502 W. Montgomery STE 120 Willis, TX 77378 PH: (800)827-2017 FAX: (888)898-8974 <u>www.TuffTread.com</u>

Zero Load Motor Adjusting Belt Tension Properly TREADMILLS <u>WITHOUT</u> IDLER PULLEY

Front View of Drive Motor

Both drive belts must be tensioned as equally as possible!

Whether the drive belts have relaxed and become loose or you have had to replace parts such as a walking belt, drive roller, motor, etc... eventually, the drive belts on your Tuff Tread treadmill will need to be adjusted or replaced.

Tuff Tread treadmills utilize a zero load configuration that greatly reduces strain on, and increases the life of, the drive motor. The zero load configuration is illustrated in the diagram, above.

Both drive belts need to be tensioned as equally as possible. If either drive belt is tensioned improperly, or continued adjustments are made to one drive belt without checking to ensure that equal tension is maintained, damage may be done to your drive motor. This may include damage to the motor bearings, a bent motor shaft which will create a bad vibration, or even a completely broken motor shaft (which is almost always unrepairable).

The warranty on a Tuff Tread treadmill covers defects only, so damage that is done from improper drive belt adjustment is not covered under the manufacturer's warranty.

Please remember these two simple rules to proper drive belt adjustment:

- 1. Only keep the drive belts as tight as is needed to prevent them from slipping.
- 2. Keep the tension on both drive belts as equal as possible.



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Drive Belt Replacement No Idler

After replacing the drive belts on the Tuff Tread Fitness treadmill, it is very important to adjust the belts to the correct tension. **Over-tightening the drive belts will cause the motor shaft to snap and void the warranty.**

Before beginning this procedure, start the treadmill and raise it to the full 15% elevation. Pull the emergency stop magnet off to "freeze" the treadmill in this position, then unplug the power cord. This will make it easier to access the bolts on the underside of the motor compartment.

Remove the hood and locate the eight bolts holding the motor and the flywheel down to the floor of the motor compartment. Loosen, **but do not remove**, all eight bolts.



There are two steps in adjusting the drive belts after a belt or motor replacement:

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Step 1: Tighten the motor belt and bolt the motor down to lock it into position. Step 2: Loosen the flywheel belt and bolt the flywheel down to lock it into position.

Step 1 – Tighten the Motor Belt

Locate the long tensioning bolt that runs from the front edge of the treadmill to the front edge of the motor pallet. If your treadmill model does not have a tensioning bolt, see the note on page 4.



Use a $\frac{1}{2}$ " socket wrench to tighten the tensioning bolt just enough to remove the belt slipping. Check the tension on the belt that runs from the motor to the front roller by twisting or wiggling it. You should be able to twist the belt about 90 degrees.



If you wiggle the belt up and down, there should be at least $\frac{1}{2}$ " of play. Be careful not to over-tighten the motor belt. **Over-tightening the motor belt will cause the motor shaft to snap and void the warranty.**

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When the motor belt has the correct tension, tighten **only** the four bolts that hold the motor to the floor of the motor compartment. Do not tighten the bolts that hold the flywheel in place at this time.

Step 2 – Loosen the Flywheel Belt

Use a $\frac{1}{2}$ " socket wrench to **loosen** the long tensioning bolt. This will loosen the tension on the flywheel belt. You will notice that the flywheel bracket has tilted up from the motor compartment floor as much as $\frac{1}{4}$ ". This is normal. When the flywheel belt has been **loosened** enough, you should be able to twist the belt at least 90 degrees **before** you bolt the flywheel down to the compartment floor. The up-and-down play on the flywheel belt will be a bit more than the play on the motor belt – about one inch total. **Over-tightening the flywheel belt can cause the motor shaft to snap and void the warranty.**



When the flywheel belt has been loosened to the correct tension, tighten the four bolts that hold the flywheel to the floor of the motor compartment.

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Watch the drive belts to **make sure they are running straight and parallel to each other**. Go to the back of the machine and sight down along the foot rail. That is the best way to tell if the belts are parallel. If the belts are not parallel to each other, they can "walk" off of the pulley and tear themselves up. That damage would not be covered under the defective-parts warranty.

When the belts are straight, plug the treadmill into the appropriate wall outlet, and replace the stop magnet on the display. The treadmill will automatically lower itself to zero elevation. Start the treadmill and test the walking belt for slippage:

- Walk on the treadmill and attempt to stop the walking belt by throwing your weight into it with each step. If you cannot stop the walking belt this way on the first attempt, the drive belt may be too tight. An over-tightened drive belt will snap the motor shaft.
- Follow the above procedures to loosen both drive belts, and test the belts for slippage again. Once the belts are loose enough to slip, tighten them a little at a time just until the slipping stops.

If there is no tensioning bolt:

The motor and flywheel are still bolted down with 8 bolts through the bottom of the motor pallet, but your treadmill will have an idler roller on top of the belt that runs from the motor shaft to the drive roller. Also, your treadmill will not have the long tensioning bolt in the front. Instead, you will have a hole in the pallet by the edge of the flywheel base that you will put a screwdriver or pry bar into to pull the flywheel towards the front of the pallet.