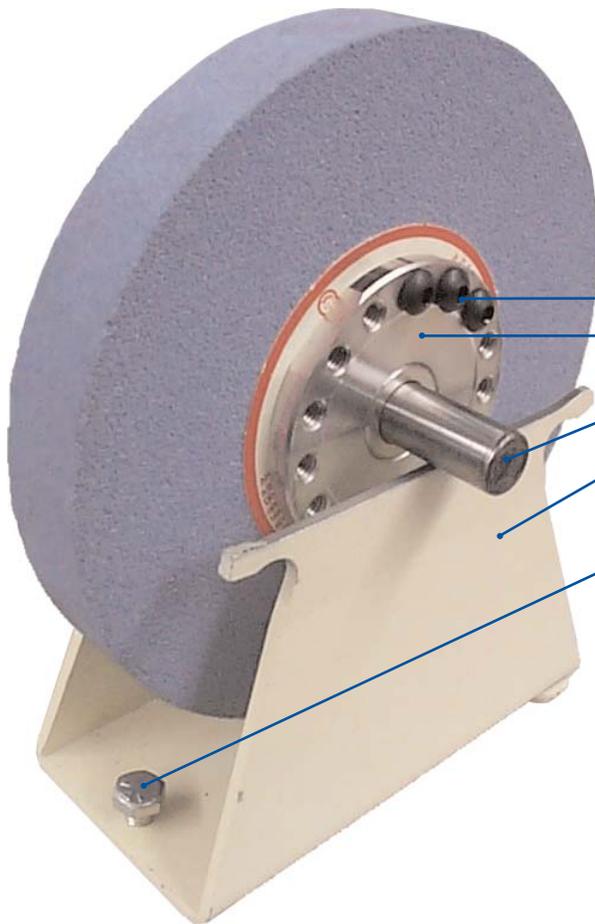


Wheel Balancing



Contents of Package

- 14 Screws
- 2 Flange Assemblies
- 1 Hardened and ground pin
- 1 Balancing fixture with edge protection guards
- 1 Allen Key
- 1 Level Adjustment Bolt

Sharp tools are important for the Woodturner. For best results, wheels must be balanced and dressed. This package contains everything you need to balance your wheels, however to optimize the balancing process, a form of wheel dressing is strongly recommended.

A properly balanced and dressed wheel will enable the following to be achieved:

- *Vibration will be reduced dramatically* •
- *Grinding your tools will be easier* •
- *You will get better edges* •
- *Your grinding wheels will last longer* •

We suggest reading all of these instructions before beginning.

Balancing your wheels consists of two steps:

1. Levelling the Balancing Fixture
2. Balancing and dressing the Wheels

1. Levelling the Balancing Fixture

1. Set the balancing fixture on a solid surface and place the ground pin across at 90 degrees, see Figure 1. Turn the levelling screw up or down until the pin stops rolling on the fixture, somewhere away from the end. You are now rough level.
2. Mount the wheels on the flange assembly. To tighten the flange nut, gently grip the flange across the flats in a vice and rotate the wheel to snug only.
3. Put the ground pin through the wheel flange and carefully set the assembly on the fixture. Allow it to roll until it stops somewhere away from the end of the fixture. You may have to reposition several times. If the wheel will not stop rotating, you did not get your rough level close enough - adjust up or down accordingly.
4. When the wheel has settled to stop, with a pencil, mark top dead centre on the wheel, see Figure 2.
5. Carefully pick up the wheel and flange assembly, turn it 180 degrees and set it down again. If top dead centre mark stays top dead centre, you are level. If not, adjust to compensate as per Figure 2.

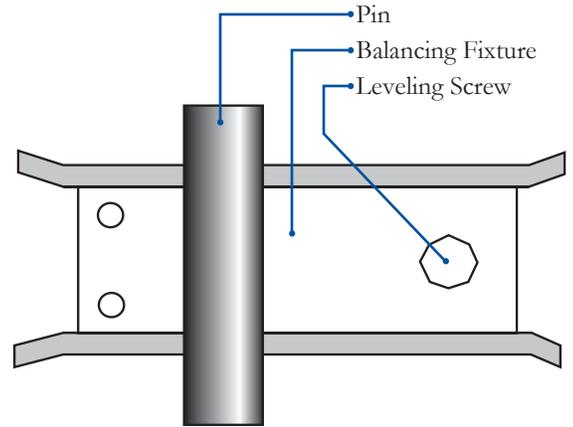
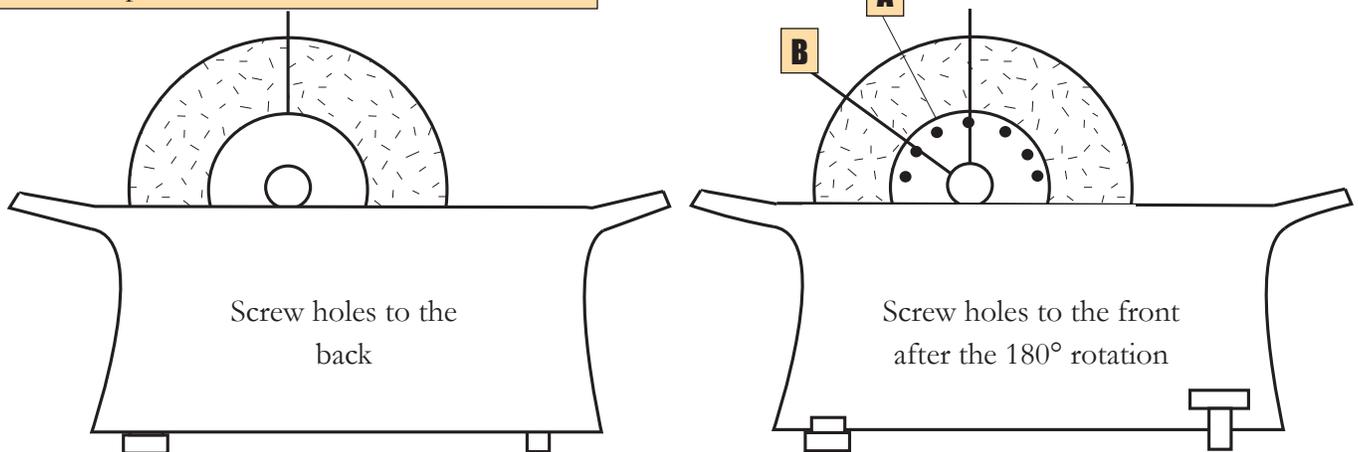


Figure 1.

You are now sufficiently level to continue with the balancing procedure.

Mark this position, then rotate the wheel 180°



If the wheel rolls after the base was rotated 180°, adjust the levelling screw until the mark you made moves to a position half way between top dead center (A) and the new position the wheel rotated to (B).

Figure 2.

2. Balancing and Dressing the Wheels

Start balancing by placing two screws next to the horizontal line above centre, see Position 1, Figure 3.

- If not balanced, add a screw to each position 2
- If overbalanced remove the screws from position 1
- If not balanced, add a screw to each position 3
- If not balanced, add a screw to position 4

Experimentation and common sense are the only ways to determine the correct combination of screws to achieve the final weight balance for your wheels.

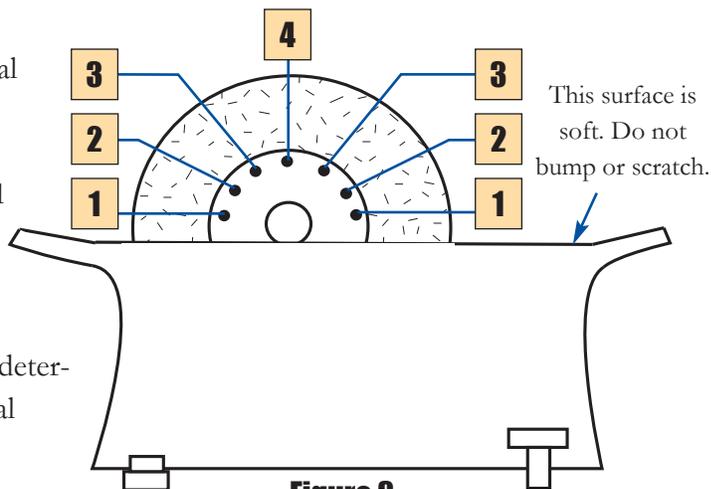


Figure 3.

Now dress the wheel round using Oneway's Wolverine Grinding Jig and Dressing Jig (refer to page 4 for more information on these products). During dressing it is possible that the grinder will start vibrating again. This is because the initial balancing operation compensated for :

- out of round wheels
- wheel density
- thickness side to side variation of the wheel

After dressing, the wheel will no longer be out of round so you must balance again. This step compensates for wheel density and wheel thickness variation.

To rebalance, remove the wheels from the grinder, remove all weights and start balancing from the start.

Two extremes may occur with grinding wheels:

- i) if a wheel will not balance with 7 screws on one side of centre, it is so out of balance that it should be discarded or returned to where you bought it.
- ii) if what you have marked to be top dead centre continuously changes, then you are the rare case and you have balanced wheels! You must then dress your wheels and re-check them for balance.

Notes

1. Occasionally, after setting the wheel on the balancing fixture, it will roll all the way to one end. This indicates that your wheels are balanced, but the fixture is not perfectly level.
2. Flange marked "R" is to be mounted on the right hand side (when facing the grinder) of the grinder, flange marked "L" on the left side of the grinder and the nut side of the flange assemblies to be on the outboard. For the right hand, turn the wheel clockwise when mounting. For left hand, turn the wheel counterclockwise when mounting.
3. Only rarely do the wheels need to be re-balanced during their lifetime provided careful dressing is practiced regularly.

If you have any questions about this, or any other ONEWAY product, feel free to call and talk to one of our representatives at 1-800-565-7288.

Related Products

Wolverine Grinding Jig

The WOLVERINE Grinding Jig is the key component of the ONEWAY WOLVERINE line of grinding products.

Producing razor sharp tools and finely finished bevels has moved from an art into a science.

Our Grinding Jig can be easily used to sharpen the following tools:

- skewes
- scrapers
- bowl gouges
- roughing gouges



The WOLVERINE will speed up your grinding, give you sharper tools, and prolong the life of both tools and wheels.

Order No. 2291

Wolverine Dressing Jig

ONEWAY's Dressing Attachment provides the Turner with a simple and exact tool for the precision dressing and truing of grinding wheels.

Grinding wheels must be dressed to keep them sharp and clean. Grinding wheels, like sandpaper, become dull with use; the grit breaks down and becomes dull. If grinding wheels are not sharp, they begin rubbing rather than cutting, which results in increased friction. Higher temperatures and burned tools are the result. Wheels must also be kept free from metal particles that build up during sharpening. Like sandpaper that gets clogged with sawdust during sanding, grinding wheels become clogged with metal particles during grinding.



Order No. 2292

Manufacturers Warranty

Date Purchased: Purchased From:

This Oneway product is backed by a warranty period of **2 years** from the date of purchase.

Oneway hereby agrees to repair or replace, any defects due to faulty material or workmanship, provided that:

1. The warranty period has not elapsed. Proof of purchase date (sales receipt etc.) is required prior to any repair taking place.
2. The product has not been altered or modified in any way.
3. The product has not been subjected to misuse, abuse, negligence, or was not used strictly in accordance with these instructions.
4. Transportation costs incurred in returning the product to Oneway Manufacturing is pre-paid by the customer.

This warranty does not cover any costs or damages arising directly or indirectly from the operation of this product.

No other guarantee, written or verbal, is authorized by Oneway Manufacturing.

Our policy is one of continuous improvement. We therefore reserve the right to change the specification and/or design without notice.