrams give visual instructions on how to get the correct and only position in which gears will function satisfactorily.

To adjust, place control lever in No. 2 position, making sure that control fulcrum and pulley are securely clipped to cycle and that axle nuts are tight.

Loosen knurled nut " F " and rotate knurled connection " G " until the end of indicator is flush with end of axle as viewed at " A " or " B ". Indicator will automatically take up other positions when control lever is moved to different gear positions.

Make sure chain " D " runs smoothly over guide on axle nut and that it is not twisted or strained.

A slipping gear should be checked immediately as continued use will lead to trouble.



Right

Wrong

Benelux Mark VII

Changing gear must be done while pedalling, and when this is done at the exact moment that the chain is taking up on the next cog, and the drive taken up once again at just the right time, changing will be noiseless. This is all a question of practice.

DON'T strain the cable unnecessarily by moving the control lever when the machine is at rest, and even when pedalling don't move the lever except with a definite purpose.

DON'T ride your cycle with a slack chain. The tension arm must be in tension when on top gear.

DON'T expect the bearings of the chain action to lubricate themselves. Oil and keep clean; grease plastering is dirty and quite unnecessary.

MAJOR ADJUSTMENTS

Until now we have dealt with the simple tasks that you can do yourself. From time to time adjustments of a major nature will be necessary, and although we recommend that the dealer should be consulted, the following information is given for the guidance of the rider who prefers to undertake his own maintenance.

Calliper Brakes

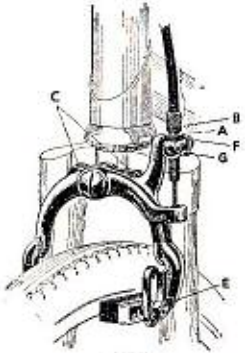


Fig. 1

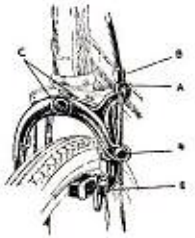


Fig. 2

Front or Rear.

1. Loosen finger nut " A ".

2. By adjuster " B ", set blocks just to clear rim.

3. Tighten nut " A ".

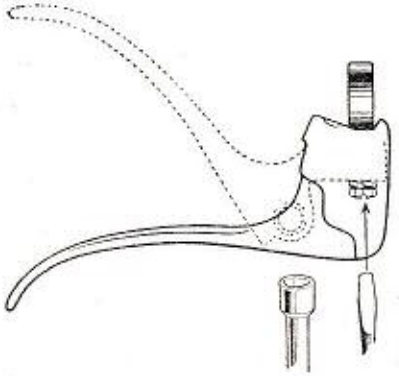
4. If one block is nearer rim than other, compensate by tapping opposite coil of spring at " C ".

5. Tighten nuts " E " so that blocks meet rim squarely.

If the brake is of the type shown in Fig. 2, extra adjustment can be obtained at eyebolt " N ".

In the case of lady's rear brake the cable enters the adjuster from below.

Worn brake blocks and frayed cables should be replaced—for your safety.



Calliper Brake Levers

The position of the brake levers should never be altered by force. In all cases the clip bolt and nut holding lever to the bar should be loosened first.

The fixing bolt is concealed within the hood. To adjust, it is necessary to release cable from the slot in the hood and move it downwards. This will be made easier if the cable stop " G " (page 15, Fig. 1) is released from brake stirrup. The head of the bolt can now be loosened with a strong screwdriver. *Make sure that lockwasher is in position and thoroughly tighten bolt after adjustment.*

Hub Brakes

It is essential that the clip " C " which secures anchor plate to frame or fork is kept tight as play here will reduce efficiency of brake.

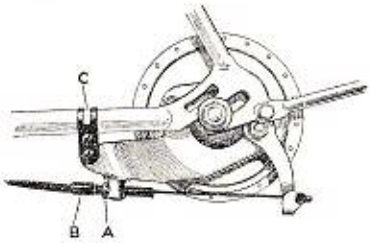
Rod Control.

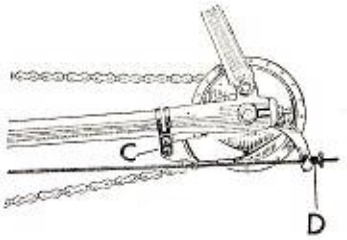
To adjust, tighten nut " D " until brake just binds, then slacken back until wheel revolves freely.

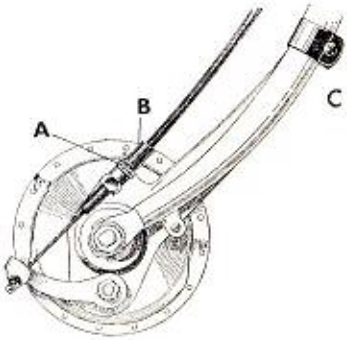
The remarks on page 18 regarding the adjustment of rim brakes apply if alteration is made to the handlebar height.

Cable Control.

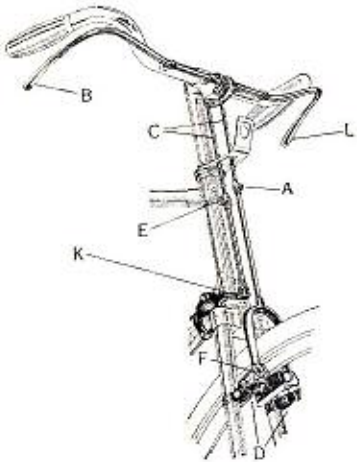
The locknut " A " must be loosened before adjuster " B " is moved. Tighten locknut " A " after adjustment.







Brakes (Roller Lever)



Front.

1. Loosen nut " A ".

2. Raise stirrup until blocks almost touch rim.

3. Depress roller lever " B " and brake rod " C ".

4. Tighten nut " A ".

5. With brakes " on " tighten nuts " F ", ensuring that blocks fit squarely to rim.

6. Make sure stirrup pegs are fully engaged in guides " D ".

Rear.

1. Loosen nuts " E " and " H ".

2. Set bellcrank " J " until it touches bottom bracket.

3. Move stirrup until blocks almost touch rim. Tighten nut " H ".

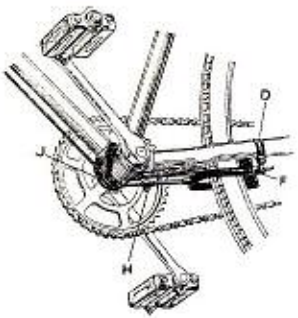
4. Slightly raise tube at " K ", depress roller lever " L " and brake rod " C ".

5. Tighten nut " E ".

6. With brake " on " tighten nuts " F ", seeing that blocks fit squarely to rim.

7. Make sure pegs are fully engaged in guides " D ".

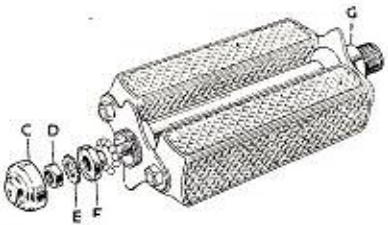
WORN BRAKE BLOCKS SHOULD BE REPLACED FOR YOUR OWN SAFETY

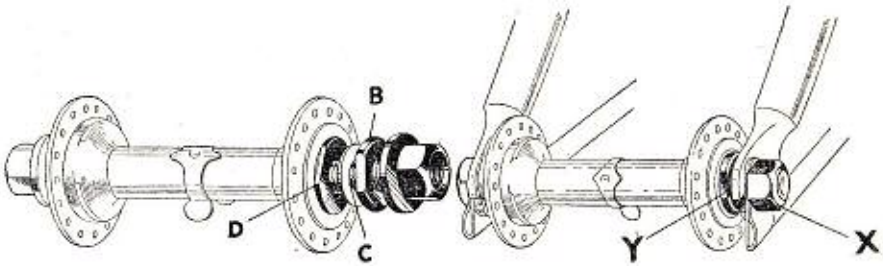


Pedals

Always ensure that pedal axle " C " is tight on crank. There is a left and right hand pedal, and the end of axle is marked accordingly. Pedals are tightened by screwing towards the front of cycle.

To adjust, remove dust cap " C ", locknut " D " and gently prise lockwasher " E " from cone " F ". Tighten cone until play is removed. Slacken back half a turn and re-fit lockwasher, nut and dustcap.

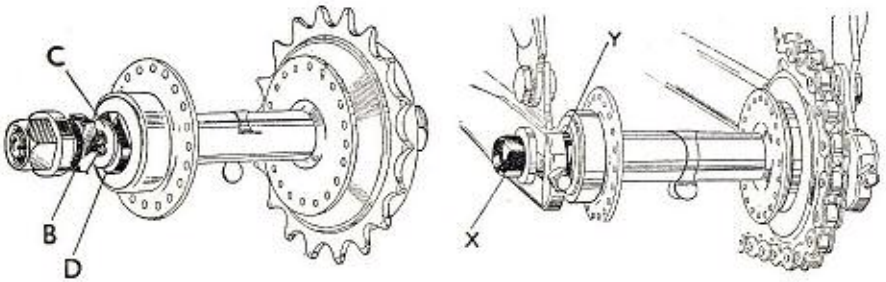




Wheels

If play develops in hubs it may be necessary to adjust. The adjusting cone, fitted on left-hand side when machine leaves Works, has flats provided so that a spanner may be used. The right-hand cone is locked at Works and should not be touched.

To adjust hubs either front or rear with slotted axles, it is necessary to remove wheel from cycle first, then loosen locknut " B " and ease lockwasher " C " from face of cone " D ". Tighten cone " D " until all play is eliminated; slacken cone back half a turn and then re-tighten locknut.



On models without axle slots either front or rear, loosen axle nut " X " and tighten cone " Y " until all play is eliminated. Slacken cone back half a turn and re-tighten axle nuts. Wheel should now run freely with only a trace of play at the rim.

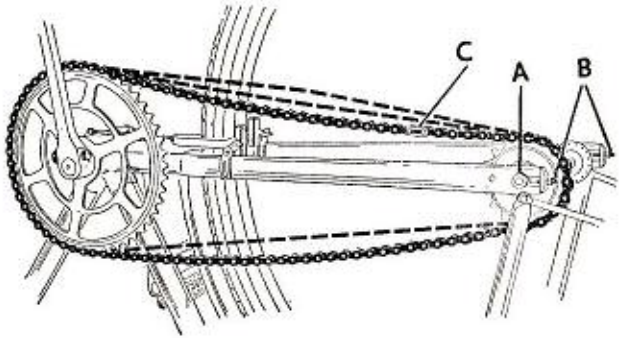
AXLE NUTS MUST ALWAYS BE KEPT TIGHT.

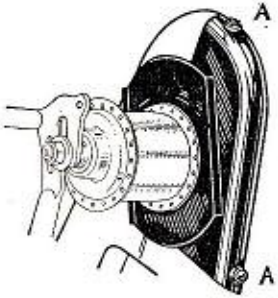
Chains

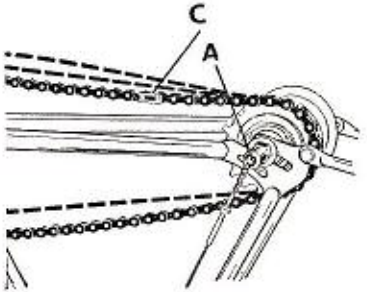
To tension the chain on machines fitted with chain adjuster, loosen nuts " A " and tighten chain adjuster nuts " B " evenly, ensuring that wheel remains central between rear forks. Re-tighten axle nuts.

Correctly adjusted chain should have about $\frac{1}{2}$" play at centre between chainwheel and sprocket. If chain is removed, see that connecting link has closed end facing direction of movement; see " C ". If a Sturmey-Archer gear is fitted, re-adjust control wire as shown on page 12.

To adjust chain on gearcase models, first remove gearcase end. This is done by removing screw or screws " A ". When refitting, see that lips fit snugly inside gearcase and that the slides do not foul wheel.

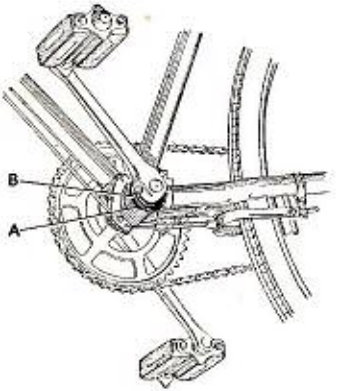






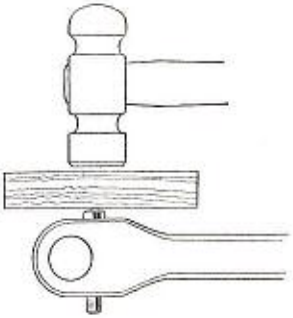
Bottom Bracket

To adjust, loosen lockring "A" by using ring spanner, then move cup "B" until tight. Slacken back about $\frac{1}{8}$" of a turn. Tighten lockring "A". Axle should rotate freely without play.



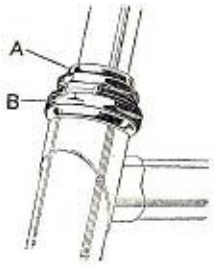
Cranks

Loose cranks may be tightened by driving home cotter pin and tightening nut. To protect cotter a hardwood block should be used between hammer and head of cotter. If crank is very slack the parts should be examined and replaced if damaged.



Steering Head

This should turn freely without drag or play. To adjust, loosen locknut " A ", then tighten head nut " B " gently until head turns freely without play. Tighten locknut " A ".



Sturmey-Archer Gears

Bearing Adjustment.

The right-hand cone is fixed at Works and should not be touched. Bearings are adjusted by loosening left-hand locknut "A" and rotating cone "B", care being taken to re-tighten locknut afterwards. A correctly set wheel should run freely with a trace of side play at rim.

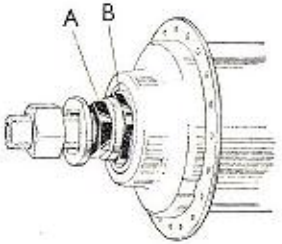
In the case of brake hubs, a slotted cone adjusting washer is placed over the cone. This should be rotated to get correct adjustment as above.

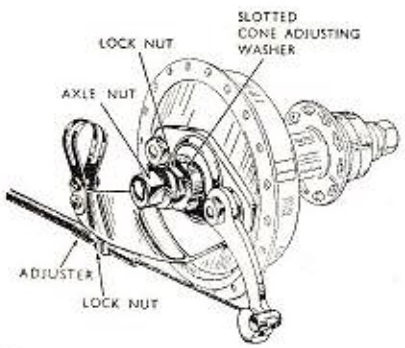
Brake Lining Renewals, BF, BR, and AB.

If efficiency is impaired and cannot be corrected by adjustment, brake lining may need renewal. Your dealer should be consulted as a Sturmey-Archer re-lining service is available.

Brake, TCW.

Lubrication of gear automatically provides for the brake mechanism. No other attention is necessary.





Benelux Gear Adjustments

Lateral Adjustment.

Line up 9T jockey sprocket with low gear cog by means of knurled head of adjusting sleeve, O.E.60 and locknut O.E.62. Check carefully for errors in alignment making sure that the derailling cage is parallel with the freewheel. IT IS IMPORTANT THAT THE GEAR DOES NOT APPEAR BENT OR TWISTED.

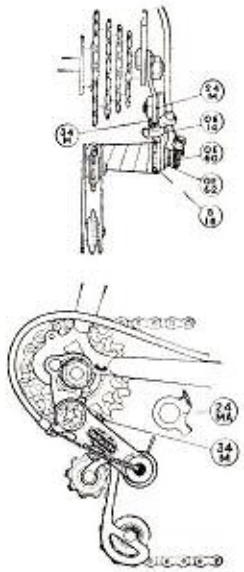
Spring Tension.

Tension gear by easing the knurled cap B.16 off the hexagon spigot and turn clockwise. IMPORTANT: DO NOT OVER-TENSION.

Cable Fitting.

Gear must be in low gear position. To prevent the chain from over-shooting low gear cog, inner cable wire must not be tight when assembled to toggle chain. THIS IS IMPORTANT.

Note:—The toggle chain must be free to rotate. If tight, release one turn anti-clockwise.



Sturmey-Archer 'Dynohub' Hub Lighting Equipment

Servicing of this equipment is a job for the expert, but a few hints may prevent trouble.

1. Never remove armature from magnet. De-magnetising will occur even during a very short separation.

2. See that all terminals are secure and clean.

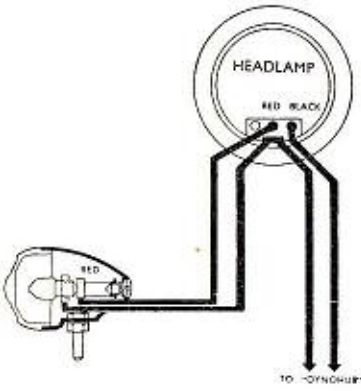
3. Use correct rating bulbs at all times.

4. Always loosen fixing bolt before altering headlamp angle.

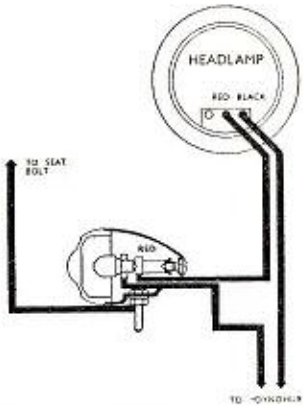
5. Never leave run-down batteries in D.B.U. or F.S.U. casings or corrosion will occur.

6. Keep retaining spring in groove in battery container clean. A smear of " Vaseline " will prevent corrosion.

7. If removing wheel, remember to disconnect hub terminals.



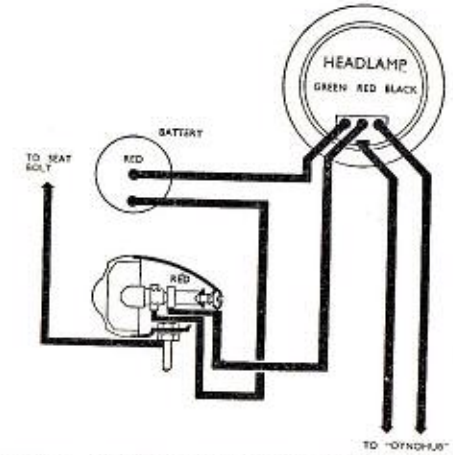
GH6 FRONT "DYNOHUB"



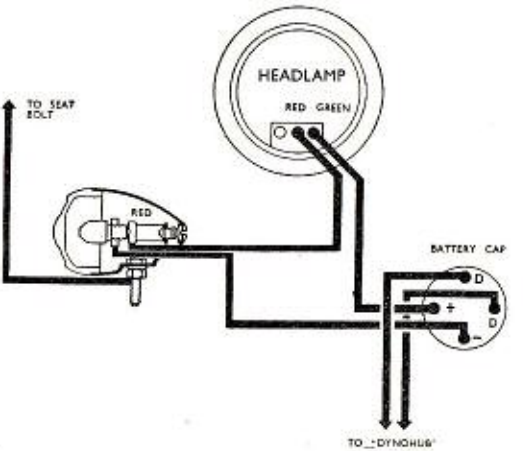
AG or FG REAR "DYNOHUB"

'Dynohub' Wiring Diagram

The switch is located below the body of the headlamp and is "on" to the right and "off" to the left (when seated on cycle).

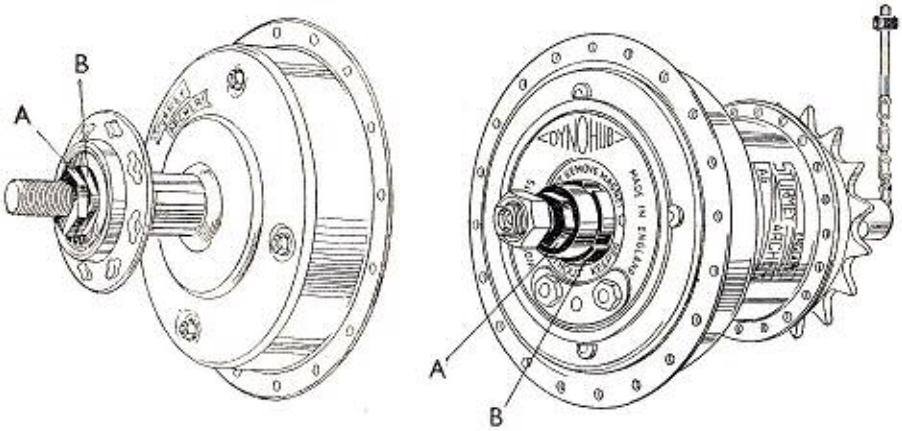


D.B.U. FRONT OR REAR "DYNOHUB"



F.S.U. REAR "DYNOHUB"

In sets fitted with Dry Battery Unit the central position is also used and then it is " dynamo " to the right, " battery " to the left, and " off " in the centre.



'Dynohub' Bearing Adjustment

Front 'Dynohub' (GH6) is adjusted on side away from dynamo by loosening locknut "A" and adjusting cone "B".

Rear 'Dynohubs' (AG, FG,) are adjusted on dynamo side. Loosen locknut "A" and adjust slotted washer "B".

Care and Maintenance of Perry Coaster Hub

The hub is correctly adjusted before leaving the Works. If, however, for any reason it is necessary to adjust the hub, the following procedure should be followed:

1. Slacken off locking washer on left side.

2. Fit spanner on square end of spindle.

3. Adjust spindle and fixed cone either inward or outward as required, by means of the spanner.

4. Tighten lockwasher after adjustment, holding axle firmly with spanner.

To check adjustment, spin the wheel, which should coast freely when the pedals are held stationary. Backward pressure on the pedals should bring the wheel to an instant stop.

If the wheel does not spin freely the cone is too tight and the fixed cone and spindle should be slightly slackened. Care should be taken to avoid undue slack as this will cause excessive wear.

The hub should be frequently and adequately lubricated.

To ensure a long and efficient life the hub should be dismantled every 5,000–7,000 miles. It should be thoroughly cleaned and any worn parts should be replaced. It is wise to let your dealer do this.

Bicycle Identification Form

You should complete this form and keep it safely for production to the police should your bicycle be lost or stolen.

Owner's Name.....

Address.....

.....

Lady's or Gent's..... Machine No..... Date Purchased.....

Make and Frame Size.....

Colour..... Cycle Lock Key No.....

Dealer from whom purchased.....

.....

Ball Bearing Chart

Model	Location	Symbol	Size	No. in each Race	Total
Carrier	Head—Top and Bottom	329	3/16"	21	42
Tricycle	Head—Top and Bottom	328	1/8"	28	56
All other models ...	Head—Top and Bottom	328A	5/32"	25	50
All models	Bottom Bracket	330	1/4"	11	22
Tricycle	Pedals	328A	5/32"	10 (outer)	46
		328	1/8"	13 (inner)	44
All other models ...	Pedals	328A	5/32"	11	
Carrier and Heavy Rider	Front Wheel	330	1/4"	8	16
	Rear Wheel	330	1/4"	8	16
Tricycle	Front Wheel	328A	5/32"	11	22
	Rear Axle	329	3/16"	16	32
All other models ...	Front Wheel	329	3/16"	10	20
	Rear Wheel	330	1/4"	8	16

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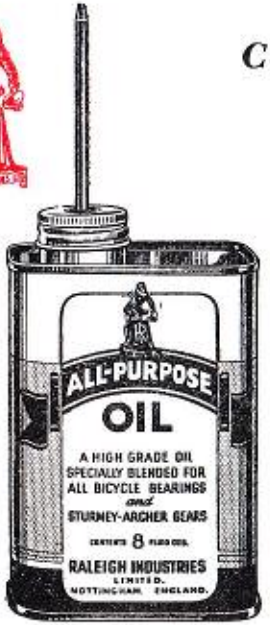

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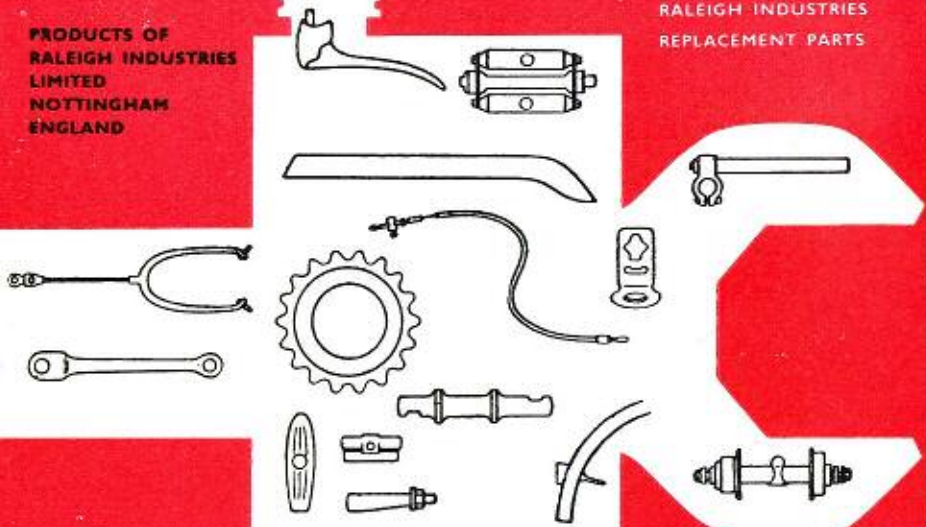

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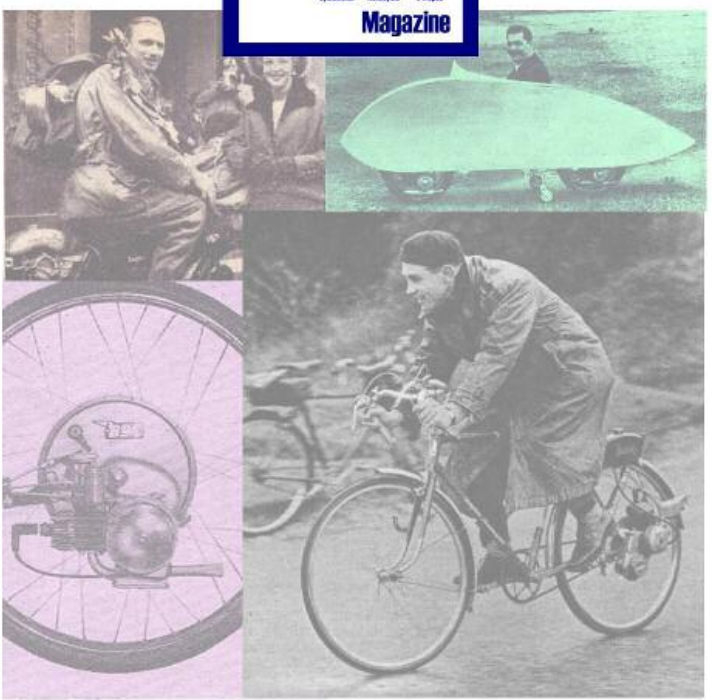

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