WS-001 Handsaw bench hook

Brace a small workpiece against a bench edge for controlled hand sawing.

Controlling dimensions: US inches and feet. Metric equivalents are references. Original editorial design; no physical build, animal trial or load certification is claimed.

Before marking and cutting

US inches; feet where appropriate. Metric values are rounded references. Written inch values control.

3/4 in means measured 0.750 in actual thickness wherever used. Recalculate mating lengths for other sheet thicknesses; do not substitute nominal stock blindly.

Use limits

For the bounded stated manual task. Do not install it on a powered machine or use it to replace a guard.

No load, measurement-certification or protective-equipment claim.

Materials and finished cuts

Part	Qty	Size to cut	Material and detail
A Reference board	1	12 × 8 × 3/4 in 304.8 × 203.2 × 19.05 mm	Sanded birch plywood with sound, void-free receiving edges. Measured actual thickness 3/4 in.
B Upper stop	1	12 × 1 1/2 × 3/4 in 304.8 × 38.1 × 19.05 mm	Clear solid hard maple, straight grain along the listed length. Measured actual thickness 3/4 in.
C Underside bench lip	1	12 × 1 1/2 × 3/4 in 304.8 × 38.1 × 19.05 mm	Clear solid hard maple, straight grain along the listed length. Measured actual thickness 3/4 in.

Hardware and consumables

6 × Compatible wood screws. Selected length, pilots and locations are stated in the instructions; test on actual scrap.

Tools

Rule with fractional inches; Pencil or appropriate material marker; Reliable square; Saw suited to the specified stock; Clamps; Abrasive and dust-removal brush; Drill with the specified bit and depth stop where needed; Driver matching selected fasteners

Primary context and design record

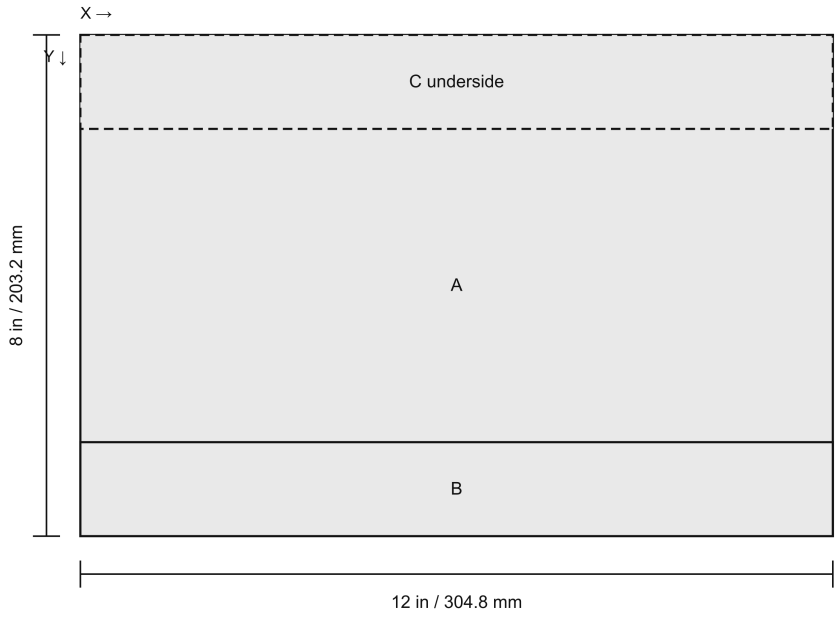
Context references; not design endorsements or certifications.

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Assembly and first checks

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PLAN / reference origin at front-left; not to scale. Inch values control.



Part letters identify the cut-list pieces. Dashed outline = underside part.
Coordinates in the method use the same X/Y reference.
Do not drill from the graphic: transfer the written center coordinates.
Original editorial design; no physical construction trial or certified load rating.

01 Use a stable bench with a square front edge. This hook is for a handsaw only; choose a cutting position that never brings the blade toward the supporting hand.

02 Cut A to 12 in / 304.8 mm by 8 in / 203.2 mm from flat measured 3/4 in stock. Mark one face UP and mark front-left X0 Y0; remove only the splinters, not the reference edges.

03 Draw the centerline and attachment footprints from the part positions below. Measure from the reference faces each time; do not add a chain of rounded conversions.

04 Cut B and C each 12 × 1 1/2 × 3/4 in. Label B TOP STOP and C BOTTOM LIP; do not install both on the same face.

05 Clamp B on top of A at Y = 6 1/2–8 in, flush at X = 0 and 12 in. Its working face lies at Y = 6 1/2 in.

06 Dry-fit and clamp the assembly on a stable surface. Check the intended article against the clearances before drilling or gluing; correct the layout on paper if it does not fit.

Complete the assembly

WS-001 Component dimensions

Orthographic component reference. Quantities shown; not a sheet nesting plan or full-size template.



12 × 8 in

A Reference board QTY 1

12 in / 304.8 mm × 8 in / 203.2 mm

thickness 3/4 in / 19.0 mm



12 × 1 1/2 in

B Upper stop QTY 1

12 in / 304.8 mm × 1 1/2 in / 38.1 mm

thickness 3/4 in / 19.0 mm



12 × 1 1/2 in

C Underside bench lip QTY 1

12 in / 304.8 mm × 1 1/2 in / 38.1 mm

thickness 3/4 in / 19.0 mm

Measured actual stock controls. Read the written assembly sequence before cutting or fastening.

07 From beneath A, drill three clearance/countersunk holes at X = 1, 6, 11 in and Y = 7 1/4 in. Pilot B while clamped. Fit three #8 × 1 1/4 in screws; 3/4 in crosses A and 1/2 in enters B.

08 Ease exposed corners and all edges that the operator will touch. Remove dust and any projecting point; countersink only to a flush head.

09 Turn A over and place C at Y = 0–1 1/2 in. Through the top of A, drill/pilot at X = 1, 6, 11 in and Y = 3/4 in; fit three identical screws into C.

10 Clamp the lip against the bench edge. Put sacrificial scrap on A, against B, and check the intended saw stroke without cutting.

11 Make a short trial cut in scrap with hands clear of the path. The saw may mark the sacrificial base; it must not strike a screw.

12 Mark a screw-free cutting strip on the right end, X = 11 1/2–12 in. Keep later replacement screws outside this strip.

Acceptance and intermediate checks

Upper stop face at Y = 6 1/2 in; lower lip on the opposite face at Y = 0–1 1/2 in.

Hook remains seated against the actual bench during a light trial; screws do not enter the marked cutting strip.

Assembly is flat and free of splinters, exposed tips and loose parts.

A second operator can repeat the intended light-duty operation without being coached.

Cleaning and maintenance

Brush or wipe the unloaded assembly clean after use.

Inspect attachment fit and fasteners before each new task.

Replace a damaged contact surface; recheck the reference dimensions after repair.