The Cargo Bike Company

Made in Derbyshire, England

Bicycle Owners Manual

cargobike.co.uk

About this Owner's Manual

This manual explains how to ride your new bike safely.

Even if you have ridden a bicycle for years, it is important for EVERY person to read Chapter 1 before riding this bicycle!

Parents should explain Chapter 1 to a child or anyone else who might not otherwise understand this information.
This manual also shows how to perform basic maintenance. Some maintenance should only be performed by your local bicycle shop, and the manual indicates these tasks. If you choose to perform these tasks, you should purchase a detailed bicycle repair manual from your local bookshop.

My bicycle model: ._____.

Keep for your records

WARNING
In this manual, the WARNING sign indicates a hazardous situation which, if not avoided, could result in death or serious injury.

Caution
In this manual, the Caution sign indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.

If you have questions
There are many models, with a variety of equipment, so this manual may contain some information that does not apply to your bike. Some illustrations may vary from the actual bicycles.
If you have any questions after reading the information in this manual, consult the Cargo Bike Company.

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CHAPTER 1: GUIDE TO SAFE ON-AND-OFF ROAD OPERATION

Riding a bicycle in a manner beyond, or more severe than, its intended use can cause the bicycle or part of the bicycle to fail. The following information explains the type of riding intended for different types of bikes. Read the safety information in Chapter 1 for further details.

All the Cargo Bike company bicycles are designed for riding on paved surfaces or gravel roads and trails where the tires do not lose ground contact.

WARNING

Bicycles, or their parts, can be broken or damaged by riding in a manner more stressful than the intended use of the bike. If the bike is damaged, you could lose control and fall. Do not ride beyond the design limits of the bike. If you are unsure of the limits of the bike, consult The Cargo Bike Company.

BEFORE A FIRST RIDE

Make sure the bicycle fits

There should be at least 1" (25 mm) clearance between the top tube and the rider when standing over the bicycle (Figure 1). The seat and handlebar may be adjusted to offer the best comfort and performance. Before making these adjustments, refer to Chapter 3.

Figure 1- Minimum stand-over height
A = 1" (25 mm) for most bicycles
2-3" (50-75 mm) for mountain bicycles

Know how the bicycle performs

The features of your bicycle, if misused, may cause you to lose control of the bike. Before riding, learn the function and performance of all the mechanisms of your bike by riding at slower speeds in a flat, empty parking lot. If you want your bicycle to perform differently, or if you have special needs that require different parts for the safe operation of your bike, consult The Cargo Bike Company.

Learn the power of your brakes

The stopping power on bikes varies according to the intended use of the bike. If you would like your bike to have more, or less, stopping power, consult The Cargo Bike Company about brake adjustments or other brake options for your bicycle.

WARNING

Mis-use of the braking system, including over-use of the front brake, can cause you to lose control and fall. Avoid improper braking by understanding and practicing proper application of your brakes as explained in this manual.

Avoid toe-clip overlap

When riding slowly, do not pedal if the handlebar is turned. It may be possible, at very slow speeds, when the handlebar is turned, for your foot or toe-clips to contact the front wheel (Figure 2). At normal riding speeds, the handlebar does not turn enough for this to occur.

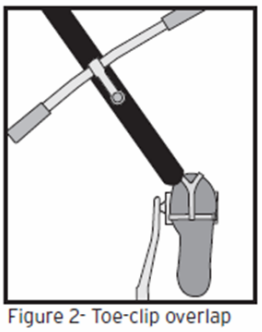

Figure 2- Toe-clip overlap

WARNING

Contact between your foot or toe-clip and the front wheel or fender can cause you to lose control and fall. Avoid pedalling when turning at slow speed.

Stop riding if you have frame problems

Occasionally riders experience problems with their frame or fork. If a frame or fork has any problem, do not ride the bicycle.

As an example, in very rare cases, some riders may experience a "shimmy" or "harmonic oscillation" or "frame vibration" at certain speeds. If you are experiencing a shimmy, slow down immediately. Contact The Cargo Bike Company immediately for inspection and repair.

WARNING

A shimmy, or steering wobble, can cause you to lose control and fall. If you experience a shimmy, slow down immediately. Take your bicycle to your local bicycle repair shop for inspection and repair.

CHECK THE BIKE BEFORE EVERY RIDE

Before every ride, inspect the bike with the following check list. If any part of the bicycle fails the inspection, repair the bicycle by following the information provided by this manual, or take the bike to your local bicycle repair shop for service. Never ride a bike with a damaged part; have it replaced.

This is not a comprehensive maintenance program.

Before every ride checklist

☐ **Wheels**

☐ **Tire inflation**

☐ **Brakes**

☐ **Handlebar and stem**

☐ **Seat and seatpost**

☐ **Suspension adjustments**

☐ **Lights and reflectors**

☐ **Frame, fork, and components**

Caution

A bicycle that does not work properly can cause you to lose control and fall. Inspect the entire bicycle thoroughly before every ride, and do not ride it until any problem has been corrected

Check the wheels

Check that the wheels are straight. Spin each wheel and watch the rim as it passes through the brake pads or the frame. If the rim wobbles up and down or from side to side, repair the wheel.

Check that the wheels are properly attached. Bicycle wheels are attached by several systems: threaded axle nuts, a quick-release where a lever-actuated wheel retention mechanism (Figure 3) allows the wheel to be installed and removed without tools, or a thru-axle where the axle is threaded through the ends of the frame or fork. For information about adjustment and closure of the wheel attachment devices on your bicycle, see Chapter 3.

Figure 3- Wheel quick-release

Figure 4- Test for loose-ness

Test for proper wheel attachment. Pick up the bike and sharply hit the top of the tire (Figure 4). The wheel must not come off, be loose, or move from side to side. Further tests are provided in Chapter 3.

WARNING

A wheel attachment device that is not properly adjusted and closed may allow the wheel to be loose or come off unexpectedly, causing you to lose control and fall. Make sure the wheels are properly attached before riding the bike.

Check the tire inflation

Inflate the tires to the air pressure recommended on the tire sidewalls.

WARNING

Never ride a bike if you are not certain the brakes are working properly, or you if suspect a problem with the brake cables or hydraulic hose. Malfunctioning brakes can cause you to lose control and fall. Inspect the brakes thoroughly before every ride. If your brakes are not working properly, re-adjust them or take the bike to your local bike repair shop for service.

Check the brakes

Follow the inspection instructions for the type of brake on your bike:

Hand-rim brake- a hand lever connected to the brake by a cable causes the brake pads to squeeze the rim. When the brakes are not applied, the brake pads should be 1 to 2 mm from the rim.

Squeeze each brake lever toward the handlebar to make sure the brake moves freely and stops the bike. If the brake lever can be pulled to the handlebar, the brake is too loose. If the brake pads are too close to the rim, the brake is too tight. Brake pads should be aligned with the rim surface (Figure 5).

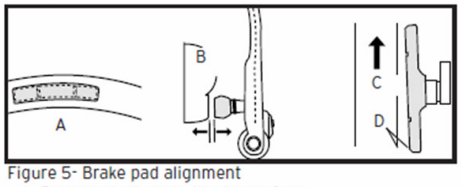

Figure 5- Brake pad alignment
A- Brake pad aligned with rim surface
B- Pad and rim should be parallel
C- Direction of rim rotation
D- 0.5-1.0 mm toe-in

Disc brake- a hand lever connected to the brake by a cable or hydraulic hose squeezes a disc mounted on the wheel hub.

Squeeze each brake lever toward the handlebar to make sure the brake moves freely and stops the bike. If the brake lever can be pulled to the handlebar, the brake is too loose. The brake pads should be 0.25-0.75 mm away from the disc when the brakes are not applied. If the pads are too close, the brake is too tight, or mis-aligned.

Caution

Disc brakes and discs get very hot during use and could burn skin. Also, the disc edges may be sharp and could cut skin. Avoid touching the disc or disc brake when hot, or when rotating.

Check the chain

On single speed or hub gear units check the tension of the chain (Figure 6) There should be between 6-

12mm total vertical movement of the chain. Adjust the position of the rear wheel axle to slacken or tighten the chain tension


Figure 6- Checking chain tension

Check the handlebar and stem

Make sure the stem is in alignment with the front wheel. Test the stem connection to the fork by attempting to turn the handlebar from side to side with the front wheel locked between your knees (Figure 7). Test the security of the handlebar by attempting to rotate it in the stem. It should not move or be loose. Make sure that no cables are stretched or pinched by rotating the handlebar. Check that the handlebar plugs are properly inserted into both ends of the handlebar (and bar-ends).


Figure 7- Function testing the handlebar and stem

Check the seat and seatpost

Make sure the seat is secure by attempting to turn the seat and seatpost in the frame, and attempt to move the front of the seat up and down. It should not move or be loose.

Check the suspension adjustments

Make sure your suspension components are adjusted to your riding style, and that no suspension component can "bottom-out" or be so compressed that there is no further suspension travel or movement remaining.

Check the lights and reflectors

Make sure the lights are functioning correctly and that any batteries are charged. If the lights use a dynamo, make sure it is mounted correctly and all attachment hardware is tight. Make sure reflectors are clean and in position.

Check frame, fork, and components

Carefully inspect your frame, fork, and components for signs of fatigue before and after each ride. Regularly inspect your entire bicycle for signs of fatigue stress:

- Dents
- Cracks
- Scratches
- Deformation
- Discoloration
- Unusual noises

Even if you perform regular inspections, if you exceed the limit of strength of your bicycle or a given part, it may fail if overloaded. After any high force load, thoroughly inspect all the parts of your bike. High force loads include crashes, but you don't have to crash to put a high force load on your bike. For example, hitting a kerb at speed, a large hole in the road or a sharp bump such as a railway crossing can put large forces on your bike.

The manner in which you ride will determine whether your bike and its parts will last. If you ride hard or aggressively, you should replace the bike and/or its parts more often than riders who ride smoothly or cautiously. There are many variables: weight, speed, technique, terrain, maintenance, riding environment (humidity, salinity, temperature, etc.), and the frame or part itself- so it is impossible to give a precise timetable for replacement. If you aren't sure, ask your local bike repair shop. But as a rule, it is better to err on the safe side and replace the bike or parts more frequently.

RULES FOR SAFE RIDING

Know and observe local bicycle riding laws
Local cycling clubs or the Department of Transportation (or equivalent) should be able to supply this information to you.

These are a few of the more important rules of riding:
• Use proper hand signals.
• Ride single file when riding with other cyclists.
• Ride on the correct side of the road; never go against traffic.
• Ride defensively; expect the unexpected. A cyclist is hard to see, and many drivers simply are not trained to recognize the rights and special considerations of a bicycle rider.
• Always secure the cargo or children you are carrying securely into the bicycle

Watch for cars, pedestrians, and other obstacles
Watch for and avoid potholes, drain covers and other deviations which could impact your wheels or cause them to slip. When crossing railway crossings or drain grates, do so carefully at a 90° angle (Figure 8). If you are not sure of riding surface conditions, walk your bike.

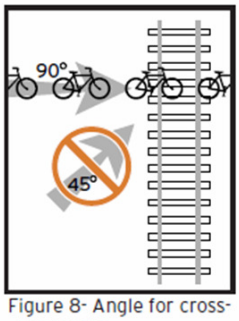

Figure 8- Angle for crossing tracks

If a car suddenly enters your lane, or someone unexpectedly opens the door of a parked car, you could be involved in a serious accident. Use the fitted bell to alert others of your approach.

Wear a helmet and proper cycling clothes
Wear a helmet that meets CE safety testing standards (Figure 9); it may help prevent injury. Helmets should be removed when not riding the bicycle. If the helmet is caught, stuck on, or stuck between objects, the wearer could choke. Wear protective clothing including helmet, eye protection, and gloves. Avoid loose-fitting pants that could get caught in the chain.


Figure 9- Wear a bicycle helmet

Also wear light, bright, and reflective clothing to make yourself more visible, especially at night.

Change your riding to be safe in variable conditions
Ride carefully in wet weather
No brakes, whatever their design, work as effectively in wet weather as they do in dry. Even properly aligned, lubricated, and maintained brakes require greater lever pressure and longer stopping in wet weather. Anticipate the extra distance it will take to stop.
Wet weather causes reduced traction. Use slower cornering when traction is reduced, such as when riding over wet leaves, painted crosswalks, or manhole covers.
When wet weather cools to below freezing, traction is reduced even further. In addition, brakes may not work as well. Adjust your riding speed accordingly, or use other forms of transportation.
When riding in wet weather, a dynamo (generator light) may not work properly. Avoid riding in wet weather when visibility is reduced.
Strong winds can make a bicycle steer or turn unexpectedly. In windy conditions, slow down or use other forms of transportation.

Be careful when riding in low light conditions.
Keep your reflectors clean and in position. As useful as these reflectors are, they do not help you see, nor do they help you be seen unless light is directed on them. Use a working headlight and taillight when you ride in poorly lighted or low visibility conditions. The important thing is to see and be seen. If you do any amount of riding at dusk, at night, or in any poorly lighted conditions, consult your local bike repair shop to find appropriate products to aid your vision and make you more visible.

WARNING
A bicycle rider without proper lighting and reflectors may not have good vision and may not be visible to others. Use front and rear bicycle lights and reflectors when riding in poor visibility conditions. Failure to do so will increase your chances of being involved in an accident in low light conditions.

Do not use unsafe riding practices
Many cycling accidents could be avoided by using common sense. Here are a few examples:
• Do not ride 'no hands'.
• Do not ride with loose objects attached to the handlebar or any other part of the bicycle.
• Do not ride while intoxicated or while using medications which might make you drowsy.
• Do not overload the bike

WARNING
The following riding practices increase your risk of injury:

• Jumping your bicycle
• Performing bicycle stunts
• Severe off-road riding
• Downhill riding
• Any abnormal bike riding
Each of these practices increases the stress on every part of your bicycle. Frames or parts under high stress may fatigue prematurely, causing them to fail and increasing the risk of injury to the rider. To decrease your risk of injury, do not perform these riding practices.

• Use special care when off-road riding. Ride only on the trails. Avoid rocks, branches, or depressions. When approaching a descent, reduce speed, keep your weight back and low, and use the rear brake more than the front.
• Do not ride in an abusive manner; ride within the limits of your ability and the limits of your bicycle. Bicycles are not indestructible. As with anything mechanical, every part of a bicycle has a limited useful life due to wear, stress, and fatigue. Fatigue refers to a low-stress force that, when repeated over a large number of cycles, can cause a material to fail or break. The length of the life of a part varies according to its design, materials, use, and maintenance. Although lighter frames or parts may, in some cases, have a longer life than heavier ones, it should be expected that light-weight, high-performance bicycles and parts require better care and more frequent inspections.

Avoid riding too fast

Higher speeds create higher risks and greater forces in the event of a crash. At higher speeds, it is more likely that wheels will slip, or that a small bump can create a significant impact to your frame or forks. Keep your bicycle under control at all times

RIDING INSTRUCTIONS

Use your brakes carefully

Always keep a safe stopping distance between you and other vehicles or objects. Adjust stopping distances and braking forces to suit riding conditions.
If your bike has two hand brakes, apply both brakes at the same time. Over-use, or mis-use, of a front-wheel brake, such as using only the front-wheel brake in an emergency, could cause the rear wheel to lift from the ground which could cause you to lose control

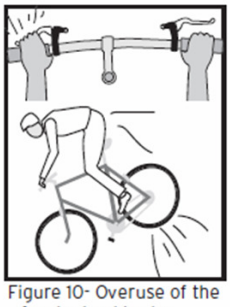
Figure 10- Overuse of the front-wheel brake

Bicycles are normally manufactured with the left brake lever controlling the front-wheel brake. To change so that the right lever controls the front-wheel brake, see Chapter 3.
The brakes on tricycles can vary in their layout. Make yourself familiar with their operation before commencing riding of the trike. Trikes with independent front brakes must be set up correctly to ensure that that the brakes, when applied, provide consistent and even braking forces to prevent the trike 'brake steering'.
Correctly set up front brakes on a trike will be sufficient under most conditions as maximum braking performance occurs with the front brakes fully on and the rear wheel only just on the ground. However if you are carrying a particularly heavy load over hilly terrain you should adjust your riding style to avoid losing control.

WARNING
Applying sudden or excessive stopping force with the front-wheel brake may cause the rear wheel to lift off the ground, or the front wheel to slip out from under you, which can cause you to lose control and fall. Apply both brakes at the same time, and shift your weight backwards on the bike while braking.

Use good shifting techniques

Shifting gears allows you to choose the gear combination most comfortable for riding conditions, one that allows you to maintain a constant rate of pedalling.

Shifting a bike with a derailleur

The left-hand shifter controls the front derailleur and the right-hand shifter controls the rear derailleur. Use only one shifter at a time. Shift gears only when the pedals and chain are moving forward. When you shift, reduce the force on the pedals to provide quicker and smoother shifting, to help avoid excessive chain and gear wear, and to help avoid bent chains, derailleurs, and chainrings. Avoid shifting when going over bumps; the chain may not shift properly or may fall off.
With modern indexed shifting systems, a movement of the shifter from one position to the next (or movement of the shifter to the "shift" position) should promptly move the chain from one gear to the next. However, bikes equipped STI road shifters and triple chainrings may shift better, particularly when shifting from the smallest chainring to the middle, if you "hold" the lever for a moment before letting go of the shifter.

TAKE CARE OF YOUR BIKE

Protect your bike when parking or storing it

Protect your bike from theft
Purchase and use a lock that is effective against bolt cutters and saws. Never leave your bike unlocked while unattended.

Park your bike safely
When not riding, keep your bike in a place where it will be out of the way, and make sure it cannot fall over. Do not lay the bike on its derailleurs, as you may bend the rear derailleur or get dirt on the drivetrain. Don't let the bike fall down, as this may cut the handlebar grips, or tear the seat. Incorrect use of bike racks may bend your wheels.

Store your bike carefully
When not riding, keep your bike where it will be protected from rain, snow, sun, etc. This should be in a locked garage or shed. The Cargo Bike Company can provide full rain covers for you bike but such a cover should only be used for short term external storage. If the bike is stored in an exposed location, water may seep into the bearings causing creaking and premature bearing failure.
After every ride the bike should be wiped dry and any mud removed, failure to do this may cause corrosion or premature wear of the bicycle. Rain or snow may cause the metal on your bicycle to corrode. Ultraviolet radiation from the sun may fade the paint, or crack any rubber or plastic on the bicycle.

Take care of your bike
Before storing your bike for an extended period of time, clean and lubricate it, and polish the frame with frame polish. Hang the bicycle off the ground with the tires at approximately half pressure. Before riding the bicycle again, be certain it is in good working order.

Carry repair items
Carry a pump, spare inner tube, patch kit, and appropriate tools to keep your bicycle running in the case of a flat tire of other common mechanical problem. If you ride at night, carry spare bulbs and batteries for your lights.

Only install and use approved accessories
Not all accessories are compatible or safe, as an example, a child carrier places weight high on the bike, affecting the stability of the vehicle. Although most of our bikes can be fitted with a retro fitted child carrier, the rider must use extra caution to compensate for the decreased stability.

WARNING
Never modify your frameset or parts in any way, including sanding, drilling, filing, removing redundant retention devices, installing incompatible forks, or by any other method. Improper components or improper assembly can place unknown stress on your bike or components. An improperly modified frame, fork, or component can cause you to lose control and fall. Before adding or changing any part of your bike, consult The Cargo Bike Company or your local bike repair shop.

Keep the bike clean
If your frame or a component is dirty, clean it with a soft, damp cloth and bike cleaner or a solution of dish soap and water. Use of industrial solvents or harsh chemicals for cleaning may damage the paint.

Avoid clamping the frame during transportation or repair
Never clamp the bike frame by its finished or painted surfaces. This type of clamp this may damage the paint or even dent, crush, or break the light-weight tubing used in bicycle frames.
Clamping devices used by work stands and car carriers can damage the finish on a bike or even crush the tubing. When putting a bike in a repair stand, clamp the seatpost. When carrying a bike in a car carrier, clamp the wheels and the fork tips.

Protect your bicycle during shipping
If you have to ship your bike, make sure it is properly padded and protected to avoid damage. Ask your local bike repair shop about supplies used to ship a new bike, such as a fork block.

CHAPTER 2: MAINTENANCE

Maintenance schedule
This maintenance schedule is based on normal usage. If you ride your bike more than average, or in rain, snow, or off-road conditions, service your bicycle more often than the schedule suggests. If any part appears to be malfunctioning, inspect and service it immediately, or consult your local bike repair shop. If a part is damaged, replace it before riding the bicycle again.
After initial break-in, new bikes should be checked for stretched cables and other normal conditions. Approximately two months after purchasing your new bike, have your local bike repair shop thoroughly inspect the bicycle.
All bikes should be thoroughly serviced once a year, even if they have not been ridden much.

Every ride
Check the wheels.....5
Check the tire inflation.....5
Check the brakes.....5
Check the handlebar and stem..6
Check the seat and seatpost.....6
Check the suspension adjustments.....6
Check the lights and reflectors. 6
Check frame, fork, and components.....6
Weekly
Wipe off your bicycle with a damp cloth.....9
Check for loose spokes.....17
Lubricate suspension forks.....19
Check suspension fork bolts.....18
Monthly
Check the attachment of the handlebar and stem.....11
Check the attachment of the seat and seatpost 12
Check the chain.....13
Inspect cables for wear.....13
Check the operation of shifters ...14
Inspect derailleurs.....14
Lubricate derailleurs.....19
Check headset bearing adjustment.....13
Check brake pads.....16
Check brake bolts.....16
Check chain tension.....5
Check wheel bearing adjustment..17
Check rims for wear.....17

Every 3 Months
Clean and polish finish.....8
Check the crankset and bottom bracket.....13
Lubricate brake levers 19
Every year
Lubricate handlebar stem.....19
Lubricate seatpost.....19
Re-grease pedal threads and bearings.....13
Re-grease bottom bracket bearings.....19
Re-grease wheel bearings.....19
Re-grease headset bearings.....19
Lubricate wheel quick-releases 19
Re-grease suspension forks.....19

Recommended tools for proper bicycle maintenance
Torque wrench with lb•in or N•m gradations
2, 4, 5, 6, 8 mm allen keys
9, 10, 15 mm open-end spanners
Socket wrench, 14, 15, and 19 mm socket
Torx wrench
No. 1 phillips head screwdriver
Flat head screwdriver
Bicycle tube patch kit, tire pump with gauge, and tire levers
Special high pressure air pump for rear shock or suspension fork

Note: Not all bikes require all these tools

CHAPTER 3: ADJUSTMENT

This chapter lists instructions for adjustment of the parts of a bicycle. After any repair, inspect the bike as explained in Chapter 1.

WARNING

A bicycle that malfunctions can cause you to lose control and fall. Inspect the entire bicycle thoroughly before every ride, and do not ride it until any problem has been corrected.

A Word About Torque Specifications

Torque is a measurement of the tightness of a threaded fastener such as a screw or bolt, determined by using a torque wrench. The torque specifications should be used to make sure you do not over-tighten the fasteners. Applying more than the recommended torque to a fastener does not provide extra holding power, and may actually lead to damage or failure of a part.

Always perform the simple function tests listed in this chapter to make sure a part is properly tightened, whether or not the part was tightened with a torque wrench. If a part fails inspection at the recommended torque, take the bike to your local bike repair shop.

WARNING

An improperly adjusted or tightened handlebar, stem, or bar-ends can cause you to lose control and fall. Make sure the stem, handlebar, and bar-ends are positioned and tightened properly before riding the bike.

Handlebar

To adjust the angle of the handlebar

1. Loosen the handlebar clamp bolt(s) on the stem (Figures 11-12) just enough that the handlebar can be rotated in the stem.
2. Position the handlebar to the desired angle, making sure it is centred in the stem.
3. Tighten the handlebar clamp bolt(s) according to stem type:

• Welded stems- 100-120 lb•in (11.3-13.6 N•m).
• Forged stems- 150-180 lb•in (17-20.3 N•m)

Stem

There are two types of stems:

• Direct-connect (Figure 11)
• Quill-type (Figure 12)

Adjusting the handlebar height on a direct-connect stem affects the headset bearing adjustment. This procedure requires special tools and training so this should only be done by your local bike repair shop.

To align a direct-connect stem

1. Loosen the steerer clamp bolts two to three turns.
2. Align the stem with the front wheel.
3. Tighten the steerer clamp bolts to 100-120 lb•in (11.3-13.6 N•m).

Figure 11- Direct-connect stem
A- Handlebar clamp bolts
B- Steerer clamp bolts

To align or adjust a quill-type stem

To adjust the height of the adjustable-rise stem in Figure 12, first change the stem angle, which gives access to the stem expander bolt.

1. Loosen the stem expander bolt two to three turns.
2. Tap the top of the stem expander bolt with a wood or plastic-faced mallet to loosen the stem wedge.
3. Adjust the handlebar to the desired height, but with the minimum insertion line inside the frame (Figure 13). A minimum of 23/4" (70 mm) of the stem quill must always remain in the frame.
4. Tighten to 120 lb•in (13.6 N•m).

Figure 12- Adjustable-rise quill stem
A- Handlebar clamp bolts
B- Stem expander bolt
C- Angle adjusting bolt

Figure 13- Minimum insertion mark on quill stem
A- This line must be inside the bike frame

WARNING

Never ride your bicycle with a quill stem raised above the minimum insertion mark. A quill stem that is positioned too high can damage the bike and can cause you to lose control and fall. Make sure the minimum insertion mark (Figure 13) is inside the frame.

To change the angle of an adjustable-rise stem

1. Loosen the angle adjustment bolt (Figure 12) until the stem angle can be changed.
2. Position the stem to the desired angle.
3. Tighten the angle adjusting bolt to 150-170 lb•in (17-20.3 N•m).

To change the angle of a Bontrager adjustable-rise stem

1. Slide the locking button (Figure 14) forward and lift the quick-release lever.
2. Position the stem and handlebar to the desired angle.
3. Close the quick-release lever.
Make sure the lever is completely closed and the locking button has returned to its locked position.

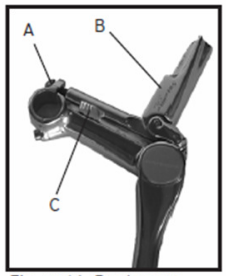

Figure 14- Bontrager adjustable-rise stem
A- Tension adjusting screw
B- Quick-release lever
C- Locking button

To adjust the clamping force of the quick-release lever of the Bontrager adjustable-rise stem
1. Open the quick-release lever.
2. Turn the tension adjusting screw (Figure 14).
3. Check that at about halfway through the lever throw there is some resistance.
If the clamp force is too high or too low, re-adjust the screw.

Bar-ends
Bar-ends (Figure 15) are designed for climbing only. Ensure the bar-ends face forward and away from you, but at an angle not less than 15° from parallel to the ground.

Figure 15- Bar-ends
A- Bar-end clamp bolt

To adjust the angle of the bar-ends
1. Loosen the bar-end clamp bolt(s) until they can be rotated on the handlebar.
2. Position the bar-ends to the desired angle.
3. Tighten the bar-end clamp bolt to 85-125 lb•in (9.6-14.1 N•m)

Saddle
The correct adjustment of the seat angle is largely a matter of personal preference. With proper adjustment, the right bike seat will be reasonably comfortable even for long rides.
To select the saddle angle, first try riding with the top of the seat parallel to the ground. For bikes with rear suspension, try tilting the seat nose down slightly so that compression of the rear shock under your body weight (sag) results in a level seat.
The seat may also be moved forward or backward along the seatpost to increase comfort as well as adjust the distance to the handlebar.
Never engage the seatpost binder with the seatpost out of the frame.

WARNING
Extended riding with a poorly adjusted saddle or one that does not properly support your pelvic area can cause injury to your nerves and blood vessels. If your saddle causes pain or numbness, re-adjust the saddle position. If after adjustment your saddle still causes pain or numbness, consult your local bike repair shop about further positioning or replacing the saddle with one that better fits you.

To adjust the angle of the seat
1. Loosen the seat fixing bolt (Figure 16) just far enough so the seat can be tilted fore and aft.
Some seatposts use two bolts, where angle adjustment is done by loosening one bolt and tightening the other bolt.
2. Place a straight edge, such as a bubble level or ruler, across the top of the seat to better see the angle.
3. Adjust the seat and re-tighten the seat fixing bolt according to the type of seatpost:
• Double bolts using a 5 mm allen wrench- 80-125 lb•in (9.6-14.1 N•m).
• Single bolt using a 13 or 14 mm open-end wrench- 180-220 lb•in (20.3-24.9 N•m).
• Single bolt using a 6 mm allen wrench- 150-250 lb•in (17-28.3 N•m).
• Double bolts using a 4 mm allen wrench- 45-60 lb•in (5-6.8 N•m).

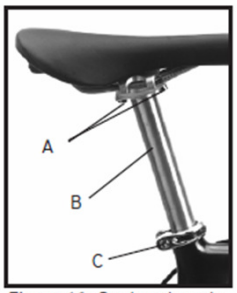

Figure 16- Seatpost parts
A- Seat fixing bolts
B- Seatpost
C- Seatpost binder bolt

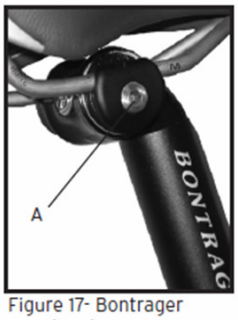

Figure 17- Bontrager seatpost
A- Seat fixing bolt

To adjust the seat height of a bicycle
1. Sit on the seat in riding position without shoes, while someone holds the bicycle up.
2. Position the crank arms so they are parallel to the seat tube.
3. Loosen the seatpost binder bolt, or quick-release.
4. Extend the seatpost until, with your heel resting on the bottom pedal, your extended leg is straight (Figure 18).


Figure 18- Leg extension with proper seat height

When wearing your shoes there should be a slight bend in your knee in a proper riding position; with the ball of your foot on the pedal.

5. Make sure the minimum insertion mark on the seatpost (Figure 19) is not visible above the bike frame. A minimum of 21/2" (64 mm) of seatpost must remain in the frame.

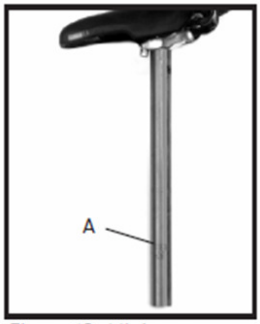

Figure 19- Minimum insertion mark on seatpost
A- This line must be inside the bike frame

6. Close the seatpost quick-release, or tighten the bolt to 85-125 lb•in (9.6-14.1 N•m)

WARNING

A seatpost that is positioned too high can damage the bike and can cause you to lose control and fall. Make sure the minimum insertion mark (Figure 19) is inside the frame.

To adjust the seat position of a tricycle

1. Loosen and remove the clamp bolts (Figure 20).
2. Move the seat mast to the desired position.
3. Install and tighten the seat mast clamp bolts to 85-125 lb•in (9.6-14.1 N•m).

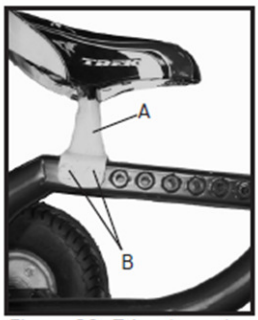

Figure 20- Tricycle seat mast
A- Seat mast
B- Clamp bolts

Headset

To check if the headset is loose or tight

1. Apply the front brake firmly while you rock the bicycle forward and backward.
2. With the front wheel off the ground, slowly rotate the fork and handlebar to the right and left.

If the headset bearings rock in the frame or do not turn smoothly, do not ride the bicycle; take the bike to your local bike repair shop for service.

Adjustment of headset bearings requires special tools and training. These services should only be performed by your local bike repair shop.

Crankset

To check the bottom bracket bearing adjustment

1. Lift the chain from the chainrings.
2. Rotate the crank so that one of the arms is parallel to the seat tube.
3. Put one hand on the crank arm and one hand on the seat tube, and attempt to move the crank arm laterally toward and away from the seat tube.
4. Spin the cranks.

If the crank feels or sounds loose, or if the motion stops abruptly or you hear a grinding noise coming from the bearings, the bearings need to be adjusted or re-greased by your local bike repair shop.

Crank arms

Some bicycles offer adjustable crankarm length. To change the crank length, remove the pedals and install them into the second set of holes. Tighten by following the instructions for Pedals.

Pedals

The left pedal is left-hand threaded, while the right pedal is right-hand (normal) threaded. Tighten pedals into the crankarms to 350-380 lb•in (40.2-42.9 N•m).

Adjustment of pedal bearings requires special tools and training. These services should only be performed by your local bike repair shop.

Bottom bracket

Adjustment of bottom bracket bearings requires special tools and training. These services should only be performed by your local bike repair shop.

Chain

To adjust the chain tension on a single speed bike

1. In small increments, loosen the rear wheel axle nuts on alternate sides of the wheel.

If you fully loosen one side before loosening the other, you may cause the bearings to come out of adjustment.

2. Slide the wheel to re-tension the chain, and centre the wheel in the frame.

Some models have a chain tensioning device which helps position the wheel.

3. Complete the wheel installation.

Cables

Check the cables for kinks, rust, broken strands, or frayed ends. Also check the housing for loose wire strands, bent ends, cuts, and wear. If you suspect a problem with a cable, do not ride the bicycle; follow the instructions to replace a cable (page 19), or have your local bike repair shop service the bicycle.

Shifters
The position of the shifters can be adjusted on the handlebar. Follow the instructions for adjusting the lever position on page 15.

Front derailleur
To adjust the small chainring position
1. Shift the chain onto the smallest front chainring and the largest rear cog.
2. Loosen the front derailleur cable clamp bolt (Figure 21) until the cable is free.
3. Turn the low gear adjusting screw (marked "L") until the inner chain guide of the derailleur is approximately 0.5 mm from the chain.
4. Pull on the cable end, and down-shift the left shift lever several times so that it is in the small-chainring position.
5. On the shifter or down tube, turn the shift cable adjusting barrel to its most clockwise position.
6. Insert the cable in the groove found next to the derailleur cable clamp bolt, pull the cable taut, and tighten the bolt:
• Front derailleur cable clamp bolt- 44-60 lb•in (5.0-6.8 N•m).

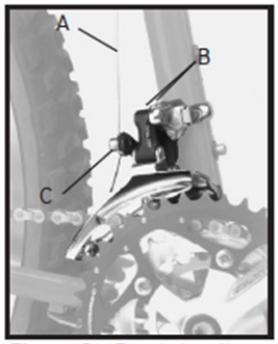

Figure 21- Front derailleur
A- Cable
B- Adjusting screws
C- Cable clamp bolt

To adjust the big chainring position
1. Shift the rear derailleur to the smallest rear cog.
2. Turn the high-gear adjusting screw (marked "H") counter-clockwise until it cannot interfere with the motion of the derailleur.
3. Hand-turn the cranks, and use the shifter to carefully shift the chain onto the outside chainring.
4. Position the outer chain guide of the front derailleur approximately 0.5 mm from the chain.
5. Re-tighten the high gear adjusting screw until it meets resistance.
If you have turned the screw too far, the front derailleur will move toward the small chainring.
6. Go through the various gear combinations. Make sure the chain does not fall off when you shift, and the derailleur cage does not rub on any part of the crankset.

To adjust the middle gear position, with three chainrings
1. Shift the chain onto the largest front chainring and the smallest rear cog.
2. Rotate the cable tension barrel-adjuster (on the downtube, or on the lever) counter-clockwise, increasing cable tension to align the inner derailleur cage until it just touches the chain.
3. Go through the various gear combinations to ensure the chain smoothly lines up with all the chainrings.
Note: some front shifters have a 'tab' feature: slightly downshift the lever and the derailleur will move in slightly, no longer touching the chain.

Rear derailleur
To adjust the small cog position
1. Shift the chain onto the smallest rear cog and the largest front chainring.
2. Loosen the cable clamp bolt (Figure 22) until the cable is free.
3. Stand behind the bicycle to see that the smallest rear cog, the chain, and the two derailleur pulleys are in line.
4. If they are not aligned, turn the high gear adjusting screw (usually marked "H",) until this line is established.

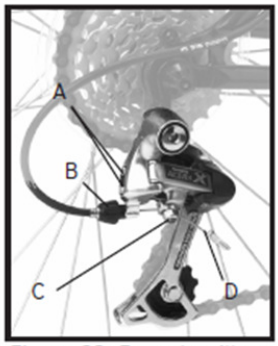

Figure 22- Rear derailleur
A- Adjusting screws
B- Barrel adjuster
C- Cable clamp bolt
D- Cable

5. While pulling on the cable, up-shift until the shifter is in the small cog position.
6. On the shifter or down tube, turn the adjusting barrel all the way clockwise. Turn the adjusting barrel on the rear derailleur all the way clockwise, and then one turn counter-clockwise.
7. Insert the cable into the clamp bolt groove on the rear derailleur, pull the shift cable taut, and tighten the cable clamp bolt to 44-60 lb•in (5.0-6.8 N•m).
To adjust the large cog position
1. Turn the low gear adjusting screw on the rear derailleur (usually marked "L") far enough counter-clockwise that it will not restrict the movement of the derailleur.
2. Carefully shift the chain onto the smallest front chainring and the largest rear cog.
Do not over-shift the rear derailleur, or the chain may wedge between the large cog and the spokes.
3. Position the rear derailleur pulleys in line with the largest cog.
4. Turn the low gear adjusting screw clockwise until it meets resistance.
If you have turned it too far, the derailleur will move toward the outside of the bicycle.
5. Go through the various gear combinations. Make sure the chain does not fall off when you shift.

To align the indexing system

1. Shift the chain onto the largest front chainring and the smallest rear cog.
2. Shift one click with the rear shifter.
3. Check if the chain moves smoothly to the next gear.
• If the chain makes excessive noise or does not shift, turn the barrel-adjuster counter-clockwise in small increments and check again for a smooth shift.
• If instead, the chain moves to the third smallest cog, turn the barrel adjuster clockwise until the derailleur pulleys align with the second smallest cog.
4. Go through the gear combinations to ensure the chain smoothly lines up with all the rear cogs.
If the derailleur cannot be adjusted in this manner, the derailleur hanger may be out of alignment; take the bike to your local bike repair shop for service.

Nexus 4, 7, or 8 speed systems
To adjust the rear shifting
1. Rotate the shifter to the 4th gear position.
2. Align the indicator on the rear hub pulley (Figure 23) with the cog joint bracket.
3. If the red lines do not line up, adjust the gear cable tension by rotating the barrel adjuster until this alignment is achieved.
4. Shift to 1st gear, then back to 4th, and re-check the adjustment.

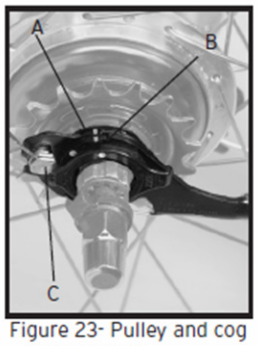

Figure 23- Pulley and cog joint bracket
A- Pulley
B- Cog joint bracket
C- Cable clamp bolt

3 speed systems
To adjust the rear shifting
1. Rotate the shifter to the 2nd gear position.
2. Align the indicator on the bell crank window with the line on the push rod (Figure 24).
3. If the indicators do not line up, adjust the gear cable tension by rotating the barrel adjuster until this alignment is achieved.
4. Shift to 1st gear, then back to 2nd, and re-check the adjustment.

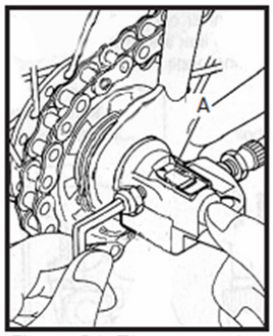

Figure 24- Three-speed bell crank
A- Bell crank window

Brake levers
The brake system allows you to slow or stop your bike, a function critical to your safety.
The brake system is difficult to adjust properly without the proper tools and training. It is strongly recommended that adjustment of a brake be done by your local bike repair shop. If you need more specific information regarding your brake system, contact your local bike repair shop.

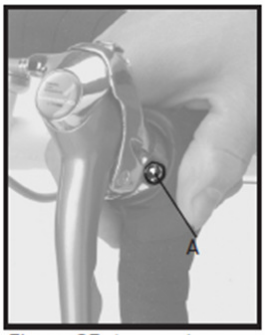

Figure 25- Lever clamp bolt, road lever
A- Lever clamp bolt

To adjust the position of a lever
1. Locate the lever clamp bolt (Figures 25-27).
2. Loosen the clamp bolt 2-3 turns.
3. Position the lever.
4. Tighten the clamp bolt:
• Regular brake levers- 53-69 lb•in (6.0-7.8 N•m).
• On mid-bar levers (Figure 27)- 20-30 lb•in (2.3-3.3 N•m).
• Hayes hydraulic levers- 25-35 lb•in (2.8-4 N•m)

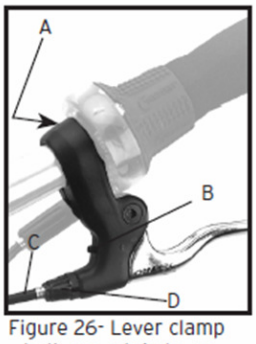

Figure 26- Lever clamp bolt, mountain lever
A- Lever clamp bolt
B- Reach adjustment screw
C- Cable
D- Barrel adjuster

To adjust the reach to the brake lever (cable type)
With some brake levers, you can change the reach, the distance from the handlebar to the lever.
1. Locate the reach adjustment screw (Figure 26) and turn. *To decrease the reach, turn the screw in (clockwise). To increase the reach, turn the screw out (counter-clockwise).*
2. If needed after adjusting the reach, re-adjust the brake pad clearance.

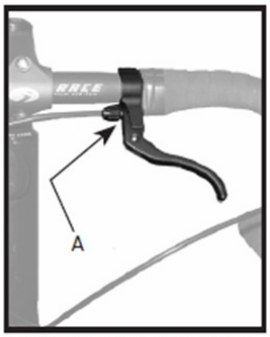

Figure 27- Mid-bar brake lever
A- Lever clamp bolt

To adjust the reach to the brake lever (Hayes hydraulic type)

1. Locate the reach adjustment screw between the lever and the handlebar, near the lever pivot.
2. To decrease the reach, turn the screw in (clockwise). To increase the reach, turn the screw out (counter-clockwise).

To change which lever controls the front brake (cable type)

See the Brakes section for brake adjustment procedures.

1. Open the brake.
2. For a road bike, disconnect the brake cable and completely remove it from the lever.
• For a mountain bike, just remove the leaded end of the cable from the lever.
3. Install the cables into the opposite levers.
4. Close the brakes.
5. Inspect the brakes as explained in Chapter 1, and re-adjust as necessary.

To change which lever controls the front brake (Hayes hydraulic type)

Changing the levers with Shimano hydraulic brakes requires special tools and training so should only be done by your local bike repair shop.

1. Loosen and remove both lever clamp bolts.
2. Remove the levers and re-position according to your preference.
3. Re-install the clamp bolts and tighten to 25-35 lb•in (2.8-4 N•m).

Brakes

Once a month, inspect brake pads for wear. If the grooves in the braking surface are less than 2 mm deep, or 1 mm deep for direct-pull brakes, replace the pads. Replace disc brake pads that are thinner than 1.0 mm.

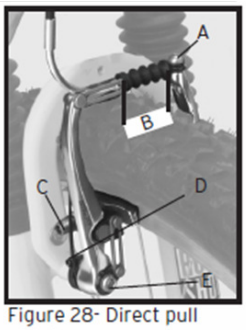

Figure 28- Direct pull brake
A- Cable clamp bolt
B- No contact
C- Pad fixing bolt
D- Centering screw
E- Arm fixing bolt

To adjust brake pad clearance to the rim

1. Turn the barrel adjuster. To increase the pad clearance, turn the barrel adjuster in (clockwise). To reduce the pad clearance, turn the barrel adjuster out (counter-clockwise).

For most direct-pull (Figure 28), or cantilever (Figure 30) systems the barrel adjuster is on the lever. For most road calliper systems (Figure 29) the barrel adjuster is on the brake itself.

2. If the brake pads cannot be adjusted properly, loosen the cable clamp bolt and re-attach the cable.

To centre a V-type, cantilever, or road brake

1. Rotate the centring screw. Turn in small increments and check for centring.
2. If the brake has two centring screws, adjust the overall spring tension while centring the brake.

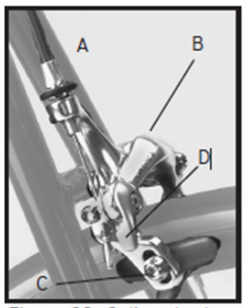

Figure 29- Caliper brake
A- Barrel adjuster
B- Centering screw
C- Pad fixing bolt
D- Brake relase lever

To adjust the alignment of the brake pads on a rim brake

1. Loosen the brake pad fixing bolt.
2. Align the pads as shown on page 5, and tighten the pad fixing bolts:
• Road calliper- 40-60 lb•in (4.5-6.8 N•m)
• Direct-pull or cantilever- 70-80 lb•in (7.9-9 N•m)
3. After adjusting the brakes, test them by applying force to the levers. Ensure the cable does not slip, the pads close toward the rim at right angles, and the pads do not contact the tire.

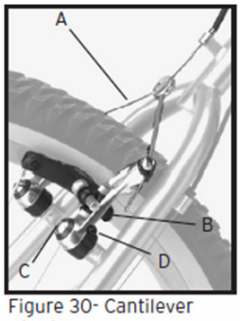

Figure 30- Cantilever brake
A- Linkwire
B- Pad fixing bolt
C- Arm fixing bolt
D- Centering screw

To align a hydraulic disc brake

1. Loosen the brake mounting bolts.
2. Apply the lever fully, and gradually tighten the bolts to 100-110 lb•in (11.3-12.4 N•m).

To align a cable-actuated disc brake

There are several parts to this procedure:

•To adjust right brake pad clearance to the disc

1. Turn the fixed pad adjuster (Figure 31).

• To adjust left brake pad clearance to the disc

1. Turn the cable barrel adjuster. To increase the pad clearance, turn the barrel adjuster in (clockwise). To reduce the pad clearance, turn the barrel adjuster out (counter-clockwise).

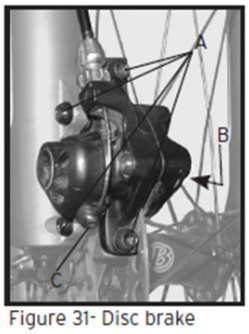

Figure 31- Disc brake
A- Mounting bolts
B- Fixed pad adjuster
C- Cable clamp bolt

2. If the pads cannot be adjusted properly in this manner, loosen the cable clamp bolt and re-attach the cable**.** Tighten the cable clamp bolt to 50-70 lb•in (5.7-7.9 N•m).
3. After adjustment, turn the locking nut clockwise to help prevent rotation of the barrel adjuster.

• To align the brake with the disc
1. Loosen the brake mounting bolts.
2. Slide a business card, or similar thin object, between the right brake pad and the disc.
3. Apply the lever fully, and gradually tighten the bolts to 100-110 lb•in (11.3-12.4 N•m)**.**

To remove disc brake pads
1. Remove the wheel.
2. With your fingers or thin-tipped pliers, grasp the installation tang of the brake pad and pull out.

To open the brake for wheel removal
• **For most road callipers**, lift the brake release lever to the open **UP** position. To close, simply turn the lever to the **Down** position.
• **For Campagnolo levers**, there is a release button at the top of the lever. Slightly depress the brake lever, and push the button until it is flush with the lever body. Release the lever and the brake will open.
To close, reverse the instructions.
• **For cantilever brakes**, release the linkwire. With one hand, squeeze the brake pads firmly against the rim. With the other hand, pull the leaded end of the linkwire from the retaining fork on the brake arm. Release the brake pads, and the brake will open.
To close the brake, reverse the instructions.
• **For direct-pull type brakes**, disconnect the pipe from the link arm. With one hand, squeeze the pads firmly against the rim. With the other hand, pull the pipe back from the link arm, and lift the pipe. Once disconnected, let go of the brake pads and the brake will open.
To close the brake, reverse the instructions.
• **For internal or drum brakes,** to remove the rear wheel, first disconnect the shift and brake cables.
-To disconnect the brake cable, press the cable carrier arm forward, and the cable clamp bolt rearward, so the bolt aligns with the larger diameter hole in the carrier. Pull the cable clamp bolt outward to disengage it from the carrier. Slide the brake cable stop forward to remove it from the brake arm. Undo brake strap bolt.
-To disconnect the shift cable, put the shifter in 1st gear. Pull the cable housing out of the shift cable housing stop. Rotate the shift cable fixing bolt until the washer flats align with the slit in the cog joint bracket. Remove the cable.

Wheels
Inspect tires for wear and damage. Make sure rims are clean, and check for wear; if the small indentations on the braking surface disappear, replace the rim.

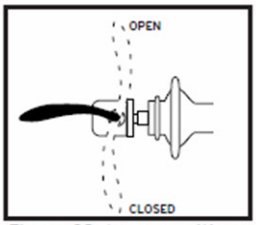

Figure 32- Lever positions

WARNING
Brake pads remove material when the brake is applied. If too much material is removed, the rim may become weak and fail suddenly, causing a loss of control. Regularly inspect your rims for wear and replace them when they are worn.

Figure 33- Tighten nut
A- Adjusting nut

Make sure there are no loose, damaged, or broken spokes. Check that hub bearings are properly adjusted. Make sure a rim strip is in place and all spoke holes are completely covered.

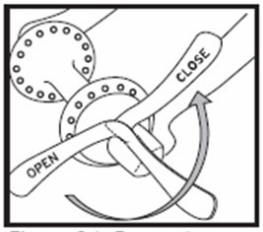

Figure 34- Proper lever throw

To adjust and install a quick-release wheel
1. Move the quick-release lever to the **OPEN** position (Figure 32) and set the wheel so it firmly touches the inside of the fork ends.
2. With the lever about halfway between the **OPEN** and **CLOSE** positions, tighten the adjusting nut (Figure 33) until finger-tight.
3. Place the lever in the palm of your hand and throw the lever as shown in Figure 34 to the **CLOSE** position (Figures 36-37). At the half-closed position of the lever, there should be some resistance.

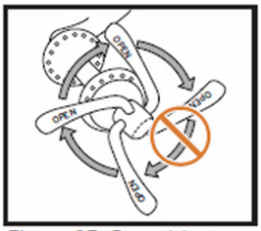

Figure 35- Do not turn lever

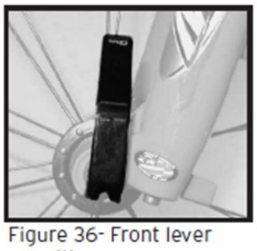
Figure 36- Front lever position

4. Do not tighten the quick-release wheel retention mechanism by turning the lever like a wing nut (Figure 35); it will not result in sufficient force to hold the wheel in place.

5. If the lever is moved to the **CLOSE** position with little or no resistance, clamping strength is insufficient. Return the lever to the **OPEN** position, tighten the adjusting nut further, close the lever, and again test for resistance. For further information on correct adjustment of the quick-release tension, read Figure 38.

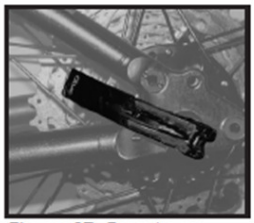

Figure 37- Rear lever position

6. Orient the quick-release levers so they do not interfere with any other bicycle part or accessory part (such as rack or fenders), and so obstacles in the path of the bicycle cannot snag the levers.
7. Test that you have properly adjusted and closed the quick-release. If the quick-release fails any test, either repeat these adjustment procedures, including these tests, or take your bicycle to your local bike repair shop for service.

If it requires more than 45 pounds (200 Newton) force to completely close the quick-release lever, open the lever and slightly loosen the quick-release adjusting nut. If it requires less than 12 pounds (53.4 Newton) force to begin to open the lever from the fully closed position, open the lever and slightly tighten the quick-release adjusting nut. Repeat the adjustment if necessary.

Figure 38- Actual measurements

8. Test for proper quick-release adjustment:
• Pick up the bike, and sharply hit the top of the tire (Figure 39). The wheel must not come off, be loose, or move from side to side.

Figure 39- Test for looseness

• Make sure the quick-release lever cannot be rotated parallel to the wheel (Figure 40).

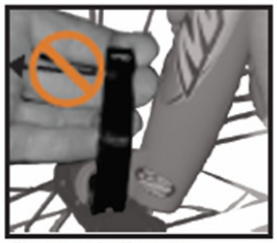

Figure 40- Test for rotation

If it requires more than 45 pounds (200 Newton) force to completely close the quick-release lever, open the lever and slightly loosen the quick-release adjusting nut.
If it requires less than 12 pounds (53.4 Newton) force to begin to open the lever from the fully closed position, open the lever and slightly tighten the quick-release adjusting nut.
Repeat the adjustment if necessary.

• When the quick-release is properly tightened and clamped by the lever in the closed position, the clamping force is adequate to cause metal-into-metal engagement (embossing) of the dropout surfaces.
• See Figure 38.

To install an axle-nut wheel
Some wheels are attached by nuts threaded onto the axle. The front wheel may require a toothed washer to be placed between the nut and fork tip. Some bicycles also have pegs, tubular axle extension.
1. Tighten the axle nuts:
• Tighten a regular front wheel to 180-240 lb•in (20.3-27.1 N•m).
• Tighten a regular rear wheel to 240-300 lb•in (27.1-33.9 N•m).
2. Test to ensure that you have properly tightened the axle-nuts.
• Pick up the bike, and sharply hit the top of the tire (Figure 39). The wheel must not come off, be loose, or move from side to side.
If the wheel attachment fails the test, repeat these procedures, including the tests, or take your bicycle to your local bike repair shop for service.

To install a thru-axle wheel
1. Open the quick-release or loosen the clamp bolts on both fork ends.
2. With the wheel in place, slide the axle into the fork tips.
3. Close the quick-releases, or tighten the clamp bolts to 45-55 lb•in (5.1-6.2 N•m).
4. Test to ensure that you have properly attached the thru-axle.
• Pick up the bike, and sharply hit the top of the tire (Figure 39). The wheel must not come off, be loose, or move from side to side.
If the wheel attachment fails the test, repeat these procedures, including the tests, or take the bicycle to your local bike repair shop for service.

Suspension components
Changing your suspension settings affects handling and braking characteristics. After making a change, carefully test the bike in a low traffic area until you are familiar with its performance.
Sag is the compression of a shock that occurs when the rider sits on the bike in a normal position. For an all-round ride, set the forks at about 15% sag, and a rear shock at about 25% sag. Experiment with the adjustment in small increments to find your preference. If the suspension is fully compressed, its movement will stop abruptly and could cause you to lose control.

CHAPTER 4: LUBRICATION

This section explains the parts that require lubrication, their frequency, and brief instructions. See your local bike repair shop for recommended lubrications.
Re-greasing bearings requires special tools and training, so this should only be done by your local bike repair shop. Some bearings are permanently sealed and do not require yearly re-greasing

Stem
Once a year lubricate the stem.
Note: Lubricating a direct-connect stem requires adjustment of the headset bearings, so should only be done by your local bike repair shop.
1. Remove the stem from the frame.
2. Clean the stem and wipe any old grease.
3. Apply a thin layer of grease to the section of the quill that will be inserted into the frame, including the stem wedge.
4. Install the stem.

Seatpost
Once a year, lubricate the seatpost.
1. Loosen the seatpost binder bolt, or open the quick-release, and remove the seatpost from the frame.
2. Wipe any old grease off the seatpost, and clean if necessary.
3. Apply a thin layer of grease to the section of the seatpost that will be inside the frame.
4. Insert the seatpost into the frame.
5. Adjust the seat to the proper height, align it, and tighten the seatpost binder bolt.

Bottom bracket
Once a year, have your local bike repair shop re-grease the bottom bracket bearings.

Pedals
Once a year, have your local bike repair shop re-grease the pedal bearings.
Once a year re-grease the pedal axles where they thread into the crank arms.
Note: There are right and left pedals, usually marked with a letter stamped on the end of the pedal axle, or on the wrench flats.
1. Remove the pedals; turn the right pedal spindle counter-clockwise, but turn the left clockwise.
2. Apply a this layer of grease over all the threads.
3. Install the pedals on the proper side; put the right pedal on the right crank arm and the left pedal on the left crank arm.
4. Tighten the pedals.

Derailleurs
Every month, lubricate all pivot points on both the front and rear derailleurs, including the derailleur pulleys on the rear derailleur, with chain lube.

Headset
Once a year, have your local bike repair shop re-grease the headset bearings.

Brakes and brake levers
Every 3 months lubricate your brake lever pivots and brake arm fixing pivots with a light oil.

Wheels
Once a year, have your local bike repair shop re-grease the wheel bearings.
Every year, lubricate wheel quick-releases. Apply several drops of synthetic lube or a similar light oil where the quick-release lever rotates in the quick-release body.

Suspension forks
Once a month, apply a light oil to the upper fork leg where the lower leg slides on it. Wipe clean.

Rear suspension
No lubrication is required for the shock or the pivot of your full suspension bike. Avoid all lubricants.

Control cables
Lubricate cables whenever they are installed.

To install a cable
Installing a cable in a cantilever brake requires special tools and training, so should only be done by your local bike repair shop.
1. Note the path of the old cable, loosen the cable anchor bolt, and remove the worn cable.
2. Grease the new cable and reinstall, feeding it along the same path as the old cable, including through the cable anchor bolt.
3. Make sure the leaded cable-end is seated properly in the lever, and the housing is properly seated in the lever.
4. Turn the adjusting barrel clockwise so the threads on the adjusting barrel are not exposed.
For a shift cable, put the shifter in the position with the least cable tension.
For a brake, hold the brake closed while you do the next step.
5. Tighten the cable clamp bolt to52-69 lb•in. (6-8 N•m).
6. Cut the cable so that no more than 2” (51 mm) extends beyond the anchor bolt.
7. Crimp a metal cap or place a bit of solder on the end of the cable to prevent fraying.
8. Follow the instructions for adjustment.

FOR MORE INFORMATION

If you would like additional information about your bicycle, maintenance, or bicycling in general, there are many resources in your community.

First, talk to your bicycle local bike repair shop. They have extensive experience with bicycles and riding in your community. With this background, they can help you with your individual questions and help you find areas to enjoy your new bicycle. In addition, most local bike repair shops stock a variety of book about cycling, including extensive repair manuals.

Secondly, check your public library. Most libraries have extensive offerings of books written by experts in the field about riding, racing, bicycle safety, bicycle maintenance, and more.

Thirdly, the internet is a terrific source of information with hundreds of websites dedicated to bicycle and their maintenance. Please note: Whilst there is a vast wealth of information, not all of the advice given may be correct.
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WARRANTY

The Cargo Bike Company warrants each new bicycle frame, rigid fork, or original component part of the bicycle against defects in workmanship and materials for 12 months.
If fitted, The Cargo Bike Company warrants each electric assist package for 90 days against defects in workmanship and materials.

This warranty does not cover-
• Normal wear and tear
• Improper assembly
• Improper storage
• Failure to ensure the bicycle is kept in a clean and dry condition
• Improper follow-up maintenance
• Installation of parts or accessories not originally intended for, or compatible with, the bicycle as sold
• Damage or failure due to accident, misuse, abuse, or neglect. Including loss of ground contact and shock load from riding up and down kerbs, drain covers and other obstructions.
• Riding on surfaces other than paved roads and paved cycle paths
• Rust
• Overloading beyond the bicycle's rated limit
• Labour charges for part replacement or changeover
• Delivery of the bike to our premises, however in an upheld warranty claim delivery of the repaired bike back to you is covered by The Cargo Bike Company.
This warranty is void in its entirety by any modification of any part of the bicycle.
The Cargo Bike Company's product liability ceases if any modification of any part of the bicycle is made or the bicycle is ridden in a manner that voids the warranty, as previous mentioned in this chapter..
This warranty is expressly limited to the repair or replacement of a defective item and is the sole remedy of the warranty. This warranty extends from the date of purchase, applies only to the original owner, and is not transferable. The Cargo Bike Company is not responsible for incidental or consequential damages.
Claims under this warranty must be made to The Cargo Bike Company. Proof of purchase is required.
Warranty duration and detail may differ by frame type and/or by country.
This warranty gives the consumer specific legal rights, and those rights may vary in your country.
This warranty does not affect the statutory rights of the consumer.

Limited warranty

www.cargobike.co.uk
User manual
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