



Tank Rubbing Troubleshoot 21Sep10

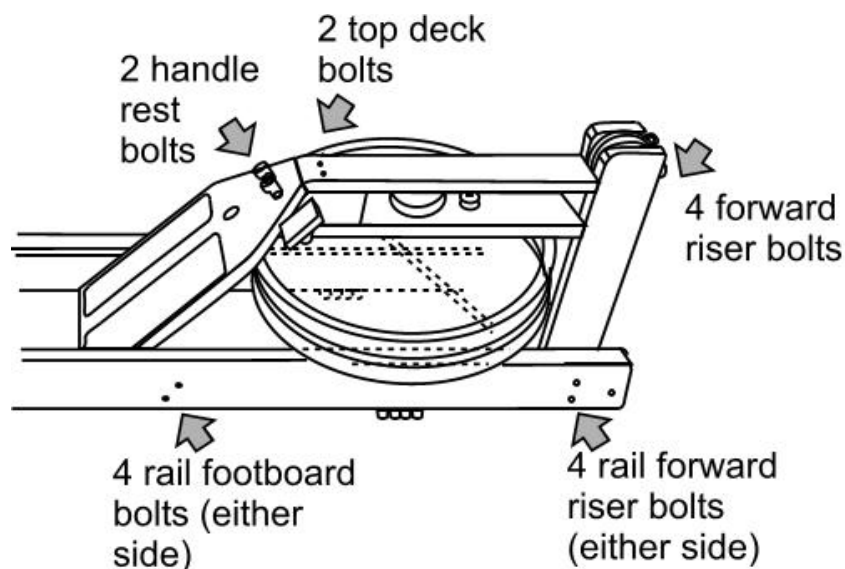
If you are experiencing a low pitched rubbing noise coming from tank (especially at low speeds), may be due to the paddle is rubbing inside of tank

This can be due to movement of the components connections or even movement of dimensions of the wood due to moisture changes

Rectification is quite simple;

Solution 1- Loosen and Retighten Bolts

STEP 1- Using the 5mm allen key, loosen (but do not remove) all 16 bolts that hold the tank. This includes 2 handle rest bolts, 2 top deck bolts, 4 forward riser bolts (below bumpers on front end), 4 bolts that hole bracket to rails (near dolly wheels), 4 bolts that hold footboard to rails.



This allows tank to settle into position if any of these components have come out of position during shipping, moving or assembly. Often you will hear the tank relocate when this is done



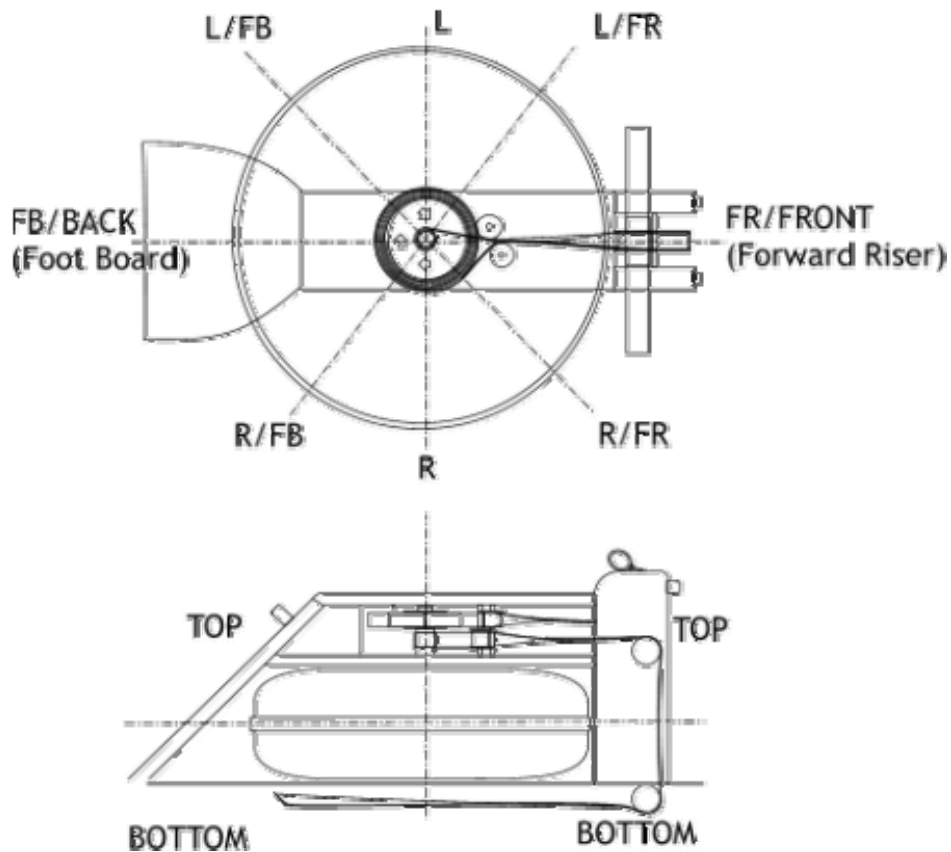
STEP 2- Re-tighten all bolts and test. The correct sequence of tightening is;

1. 4 Forward Riser Bolts
2. 4 Rail Footboard Bolts
3. 2 Handle Rest Bolts (do not over tighten)
4. 2 Top Deck Bolts
5. 4 Rail Forward Riser Bolts

Should this fail to rectify the fault we suggest that you do it once to achieve desired results.

Solution 2- Re-Align Components

If wooden components have moved then the paddle can become misaligned inducing rubbing. It is possible to manipulate the various components and add spacers (where necessary) to resolve issues. It is necessary firstly to identify where the paddle is rubbing, as each position may require a different check/action. This diagram shows tank position referencing





FR/FRONT is the Forward Riser End- at the front of the Tank where the Dolley Wheels are located

FB/BACK- is the Footboard end of the Tank, where the Foot Board is located

L- is the left side of the tank (as view when sitting on the seat)

R- is the right side of the tank (as view when sitting on the seat)

Top- is the upper surface of the tank connected to the bottom Deck

Bottom- is the lower surface of the tank, sitting on the rails

Rubbing L or R, Top or Bottom

This can be caused by mis-alignment of the top and bottom decks and is rectified as follows;

If the Paddle is rubbing on the Top Left OR Bottom Right;

- Loosen the bolts- 4 Forward Riser Bolts, the 4 Rail Footboard Bolts, the 2 Handle Rest Bolts and the 2 Top Deck Bolts
- Push the Top deck to the left (as viewed sitting on the seat) and the bottom deck to the right. You should notice the paddle move away from the area of the tank that it is touching
- Retighten Bolts in the series as shown above

If the Paddle is rubbing on the Top Right OR Bottom Left;

- Loosen the 4 Forward Riser Bolts, the 4 Rail Footboard Bolts, the 2 Handle Rest Bolts and the 2 Top Deck Bolts
- Push the Top deck to the right (as viewed sitting on the seat) and the bottom deck to the left. You should notice the paddle move away from the area of the tank that it is touching
- Retighten Bolts in the series as shown above

Rubbing FR/FRONT or FB/BACK, Top or Bottom

This can be caused by misalignment of the Forward Riser and the top and bottom decks, by the position of the Forward Riser to the top and Bottom Decks, or by the foot Board Positioning and is rectified as follows;

If the Paddle is rubbing on the Front Top OR Back Bottom;

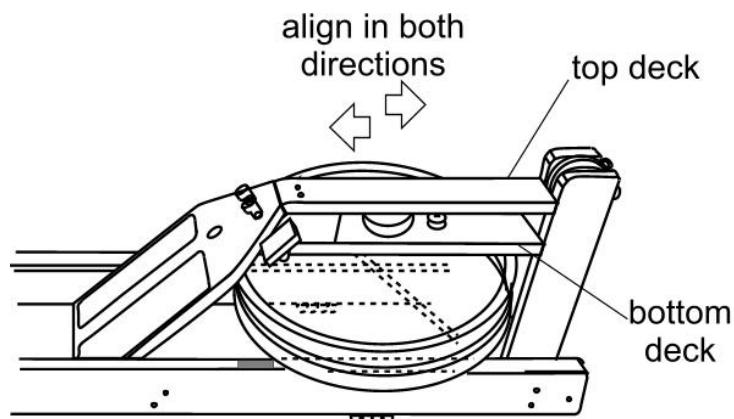
- Loosen the - 4 Forward Riser Bolts, the 4 Rail Footboard Bolts, the 2 Handle Rest Bolts, the 2 Top Deck Bolts and 4 Rail Forward Riser Bolts
- Push the top deck towards the footboard and insert the shim provided between the top deck and the forward risers



- Tighten all the bolt in the sequence as instructed next. The 2 handle rest bolts the 4 rail footboard bolts, the 4 forward riser bolts then the 4 rail forward riser bolts

If the Paddle is rubbing on the Front Bottom OR Back Top;

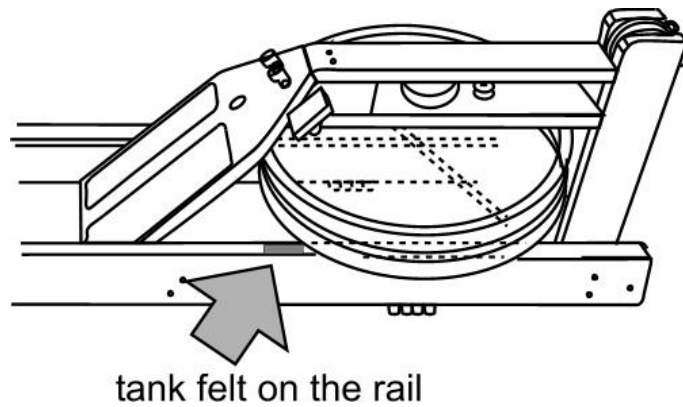
- Loosen the bolts- 4 Forward Riser Bolts, the 4 Rail Footboard Bolts, the 2 Handle Rest Bolts, the 2 Top Deck Bolts and 4 Rail Forward Riser Bolts
- Push the bottom deck towards the footboard and insert the shim provided between the bottom deck and the forward risers
- Tighten all the bolt in the sequence as instructed next. The 2 handle rest bolts the 4 rail footboard bolts, the 4 forward riser bolts then the 4 rail forward riser bolts



For example: If paddle is hitting on the top, inside of the tank under footboard, top deck should be moved closer to rower and/or bottom deck toward the front, to aim paddle toward the front. You can test by rowing with bolts loose. Tighten all bolts (being careful not to over tighten handle rest bolts as damage to plastic can result) and test. This procedure may need to be repeated in order to achieve desired results.

Option 3- Pack the Tank

If the above realignment procedures do not work, this problem can be sometimes be solved by adding “shims” under the tank to “lift” it, usually extra pieces of the felt that lines the rails.



Tank must be removed from rails to do this. Be careful not to lift tank with water in it as weight of water will separate tank from bottom deck.

Should the above solutions not work, or works while bolts are loose, but tightening bolts throws off alignment, there may be a defect in one of the wooden components holding tank including bottom deck, forward risers, rails, and/or footboard.

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