



## ***SUPER SAFE TOMCAT TRIKE OWNERS MANUAL***

### **Dear Customer...**

Thank you for choosing a Tomcat™ product. We wish you many years of fun, therapy and usefulness from it.

If a problem occurs, please give us a call. We will be pleased to give help and advice throughout the life of your Tomcat but before you use it for the first time, please read this booklet. It will answer many of your questions and help you get the very best from this innovative product.



**Delivery day at last and not even the rain can spoil it!**

#### **SECTIONS IN THIS MANUAL.**

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Assembly Page 3

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## SAFETY FIRST!



- Always use suitable head protection. Use all safety devices provided with the machine.
- On “Carer Controlled” trikes always use the safety wrist strap if provided (on brake handle).
- On trikes with “trailer” bars, ALWAYS set the clutch to “Free Wheel” when in trailer mode.
- Do not use on steep inclines, heavy cambers, sloping or uneven ground that will cause the vehicle to lean or tilt suddenly. Do not ride over curbs (except drop curbs),
- Before each use, check the Two Piece Frame safety interlock is functioning correctly. Attempt to split the frame by operating the quick release lever only. Do not press the interlock button. If Safe, the frame will not separate. Follow instructions on the warning label.
- Excessive upward or downward force on the steering arm will cause mechanical damage to the arm and may cause steering mechanism failure. Use the arm for steering and light pushing only. NEVER use the arm as a lever, for example, to lift the trike over a high kerb.
- Carer controlled trikes involve two persons. As the carer - think ahead. Anticipate difficulties and steady the trike with the backrest if necessary. Slow down to turn.
- Never *exceed walking speed with carer controlled vehicles.*
- Discourage bad practice such as leaning, by stopping each time it occurs.
- Never leave the rider unattended. Use the park brake for mounting and dismounting only.
- Ensure all adjustments and mechanisms are correct and in good working order before use.
- **IMPORANT** Never allow unattended use of a carer controlled tricycle with the control arm fitted. Slight movement of the handlebars can cause rapid movement of the steering arm which may cause serious eye or face injury to others, particularly small children.
- Custom built tricycles should only be used by the person for whom it was designed and built. Please note the terms of the guarantee.
- Never allow others to take “piggy back “ rides or to stand on the back axle. It is a highly dangerous practice and may cause injury or damage.
- Maintain the correct tyre pressure at all times particularly where the rider suffers poor muscle tone. The correct pressure is printed on the tyre wall

## Notes



**GUARANTEE**

Tomcat SNI Ltd guarantee this product to be free of defects in material and workmanship from the date of original purchase for a period of 2 years. Tomcat additionally guarantee the frame excluding its attachments for a period of 5 years.

Our obligation under this guarantee is limited to repair or replacement of the faulty item or the entire unit at our option, providing it has been properly maintained, has not been tampered with or repaired by unauthorised individuals and in the case of custom built products, has not been used by person(s) for whom it was not originally designed or intended. This guarantee does not cover normal wear and tear, the cost of inconvenience, property damage, abuse, misuse accident or similar incident.

Under these terms Tomcat SNI Ltd will bear the cost of replacement parts and labour charges but not transportation costs unless by prior agreement. Call or write before returning goods under this guarantee. Claims under this guarantee will only be considered following inspection by us or our appointed agent and before any remedial work is undertaken.

This guarantee applies to the original purchaser only and does not pass to any third party through transfer of ownership or custody.

By offering this guarantee Tomcat Trikes Ltd in no way seeks to diminish a consumers statutory rights.

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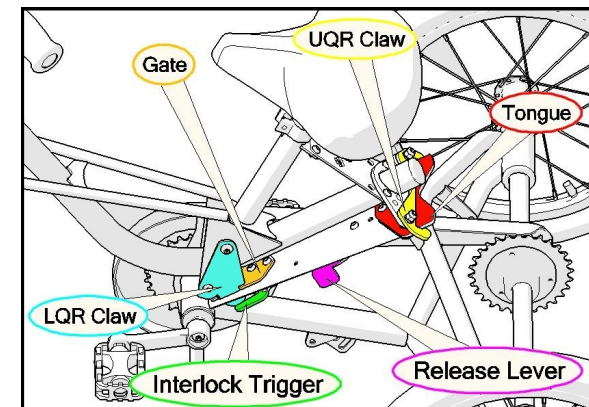
This Trike is the Property of

Supplied .....Order No.....

**TOMCAT ASSEMBLY INSTRUCTIONS**

The frames are attached at two positions called the upper and lower quick release.

- With the lower frame stood on level ground, locate the “**claw**” of the UQR (Upper Quick Release) over the **tongue**, and slide fully into place. Lower the front wheel to the ground. The upper frame will now stand unsupported.
- Hold the Bottom Bracket of the lower frame (Pedal shaft) with the left hand and simultaneously press the **interlock trigger** with the left thumb.
- Raise the lower frame up to meet the upper frame and engage the **claws** of the LQR (Lower Quick Release) fully into the **gate**. (slots in the polished plate)
- Close the **Release lever** by pushing it home (It is home when the lever is retracted under the lower frame spar)
- Release the **Interlock Trigger**.
- **Now test security by pulling the release lever out firmly. It should stop half way. Further movement will be prevented by the interlock. It should not be possible to separate the two frames if the interlock is functioning correctly.**
- Press the **release lever** home once more. Visually inspect the trike to ensure UQR and LQR are both properly assembled and safe.
- The Trike is now ready for use. Separation is a reversal of the above.

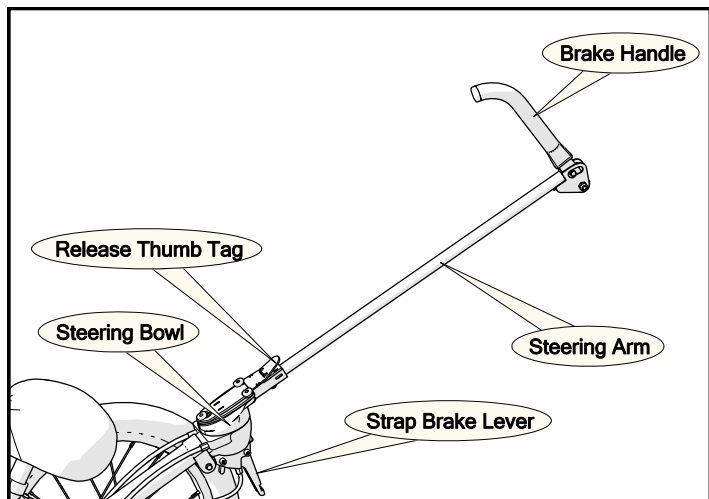




### Setting up and using Carer Controlled Steering.

To release steering arm, press thumb tag down & push steering arm forward.

To re-attach, slot hole over front pin, lay flat on steering bowl top plate & pull back until you hear it click into place.



#### Pushing.

The Tomcat Carer Control arm is a steering device therefore pushing is not recommended except for very light duty such as moving off or training a new user. If it is necessary to push hard, do so with the backrest.

#### NEVER...

- Push forward with the handle when on a tight turning circle. Push with the backrest instead.
- Lift the tricycle with the control handle.
- Tilt the tricycle backwards or lift the front wheel off the ground with the control handle.
- Drag the tricycle forward with the control handle.



### General Considerations

Ensure the park brake is applied, when a rider is getting on or off.

A Carer Controlled trike assumes the Carer is the primary and only decision maker. It assumes that the rider may not be aware of the Carers intentions or what is safe or dangerous and may unexpectedly attempt an inappropriate action, therefore:

- A Carer Controlled trike must ALWAYS be controlled by a carer, who must ALWAYS maintain a grip on the control handle.
- A Carer Controlled trike must NEVER be used at greater than walking speed as safe control is not possible on the run.

A Tomcat is a light, fast trike, intended to get the very best from the human body by seating the rider in the best possible geometrical position, however this may require extra supervisory care therefore Carers should constantly assess the road ahead and take the following appropriate action.

- Be in control at all times. Train the rider that you make the choices, by stopping the trike at each inappropriate influence.
- Avoid potholes, soft, rutted or uneven surfaces.
- Avoid heavy cambers, particularly adverse cambers. Avoid sudden acute cambers such as pavement drop kerbs. Avoid roads with high crowns.
- Discourage leaning by the rider, adjust support if necessary.
- If avoidance is impossible, slow right down through the obstacle, and whilst steering with one hand, use the other hand to steady the trike by holding the backrest. Be prepared to stop the trike if necessary.



## Tomcat Carer Control – Instructions for safe and proper use by new Carers.

In conjunction with the General Safety advice on page 2 of the manual, please be guided by the following.

Before each use, check tyre pressure. This should be between 40 and 45 psi for a Tomcat and 18 to 20psi for a Tiger. Do not use if pressure is outside these limits. Do not use if the tyres show cracks or fissures.

Fully familiarise yourself with Carer Control before putting a rider on the tricycle. In particular, familiarise yourself with braking and negotiating corners. There are three main functions, Steering, Braking and Speed Control.

### Steering

Move the control arm left and right to steer. The action may appear to be counter intuitive at first, but is essential for progressive control and limiting over-steer and will quickly become natural and comfortable to use. Progress to using the trike with a rider on board only when you are comfortable with this function.

New riders and new carers should familiarise themselves with the vehicle on flat level ground before progressing to uneven ground.

### Braking

Hold the handle by the crook at all times. Pull back gently to brake.

### Speed Control

Practice applying the brake and using the brake as a speed control device on hills or when the rider is pedalling too fast. *(To do this, hold the handle **steadily** by the crook and simply walk at your preferred speed. The trike will adjust to that speed automatically by applying greater braking force as the trike attempts to go faster than your walking speed.)*

## Braking.

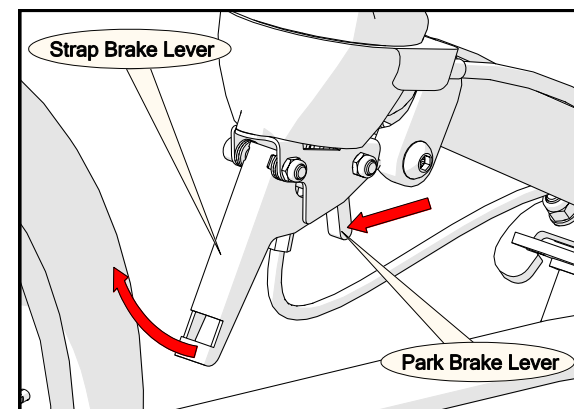
To brake the Tomcat, pull back on the brake handle.

### Speed Control.

To control the speed, hold the handle at the top with fingers wrapped about the crook of the handle and walk normally. When the trike accelerates away, don't brake or try to keep up. Let the trike pull the brake lever on, against the resistance of your fingers. It will slow down to your walking speed because of the articulated brake design. When you are both at the same speed again the brake will release.

### Park Brake.

Apply the park brake by pulling back on the strap brake lever then pulling the park brake lever towards you. To release the park brake simply pull back on the strap lever again and the park brake will release.



Always check the brake is free before moving off. Only use the park brake to prevent motion during mounting and dismounting.

### Foot supports (Footshoes).

Always use a backrest and waist strap when using footshoes with straps.

When the ankle is weak or tendons are tense, the foot may tend to tilt on the pedal, causing the toe or heel to point down.

Tomcat Footshoes can correct or reduce this tendency by moving the footshoe forward or backwards until the natural point of balance is found. Thereafter the foot will be kept in that exact position every time the trike is used. It can also be





Callipers, where specified, clip in on the plate at the back of the footshoes. To remove press button located at the back underneath the plate and tilt calliper backwards.

- Avoid soft soled shoes such as trainers. Support Boots, Ski boots and even stiff Welly Boots are much better and will correct many “floppy ankle” issues.
- Tomcat Footshoes are [supplied with the straps correctly assembled](#) but may need adjustment. Proceed as follows:
- With the hook and loop pads pressed together place a shoe on the pedal platform with the toe against the front inner edge, then adjust the strap to fit the shoe by adjusting the “Tri slide at the instep”.
- To relocate the footshoes, slacken both nuts beneath the shoe and move to the required position. Re-tighten the nuts before use.

#### Clinical Adjustment of the footshoes.

Observe each foot as the rider pedals. Ideally the ankle should stay square. See the sketch.

- If the toes [consistently](#) point down, slacken the clamp and slide the footshoe backwards until the angle of the ankle is corrected.
- If the riders heel [consistently](#) points down, slide the footshoe forwards until the angle of the ankle is corrected.
- Note! “[occasional](#)” tilting of the toes or heels is quite normal and requires no corrective action.



## Steering adjustment.

If backlash develops in the steering system, turn the cable adjuster located on the steering Bowl anticlockwise by one turn only. [Adjust again if necessary but do not over-tighten.](#)

To check the backlash, hold the handlebars firmly, then gently move the steering arm from side to side.

#### Brake.

Adjust the front brake with the adjuster screw so that each brake shoe is 1 - 2 mm from the wheel rim. Spin the wheel to confirm the brakes are not binding and re-adjust if necessary.

#### Every Year.

Lubricate the front wheel bearings, chain, jockey pulley and pedal bearings with 15W40 motor oil. Rear axle bearings are greased and sealed for life and cannot be lubricated.

Turn the trike upside down and spray inside the steering bell (above the forks) with light oil turning the steering as you do so. Lubricate the working parts of the front brake and the upper steering fork bearing race whilst in this position.

#### Every five years.

Strip and re-grease steering head tube bearings, off side free wheel bearing, steering motor internal mechanism. Renew steering cable and brake cable.

Five year service or essential repairs to the steering system should only be conducted by qualified persons who are following a Tomcat maintenance worksheet with a service kit from Tomcat Trikes as some components cannot be re-used.

#### Laying up for winter.

Wash with soapy water and dry thoroughly. Spray all surfaces with a spray lubricant such as WD40. Store off the floor in a dry, well ventilated space.



Rider compensating for discomfort in another part of the body.

Examples include unequal arm reach due to wrist or elbow problems, forced straightening of a twisted joint for example an ankle or knee, or forced over extension of a joint with restricted range.

Consider the riders physical disabilities as this will usually guide you to the cause of the problem but if you cannot resolve it by simple adjustment consult your Physio or Tomcat or visit FAQ's at [www.tomcatuk.org](http://www.tomcatuk.org) before continuing. **Note:** Tomcat can usually identify the problem by video.

**The trike pulls to one side or is difficult to steer.**

The rider is fighting you for steering control and winning. Usually it is excitement and they will settle down, but if the problem persists, contact Tomcat.

**The Chain jumps off the sprocket.**

Sudden back-peddalling with a loose chain will cause this problem. Adjust the chain as described below.

**MAINTENANCE.**

**General Care.**

Do not leave the trike out in the rain. Dry the trike if it becomes wet. Do not subject the trike to extremes of heat or ultraviolet light, for example in an un-shaded, un-ventilated conservatory. Keep the tyres properly inflated.

**Chain. If the chain becomes slack:-**

Using a 10mm spanner & 5mm Hex Key slacken the bolt that locks the pulley in place on the kidney slot and move it as necessary. Check there are no tight spots with the new position. Re-adjust if necessary.

**Headset Bearing (Steering Column Adjustment). If the headset bearing becomes slack:-**

Slacken the large Hex nut, slacken the lock nut and turn down the knurled nut until a little slackness can still be felt and do up the nuts once more. Re-check for a slight slackness. If it has been taken up by tightening, re-adjust until slackness is detectable. Note that over-tightening these bearings will cause premature failure.



- If the ankles are very stiff it may not be possible to rectify the problem by adjustment, however moving the footshoe to an extreme position may induce a higher tension in the muscles as the user pedals. This may in itself be therapeutic as the muscles tense then relax during the pedalling cycle . Usually the toes will point down if ankles are stiff therefore the therapy is to move the footshoes as far back as possible. See website FAQ's for more details on these issues.

**Adjusting the saddle height.**

To adjust the saddle height, slacken the clamp (5mm allen key) which grips the saddle post to the tricycle frame. Raise or lower the saddle until the adjustment is correct (See picture below)

Ensure the horizontal backrest bar is in line with the trike frame after adjustment.

Not less than 3" (75mm) of the saddle post must remain in the trike frame. If more height is required; consult your supplier. Extended saddle posts and frame sections are available if safe for your application. Consult your Physio when making adjustments

**TIP...** A child's trunk or bottom that moves from side to side across the saddle during pedalling can indicate a badly adjusted saddle – usually its too high.



**WRONG!**  
Saddle too high.



**CORRECT.**



**WRONG!**  
Saddle too low.





### Security backrest.

To make it easier to get the rider on and off a Tomcat you can remove either arm from the backrest.

To remove either arm; slacken the black clamp screw on the back of the backrest "Tee" bar, and pull the arm from its socket.

The "gap" between the arms can also be adjusted in this way but at least 1.5" (40mm) of arm MUST remain in the "Tee" bar socket. If a greater "gap" is required contact your supplier who can supply wider arms.

### To adjust the backrest settings.

Seat the rider in a comfortable position then adjust the backrest front to back until the backrest pad just touches the spine. (Slacken the locking screws (5mm Allen key) on the backrest support pillar until the backrest can slide. Use assistance if required to support the rider whilst the backrest is being adjusted.

### Adjusting The Backrest Height.

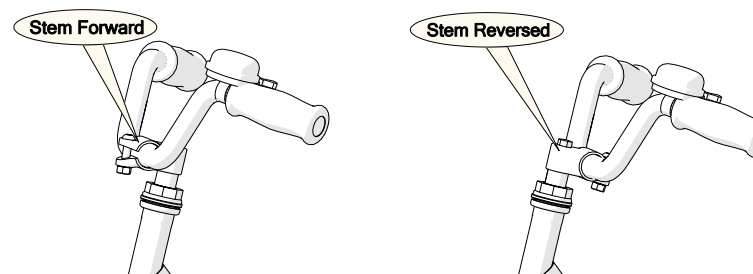
Slacken the clamp on the backrest pillar (13mm spanner and 5mm allen key). Raise or lower the backrest as required then re-clamp firmly.

### Adjusting the handlebars.

Ideally the rider should sit straight backed with forearms horizontal in the classic "sit up and beg" position. Adjust the handlebar height and angle so that the body profile is as close to the ideal as possible.

Note.

- The handlebars can be raised and lowered by slackening the stem clamp. (13mm hex)
- The handlebars can be brought closer or sent further away by turning them in the handlebar clamp (13mm hex).
- If necessary they can be brought closer still by re-assembling the handlebars with the handlebar clamp pointing towards the rider instead of away from them. To do this, remove one handgrip (soak in hot water), remove the stem and turn it around as shown in the sketch below.



### "Tom Riley" Handlebars (straight bar)

Tom Riley type handlebars are used where "close up" handlebars, or "rocking" handlebars are required as they have a large arc of movement. Adjust height as previously described. To adjust front to back position, slacken the horizontal through bolt where the handlebars attach to the stem and rotate to the desired position. Re-clamp firmly.

For certain disabilities custom built handlebars are required and built to order. Contact Tomcat for advice with special items.

### Riding problems and their solutions.

#### **The rider is sliding forward on the saddle.**

There are many reasons for this including:

- Saddle height too high or low.
- Handlebars too far away.
- Back support too far forward - or too low!
- Pommel of saddle too low.
- Poor muscle tone or other physical condition considerations.

Check the above adjustments and if necessary raise the saddle pommel to discourage the practice. If the problem persists consult Tomcat.

#### **The trike suddenly jerks or stops, as though something is catching.**

New riders commonly experience this problem because they are excited. They push down on the rising pedal before "top dead centre" thus causing the trike to jerk or stop. Practice usually solves this problem but a little more speed can help with co-ordination, until they settle down.

#### **Sitting skewed or lop-sided on the saddle.**

This problem can be difficult to identify, but is usually caused by the