# SR BICYCLE OWNER'S MANUAL

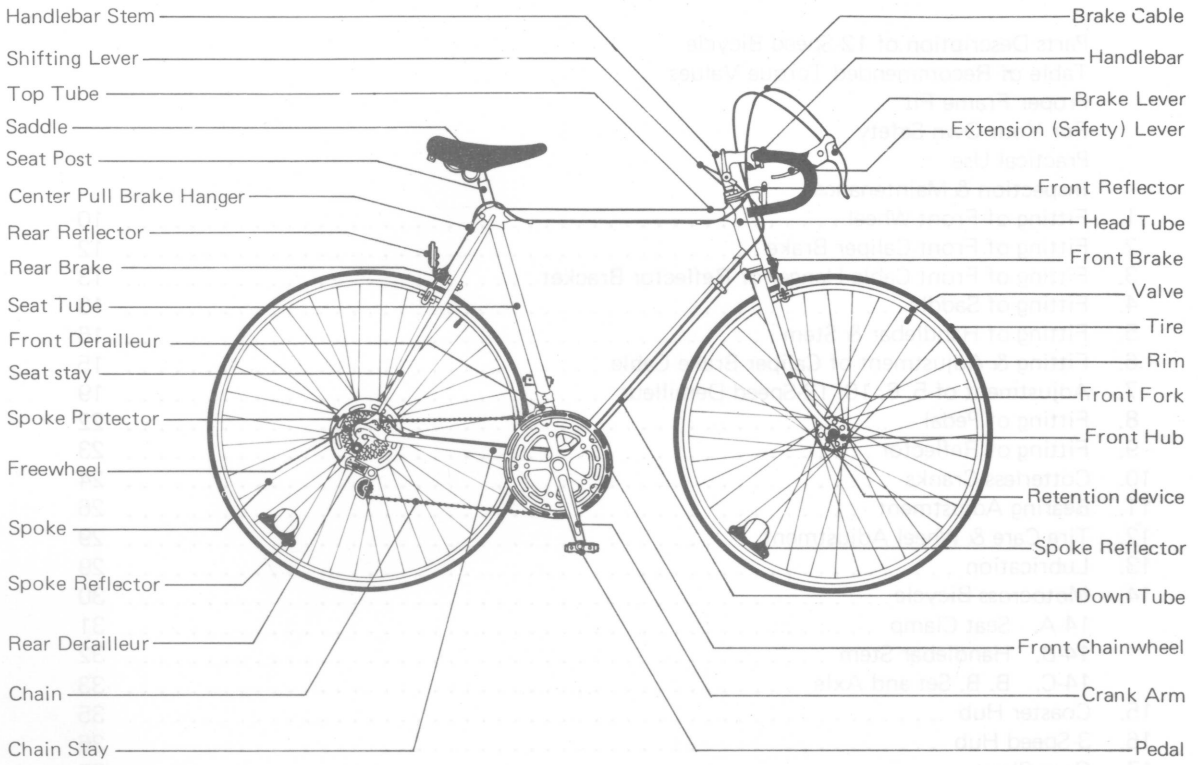
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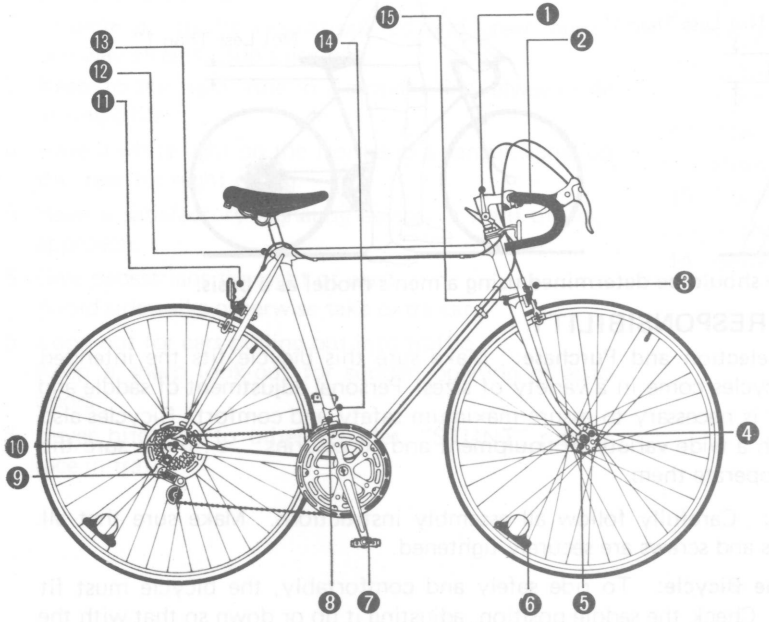
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# PARTS DESCRIPTION OF 12-SPEED BICYCLE




IMPORTANT: Please carefully note the names of all parts of your bicycle for ease of assembly.

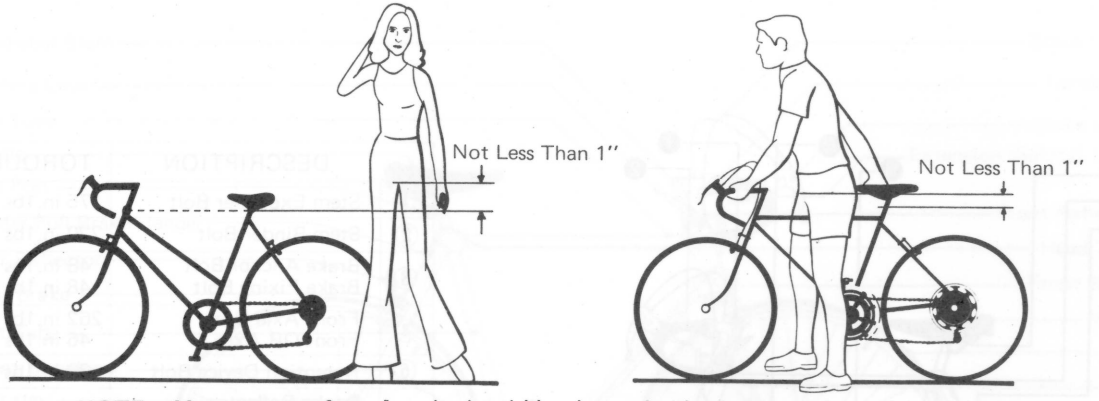
# TABLE OF RECOMMENDED TORQUE VALUES




| | DESCRIPTION | TORQUE |
|---|---|---|
| ① | Stem Expander Bolt | 175 in.1bs |
| ② | Stem Binder Bolt | 220 in.1bs |
| ③ | Brake Anchor Bolt<br>Brake Fixing Bolt | 48 in.1bs<br>48 in.1bs |
| ④ | Front Axle Nut<br>Front QR Axle | 262 in.1bs<br>46 in.1bs |
| ⑤ | Retention Device Bolt | 36 in.1bs |
| ⑥ | Spoke Reflector<br>Mounting Bolt | 22 in.1bs |
| ⑦ | Pedal | 345 in.1bs |
| ⑧ | F/Derailleur<br>Cable Fixing Bolt | 35 in.1bs |
| ⑨ | R/Derailleur<br>Cable Fixing Bolt | 35 in.1bs |
| ⑩ | Rear Axle Nut<br>Rear QR Axle | 262 in.1bs<br>46 in.1bs |
| ⑪ | Front & Rear<br>Reflector Mounting Nut | 26 in.1bs |
| ⑫ | Seat Pin(Hexagonal Head)<br>Seat Pin(Allen Head) | 150 in.1bs<br>130 in.1bs |
| ⑬ | Saddle Clamp Bolt | 175 in.1bs |
| ⑭ | F/Derailleur Clamp Bolt | 48 in.1bs |
| ⑮ | Lock Nut<br>for Brake Pivot Bolt | 70 in.1bs |

## PROPER FRAME FIT

Rider Must be able to straddle bicycle with at Least 1" clearance above the horizontal bar when standing.




NOTE: Measurement for a female should be determined using a men's model as a basis.

PROPER SIZE OF BICYCLE

| FRAME SIZE | LEG LENGTH OF RIDER |
|---|---|
| 17" | 26–30" |
| 18" | 27–31" |
| 19" | 28–31" |
| 21" | 30–33" |
| 22" | 32–35" |
| 25" | 34–37" |

## OWNER'S RESPONSIBILITY

1. **Bicycle Selection and Purchase:** Make sure this bicycle fits the intended rider. Bicycles come in a variety of sizes. Personal adjustment of saddle and handlebar is necessary to assure maximum safety and comfort. Bicycles also come with a wide variety of equipment and accessories . . . . make sure the rider can operate them.
2. **Assembly:** Carefully follow all assembly instructions. Make sure that all nuts, bolts and screws are securely tightened.
3. **Fitting the Bicycle:** To ride safely and comfortably, the bicycle must fit the rider. Check the saddle position, adjusting it up or down so that with the ball of the rider's foot on the pedal in its lowest position the rider's knee is slightly bent.

NOTE: The chart on the left details the proper method of determining the correct frame size.

# FOR YOUR OWN SAFETY

1. Don't use the bicycle for racing, motocross, stunt, off road use, or similar activities, or training for such events or activities.
2. Observe all traffic regulations-red and green lights, one-way streets, stop signs, etc.,
3. Keep to the right, ride in a straight line, always ride in single file.
4. Have a white light on the front and a danger signal on the rear for night riding.
5. Have a satisfactory signaling device to warn of your approach.
6. Give pedestrians the right of way.
   Avoid sidewalks-otherwise take extra care.
6. Look out for cars pulling out into traffic.
   Keep a sharp look-out for sudden opening of auto doors.
8. Never hitch on to other vehicles, "STUNT" ride or race in traffic.
9. Never carry other riders — nor packages that obstruct vision or proper control of the bicycle.
10. Be sure your brakes are operating efficiently and keep your bicycle in perfect running condition.
11. Slow down at all street intersections and look left and right before crossing.
12. Always use proper hand signals for turning and stopping.
13. Don't weave in or out of traffic or swerve from side to side.
14. Before riding your bicycle, check your brakes.

— ALWAYS RIDE CAREFULLY —

# PRACTICAL USE

## 1. ADJUSTMENT OF SEAT AND STEM HEIGHT

On any bicycle, proper adjustment of seat and handlebar stem height is necessary to provide a safe and comfortable riding position. See illustration for proper seat and stem adjustment.

## 2. PEDALING

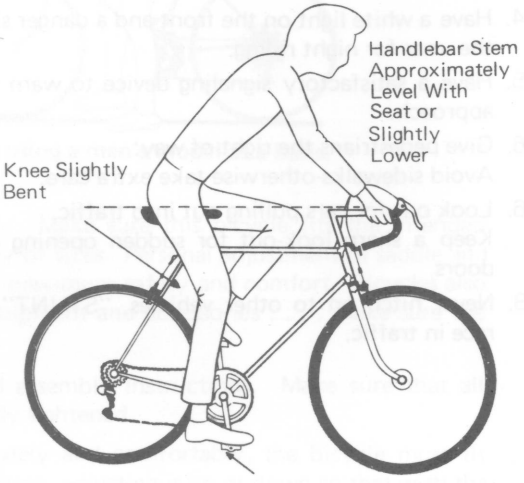
For proper positioning of your foot on the pedal, place the ball of your foot over the pedal shaft.

## 3. BRAKES

In general, the right brake lever controls the rear brake and the left controls the front. When you stop, 80% of the braking power is in the front brake. Apply the rear brake first, and then the front to bring you to a complete stop. The extension lever should only be used for slowing down at lower speeds. For quick stops at higher speeds, the regular lever should be used. When approaching a curve, slow down gradually; do not brake suddenly on a curve or at high speeds.

## 4. DERAILLEUR

Gear selection is not just a question of speed, but of using each gear to maintain a steady pace or rhythm on various terrain. By maintaining a steady pace or rhythm you will be able to conserve your energy and enjoy cycling more.




Pedal at Bottom Position

# BASIC GEAR RANGES

## 1. LOW RANGE

Use these gears on an up-hill road and/or against the wind. Wheels barely rotate compared with the rotation of the pedals. The bicycle travels at a lower speed and with less pressure on the pedals.

## 2. MIDDLE RANGES

Use these gears on flat roads and gentle slopes. You will find pedaling in these gears very comfortable and suitable for most areas.

## 3. HIGH RANGE

Use these gears on a down-hill road and/or with a strong wind at your back.

**WHEN SHIFTING, ALWAYS FOLLOW THE GUIDELINES BELOW:**

1) DO NOT SHIFT GEARS UNLESS YOU ARE PEDALING.
2) Do not attempt to change gears when the bicycle is stopped, or travelling at very low speeds.
3) Do not change gears on a hill when you are exerting heavy pressure on the pedals.
   Shift before going uphill or when you can reduce the pressure on the pedals.

## 5. RIDING IN THE RAIN

When riding in the rain, visibility and braking power are greatly reduced. When the road condition is wet, braking power is greatly reduced.
Road holding ability is also reduced and caution should be exercised. You should travel at reduced speeds and avoid quick actions or maneuvering.

## 6. NIGHT RIDING

Even in well lighted areas, night vision is highly restricted. In order that you may cycle safely in times of reduced visibility you should adhere to the following guidelines:

(1) Wear light colored clothing.
(2) Be sure your bike is equipped with approved front and rear wheel reflectors and pedal reflectors.
(3) Use an approved front headlamp.

## 7. RIDING OVER ROUGH AND GRAVEL ROADS

When riding on rough roads or over gravel, you should take up some of the shock in your knees by rising slightly from the seat. Also, use a lower gear and maintain lower speeds in order to retain better control of your bicycle.

# Inspection & Maintenance

**Inspection: Every week or two tighten all nuts and bolts. Check all hardware to see that no parts are worn or damaged, that fork and frame are correctly aligned, and that all components are seated in the proper positions.**

1. Make frequent inspections of your bicycle to insure that all nuts, bolts and hardware items are tight and no parts are worn or damaged.
2. Caliper Brakes: Keep brake shoe adjusted to rim. Replace worn or missing shoes. Do not wax or oil rim (Wipe oil off the rim before riding.)

2-a. Coaster Brake: Be sure that brake operates smoothly without locking or grabbing when applied normally. Keep brake arm securely fastened to bicycle frame. Check brakes periodically for wear on interior discs or shoes.

3. Shifting Cables: Replace worn or damaged cables. Do not kink cables. Cables stretch with use, so adjust regularly.
4. Front Fork: Bent or damaged forks should be replaced. Never attempt to repair by straightening.
5. Head Bearings: Keep tight. The handlebar must turn freely.
6. Front Wheel: Keep axle nut tight. Wheel should be centered in fork. Keep wheel bearing adjusted and keep spokes tight and wheel in proper alignment.
7. Crank Bearing: Crank assembly should turn freely without side play. Keep locknut tight and keep bearings clean and well adjusted.
8. Cranks & Pedals: Replace bent cranks. Do not attempt to straighten. Replace pedals if bearings are tight or frozen and if thread is lost or badly worn.
9. Sprockets: Replace if sprocket teeth are bent or damaged. Keep sprocket tight on cranks.
10. Rear Wheel: Keep axle nuts tight and wheel centered in chain stays. Keep spokes tight & wheel properly aligned.
11. Wheel Alignment: Wheels should rotate smoothly without wobbling from side to side. Have it aligned if necessary. Keep axle nuts tight.

12. Handlebar: Adjust for your own comfort and growth. Make sure insertion mark remains in the frame. Tighten securely. Replace worn grips or tapes. Make sure they fit snugly.
13. Chain: Check frequently for damage and stretching and readjust if necessary. Lubricate several times each season. Use a lightweight all purpose oil. Be sure to oil each link.
14. 5,6,10 & 12-Speed Derailleur units: Shift lever only while pedaling. Keep units adjusted. Do not allow bicycle to fall on derailleur units.
15. Seat Adjustment: Adjust for comfort of rider. Be sure that insertion mark on seat post remains in the frame. Securely tighten the binder bolt on the seat post clamp, and position angle of seat for comfort of rider. Securely tighten seat clamp until seat will no longer turn.
16. Tires: Make sure that tires are inflated according to pressure indication on tire side wall. A foot or frame pump should be used. Pressurized unregulated pumps should not be used. The tire should be properly seated in the rim and the fitting of the tire bead should be checked.
17. Reflectors: Should be securely fastened and positioned for bicycle identification at night time from front, rear and lateral views. Damaged units should be promptly replaced.
18. Frame: Immediately replace a bent or broken frame. Frame damage can cause excess stress or failure in other bicycle parts.

## IMPORTANT

Remove bicycle from carton and carefully examine carton for loose parts before discarding. Turn bicycle upside down with front fork pointing forward, carefully unwind wrappings and parts attached to frame and set them aside. Be careful not to scratch frame or cut tire when removing above wrappings.
Check you have recorded the model and serial number.

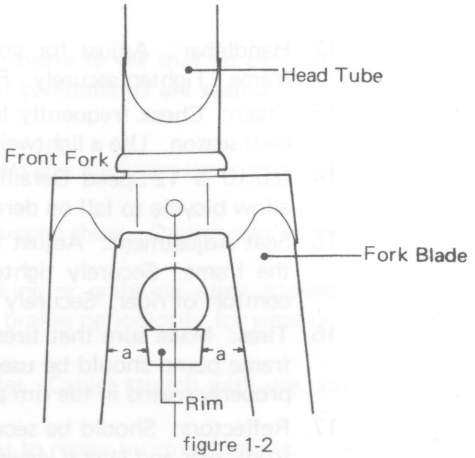


figure 1-2

# 1. Fitting of Front Wheel

Remove axle nut and washer from front wheel. Fit axle on front fork ends. For bicycles requiring a retention device, fit retention device securely in place on left and right hand sides. See figure 1-1.
Then firmly secure wheel with nut and washer.

**Caution: When fitting front wheel, align center of tire to center of fork. See figure 1-2.**

**Nut of front hub axle and bolt of retention device must be tightly secured.**

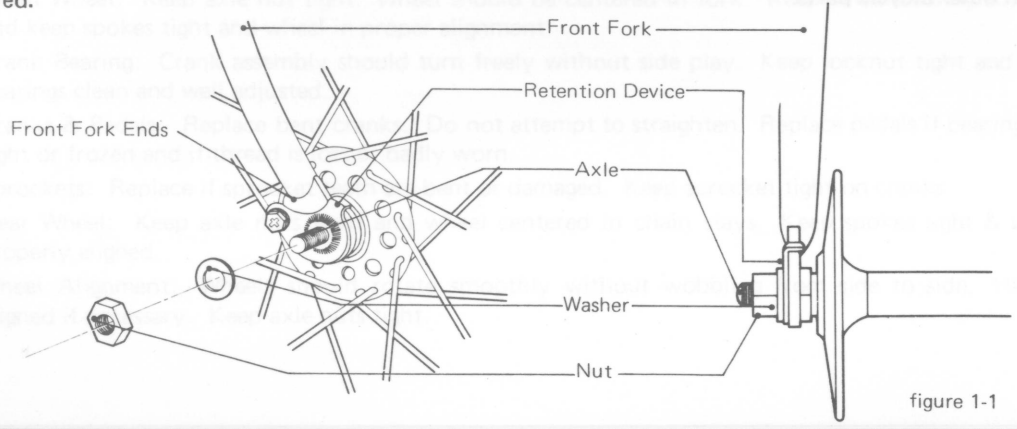


figure 1-1

## Quick Release hub

Fit quick release unit to hub as shown in figure 1-3. With quick release lever (Cam lever) in the open position, install front fork with lever on the left hand side (from rider's position), as shown in figure 1-4. **Securely** tighten in position with nut of quick release unit and return lever to closed position.

figure 1-3

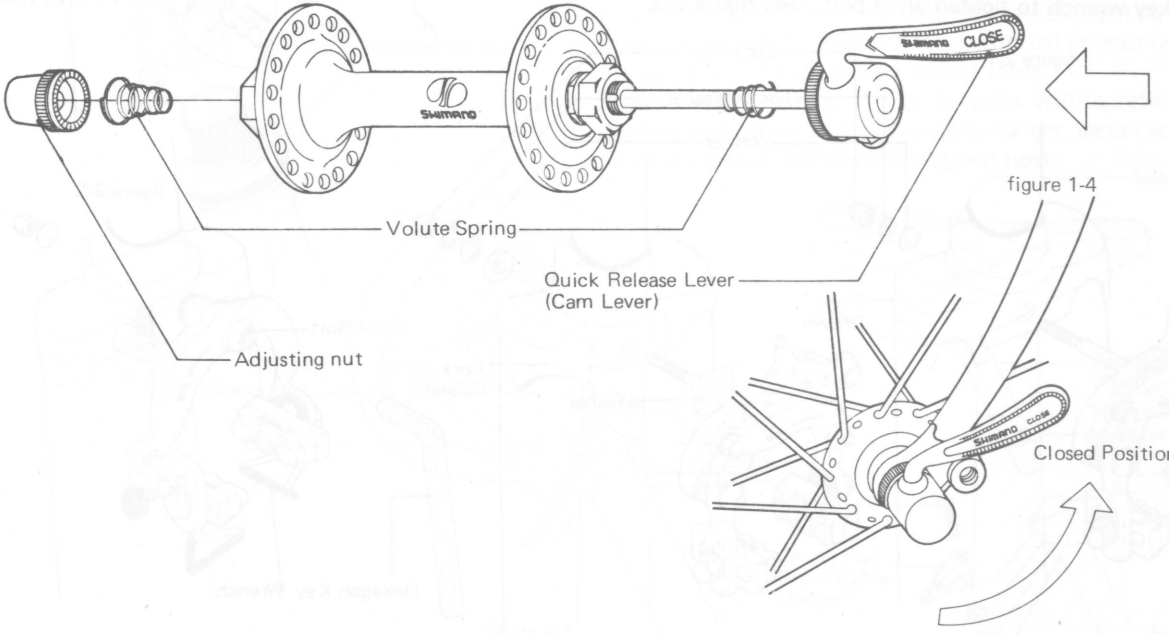



figure 1-4

# 2. Fitting of Front Caliper Brake

The procedure for fitting center pull and side pull brakes is similar,, but care must be taken when the type of front fork crown and the spacing of accessories (Mudguard, Reflector, Bracket) are different.

Figure 2-1. illustrates the normal procedure for fitting.

**Caution: To avoid uneven brake pressure, the brake arch should be fitted by hand and tightened, as shown in figure 2-2.**

**For other types of side pull brakes, use an adjustable end wrench or hexagon key wrench to tighten pivot bolt. See figure 2-3..**

figure 2-2

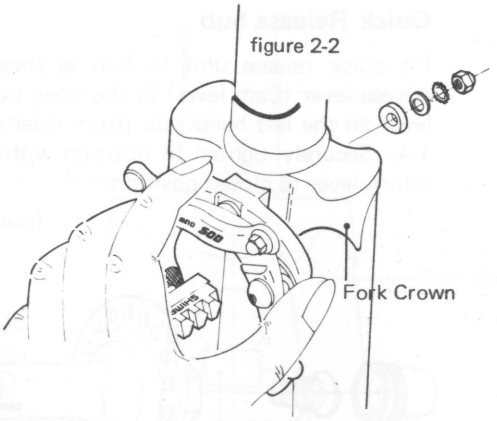



figure 2-1

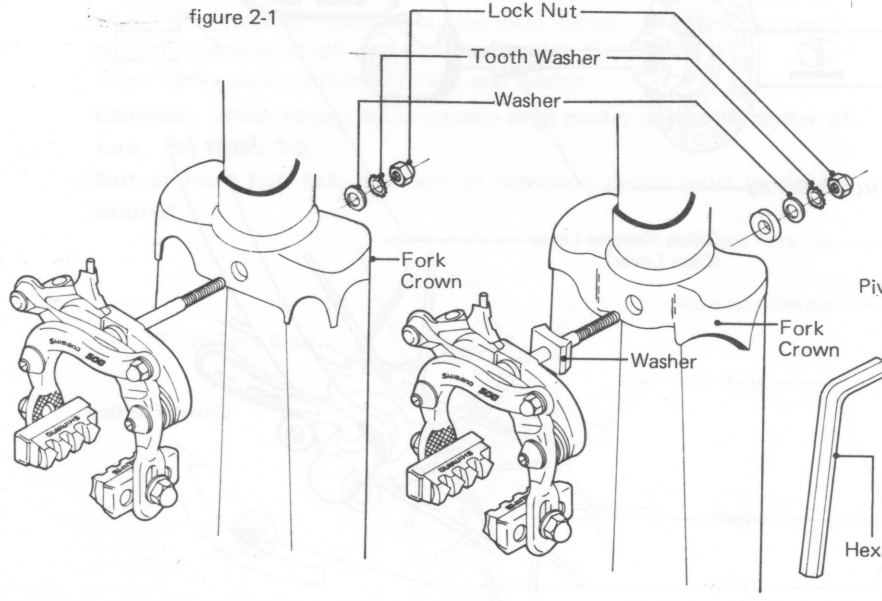
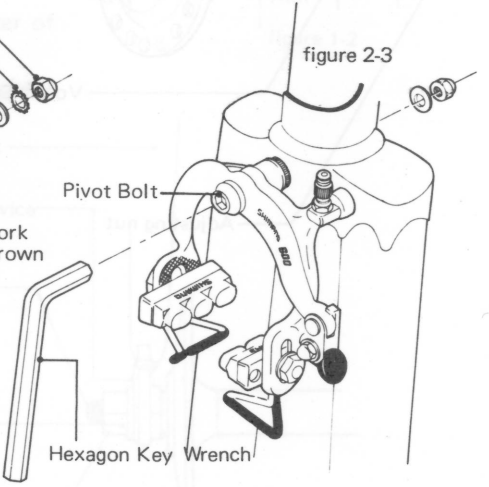
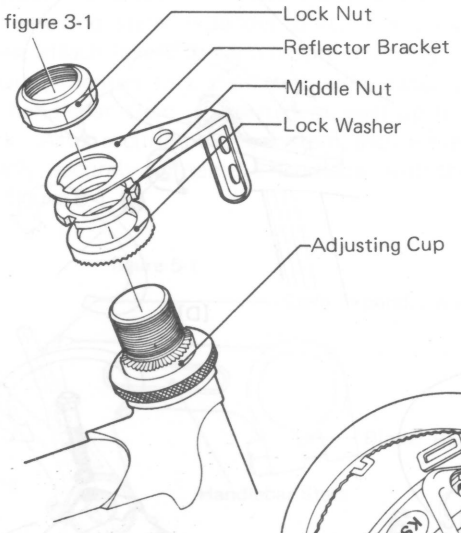



figure 2-3



# 3. Fitting of Front Cable Hanger or Reflector Bracket




Remove head locknut as shown in figure 3-1. After installing reflector bracket tighten head locknut securely.

# 4. Fitting of Saddle

Loosely fit saddle clamp to seat post and insert seat post into frame. See figure 4-1. Adjust saddle height to suit rider taking care to ensure post is inserted at least up to the minimum insertion mark on the stem.

Finally secure seat pin. For bicycles with a reflector bracket and center pull brake cable hanger, install accessories in position before securing seat post.

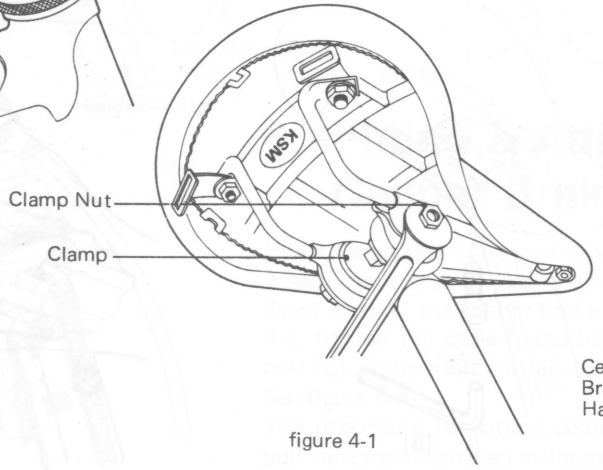



figure 4-1

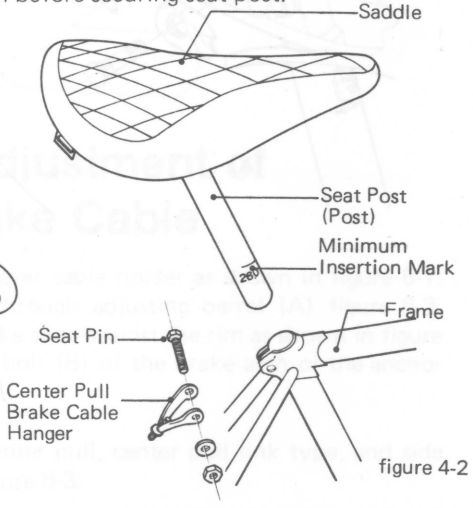
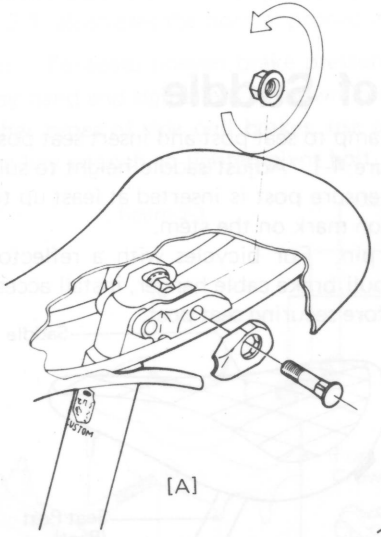
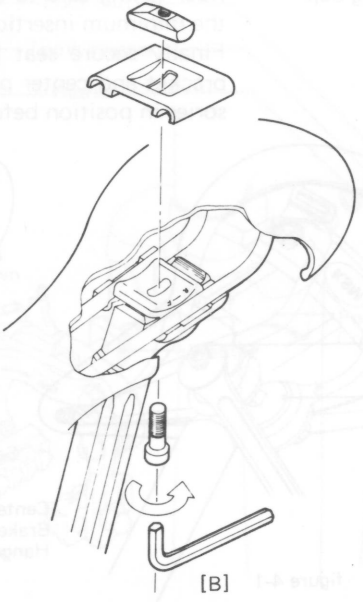



figure 4-2

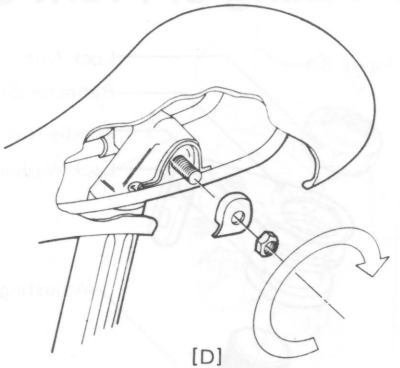
Seat posts differ according to saddle types and accordingly the procedure for fitting varies as shown in the illustrations below.



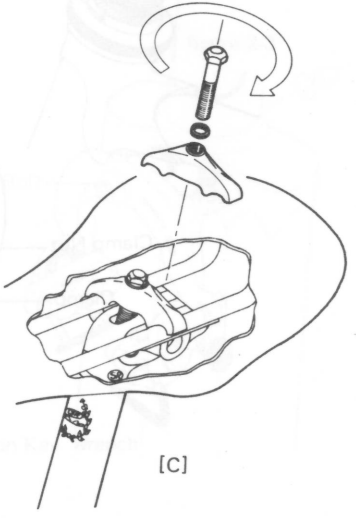
[A]



[B]



[D]



[C]

# 5. Fitting of Handlebar & Stem

To insert handlebar stem into front fork stem, loosen expander cone by removing stem expander bolt. For bicycles with stem shifting levers, attach levers to stem before inserting handlebar stem into fork. Securely tighten fork stem with stem expander bolt taking care that the handlebar stem is inserted at least up to the minimum insertion mark. After securing the fork stem, secure the stem shifting levers. Finally, securely tighten the handlebar with the binder bolt.
See figure 5-1.

figure 5-1

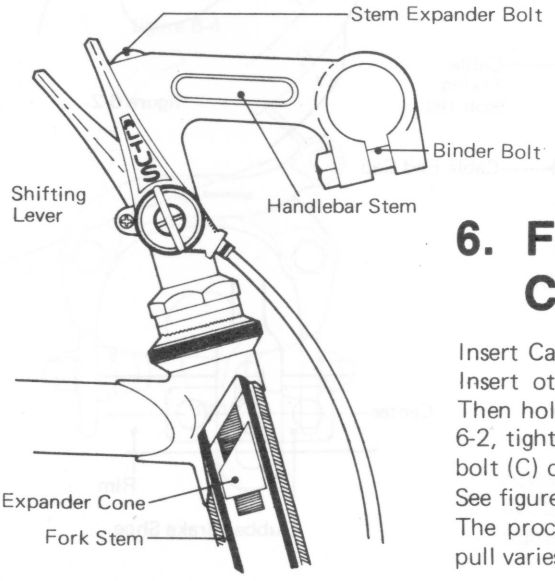
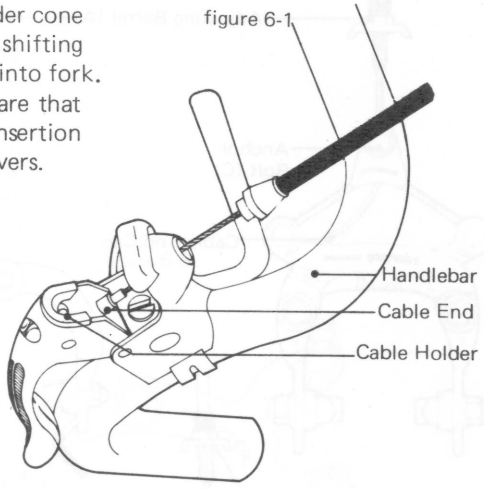


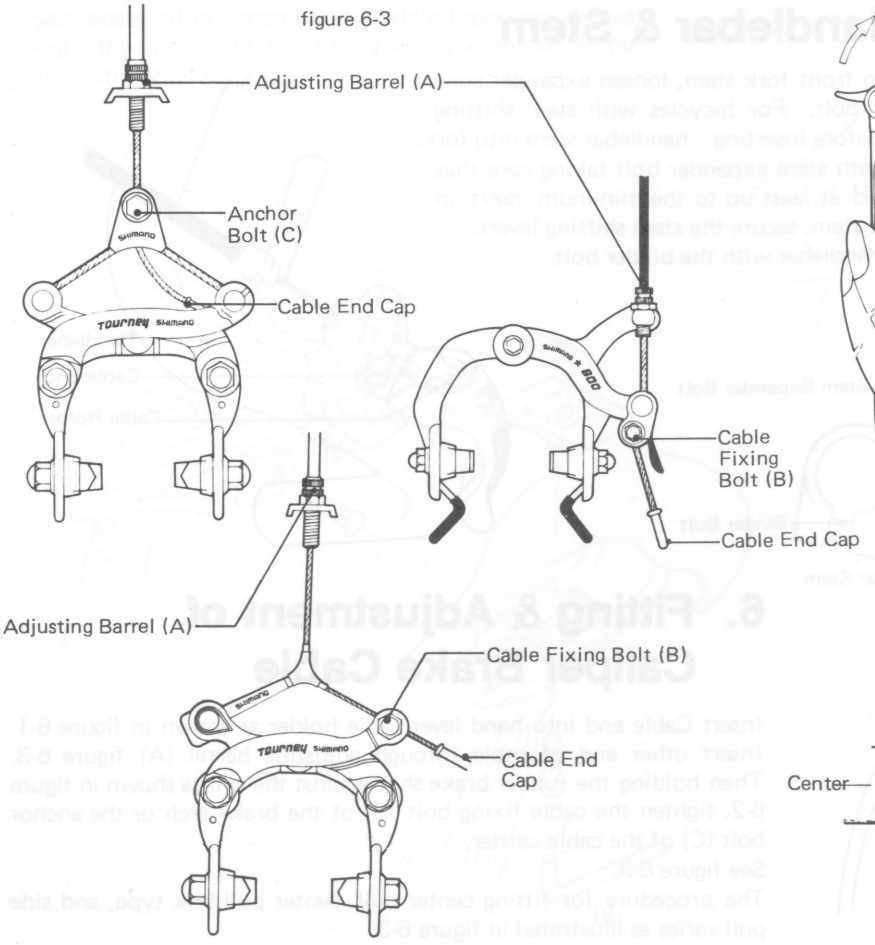

figure 6-1




# 6. Fitting & Adjustment of Caliper Brake Cable

Insert Cable end into hand lever cable holder as shown in figure 6-1. Insert other end of cable through adjusting barrel (A) figure 6-3. Then holding the rubber brake shoe against the rim as shown in figure 6-2, tighten the cable fixing bolt (B) of the brake arch or the anchor bolt (C) of the cable carrier.
See figure 6-3.
The procedure for fitting center pull, center pull link type, and side pull varies as illustrated in figure 6-3.

figure 6-3



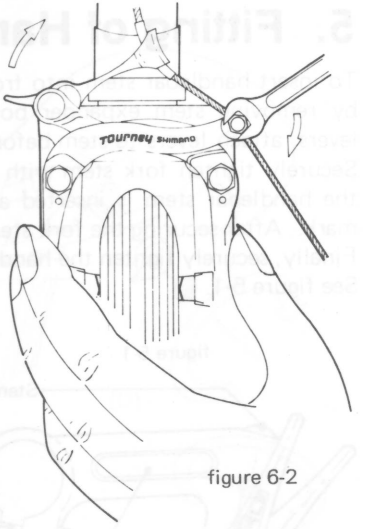
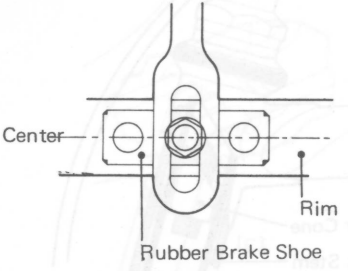



figure 6-2



## IMPORTANT

Do not ride this bicycle until the brakes have been checked and are functioning properly.

CAUTION: Always apply rear brake first when stopping. For safe riding, always apply brakes before going into turns. Braking while turning can be dangerous due to unstable road conditions.

If one brake block is closer to the rim than the other, adjust by lowering the corresponding brake arm. See figure 6-4. In the case of side pull brakes use an adjustable end wrench or hexagon wrench to lower the appropriate brake arm. See figure 6-5.

figure 6-4

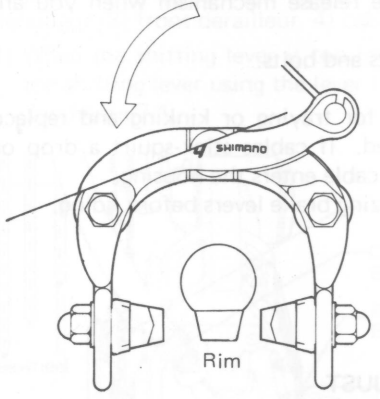
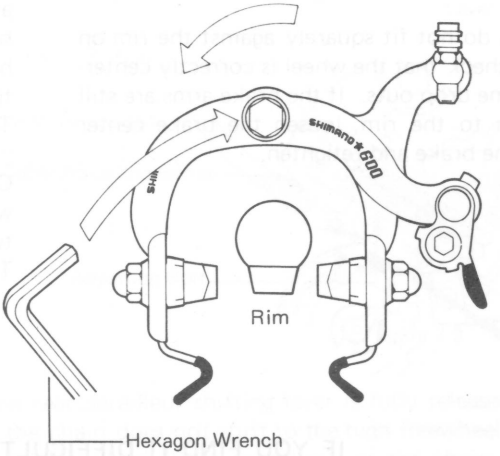



figure 6-5




Always securely tighten all bolts and nuts for brake shoes and components. For safety, pinch cable end cap in figure 6-3. with plier to tighten after inserting cable into assembly.

# Brake Maintenance

## BRAKE PADS

Rubber brake pads will wear out under normal usage and will have to be replaced. These are available at your dealer. When replacing make certain that the closed end of the brake shoe is pointing towards the front of the bicycle. Before final tightening of the brake shoe bolt, check the brake pad is properly aligned with the tire sidewall. If set too low, the brake pad can slip under the rim and foul the spokes.

If the brake pads do not fit squarely against the rim on both sides, first check that the wheel is correctly centered within the frame drop outs. If the brake arms are still offset in relation to the rim, loosen the brake center bolt, reposition the brake and retighten.



## BRAKE CABLE

Occasionally, due to stretching of the brake cable and wear and tear on the brake pads, you will find it necessary to tighten the brake cables. Minor adjustment can be done by turning the adjusting barrel, which is located either at the end of the cable housing or on top of the brake levers. Major adjustments of the cable length can be made at the brake body by loosening the anchor bolt and pulling more of the cable through it. While doing any brake work, you will find it helpful to release the brakes with the quick release mechanism. Don't forget, however to reset the release mechanism when you are finished.
Tighten all brake nuts and bolts.

Check brake cables for fraying or kinking and replace when worn or frayed. If cables stick-squirt a drop or two of oil where the cable enters the housing.
Test brakes by squeezing brake levers before riding.

**IF YOU FIND IT DIFFICULT TO FIT AND ADJUST THE BRAKES, IT IS RECOMMENDED THAT THE WORK BE DONE BY A QUALIFIED BICYCLE MECHANIC.**

# 7. Adjustment of 5, 6, 10, 12-Speed Derailleur

## HOW TO SHIFT DERAILLEUR BICYCLES

The rider's left shifting lever controls the front derailleur and Chainwheel.

The rider's right shifting lever controls the rear derailleur and gears 1 to 5, 6. (Top to low gears)

The small rear sprockets produce high gear ratios for speed work or downhill riding. The small front chainwheel on 10, 12-Speed bicycles produces low gear ratios while the large F/chainwheel produces higher ratios.

Adjustments are made in the following order: 1) shifting lever 2) rear derailleur 3) front derailleur 4) cable.

1) When the shifting lever is too loose or too tight, tighten or loosen the shifting lever using the lever fixing bolt.
See figure 7-1.

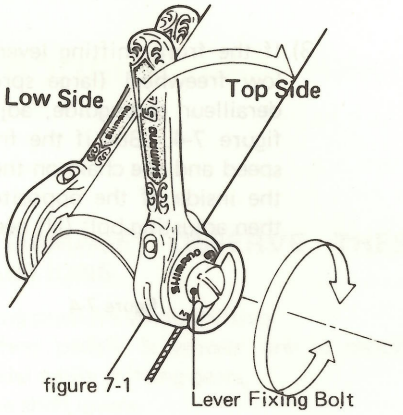


figure 7-1

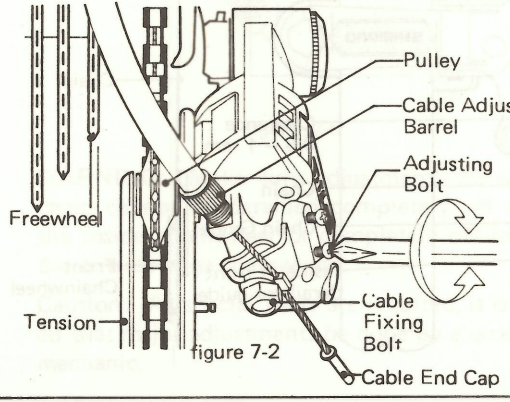


figure 7-2

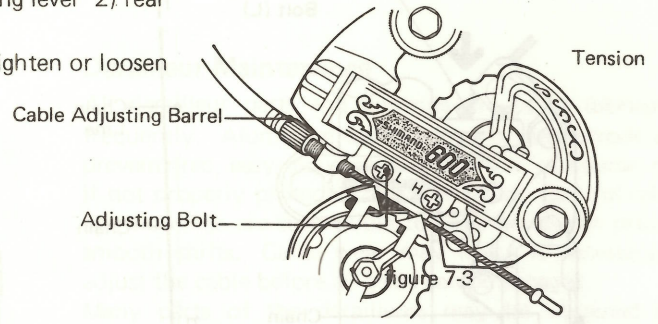


figure 7-3

2) If the rear derailleur shifting lever is fully released or fully pulled and the chain does not shift to the high freewheel (small sprocket) or low freewheel (large sprocket), or the chain comes off, or it produces a loud noise, the adjusting bolt of the rear derailleur requires adjustment.
See figures 7-2 & 7-3.

3) If the front shifting lever is released to low and the chain on the low freewheel (large sprocket) touches the inside of the front derailleur chainguide, adjusting bolt (L) needs adjustment. See figure 7-4. But if the front shifting lever is fully pulled to top speed and the chain on the high freewheel (small sprocket) touches the inside of the opposite side of the front derailleur chainguide, then adjusting bolt (H) needs adjustment. See figure 7-5.

figure 7-4

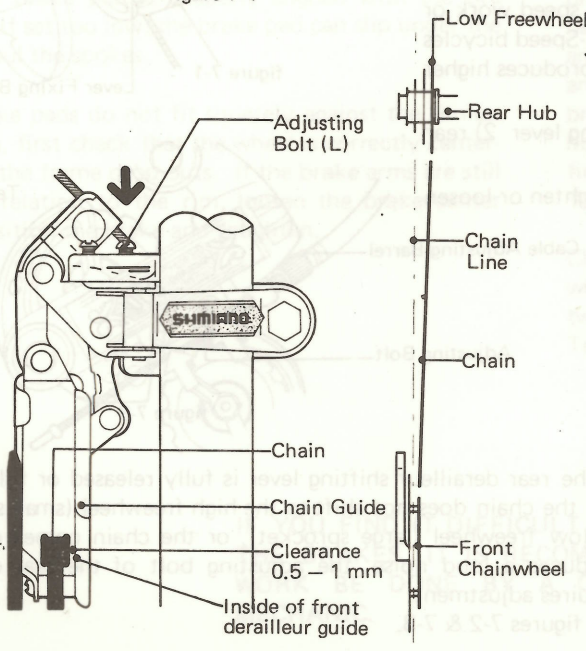
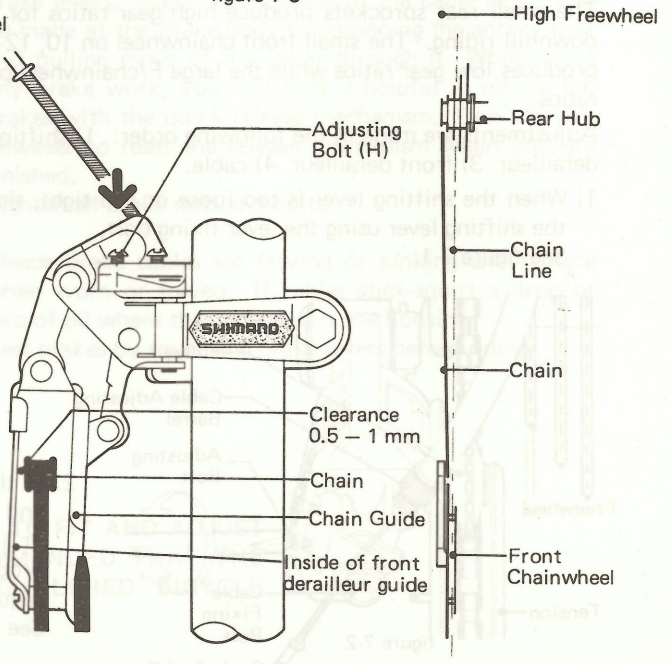



figure 7-5



4) If the shifting levers are returned to normal from high--rear derailleur or low-front derailleur and the cable slackens or pulls tight, the front derailleur and rear derailleur cables need to be adjusted by the cable fixing bolt.
See figures 7-2 & 7-6.

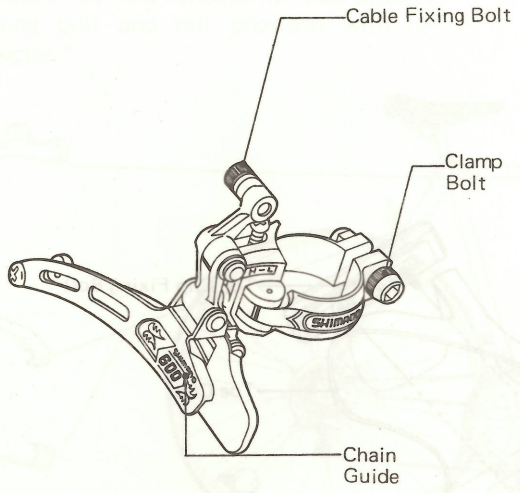



figure 7-6

**WARNING: Make sure adjustments are such that the chain cannot be derailled completely off to the left of the inside chainwheel or completely off to the right of the outside large chainwheel.**

**Caution: As special tools are required, it is recommended that major adjustments be done by a qualified bicycle mechanic.**

## IMPORTANT

## TO AVOID DAMAGE, OBSERVE THESE FOUR PRECAUTIONS.

1. Reduce pedaling pressure while shifting.
2. Shift only when pedals & wheels are in motion.
3. Never back pedal while shifting gears.
4. Never force the shift levers.

### Derailleur Maintenance

All derailleur parts and controls should be lubricated frequently. Aluminum derailleur parts can corrode and prevent free, easy movement. Steel will, of course, rust if not properly protected and lubricated. Control cables and housings are susceptible to rust, which can prevent smooth shifts. Cable wear may make it necessary to adjust the cable before all gears can be engaged.
Many parts of the derailleurs may be obtained and installed individually; however, it may be more desirable and sometimes less expensive to install a complete new derailleur assembly.

FOR FURTHER INSTRUCTIONS: PLEASE REFER TO THE MANUFACTURERS INSTRUCTION PAMPHLET.

# 8. Fitting of Pedal

Each pedal has a different thread. The right hand Pedal is marked with an 'R' and similarly the left hand pedal with an 'L'. The right hand pedal must be fitted to the F/chainwheel side. Figure 8-1 illustrates how to fit toe clips and straps.

**NOTE:** Left & Right are determined from the riding position on the bicycle.

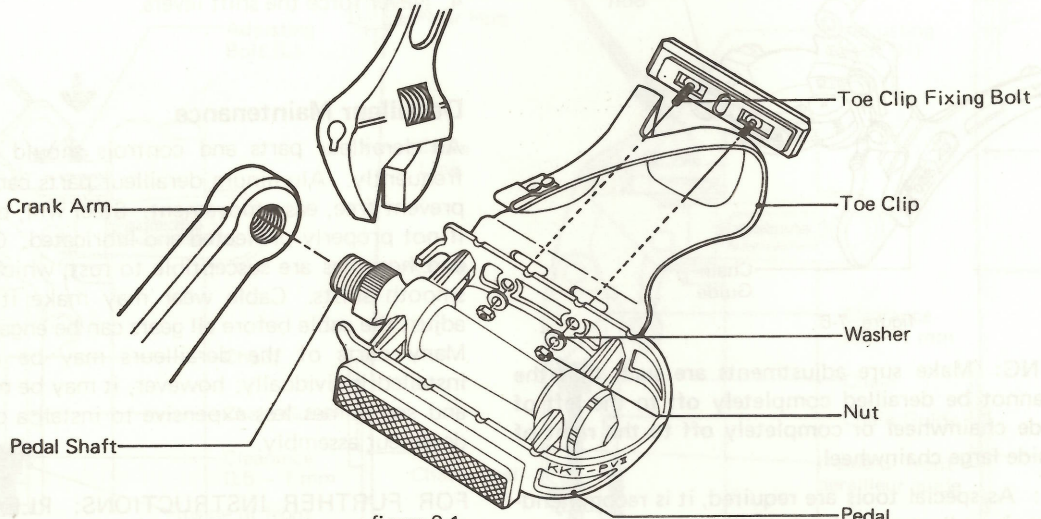



figure 8-1

# 9. Fitting of Reflector

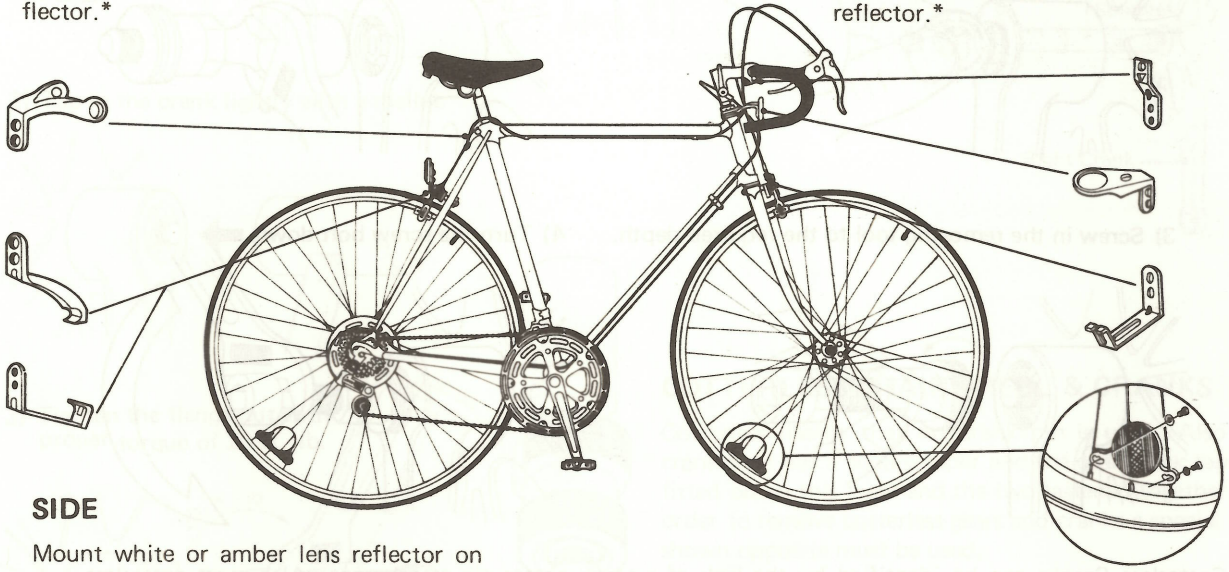
To mount reflectors on the bicycle carefully follow the instructions given below and refer to figure 9-1.

### REAR

Mount red lens reflector on rear bracket using bolt and nut provided with reflector.*

### FRONT

Mount white lens reflector on front bracket using bolt and nut provided with reflector.*



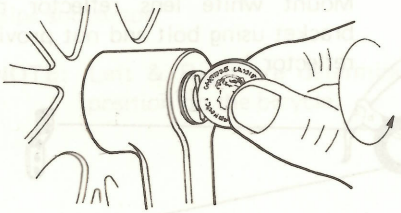
### SIDE

Mount white or amber lens reflector on front wheel spokes and white or red lens reflector on rear wheel spokes with a bolt, centering the reflectors 3 inches away from the inside of the rim.

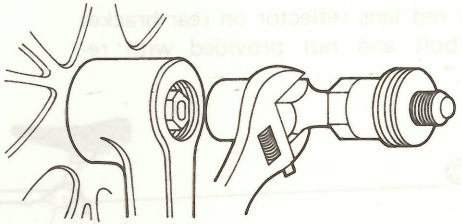
*** The method of mounting differs according to the type of bracket used. See figure 9-1.**

# 10. Cotterless Cranks

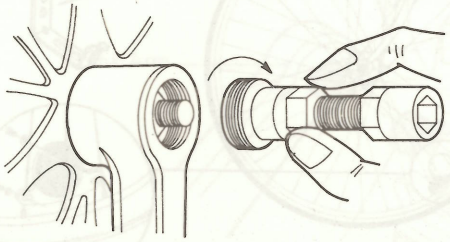
1) Take off the dust cap.



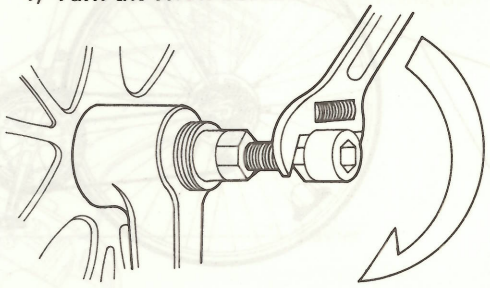
2) Loosen the flange nut or bolt and remove.



3) Screw in the removing tool to the required depth.



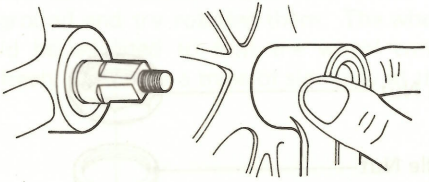
4) Turn the screw bolt down.



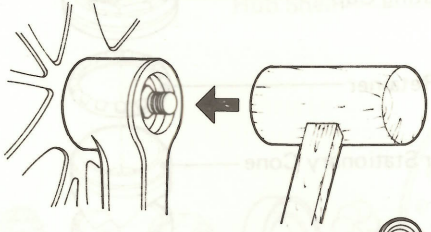
Cotterless Cranks can be identified by the lack of a crank cotter pin attachment. Also most cotterless cranks utilize alloy materials for lightness. Illustrated above are the steps required to remove or adjust a cotterless gear and crank.
On the following pages are illustrations for fitting cotterless cranks.

## TO FIT CRANKS

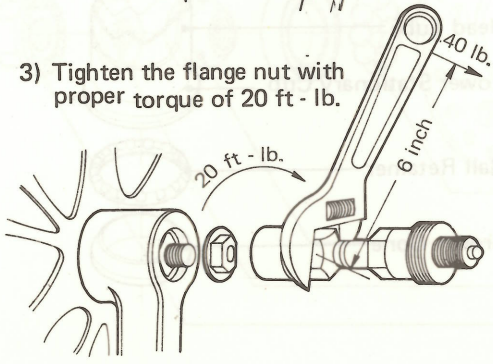
1) Insert the bracket axle to the crank.

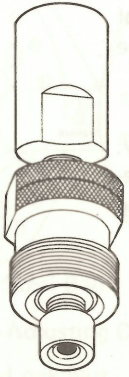


2) Tap in the crank lightly with a mallet.

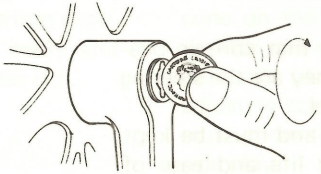


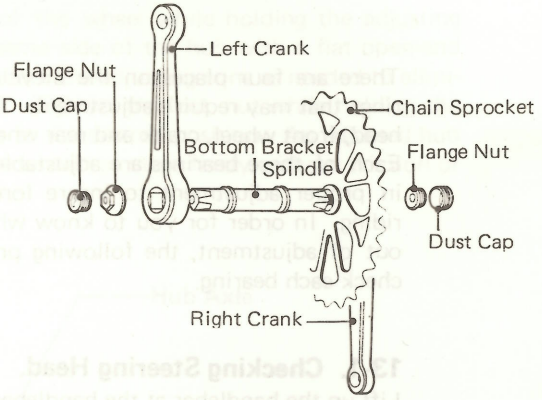
3) Tighten the flange nut with proper torque of 20 ft - lb.



4) Screw in the dust cap.





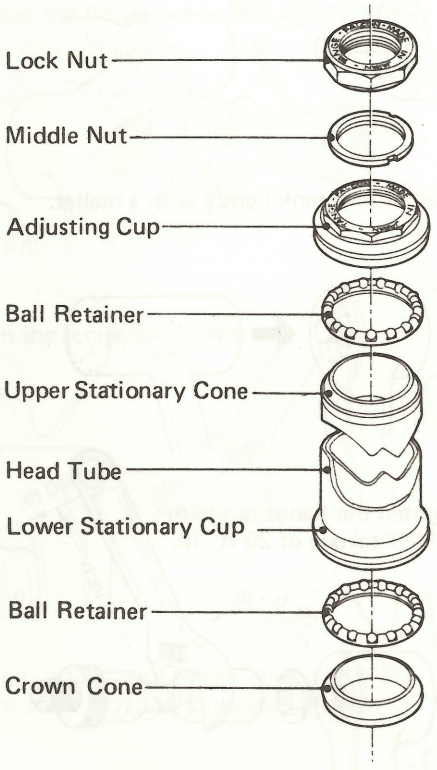

## COTTERLESS CHAINWHEEL & CRANKS

Cotterless means that no crank pin is used. Also the crank axle has a square taper and the gear crank taper is fitted on to this taper and the two fastened together. In order to remove cotterless gears and cranks a special tool shown opposite must be used.

Due to the complexity of repair and adjustment, it is recommended that this work be done by a qualified bicycle mechanic.

# 11. Bearing Adjustment

There are four places on the bicycle that contain bearings that may require adjustment. They are the steering head, front wheel, crank and rear wheel.
Each of these bearings are adjustable and must be kept in proper adjustment to insure long life and ease of riding. In order for you to know when the bearings are out of adjustment, the following procedure is used to check each bearing.




## 13-1. Checking Steering Head.



Lift up the handlebar at the handlebar ends (grips).
There should be no play in the handlebar stem nor of the fork within the frame, but the handlebar must be able to turn freely and easily.

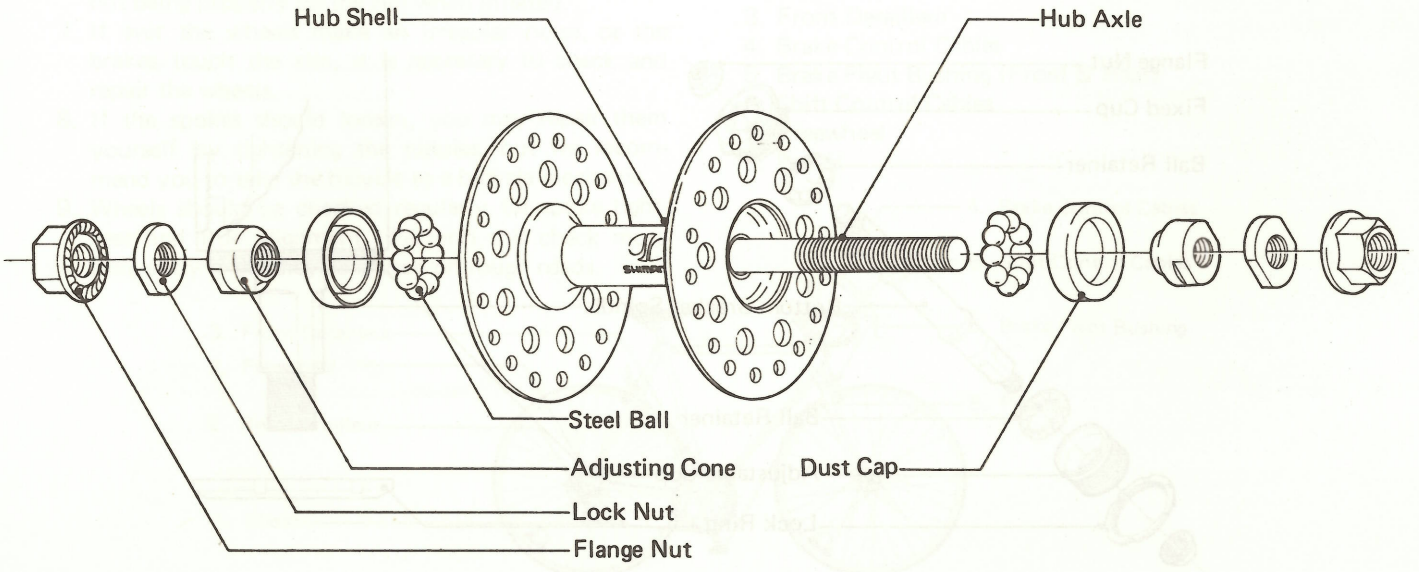
Steering Head Adjustment.
Remove head lock nut and reflector bracket, if any. Turn the adjusting cup clockwise until finger-tight, replace reflector bracket and tighten head lock nut setting the adjustment.

## 13-2. Checking Wheel Bearings.

The front and rear wheel bearings are both checked in the same manner. Hold the wheel bearings off the ground and try rotating them. The wheel bearings should be adjusted so that the wheel can turn easily and freely with only a trace of side play at the wheel rim.

## Wheel Bearing Adjustment.

Remove the wheel from the frame and loosen lock nut on one side of the wheel while holding the adjusting cone on the same side of the hub with a flat open-end wrench and rotate the adjusting cone as needed to eliminate side play. Tighten the lock nut while holding the adjusting cone in the desired position. An adjusted hub must allow the wheel to rotate freely without friction or side play.

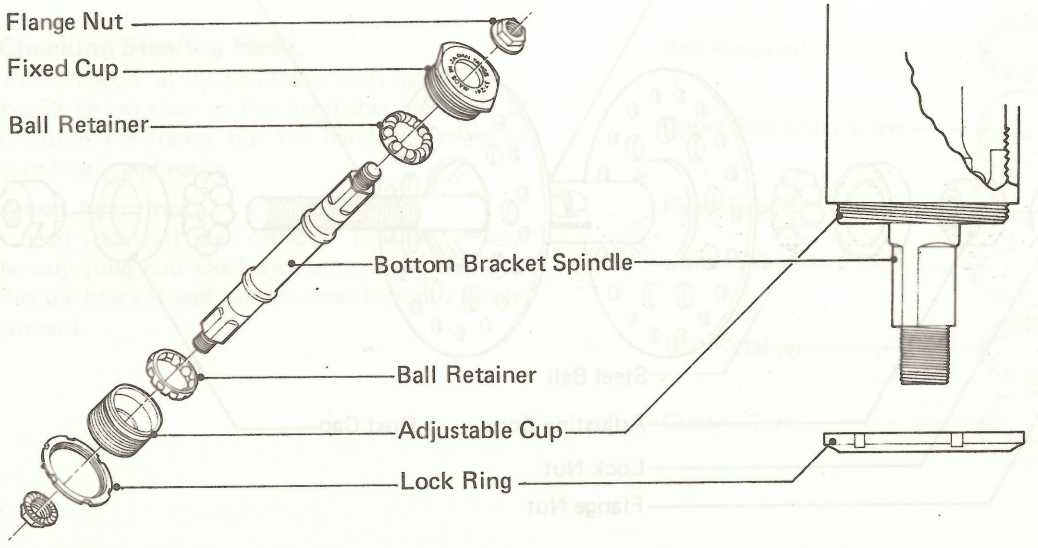


## 13-3. Checking Crank Bearings.

Test for play in the crank by taking hold of one end of the crank and trying to move it sideways. There should be only a trace of play. The crank bearing adjustment must be set so that the crank can turn easily and freely.

### Crank Bearing Adjustment.

Remove the lock ring and loosen or tighten adjustable cap at left side. Then check for proper rotation and side play.
Reset lock ring and tighten it. An adjusted crank set assembly should rotate freely and should not have any side play.



# 12. Tire Care & Wheel Adjustment

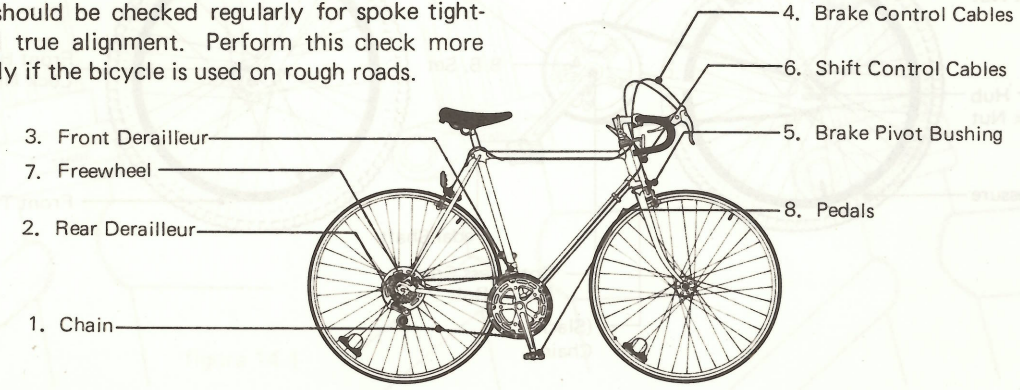
1. Tire pressure is indicated on the sidewall of the tire.
2. Inflate the tire up to the pressure indicated on the sidewall of the tire.
3. Use a hand or foot pump to inflate the tire.
4. Never ride the bicycle with under inflated tires.
5. Improper tire pressure will cause excessive wear, causing premature replacement.
6. Blowouts result from over inflation, or from the tire not being properly on the rim when inflated.
7. If ever the wheels make an irregular noise, or the brakes touch the rim, it is necessary to check and repair the wheels.
8. If the spokes should loosen, you may repair them yourself by tightening the nipples, but we recommend you to take the bicycle to a bicycle mechanic.
9. Wheels should be checked regularly for spoke tightness and true alignment. Perform this check more frequently if the bicycle is used on rough roads.

# 13. Lubrication

Your bicycle has many moving parts which are exposed to the elements. Cleaning and lubrication will keep it running smoother and longer. This chart indicates the parts that require oil.

### Parts requiring lubrication

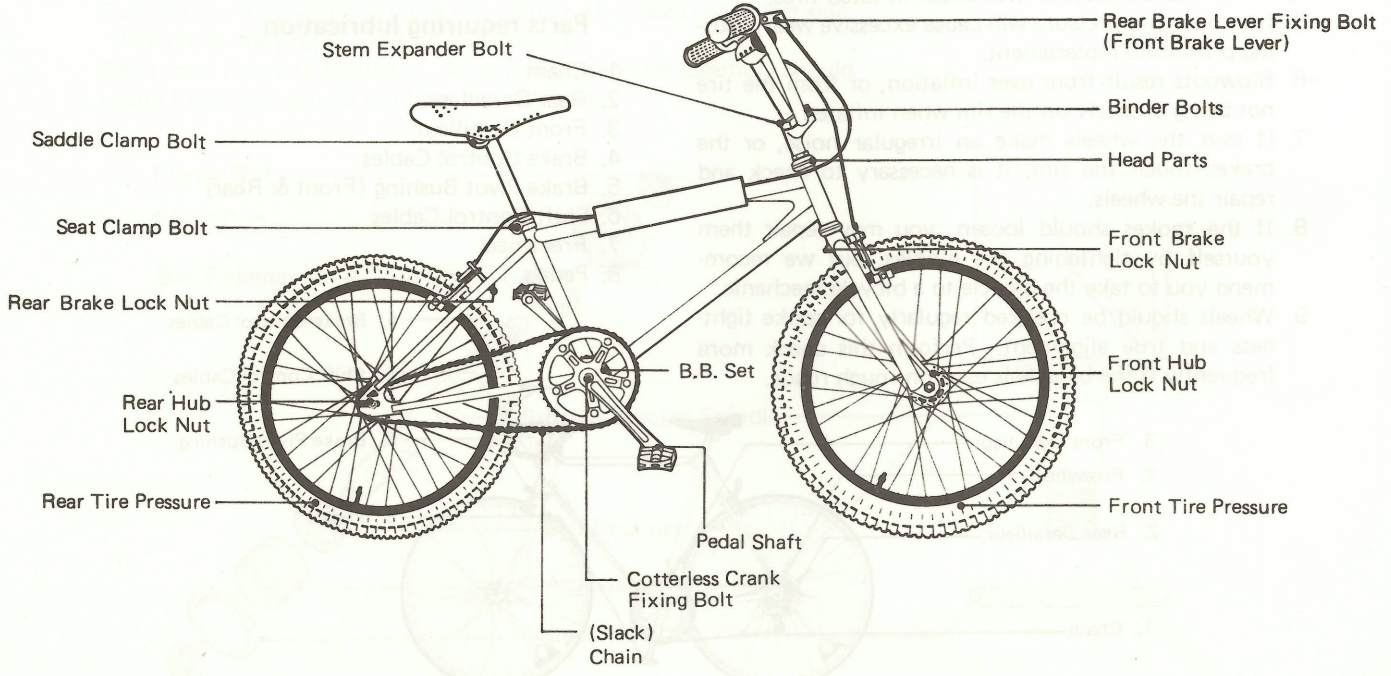
1. Chain
2. Rear Derailleur
3. Front Derailleur
4. Brake Control Cables
5. Brake Pivot Bushing (Front & Rear)
6. Shift Control Cables
7. Freewheel
8. Pedals



# 14. Bicycle Motocross

Make a habit of checking your bicycle before riding.

See that no parts shown in illust are found loose.

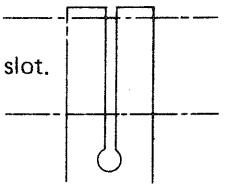


Basic assembly is the same as for derailleur bicycles. Only the features of the parts will be explained here:

Caution : Avoid performing in races with non-racing motocross bicycle.
Ride the motocross bicycle matching your ability and technique with the bike.

## 14-A. SEAT CLAMP

Motocross bicycles are provided with Seat Clamps to secure the seat post to the frame.
For fitting refer to figure 14-1



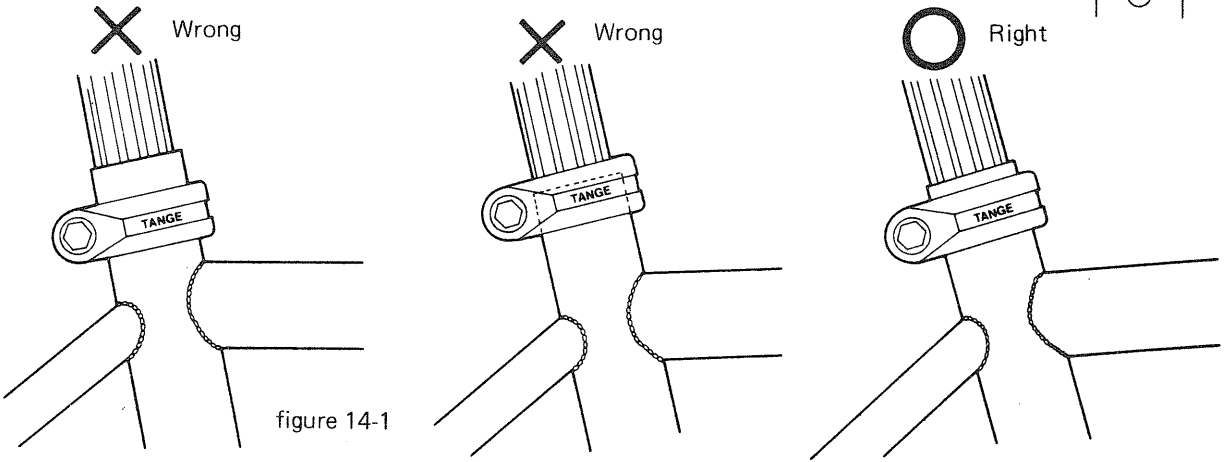
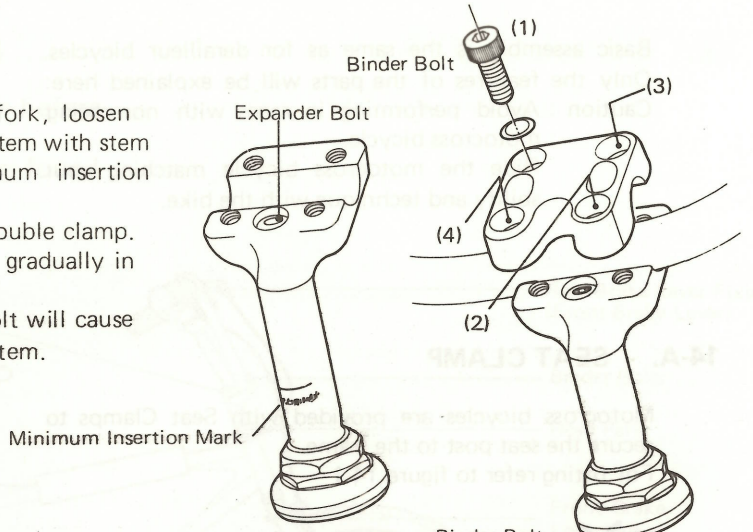




figure 14-1

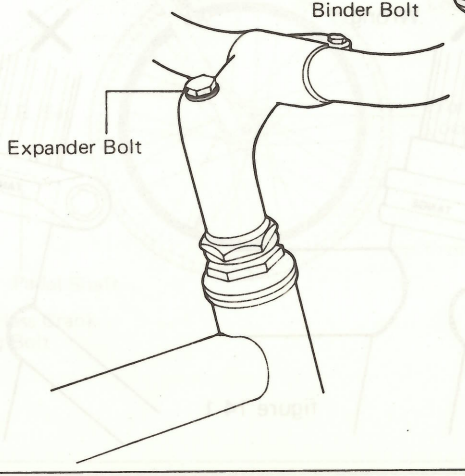
## 14-B HANDLEBAR STEM

1. To insert Handlebar Stem into front fork, loosen expander bolt. Securely tighten fork stem with stem inserted at least up to the minimum insertion mark.
2. 4 bolts are supplied for securing the double clamp. To fasten firmly in place tighten bolt gradually in the order (1), (2), (3) and (4).
   Caution: Complete tightening of 1 bolt will cause undue stress and warping of stem.



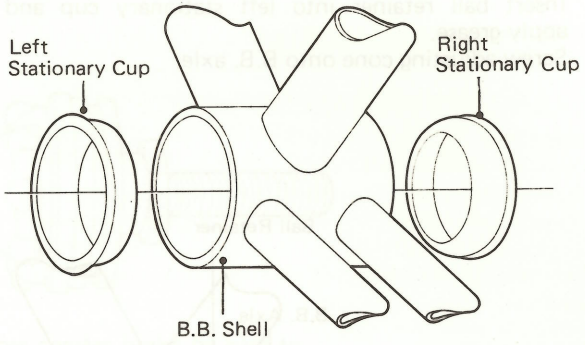

## SINGLE CLAMP

1. To insert Handlebar Stem into front fork, loosen expander cone by loosening expander bolt.
   Securely tighten fork stem with stem expander bolt, taking care that handlebar stem is inserted at least up to the minimum insertion mark.
2. To Install handlebar first remove binder bolt, then insert handlebar.
   Reinsert binder bolt & tighten after positioning handlebar.

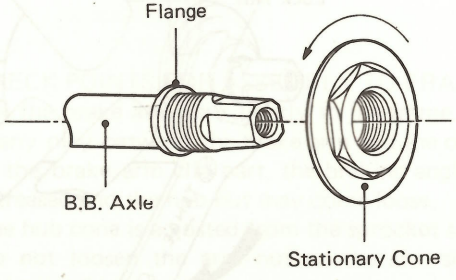


## 14-C. B. B. SET AND AXLE

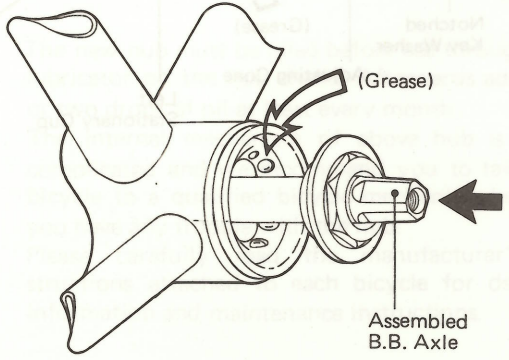
1) Push left and right stationary cups into B.B. shell.



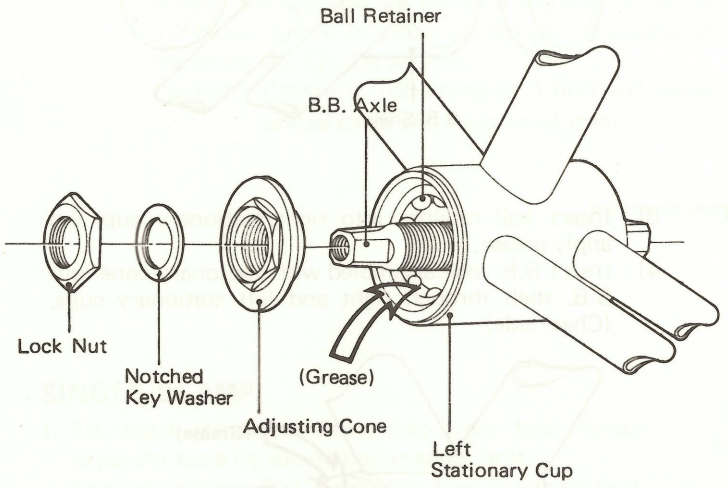

2) Screw stationary cone onto right hand side of B.B. axle. (Flange side)



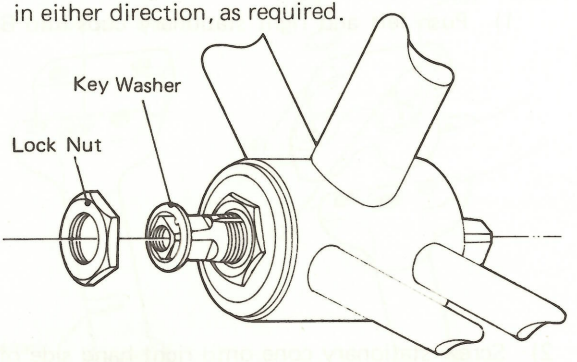

3) Insert ball retainer into right stationary cup and apply grease.
4) Insert B.B. axle assembled with stationary cone into B.B. shell through right and left stationary cups. (Chain side)



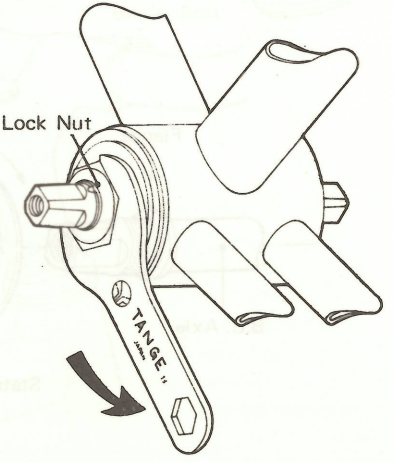
5) Insert ball retainer into left stationary cup and apply grease.
6) Screw adjusting cone onto B.B. axle.



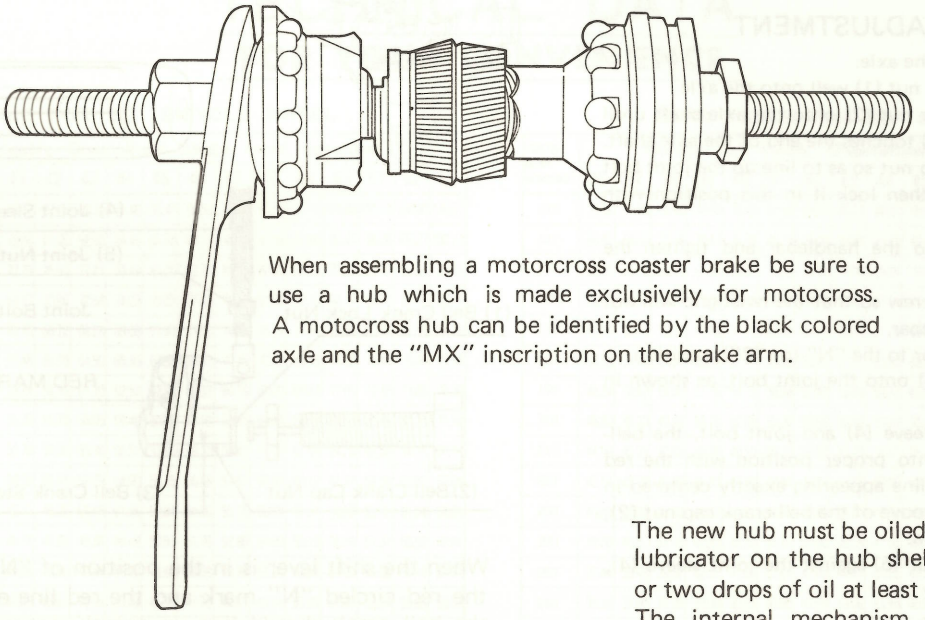

7) Slide key washer onto groove of B.B. axle and place key washer onto the adjusting cone.
8) Make fine adjustments by turning the adjusting cone in either direction, as required.




9) After adjusting properly, securely fasten the key washer by tightening the locknut.



# 15. Coaster Hub



When assembling a motorcross coaster brake be sure to use a hub which is made exclusively for motocross. A motocross hub can be identified by the black colored axle and the "MX" inscription on the brake arm.

- CHECK POINTS FOR ASSEMBLY TO FRAME
- Fix the brake arm very tightly to the frame. If there is any play between the brake arm and the chain stay in the brake arm clip part, the braking angle will be increased and the hub nut may come loose.
- The hub cone is adjusted from the sprocket side. Do not loosen the arm nut on the arm side when disassembling.

The new hub must be oiled before use through the lubricator on the hub shell. Afterwards add one or two drops of oil at least every month.

The internal mechanism of above hub is quite complicated and we recommend you to take the bicycle to a qualified bicycle mechanic whenever you have any trouble with the hub.

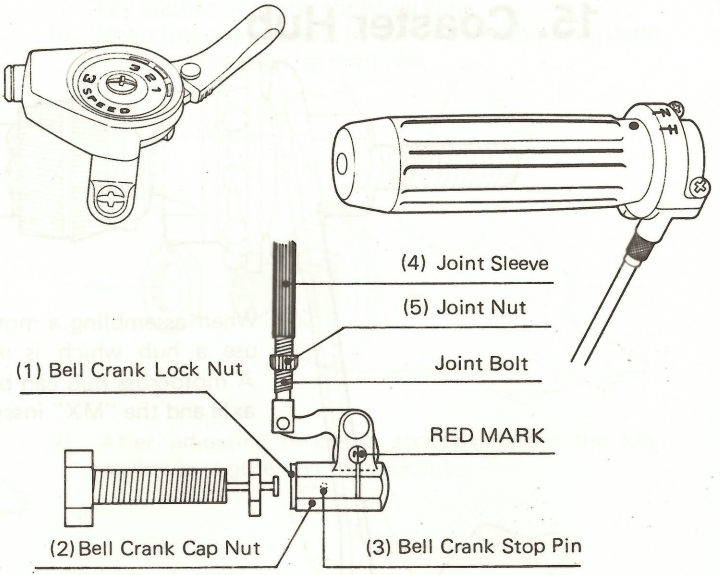
Please carefully read the manufacturer's instructions attached to each bicycle for detailed information and maintenance instructions.

# 16. 3-Speed Hub

## ATTACHMENT AND ADJUSTMENT

(a) Insert the push-rod into the axle.
(b) Screw the bell-crank lock nut (1) well onto the axle.
(c) Screw the bell-crank cap nut (2) onto the axle shaft until the bell crank stop pin (3) touches the end of the axle shaft.
(d) Rotate the bell-crank cap nut so as to line up the joint bolt with the control cable, then lock it in this position with lock nut.
(e) Slide the twist grip onto the handlebar and tighten the setting screws firmly.
Then tighten the clampscrew so that the twist grip will not revolve around the handlebar.
(f) Set the twist grip indicator to the "N" (or "2"), position.
(g) Screw the joint sleeve (4) onto the joint bolt, as shown in the illustration.
(h) By adjusting the joint sleeve (4) and joint bolt, the bell-crank can be brought into proper position with the red circled "N" and the red line appearing exactly centered in the window and in the groove of the bell-crank cap nut (2), as shown in the illustration.
(i) Tighten the joint lock nut (5) against the joint sleeve (4).

The new hub must be oiled before use through the lubricator on the hub shell. Afterwards add one or two drops of oil at least every month.
The internal mechanism of the above hub is quite complicated and we recommend you to take the bicycle to a qualified bicycle mechanic whenever you have any trouble with the hub.
Please carefully read the manufacturer's instructions attached to each bicycle for detailed information and maintenance instructions.




When the shift lever is in the position of "N" (or "2"), the red circled "N" mark and the red line engraved on the bell crank should line up exactly so as to be seen through the groove in the cap nut.

**CAUTION**
Serious damage to the three-speed hub will occur if it is not adjusted correctly. Check frequently.
Lubricate the hub with a few drops of oil.

# 17. Gear Chart

# TECHNICAL DATA

## FOR YOUR CONVENIENCE

### GEAR TABLE FOR 27" BICYCLE WHEEL

| TEETH REAR SPROCKET | Number of teeth, Chainwheel (large front sprocket) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 |
| 13T | 74.76 | 76.84 | 78.92 | 81.00 | 83.05 | 85.13 | 87.24 | 89.32 | 91.40 | 93.47 | 95.53 | 97.60 | 99.68 | 101.79 | 103.84 | 105.92 | 108.00 | 110.07 |
| 14T | 69.42 | 71.33 | 73.28 | 75.20 | 77.14 | 79.06 | 81.00 | 92.92 | 84.86 | 86.78 | 88.72 | 90.63 | 92.58 | 94.50 | 96.41 | 98.36 | 100.27 | 102.22 |
| 15T | 64.80 | 66.58 | 68.39 | 70.20 | 71.98 | 73.79 | 75.60 | 77.41 | 79.19 | 81.00 | 82.81 | 84.59 | 86.40 | 88.20 | 89.99 | 91.80 | 93.60 | 95.39 |
| 16T | 60.75 | 62.42 | 64.13 | 65.80 | 67.50 | 69.17 | 70.86 | 72.58 | 74.25 | 75.91 | 77.63 | 79.32 | 81.00 | 82.70 | 84.37 | 86.07 | 87.75 | 89.45 |
| 17T | 57.16 | 58.75 | 60.35 | 61.94 | 63.50 | 65.10 | 66.72 | 68.28 | 69.88 | 71.47 | 73.06 | 74.65 | 76.24 | 77.81 | 79.40 | 81.00 | 82.59 | 84.18 |
| 18T | 54.00 | 55.49 | 57.00 | 58.48 | 59.99 | 61.48 | 62.99 | 64.50 | 65.99 | 67.50 | 69.01 | 70.49 | 72.00 | 73.49 | 75.00 | 76.49 | 78.00 | 79.48 |
| 19T | 51.14 | 52.57 | 54.00 | 55.40 | 56.84 | 58.24 | 59.70 | 61.10 | 62.53 | 63.94 | 65.37 | 66.79 | 68.20 | 69.63 | 71.06 | 72.46 | 73.89 | 75.30 |
| 20T | 48.60 | 49.95 | 51.30 | 52.65 | 54.00 | 55.35 | 56.70 | 58.05 | 59.40 | 60.75 | 62.10 | 63.45 | 64.80 | 66.15 | 67.50 | 68.85 | 70.20 | 71.55 |
| 21T | 46.28 | 47.55 | 48.84 | 50.14 | 51.41 | 52.70 | 54.00 | 55.30 | 56.57 | 57.86 | 59.13 | 60.42 | 61.72 | 62.99 | 64.28 | 65.58 | 66.85 | 68.14 |
| 22T | 44.17 | 45.39 | 46.63 | 47.84 | 49.09 | 50.30 | 51.54 | 52.79 | 54.00 | 55.25 | 56.46 | 57.67 | 58.91 | 60.12 | 61.37 | 62.58 | 63.82 | 65.04 |
| 23T | 42.26 | 43.42 | 44.60 | 45.77 | 46.95 | 48.11 | 49.30 | 50.49 | 51.65 | 52.84 | 54.00 | 55.16 | 56.34 | 57.51 | 58.69 | 59.85 | 61.04 | 62.20 |
| 24T | 40.50 | 41.61 | 42.74 | 43.88 | 44.98 | 46.12 | 47.25 | 48.38 | 49.49 | 50.63 | 51.76 | 52.86 | 54.00 | 55.13 | 56.24 | 57.37 | 58.50 | 59.61 |
| 25T | 38.88 | 39.96 | 41.04 | 42.12 | 43.20 | 44.28 | 45.36 | 46.44 | 47.52 | 48.60 | 49.68 | 50.76 | 51.84 | 52.92 | 54.00 | 55.08 | 56.16 | 57.24 |
| 26T | 37.37 | 38.42 | 39.45 | 40.50 | 41.53 | 42.55 | 43.61 | 44.66 | 45.68 | 46.74 | 47.76 | 48.81 | 49.84 | 50.89 | 51.97 | 52.97 | 54.00 | 55.02 |
| 27T | 35.99 | 36.99 | 37.99 | 38.99 | 39.99 | 40.99 | 42.01 | 43.01 | 44.01 | 45.01 | 46.01 | 47.00 | 48.00 | 49.00 | 50.00 | 51.00 | 52.00 | 53.00 |
| 28T | 34.70 | 35.67 | 36.64 | 37.58 | 38.56 | 39.53 | 40.50 | 41.47 | 42.42 | 43.39 | 44.36 | 45.33 | 46.27 | 47.25 | 48.22 | 49.16 | 50.13 | 51.11 |
| 29T | 33.51 | 34.43 | 35.37 | 36.29 | 37.23 | 38.15 | 39.10 | 40.04 | 40.96 | 41.90 | 42.82 | 43.76 | 44.95 | 45.93 | 46.54 | 47.49 | 48.41 | 49.22 |
| 30T | 32.40 | 33.29 | 34.18 | 35.10 | 35.99 | 36.88 | 37.80 | 38.69 | 39.61 | 40.50 | 41.39 | 42.30 | 43.20 | 44.09 | 45.00 | 45.90 | 46.79 | 47.60 |
| 31T | 31.35 | 32.21 | 33.08 | 33.97 | 34.83 | 35.59 | 36.59 | 37.45 | 38.31 | 39.20 | 40.07 | 40.93 | 41.79 | 42.68 | 43.55 | 44.41 | 45.27 | 46.17 |
| 32T | 30.38 | 31.21 | 32.05 | 32.89 | 33.75 | 34.59 | 35.45 | 36.29 | 37.13 | 37.96 | 38.83 | 39.66 | 40.50 | 41.33 | 42.20 | 43.03 | 43.87 | 44.71 |
| 33T | 29.43 | 30.27 | 31.08 | 31.89 | 32.72 | 33.53 | 34.37 | 35.18 | 35.99 | 36.83 | 37.64 | 38.44 | 39.28 | 40.09 | 40.90 | 41.71 | 42.55 | 43.36 |
| 34T | 28.57 | 29.38 | 30.16 | 30.97 | 31.75 | 32.54 | 33.35 | 34.16 | 34.94 | 35.75 | 36.53 | 37.31 | 38.12 | 38.90 | 39.71 | 40.50 | 41.28 | 42.09 |

### GEAR TABLE FOR 26" BICYCLE WHEEL

| TEETH REAR SPROCKET | Number of teeth, Chainwheel( large front sprocket) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 |
| 13T | 71.99 | 74.00 | 76.00 | 78.00 | 79.98 | 81.98 | 84.01 | 86.01 | 88.01 | 90.01 | 91.99 | 93.99 | 95.99 | 98.02 | 100.00 | 102.00 | 104.00 | 106.00 |
| 14T | 66.85 | 68.69 | 70.56 | 72.41 | 74.28 | 76.13 | 78.00 | 79.85 | 81.72 | 83.56 | 85.44 | 87.28 | 89.15 | 91.00 | 92.85 | 94.72 | 96.56 | 98.44 |
| 15T | 62.40 | 64.12 | 65.86 | 67.60 | 69.32 | 71.06 | 72.80 | 74.54 | 76.26 | 78.00 | 79.74 | 81.46 | 83.20 | 84.94 | 86.66 | 88.40 | 90.14 | 91.86 |
| 16T | 58.50 | 60.11 | 61.75 | 63.36 | 65.00 | 66.61 | 68.25 | 69.89 | 71.50 | 73.14 | 74.75 | 76.39 | 78.00 | 79.64 | 81.25 | 82.89 | 84.50 | 86.14 |
| 17T | 55.04 | 56.58 | 58.11 | 59.64 | 61.15 | 62.69 | 62.25 | 65.75 | 67.29 | 68.82 | 70.36 | 71.89 | 73.42 | 74.93 | 76.47 | 78.00 | 79.53 | 81.07 |
| 18T | 52.00 | 53.43 | 54.89 | 56.32 | 57.77 | 59.20 | 60.66 | 62.11 | 63.54 | 65.00 | 66.46 | 67.89 | 69.34 | 70.77 | 72.23 | 74.96 | 75.11 | 76.54 |
| 19T | 49.24 | 50.62 | 54.00 | 53.35 | 54.73 | 56.08 | 57.49 | 58.84 | 60.22 | 61.57 | 62.95 | 64.32 | 65.68 | 67.05 | 68.43 | 69.78 | 71.16 | 72.51 |
| 20T | 46.80 | 48.10 | 49.40 | 50.70 | 52.00 | 53.30 | 54.60 | 55.90 | 57.20 | 58.50 | 59.80 | 61.10 | 62.40 | 63.70 | 65.00 | 66.30 | 67.60 | 68.90 |
| 21T | 44.56 | 45.79 | 47.03 | 48.28 | 49.50 | 50.75 | 52.00 | 53.25 | 54.47 | 55.72 | 56.94 | 58.19 | 59.44 | 60.66 | 61.91 | 63.15 | 64.38 | 65.62 |
| 22T | 42.54 | 43.71 | 44.90 | 46.07 | 47.27 | 48.44 | 49.63 | 50.83 | 52.00 | 53.17 | 54.37 | 55.54 | 56.73 | 57.90 | 59.10 | 60.27 | 61.46 | 62.61 |
| 23T | 40.69 | 41.81 | 42.95 | 44.07 | 45.21 | 46.33 | 47.48 | 48.62 | 49.74 | 50.88 | 52.00 | 53.12 | 54.26 | 55.38 | 56.52 | 57.64 | 58.79 | 59.90 |
| 24T | 39.00 | 40.07 | 41.16 | 42.25 | 43.32 | 44.41 | 45.50 | 46.59 | 47.66 | 48.75 | 49.84 | 50.91 | 52.00 | 53.09 | 54.16 | 55.25 | 56.34 | 57.41 |
| 25T | 37.44 | 38.48 | 39.52 | 40.56 | 41.60 | 42.64 | 43.68 | 44.72 | 45.76 | 46.80 | 47.84 | 48.88 | 49.92 | 50.96 | 52.00 | 53.04 | 54.08 | 55.12 |
| 26T | 35.98 | 37.00 | 37.99 | 39.00 | 39.99 | 40.98 | 41.99 | 43.00 | 43.99 | 45.01 | 45.99 | 47.01 | 48.00 | 49.01 | 50.00 | 51.01 | 52.00 | 52.99 |
| 27T | 34.66 | 35.62 | 36.58 | 37.54 | 38.51 | 39.47 | 40.46 | 41.42 | 42.38 | 43.34 | 44.30 | 45.27 | 46.23 | 47.19 | 48.15 | 49.11 | 50.08 | 51.04 |
| 28T | 32.71 | 34.35 | 35.28 | 36.19 | 37.13 | 38.06 | 39.00 | 39.94 | 40.85 | 41.78 | 42.72 | 43.65 | 44.56 | 45.50 | 46.44 | 47.35 | 48.28 | 49.22 |
| 29T | 32.27 | 33.15 | 34.06 | 34.94 | 35.85 | 36.74 | 37.65 | 38.56 | 39.44 | 40.35 | 41.24 | 42.15 | 43.29 | 43.94 | 44.82 | 45.73 | 46.62 | 47.53 |
| 30T | 31.20 | 32.06 | 32.92 | 33.80 | 34.66 | 35.52 | 36.40 | 37.26 | 38.14 | 39.00 | 39.86 | 40.74 | 41.60 | 42.46 | 43.34 | 44.20 | 45.06 | 45.94 |
| 31T | 30.19 | 31.02 | 31.85 | 32.71 | 33.54 | 34.37 | 35.23 | 36.06 | 36.89 | 37.75 | 38.58 | 39.42 | 40.25 | 41.11 | 41.94 | 42.77 | 43.60 | 44.46 |
| 32T | 29.25 | 30.06 | 30.86 | 31.67 | 32.50 | 33.31 | 34.14 | 34.94 | 35.75 | 36.56 | 37.39 | 38.19 | 39.00 | 39.81 | 40.64 | 41.44 | 42.25 | 43.06 |
| 33T | 28.34 | 29.15 | 29.93 | 30.71 | 31.51 | 32.29 | 33.10 | 33.88 | 34.66 | 35.46 | 36.24 | 37.02 | 37.83 | 38.61 | 39.39 | 40.17 | 40.98 | 41.76 |
| 34T | 27.51 | 28.29 | 29.04 | 29.82 | 30.58 | 31.33 | 32.11 | 32.89 | 33.64 | 34.42 | 35.18 | 35.93 | 36.71 | 37.47 | 38.25 | 39.00 | 39.75 | 40.53 |

Record the date and servicing information to serve as a reminder for future servicing needs.

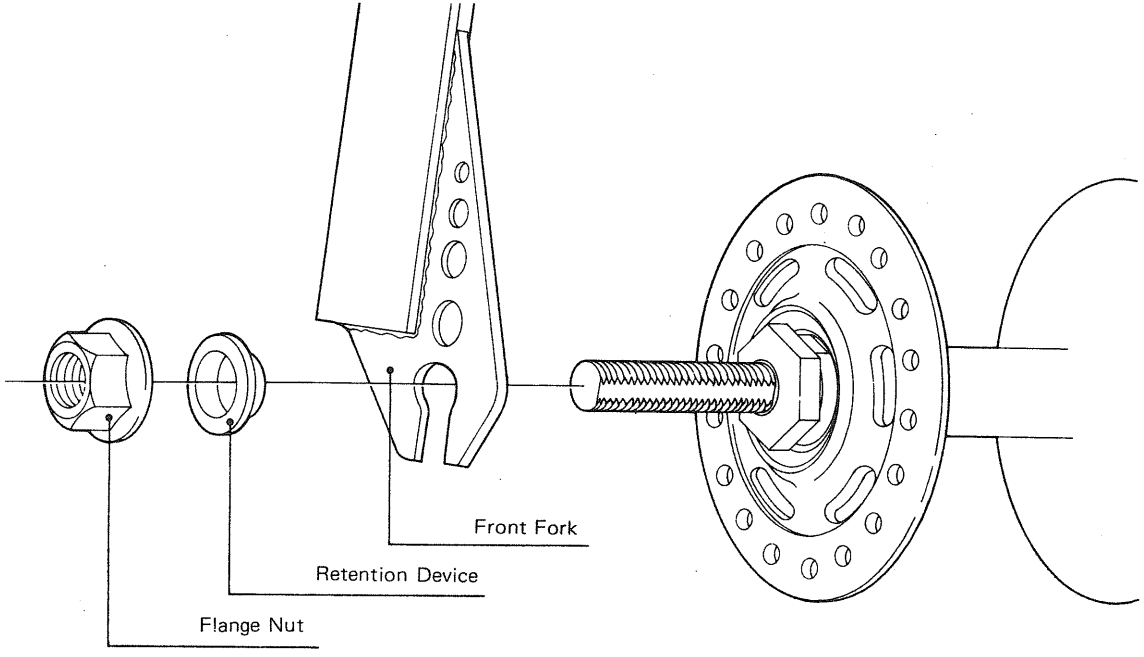
| Part | Date | Service | Condition Notes |
|---|---|---|---|
| Brakes | | | |
| Shift Mechanism | | | |
| Tire Size/Pressure | | | |
| Rims | | | |
| Spokes | | | |
| Chain | | | |
| Axle Nuts | | | |
| Steering Head | | | |
| Seat | | | |

ADDITIONAL

# 14. Bicycle Motocross

## 14-A. RETENTION DEVICE

Instructions for installation of CPSC required Front Wheel Retention Device.



# NOTE

# LIMITED WARRANTY

—SR— built bicycles and component parts are warranted to be free from defects in material and workmanship.

### Lifetime Warranty

Any —SR— frame or fork which bends or breaks during the lifetime of the original owner will be replaced free of charge, if such defect is not caused by abuse, misuse, accident or normal wear.

### 1 year Limited Warranty

All other —SR— components are warranted against failure or defects arising from normal use for 1 year from the date of purchase. Tires, tubes, brake shoes and cables are excluded from this warranty. Shipping and labor charges are not included in this warranty.

This warranty gives you specific rights in addition to other rights you may have. These rights may vary from state to state.

### Notice

The user assumes the risk for any personal injuries, damage to or failure of the bicycle and other losses if this —SR— bicycle is used in any competitive event, including, but not limited to, bicycle racing, bicycle motocross, dirt biking or similar activities, or training for such activities. Do not use —SR— bicycles for stunt riding, ramp jumping, acrobatics or similar activities, or with motors as power-driven vehicles. This warranty does not cover any personal injuries, damage to or failure of the bicycle or any other losses due to accident, misuse, neglect, abuse, normal wear, improper assembly or improper maintenance.

### See Your Authorized —SR— Dealer for Service and Replacement

Claims under this warranty should be made to your authorized —SR— dealer with dated proof of purchase, and said dealer will determine if the component(s) is defective. Any defective part will be replaced free of charge. Installation labor is not included in this warranty.

This warranty is extended to the original owner only and does not cover any defect, malfunction or failure which does not conform to the limited warranty aforesaid.

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