

# The Tricycle Specialists

**Mission<sup>®</sup>**  
**Cycles**



**Owners Manual**

## TRICYCLE RIDING CHARACTERISTICS

If you have not ridden a trike before, the handling may seem unnatural to begin with. All trikes will feel as if they are leaning to the left on camber roads. This is because the rear left wheel can be at the point of the camber, as you are riding. Another factor is that the right rear wheel is the drive wheel. This drives the chain which in turn drives the axle. The pressure from pedalling gives the feeling of a slight over steer to the left. This is soon overcome with practice. Always look ahead and not down at the handlebars, it will help. Practice using the brakes before you first start to ride, this will give you a comfort zone to ride in.

Cornering will at first feel tricky, do not speed around corners, cycle steadfastly around. Give yourself room if overtaking parked vehicles in the street and watch out for motorists opening doors.

Before you set off, get yourself comfortable. You should have a slight bend at the knee when your leg is on the down stroke of the pedal. For comfort, the ball of your foot should be on the pedal not the instep. Position your hands on the handlebars where you feel relaxed; a slight bend at the elbow will absorb any road shocks.

Always endeavour to ride on a level surface; the tricycle is not for riding off road on rough ground. Cycle paths, parks, and towpaths are ideal for Trike riding. If riding on pavements, take care to ensure the back wheels do not come off the edge of the kerb .

On some cycle paths, bollards are used to stop motorcycles being ridden, be aware you have two wheels behind.

**A set of wing mirrors is a sensible accessory.**

Keep the Trike in a roadworthy condition, checking tyres for the correct inflation, and brake blocks for wear.

Enjoy your tricycle.

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## SAFETY CHECKS

BEFORE TAKING YOUR FIRST RIDE AND AT FUTURE, REGULAR INTERVALS, PLEASE ENSURE YOU CHECK THE FOLLOWING POINTS.

1. **PEDALS** are tight in pedal crank arms.
2. **HANDLEBARS** should be straight, tight and secured. All stem and clamp bolts are tight and that it is not above the safety limit.
3. **THE SADDLE** is set at the correct and comfortable height and that all bolts are tight and that the seatpost safety limit mark is not exceeded.
4. **TYRES** are inflated to the correct pressure as indicated on the sidewall of the tyre. Check that the tread is not worn or damaged and that there are no cuts in the sidewall casing.
5. **WHEELS.** Ensure wheel Nuts are securely tightened.
6. **RIMS** and **BRAKE BLOCKS** are free from grease and oil and that the brakes operate smoothly and correctly.
7. **REFLECTORS.** Ensure that all reflectors are clean and correctly positioned.
8. **CHAINSET.** On cotterless cranks, ensure, at regular intervals, that the bottom bracket axle bolts are fully tightened and that the cranks are secure.

**PLEASE NOTE:** Regular use and vibration can cause parts to work loose.

Please check, at regular intervals, all bolts, screws nuts and fasteners.

If any part is damaged, badly worn or missing replace immediately.

Do not use garage forecourt airlines to inflate tyres as this may cause the tyres to over-inflate or even to burst.

## ADDITIONAL POINTS TO CHECK

1. Wheels are true and spokes are tight.
2. Ensure that the wheels cannot be moved on axle bearings.
3. Ensure that, on one piece cranks, the chainwheel is securely bolted and that the crank arms cannot be moved on the bearings.
4. Ensure that the headset is free from excessive movement and that it is adjusted correctly.
5. Check that the chain is lubricated and that it is not worn or that any links are stiff.
6. The gears change easily on to all sprockets and that the cables and wires are not frayed or rusty.
7. To keep your cycle in the very best condition, we would recommend that it is serviced by a LOCAL dealer at least once a year.



- |                |                  |                   |
|----------------|------------------|-------------------|
| 1. GRIP        | 10. FRONT FORK   | 19. CHAIN         |
| 2. BRAKE LEVER | 11. RIM          | 20. REAR FRAME    |
| 3. HANDLEBAR   | 12. SPOKE        | 21. AXLE          |
| 4. BRAKE CABLE | 13. HUB          | 22. FREEWHEEL     |
| 5. HANDLE STEM | 14. FENDER BRACE | 23. BASKET        |
| 6. REFLECTOR   | 15. CHAINWHEEL   | 24. SADDLE        |
| 7. FRONT BRAKE | 16. PEDAL        | 25. SEAT POST     |
| 8. FENDER      | 17. CRANK        | 26. QUICK RELEASE |
| 9. TYRE        | 18. CHAIN COVER  | 27. FRAME         |

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## SADDLE ADJUSTMENT

The correct saddle height should allow for a slight bend of the knee, with the ball of the foot on the pedal. This allows for an efficient pedal stroke.

Height adjustment of the saddle can be made by loosening the seat bolt. Adjust the saddle to correct height with the nose of the saddle pointing squarely - in line with - the headtube. The saddle should be level with the ground so as to avoid discomfort.

On models with quick release seat clamp and alloy seat post pull the lever away from the frame and adjust saddle height. Close lever and ensure that seat post and saddle do not twist round - if it does move, open quick release lever and tighten clamp nut further, then close lever.



You can also adjust saddle forward and backwards by loosening the allen bolt or nuts that secure the saddle clip. On micro adjust seat posts, ensure the seat rails sit squarely in the clamp grooves before tightening. Failure to do so could result in damaged seat rails and a loose saddle.

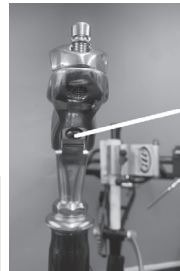
## HANDLEBAR STEM ADJUSTMENT

Correct handlebar adjustment requires a comfortable position and effective use of brake and gear levers.

Handlebar height up/down is adjusted by the methods shown here.

**CAUTION:** Ensure that the safety limit mark is not exposed on the handlebar stem and that it does not appear above the headset.

Check that the handlebars cannot be moved when front wheel is firmly held between the legs.



## V-BRAKES

Your tricycle will be fitted with V-brakes. These brakes are highly efficient when correctly adjusted.

The brakes are an important part of your tricycle. Front V brakes are fitted with a compound brake block which will wear down with use. When worn down to 5mm they will require replacement. The rear will have disc braking and the pads will require checking for wear between 500 -700 miles, depending on the severity of your riding.



Use a good quality disc brake cleaner from your local cycle shop to spray on the disc and wipe clean the residue.

## PEDALS

Each pedal has different threads and are marked R (right) or L (left).

Initially, fit the pedals with a dab of grease by hand and make sure that they are not cross threaded before tightening fully with a spanner.

Make sure that the pedal axle shoulder is tightened against the pedal crank.



Insert the right-hand pedal (marked R) into the right-hand pedal crank (chainwheel side) and tighten pedal axle clockwise with a pedal spanner.

Insert the left-hand pedal (marked L) into the left-hand pedal crank and tighten pedal anti-clockwise with a pedal spanner.

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## AFTER YOUR FIRST FEW RIDES

Nuts and bolts on your bicycle will bed-down. Check thoroughly that all fastenings remain tight and follow the safety check list on inside front cover.

Check in particular the following points:

1. Brakes are correctly adjusted.
2. Seat post clamp is tight and saddle cannot be twisted around.
3. Handlebar stem and clamp bolts are tight and handlebars cannot be twisted around.
4. Cotterless cranks are tight as instructed.
5. Gears are correctly adjusted.
6. Ensure that the limit marks are not visible on seatpost and handlebar stem.

## USING YOUR CYCLE

### BRAKES

Always ensure brakes are kept in good working order. Use both levers for optimum braking performance. Gradually squeeze brake levers to apply brakes.

#### CAUTION:

- Do not apply the front brake too hard as this could throw you off the tricycle.
- Avoid skidding and take extra care going downhill and in wet conditions as stopping distances are doubled or tripled.
- Ensure your brakes are adjusted as soon as performance is less efficient than normal.
- Replace brake blocks that are worn and inefficient as soon as possible.

## GEARS

Always try and apply constant pressure on the pedals with a smooth rhythm, whether going up or downhill, with or against the wind. Try and change gear before your pedal rate slows. As you anticipate braking requirements, gear changing also has to be anticipated.

**CAUTION:** Ensure you keep your eye on the road when changing gear. Do not take your hand off the handlebar to change gear unless it is safe to do so. Do not allow your cycle to fall onto the rear derailleur gear.

### DERAILLEUR GEARS

The gears will be either Rapidfire shifters or Gripshift mounted on handlebars.

**CAUTION:** Do not change gears while stationary as this may cause damage to your derailleur mechanism.

### HOW TO CHANGE GEAR

**INDEX SHIFTING:** There are many different types of shifter mechanisms, each preferred to specific types of riding due to ergonomics and performance.

The right-hand lever shifts the rear derailleur and the left-hand lever shifts the front derailleur.

The right-hand lever will click into place with each gear selected. This places the rear derailleur correctly in line with each sprocket without any grinding or chain clatter, providing the pedals are being turned.





# The Tricycle Specialists

## MAINTENANCE

This is often overlooked and is vital to keep the cycle in good working order. We recommend that your cycle is serviced at least annually as some of the maintenance requires special skills that only your cycle dealer should carry out.

### REGULAR CLEANING

To ensure your cycle runs smoothly keep all moving parts as free from dirt as possible. Always use soapy water or a special cycle cleaner on alloy, chrome and painted parts. Rinse with clean water and dry thoroughly .

**CAUTION: Ensure that, after cleaning, all moving parts are lubricated and that brake blocks and rims are clean, dry and free from oil and grease.**

### STORAGE OF YOUR CYCLE

We recommend that your trike is stored in a dry building. Care must be taken to ensure that the cables and paintwork are not damaged.

If the cycle is to be stored for a long period of time, we recommend smearing all chrome parts lightly with grease.

**CAUTION: Ensure plastic parts are kept free from grease and that brake blocks and rims are also totally free from grease.**

### LUBRICATION

Keep your bicycle in good working order by ensuring you oil and grease it regularly. Bearings require disassembly and special tools are required. so we recommend this is carried out by your local cycle shop.

- **V-BRAKES** - Lightly oil the brake pivots.
- **FRONT & REAR DERAILLEURS** - Lightly oil the gear pivot points and pulley bearings.
- **FREEWHEEL** - Apply one or two drops of oil into the mechanism.  
**CHAIN** - Rotate the chain and oil lightly along entire chain. Wipe off any surplus oil with cloth.
- **CHAIN** - Rotate the chain and use a chain lube lightly along the entire chain. Wipe off any surplus oil with cloth. Oil will attract dust always - use a lube for the chain.

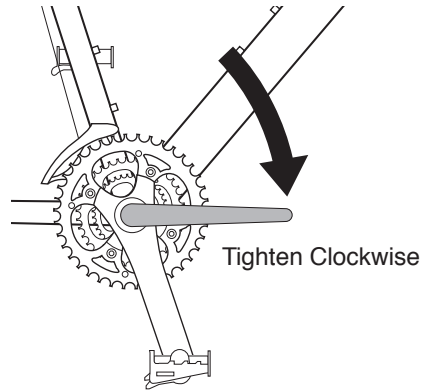
## COTTERLESS CRANKS

To ensure trouble free operation of cotterless cranks, ensure that the crank/bottom bracket axle nuts are tightened as secure as possible

We recommend that the cranks are checked after the first two weeks of riding and then at six monthly intervals.

**CAUTION: Failure to do so will cause permanent damage to precision made components.**

To carry out adjustments, remove dust cap, then using a 14 mm socket, tighten to a torque of 420 lb/fin or 47.5 Nm.



## TYRES

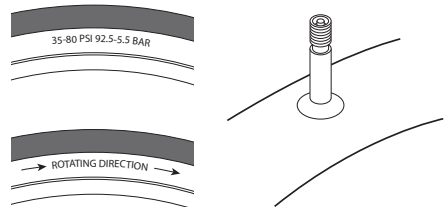
**CAUTION: Do not use garage forecourt airlines to inflate tyres, as they may over inflate or even burst.**

Before cycle is ready to ride it may be necessary to inflate tyres. The recommended pressures are moulded onto the sidewall of the tyre.

The tyres on your bicycle are fitted with Schrader (car tyre) valves. Make sure that the right connector is used to pump up tyres.

**CAUTION: Riding a cycle with under inflated tyres may result in impaired handling and damaged tyres, tubes and wheels.**

Tyres require regular checking for wear/cuts in the side wall. Your local cycle shop should have replacements or call Mission.



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## WHEEL REMOVAL AND REPLACEMENT

### FRONT WHEEL REMOVAL

Loosen the axle nuts then open brake quick release, if fitted, or slacken brake cable adjuster and gently ease the front wheel from the forks.

### FRONT WHEEL REPLACEMENT

Ease the forks slightly apart then fit the wheel into the frame.

Ensure that the wheel is centred in the frame and that the hub axle is located in the fork slots. The front wheel may be fitted with security tabs (if applicable) which hold the wheel in place in the event that the nuts work loose.

### REAR WHEEL REMOVAL

Drive rear wheel: (Right rear wheel) Loosen the nut and using a rubber mallet tap to remove from axle and the securing pins.

Left wheel removal: loosen the nut and pull wheel off the axle.

### REAR WHEEL REPLACEMENT

Locate the drive wheel (right wheel) onto the holes and tighten. Do not over torque.

Place left wheel on axle and tighten.

## BRAKE CHECK LIST

The brakes are an important part of your tricycle. Front V brakes are fitted with a compound brake block which will wear down with use.

When down to 5mm they will require replacement.

The rear will have disc braking from December 2020 models, the pads will require checking for wear between 500 to 700 miles or depending on the severity of your riding.

Use good quality disc brake cleaner. Spray on the disc and wipe residue off. The side wall of the rims need to be checked occasionally to clean road film off.

## V BRAKE ADJUSTMENT

You can adjust the cable tension on V brakes by loosening the adjusting nut on the cable adjusting barrel as shown here. For major adjustments we recommend you take your tricycle to a local dealer.

Adjusting Nut



# The Tricycle Specialists

## GEAR ADJUSTMENT

If your tricycle is equipped with gears, it will have a derailleur gear. Due to the damage that incorrect gear adjustment can cause, we recommend that all gear adjustments are carried out by a qualified cycle mechanic. Cables stretch after a few rides and may require adjustment.

The high gear adjusting screw (marked H) prevents the chain overriding the small rear sprocket (rear derailleur) or the large chainwheel (front derailleur, if fitted). The low gear adjusting screw (marked L) prevent the chain overriding the large rear sprocket (rear derailleur) or the small chainwheel (front derailleur, if fitted).



## THE SAFETY OF YOUR CHILD

### Piggyback

This product is designed to be towed by an adult cycle with wheel sizes 26"/700C.

- Age is dependent on the size of the child. We recommend from 4 to 9 years the 20" wheel and for 9 years to teenager the 24" wheel.
- It is advisable to wear a safety helmet at all time.
- The saddle seat pin is adjustable for height.
- Ensure the child's feet are flat on the pedals not just the toes touching.
- The handlebars are adjustable for reach, for comfort have a slight bend at the elbows.
- Tyre pressure should be between 40 and 60psi. Never use a petrol station airline.
- Ensure the clamp bolts are all secure before each ride.
- It is most important that the towing cycle is in good mechanical order.
- Ensure that the brakes of the tow bike are adjusted and working to take up the extra weight of Piggyback and the rider.
- Ensure the tow bike tyres are inflated correctly.
- We recommend not to ride faster than 8mph - this is not a tandem. Accidents can happen if going too fast. There is no braking power on the piggyback.
- Take bends carefully and be aware of cambers and speed bumps.
- Piggybacks are sold by the independent specialist cycle dealer, please use your cycle dealer for a regular check over. Look for the 'ACT' sign, Association of Cycle Traders. These are members of a trade association that adhere to set standards of trading.
- Please refer to the dealer of purchase if you have a warranty claim.
- Sole importer Mission Cycles Kent.

# The Tricycle Specialists

## WARNING INSTRUCTIONS

### Piggyback Trike

Please be aware of the following points before you attach the piggyback trailer to the towing bicycle.

1. Ensure the towing bicycle is supported in an upright position when the passenger is mounting the Piggyback Trailer.
2. The balance of the towing bicycle will be altered when towing and cornering with the Piggyback attached.
3. Maintenance of the towing bicycles brakes must be checked for brake block wear, cable adjustment, bearing in mind the extra weight on the braking system.
4. It is the responsibility of the owner to ensure that the passenger is secure and balanced on the Piggyback.
5. The handlebars must be adjusted for the passenger's arm length.
6. When cornering care must be taken to allow the piggyback trailer to follow the towing bicycle.
7. Do not make sharp right or left hand turns.
8. Be aware of the width of the Piggyback – take care not to hit any kerb or other objects, such as gateways etc.
9. Your cycle dealer will advise you of the suitability of the towing bicycle.
10. The towing clamp attaches to the seat pin. The seat pin must not be in the frame with the insert mark line above the seat tube. This will damage the seat tube of the towing bicycle.
11. **DOUBLE CHECK ALL QUICK RELEASE BOLTS AND FOLDING MECHANISM.**
12. If a backrest with sides supports is fitted, you must check that all the parts are secure every time it is used.

A backrest and self-levelling pedals are available for riders with balance problems. It is advisable that both riders wear a suitable cycle helmet available from your cycle shop.

General maintenance required:

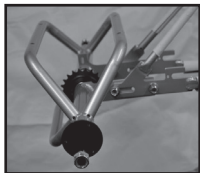
- Chain adjustment
- Wheel cone adjustment
- Tyre care
- Folding joints (where fitted)
- Gears adjustment (where fitted)

Look for the 'ACT' sign, Association of Cycle Traders. These are members of a trade association that adhere to set standards of trading.

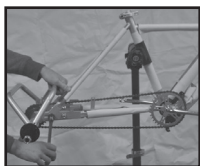
## PIGGYBACK ASSEMBLY INSTRUCTIONS



Parts



**Step 1.** Attach rear frame with the axle, to the front half of frame, with the four nuts and bolts provided.



**Step 2.** Connect chain between front chain ring and rear freewheel. (A chain tool will be needed, not provided). Take the slack out of the chain and tighten four frame bolts.



**Step 3.** Extend front towing arm and secure with QR bolt.



**Step 4.** Attach chain guard with 3 screws.



**Step 5.** Take out nut and bolt from handlebar clamp. Feed the handlebars through clamp and tighten.



**Step 6.** Attach rear wheels with large 22mm nylon nuts. Be very careful not to over-tighten the left hand wheel as this will damage the bearings in the rear axle.



**Step 7.** Attach rear basket with metal plates and nuts and bolts.



**Step 8.** Attach pedals to crank. Note there is a left and right hand pedal indicated by an L or R on the end of each pedal. Left pedal tightens left. Right pedal tightens right.



**Step 9.** Attach saddle to seat post, insert in frame and tighten QR bolt.



**Step 10.** Attach towing hitch/bracket to the towing arm with QR bolt. Then attach to the seat post of the leading bike. Then attach additional safety strap.





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## TRICYCLE MAINTENANCE

Our Tricycles are built in-house and before despatch are thoroughly checked and re-checked.

On receipt of the tricycle, please inspect it. If you find that it is damaged, please contact us immediately.

If the tricycle is to be ridden by multiple children, always check before the next outing -

1. The brakes and wear on the brake blocks;
2. The handlebars, saddle and wheels for tightness; and
3. The tyre pressures (running low will cause flint etc to be picked up resulting in punctures)

A good tip is a very light coating of quality dry lube oil - NOT GT85 on the chain which improves long life.

The tricycle does require general maintenance by a person, who understands cycle mechanics.

Please contact us for any advice if something appears to be wrong and we will be pleased to help.

Nuts will come loose with wear and, if neglected, can become a major problem.

The Haynes Bicycle Book is a recommended read.

Mission Cycles cannot be held responsible for neglect of general maintenance.

Mission Cycles  
01622 815678



## MISSION WARRANTY

Having purchased your Mission tricycle, we hope it will give many years of service.

This warranty applies to bicycles, tricycles and framesets purchased new from an authorised retailer and assembled by that retailer at the time of purchase. All claims must be made through the supplying retailer. Tricycles supplied directly by Mission Cycles Ltd will have recorded the invoice number at the point of sale for validation.

The warranty includes Frames and Forks which are guaranteed for 24 months and other major components for 3 months against faulty manufacture.

The warranty expressly covers faulty workmanship or materials and does not include bent distorted or broken parts arising from misuse or abuse inconsistent with the tricycle's intended use and is therefore not covered.

The warranty does not cover items which are subject to immediate wear and tear, such as brake blocks, pads, tyres, tubes, bearings, gearing, chains or improper assembly, corrosion, improper maintenance or installation of components, parts or accessories not originally intended or compatible with the trike sold, labour charges for part replacement or changeover, trikes used for commercial activities, including those in rental or demo.

Furthermore, the warranty does not cover items against operator error such as accidental damage, abuse, neglect or inadequate maintenance on any part of the tricycle whatsoever, however caused.

The warranty is void in its entirety by any modification of the frame, fork or components.

The warranty is not intended to supersede the owner's obligation to inspect and maintain the tricycle on a regular basis and to replace worn parts as often as required. It is advisable before each ride to check that nothing is working loose such as pedals, saddle, headset, one-piece crank, bottom bracket lock ring.

## PERSONAL INJURY

The user assumes the risk of any personal injuries damage or failure of the tricycle if used in any competitive events.

The warranty does not cover personal injuries damage or failure of the tricycle due to accidental misuse, neglect, abuse or as a result of incorrect assembly not assembled by Mission Cycles.

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You are strongly advised to wear a suitable helmet when riding and some form of reflective or bright over clothing for safety.

**THIS WARRANTY DOES NOT AFFECT YOUR STATUTORY RIGHTS AS A CONSUMER.**  
Please note this warranty relates to Mission Tricycles. For Di Blasi or Mi-Rider, warranty information is included with each tricycle sale. Please contact us if you require further details.



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