DK MONORAIL STRIPPERS
CIRCLE CUTTER

The circle cutter (Fig 1) is designed to score circles from 4 ½ to 25-inch diameters. As with all of our other products, we have a lifetime warranty against manufacturing defects. Dropping the circle cutter resulting in bent oil reservoir is not covered under the warranty. As with all precision tools that are taken care of properly, it will last. The cutter includes a pivot head with a revolving ball on top, adjustable arm with engraved 12.5-inch scale in1/16 increments, oil reservoir with a revolving cylindrical handle, and TC 17H, Toyo cutter head. If you need to score a circle larger than a 25-inch diameter, you can use any of our longer adjustable arms, as they are totally interchangeable. However, you will need to measure from the center point of the pivot head assembly to the middle of the cutter wheel, as shown in figure 9.

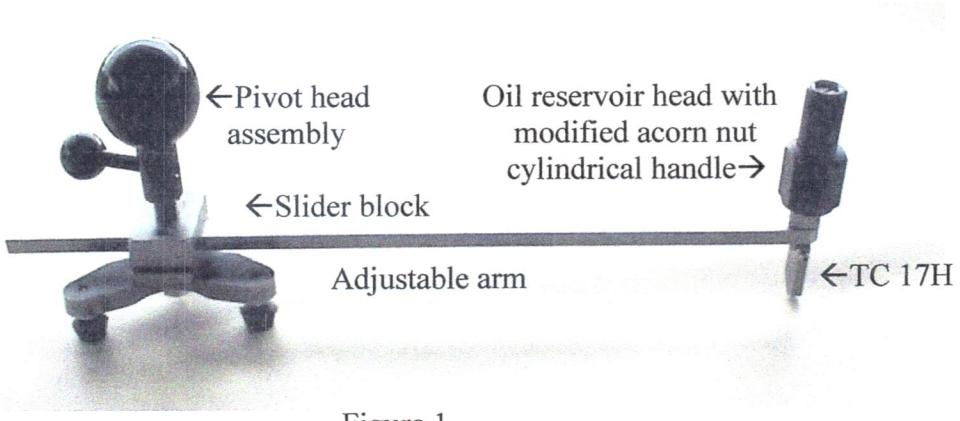


Figure 1

Since the circle cutter is metal, it will rust if exposed to humidity. To prevent rust, periodically coat the metal parts with a rust preventive oil to ensure all parts are moving smoothly. If a rust spot occurs, use steel wool with the oil to remove it.

Figure 2 shows the underneath portion of the pivot head assembly. We installed a sealed bearing to reduce the chance of any debris affecting movement of the pivot head. No maintenance required. The white point is the center point for the circle cutter. It is spring-loaded and will remain in contact with the glass, while scoring the circle.

Figure 2

Figure 3 shows the tip of the bolt that clamps down on the arm. We have inserted a brass plug, to prevent scaring of the engraved portion of the arm.

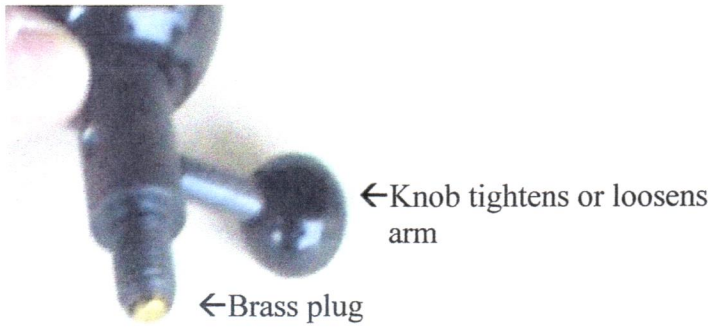


Figure 3

In figure 4, there are two dowel pins that have been added to ensure that the cutter head stays straight for proper scoring.

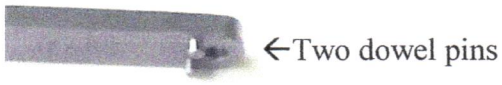


Figure 4

Install the oil reservoir (figure 5). The oil reservoir is the same as the one we use on our strip cutters (DKMS-041).

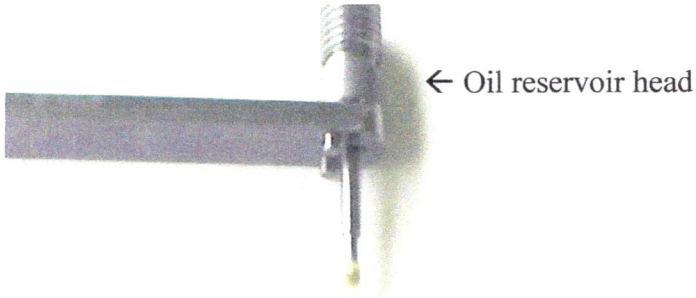


Figure 5

The next step is to slide the cutter head over the oil reservoir barrel (figure 6). The cutter head must touch the bottom of the adjustable arm for the circle cutter to maintain 90 degrees while scoring the glass. If the cutter head does not slide past the dowel pins, you may have to file the side of the cutter head off so it will slide all the way on the arm.

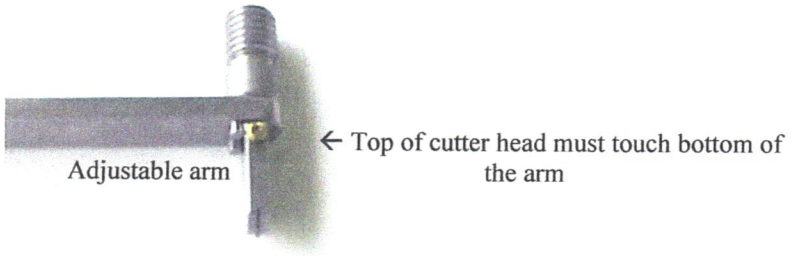


Figure 6

Remove the modified acorn nut to fill the oil reservoir with cutting oil. When finished replace the modified acorn nut. (figure 7).

Figure 7

If you want to score a circle with a 10-inch diameter, set the adjustable arm to 5 inches. Place the five-inch mark on the arm against the edge of the slider block (figure 8). The 5-inch line should be half showing and the other half of the line hidden under the edge of the block.

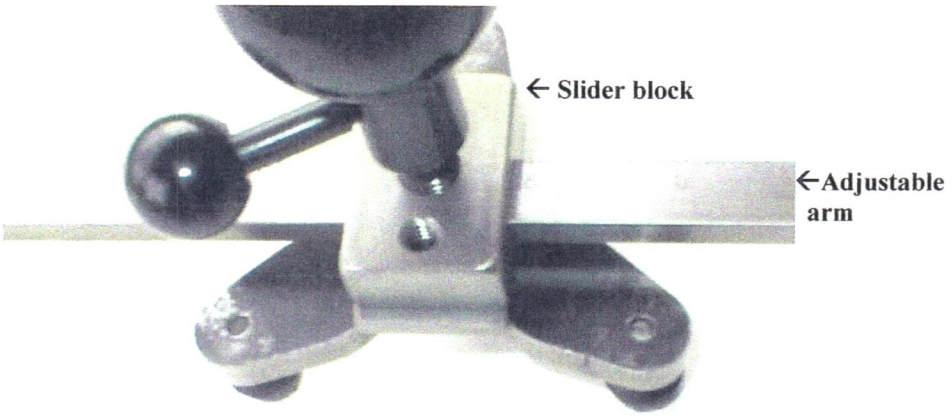


Figure 8

In the picture below, this method of measuring is from the center point of the pivot head to the middle of the cutter wheel. In this example, the radius is set for 8 inches, which will give you a 16-inch diameter circle. You can also use this method to validate a measurement.

Figure 9

This circle cutter has taken the human factor out of cutting circles. For example, we want to cut a circle that has a diameter of 7 inches. Set the arm for 3.5-inch radius. Place one hand on the pivot head ball and the other on the cylinder knob. Move the arm in a clockwise motion from the start of the score line all the way around to meet the score line you started (figure10).

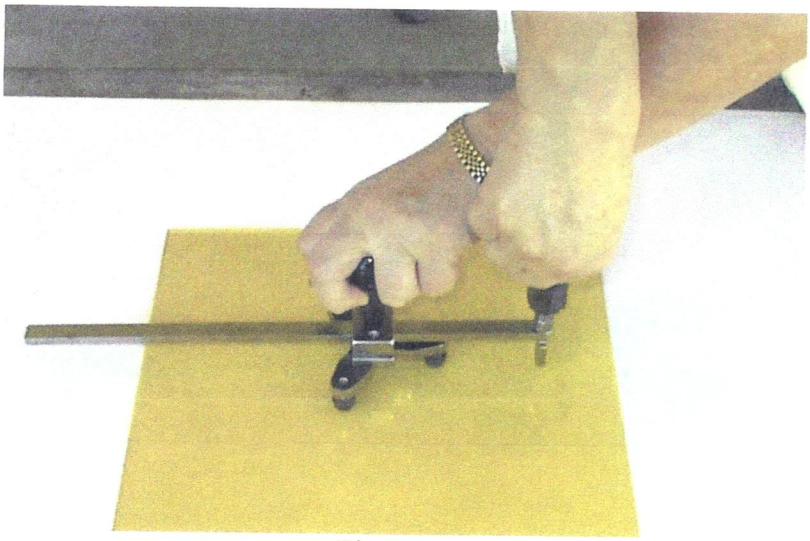
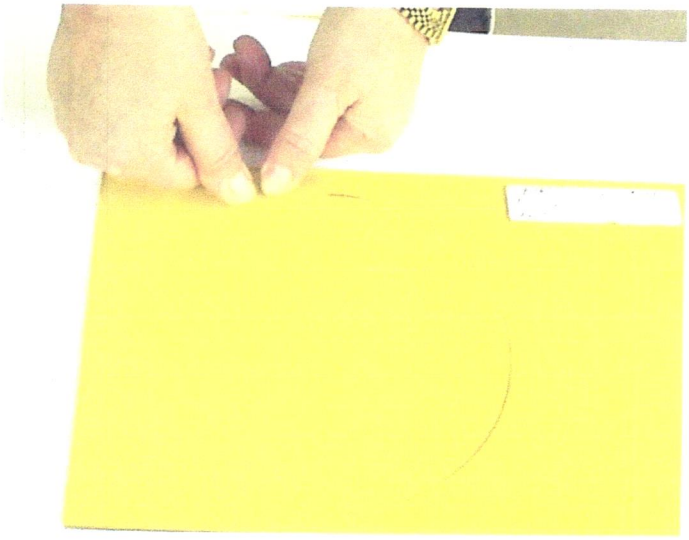


Figure 10

When you completed scoring the glass, take several layers of newspaper, or a piece of tightly woven carpet and place it underneath the glass. To be safe, make sure the paper or the carpet is bigger than the circle. Turn the glass over, so **the score line is face down.** Using your two thumbs, apply pressure on top of the score line. You will see the line start to run (figure 11). In case you can't get the amount pressure from your fingers. You can also use a corner tip of a running plier to press on the score line. The end result is the same. You will see the line run.



← Figure 11

Some times the circle will fall out. When it doesn't, turn the glass over and score several break lines from the circle to the outside edge of the glass (figure 12).

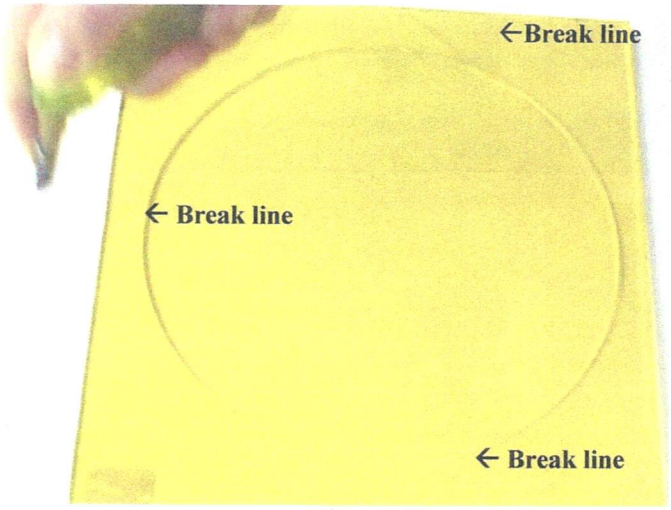


Figure 12

Using your hands or a pair of runners or breakers, break the score lines (figure 13).

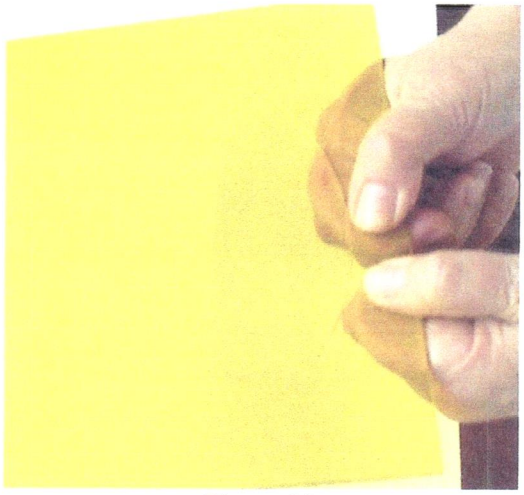


Figure13

Figure 14 shows two score lines being broken, and figure 15 shows the circle completely out.

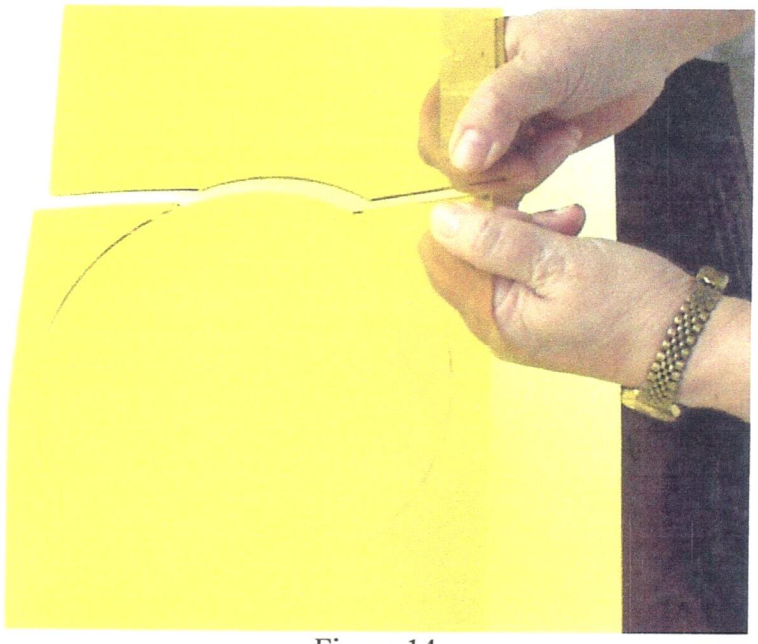


Figure 14

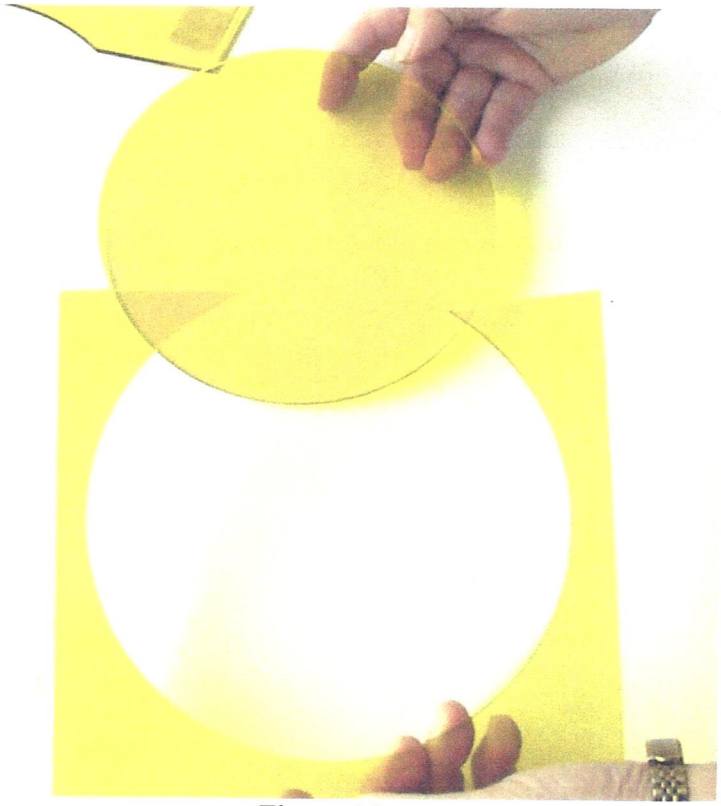


Figure 15

We have found using this method for breaking out circles, leaves an extremely clean, sharp edge on the glass (figure 16).

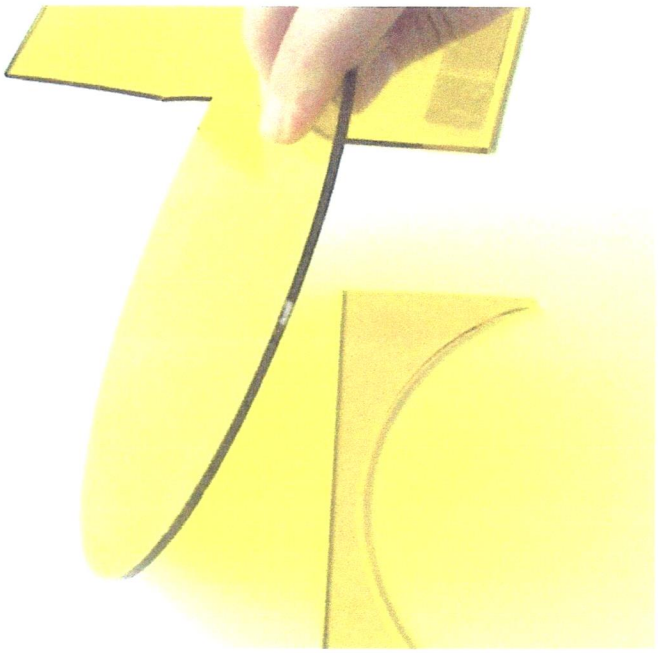


Figure 16

When you are cutting circles out of opalescent glass, you may have difficulty in locating the score line when you turn it over. In that case, leave the score line up and score several break lines. Use your running pliers to break the circle out. Try not to tap the score line as we have found the glass edges are prone to increased chipping.

We have scored circles, using ¼-inch glass, including fusible glass. However to do this, we recommend using the Toyo TC 600 HSV cutter head (figure 17).

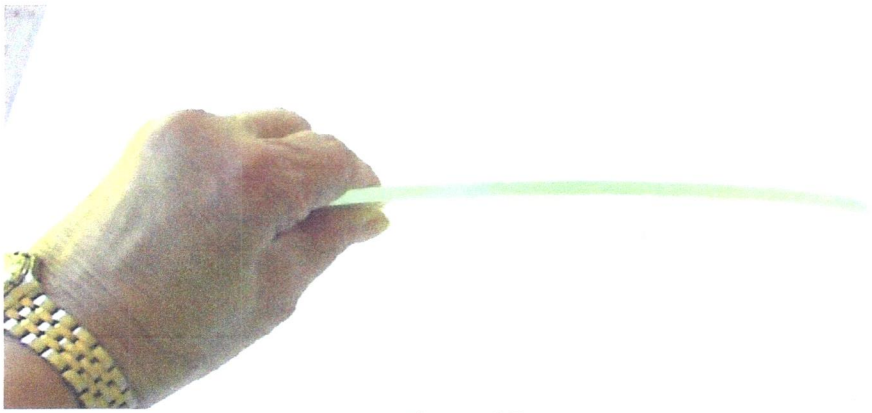


Figure 17

We would appreciate any comments you have concerning our circle cutter. If you encounter problems, or have ideas on how to improve the circle cutter, please call us toll free (866) 865-3903 or fax no. 830-557-6325. Email address is dkmonorailstrippers@gmail.com. Our address is DK Monorail Strippers, PO Box 264, McQueeney, TX 78123-0264.