



Shopsmith Mark V

Oscillating Drum Sander

Congratulations on your purchase of the Shopsmith Oscillating Drum Sander. This is to be used in conjunction with your Shopsmith Mark V sanding drum to enhance your sanding capabilities.

Please review this entire document before attempting to install or operate your Oscillating Drum Sander.

Assembly Instructions

Tools required:

- 1/2" wrench
- 7/16" wrench
- 5/32" Allen wrench
(supplied with Mark V)

Remove all parts from packaging. Check to be sure all parts are included, you should have:

- Gearbox attachment with drive coupling
- 5 1/4" by 7 1/4" front bracket
- Cover
- Carriage clamp assembly
- Rear bracket
- Upper crank handle assembly
- Lower crank handle assembly
- Cable

Attaching Hardware:

Item #	Description	Qty
1	Hub, accessory	1
2	Bolt, hex head; 5/16"-18x3/4"	2
3	Washer, lock; 5/16"	2
4	Nut, hex; 5/16"	2
5	Screw, button head; 1/4"-20x1"	4
6	Washer, lock; 1/4"	2
7	Nut, hex; 1/4"	4
8	Washer, flat; 5/16"	4
9	Washer, flat; 1/4"	6
10	Cable	1
11	Set Screw	1

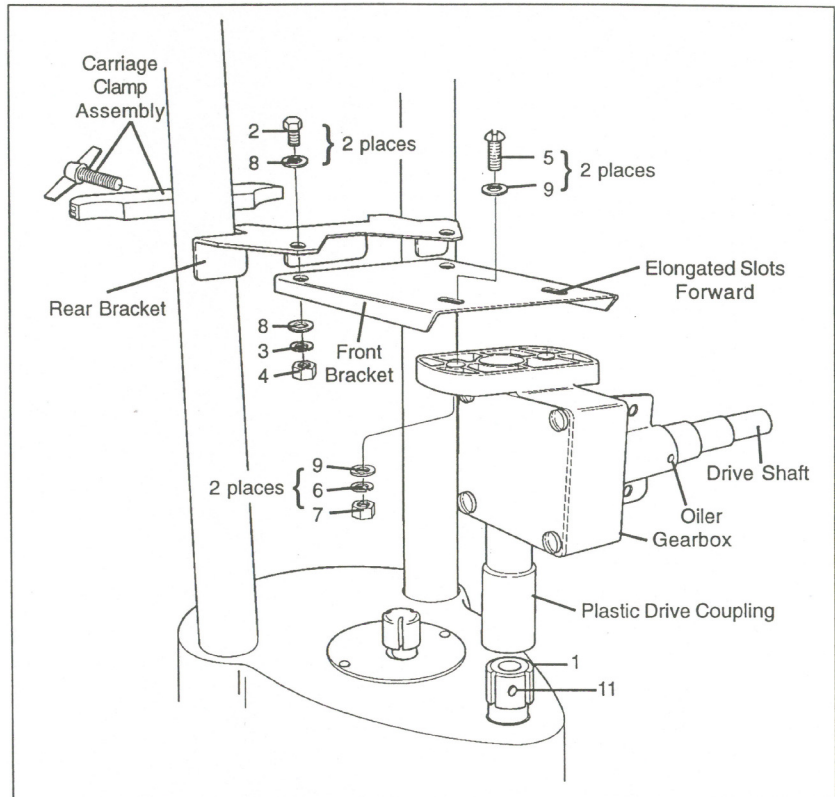


Figure 1 — Assembly overview.

Installing Sander on Mark V

- 1) Set up Mark V in vertical position and attach sanding drum.
- 2) Install accessory hub flush with top of spindle and tighten set screw.
- 3) Slide plastic drive coupling of gearbox attachment on to accessory hub (see figure 1).
- 4) Place Front Bracket on the gearbox with elongated slots forward and attach using screws flat washers, lock washers, and hex nuts (see figure 1). Finger tighten, leaving bracket loose enough to be moved.
- 5) Assemble Carriage Clamp and Rear Bracket. align holes in this assembly over holes in front bracket and secure in place by tightening carriage clamp (see figure 1).
- 6) Connect front and rear brackets with 5/16" x 3/4" hex head bolts, flat washers, lock washers and hex nuts. Finger tighten (see figure 1).

WARNING

The oscillator will not operate properly if the pulleys of the upper and lower crank handle assemblies are not securely fastened in the proper position. The upper crank handle (11:00) and the lower crank handle (2:00) should be 90° from each other. Operating the sander with the crank handles positioned incorrectly may break the cable and/or cause damage to other parts.

Adjusting Sanding Stroke

- 1) Loosen button head screw on lower crank handle and move pulley along slot to adjust length of the sanding stroke.
- 2) Move pulley away from center to shorten sanding stroke and move pulley toward center to lengthen sanding stroke (figure 9).

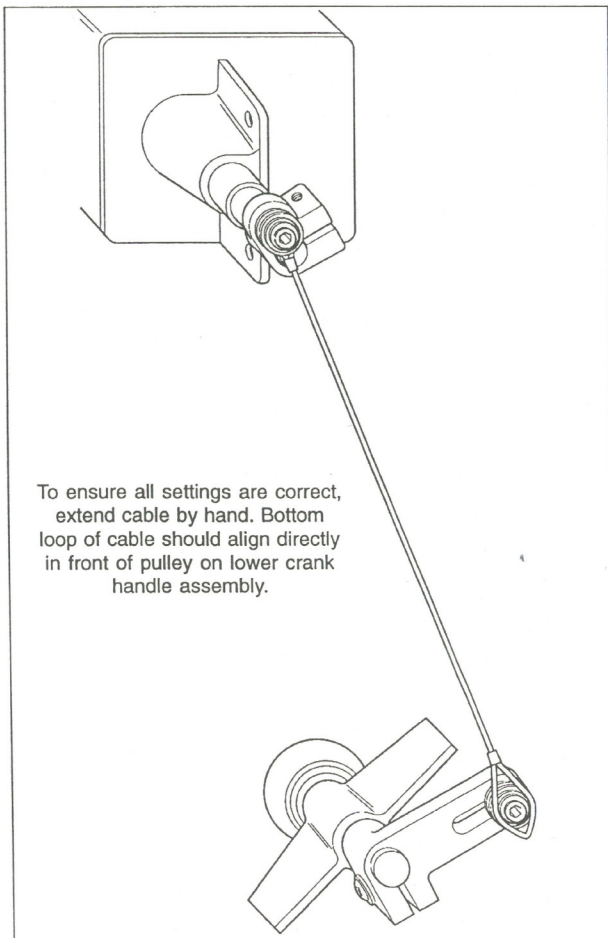


Figure 6 — Ensure that table height is set correctly.

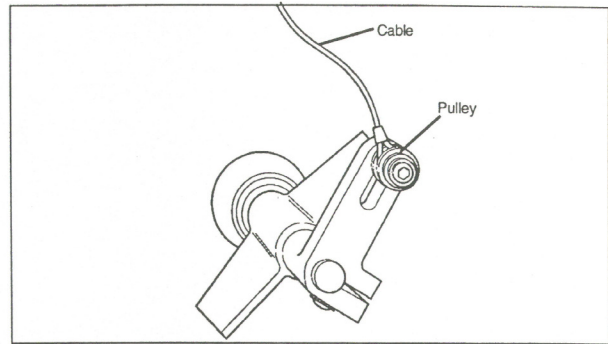


Figure 7 — Lower quill and loop cable over pulley on lower crank handle assembly.

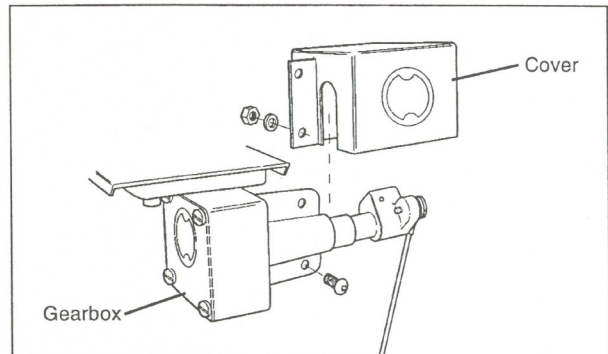


Figure 8 — Attach Cover to the Gearbox.

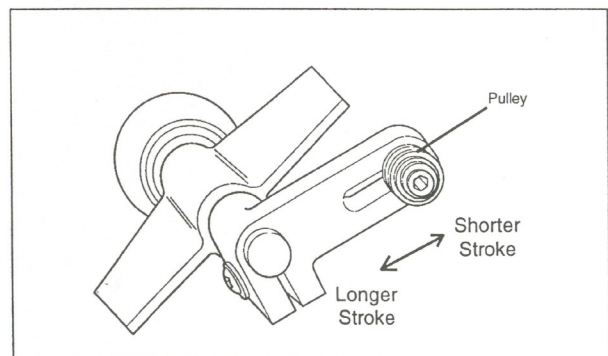


Figure 9 — Adjusting the sanding stroke.

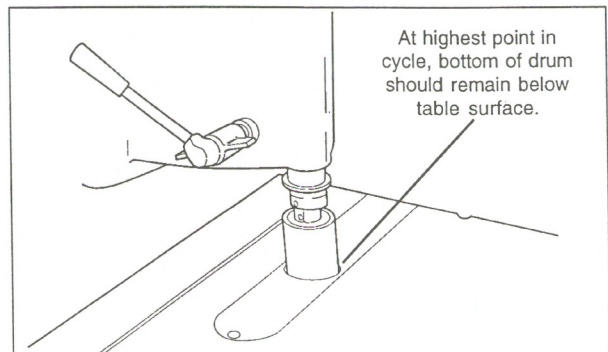


Figure 10 — Keep bottom of sanding drum below top of table.

- 7) Align the two brackets by eye, then secure them by tightening all nuts and bolts.
- 8) Slide upper crank handle assembly onto drive shaft of gearbox. Position pulley at its point of highest stroke (approximately "11:00"). Tighten crank handle securely with button head screw (see figure 2).
- 9) Extend Mark V quill down approximately $1\frac{1}{2}$ " and lock into place with quill lock (see figure 3).

CAUTION

Any time you lower the headstock with the oscillating sander attached, be sure to loosen the carriage clamp and unhook the oscillator cable before lowering the headstock. Otherwise, you may break the cable and/or bend the rear bracket.

- 10) Slide lower crank handle assy. onto quill feed of Mark V. Position lower crank handle pulley to

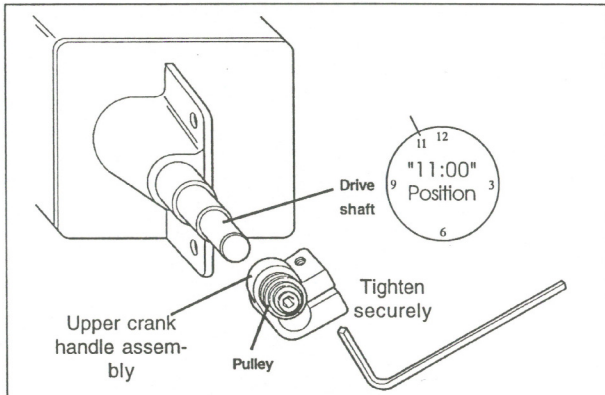


Figure 2 — Attach Upper crank handle assembly in "11:00" position.

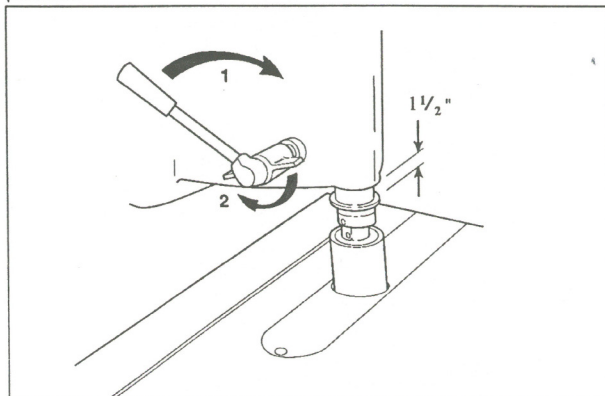


Figure 3 — Lower quill $1\frac{1}{2}$ " and lock in place.

the "2:00" position (90° from the upper crank handle position) and tighten button head screw (see figure 4).

- 11) Loop one cable end over the pulley of the upper crank handle assy. (see figure 5).
- 12) To ensure that quill and upper and lower crank handle assemblies are in proper position, extend cable by hand. Bottom loop of cable should align with pulley on lower crank handle assy. (see figure 6).
- 13) Unlock the quill lock and lower quill in order to loop the other cable end over the lower crank handle pulley (see figure 7).
- 14) Release quill handle and allow the cable to align the upper and lower crank handle assemblies.
- 15) Attach cover to the gearbox with button head screws, washers, and nuts. Tighten with Allen wrench (see figure 8).

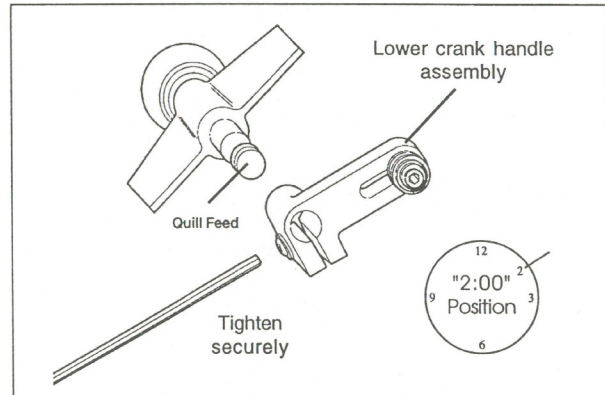


Figure 4 — Attach Lower crank handle assembly in "2:00" position.

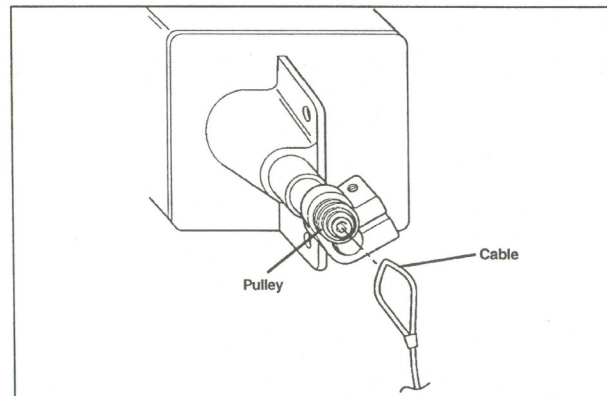


Figure 5 — Loop cable end over pulley of upper crank handle assy.

Operation and Maintenance

Set drum sanding speed as recommended in your Mark V manual.

Note: For increased safety, adjust the Mark V table height to keep the bottom edge of the sanding drum from coming above the table surface (see figure 10).

Maintenance

Apply two or three drops of oil every 20 hours of use through the oiler on the Gearbox Housing to help keep your Oscillating Drum Sander running smoothly.

Cable

Should your cable ever show signs of excessive wear, replace with a new cable from Shopsmith.

Gearbox

If oscillator "jams", or doesn't seem to run smoothly, remove the gearbox cover plate and inspect the plastic gear. If gear shows signs of damage (broken teeth, etc.) order a replacement gear from Shopsmith.

Parts List

Ref.	Part	Description	Qty.
1	5035769	Hub, accessory	1
2	426367	Bolt, hex head; 5/16"-18 x 3/4"	2
3	120379	Washer, lock; 5/16"	2
4	124824	Nut, hex; 5/16"	2
5	515996	Screw, button head; 1/4"-20 x 1"	7
6	120392	Washer, flat; 1/4"	13
7	124818	Nut, hex; 1/4"	5
8	120393	Washer, flat; 5/16"	4
9	115321	Set Screw	1
10	518452	Screw, button head; 1/4"-20 x 1 1/4"	1
11	518441	Plate, mounting	1
12	518449	Support bracket assembly	1
13	515798	Coupling	1
14	518427	Cover	1
15	518347	Gearbox assembly	1
16*	518454	Gear, plastic	1
17	-----	Nut, hex, metric	1
18	-----	Cover, gearbox	1
19	-----	Screw	4
20	518437	Cable, tension	1
21	518444	Crank handle, upper	1
22	515997	Washer, lock; 1/4"	4
23	518439	Washer, shoulder	2
24	518440	Washer, shoulder	2
25	518436	Crank handle, lower	1
26	516146	Carriage Clamp Assy.	1
27	518442	Coupling Adapter	1
28	222458	Set Screw	2
29	518438	Spacer	2
30	515209	Logo, Label	1

