

CHILD STOKER KIT

TOOLS NEEDED

4mm allen wrench
5mm allen wrench
14mm socket wrench
Chain tool
Shimano bottom bracket cup tool
Crank arm puller
Pedal wrench
Additional tools required depending on your tandem

PARTS IN KIT

Child stoker aluminum bottom bracket shell with 4 allen bolts
129mm tapered square sealed bottom bracket
125mm 38T child crankset w/bb bolts & dust caps (115mm bolt circle)
Nylon shim (28.6/1¹/₈, 31.8/1¹/₄, or 35.0/1³/₈)
Additional parts required depending on your tandem

OPTIONAL PARTS

Santana adjustable reach stoker stem (150 – 185mm)
Santana adjustable reach stoker stem (185 – 215mm)
Santana adjustable reach longer boom (185 – 215mm) (for existing stem)
ASX-50 adjustable stem (2" arc)
Crank arm shorteners for narrow crank arms
Crank arm shorteners for wide crank arms
Child drop bars
? Child mountain bars

INSTRUCTIONS

1. Remove the pedals from the rear crank.
2. Remove the timing chain by loosening the bolts on the bottom of the front bottom bracket shell and rotating the eccentric and front bottom bracket towards the rear of the bike.
3. Remove the rear, left timing crank.
4. Remove the timing chain ring bolts.
5. Install a 38 tooth chain ring to the inside or outside of the existing timing chain ring with greased, chain ring bolts. This chain ring must have the same number of teeth as the child stoker chain ring.

Longer chain ring hardware may be required.

There must be clearance between the two chain rings for the chains to pass each other. This can be accomplished by flipping the chain rings, if they're not symmetrical, or using washers.

The chain line must be correct from the rear timing chain ring to the front timing chain ring, and from the 38 tooth chain ring to the child stoker chain ring.

6. Loosely place the child stoker bottom bracket shell assembly, with greased bolts, on the front of the rear seat tube with the appropriate size nylon shim.

7. Install the child stoker bottom bracket into the child stoker bottom bracket shell, with the long end of the spindle on the timing chain side, using grease on the bottom bracket cup threads.

The bottom bracket cup on the left hand side of the bike has right hand threads and tightens clockwise. The cup on the right hand side of the bike has left hand threads and tightens counterclockwise.

No cup lockrings are necessary.

8. Tighten both child stoker bottom bracket cups firmly, roughly aligning the child stoker chain ring with the 38 tooth chain ring. (Do not install the child stoker crank, yet.)
9. Install the child stoker crank arms with grease on the tapered square spindle.
10. Check and adjust the chain line. The child stoker chain and the timing chain should not rub each other. (Do not install the chain, yet.)
11. Place the dust caps over/around the crank arm bolts, and tap into place.
12. Install pedals with greased threads on the child stoker crank arms.

Caution: Be sure the pedals have been removed from the rear crank arms.

13. Take the inseam measurement of the child by having him stand, without shoes, against a wall. Have him hold a book between his legs, making sure it is firmly placed, similar to sitting on a bicycle saddle. Measure from the top of the book to the floor.
14. Adjust the top of the stoker saddle to the height of the stoker bars.

Be sure the stoker seatpost is not extended from the frame past the limit line.

15. Adjust the child stoker bottom bracket assembly with the child stoker crank vertical, by using the child's inseam measurement from the top of the saddle to the top of the lower pedal. Do not tighten the assembly, yet.

Caution: Never mount the child stoker bottom bracket shell so the child stoker chain ring is higher than the top tube.

Caution: Be sure the child stoker bottom bracket shell and crank arms do not interfere with the front derailleur.

16. Attach a chain to the child stoker chain ring and the 38 tooth chain ring, using a Quick-link or link with the specified drive pin.

Caution: The child stoker and rear timing crank arms must be in phase.

17. Adjust chain tension, making sure the child stoker chain ring is parallel to the other chain rings, and tighten the four child stoker bottom bracket shell bolts evenly and firmly.

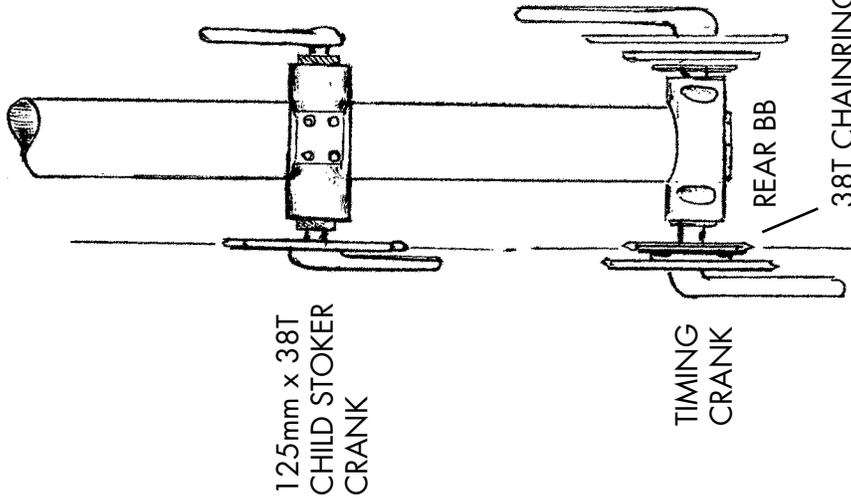
It may be necessary to rotate the cranks in order to find positions where the chain is loose and tight, so chain tension can be properly adjusted. (Not all chain rings are perfectly round.)

Caution: Do not over tighten. Over tightening can crush the seat tube.

18. Check all bolts for proper tightness.
19. Final sizing can be done by adjusting the seatpost height.

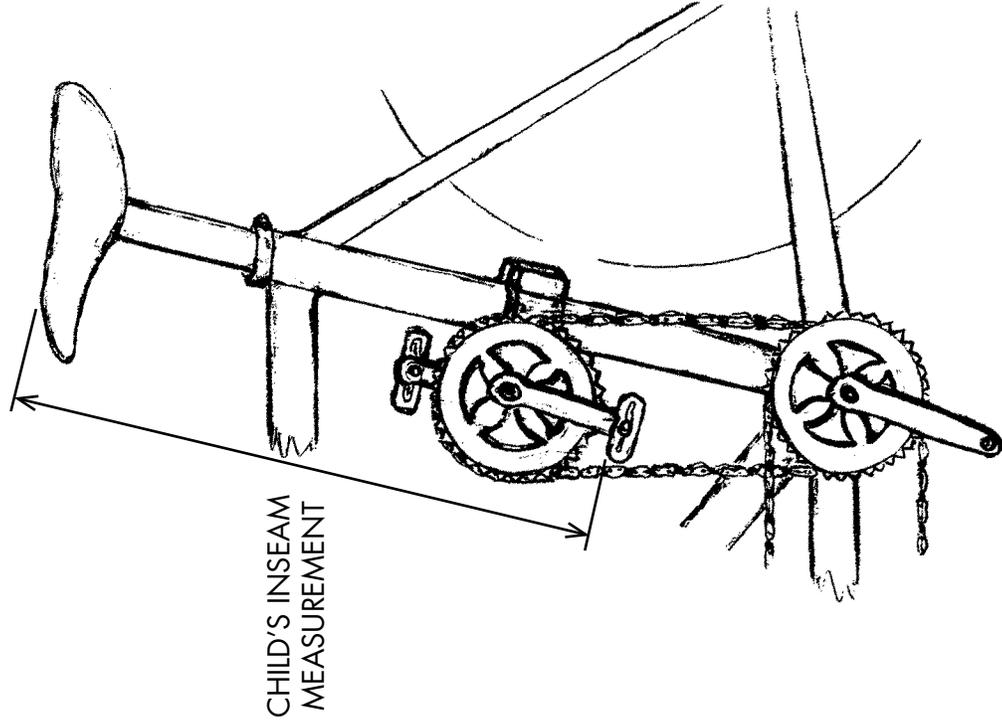


SEAT TUBE FRONT



38T CHAINRING
INSTALLED INSIDE OR OUTSIDE

CHILD STOKER KIT
CHAIN LINE



CHILD STOKER & TIMING CRANK ARMS
MUST BE POSITIONED
IN PHASE AS SHOWN

