

Model D2057A Heavy Duty Mobile Base Instruction Sheet



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Introduction

Your new Model D2057A Heavy Duty Mobile Base (Figure 1) is designed to give you a stable and mobile platform upon which to mount machinery and equipment with a variety of base dimensions and weights.

Specifications

- Minimum Inside Dimensions..... 20" x 20"
- Maximum Inside Dimensions 29½" x 29½"
- Maximum Weight Capacity 700 lbs

Tools

- Tape Measure1
- Wrenches or Sockets 13mm2
- Wrenches or Sockets 14mm2
- Light Machine Oil (Optional) As Needed
- Crowbar (Optional)1
- Rubber Mallet (Optional)1
- 6" 2x4's (Optional)2
- 6" 2x6 (Optional).....1
- 12" 4x4 (Optional)1

Inventory (Figure 2)

	Qty
A. Swivel Casters.....	2
B. Fixed Casters.....	2
C. Left Corner Bracket.....	1
D. Right Corner Bracket.....	1
E. Right Corner Bracket w/Foot Post.....	1
F. Left Corner Bracket w/Foot Post.....	1
G. Side Rails 21¼" Long.....	4
H. Knobs M12-1.75.....	2
I. Feet.....	2
J. Hardware Bag (not shown)	
–Hex Bolts M8-1.25 x 16 (Casters).....	16
–Hex Bolts M8-1.25 x 25 (Brackets).....	16
–Lock Nuts M8-1.25 (Brackets).....	16
–Lock Washers 8mm (Casters).....	16
–Flat Washers 8mm (Casters).....	16
–Hex Nuts M8-1.25 (Casters).....	16

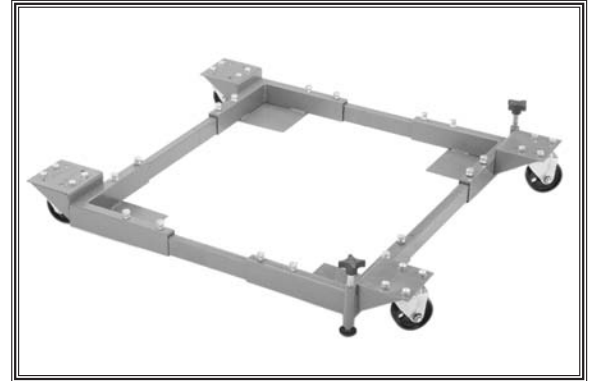


Figure 1. Model D2057A.

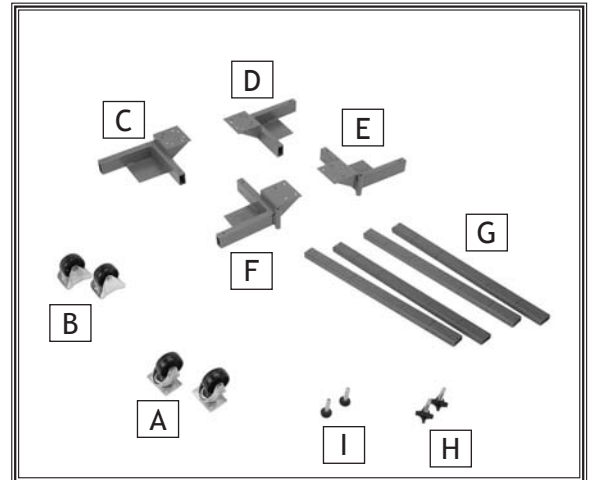


Figure 2. Inventory.

⚠ WARNING

Do not use the Model D2057A until you have read and understood this instruction sheet and completed the entire assembly procedure. Serious personal injury may occur if you ignore this warning.

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Preparation

The machine base must sit on the four corner brackets of the mobile base shown in **Figure 3**.

To prepare the mobile base for assembly, do these steps:

1. If you haven't already done so, make sure the weight and footprint size of your machine are within the specifications of the mobile base shown in *Specifications* on **Page 1**.

Note: Anything extending outward within a 2" high band (see **Figure 4**) around the base of the machine may interfere with the installation of the machine on the base, so be sure to account for that during assembly.

- If the weight and footprint size of your machine do not exceed the specifications of the mobile base, go to **Step 2**.
- If the weight and footprint size of your machine are not within the specifications of the Model D2057A mobile base, DO NOT attempt to mount your machine onto this base. Choose a larger Shop Fox mobile base, such as the Model D2058A, that will accommodate the footprint of your machine.
- If the footprint of the machine is too small for the mobile base, choose a smaller Shop Fox mobile base, such as the Model D2260A. Or complete **Steps 2-3**, assemble the mobile base, then follow the instructions in *Making a Base Plate* on **Page 10**.

2. Determine which end of the machine you want to swivel.

Note: It is usually most convenient to mount the swivel casters to the side of the machine that will be pushed. This provides the greatest degree of maneuverability and control.

- If a long and narrow configuration is required, such as with a jointer or edge sander, it is best to mount the swivel casters on one of the short ends.

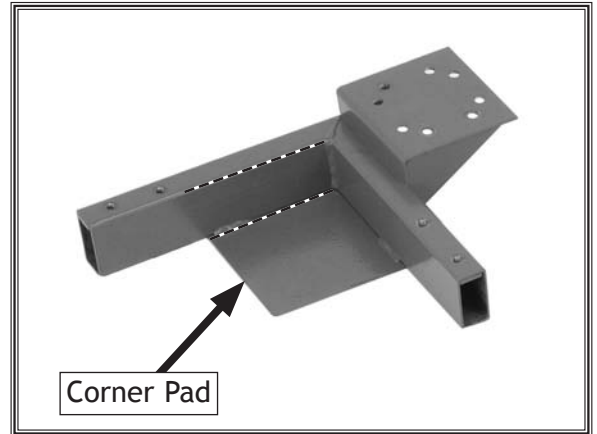


Figure 3. One of four corner brackets pads that machine will sit on.



Figure 4. Example of 2" high band on machine base.

3. Determine how you will get the machine on the mobile base.
 - If the machine can be lifted, follow the instructions in *Assembling Base*, and *Mounting Machine onto Mobile Base* on **Page 11**.
 - If the machine cannot be lifted, build the mobile base around it, as instructed in *Assembling Base Around Machine* on **Page 6**.

Assembling Base

1. Mount each swivel caster to a corner bracket that has the four hole pattern and threaded posts using (4) M8-1.25 x 16 hex bolts, 8mm flat washers, 8mm lock washers, and M8-1.25 hex nuts, as shown in **Figure 5**.

⚠ WARNING

Lift heavy equipment carefully and with the proper equipment. Get assistance if needed to reduce the risk of serious personal injury.

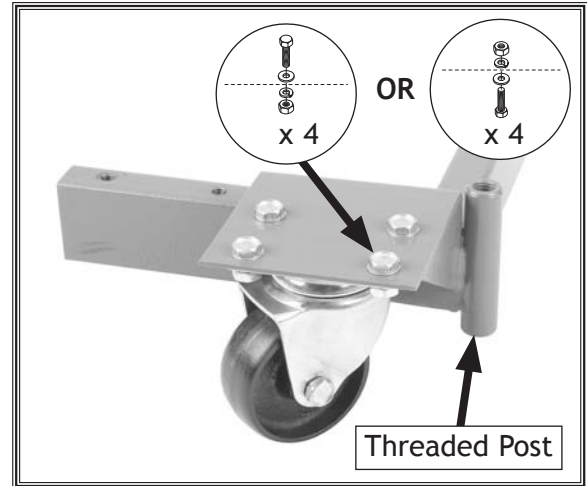


Figure 5. Swivel caster mounted to corner bracket.

2. Mount each fixed caster to a corner bracket with the eight hole pattern using (4) M8-1.25 x 16 hex bolts, 8mm flat washers, 8mm lock washers and M8-1.25 hex nuts, as shown in **Figure 6**.

Orient the fixed casters so they point in the same direction that your machine will typically be moved (see **Figure 7**). Mounting the fixed casters in the wrong direction will make it difficult to move your mobile base.

Note: *Patience is required when installing the fasteners inside the bottom of the fixed casters due to space constraints.*

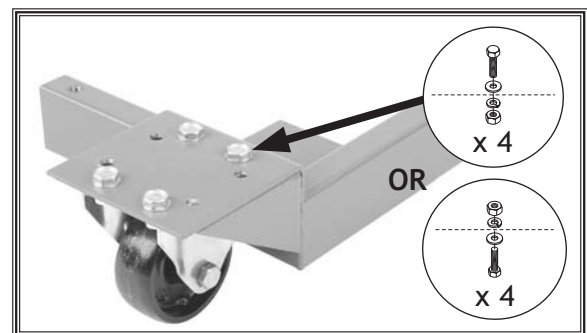


Figure 6. Options for mounting fixed casters to eight hole pattern corner brackets.

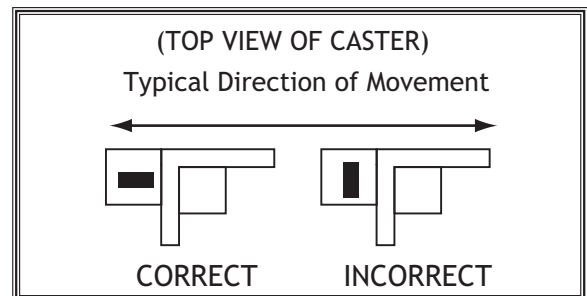


Figure 7. Mounting casters based upon typical direction of movement.

3. Lay the four corner brackets on the floor in the pattern illustrated in **Figure 8**.
4. Make sure the corner brackets with the swivel casters are located on the side that will eventually be the "front" and from which the machine will typically be pushed.

Tip: Wipe a light coat of machine oil onto the top, bottom, and sides of the rail ends before the next step to make it easier to slide the rails into the brackets and simplify later adjustments.

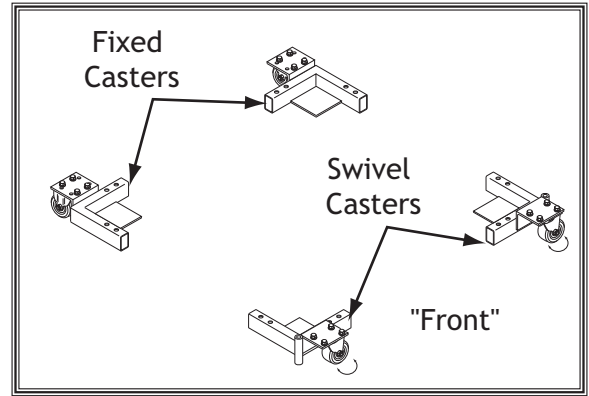


Figure 8. Corner brackets with casters layed out on floor.

5. Slide each side rail inside a corner bracket, as shown in **Figure 9**.
 - If you are attaching your base to the Model D2259A Shop Fox Extension Kit, refer to the instructions that came with your kit.

Note: Before continuing with the next step, you will have to remove one of the rails on the Model D2057A and replace it with the rail in the Model D2259A kit with the rectangular mounting bracket welded to it.

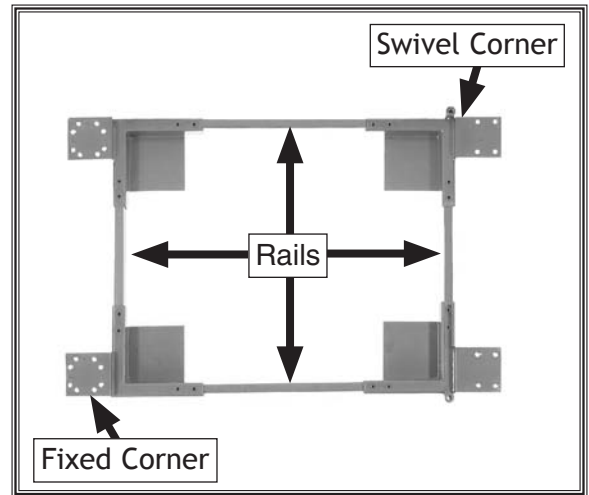


Figure 9. Side rails inserted into corner brackets (casters removed for clarity).

6. Adjust the assembly so the inside dimension of the Model D2057A fits the footprint of your machine, as determined in **Step 1** in *Preparation on Page 2*.
7. Make sure you do not extend the corner brackets beyond the "max" line marked on the rails, as shown in **Figure 10**. Extending the brackets beyond the maximum line may weaken the rail-bracket connections and damage the mobile base.

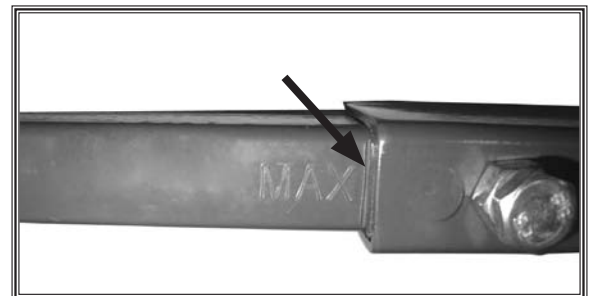


Figure 10. Maximum extension line on rail.

8. Secure each corner bracket to two rails with (4) M8-1.25 x 25 hex bolts, and 8mm lock nuts, as shown in Figure 11.

Tip: Thread the hex bolts into the rails but do not tighten the lock nuts against the rails until instructed later.

⚠ WARNING

Each side rail-to-corner bracket connection must have a minimum of two hex bolts installed, making a total of four bolts at each corner, as shown in Figure 11. Do not load a machine onto the base until all of these bolts have been installed and tightened. Loading a machine onto the base before completing assembly can result in the machine falling or tipping over, resulting in serious personal injury.

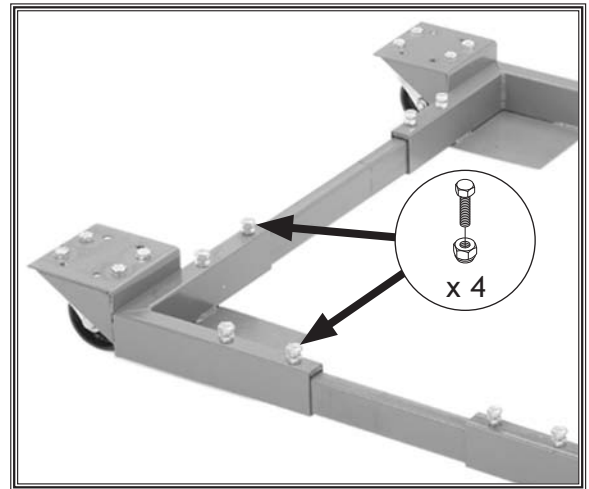


Figure 11. Rails secured to fixed corner brackets.

9. Thread a knob into the top of a foot post several turns, then insert a foot into the bottom of the foot post, as shown in Figure 12. The knob shaft should pick up the foot when it comes in close proximity since the top of the foot is magnetized.
10. Repeat Step 9 to install the remaining knob and foot into the other foot post.
11. With the mobile base sitting on the floor, adjust the knobs to raise the feet off the floor.
12. Proceed to *Mounting Machine onto Mobile Base on Page 11.*

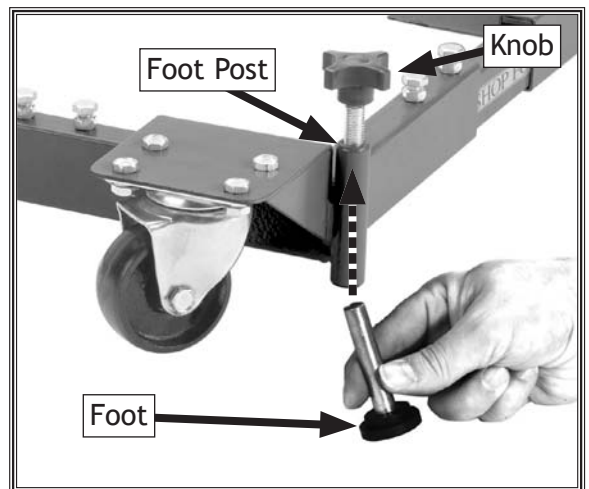


Figure 12. Installing foot pad and knob into a foot post.

Assembling Base Around Machine

1. Thread each knob several turns into the foot posts, as shown in **Figure 12** in *Assembling Base* on **Page 5**.
2. Insert a foot into the bottom of each foot post (see **Figure 12** on **Page 5**). The knob should pick up the magnetic shaft of the foot when it gets close.
3. Slide a side rail inside each of the two corner brackets with the foot posts, then slide the assembly up against the side of the machine that will be the front when pushed (**Figure 13**).
4. Move the corner brackets as close to the machine base as possible.
5. Secure the rail to the corner brackets with (4) M8-1.25 x 25 hex bolts, and 8mm lock nuts, as shown in **Figure 14**.

Tip: Thread the hex bolts into the rails but do not tighten the lock nuts against the rails until instructed.

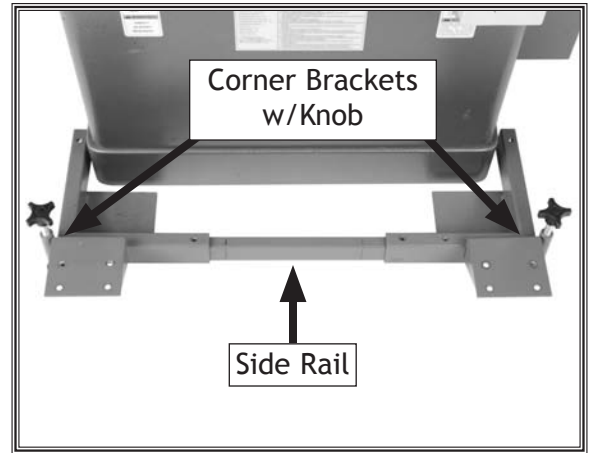


Figure 13. Rail inserted between corner brackets with knobs and feet.

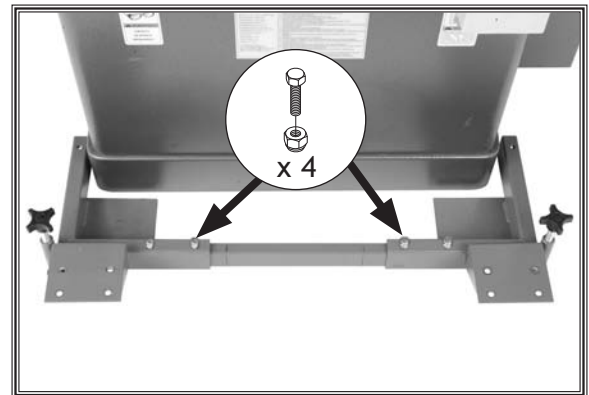


Figure 14. Rail secured to brackets.

- Slide the other pair of rails into the ends of the corner brackets from **Step 5**, then fasten with (4) M8-1.25 x 25 hex bolts, and 8mm lock nuts, as shown in **Figure 15**.

Tip: Thread the hex bolts into the rails but do not tighten the lock nuts against the rails until instructed.

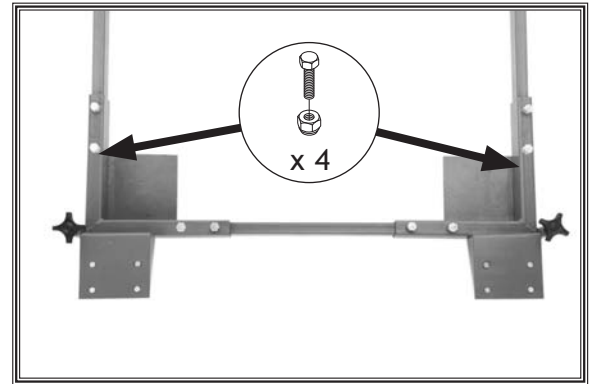


Figure 15. Rails fastened to brackets. (Machine removed from assembly for clarity.)

- While an assistant lifts one side of the machine up, slide the front rail-bracket assembly from **Step 6** under the machine, as shown in **Figure 16**.

Note: It may be necessary to readjust the position of some of the fasteners once the machine is actually on the base assembly.



Figure 16. Corner bracket-rail assembly placed under front of machine.

- Mount each fixed caster to a corner bracket with the eight hole pattern using (4) M8-1.25 x 16 hex bolts, 8mm flat washers, 8mm lock washers and M8-1.25 hex nuts, as shown in **Figure 17**.

Orient the fixed casters so they point in the same direction that your machine will typically be moved (see **Figure 18**). Mounting the fixed casters in the wrong direction will make it difficult to move your mobile base.

Note: Patience is required when installing the fasteners inside the bottom of the fixed casters due to space constraints.

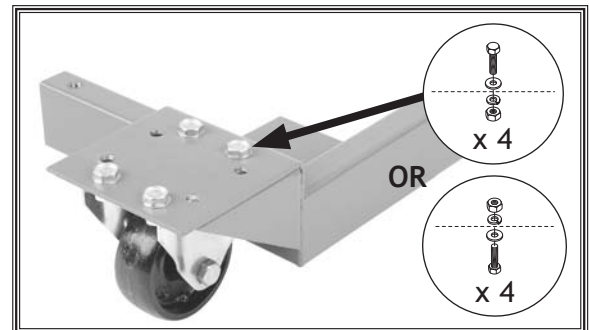


Figure 17. Options for mounting fixed casters to eight hole pattern corner brackets.

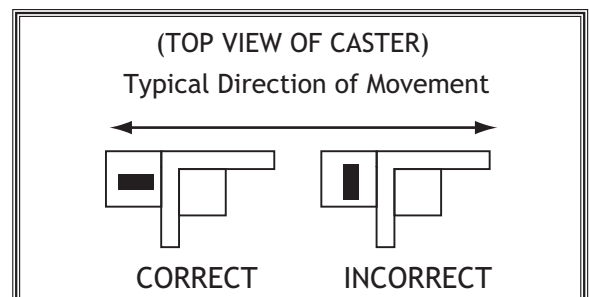


Figure 18. Mounting casters based upon typical direction of movement.

9. With the help of an assistant, lift the rear side of the machine up, then place a 4x4 block under the machine.
10. Slide each of the corner brackets into the remaining rail and slide the assembly over the block and up against the machine, as shown in **Figure 19**.

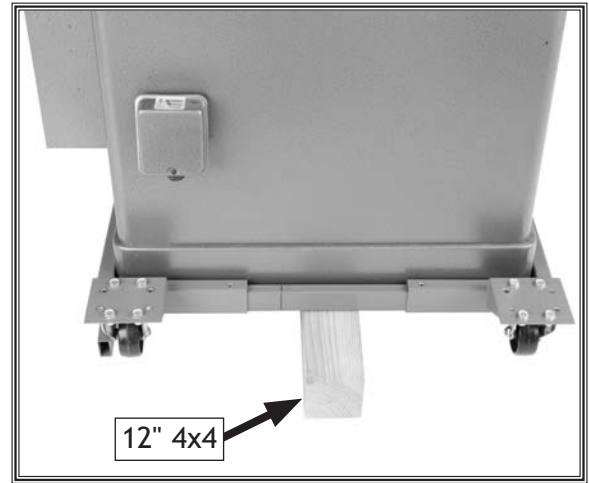


Figure 19. Fixed casters and rail placed around back of machine, which is raised up with a wood block.

11. Fasten the corner brackets to the rail with (4) M8-1.25 x 25 hex bolts, and 8mm lock nuts, as shown in **Figure 20**.

Tip: Thread the hex bolts into the rails but do not tightening the lock nuts against the rails until instructed.

12. Remove the rear rail-corner bracket assembly from the 4x4 block.
13. While the assistant steadies the machine, remove the 4x4 block, then set the machine on the ground.

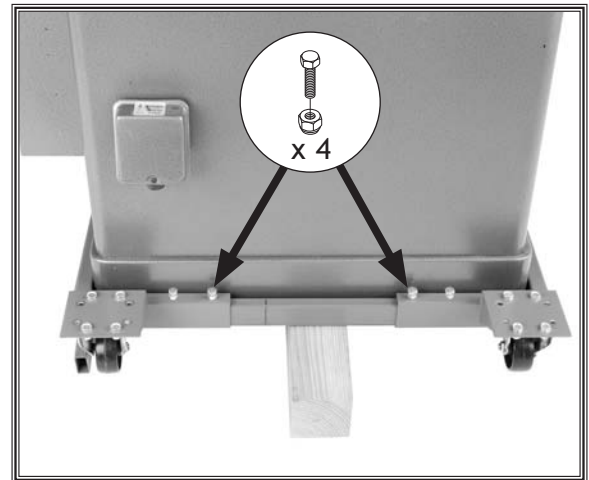


Figure 20. Rear rail-fixed caster assembly secured.

14. Put on safety glasses, use a crowbar and some type of fulcrum to raise one of the side rails that is attached to the front corner bracket assembly, then place a 6" 2x4 under the rail to support it, as shown in **Figure 21**.
15. Repeat **Step 14** to place another 6" 2x4 under the rail on the opposite side of the mobile base.
16. Carefully lean the machine toward the front of the mobile base, making sure there are no large gaps between the machine and the front rail-corner bracket assembly.

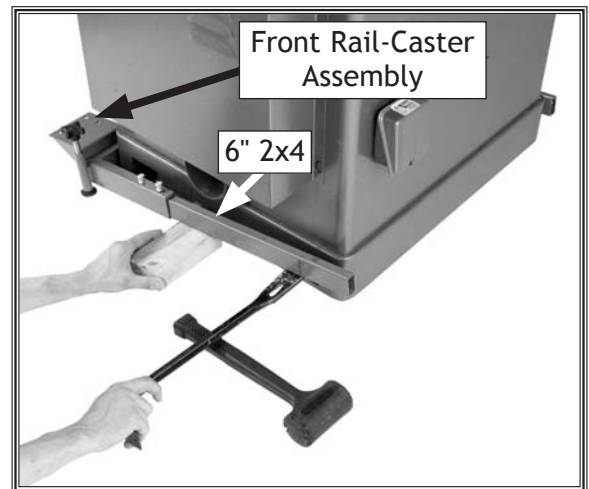


Figure 21. 2x4 placed under rail after using crowbar to raise rail up.

17. While an assistant lifts up on the back of the machine, slide the rear fixed caster assembly onto the side rails of the front rail-corner bracket assembly so the rear assembly is close to the machine base, and the corner pads slide under the machine, as shown in **Figure 22**.

– If the rear assembly is too narrow or too wide to fit onto the side rails, loosen the hex bolts that secure the corner brackets to the rear rail, adjust the width of the rear fixed caster assembly so it slides into the side rails, then retighten the hex bolts.

Tip: It may help to place a 6" 2x4 or 2x6 under the base temporarily if you need to adjust the width of the rear fixed caster assembly (see **Figure 22**). Remove the block after you finish adjustments.

Note: You may need to tap the assembly to slide it forward onto the side rails and under the machine.

18. Secure each side with (2) M8-1.25 x 25 hex bolts and 8mm lock nuts, as shown in **Figure 23**.

Tip: Thread the hex bolts into the rails but do not tightening the lock nuts yet.

19. Tighten the knobs enough to raise the corner brackets, so you can attach the swivel casters in the next step.

20. Mount each of the swivel casters to a front corner bracket using (4) M8-1.25 x 16 hex bolts, 8mm flat washers, 8mm lock washers, and M8-1.25 hex nuts, as shown in **Figure 24**.

21. Final tighten all of the lock nuts.

22. Remove the 2x4's from the mobile base.

23. Assembly of the mobile base is complete.

Note: The feet must not touch the floor when moving the mobile base, and the feet must be firmly against the floor in order to operate the machine.

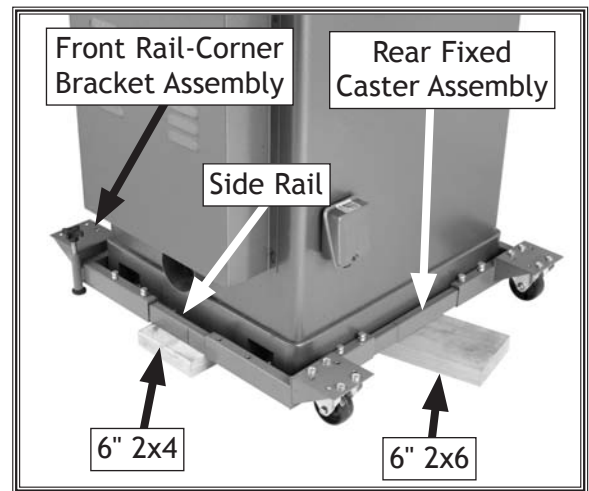


Figure 22. Rear fixed caster assembly inserted into front caster assembly.

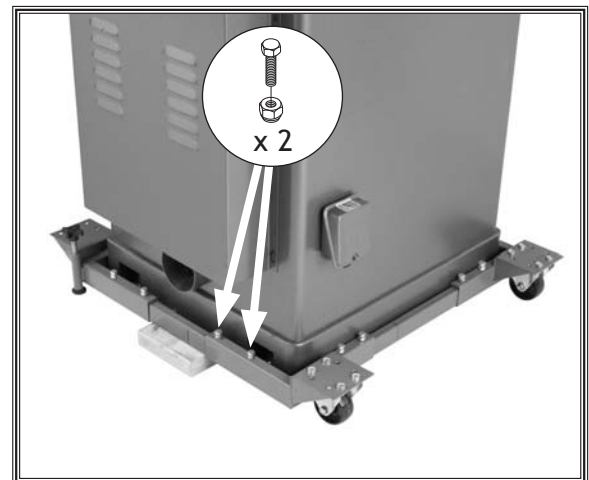


Figure 23. Rear fixed caster assembly secured to side rail (only one side shown).

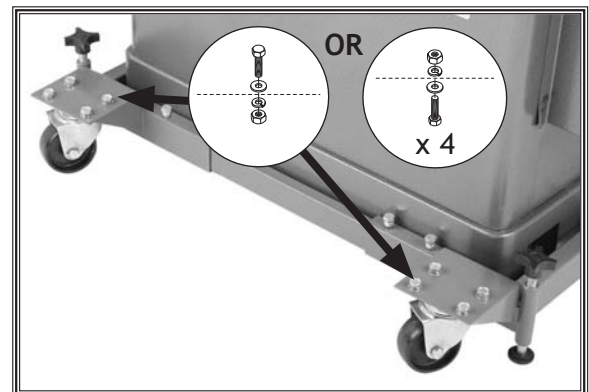


Figure 24. Swivel casters installed.

Making a Base Plate

If the footprint of the machine is too small for your mobile base, you can mount it to a base plate, as shown in **Figure 25**.

A good quality base plate can increase the standard footprint of machines, such as drill presses, to make them more stable. The base plate must be at least 1½" thick and made of plywood (do not use OSB, MDF, or particle board) to hold the weight of the machine.

Needed Materials for Base Plate

Qty

- Plywood ¾" x 29½" x 29½" (Max. for D2057A)2
- Wood Glue As Needed
- Wood Screws #6 x 1¼" 24
- Mounting HardwareVaries

To make and use the base plate, do these steps:

1. Glue the two pieces of plywood together, and align the edges and corners so the two boards make one thick piece.
2. Use the wood screws to fasten the boards together from both sides.
3. Allow 24 hours for the glue to dry before placing your machine on it.
4. Place the base plate on the mobile base.
5. Drill holes through the base plate and the metal plates at the corners of the mobile base.
6. Secure the base plate to the mobile base with hex bolts, hex nuts, flat washers and lock washers, as shown in **Figure 26**.

Note: Use 2" to 2¼" long hex bolts.

7. Place your machine on the base plate.
8. Position the machine close to the front or center of the mobile base, so the mobile base will not be a tripping hazard.
9. Mount the machine to the base plate with lag bolts and flat washers (see **Figure 25**); or drill holes through the base plate and secure the machine with through bolts, flat washers, and hex nuts.

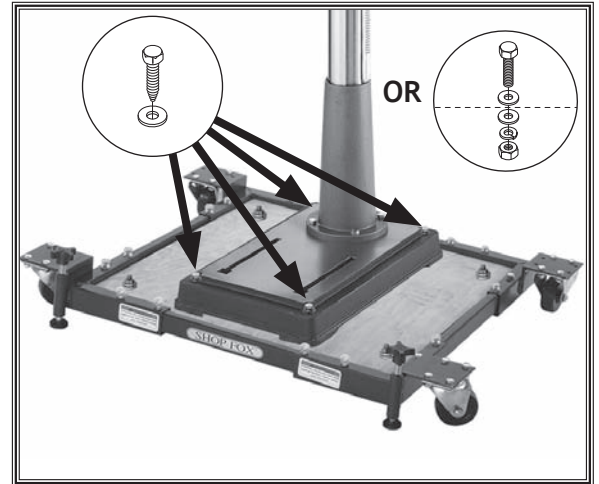


Figure 25. Example of drill press mounted on mobile base, using a base plate for support.

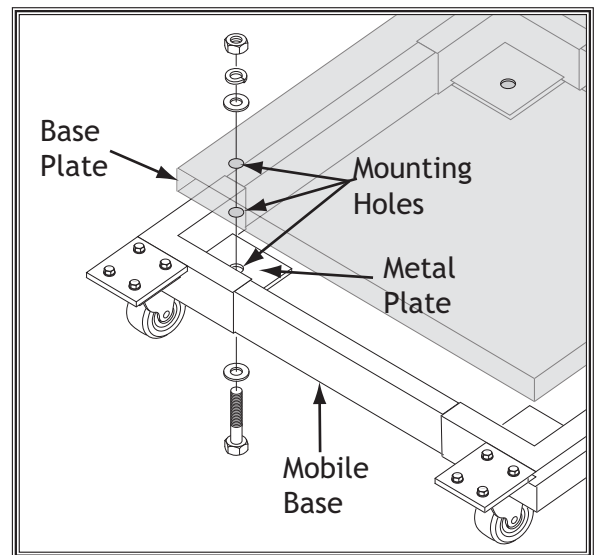


Figure 26. Mounting base plate to mobile base.

Mounting Machine onto Mobile Base

1. Check to make sure all fasteners are tightened on the mobile base.
2. Check to make sure the machine will clear the side rails all the way around the machine base.
 - If the machine does not clear the side rails due to an obstruction on the machine base, follow **Steps 1-4** in *Making a Base Plate* on **Page 10**. By raising the machine up with the plate, you may be able to clear the obstruction.
3. Using a forklift or other lifting help, lift the machine into position onto the mobile base, making sure the orientation of the machine matches that of the base.
4. Slowly lower the machine onto the corner bracket pads (see **Figure 3** on **Page 2**).
5. Check to make sure the machine is properly seated on the pads, and that there is no sign of stress or deflection in the mobile base.
 - If there is any deflection or stress, immediately remove the machine from the base and check that all fasteners have been tightened and that the base is properly assembled. If this does not solve the problem, double check the weight specification of the machine and make certain it does not exceed the load limit listed in *Specifications* on **Page 1**.

Using Mobile Base

1. **DISCONNECT THE MACHINE FROM POWER!**
2. With the machine mounted on the mobile base, turn the knobs on the corner brackets counterclockwise so the feet clear the floor by at least $\frac{1}{8}$ ".
 - If the floor is uneven, retract the feet completely to eliminate the chance of the pads dragging on the floor.
3. Check to make sure the pathway is clear of all obstructions.

WARNING

Lift heavy equipment carefully and with the proper equipment. Get assistance if needed to reduce the risk of serious personal injury.

WARNING

To avoid serious personal injury, keep your hands and fingers clear of machine base and mobile base pinch points when placing the machine.

WARNING

To reduce risk of serious injury when using this mobile base:

1. **LOCKING FEET.** Do not operate the machine on the mobile base unless both mobile base feet firmly contact the floor and raise the base enough to disable the casters. Using the machine on the base when it is not secured could result in a loss of workpiece control.
2. **TIPPING HAZARD.** To avoid tipping it over, push the machine and base at the lowest possible point and have an assistant stabilize the machine if it is large.
3. **PINCH HAZARD.** Keep your hands clear of any potential obstructions between the machine you are moving and other equipment or tables that may protrude into the path of travel.
4. **MACHINE STABILITY.** Test for stability after placing the machine in its new location. Turn the knobs down enough to move the feet against the ground, then push on the machine at several locations, making sure it is not off balance.

- Push the machine from the lowest possible point to avoid tipping it over and move it to its new location.

Tip: *The best control is usually achieved by pushing on the side with the swivel casters.*

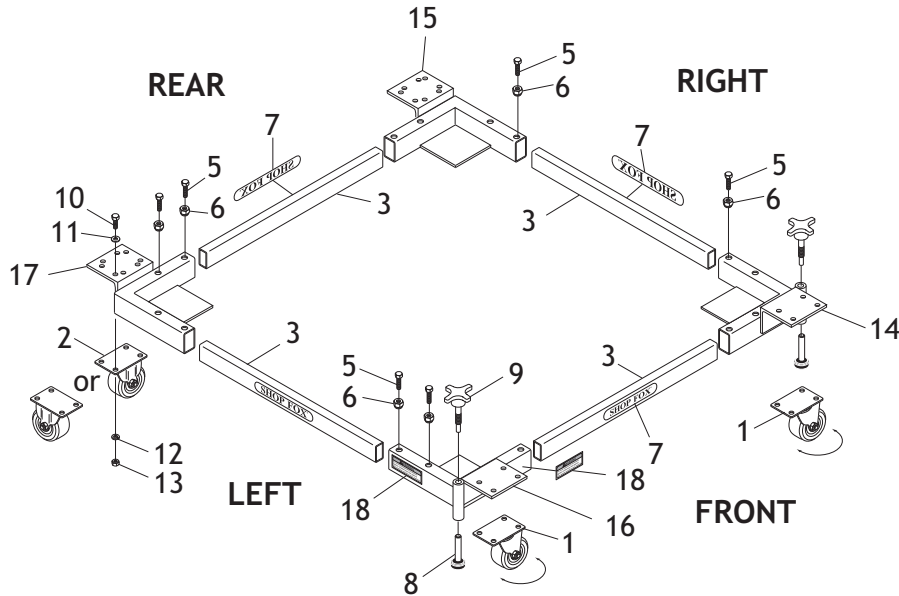
– If the machine is very large, get an assistant to help stabilize the machine while it is being moved.

- Turn the knobs until the feet touch the floor, then turn the knobs at least an additional half turn. This will ensure that the major load of the machine is on the feet rather than on the casters.
- Check the machine to make sure it is stable in its new location, and make sure the machine is clear of any obstructions before re-connecting the power and turning the machine **ON**.

⚠ CAUTION

Before moving the machine and mobile base, check to make sure the pathway is clear of any hoses, wires, tools or shop debris. An abrupt impact with an object in the path of travel can lock a wheel and cause the machine to fall over, resulting in serious personal injury. Disconnect the machine from any power supply or dust collection system before moving.

D2057A Parts



REF	PART #	DESCRIPTION
1	XD2057A001	SWIVEL CASTER
2	XD2057A002	FIXED CASTER
3	XD2057A003	RAIL 21-1/4" LONG
5	XPB07M	HEX BOLT M8-1.25 X 25
6	XPLN04M	LOCK NUT M8-1.25
7	XD2271012	SHOP FOX LOGO LABEL
8	XD2058A008	FOOT WITH MAGNET
9	XD2058A009	KNOB M12-1.75
10	XPB03M	HEX BOLT M8-1.25 X 16

REF	PART #	DESCRIPTION
11	XPW01M	FLAT WASHER 8MM
12	XPLW04M	LOCK WASHER 8MM
13	XPN03M	HEX NUT M8-1.25
14	XD2057A014	RIGHT CORNER BRACKET W/FOOT POST
15	XD2057A015	RIGHT CORNER BRACKET
16	XD2057A016	LEFT CORNER BRACKET W/FOOT POST
17	XD2057A017	LEFT CORNER BRACKET
18	XD2058A018	TIGHTEN FEET WARNING LABEL