

HD-4470 Setup & Operator Manual



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HD-4470 Comb Opener Module

The Heavy Duty HD-4470 Comb Opener has been designed to open comb spines up to 2" (51mm). The HD-4470 easily allows you to add or remove pages for quick changes. The HD-4470 Comb Opener has an adjustable ring opener control for exact book placement. The unit attaches to either OD or HD punch machines or can be used in the standalone option as shown below.



Please fill the Warranty Registration card out immediately and mail in. **Product registration is important to establish trouble free warranty repair** of any of your Rhin-O-Tuff equipment. Please fill out and mail in the card provided with your machine or register on-line at www.RHIN-O-TUFF.com ; then select Support then Warranty. For repair, service, supplies, or any other help, contact your dealer.

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1) Placing your machine in the proper location:

Place the machine on a hard level surface.

2) Assembling the HD-4470 onto the stand alone configuration;

See Illustration 2.0.

Your HD-4470 Comb Opener came partially assembled without feet mounted. In order to attach the HD-4470 Comb Opener to the feet you need to locate the accessory box. Inside find the screws and Allen wrench (1), and the feet (2), and assemble them as show. The other accessories can be used to mount the HD-4470 Comb Opener to punch machines described in the next chapters.

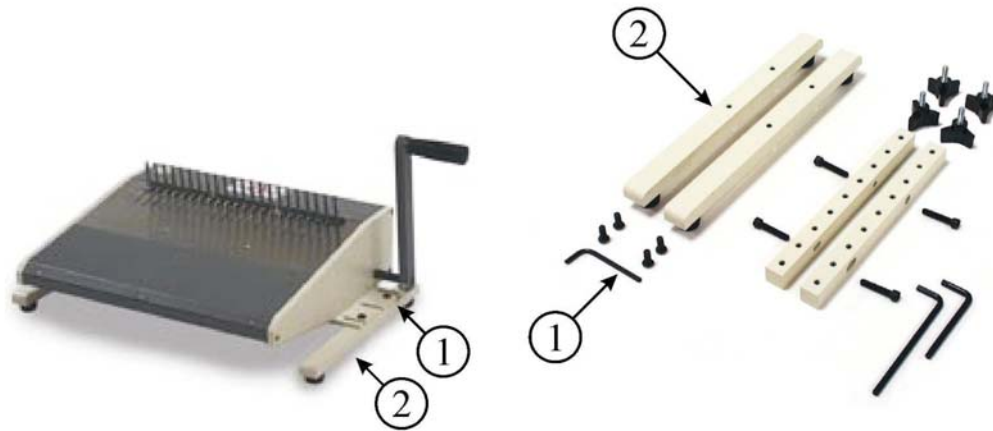


Illustration 2.0

3) Mounting the HD-4470 onto the HD-6500, HD-7000 or HD-7700;

See Illustration 4.0.

Inside the HD-4170 shipping box is a knob kit with tools.. Locate the Interface Blocks, screws, Allen wrenches, and 3-winged knobs (3) provided inside the shipping box. These will be required in the next step.

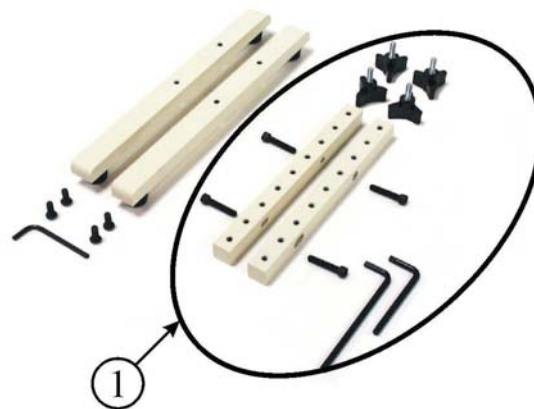


Illustration 3.0

HD-6500 and HD-7000 Instructions;

See Illustration 3.1.

Locate the two top-most and rear-most screws on the side of your HD-6500/7000. Inserting the short end of the Allen wrench into the screw head, remove the two screws.

HD-7700 Instructions;

See Illustration 3.2.

Locate the two top-most and forward-most screws on the side of your HD-7700. Inserting the short end of the Allen wrench into the screw head, remove the two screws.

Both HD-6500/7000 and HD-7700 Instructions cont...

Store the two screws removed from the punch. Locate one of the Interface Blocks and orient it against the two now-available holes. Orient the block so that the interface block oval hole (1) is forward and the counter bores face out. To the right is an example of a counter bore. Use the longer 1/4"-20 socket head screws provided to secure the Interface Block to the machine with the short end of the Allen wrench. Tighten the rear screw first then the forward screw. Repeat this step on the other side of your punch with the other block.

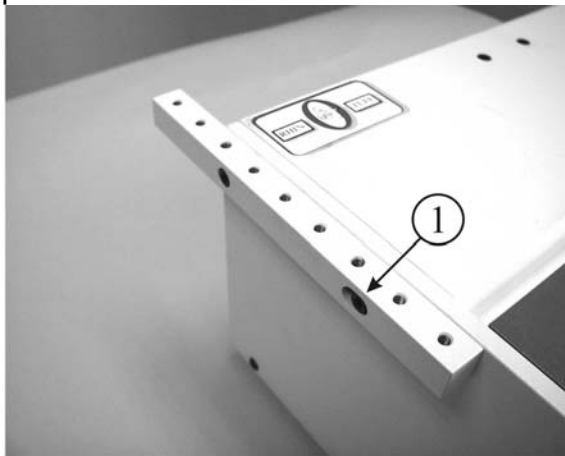
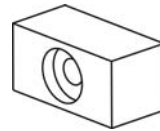


Illustration 3.1

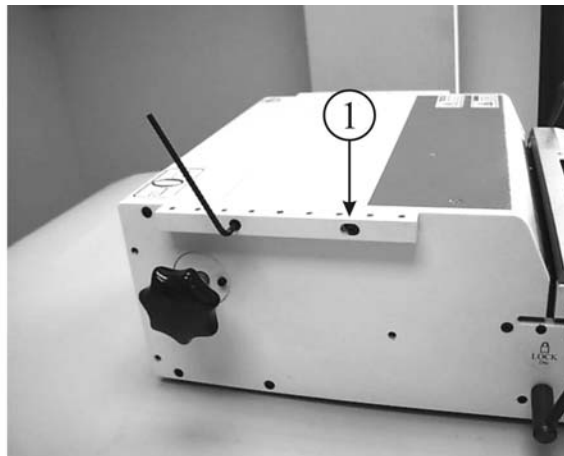


Illustration 3.2

See illustration 3.3.

Place your HD-4470 onto your punch and secure with the 4 three winged knobs (1) as shown. Attach the handle (2) with the brass bolt, nylock-nut, and washer provided in the accessory kit.



Illustration 3.3

4) Mounting the HD-4470 onto the OD-4000, OD-4012 and OD-4800;

See illustration 4.4.

Within the accessories box locate HD/OD Brackets (1) and their screws (2). The brackets are marked left and right. Assemble them onto the sides of the punch machine as shown (1) and (3) with the Allen wrench provided.

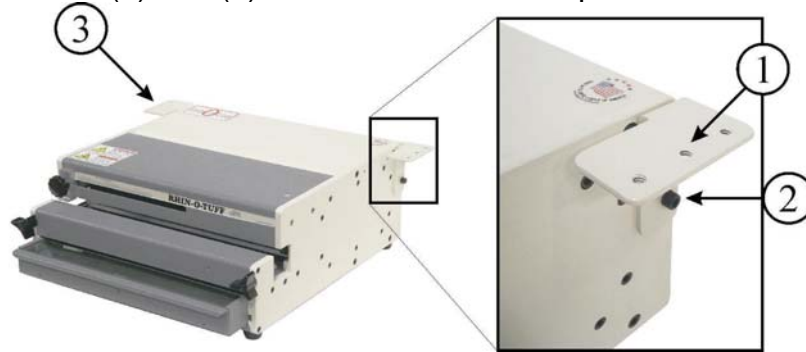


Illustration 4.4

See illustration 4.5.

Locate 2 three winged knobs in the accessories kit to secure the HD-4470 to your punch. Attach the handle (2) with the brass bolt, nylock-nut, and washer provided in the accessory kit.



Illustration 4.5

See illustration 4.6.

If you have an OD 4800 Hand Punch the new versions of the punch have extensions (1) built in to accommodate the HD-4470 or other HD modules. If your OD 4800 doesn't have these extensions contact your dealer for the OD 4800 Handle Extension Kit.



Illustration 4.6

5) Determine the correct comb size.

Use the table below to determine the correct comb size for the book thickness. You can insert more sheets into the comb, but it may affect the appearance of your book. Covers are not included with the number of sheets column.

Comb Diameter		Book Thickness		Number of sheets	
Inch	mm	Inch	mm	20lb	80gsm
3/16	4.8	1/8	3.2	30	
1/4	6.4	3/16	4.8	45	
5/16	7.9	1/4	6.4	65	
3/8	9.5	5/16	7.9	80	
7/16	11.1	3/8	9.5	95	
1/2	12.7	7/16	11.1	110	
9/16	14.3	1/2	12.7	125	
5/8	15.9	9/16	14.3	140	
3/4	19	5/8	15.9	160	
7/8	22.2	3/4	19	190	
1	25.4	7/8	22.2	220	
1-1/8	28.6	1	25.4	250	
1-1/4	31.8	1-3/32	27.8	275	
1-1/2	38.1	1-3/16	30.1	300	
1-3/4	44.5	1-7/16	36.5	360	
2	50.8	1-11/16	42.8	425	

6) Loading a Book into a Comb.

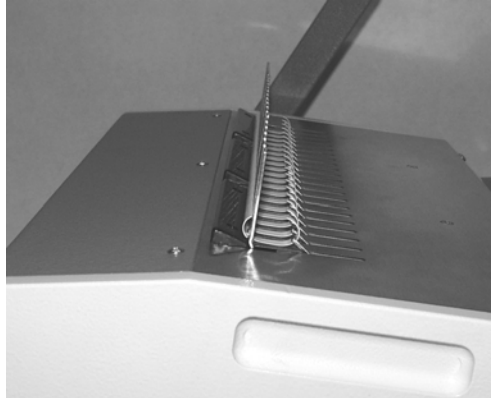
a) Placing the comb onto the rake.

Place the comb onto the rake with the fingers of the comb facing the front of the machine. The solid section of the comb will be facing the rear of the machine. Make sure the points of the fingers are facing up.



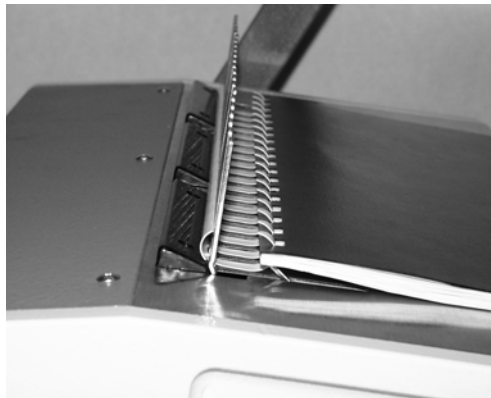
b) Setting the comb opener stop.

The comb opener stop knob is located on the rear of the comb opener. Set the comb opener stop by turning the knob counter clockwise so the combs open far enough to place a book on the fingers of the comb, but not to far so the comb is lying flat with no room for the book.



c) Placing the book onto the comb.

Place the holes of the book on the fingers of the comb. A slight rotating of the book will help guide the holes onto the comb. Return the opener handle to close the comb into the book. The binding process is now complete.



d) Die Margin setting

The margin on a standard comb die is fixed at $\frac{3}{32}$ ". This margin will work fine until you bind books up to about 1" in comb size. After that, there is too little paper between the edge of the hole and the edge of the sheet. Tearing of a sheet out of the book can occur when handling the book to rough. It is recommended when binding books beyond this size you use the **optional variable backstop comb die.**