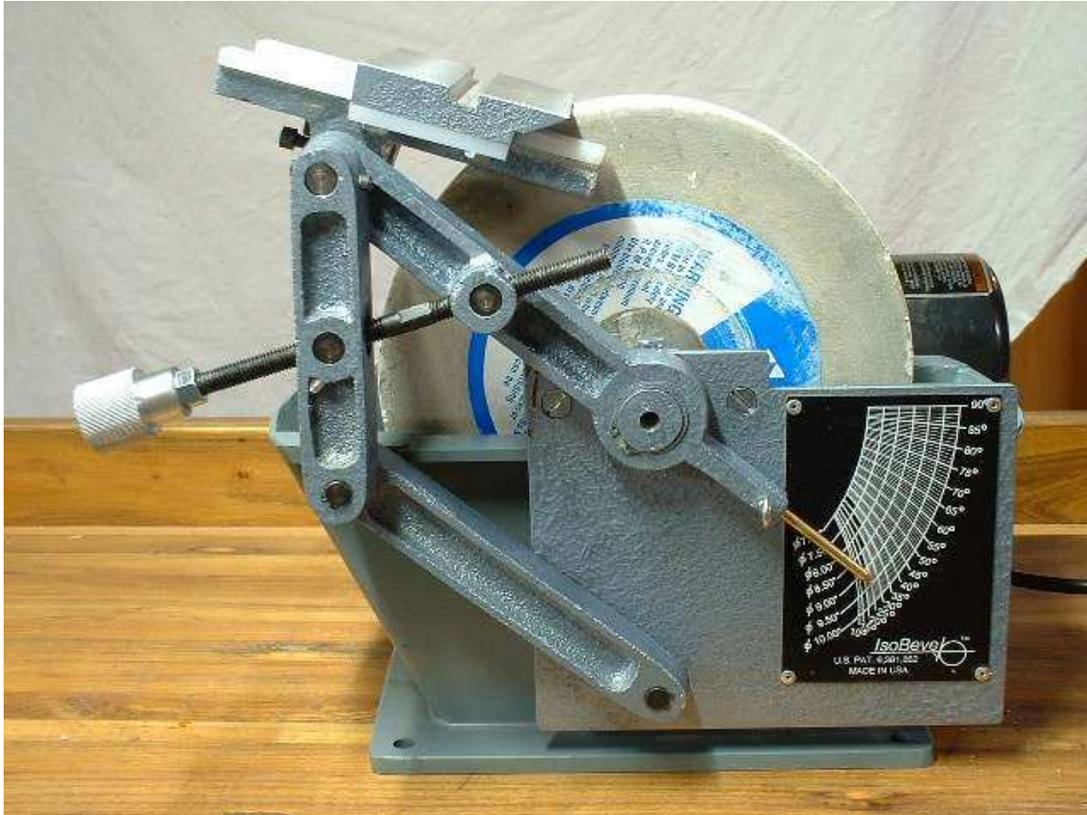


IsoBevel™ Grinder/Sharpener Retrofit Kit for Delta 23-700

([U.S. Patent 6,381,862](#))



NOTICE

This product is not endorsed by Delta® or Tormek® and the buyer assumes all risk and liability for its use. In no event shall the seller, builder or inventor be held liable for damage or injury to persons, property or equipment that occurs as a result of using this product. Installation of this product implies acceptance of these terms. Do not install this product if you do not accept these terms.

This retrofit kit is designed to be easily and quickly installed on the Delta® 23-700 Universal Wet/Dry Grinder. No modification to the grinder is necessary, so you can revert to the original configuration if you choose to do so.

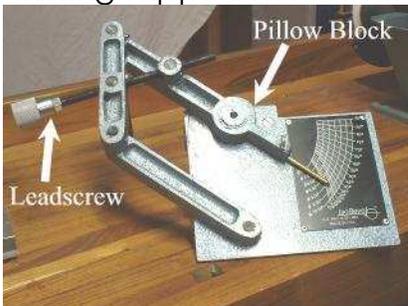
Installation

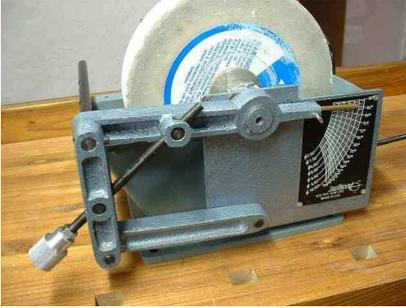
Step 1. Remove Original Toolrest: Remove the original Delta toolrest support assembly by removing the two bolts that secure it to the water trough.

Step 2. Remove Original Pillow Block: Remove the pillow block (bronze bearing) that supports the free end of the grinding wheel spindle by removing the two socket head screws that secure it to the water trough. Slide the pillow block off of the end of the spindle.

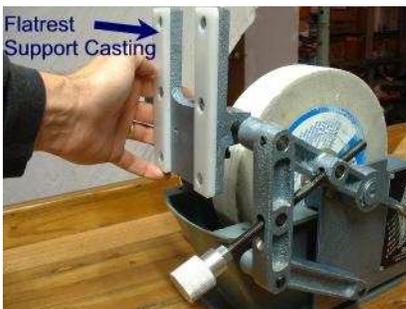
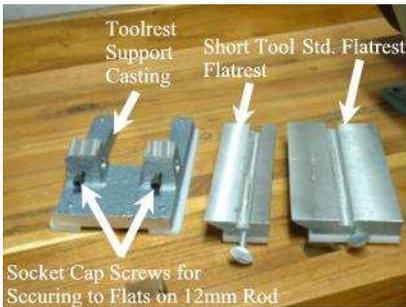


Step 3. Installation of Replacement Pillow Block and Linkage Assembly: The retrofit kit contains an assembly that is attached to a replacement pillow block that is designed to slide over the end of the spindle. Insert the spindle into the bronze bearing in the replacement pillow block. Secure the pillow block and thus the assembly to the water trough using the two supplied 1/4"x20 bolts and washers. These bolts should thread into the existing tapped holes that secured the original pillow block.





Step 4. Installation of Flat Rest Support Casting: If you wish to use the flat toolrests you must now install the flat rest support casting on the 12 mm toolrest support rod. Adjust the height of the toolrest support rod so that it is a few inches above the water trough by turning the leadscrew that adjusts the linkage. Place the toolrest support on the support rod and turn it so that the ways are vertical and slide it to the right until it can be rotated to a near horizontal position. There are two socket cap screws in the rear of the flat rest support casting that should be located over the flats milled in the support rod. Tighten the socket cap screws while gently “wiggling” the toolrest support casting to ensure that they are properly seated on the flats of the toolrest support rod.

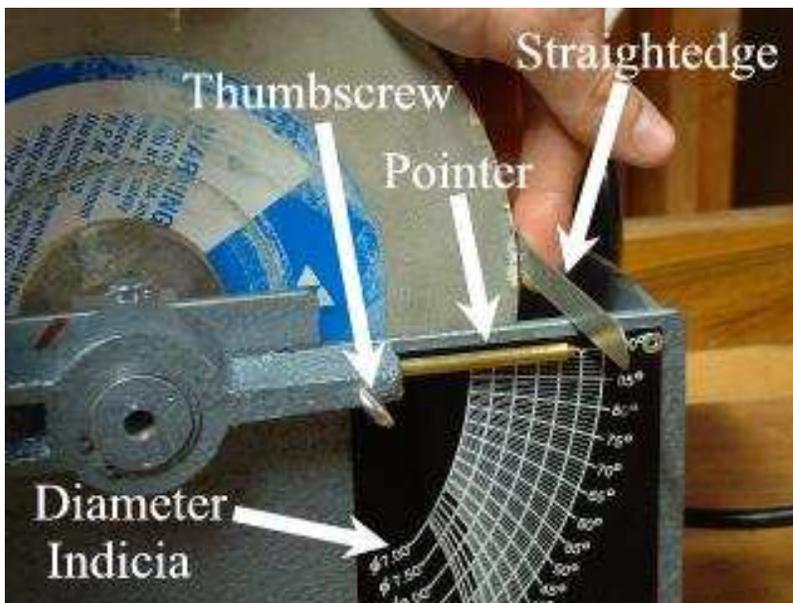


Step 5. Install Flat Rest: Either of the two flat rests may now be installed on the flat rest support casting. The support casting has white UHMW plastic ways secured to it on which the flat rests will slide. Each flat rest has a

thumb screw on the left hand side of the rest that when tightened will lock the flat rest in a position ready for tool grinding.



Step 6. Set Pointer Length to Match Grinding Wheel Radius: In order to use the IsoBevel scale with the flatrest, the length of the pointer must be set to the radius of the wheel. The quickest way of doing this is to adjust the linkage so that the pointer is moved to the 90 deg line. Loosen the thumbscrew that secures the pointer. Place a straightedge against the periphery of the grinding wheel so that it extends over the scale. Move the pointer tip so that it would touch the end of the straight edge. Tighten the thumbscrew to secure the pointer. These steps should be periodically repeated as that grinding wheel wears down to ensure that the scale remains accurate. With the pointer properly adjusted, the scale will indicate accurate bevel angles for wheels ranging from 10" diameter down to 7" in diameter. (Alternately one can measure the grinding wheel diameter using a large set of calipers and set the pointer tip to the corresponding radius printed on the scale).



Operation

SAFETY

Never make toolrest adjustments of any kind while the grinder is running.

Make sure the flatrests are clear of the grinding wheel before adjusting linkage.

Always wear safety glasses.

Do not wear loose fitting clothing or jewelry. Secure long hair.

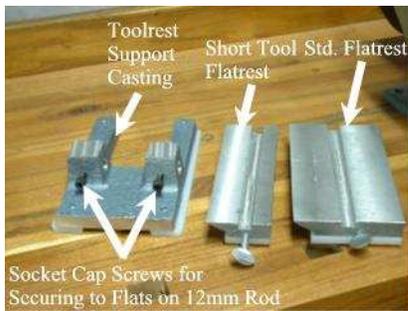
Keep body parts away from rotating components.

Keep body parts and clothing away from linkage components when making adjustments.

End of pointer is sharp, be careful when making pointer adjustments.

USING THE FLATRESTS

Step 1: Turn off the grinder! And install toolrest support casting (See Steps 4-5 of installation)



Step 2: Make sure pointer is adjusted to reflect the current diameter of grinding wheel (See Step 6 of installation)

Step 3: Slide the flatrest away from the grinding wheel to allow clearance for adjustment of toolrest height

Step 4: Turn the leadscrew using the knurled adjusting knob to change the toolrest height. Use the pointer and IsoBevel scale as a guide to adjust the toolrest height to achieve the desired bevel angle on your tool.

Step 5: Slide the flatrest forward so that the front of the rest is about 1/16" away from the periphery of the grinding wheel and lock the toolrest in position by tightening the thumbscrew on the left hand side of the toolrest.

Step 6: Observe the safety instructions, think before you act and grind your tool.

USING THE 12 mm JIG SUPPORT ROD



Step 1: Turn off the grinder! Remove the flat rest support casting by loosening the socket cap screws that secure it to the 12 mm support rod.

Step 2: Rotate the flat rest support casting to a vertical position so that it clears the grinding wheel and slide it off of the support rod



Step 3: Adjust rod height using the leadscrew adjustment knob to the desired position for your jig.

Note: The IsoBevel scale is not compatible with accessory jigs, it only works with the supplied flat rests. Bevel angles could be set in the jig mode by using the Tormek® Anglemaster.

Maintenance

Periodically add a shot of light oil to the oil cup on the pillow block

Periodically lubricate linkage pivot points with light oil

Wipe down the toorest support rod with light oil to maintain blued finish. If necessary, blued finish can be restored with Birchwood-Casey Permablue gun blue solution.

