WS-061 Removable-rib hand washboard

Provide a replaceable smooth ribbed surface for gentle manual fabric washing in a basin.

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

No sanitization, scald protection, detergent formulation or machine-washing equivalent claim.

Materials and finished cuts

Part	Qty	Size to cut	Material and detail
A Backing	1	16 × 10 × 3/4 in 406.4 × 254 × 19.05 mm	Exterior-bond birch plywood, smooth sanded faces; no preservative treatment. Measured actual thickness 3/4 in.
B Cross ribs	10	8 × 1/2 × 3/8 in 203.2 × 12.7 × 9.52 mm	Clear solid hard maple, straight grain along the listed length. Measured actual thickness 3/8 in.
C Upper hand rail	1	10 × 1 1/2 × 3/4 in 254 × 38.1 × 19.05 mm	Clear solid hard maple, straight grain along the listed length. Measured actual thickness 3/4 in.

Hardware and consumables

20 × #6 × 3/4 in stainless screws. Two per rib.

3 × #8 × 1 1/4 in screws. Hand rail through backing.

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

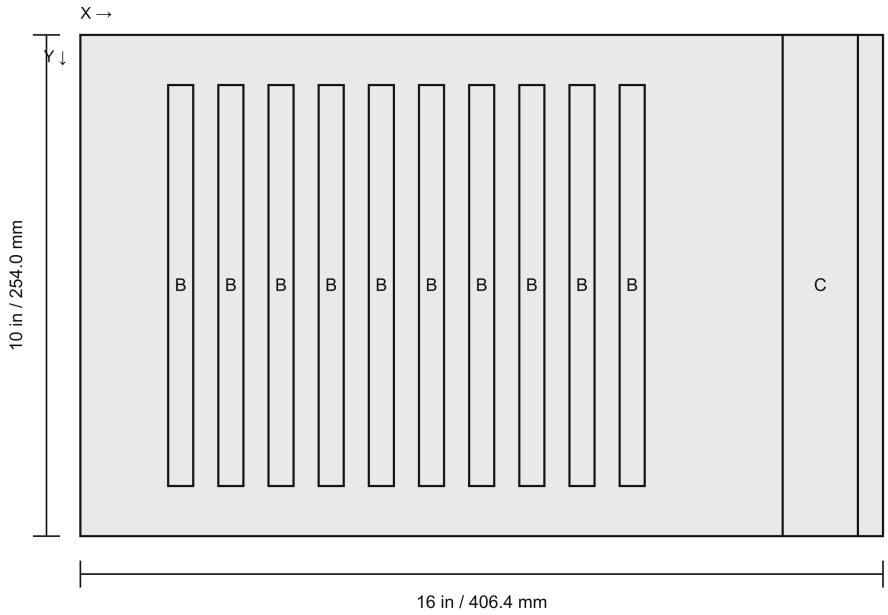
Context references; not design endorsements or certifications.

WS-S01 · Hand and Power Tools · OSHA

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 only sound smooth wood and a separate basin. This board is for gentle laundry scrubbing, never food or chemical mixing.

02 Cut A 16 × 10 × 3/4 in with X along 16 in, ten B ribs 8 × 1/2 × 3/8 in and C 10 × 1 1/2 × 3/4 in.

03 Mark B length along Y from 1–9 in. Place rib centers X = 2,3,4,5,6,7,8,9,10,11 in, leaving a 1/2 in gap between ribs.

04 Round the top of each B to remove sharp corners without sanding through its 3/8 in thickness. Confirm a wet scrap cloth does not snag.

05 Clamp one B at a time and drill two countersunk clearance holes at local Y = 1 and 7 in, centered across its 1/2 in width.

06 Pilot A under those locations. Fit two #6 × 3/4 in stainless screws per rib; 3/8 in crosses B and 3/8 in enters A. Keep every head flush below the rib’s highest rubbing face.

Complete the assembly

WS-061 Component dimensions

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



16 × 10 in

A Backing QTY 1

16 in / 406.4 mm × 10 in / 254.0 mm

thickness 3/4 in / 19.0 mm



8 × 1/2 in

B Cross ribs QTY 10

8 in / 203.2 mm × 1/2 in / 12.7 mm

thickness 3/8 in / 9.5 mm



10 × 1 1/2 in

C Upper hand rail QTY 1

10 in / 254.0 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 Rotate C across Y at X = 14–15 1/2 in and center it across the 10 in width. Fix from under A using three #8 × 1 1/4 in screws at Y = 1,5,9 in, X = 14 3/4 in.

08 Set the board in a basin with the lower end supported and hold only C. Use cool or comfortably warm water and detergent per its label.

09 Move cloth gently across ribs; stop at any screw contact, snag or lifting rib. Do not scrub delicate fabrics without their care instructions.

10 Rinse, remove and dry the board fully on edge; ribs can be unscrewed individually for inspection or replacement.

Acceptance and intermediate checks

Ten ribs on 1 in centers; nominal 1/2 in gaps.

Rib screws penetrate A only 3/8 in and are recessed away from cloth.

Test cloth does not snag and board is supported by the basin, not the user’s body.

Cleaning and maintenance

Rinse and dry after each use.

Inspect every screw recess and rib before washing.