USER MANUAL

Wilier TRIESTINA

Edition: FEBRUARY 2021
This manual complies with standard ISO 4210-2:2015

CAUTION:

This manual contains important information and suggestions on how to use and service your bicycle safely.
For more details on safety, adjustment and servicing of specific parts (suspensions, pedals, etc.) or accessories (lamps, protective helmet, etc.) please refer to the material received from your dealer. Should you notice discrepancies between this manual and the information received from the manufacturer of one or more parts, always refer to the latter.
All Wilier Triestina bikes referred to in this manual comply with ISO 4210.

WARNING: In case you purchased a frame kit, please note that the ISO 4210 conformity certificate released by Wilier Triestina applies only to this product.

You cannot be completely safe when using or servicing the bike therefore you should be careful and make sure that your feet and fingers do not get entangled in bike's components. For any questions, information or explanations refer to your local dealer or contact the bike manufacturer.

NOTE:

This manual is not a full user, support, maintenance and repair manual. For any type of assistance, repair or maintenance refer to your local dealer. The latter will inform you on any trainings, schools or books that you can attend or read in order to get familiarised with the usage, support, repair or main
tenance operations. it is recommended to always have the user manual with you, so that you can consult it whenever needed. Access **http://www.wilier.com/user-manual** to download a PDF copy of this manual and save it on your smartphone, tablet or pc.

INTRODUCTION

Congratulations for your new Wilier Triestina bike! Throughout the next pages you will be able to get familiarised with the correct procedures to be carried out for adjusting, using, servicing and repairing your new bike.

Read this manual carefully before using the bike and pay particular attention to the safety-related information and to the measures to be adopted during use in order to prevent any possible accidents or harm.

Should you encounter issues not described herein, kindly contact your local Wilier Triestina dealer that will help you solve them.

You can find a list of all authorised Wilier Triestina dealers on-line at:

http://www.wilier.com/en/dealers

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NOTES ON THE INSTRUCTIONS FOR USE

In this manual you will find several measures that you can adopt in order to prevent unpleasant consequences due to lack of maintenance, lack of components and parts check and improper use. It is your responsibility to observe and respect the safe cycling practices.
Pay special attention to the following symbols:

1) 1) Symbol  **marks precautions or operations that must be taken or carried out in order to avoid harmful or life threatening situations.**

2) 2) Symbol  **marks a potentially hazardous situation that, if not avoided, might result in mild lesions or damages.**

Check regularly our website www.wilier.com where you can find news, warnings, useful advices

GENERAL WARNINGS

Before riding your new Wilier bike, we would like to give you some valuable advice.

1) Those who choose to ride a bike must be aware of the fact that they are carrying out a potentially dangerous activity that implies (just like all other sports) certain risks and might result in injuries and damages, and they must take responsibility for that risk.

2) Never ride your bike without suitable helmet and glasses and always wear bright, well visible cycling clothing. Always ride carefully on road and respect the traffic rules to protect yourself and the others.

3) Never ride after have taken medication, drugs, alcohol or when tired. Never transport a second person on your bike and always keep your hands on the handlebar.

4) Pay attention to the traffic rules and regulations for cyclists and please note that they might vary from country to country.

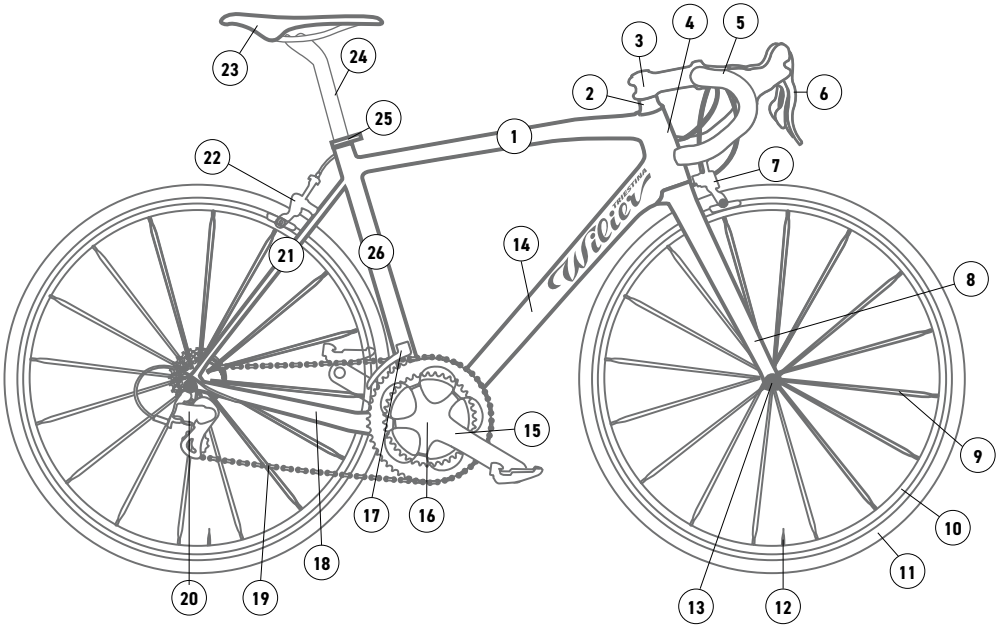
5) Parents are in charge with explaining the contents of this manual to their child or to persons that cannot understand such information.

CHAPTER 1

1) **BEFORE YOUR FIRST USE**

We recommend you to read this manual carefully or at least all points in this first chapter before your first ride. It is very important that you understand all points and refer to dedicated sections for more information and details on the relative topic.

a. TYPES OF BIKES



1	2	3	4	5	6	7
Top Tube	Front end	Handlebar stem	Handlebar stem	Handlebar	Brake and shifter levers	**Front brakes**
8	9	10	11	12	13	14
Fork	**Spokes**	**Rims**	**Tires**	**Valve**	**Hub**	**Down tube**
15	16	17	18	19	20	21
Crank	**Central drive box**	**Front derail-leur**	**Chain stays**	**Chain**	**Rear shifter**	**Vertical seat stays**
22	23	24	25	26		
Rear brakes	**Saddle**	**Seatpost**	**Seatpost Lock**	**Vertical Tube**		

1. **1. Road bikes** are designed to be ridden on roads and smooth pavement in where tires stay in constantly contact with the ground.

Caution: This type of bike is not designed for off-road, cyclocross or tourist use and you cannot ride them with bags or bag carriers. To ensure high performance, we used light materials for this type of bikes and therefore they are more subjected to damage or breakage in case of accidents. Light frames can be controlled easier compared to heavier, more robust frames.

2. **2. Mountain bikes** are designed to be ridden as indicated at point 1 but you can also ride them on more challenging tracks, off-road tracks or gravel pathways.

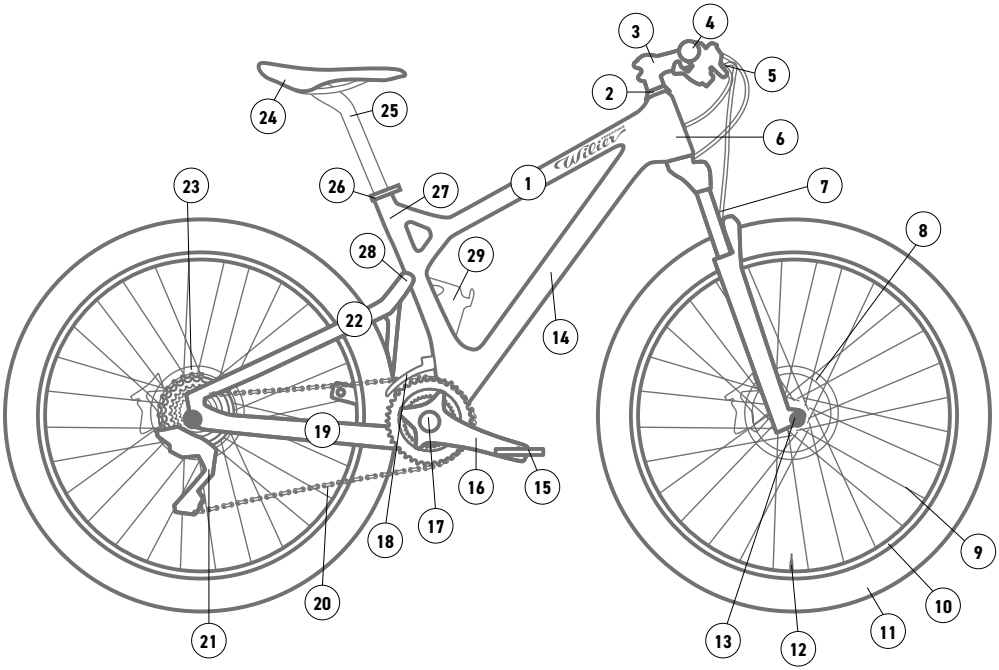
Caution: This type of bike is not designed for off-road use or for jumping. The shock absorbers installed on the bike are designed to increase the rider's comfort, not for riding the bike off-road. Contact your local dealer to make sure that your bike has suitable tires for off-road tracks or gravel.

3. **3. Gravel bikes** can be used under all circumstances envisaged at point 1 and you can also ride them on fine gravel, off-road pathways of medium difficulty, muddy or dusty trails.

Caution: This type of bike is not designed for very rough paths and for any type of jump.

4. **Trail (front shock absorber) and Cross-country** bikes are designed for all circumstances envisaged at points 1, 2 and 3, and can be ridden on unbeaten ground and over small obstacles.

Caution: This type of bike is not designed for jumping. You cannot use them for downhill, dirt jumping or under extreme conditions.



1	2	3	4	5	6	7
Top Tube	Front end	Handlebar stem	Handlebar	Brake levers	Handlebar stem	**Fork**
8	9	10	11	12	13	14
Front brakes	**Spokes**	**Rims**	**Tires**	**Valve**	**Hub**	**Down tube**
15	16	17	18	19	20	21
Pedal	**Crank**	**Central drive box**	**Front derail-leur**	**Chain stays**	**Chain**	**Rear shifter**
22	23	24	25	26	27	28
Vertical seat stays	**Rear brakes**	**Saddle**	**Seatpost**	**Seatpost Lock**	**Vertical Tube**	**Pivot point**
29						
Shock absorber						

5. **Enduro and All Mountain bikes** are designed to be ridden under all circumstances at points 1, 2, 3, 4 and you can also ride them on uphill trails. You can ride this type of bikes over medium-sized obstacles, you can perform minor jumps and therefore you can use them on more challenging tracks.

Caution: This type of bike is not designed for extreme uses such as downhill, dirt jumping and freeriding. Therefore you should not use them for jumps, violent landings or platform launching.

b. BIKE SIZES

1) To make sure you choose the size of your bike correctly, refer to "Determining the correct standover" (chapter 3 page 21). The size of the bike should be appropriate; if it is too big or too small you might lose the control of your bike and fall off. Should you have any questions, contact your local dealer before riding the bike.

2) **WILIER TRIESTINA BIKES ARE DESIGNED AND TESTED BASED ON AN OVERALL WEIGHT (BIKE+RIDER+LOAD) SUMMARISED IN THE TABLE:**

CATEGORY	LIMIT (rider+bike)
ROAD	110 Kg
GRAVEL	110 Kg
MTB (FRONT-FULL)	110 Kg
e-MTB	120 Kg
e-ROAD	110 Kg
Zero.6	90 Kg
Zero.7	100 Kg

3) Check the correct saddle adjustment referring to table "Tightening torques" at the end of this manual, paying attention to all instructions concerning the "minimum insertion" value of the seatpost.

4) Make sure the saddle and the seatpost are securely fixed, referring to section "Tightening torques" at the end of this manual.

5) Make sure the handlebar stem and bend are correctly adjusted, referring to section Handlebar page 21.

6) IMPORTANT NOTE FOR THE DEALER: The maximum height of the handlebar stem (measured from the head tube) should not exceed 45 mm. Usually, you should not add more than 3 spacers (of 10 mm) and the cover. Bikes with forks with round sections allow the installation of up to 35 mm of spacers. Otherwise, your bike might be subjected to severe damages and breakage that might result in falling and injuries for the rider.

7) Make sure you can operate the brakes easily, otherwise adjust the inclination and the distance of the handlebar, referring to Brakes section page 26.

c. CHECK THE BIKE BEFORE EVERY RIDE

1) Always wear a certified protective helmet, following the instructions given by the manufacturer for its usage and servicing.

2) Make sure all necessary safety equipment is installed. It is your responsibility to know the rules and regulations in force.

3) Check if the front and rear wheels are securely fixed and make sure the quick release is correctly adjusted. If the wheels are incorrectly installed, the rider might be subjected to falls, severe or life-threatening injuries. For secure fixing refer to Wheels section page 41.

4) If your bike is equipped with pedals with toe clips and straps or with step-in (clipless) pedals, make sure you understand how they work and test them before using them on road. Refer to the manufacturer instructions for pedals adjustment, use and maintenance.

5) If your bike is equipped with suspensions, check the Suspensions section page 49. The suspensions installed on the bike change its performance. Always refer to the instructions provided by the manufacturer on adjustment, use and servicing.

6) Check the handlebar and the handlebar stem for any signs of forcing or stress that might appear as scratches, cracks, dents, deformations. Should you notice signs of damage or wear, have that part replaced before using the bike. Also make sure that the handlebar grips are correctly inserted in the two ends of the handlebar and in the bar ends. If you use belts, e.g.: for road bikes, make sure they are not damaged or worn, otherwise have them replaced. Moreover, the coils of the belt should not present signs of sagging. If in doubt, contact your qualified mechanic.

d. SAFETY MECHANICAL CONTROLS AND FASTENERS.

Check the bike condition before every ride.

1) Check the bolts, nuts screws and fixing devices: always refer to the "Tightening torques" table at the end of this manual or to the fixing specification in the manufacturer's instructions. The fasteners can be securely fixed only by a qualified mechanic using a calibrated torque wrench. If you decide to service your bike yourself, please use a torque wrench and refer to the tightening torque values provided by the manufacturer of the bicycle or of the specific component.

 **Warning: Make sure the fasteners and couplings of your bike are not loose by checking their tightening torques. If they are insufficiently fastened, the fastener will not be properly sealed, if they are fastened excessively, the fasteners might break, damaging the components and making the rider loose the control of the bike and fall. If you do not know the meaning of "tightening torque" do not adjust the screws by yourself but have them adjusted by a qualified mechanic.**

2) Wheels and tires:

2.1) Make sure the tires are inflated at the recommended pressure and if necessary, adjust the pressure (refer to the instructions provided by the manufacturer). Make sure the tires are in perfect condition, make sure they have no cuts or holes on the sides and on the tread. Should you notice signs of deterioration, have the tires replaced before riding the bike.

2.2) Make sure the front and rear wheels are securely fixed.

2.3) Make sure the wheels are centred: spin each wheel and observe the rim as it passes between the brake pads or the frame. Should you notice signs of rim wobbling, have your bike fixed by the technical support department of your dealer.

 To ensure a correct and efficient braking with single pivot side-pull caliper brakes, wheels centring is essential.

2.4) Make sure the rims of the wheels are undamaged and clean. If your bike is equipped with single pivot side-pull caliper brakes, check the entire braking surface for signs of wear or deterioration.

 **WARNING: The bicycle rims with single pivot side-pull caliper brakes are subjected to constant wear and tear. Some of the rims on the market come with a wear indicator that becomes visible once the friction surface wears out. You should replace the rim if you can see the indicator. Not replacing the rim might result in breakage of the same, with subsequent loss of control and falling.**

2.5) Pay attention to any wobbles or oscillations of the wheels. Rarely, some cyclists e.g. heavier cyclists on bigger bicycles, might observe a "wobbling", "harmonic oscillation" or "frame vibration" at certain speeds. The experts have different opinions on the possible causes of such wobbling, but some of them think it is caused by loose front end, incorrect angle or incorrect frame alignment. Riding the bike without keeping your hand on the handlebar or impacts of the front wheel are two other possible causes for this wobbling. Should you notice signs of wobbling, reduce you speed and have your bike checked and repaired by your dealer.

WARNING: If the front end of your bike wobbles or oscillates, you might lose the control and fall off your bike. Should you notice signs of wobbling, reduce your speed and stop immediately. Have your bike checked and fixed by your dealer. Make sure all installed accessories are original, compatible and safe.
You can choose to modify some parts or you can add accessories to your bike to adapt it to your specific needs. Not all accessories are compatible or safe for your bike model. Should you have any doubts on the safety or suitability of a specific part, contact your dealer.

3) Brakes:
3.1) **Single pivot side-pull caliper brakes**: always make sure all brakes are working (refer to Brakes section). Press each brake lever towards the handlebar to make sure the braking system moves freely and stops the bicycle. If you can pull the brake lever until it reaches the handlebar, it means that the brake is too loose. When the braking system is not engaged, the brake pads should be at a distance of about 1 and 2 mm from the rim. If the brake pads are too close to the rim, the brake is too tight. The brake pads must be aligned with the surface of the rim. Never use the bike before having the brakes adjusted by a qualified mechanic.
3.2) **Disc brakes**: Press each brake lever towards the handlebar to make sure the braking system moves freely and stops the bicycle. If you can pull the brake lever until it reaches the handlebar, it means that the brake is too loose. The brake pads must be placed at a distance between 0.25 and 0.75 mm from the disc when the brakes are not engaged. If the pads are too close, the brake is too tight and it will not be aligned correctly. Sudden braking causes the disc and the disc brake components to heat. After braking, you should not touch the disc for at least 30 minutes. Just like for all other rotary parts of the bike, avoid putting your fingers on the disc.
4) Make sure the fixing device of the seatpost is adjusted at the correct height and calibrated correctly (refer to table "Tightening torques" at the end of this manual.)
5) Make sure the handles are securely fixed to the handlebar and check their condition, should you notice signs of wear, have them replaced by your local dealer. If there are any bar-ends installed on the handlebar, make sure they are properly positioned and make sure they do not spin. Otherwise, ask your local dealer for support.

WARNING: if the handlebars or bar-ends are damaged or not fixed properly, you might lose the control of the bike and fall down.

4) Warning on wear and tear:
Wearing, tearing, lack of maintenance and extreme use might reduce the useful life and the safety of your bike. Modern bikes are built with high quality materials that are very light and delicate. Each part of the bike has a limited useful life due to wear, effort and fatigue. Fatigue is the progressive damage and breakage that occurs when a material is subjected to cyclic loading. The fatigue life of a certain part depends on its design, on the materials used for building it, on the way it is used and on the way it is serviced. Although frames or lighter parts might, in some cases, have a longer fatigue life than the heavier components, high performance

light bikes and their components require grater care and more frequent inspections.

Check your bike components periodically for any signs of wear or deterioration: dents, cracks, splits, scratches, deformations.

Wear can be increased by high forces caused by dangerous riding:
• Bike jumping
• Performing tricks with your bike
• Off-road riding under improper conditions
• Downhill riding
• Any abnormal use of your bike
Check the frame and the components carefully for signs of wear before and after using the bike.

FIRST RIDE AND SAFETY

After putting on and securing your helmet, we recommend you to choose an ambient away from traffic, without obstacles and without other cyclists or other potential hazards, so that you can start getting familiarised with your bike. It is very important to know how the brakes work and how the bike reacts during braking.
Test brakes operation at low speed, operating them progressively, starting with the rear one. Operate both brakes at the same time and move your weight on the back of the bike during braking.

WARNING: If you operate the brakes too sudden or too much, you might lock the wheel, losing control of the bike and falling off.

Get familiarised with the shifter (refer to Shifter section) and do not pedal backwards immediately after or while shifting gears as these actions might make the chain fall, damaging the bike.
If you have any questions, contact your trusted dealer before using the bike.

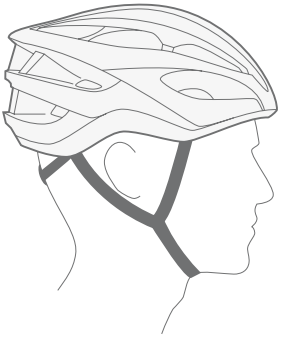
a. Ride safe

It is your responsibility to adopt all specific safety equipment appropriate for the trail or area chosen for riding and to inform yourself on all rules and regulations in force on that territory, making sure that your equipment complies with those regulations.

WARNING: It is your responsibility to know and follow the laws and standards in force: regulations concerning the protective helmets, bike illumination systems, child transport, use of bike paths, special traffic rules.

1) Never ride the bike without wearing your protective helmet that must comply with the most recent applicable legislation. Always follow the instructions provided by the helmet manufacturer to make sure that you use it and service it correctly.

WARNING: if you do not wear your protective helmet when riding the bike, you will subject yourself to great danger.



2) Make sure you carry out all safety mechanical checks before riding the bike.
3) Mae sure you are familiarised with your bike's brakes (Brakes section), shifter (Shifter section) and pedals (Pedals section) and with the way they work.
4) Always wear appropriate, comfortable, bright clothing along with protective glasses to protect your eyes from dust, dirt and sunlight.
5) Pay particular attention to avoid any contact with moving parts (gears, wheels and chain) and also make sure not to introduce objects inside them.
6) Adjust your speed based on the circumstances. High speed may increase accident risks.

b. Knowing and observing local regulations
Almost all countries and states have specific regulations for cyclists and you should take them into consideration. Local cycling associations or the Ministry of Transport (or equivalent) should make such information available for cyclists. Among the most important riding rules we mention the ones below:
• Use correct manual signs.
• Respect traffic signs.
• Give priority.
• Never pedal wearing your headphones as they might cover up the traffic noise, distracting you from riding.
• Ride in a single row when there are other cyclists around you.
• Ride on the correct side of the road; never ride in the wrong direction.
• Ride in defensive manner, in other words: try to anticipate any unexpected events. A cyclists is more difficult to spot in traffic that a car and many drivers do not know the specific rights and needs of the cyclists.
• Never adopt hazardous riding practices.
Many accidents involving cyclists can be avoided by respecting the common sense. Some examples below:
• Always keep your hands on the handlebar; even the slightest road imperfection might make your wheels wobble or the front wheel spin unexpectedly.
• Do not ride the bike with loose objects attached to its handlebar or to any other part. They might get entangled in the wheel spokes, making the handlebar spin unexpectedly or making you lose the control.
• Never ride the bike under the influence of alcohol, drugs or when taking medicines that make you sleepy. Riding a bike requires coordination and good cyclists must pay attention to risks.
• Never carry a passenger on your bike. Standard bikes are not designed to carry the additional load of a second cyclist. Moreover, the additional load will render balancing, steering and stopping the bike harder.

c. Riding off-road
1)Off-road trails present variable conditions and require particular attention and technical skills from the cyclist. You should proceed gradually, starting with accessible and easy trails.
2) Respect the local regulations concerning the areas where you can practice off-road riding.
3) Do not let children ride on difficult trails or on trails that present obstacles without adult supervision.

d. Riding your bike in the rain and under adverse weather conditions.
Any type of brakes will be less efficient in wet conditions. Even if your brakes are properly aligned, lubricated and serviced correctly, in wet conditions you will have to press the brake levers harder and you will require greater stop distances; keep this in mind.
Rainy weather causes reduced visibility for cyclists and for drivers and loss of traction. Take turns slower than normal when the traction is reduced, such as when driving on wet leaves, crosswalks or manhole covers.
Prevent the water from getting inside the bike bearings. The metallic bearings on your bike allow the rotary parts to spin easily; water has a corrosive effect on metals and therefore, if the bearings come in contact with water they will lose their smoothness. Should your bike bearings get covered in water, have your bike checked by your local dealer. Avoid high pressure washing systems such as those present in most car washes: high pressure might force the water to get inside the bearings.

e. Riding your bike at night or under circumstances of poor ambient illumination.
Riding your bike at night or under circumstances of poor ambient illumination is more dangerous than riding it during daytime. If you decide to ride your bike at dawn, dusk or at night, make sure you have all necessary equipment for a safe ride, consulting your dealer and paying particular attention when riding your bike under

these conditions. Make sure you know and meet all rules and regulations for night riding.
The reflectors are an integral part of your bike safety system. Although useful, they do not allow the cyclist to see better, nor allow others to see him unless there is a beam of light directed on the reflectors.

WARNING: Reflectors are designed to reflect car, mopeds and traffic lights, helping the cyclist to be more visible. The reflectors cannot substitute the lights required by the legislation in force. Riding under circumstances of poor ambient illumination or at night without having an appropriate illumination system installed on your bike and without using reflectors is very dangerous and might result in severe damages and even life-threatening injuries.

Make sure your reflectors are clean, keep them in a correct location and make sure they are in perfect condition and securely mounted. If your reflectors are damaged, bent or loose, have them replaced or adjusted by your local dealer.
Install front and rear lights when riding your bike under circumstances of poor ambient illumination or poor visibility.

WARNING: Install front and rear lights and adopt additional safety measures when cycling under circumstances of poor visibility. Otherwise, the risk of accident might increase and you might be subjected to severe or life-threatening injuries.

Also, you should wear bright clothes that reflect light especially at night, so that you can be more visible. If you decide to ride your bike at dusk, at night or under circumstances of poor ambient illumination, contact your dealer to find suitable products for improving your visibility and for making yourself more visible to others.

f. Accessories installation or components replacement
On market you can find several components and accessories to increase and improve the performance, comfort or appearance of your bike. The cyclist willpiù visibile.

be responsible for any replaced components and for any additional accessories installed on the bike, as the manufacturer cannot ensure the compatibility of every accessory or component on the market with your bike. Before replacing components or installing accessories, we recommend you to contact your local dealer to make sure they are compatible with your bike model. Always refer to the instructions attached to the products you purchased.

WARNING: Using incompatible and/or unoriginal components and incorrect installation and servicing might void the bike warranty and cause you to lose the bike control, resulting in severe or life-threatening injuries. Before replacing any components, contact your trusted dealer and make sure you purchase only original components and parts.

1) Bag carrier
If you want to install a bag carrier on your bike, contact your Wilier Triestina dealer to choose it and mount it. Take into consideration that the weight of the bag carrier, including its content, must be added to the overall load supported by the bike.
2) Child seat
To choose and install a child seat, contact your Wilier Triestina dealer. Please note that carbon frames are not designed to hold a child seat. Always check the maximum load of the bike.

COMPONENTS ADJUSTMENT

In order to have safety, comfort and performance assured, you need to find a correct set-up for your bike. The bike should be adjusted to your own body and conditions of use by competent staff, using specific tools. Always contact your dealer to carry out the adjustments.

WARNING: A bike with incorrect set-up or incorrectly adjusted, might make you lose the control of the bike and fall. You should contact your dealer when purchasing the bike, as he should be able to offer you some advice based on the size of your body and on how you intend to use the bike.

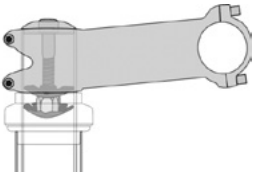
Determining the correct standover.

Usually, for road bikes is defined a correct standover height (distance between the cyclist inseam standing and the top tube) between 25mm and 50mm. For mountain bikes is recommended a standover height between 50mm and 100mm.

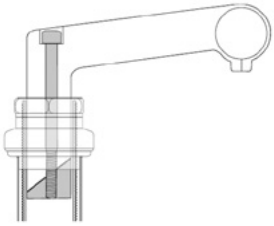
a. HANDLEBAR ADJUSTMENT:

The bikes available on the market can be equipped with two types of handlebar stems: due tipi di attacco manubrio:

Threadless handlebar stems (headset): they are fixed around the outside of the top of the fork steerer tube.



Quill handlebar stems: they have a tube fixed inside the fork with an expansion wedge.



Sometimes, some bikes are equipped with extensions connected to the handlebar, called bar ends.
If you are not sure what type of stem you have on your bike, contact your dealer, he should be able to help you find the appropriate adjustment.

The position, the angle, the width and the height of the handlebar depend mostly on your personal preferences, representing a combination of comfort, efficiency and balancing. Your hands should be comfortably placed on the handlebar and you should be able to reach all controls. Should you feel any signs of discomfort or numbness in your hands, arms or back, have the handlebar adjusted by your dealer or choose appropriate components for your personal needs.
If you decide to adjust the handlebar by yourself, you should follow the indications below.

Adjust the angle of the handlebar:

- Loosen the fixing bolts of the handlebar stem as much as possible so that you can spin the handlebar inside the fork steerer tube.
- Place the handlebar at the desired angle, making sure it is centred inside the fork steerer tube.
- Tighten the fixing bolts at the recommended tightening torque (refer to "Tightening torques" table at the end of this manual.)

Adjust the angle of a handlebar stem that can be adjusted in terms of height:
- Loosen the bolts so that you can spin the stem.
- Place the handlebar stem at the desired angle.
- Tighten the fixing bolts at the recommended tightening torque (refer to "Tightening torques" table at the end of this manual.)

WARNING: If the handlebar, a handlebar stem or the ends of the bar are incorrectly adjusted or tightened, they might make you lose the control and fall off the bike. Before riding the bike, make sure the handlebar stem, the handlebar and the bar ends are properly placed and securely tightened, respecting the correct tightening torques.

WARNING: Make sure the tubular handlebar stem is not lifted beyond the minimum insertion mark. If the tubular handlebar stem is installed to high, it might damage the fork steerer tube, making you lose the control and fall off the bike. Make sure the minimum insertion mark is inside the frame.

If in doubt, contact your local dealer.

WARNING: The bicycles equipped with aerodynamic handlebar extensions might be more difficult to handle, especially in turns. Always ride carefully, t avoid any hazardous situations that might put you or the other traffic participants at risk.

You can modify and adjust the position, inclination and distance of the brake and control levers. Contact your dealer for an optimal configuration that matches your needs. If you decide to adjust the inclination of the levers by yourself, make sure to tighten the fixing bolts once again, respecting the recommended tightening torque (refer to the "Tightening torques" table at the end of this manual.)

INSPECTION
Should you have doubts on the handlebar system safety, stop using the bike and have it adjusted by your local dealer. You should check the alignment between the handlebar and the front wheel once a month.
Check the connection of the handlebar stem to the fork by trying to spin the handle from right to left while keeping the front wheel locked between your knees.
Check the handlebar's safety by trying to spin it. Make sure there are no stretched or crushed cables by spinning the handlebar.
Make sure all bolts are properly tightened. Correct tightening varies based on the bike handlebar stem type. Should you have any doubts on the type of handlebar stem installed on your bike, contact your dealer.

For tightening torque values see the final table at the end of this manual.

b. SADDLE POSITION

In order to obtain optimal performance and comfort is very important to adjust the saddle of your bike correctly. If you need any support or advice on how to adjust the saddle, contact your trusted dealer.

The saddle can be adjusted as follows:

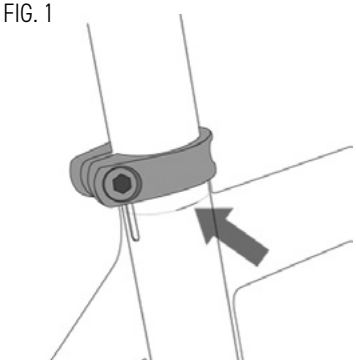
1) Saddle height adjustment:

Seat in the saddle with you heel placed on the pedal and spin the crank arm until the pedal and your heel reach the lowest position, position in which crank arm and the seat tube should be aligned.

For optimal results, your leg should be straight otherwise, if you cannot straighten your leg completely, you have to adjust the height of the saddle.
For correct saddle adjustment contact your dealer and he should be able to advise and show you how to carry out this operation. If you want to adjust the height of the saddle by yourself, make sure to:

• Open the seatpost clamp
• Try to find the correct height for you by lifting or lowering the seatpost
• Make sure you aligned the saddle longitudinally
• Tighten the seatpost clamp at the recommended tightening torque (refer to "Tightening torques" table at the end of this manual.)

FIG. 1



After adjusting the saddle height, make sure the seatpost does not exceed the minimum insertion mark or the maximum extension mark.

Some models have the seat tube interrupted, such as those equipped with rear shock absorbers. Make sure the seatpost is inserted in the seat tube as shown in FIG. 2

FIG. 2

Otherwise, the seatpost might deteriorate and brake during the ride, making lose the control and fall off the bike.

2) Saddle angle adjustment:

Cyclists usually prefer horizontal saddles, other prefer them slightly tilted upwards or downwards. Have the saddle angle adjusted by your dealer according to your personal preferences.

• If you decide to adjust the saddle angle by yourself, loosen the saddle fixing bolt so that you can tilt it backwards or forwards. Some seatposts have two bolts, in this case you have to loosen one bolt and tighten the other to adjust the saddle angle.

• Tighten the fixing bolts at the recommended tightening torque (refer to "Tightening torques" table at the end of this manual.)

3) Horizontal saddle adjustment:

Have the saddle horizontal position adjusted by your dealer according to your personal preferences.)
If you decide to adjust it by yourself, always make sure to apply the recommended tightening torque to the clamp that will close along the straight wall of the rear triangle (refer to "Tightening torques" table at the end of this manual.

WARNING: Always make sure to tighten the seatpost clamp at the recommended tightening torque. If you tighten the bolts too much you might deform or stretch them, if you let them loose you might get backlashes. Both cases might result in an unexpected breakage of the bolt that could make you lose the control and fall off the bike.

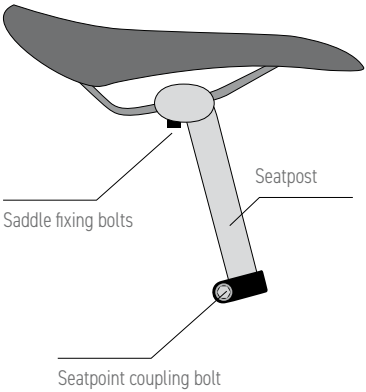
Even minimum variations of the saddle position might affect the performance and comfort of your bike. You should carry out one regulation at a time, always making sure that the tightening mechanism is properly adjusted and securely locked.

WARNING: Riding on long distances with your saddle improperly adjusted, offering poor support to your pelvic area, might result in short and long term harm to your nerves and blood vessels. Should you notice signs of pain or numbness, have the saddle position adjusted once again. If after adjusting the saddle you still feel pain or numbness, contact your dealer and he will adjust the saddle or will replace it with one that matches your personal needs.

INSPECTION

Inspect the quick release lever of the seatpost or the bolt of the saddle support and the saddle fixing bolts (Figure 3) every month to make sure they are securely fastened (refer to the "Tightening torques" table at the end of this manual.)

FIG. 3



Make sure the saddle and the seatpost are securely fixed by trying to make them spin inside the frame and trying to tilt the front of the saddle upwards or downwards. If the saddle spins, it means it is loose; if you can move it up and down, tighten the connection bolt, the quick release or the saddle fixing bolts and repeat the check. Never insert the seatpost connection when the seatpost is out of the frame.

For bolts fastening torques refer to the final table.

The mechanism of the seatpost connection with quick release lever works similarly to the quick release mechanism of the wheel. Adjust the lever tension and make sure it is closed.

Lubrication

1. Loosen the seatpost connection bolt or open the quick release and remove the seatpost from the frame.

2. Remove any old grease present on the seatpost and clean it if necessary.

3. Apply a thin layer of specific seatpost grease in the seatpost section inside the frame.

4. Insert the seatpost in the frame.

5. Adjust the saddle to the appropriate height, align it with the frame and tighten the seatpost connection bolt.

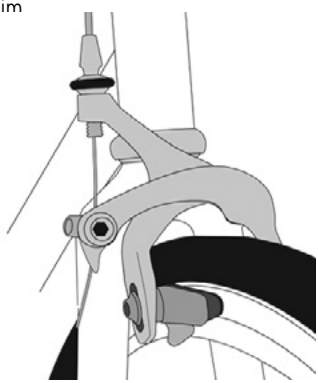
c. BRAKING SYSTEMS

Road bikes or mountain bikes are usually equipped with two main types of braking systems.

1) Caliper Brakes:

In this system, the lever is connected to the brake through a cable. When you operate the lever, the brake pads apply pressure on the sides of the wheel rim, slowing down its rotation and therefore reducing the riding speed. This system is made of:

• Rim



• Brake levers

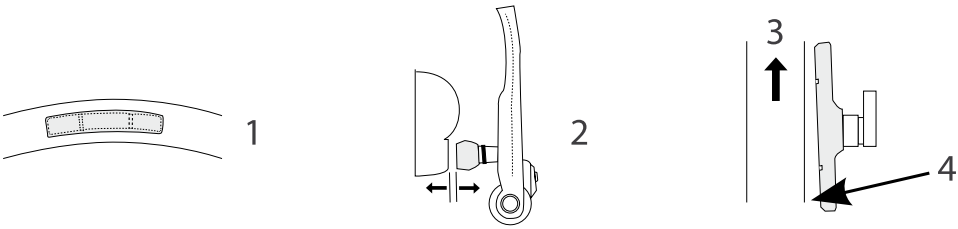
• Brake cable and housing

• Clamp arm

Never use rims specially designed for disc brakes. Caliper brakes require a flat side on the rim to ensure effective braking.

Inspection

When the braking system is not engaged, the brake pads should be at a distance of about 1 and 2 mm from the rim. If the brake pads are too close to the rim, the brake is too tight. The brake pads must be aligned with the surface of the rim.



Never use the bike before having the brakes adjusted by a qualified mechanic.

Figure (3/4) shows the front convergence, the angular alignment of the brake pad that should be respected to prevent brake squealing. The supplied brake pads or some types of direct-pull brakes might not require front alignment.

Check the brake cables **every month** for any signs of imperfection, rust, broken strands and worn ends. Check the cables sheath for curved ends, slashes, elongated coils or wear. Replace all components that do not pass the inspection.

Check the brake pads **every month** for signs of wear. On the friction surfaces of the brake pads you will find some relatively shallow grooves: for direct-pull brakes, if the depth of one of these groves is lower than 2 mm or 1 mm have the pads replaced.

Tighten the bolts **every month** referring to the table "Tightening torques" at the end of this manual.

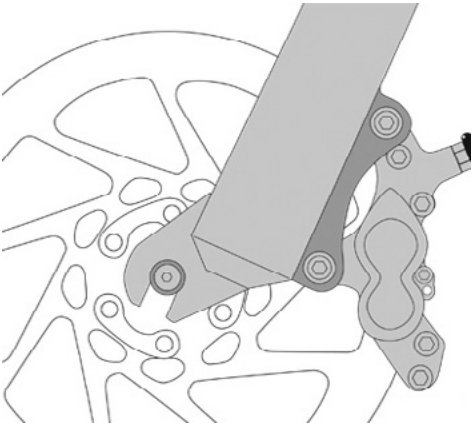
2) Disc brakes: on the wheel hub is installed a disc that will be locked by the brake pads mounted on a brake arm.

Both types of brakes are operated using the levers installed on the handlebar. The stopping power differs based on the type of the brakes. If the stopping power of the brakes installed on your bike is insufficient or inconvenient, please consult your dealer.

It is essential for your safety and for the safety of all other traffic participants, to learn and know the correspondence between the brake lever and the brake assemblies installed on your bike. Usually, the right brake lever operates the rear brake and the left brake lever operates the front brake. Make sure your bike complies with this rule by checking and operating the brake levers when standing still to observe which brake they operate.

WARNING: If your braking system is incorrectly adjusted, improperly serviced, or if the braking pads are worn out, you might lose the control of your bike and be subjected to personal injuries. If you are not sure whether your brakes are properly adjusted or not, or if you suspect any issues with the braking system, do not use the bike and have it checked by your dealer.

It is difficult to adjust the braking system correctly without proper training and equipment. You should have your brakes adjusted by your local dealer. For details on the braking system and its adjustment, please contact your dealer.



Some types of brakes will not match certain types of brake levers. Therefore use only the levers that match with the type of brake installed on your bike, such as those supplied together with your bike. If your bike can be equipped with brake levers with adjustable braking power, read and follow the instructions supplied with the bike before carrying out any adjustment.

WARNING: Disc brakes are very powerful. Use them with particular attention to avoid falling off the bike and subjecting yourself to life-threatening injuries.

WARNING: Replace any worn or damaged brake parts only with original spare parts, certified by the manufacturer.

BRAKES ADJUSTMENT:

Some brake levers allow the adjustment of the extension, in other words, of the distance from the lever handlebar.

• Dentify the adjustment screw of the extension and operate it. To increase the extension, screw it inwards (clockwise). To decrease the extension, screw it outwards (anticlockwise).

• After adjusting the extension, if necessary, adjust the distance between the pads also.

Adjust the distance between the brake pads:

• Screw in the adjustment barrel. To increase the distance between the pads, screw it inwards (clockwise). To decrease the distance between the pads, screw it inwards (anticlockwise).

• If you cannot adjust the pads correctly following the described modes, loosen the fixing bolt of the cable and reconnect it following the instructions in "Tightening torques" table at the end of this manual.

Adjusting the brake pads alignment:

• Loosen the fixing bolt of the brake pad.

• To align and tighten the brake pads follow the procedures described in the Brakes section.

• Test the brakes after adjusting them by applying maximum stopping power on the levers. Make sure the cable is fixed in position, make sure the pads are near the rim at a straight angle, without touching the tire.

To open the brake and remove the wheel:

After installing a new wheel, to complete the installation you have to follow the Inspection procedures in section Wheels of this chapter.

• For most of the caliper brakes you have to LIFT the release lever to open it. To close it you just have to LOWER the lever.

• For Campagnolo Ergopower levers, press slightly on the brake lever and push the key until aligning it with the body of the lever. Release the lever to open the brake. To close it, carry out the latter instructions in reverse

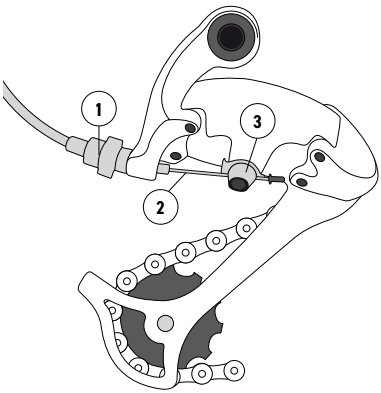
LUBRICATION

Use a low density lubricant to lubricate the brakes in the lever hooking points and the brake arm **every three**

months. Contact your dealer and he will recommend you a suitable lubricant. Each time you have a cable replaced, lubricate it with a thin layer of appropriate chain lubricant.

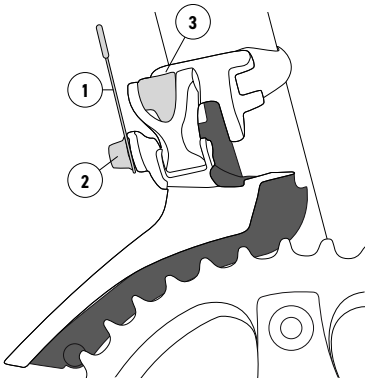
d. DERAILLEUR GEAR SHIFTING SYSTEMS

REAR DERAILLEUR



1. ADJUSTMENT ROLLER
2. CABLE
3. CABLE TIGHTENING BOLT

FRONT DERAILLEUR



1. CABLE
2. CABLE TIGHTENING BOLT
3. ADJUSTMENT SCREWS

Some bikes are equipped with a derailleur system that sifts the gears by derailing the chain, passing from one ring or sprocket to another. The shifter consists of all the parts of the bike that allow the derailleur to shift gears, including the front or rear derailleur, the shifter controls, the rear derailleur (shifter) cables, the transmission chain.

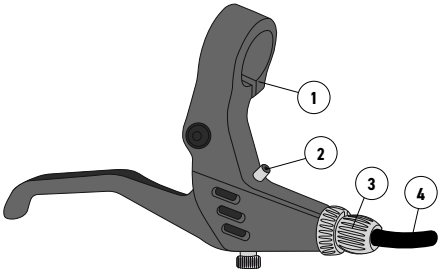
Shifter operation:
To accelerate or to render uphill pedalling easier and more comfortable, operate the shifter controls to reduce the ratio, moving the chain towards the inside of the bike. To acquire greater speed while pedalling, operate the shifter control to increase the ratio, moving the chain towards the outside of the bike.
To change the ratios correctly, the chain must be tensioned. Therefore you should always pedal forwards to make sure the shifter operates correctly.

WARNING: If you operate the shifter while pedalling backwards you might make the chain fall off, getting stuck and damaging the bike and possibly losing control and falling off of it.

1) Front derailleur:
The left control operates the front derailleur. Reduce the ratio by selecting a smaller gear and it will make pedalling easier. Increase the ratio by selecting a bigger gear and it will make pedalling more difficult but you will be able to gain speed.

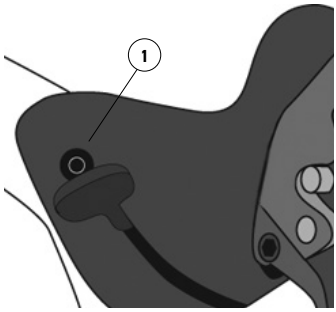
2) Rear derailleur:
The right control operates the rear derailleur. If you move the chain from a small gear to a bigger gear, the ratio will shorten rendering the ride more agile, reducing the physical effort demand. If you move the chain from a big gear to a smaller gear, the ratio will lengthen, making pedalling harder but allowing you to reach higher speeds through greater physical effort.

Adjustment:
A correctly adjusted derailleur system should not cause any problems. If you notice any unusual noises when shifting the gears, you might have to adjust the derailleur cable. If the noise persists or increases after carrying out the adjustment, stop the bike and try to identify the cause of the noise. Contact your dealer to identify and remove any issues and to adjust the derailleur system correctly.
The derailleur should be adjusted by holding the bike in a work support or assisted by someone who can keep the rear wheel lifted from the ground, so that you can operate the transmission and the shifter while the bike remains still.



lever fixing bolt, MTB lever

1. CABLE TIGHTENING BOLT
2. REACH ADJUSTMENT SCREW
3. ADJUSTMENT ROLLER
4. CABLE



lever fixing bolt, ROAD lever

1. CABLE TIGHTENING BOLT

ERGOPOWER lever

1. FINNED BUTTON
2. SHIFTER LEVER

Front derailleur low gear adjustment

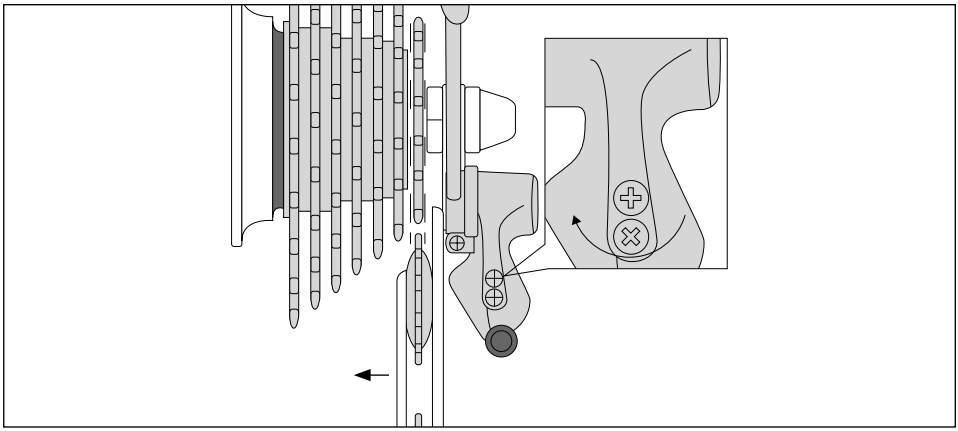
1. Shift the chain on the smallest chainring and on the largest sprocket of the cassette
2. Loosen the front derailleur cable anchor bolt until freeing the cable.
3. Turn the low gear limit stop screw (marked with "L", until the distance between the derailleur internal chain guide and the chain reaches 0.5 mm.
4. Pull the end of the cable and shift to a lower gear operating the left shifter lever for several times, until reaching the position that matches the small chainset.
5. Turn the shifter cable adjustment barrel fully clockwise.
6. Insert the cable in the groove near the cable anchor bolt, tension and tighten the cable:

Check the "Tightening torques" table at the end of this manual.

Front derailleur top gear adjustment

1. Shift the rear derailleur onto the smallest rear sprocket.
2. Turn the high gear limit stop screw (marked with "H") clockwise until the interference with the derailleur is gone.
3. Turn the crank manually and use the shifter to shift the chain on the outer chainring.
4. Use the shifter to place the outer chain guide of the front derailleur at about 0.5 mm from the chain.
5. Tighten again the high gear limit stop screw until meeting resistance. If the screw is too tight it will be difficult to shift the front derailleur onto the smallest chainring.

Check the adjustments.
Inspect and test the various riding combinations: make sure the chain does not fall of when shifting gears and make sure the derailleur cage does not rub against the crank.



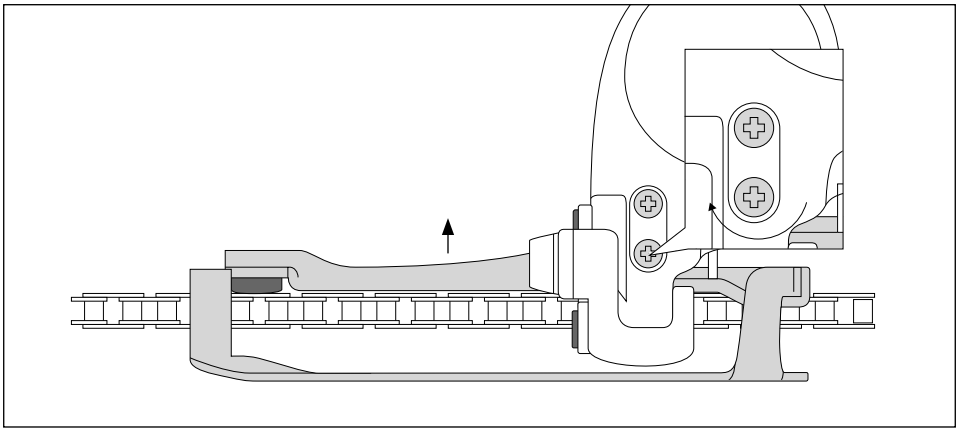
Front derailleur intermediate gear adjustment, with three chainsets

1. Shift the chain on the largest front chainset and on the smallest rear sprocket.

2. Turn the chain tensioner (on the lower tube or on the lever) anticlockwise increasing the cable tension to align the inner derailleur cage until it reaches the chain.

Test the various riding combinations to make sure the chain aligns easily with all the chainsets.

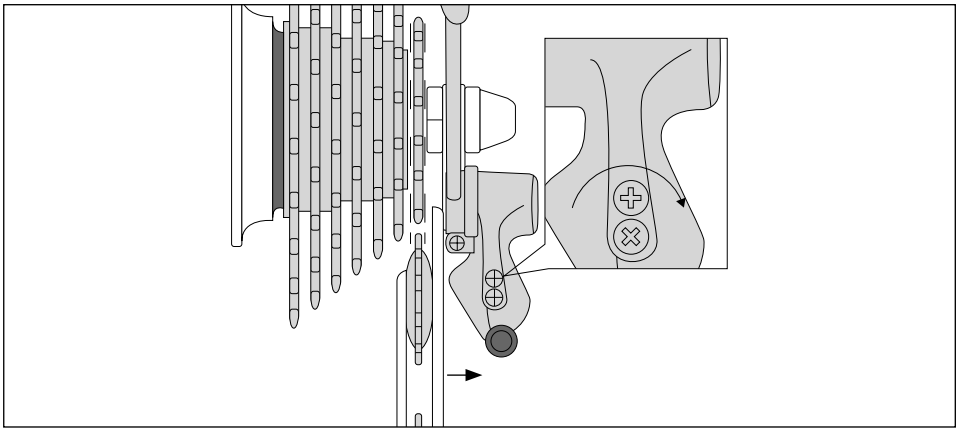
Note: certain front shifting devices have a "pivot post" function. By slightly shifting the lever to a lower gear you will slightly move the derailleur, preventing it from touching the chain.



Rear derailleur top gear adjustment

1. Move the chain on the smallest rear sprocket and on the largest front chainring.
2. Loosen the fixing bolt of the cable to free it.
3. Stand behind the bike to check if the smallest sprocket and the two derailleur pulleys are aligned.
4. Otherwise, turn the high gear limit stop screw (marked with "H"), until you align them.
5. While pulling the cable, shift to a higher gear until the shifting device reaches position that corresponds to the small sprocket.
6. Turn the adjustment barrel on the shifting device or on the down tube fully clockwise. Turn the adjustment barrel on the rear derailleur fully clockwise and then go back a turn.
7. Insert the cable in the groove near the cable anchor bolt on the rear derailleur, tension and tighten the cable.

For tightening torque values see the final table.



Rear derailleur low gear adjustment

1. Turn the low gear limit stop screw on the rear derailleur (usually marked with "L") anticlockwise until the interference with the derailleur is gone.
2. Shift the chain on the smallest front chainring and on the largest rear sprocket. Do not shift the rear derailleur too much, otherwise the chain might get jammed between the large sprocket and the spokes.
3. Align the rear derailleur pulleys with the largest sprocket.
4. Turn the low gear limit stop screw clockwise until meeting resistance. If you tighten it too much, the derailleur will move towards the outside of the bike.
5. Test the various riding combinations. Make sure the chain does not fall off when shifting gears.

Rear derailleur indexing adjustment

1. Shift the chain on the largest front chainring and on the smallest rear sprocket.
2. Give the rear derailleur one click.
3. Check if the chain shifts quickly to the next gear.
4. If the chain is too noisy or if it shifts, slowly turn the adjustment barrel anticlockwise and check again if the chain shifts easily.

If the chain shifts to the third smallest sprocket, turn the adjustment barrel clockwise until aligning the derailleur pulleys with the second smallest sprocket. Inspect the various riding combinations to make sure the chain aligns easily with all rear sprockets.
Should you have difficulties in adjusting the derailleur this way, the derailleur hook might not be aligned; have the bike checked by your dealer.

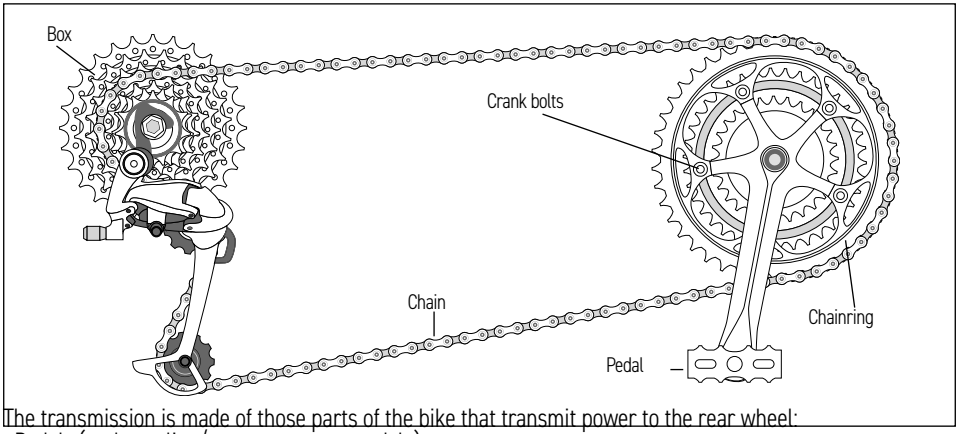
Shifter cable replacement

1. Shift the chain on the smallest front chainring and on the smallest rear sprocket.
2. pay attention to the path of the derailleur cable, loosen the derailleur cable anchor bolt holding the cable to be replaced and removing it through the shifter lever. Certain shifting devices have access to the sheathed cable: a screw or a cover held by a screw. Should you have difficulties in accessing the shifter cable, contact your dealer.
3. Inspect the housings: if damaged or covered in rust, replace them.

Note: if you replace the covers, make sure you use pieces that match the type of housing and make sure to cut them to an adequate length (use the old pieces as reference). Make sure the ends of the housing have no burrs; the cable should slide freely between the ends.

4. Lubricate the new cable and have it pass through the lever, all cable guides and housings and the cable anchoring bolts should follow the same path of the old cable.
5. For derailleur adjustment, refer to the indication.
6. Cut the cable so as to make sure that the section of cable protruding from the cable anchoring bolt does not exceed 51 mm .
7. Place a cable end cap on top of it to prevent cable end fraying or apply some solder alloy on the end of the cable.

e. TRANSMISSION: PEDALS, CRANK, CASSETTE CHAIN



The transmission is made of those parts of the bike that transmit power to the rear wheel:

- Pedals (and toe clips/straps on some models)
- Crank - left and right crank arms, chainset and lower bracket (the axis and bearings that kelp the crank spin).
- Chain
- Cassette or freewheel.

WARNING: While pedalling, steering, the tip of your shoe might come in contact with the front wheel or the fender. This might make you lose the control and fall off the bike. Usually, this kind of

situation arises when riding small bikes, when pedalling at low speed while steering or when you have the crankset and/or the wheels replaced. Avoid pedalling with the handlebar turned. Contact your dealer to agree on the correct combination of frame cut, crank arm length, pedal size and type of shoe to avoid any possible problems. When approaching a curve, we recommend you to keep the pedal on the inner side of the curve raised and the pedal on the outer side of the curve lowered. This way you should avoid any problems.

If your bike is equipped with pedals with toe clips/straps or with quick release pedals, follow the use and maintenance recommendations provided by your dealer and refer to the manufacturer's instructions. Make sure you practice enough before riding your bike on roads, you need to be well familiarised with the devices before engaging traffic.

WARNING: Riding a bike equipped with pedals with toe clips/straps or with quick release pedals on public roads with traffic, without getting first familiarised with the devices, might put you and all other traffic participants at risk. Practice riding the bike in safe areas, without any obstacles.

Transmission bearings adjustment, including the lower bracket, the cassette or the pedals, requires special tools and training. Such operations are reserved only to the dealer. For adjustment, contact your dealer.

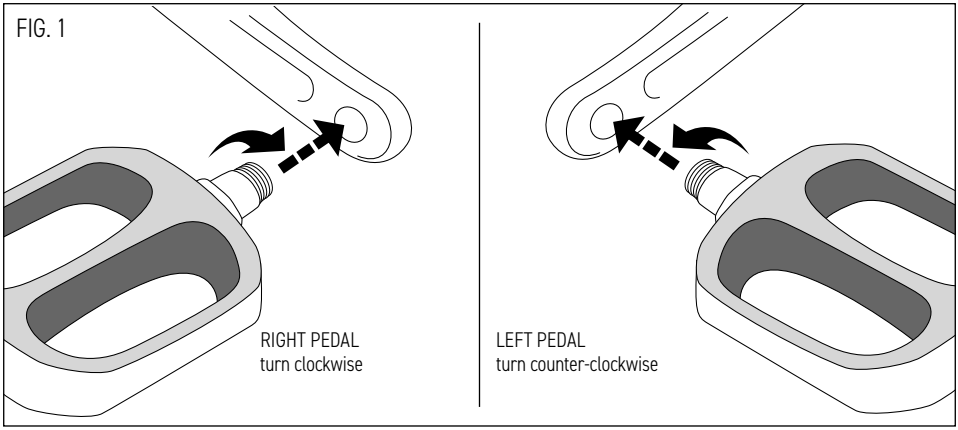
Inspection

When the transmission works correctly, gear shifting is smooth and the bike can reach its maximum efficiency without problems.

Check the cassette and the chain once a month and make sure they are clean, properly lubricated and have no signs of rust. All chain connections should spin easily without any squeaking and they should have no deformations. Remove the rear wheel and spin the cassette manually. Should you notice signs of squeaking or should the cassette stop immediately after spinning it, have the bike checked by your dealer as it might be necessary to adjust or replace the cassette.

Check the pedals and toe clips/straps every 3 months. Make sure the toe clips/straps are securely fixed to the pedals and the pedals reflectors are clean and securely fixed. Secure the pedals to the crank arms, spin the right pedal clockwise and the left pedal anticlockwise (Figure 1).

For tightening torque values see the final table.



To make sure the pedal bearings are properly adjusted, manually spin and move the pedals from right to left, upwards and downwards. if the pedal bearings are slow or rigid, have the pedals adjusted, lubricated or replaced by the dealer.
Every 3 months you should check the crank, the adjustment of the lower bracket and you should secure the crank bolts referring to the **"Tightening torques"** table at the end of this manual.

To check the adjustment of the central bearing:
1. Lift the chain off the chainset.
2. Turn the crank until one of the crank arms is parallel to the seat tube.
3. Place one hand on the crank and the other on the seat tube and try to move the crank sideways, bringing it closer and then pushing it away from the seat tube.
4. Turn the crank.

If the crank is loose or if it makes noises that make you believe it is loose, if its motion stops unexpectedly or if you hear any squealing from the bearings, have the bearing adjusted or lubricated once again by the dealer.

Clean the gears and check for any deteriorations. Should you notice any bent or broken teeth, have the gears replaced by the dealer. Please note that the teeth on certain gears might have a special shape to improve gear shifting.

Check the chain wear-out **every 3 months** using a wear indicator for chains or a ruler. Each new complete chain connection has an inch in length. If 12 chain connections measure 12 1/8 inches or more, you need to replace it. Properly serviced, a chain will usually last 1500/3000 km on a road bike and less on a mountain bike. Chain replacement requires special training and tools and should be carried out only by your dealer.

Adjustment
Transmission bearings adjustment, including the lower bracket, the cassette or the pedals, requires special tools and training. Such operations are reserved only to your dealer.

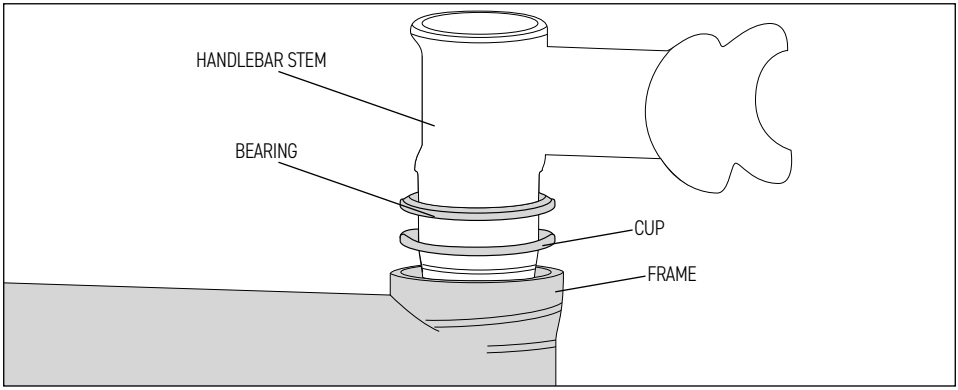
Lubrication and cleaning
Clean the cassette and lubricate the chain once a month. Always place a cloth behind the chain to prevent the oil from spreading on other bike parts. After lubricating the chain, use a cloth to remove any excess of oil. You may contact you dealer to purchase a recommended lubricant.

Cassette cleaning
Do not use benzene to clean the cassette as it is highly flammable and leaves a layer of grease after evaporation. Remove any dirt deposits on the sprockets using a degreaser or a solvent and a brush.

Grease the pedal bearings, the central bearings and the parts of the pedal axles passing through the crank once a year. Some of the pedal and lower bracket bearings are permanently sealed and do not require annual greasing. The new greasing requires special tools and training and should be carried out only by the dealer.

Greasing the pedal threads
1. Remove the pedals: turn the pins of the right pedal anticlockwise and the pin of the left pedal clockwise.
2. Apply a thin layer of synthetic grease on all threads. Contact your dealer to purchase a recommended lubricant.
3. Install the pedals on the correct side: put the right pedal on the right arm of the crank and the left pedal on the left arm of the crank.
4. To lock the pedals, follow the instruction in section "Inspection".

f. FRONT END AND FORK



The front end is a series of bearings that allows the fork, stem and handlebar to spin so that you can steer the bike. These images show you how to inspect, lubricate and adjust the fork and the front end.

Inspection
Inspect the bike front end once a month and check whether it is too loose or too tight. Should you notice that the front end bearings are too loose or too tight, have them adjusted by your dealer before riding the bike.

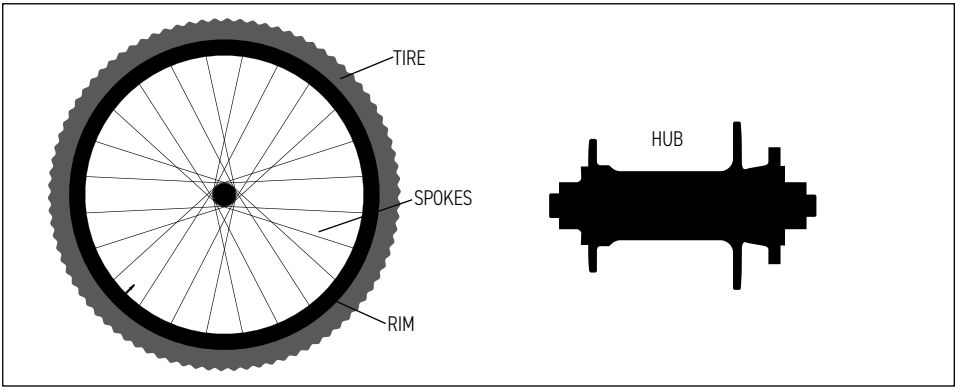
To check if the front end is too loose
1. Get on the bike and, without sitting on the seat, place both of your feet on the ground.
2. Operate the front brake from this position and move the bike forwards and backwards. Check for any loosed front end bearings.

To check if the front end is too tight
1. Lift the front wheel and slowly spin the fork and the handlebar from right to left. 2. Check for any squeaks, jams or gripping while it is spinning; should you notice
any of these signs, it means that the bearing might be too tightened.

Adjustment
Have your local dealer or a qualified mechanic check them as the front end bearing adjustment requires special tools and skills.

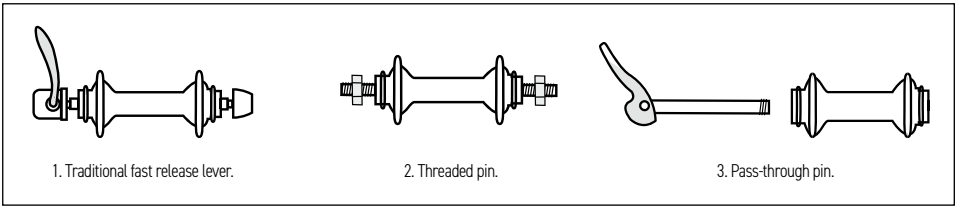
Lubrication
Have the front end lubricated once a year. Have your local dealer or a qualified mechanic carry out this operation as the front end bearing lubrication requires special tools and skills.

g. WHEELS



The bike wheels are designed to be removed easily, to facilitate bike transport or to repair them quickly in case of puncture. The wheels are usually fixed to the bike by means of a guide called dropout installed both on the front fork and on the rear triangle. Another wheel fixing mechanism usually found on the mountain bikes equipped with suspensions is the thru axle.

⚠ Follow the dealer's instructions and indications on how to install or remove the wheels for the bikes with thru axle. Always refer to your dealer for more information on how to use this mechanism.
Control the connection of both wheels.

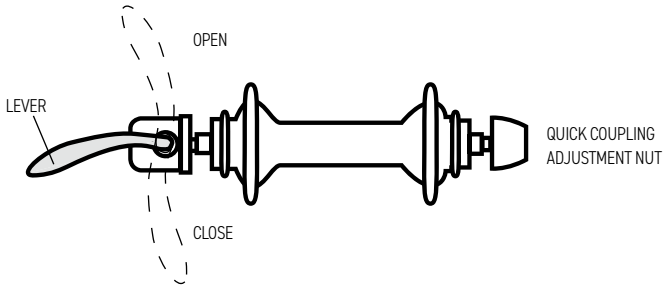


For safe riding the wheels of the bike must be connected securely to the frame and to the fork. The bike wheels are fixed the threaded axle with nuts (No. 2), with thru axle system (No. 3) or through a quick release system (No. 1), a lever-operated wheel locking mechanism that allows you to install and remove the wheel without any other tools.

WARNING: An incorrectly adjusted or closed quick release system might make the wheel loosen or disconnect unexpectedly, causing you to lose the control and possible fall off your bike. Make sure the quick release is properly adjusted and securely locked before using your bike.

Adjusting and closing the quick release

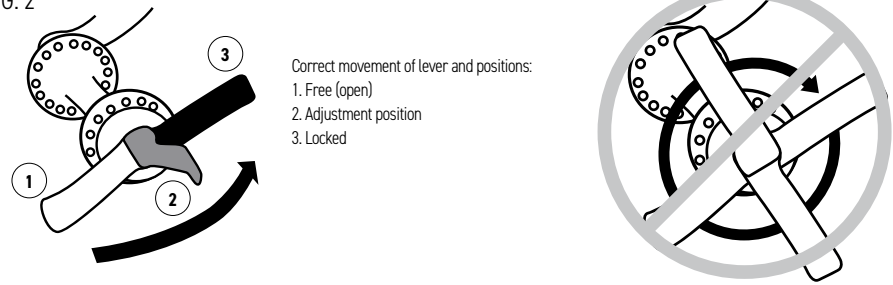
FIG. 1



For a correct and secure adjustment of the quick release, read and follow carefully the instructions below:

Quick release tension adjustment:

FIG. 2



1. Set the quick release lever to OPEN (IMAGE 1) and adjust the wheel so that it firmly touches the inner side of the fork ends.

2. Set the lever in intermediate position, between OPEN and CLOSED, tighten the quick release adjustment nut (IMAGE 1) with your fingers.

3. Place the lever in the palm of your hand and push it as shown in (IMAGE 2) to CLOSED (IMAGE 1) When the lever reaches an intermediate closing position you should meet some resistance.

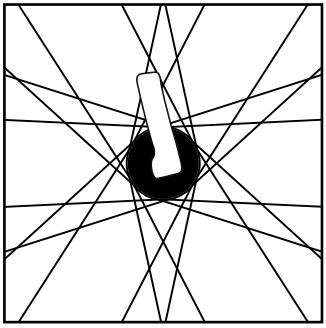
Never tighten the quick release wheel locking mechanism by turning the lever just like you would turn a wing nut; there will not be enough force to hold the installed wheel.

4. If the lever switches to CLOSED posing reduced or null resistance, the tightening force is insufficient. Switch the lever back to OPEN, then tighten the quick release adjustment nut, close the lever checking its resistance once again. For more information on correct quick release tension adjustment. If you require a force greater than 200 Newton (45 pounds) to close the quick release lever completely, open the lever and slightly loosen the quick release adjustment nut. If you require a force lower than 53.4 Newton (12 pounds) to start opening the quick release lever from completely closed position, open the lever and slightly tighten the quick release adjustment nut. Repeat the adjustment if necessary.

5. Place the quick release adjustment lever so as to eliminate any interference with other bike parts or accessories (e.g. rack or fender) and therefore to prevent any obstacles that you might encounter when riding from getting stuck in the levers (IMAGE3 and IMAGE4).

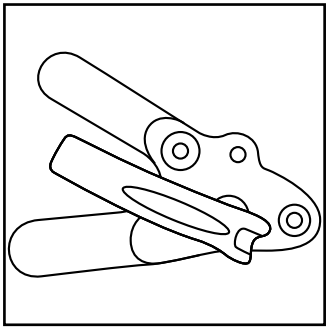
6. Make sure the quick release is properly adjusted and securely locked. If the result of the quick release checks is negative, repeat the adjustment procedures, including these checks, or have your bike checked by your dealer.

FIG. 3



Front lever position

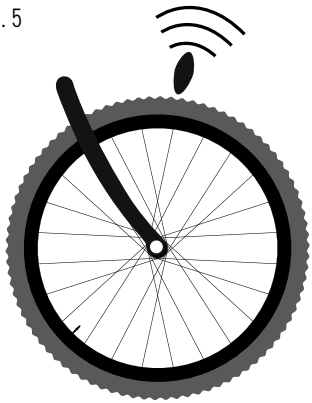
FIG. 4



Rear lever position

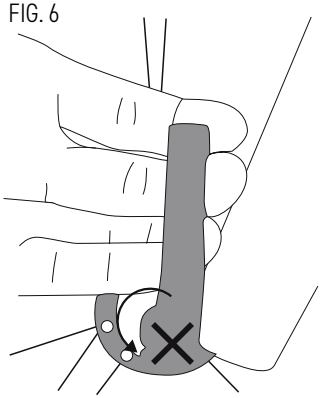
Checking the correct adjustment of the quick release.

FIG. 5



Check of any loose part

FIG. 6



Check of any rotation

• Lift the bike and hit the top of the tire sharply (IMAGE 5). The wheel should not come off, get loose or move from side to side.
• Make sure the quick release lever cannot be turned parallel to the wheel (IMAGE 6)
• When the quick release is securely tightened and locked by the closed lever, the tightening force should be so as to favour release surfaces metal-metal coupling (embossing).

Inspection
The best wheel maintenance is preventive maintenance. Being aware of the specific problems that might arise allows you to prevent them.
Before using the bike, make sure the quick release hubs are LOCKED and the nuts of the wheel axle are secured. For more information on quick release hubs adjustment, see section Adjustment or contact your dealer. Spin the wheels and check if they are perfectly aligned and round. If the rim is unbalanced, have it balanced by your dealer.
Make sure the tires are inflated at the recommended pressure, specified on the sides of the wheels. Use a gauge and a bike pump, if possible. Avoid inflating the tires at a gas station; the pressure level and the volume of air exceed the recommended values and the tires might burst. Check the tires for any signs of wear or deterioration.
Should you notice signs of cuts or points of detachment that expose the inner tube, or if any other element of the tire cover is visible through the tread, or if one of the dowels is missing or worn, have the tire replaced.
Make sure the rims are clean: if the rims are dirty or greasy, the brakes will not work. **Clean the rims** with a clean cloth or wash them with water and non aggressive soap, rinse and let them dry.
Check for any loose, damaged, or broken spokes every week. A damaged wheel will reduce the efficiency of the brakes and the resistance of the wheel itself, posing potential hazardous situations.
Make sure that both hub bearings are correctly adjusted every month. Try to lift the front of your bike with one hand and try to move the rim sideways, from left to right. Observe, listen and check for any loose hub bearings. Spin the wheel and check for any squeals or other unusual sounds. Should you notice that the hub is loose or noisy, have it adjusted. Repeat the same procedures for the rear wheel.

WARNING: If the hub is incorrectly adjusted, in the maximum mobility points (between the hub and the axle), you might lose the control and fall off your bike. Inspect the hubs thoroughly before every ride and never use the bike if the problem is not yet solved.

Adjustment

To adjust the wheel bearings

This procedure requires special tools and training; therefore it should be carried out only by the dealer.

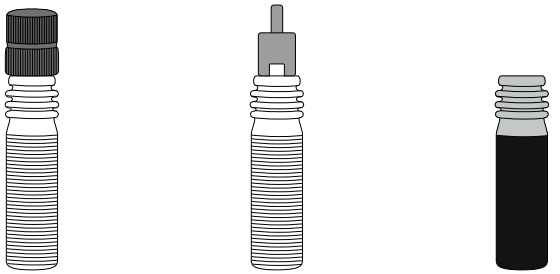
Adjusting and closing the quick release

To adjust a quick release device safely and correctly, pay attention to the instructions below.

WARNING: An incorrectly adjusted or badly closed quick release device might cause unexpected loosening or disconnection of the wheel, making you lose control and fall off the bike. Make sure the quick release device is properly adjusted and securely closed before riding.

g1. SCHRADER, PRESTA AND ITALIAN VALVES

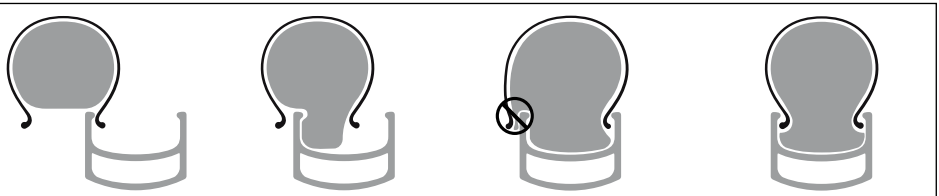
FIG. 1



Bikes have two different types of valves (IMAGE 1), with different inflation techniques:
• Italian valves: Remove the valve cap by unscrewing it. To inflate the tire you first need to let some of the air out by slightly pressing the cap on the valve and then you need to attach the pump end to the valve but only after removing the valve cap.
• Schrader valves (also called American valves): Remove the valve cap, connect an air pump with a Schrader adaptor to the valve and start inflating. Restore the cap as it will prevent any dirt or debris from getting inside the valve.
• Presta valves (also called French valves): To inflate a tire with a Presta valve, first you have to remove the valve cap, if present. Presta valves are used for sealing high pressures and therefore you will require a significant amount of initial pressure to open them; therefore, you need to unscrew the nut and press on the valve with one finger to open it. After carrying out this operation you should have released some of the air in the tire. Start inflating using the Presta valve adaptor. After inflating the tire, manually fasten he valve nut, placing it on the stem. This has the same role as the valve cap for Schrader valves.

g2. TIRES INSTALLATION

These instructions are dedicated to standard wheels systems, where the air is contained by inner tubes. Follow the indications below on how to repair or replace an inner tube after a tire puncture or simply due to tire wear out.



g3. WHEELS REMOVAL AND INSTALLATION

Removing a front wheel with disc brake or caliper brake:

1. To open the brake, follow the instructions in section Brakes .

2. For quick-release system, switch the quick-release lever from closed to open. For bolt-on wheels, loosen the bolt using an appropriate key.

3. If the fork is provided with a locking device, loosen the locking tension by unscrewing the nut and then remove the wheel.

Installing a front wheel with disc brake or caliper brake:

1. For quick-release system, set the lever to "open" by pulling it outwards from the wheel.
2. Insert the wheel between the fork seat stays and insert the axle inside the dropouts. For quick release system, make sure the lever is located on the left side, taking as a reference the cyclist on his seat. For traditional (bolt-on) closing system, lock it by adjusting the nut.
3. Keep the wheel steady and centre the wheel rim inside the fork.
4. For quick release locking system, pull the lever upwards and make sure to bring it in lock position, using the necessary force to close it completely. The lever should be parallel to the fork seat stay. For bolt-on wheels, tighten the fasteners at the values specified in the table "Tightening torques" at the end of this manual.
5. Make sure to restore the brakes quick release mechanism if you disengaged it previously. Check if the distance between the pads and the rim is correct by spinning the wheel.

Removing a rear wheel with disc brake or caliper brake:

1. If your bike is provided with shifter and derailleur gearing system, proceed with shifting the rear derailleur chain on the smallest (outer) cassette sprocket.
2. If your bike has caliper brakes, release the brakes quick release system.
3. If your bike is provided with shifter and derailleur gearing system, pull the shifter backwards.
4. For quick release system, set the lever to open. For bolt-on wheels, loosen the fasteners using appropriate tools, push the wheel forwards to remove the chain from the front cassette sprocket. Then lift the wheel from the ground and remove it from the rear dropouts.

⚠ If your bike has disc brakes, pay attention not to damage the calipers, the disc and the pads when inserting the disc in the caliper.

Installing a rear wheel with disc brake or caliper brake:

1. For quick-release system, set the lever to "open" by pulling it outwards from the wheel.
2. If your bike is provided with shifter and derailleur, make sure the rear derailleur is located in the outermost position (on the smallest sprocket) then pull the body of the derailleur backwards, placing the chain on the smallest sprocket of the top cassette.

3. Insert the wheel in the dropouts, pulling the wheel backwards to allow the hub axle to enter the dropouts correctly.
4. For quick release locking system, pull the lever upwards and make sure to bring it in lock position, using the necessary force to close it completely. The lever should be parallel to the fork seat stay. For bolt-on wheels, tighten the fasteners at the values specified in the table "Tightening torques" at the end of this manual.
5. Make sure to restore the brakes quick release mechanism if you disengaged it previously. Check if the distance between the pads and the rim is correct by spinning the wheel.

g4. TIRES REMOVAL

Use your hands to remove the tire from the rim or the tire levers. Do not use sharp objects, such as screwdrivers, to remove the tire.
1. Deflate the tire completely.
2. Press the tire beads on the lower side of the rim bead seat, covering the entire surface of the wheel.
3. Pull one tire bead upwards and out of the rim, starting from the side opposite to the valve.
4. Proceed around the wheel, pulling the bead out until freeing the last bead.
5. Reach inside the tire and remove the inner tube.
6. Remove the second tire bead from the rim.

Tires installation

1. If you want to repair the inner tube, repair any punctures using appropriate tube patches or replace the inner tube.
2. To check the rim and the inside of the tire, follow the procedures in paragraph Inspection from chapter Wheels. When changing the inner tube or the tire, make sure the new inner tube or the new tire have the same size as the old ones, or contact your dealer to see which other sizes are compatible with your bike. You can find the sizes on the side of the tire.
3. Inflate the inner tube until it starts taking shape.
4. Place the inner tube inside the tire.
5. Insert the stem of the inner tube valve in the hole on the rim.
6. Install the first bead of the inner tube on the rim, starting from the valve stem.
7. Insert the tire and the inner tube so as to make sure that both of them are inside the rim.
8. Carefully push the second bead on the rim using your hands, starting from the valve stem. When mounting the wheel, pay attention not to perforate the inner tube between the rim and the tire.
9. Push the base of the valve stem inside the tire, making sure that it doesn't get stuck between the tire beads and the rim.
10. Inflate the tire at half of its intended pressure and make sure all the time that the tire is housed inside the rim.
11. Deflate the tire again. This precaution is taken to make sure you will not puncture the inner tube.
12. Inflate the tire at the pressure stated on its side.

g5. TUBELESS INSTALLATION:

NOTE: Attention, tubeless tires are provided without glued parts, contact your dealer for correct

assembly and gluing of the parts.

h. SUSPENSIONS

Nowadays, there are many bikes equipped with suspensions on the market and there are many manufacturers that provide various types of suspensions. If your bike has suspensions, refer to the instructions provided by their manufacturer for installation, maintenance and support.

If the suspensions are installed incorrectly or if they are improperly serviced or checked, they might malfunction, making you lose the control and fall off the bike.

CAUTION: If you want to have the suspensions replaced, always make sure to purchase suspensions that match with your bike. If the suspensions are not compatible with your bike model, they might cause structural failures and damages.

CHAPTER 4

SCHEDULED PERIODIC SUPPORT AND MAINTENANCE

The information contained herein will provide some indications on how to service your bike. Considering the advanced technological level of the components, of the materials used and their continuous evolution and improvement, the information reported herein cannot be considered entirely exhaustive for ensuring optimal servicing of your bike.
In order to reduce the probability of any accidents or personal harm to a minimum, the maintenance and repair operations not envisaged herein should be carried out by your dealer: he will be able to service your bike according to your riding style and to the conditions of use of your bike.
For adjustment or repair interventions that require use of specific equipment and appropriate skills, contact your dealer.

CAUTION: Any incorrect maintenance or adjustments might damage your bike, subjecting your to personal injuries or accidents. Always contact specialised personnel.

Recommended tools for proper bike servicing:
Torque wrench with Nm or inch-pounds graduations
2, 4, 5, 6, 8 mm Allen wrenches
9, 10, 15 mm wrenches
15 mm square wrench
Socket wrench with 14, 15, and 19 mm sockets
T25 torque wrench
Phillips screwdriver No. 1
Repair kit for bicycle tires
Pump for bike tires with gauge
Wheels levers

Frequenza controllo:

Check frequency	Item	Description:	Check:	Note:
Before every ride	Wheels	Wheel alignment	Make sure the wheels are centred and spin them to check for wobbles.	If the wheels wobble excessively, have the bike checked by a qualified mechanic.
	Wheels	Tire pressure	Check that the pressure complies with the limits specified on the side of the tire.	
	Wheels	Securing the wheels	Make sure that both wheels are securely fastened to the frame and the fork.	
	Wheels	Tire tread wear	Check that the tires do not show signs of excessive wear, damage, cuts or smoothness throughout the surface.	
	Brakes	Operation	Operate each brake and make sure they lock the wheel properly.	
Weekly	Cleaning	Clean the bicycle	Clean the bicycle with a soft, non-abrasive cloth, using only specific products available on the market.	CAUTION: never use power washers or direct water jets.
	Wheels	Loose spokes	Check that the spokes are not loose or broken.	
Monthly	Handlebar	Intact structure	Check that there are no signs of failure, cracks, scratches throughout the surface of the handlebar stem and bend, Check that the fixing bolts do not show signs of failure or corrosion.	
	Saddle and seatpost	Intact structure and assembly	Check that there are no signs of breakage, damage, cracks or scratches on the entire surface of the saddle and the seatpost; check that all parts are correctly secured and make sure the bolts are tightened with the appropriate tightening torques.	Should you notice excessive wear or damage, replace the damaged parts. Check the tightening torque of the fixing bolts using a torque wrench.
	Cassette and chain	Intact structure	Check the chain for wear. Check the wear of the cassette.	Should you notice signs of wear of the chain and/or pinions, provide for their replacement and have them fixed by a specialized mechanic.
	Chain guard	Intact structure and assembly	Check that the chainring guard is properly secured and make sure it shows no signs of damage.	Should you notice excess wear, tear, cracks or breakage of guards, have them replaced..
	Shifter cables	Intact structure	Check the shifter cables for signs of wear, failure, rust or breakage.	Should you notice signs of wear, breakage or loose cables that might affect the shifter operation, have them fixed or replaced by a qualified mechanic.
	Shifter	Operation; perfect condition.	Check that the shifting devices operate properly.	Should you notice malfunctions, have them assessed and fixed by a qualified mechanic.
	Derailleurs	Operation, lubrication	Lubricate the derailleurs and make sure they work properly.	
	Front end	Adjustment	Check the front end for any backlashes and make sure it is not loose.	Should you notice any backlashes on the fork, have your local dealer or a qualified mechanic check them as the front end bearing adjustment requires special tools and skills.

Check frequency	Item	Description:	Check:	Note:
Monthly	Brake cables	Intact structure	Check the brake cables for any signs of wear, failure, rust or broken strands.	Should you notice signs of wear, breakage or loose cables that might affect the brakes operation, have them fixed or replaced by a qualified mechanic.
	Brake pads	Intact structure	Make sure the brake pads are in perfect condition.	On the friction surfaces of the brake pads you will find some relatively shallow grooves: for direct-pull brakes, if the depth of one of these groves is lower than 2 mm or 1 mm have the pads replaced.
	Brake pins	Assembly	Check the brake pins for secure tightening (fork, seat stays, pad, arm.	Should you notice loose pins, use a torque wrench to check the tightening torque of the fixing screws, comparing it with the one specified in the manual of the brakes manufacturer.
	Chain	Adjustment	Make sure the chain's tension is correct.	If the chain is loose, have it fixed by a qualified mechanic.
	Wheels	Adjustment	Make sure the wheels spin correctly, without any backlashes.	Should you notice any abnormality, have the bearings of the wheels adjusted by a qualified mechanic.
	Rims	Intact structure	Make sure the rims of the wheels are perfectly round, undamaged and clean. The wheels should not present any wobbles. The bicycle rims with single pivot side-pull caliper brakes are subjected to constant wear and tear. Dirty or greasy rims might affect the performance of the brakes.	Some of the rims on the market come with a wear indicator that becomes visible once the friction surface wears out. You should replace the rim if you can see the indicator. Not replacing the rim might result in breakage of the same, with subsequent loss of control and falling. Keep the rims clean using a dampened cloth. Should you notice any deteriorated rims, have them replaced by a qualified mechanic.

Check frequency	Item	Description:	Check:	Note:
Every 3 months	Mechanical parts	Cleaning	Clean and polish the mechanical parts. This way you can check them for any structural issues. The components will work at full performance only if thoroughly cleaned.	
	Pedals and toe clips and toe straps	Perfect condition and adjustment	Make sure the pedals and toe clips/straps work properly and are in perfect condition. Make sure they are securely fastened.	Should you notice signs of damage or deterioration. have the pedals or toe clips/straps replaced by a qualified mechanic.
	Crank arm	Adjustment	Check the crank arm for any backlashes and make sure it is not loose.	Should you notice backlashes or signs of loosening, have the crank arm adjusted referring to the manual provided by its manufacturer.
	Brake levers	Perfect condition and lubrication	Make sure the brake levers are in perfect condition and have no chips, breaks or cracks. Lubricate them for optimal performance.	Should you notice signs of deterioration, have them replaced. Use only recommended lubricants when servicing the brake levers.

Frequenza del controllo	Oggetto	Descrizione:	Verifica:	Nota:
Annually	Handlebar stem	Lubrication	Lubricate the handlebar stem using an appropriate lubricant.	
	Seatpost	Lubrication	Lubricate the seatpost using an appropriate lubricant.	
	Pedals	Greasing	Grease the threads and bearings of the pedal using specific grease.	
	Wheels	Greasing	Grease the bearings of the wheels using specific grease.	
	Front end	Greasing	Grease the bearings of the front end using specific grease.	

LIST	**MAX TORQUE Nm ESTIMATED APPROXIMATELY**
HANDLEBAR STEM ALLU/CARBON ROAD and MTB	5
GASKET 386 SHIMANO/CAMPAGNOLO /FSA(middle bolt)	40
GASKET GEAR BOLTS IN LIGHT ALLOY	10
CENTRAL MOVEMENT (THREADED COUPLING)	30
REAR SHIFTER MOUNTING BOLT	8
FRONT DERAILLEUR MOUNTING BOLT ROAD (built-in)	7
FRONT DERAILLEUR MOUNTING BOLT (clamped) ROAD	3
FRONT DERAILLEUR MOUNTING BOLT MTB (built-in)	7
FRONT DERAILLEUR MOUNTING BOLT (clamped) MTB	3
CONTROL LEVER CLAMP ON BENT CONNECTION ALU ROAD	10
CONTROL LEVER CLAMP ON BENT CONNECTION CARBON ROAD	8
CONTROL LEVER CLAMP ON HANDLEBAR ALU MTB	5
CONTROL LEVER CLAMP ON HANDLEBAR CARBON MTB	4
BOTTLE CAGE FIXING BOLTS	2,5
SEATPOST Cento1 SR EQUIPPED WITH DOUBLE ADJUSTMENT CLAMP	8
EXPANDER PLUG	4
PEDALS	40
SADDLE FIXING	4
HUB PASS-THROUGH PIN	3 \ 4
FORK EXPANDER	8
BRAKE FIXING (CALIPER, DISC)	5
INTERCHANGEABLE SCREWS	3
CABLE GLAND PLATE FIXING SCREW	3
REPLACEABLE CABLE STOPPERS FIXING SCREWS	5

If in doubt, contact an authorised Wilier dealer, or a qualified mechanic.

Frame and fork maintenance:

Bike frame are made of various high performance materials. For safe use and long life span, service the frame of your bike following the instructions below:

Inspection

Before riding your bike, check the frame unit carefully (frame, fork, handlebar, handlebar stem) for signs of failure or wear. Scratches, cracks, dents or deformations are all signs of failure caused by stress. Should you notice signs of damage or wear, have that part replaced before using the bike. Also make sure that the handlebar grips are correctly inserted in the two ends of the handlebar and in the bar ends.

Make sure the thread of the lower bracket and of the rear derailleur are clean and properly greased before inserting them. Start tightening with your hands, never with a wrench. The torque moment specification for the lower bracket ring nut is 48.6-68.9 Nm. The torque moment specification for the rear derailleur is 7.9-9.6 Nm.

Do not use abrasive solvents or chemical substances to clean the frame components. Remove the protective film with a soft cloth dampened in water and mild detergent. Industrial solvents or varnish removers might damage the paint.

For any type of frame unit, varnish removal requires special techniques and high precision. Highly abrasive products will remove the frame cover, rendering the bike weak. Contact your dealer for details.

Excessive heat, such as that generated by powder paints or by any type of flame, might damage the adhesive that holds the frame components together. Do not expose the frame to temperatures exceeding 82° C.

Any modification of the frame will null the manufacturer's warranty and might be dangerous.

Forks replacement might alter the steering or add unwanted effort. Suspension forks might add stress to the bike frame. Never add a suspension fork to a road bike and never change the style or the length of the forks. If you want to replace the fork, contact your dealer.

WARRANTY

Wilier Triestina uses state-of-the-art technologies and our bikes are equipped with the best components available on the market. This is why we offer an extended warranty of up to 5 years for carbon bikes, excluding MTB full suspended.
This is why we offer an extended warranty of up to 5 years for carbon bikes, excluding MTB full suspended, that you can obtain filling the form WARRANTY EXTENSION, into the Wilier Triestina's website.

The Wilier Triestina warranty does not cover:

1. products without proof of purchase (receipt or invoice)

2. products not purchased from authorised Wilier Triestina dealers

3. products with missing, changed, deleted or illegible identification codes

4. parts subjected to wear such as rims, wheels, seats, bearings and disc brakes, handgrips, paints, stems, couplings, brakes, chainset, shifter, cables and lights if damaged during regular use

5. damages caused by abuse or improper use, by incorrect mounting (for example incorrect tightening torques), by incorrect or insufficient maintenance, by
hits, corrosion, use of aggressive detergents, use of incompatible products, incorrectly performed repairs, and all
that constitutes material or manufacturing defects

6. products reached at the end of their life cycle

7. effects of UV rays exposure (fading, yellowing)

8. effects of saline environment

9. repainted products (even partially)

10. tampered products

11. labour for parts replacement

12. paint defects after 2 years from purchase

EXTENDED WARRANTY

To obtain an extended warranty of up to 5 years you need to register by clicking on the link below:
http://www.wilier.com/en/warranty on the Wilier Triestina website, within 10 (ten) days from the purchase date. By filling in the warranty extension form you declare to have read and understood the booklet in its entirety.
Warranty extension is available only for carbon products, excluding the MTB full suspended models.

FRAME SERIAL NUMBER:	STAMP/ SIGNATURE	DATE
5 YEAR WARRANTY		

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