Assembly Guide

Pedal-Powered Device for the Omega VI and the Ewing III Grinders

Overview

Assembling the pedal-powered device for both the Omega VI and the Ewing III grinders requires four steps:

1. Constructing the grinder pedal-powered frame (See Figure 3),
2. mounting the pedal-powered shaft to the frame (See Figure 4),
3. mounting the Omega VI grinder (See Figure 5) and the Ewing III grinder (See Figure 6), and
4. attaching the grinder shaft to the coupling (See Figure 7).

The Omega VI Grinder Pedal-Powered Kit contains the following required items (See Figure 1):

- One pre-assembled ¾" pedal shaft including:
  - two attached foot pedals
  - two pedal shaft mounting blocks (including two ¾" nylon washers, two ¾" collars, and four 4" Phillips head screws)
  - one coupling
- Two 2 ½" x ¼" diameter cotter pins

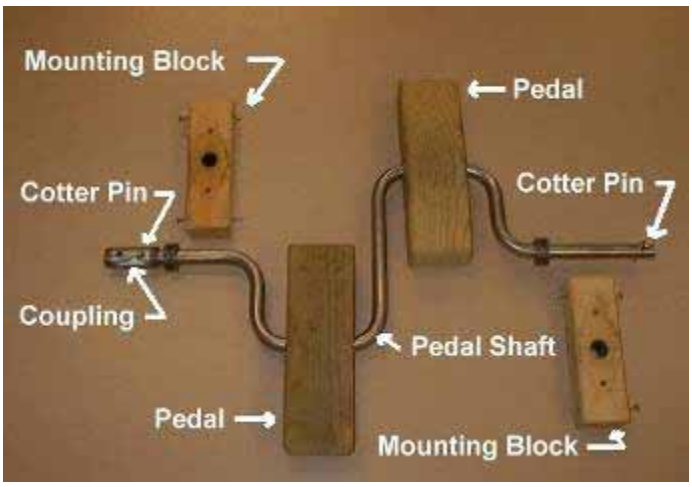

Figure 1: Pedal Power Kit for Omega VI Grinder

In addition, optional items may be ordered. These include:

- One 50lb lifting weight (used as flywheel), modified to accept compression collar
- One ¾" compression collar with two ¼" bolts and instructions on the use of the compression collar

NOTE: For instructions on assembling and cleaning your Omega VI grinder, refer to the guide that came with your unit.

The Ewing III Grinder Pedal-Powered Kit contains the following required items (See Figure 2):

- One pre-assembled ¾" pedal shaft including:
  - two attached foot pedals
  - two pedal shaft mounting blocks (including two ¾" nylon washers, two ¾" collars, and four 4" Phillips head screws)
  - one coupling
- Two 2 ½" x ¼" diameter cotter pins

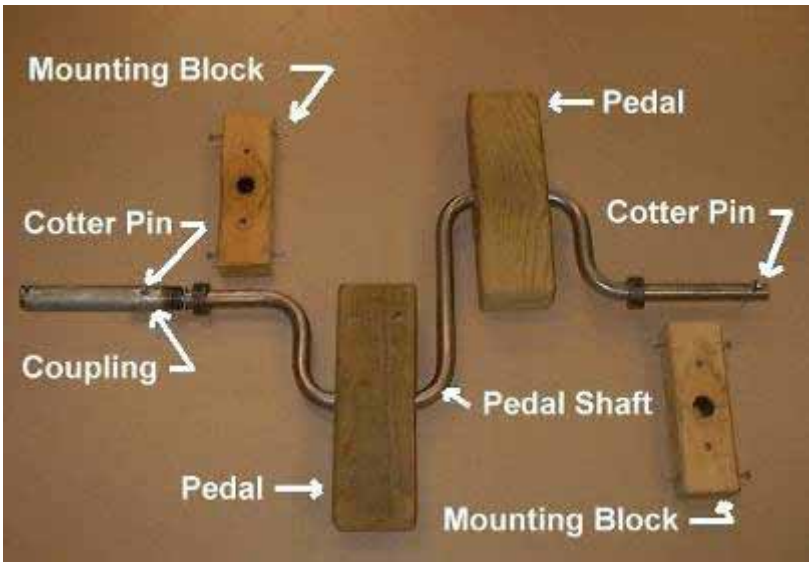

Figure 2: Pedal Power Kit for Ewing III Grinder

NOTE: The only difference between the two kits is that the coupling for the Ewing III is longer.

In addition, optional items may be ordered. These include:

- One 50lb lifting weight (used as flywheel), modified to accept compression collar
- One ¾" compression collar with two ¼" bolts and instructions on the use of the compression collar

NOTE: For instructions on assembling and cleaning your Ewing III grinder, refer to the guide that came with your unit.

IMPORTANT: In addition, the grinder pedal-powered device for both the Omega VI and the Ewing III can be assembled for two operators. This requires additional steps (See section on Assembling Frame for a Second Pedal-Powered Device at the end of this document).

Constructing the Grinder Pedal-Powered Frame

Figure 3 shows a sample grinder pedal-powered frame built from 2” x 4” lumber and a ½” sheet of plywood. The critical dimensions are the height of the platform from ground level (a minimum of 6 inches), the width of the platform (16 inches or 19 inches depending on the length of the grinder shaft), and the width of the two supports that hold the pedal shaft (19.5 inches).

NOTE: The height of the pedal-powered frame is variable depending on the height and comfort level of the operator. In the diagram below, the four supports are 53 inches long. The operator can grip (hold on) to either the upper stabilizer board or the two front supports.

NOTE: The materials for the grinder pedal-powered frame are dependant on what is locally available. For example, angle irons might be used and welded together.

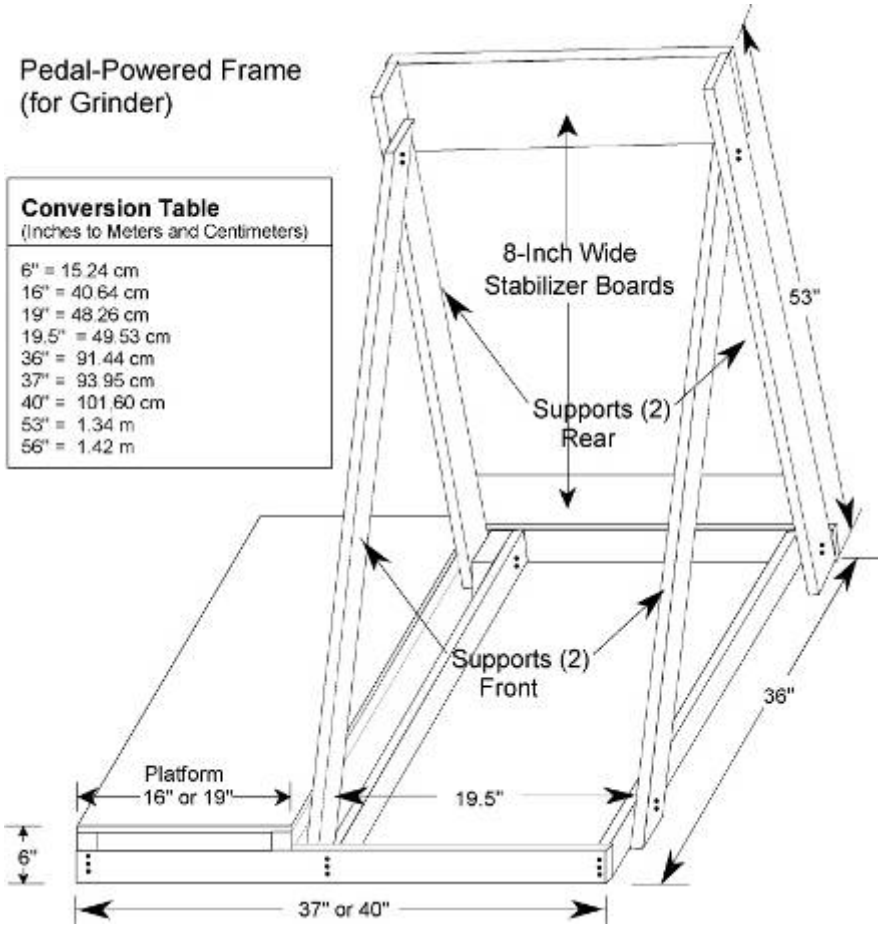

Figure 3: Pedal-Power Device Frame

WARNING: For the Ewing III grinder, the platform must be 19” wide.

Mounting the Pedal Shaft to the Frame

To mount the pedal shaft (with attached pedals and mounting blocks), do the following:

1. Place the pedal shaft with attached pedals (two) and attached mounting blocks (2) against the back of the two front supports of the pedal-powered mounting frame (See Figure 4).
2. Slide the pedal shaft assembly up or down until the pedal shaft is parallel (at the same height) as the grinder shaft.
3. While holding the pedal shaft in place, secure the pedal shaft mounting blocks (2) to the mounting frame (using the provided screws). **NOTE:** Holes are pre-drilled in each of the blocks for the screws.

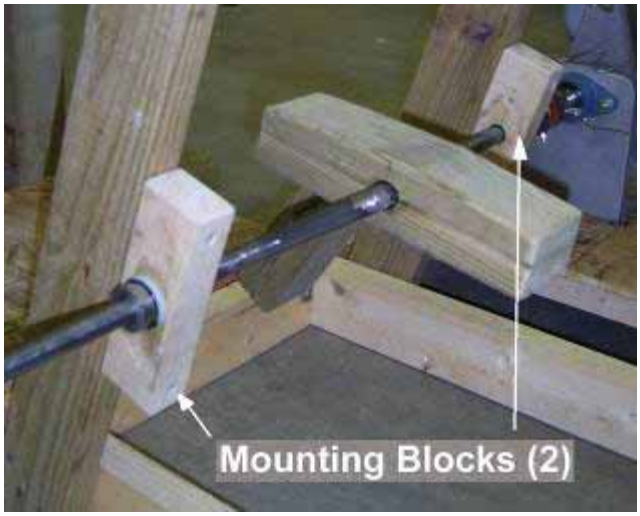

Figure 4: Mount pedal shaft blocks to the frame

Mounting the Omega VI Grinder

To mount the Omega VI grinder to the pedal-powered device's mounting platform, do the following:

1. Place the Omega VI grinder as close to the edge of the platform so that ground output (peanuts, millet, etc.) will fall into a collection pan placed next to the pedal powered device's platform (See Figure 5).

   CAUTION: Do not attach the grinder to the platform at this time.

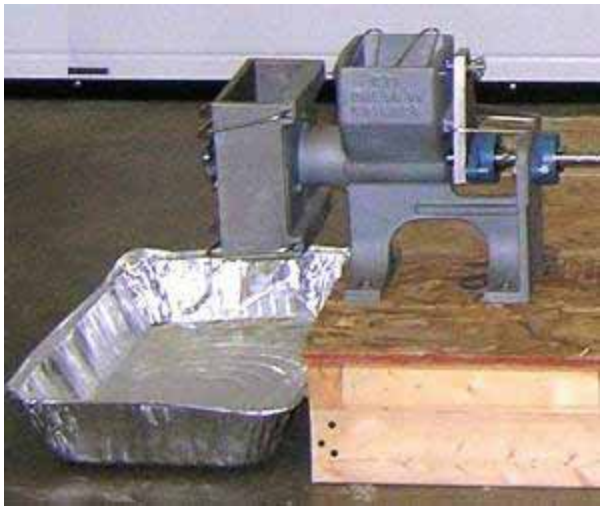

Figure 5: Omega VI on platform

Mounting the Ewing III Grinder

To mount the Ewing III grinder to the pedal-powered device's mounting platform, do the following:

2. Place the Ewing III grinder as close to the edge of the platform so that ground output (peanuts, millet, etc.) will fall into a collection pan placed next to the pedal powered device's platform (See Figure 6).

   CAUTION: Do not attach the grinder to the platform at this time.
   NOTE: The platform must be 19" wide.

Figure 6: Ewing III on platform

Attaching the Grinder shaft to the Coupling

Attaching the grinder shaft to the coupling is the same procedure for both the Omega VI and the Ewing III grinders. The figure below illustrates attaching the shaft to the Omega VI grinder.

1. Align grinder shaft with the pedal shaft coupling (See Figure 7).
2. Remove cotter pin.
3. Insert the grinder shaft into coupling until shaft hole lines up with cotter pin hole.
4. Insert ¼" cotter pin to hold the grinder shaft to the pedal-powered coupling.
5. Without moving the grinder, use the provided lag screws to secure the grinder to the platform.

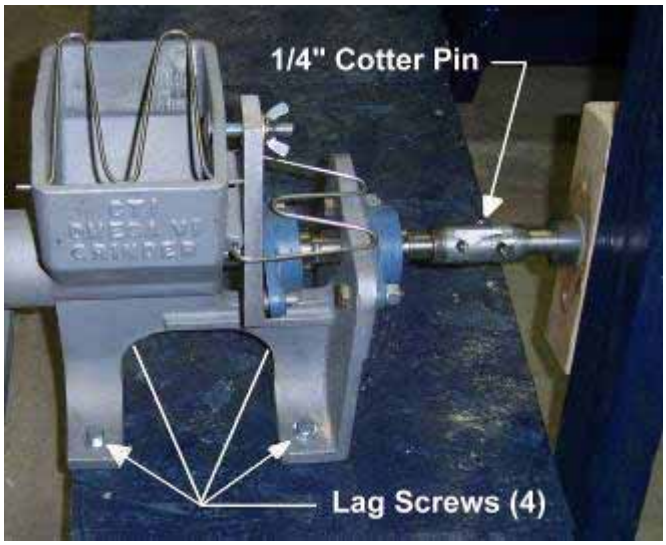

Figure 7: Omega VI Shaft to Coupling

Mounting the Optional Lifting Weight

Adding the optional lifting weight (acts as a flywheel) provides the advantage of inertia that makes pedaling much easier. In addition, operation of the device is smoothed with a flywheel of some sort. Weight lifter wheels can be used but any heavy wheel that can be fitted to the pedal shaft will work.

If your kit comes with this option, it will include a 50lb lifting weight and a compression collar with two ¼" bolts. To add this option, do the following:

1. Slide lifting weight and compression collar onto the pedal shaft (See Figure 8).
2. Uniformly tighten the ¼" bolts until the collar is tight on the shaft.

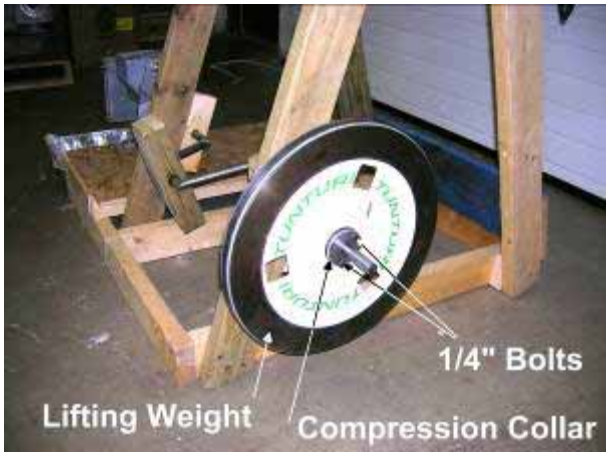

Figure 8: Mounting Optional Lifting Weight

Removing the Optional Lifting Weight

In the event that something breaks and you need to replace a part(s), you will need to remove the 50lb lifting weight.

To remove the lifting weight, do the following:

1. Remove the two ¼" bolts that hold the lifting weight collar to the pedal shaft (See Figure 9).
2. Insert the two ¼" bolts into the adjacent holes and tighten until the compression collar becomes loose.
3. Slide the lifting weight off the pedal shaft.

Figure 9: Removing Optional Lifting Weight

NOTE: Once the repairs have been made, remount the lifting weight (See previous instructions).

Adding a Bench for Recumbent Position

For operators who prefer a recumbent (sitting) position, place a bench in front of the grinder pedal-powered device. The bench (or some other sitting structure) should be attached to the grinder pedal-powered frame to provide stability. Figure 10 shows an example of a bench and Figure 12 shows the bench attached to the frame.

NOTE: The bench is attached to the grinder pedal-powered frame using two angle brackets.

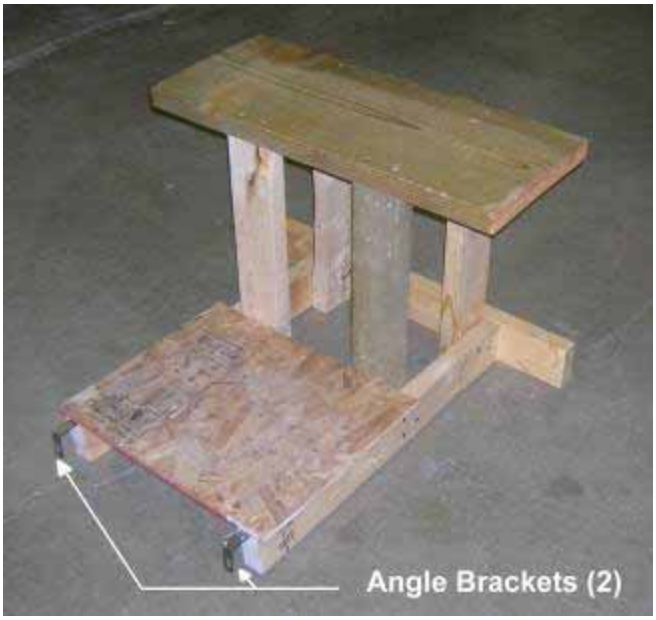

Figure 10: Bench for Recumbent Position

Using the Grinder Pedal-Powered Device in Standing Position

Figure 11 shows the operator using the grinder pedal-powered device in a standing position (with optional lifting weight).

Figure 11: Operator in Standing Position

Using the Grinder Pedal-Powered Device in Recumbent Position

Figure 12 shows the operator using the grinder pedal-powered device in a recumbent (sitting) position (with optional lifting weight).

Figure 12: Operator in Recumbent Position

Additional Option

The option of a second pedal-power device (See next section) is also available:

For information on this option, contact your Compatible Technology International representative.

Assembling Frame for a Second Pedal-Powered Device

Make certain that your Grinder Pedal-Powered Kit for a second pedal-powered device contains the following required items:

- One pre-assembled ¾" pedal shaft including:
  - two attached foot pedals
  - two pedal shaft mounting blocks (including two ¾" nylon washers, two ¾" collars, and four 4" Phillips head screws)
- One coupling
- Two 2 ½" x ¼" diameter cotter pin

Assembling the grinder pedal-powered device for a second operator requires the following steps:

1. Construct the second grinder pedal-powered frame (Follow the instructions on page 4 and see Figure 3).
2. Mount the pedal-powered shaft to the frame (Follow the instructions on page 5 and see Figure 4).
3. Once you have assembled the second pedal-powered device frame, position it next to the first pedal-powered device frame (See Figure 13).
4. Attach the pedal-powered shaft of the second pedal-powered frame to the pedal-powered shaft of the first pedal-powered frame using the provided coupling (See Figure 14).

   CAUTION: For maximum pedal power, the angle of the two pedal-powered shafts should be at 45 degrees. The coupling has been pre-set to achieve this angle (See Figure 14).

5. Once you have the two pedal-powered frames with the pedal shafts connected by the coupling, you must fix the two pedal-powered devices in place. You can use screws (or nails) to attach a length of wood to hold the two devices together (See Figure 13). Or, if your frames are made from metal, you may want to weld a piece of metal to the two frames to hold them together.

   CAUTION: If you do not fix the two pedal-powered devices together, heavy use of the two pedal-powered devices will damage the coupling.

NOTE: If your pedal-powered device has a flywheel attached to the first pedal-powered device, you should leave it there. There's no need to detach it and mount it to the second pedal-powered device.

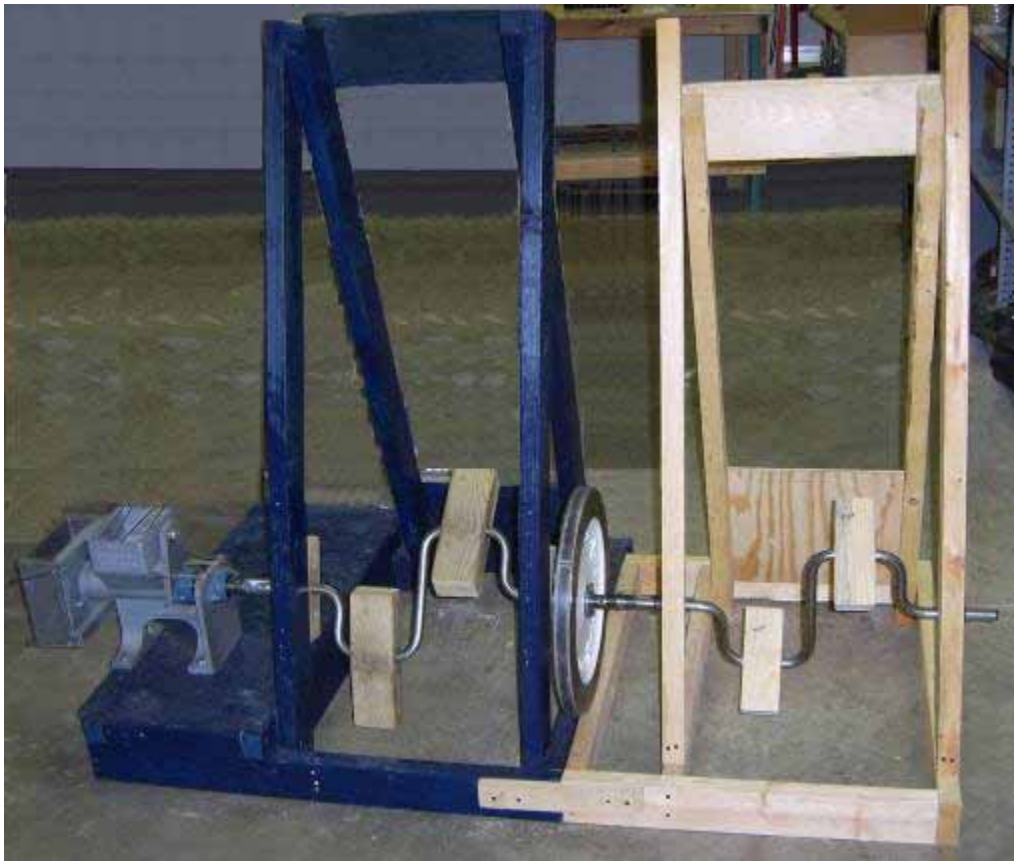

Figure 13: Two Pedal-Powered Devices Side-by-Side

1. Slide the provided coupling onto the first pedal-powered pedal shaft.
2. Insert one of the two 2 ½" x ¼" diameter cotter pin.
3. Position the two pedal-powered frames next to each other.
4. Position the second pedal power shaft so that it lines up at a 45 degree angle with the first pedal power shaft.
5. Push the entire pedal-powered device frame towards the first pedal-powered frame until the second pedal shaft is seated in the coupling and the holes on the coupling and the shaft are lined up.
6. Insert the second cotter pin.

Figure 14: Pedal-Powered Devices Coupling