

DELTA 28-303

DELTA 14 Inch Wood-Metal Band Saw Model 28-303 Instruction Manual

Your guide to safe and efficient operation

1. IMPORTANT SAFETY INSTRUCTIONS

Always follow basic safety precautions to reduce the risk of fire, electric shock, and personal injury when operating power tools. Read all instructions before operating this band saw.

- **Wear Eye Protection:** Always wear safety glasses or a face shield.
- **Use Hearing Protection:** Prolonged exposure to noise can cause hearing damage.
- **Keep Work Area Clean:** Cluttered areas invite accidents.
- **Do Not Operate in Dangerous Environments:** Do not use power tools in damp or wet locations, or expose them to rain.
- **Keep Children Away:** All visitors should be kept a safe distance from the work area.
- **Secure Workpiece:** Always clamp or otherwise secure the workpiece to prevent movement during cutting.
- **Avoid Accidental Starting:** Ensure the switch is in the OFF position before plugging in the tool.
- **Do Not Force Tool:** The tool will do the job better and safer at the rate for which it was designed.
- **Maintain Tools With Care:** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- **Disconnect Power:** Always disconnect the band saw from the power source before making adjustments, changing accessories, or performing maintenance.

2. SETUP AND ASSEMBLY

2.1 Attaching Band Saw to the Optional Stand

CAUTION: The band saw is very heavy. Use a helper when attaching the saw to the stand.

Attach the band saw to the optional stand using the four holes provided (two are shown at (A) Fig. 7). Place one 5/16-18 x 1-3/4" hex head screw with one 5/16" flat washer through each hole through the bottom of the band saw and the top of the stand, and attach with a 5/16" lock washer, and 5/16-18 hex nut.

NOTE: Screws, washers, and nuts for attaching the saw to the stand come with the optional stand.

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Figure 7: This image shows the base of the band saw with two mounting holes labeled 'A'. These holes are used to secure the band saw to an optional stand. The overall image displays the top-left portion of the original instruction page.

2.2 Attaching Motor Pulley

Both the motor pulley (A) Fig. 8, and the gearbox pulley (B) are four-step pulleys and should always be attached inverted to each other. Check to see if the gear box pulley (B) is attached with the largest step of the pulley in the "in" or "out" position. In this case, the largest step of the gear box pulley (B) is in the "in" position. Attach the motor pulley (A) to the motor shaft with the largest step of the motor pulley in the "out" position.

NOTE: When attaching the motor pulley (A) to the motor shaft, use the supplied 3/4" to 5/8" reducing bushing on the motor shaft. Place the supplied key in the motor shaft. Position the reducing bushing on the shaft, being sure to line the split in the reducer with the key. Position the pulley on the shaft. Line it up with the key. Secure with the two supplied 5/16-18 x 5/16" set screws.

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Figure 8: This image illustrates the motor pulley (A) and gearbox pulley (B) arrangement. The motor pulley is shown attached to the motor shaft. This corresponds to the top-middle portion of the original instruction page.

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Figure 9: This image provides a closer look at the motor pulley (A), gearbox pulley (B), drive pulley (C), motor mounting bars (D), and posts (E). These components are crucial for belt alignment and tensioning. This corresponds to the top-right portion of the original instruction page.

2.3 Attaching Belt and Pulley Guard, Attaching and Aligning V-Belt, Adjusting Belt Tension

WARNING: DISCONNECT MACHINE FROM POWER SOURCE.

1. Use a straight edge to align the inside grooves of the pulleys (A) and (B) Fig. 9 to the inside edge of the drive pulley (C). The pulleys can be moved in or out on the shafts and the motor can also be moved.
2. Place the belt and pulley guard (A) Fig. 10A over the belt opening and position the two clamps (B) over the guard flanges and under the top of the stand. Use the four 1/4-20 x 1/2" round head screws in the holes in the bottom of the clamps to fasten in place.
3. Attach the largest V-Belt to the inside groove of the motor pulley (A) Fig. 9 and to the drive pulley (C) Fig. 9. Attach the smaller V-Belt to any one of the remaining three grooves of the motor pulley (A) and the corresponding groove of the gear box pulley (A). (Fig. 10B shows belts in place. Belt and pulley guard was removed for clarity.)
4. Adjust the belt tension by raising or lowering the motor on the motor mounting bars (D) Fig. 9. If necessary, the motor mounting can be repositioned on the two posts (E) Fig. 9. Keep the pulleys in alignment when performing this operation. With light finger pressure, a 1" deflection in the belt at the center span of the pulleys indicates the proper tension.

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Figure 10A: This image shows the belt and pulley guard (A) placed over the belt opening, with clamps (B) positioned over the guard flanges. This corresponds to the bottom-left portion of the original instruction page.

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Figure 10B: This image displays the V-belts correctly installed between the motor pulley and the gearbox pulley. The guard has been removed for visual clarity of the belt placement. This corresponds to the bottom-right portion of the original instruction page.

3. OPERATION

3.1 Blade Selection and Installation

Select the appropriate blade for your material (wood or metal) and desired cut. Ensure the blade is installed with the teeth pointing downwards towards the table. Proper blade tension is critical for accurate cuts and blade longevity.

3.2 Adjusting Blade Guides and Thrust Bearings

Adjust the blade guides and thrust bearings to provide proper support to the blade. The guides should be set close to the blade without binding, typically with a clearance of 0.002-0.004 inches. The thrust bearing should be positioned just behind the blade, allowing it to rotate freely but preventing excessive blade deflection during cutting.

3.3 Setting Cutting Speed

This band saw features a gearbox to obtain different speeds, suitable for both wood and metal cutting. Refer to the speed chart (typically found in the full manual) to select the correct blade speed for your material. Lower speeds are generally used for metal, while higher speeds are for wood.

3.4 Making a Cut

Ensure the workpiece is stable and properly supported. Turn on the band saw and allow the blade to reach full speed before beginning the cut. Feed the material into the blade smoothly and consistently, without forcing it. Use a push stick for smaller pieces to keep hands away from the blade.

4. MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your DELTA band saw.

- **Cleaning:** Regularly clean sawdust and metal chips from the machine, especially from the blade guides, wheels, and motor area. Use a vacuum or brush; never use compressed air directly on electrical components.
- **Lubrication:** Follow the lubricating instructions provided in the full manual. Key areas often include wheel bearings, gearbox, and blade tensioning mechanisms.
- **Blade Inspection:** Inspect the blade for dullness, cracks, or missing teeth before each use. Replace damaged blades immediately.
- **Belt Tension:** Periodically check and adjust belt tension as described in Section 2.3 to ensure efficient power transfer and prevent slippage.
- **Electrical Cord Inspection:** Check the power cord for any damage or fraying. Replace if necessary.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your band saw.

Problem	Possible Cause	Solution
Blade not tracking correctly	Incorrect blade tension; Worn tires; Misaligned wheels	Adjust blade tension; Replace worn tires; Align wheels according to full manual
Excessive vibration	Loose components; Unbalanced wheels; Dull blade	Check all fasteners; Inspect wheels for damage; Replace or sharpen blade
Motor runs but blade does not move	Broken belt; Loose belt; Blade jammed	Replace belt; Adjust belt tension; Clear any obstructions from blade path
Poor cut quality (rough, wavy)	Dull blade; Incorrect blade tension; Improper blade guides adjustment	Replace or sharpen blade; Adjust blade tension; Adjust blade guides for proper clearance

6. SPECIFICATIONS

The DELTA 14 Inch Wood-Metal Band Saw Model 28-303 is designed for versatile cutting applications.

- **Model:** 28-303
- **Blade Size:** 14 Inch (nominal)
- **Material Compatibility:** Wood and Metal
- **Speed Control:** Multi-speed gearbox for optimized cutting across various materials.
- **Mounting:** Designed for optional stand attachment.

For detailed technical specifications, including motor horsepower, cutting capacity, and dimensions, please refer to the complete product manual or the manufacturer's official website.

7. WARRANTY INFORMATION

Specific warranty details for the DELTA 14 Inch Wood-Metal Band Saw Model 28-303 are typically provided with the original purchase documentation. This may include information on warranty duration, coverage, and how to make a claim.

Please retain your proof of purchase for warranty purposes. For the most current and complete warranty information, consult the official DELTA product warranty statement or contact DELTA customer support.

8. CUSTOMER SUPPORT

Should you require assistance with your DELTA 14 Inch Wood-Metal Band Saw Model 28-303, including technical support, parts ordering, or service, please contact DELTA customer service.

Contact information (phone numbers, email, or website) can typically be found in the full product manual, on the product packaging, or on the official DELTA tools website.

When contacting support, please have your model number (28-303) and serial number ready to expedite service.