



# OPERATING INSTRUCTIONS AND PARTS MANUAL

## SINGLE END DOVETAILER MODEL: BDTB-XXP

Wood Working



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## THANK YOU & WARRANTY

Thank you for your purchase of a machine from Baileigh Industrial. We hope that you find it productive and useful to you for a long time to come.

**Inspection & Acceptance.** Buyer shall inspect all Goods within ten (10) days after receipt thereof. Buyer's payment shall constitute final acceptance of the Goods and shall act as a waiver of the Buyer's rights to inspect or reject the goods unless otherwise agreed. If Buyer rejects any merchandise, Buyer must first obtain a Returned Goods Authorization ("RGA") number before returning any goods to Seller. Goods returned without an RGA will be refused. Seller will not be responsible for any freight costs, damages to goods, or any other costs or liabilities pertaining to goods returned without a RGA. Seller shall have the right to substitute a conforming tender. Buyer will be responsible for all freight costs to and from Buyer and repackaging costs, if any, if Buyer refuses to accept shipment. If Goods are returned in unsalable condition, Buyer shall be responsible for full value of the Goods. Buyer may not return any special-order Goods. Any Goods returned hereunder shall be subject to a restocking fee equal to 30% of the invoice price.

**Specifications.** Seller may, at its option, make changes in the designs, specifications or components of the Goods to improve the safety of such Goods, or if in Seller's judgment, such changes will be beneficial to their operation or use. Buyer may not make any changes in the specifications for the Goods unless Seller approves of such changes in writing, in which event Seller may impose additional charges to implement such changes.

**Limited Warranty.** Seller warrants to the original end-user that the Goods manufactured or provided by Seller under this Agreement shall be free of defects in material or workmanship for a period of twelve (12) months from the date of purchase, provided that the Goods are installed, used, and maintained in accordance with any instruction manual or technical guidelines provided by the Seller or supplied with the Goods, if applicable. The original end-user must give written notice to Seller of any suspected defect in the Goods prior to the expiration of the warranty period. The original end-user must also obtain a RGA from Seller prior to returning any Goods to Seller for warranty service under this paragraph. Seller will not accept any responsibility for Goods returned without a RGA. The original end-user shall be responsible for all costs and expenses associated with returning the Goods to Seller for warranty service. In the event of a defect, Seller, at its sole option, shall repair or replace the defective Goods or refund to the original end-user the purchase price for such defective Goods. Goods are not eligible for replacement or return after a period of 10 days from date of receipt. The foregoing warranty is Seller's sole obligation, and the original end-user's exclusive remedy, with regard to any defective Goods. This limited warranty does not apply to: (a) die sets, tooling, and saw blades; (b) periodic or routine maintenance and setup, (c) repair or replacement of the Goods due to normal wear and tear, (d) defects or damage to the Goods resulting from misuse, abuse, neglect, or accidents, (f) defects or damage to the Goods resulting from improper or unauthorized alterations, modifications, or changes; and (f) any Goods that has not been installed and/or maintained in accordance with the instruction manual or technical guidelines provided by Seller.

**EXCLUSION OF OTHER WARRANTIES.** THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY AND ALL OTHER EXPRESS, STATUTORY OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. NO WARRANTY IS MADE WHICH EXTENDS BEYOND THAT WHICH IS EXPRESSLY CONTAINED HEREIN.

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**Force Majeure.** Seller shall not be responsible for any delay in the delivery of, or failure to deliver, Goods due to causes beyond Seller's reasonable control including, without limitation, acts of God, acts of war or terrorism, enemy actions, hostilities, strikes, labor difficulties, embargoes, non-delivery or late delivery of materials, parts and equipment or transportation delays not caused by the fault of Seller, delays caused by civil authorities, governmental regulations or orders, fire, lightning, natural disasters or any other cause beyond Seller's reasonable control. In the event of any such delay, performance will be postponed by such length of time as may be reasonably necessary to compensate for the delay.

**Installation.** If Buyer purchases any Goods that require installation, Buyer shall, at its expense, make all arrangements and connections necessary to install and operate the Goods. Buyer shall install the Goods in accordance with any Seller instructions and shall indemnify Seller against any and all damages, demands, suits, causes of action, claims and expenses (including actual attorneys' fees and costs) arising directly or indirectly out of Buyer's failure to properly install the Goods.

**Work By Others; Safety Devices.** Unless agreed to in writing by Seller, Seller has no responsibility for labor or work performed by Buyer or others, of any nature, relating to design, manufacture, fabrication, use, installation or provision of Goods. Buyer is solely responsible for furnishing and requiring its employees and customers to use all safety devices, guards and safe operating procedures required by law and/or as set forth in manuals and instruction sheets furnished by Seller. Buyer is responsible for consulting all operator manuals, ANSI or comparable safety standards, OSHA regulations and other sources of safety standards and regulations applicable to the use and operation of the Goods.

**Remedies.** Each of the rights and remedies of Seller under this Agreement is cumulative and in addition to any other or further remedies provided under this Agreement or at law or equity.

**Attorney's Fees.** In the event legal action is necessary to recover monies due from Buyer or to enforce any provision of this Agreement, Buyer shall be liable to Seller for all costs and expenses associated therewith, including Seller's actual attorney fees and costs.

**Governing Law/Venue.** This Agreement shall be construed and governed under the laws of the State of Wisconsin, without application of conflict of law principles. Each party agrees that all actions or proceedings arising out of or in connection with this Agreement shall be commenced, tried, and litigated only in the state courts sitting in Manitowoc County, Wisconsin or the U.S. Federal Court for the Eastern District of Wisconsin. Each party waives any right it may have to assert the doctrine of "forum non conveniens" or to object to venue to the extent that any proceeding is brought in accordance with this section. Each party consents to and waives any objection to the exercise of personal jurisdiction over it by courts described in this section. Each party waives to the fullest extent permitted by applicable law the right to a trial by jury.

**Summary of Return Policy.**

- 10 Day acceptance period from date of delivery. Damage claims and order discrepancies will not be accepted after this time.
- You must obtain a Baileigh Industrial issued RGA number PRIOR to returning any materials.
- Returned materials must be received at Baileigh Industrial in new condition and in original packaging.
- Altered items are not eligible for return.
- Buyer is responsible for all shipping charges.
- A 30% re-stocking fee applies to all returns.

Baileigh Industrial makes every effort to ensure that our posted specifications, images, pricing and product availability are as correct and timely as possible. We apologize for any discrepancies that may occur. Baileigh Industrial reserves the right to make any and all changes deemed necessary in the course of business including but not limited to pricing, product specifications, quantities, and product availability.

**For Customer Service & Technical Support:**

Please contact one of our knowledgeable Sales and Service team members at:  
(920) 684-4990 or e-mail us at [Baileigh-Service@jpwindustries.com](mailto:Baileigh-Service@jpwindustries.com)



## **GENERAL NOTES**

After receiving your equipment remove the protective container. Do a complete visual inspection, and if damage is noted, **photograph it for insurance claims** and contact your carrier at once, requesting inspection. Also contact Baileigh Industrial and inform them of the unexpected occurrence. Temporarily suspend installation.

Take necessary precautions while loading / unloading or moving the machine to avoid any injuries.

Your machine is designed and manufactured to work smoothly and efficiently. Following proper maintenance instructions will help ensure this. Try and use original spare parts, whenever possible, and most importantly; **DO NOT** overload the machine or make any modifications.



**Note:** *This symbol refers to useful information throughout the manual.*



## Warnings

1. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
2. Replace the warning labels if they become obscured or removed.
3. This dovetailer is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a dovetailer, do not use until proper training and knowledge have been obtained.
4. Do not use this dovetailer for other than its intended use. If used for other purposes, Baileigh Industrial disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
5. Always wear approved safety glasses/face shields while using this dovetailer. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
6. Before operating this dovetailer, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do **not** wear gloves.
7. Wear ear protectors (plugs or muffs) during extended periods of operation.
8. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
  - Lead from lead based paint.
  - Crystalline silica from bricks, cement and other masonry products.
  - Arsenic and chromium from chemically treated lumber.Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles.
9. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
10. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.
11. Make certain the machine is properly grounded.
12. Make all machine adjustments or maintenance with the machine unplugged from the power source.
13. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
14. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
15. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
16. Provide for adequate space surrounding work area and non-glare, overhead lighting.



## Warnings

17. Keep the floor around the machine clean and free of scrap material, oil and grease.
18. Keep visitors a safe distance from the work area. **Keep children away.**
19. Make your workshop child proof with padlocks, master switches or by removing starter keys.
20. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.
21. Maintain a balanced stance at all times so that you do not fall or lean against the cutter or other moving parts. Do not overreach or use excessive force to perform any machine operation.
22. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and safer.
23. Use recommended accessories; improper accessories may be hazardous.
24. Maintain tools with care. Keep cutters sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
25. Make sure the workpiece is securely clamped to the table. Never use your hand to hold the workpiece.
26. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
27. Do not stand on the machine. Serious injury could occur if the machine tips over.
28. Never leave the machine running unattended. Turn off the electrical power and the air supply, and do not leave the machine until cutter comes to a complete stop.
29. Remove loose items and unnecessary workpieces from the area before starting the machine.

**Familiarize yourself with the following safety notices used in this manual:**

**CAUTION** This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

**WARNING** This means that if precautions are not heeded, it may result in serious injury or possibly even death.

**- - SAVE THESE INSTRUCTIONS - -**





## Introduction

This manual is provided by Baileigh Industrial covering the safe operation and maintenance procedures for a Model BDTB-XXP Single End Dovetailer. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. This machine has been designed and constructed to provide years of trouble-free operation if used in accordance to instructions set forth in this manual. If there are any questions or comments, please contact either your local supplier or Baileigh Industrial. Baileigh Industrial can also be reached at our web site: [www.baileigh.com](http://www.baileigh.com).

## Description

The Model BDTB-XXP Dovetailer will make cleanly cut **half-blind dovetails** for drawer or box construction. A four-sided template allows any of four pitches, from 1" up to 2-1/2". The use of different dovetail pitches will give a unique custom appearance to your work. The cutter is carbide-tipped. The machine has a magnetic starter and is built to last with cast iron and steel construction. The pneumatic clamping system is quick and easy to use.

## SPECIFICATIONS

Model Number	BDTM-XXP
Stock Number	1231863
Motor Specs	1HP, 230V, 5A, 60Hz, 1Ph, 3450rpm
Style (Type)	Pneumatic
Number of Dovetail Center Lines	4
Minimum Workpiece Size (L x W) (in.)	7-7/8 x 2-3/8 (200 x 60 mm)
Maximum Workpiece Size (in.)	59 x 16-1/2 (1500 x 420 mm)
Minimum Dovetail Height (in.)	3/16 (4.76 mm)
Maximum Dovetail Height (in.)	3/4 (19.05 mm)
Minimum Front Thickness (in.)	9/32 (7.14 mm)
Maximum Front Thickness (in.)	2-3/8 (60 mm)
Minimum Side Thickness (in.)	3/8 (9.50 mm)
Maximum Side Thickness (in.)	1-3/16 (30 mm)
Maximum Depth of Cut (in.)	2-3/8 (60 mm)
Center to Center Dovetail Spacing (in.)	1, 1-1/2, 2 and 2-1/2 (25, 40, 50 and 80 mm)
Number of Spindles	1
Spindle Speed (rpm)	18,500
Table Height from Floor (in.)	45 (1143 mm)



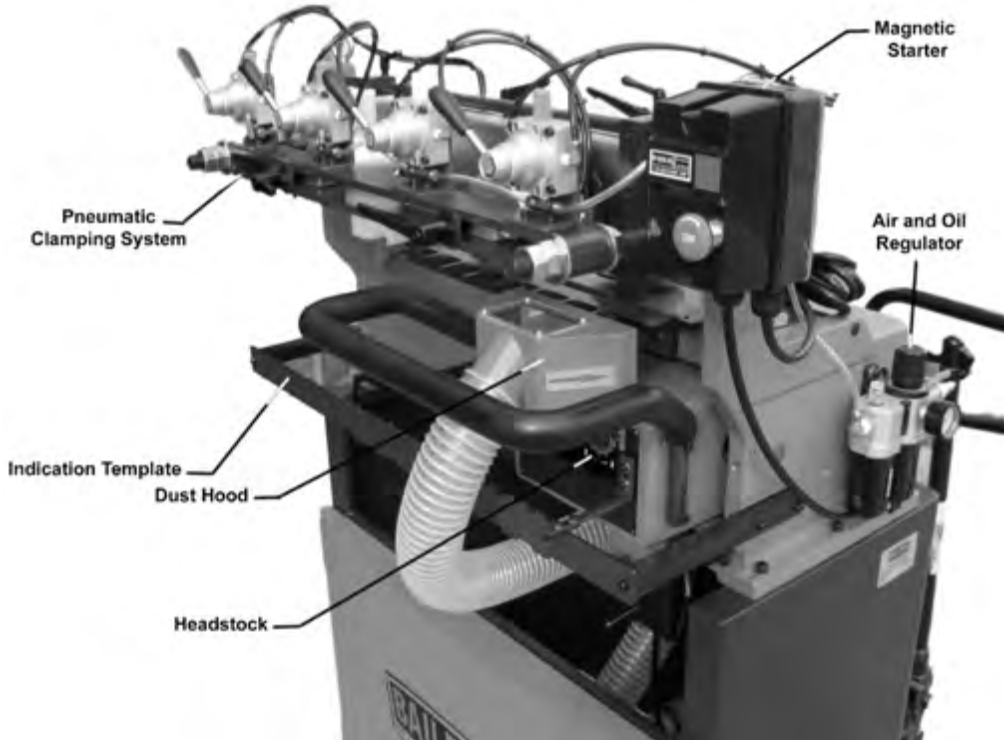
## **SPECIFICATIONS (cont.)**

Overall Dimension (L x W x H in.)	37 x 44 x 63 (940 x 1118 x 1600 mm)
Dust Collection Minimum CFM Required	500
Dust Port Outside Diameter (in.)	Front 2-1/2 (63 mm), Rear 4 (100 mm)
Package Dimension (L x W x H in.)	42-1/2 x 30 x 63 (1080 x 760 x 1600 mm)
Shipping / Net Weight (lb)	510 / 420 (232 / 191 kg)

The above specifications were current at the time this manual was published, but because of our policy of continuous improvement, Baileigh Industrial reserves the right to change specifications at any time and without prior notice, without incurring obligations.

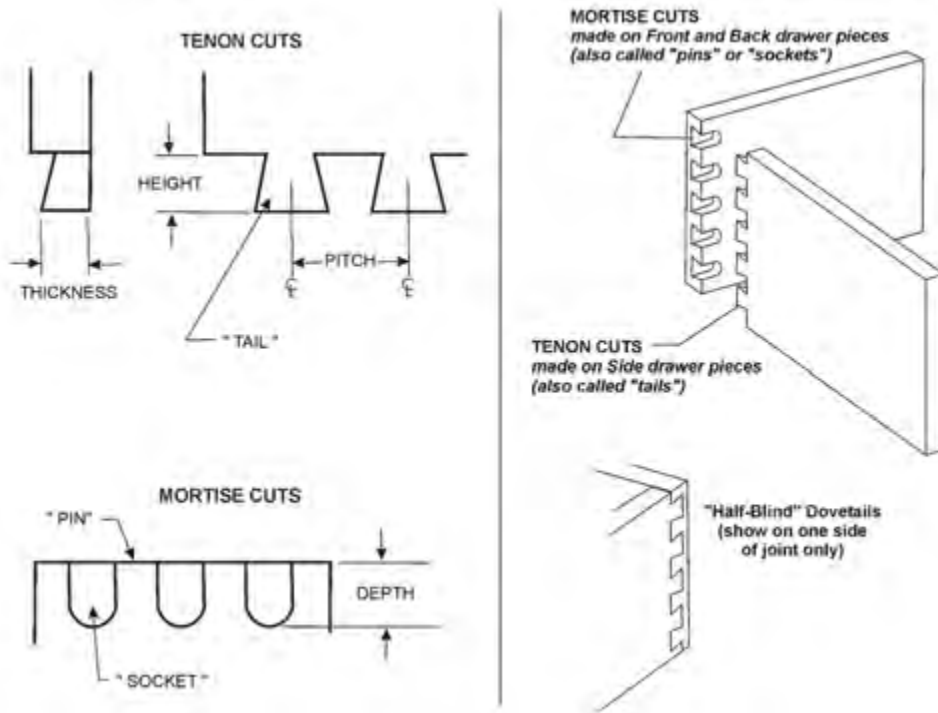


## Features of the BDTB-XXP Dovetailer



## Terminology

Below are the terms used in this manual to identify types of cuts and measurements.

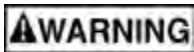
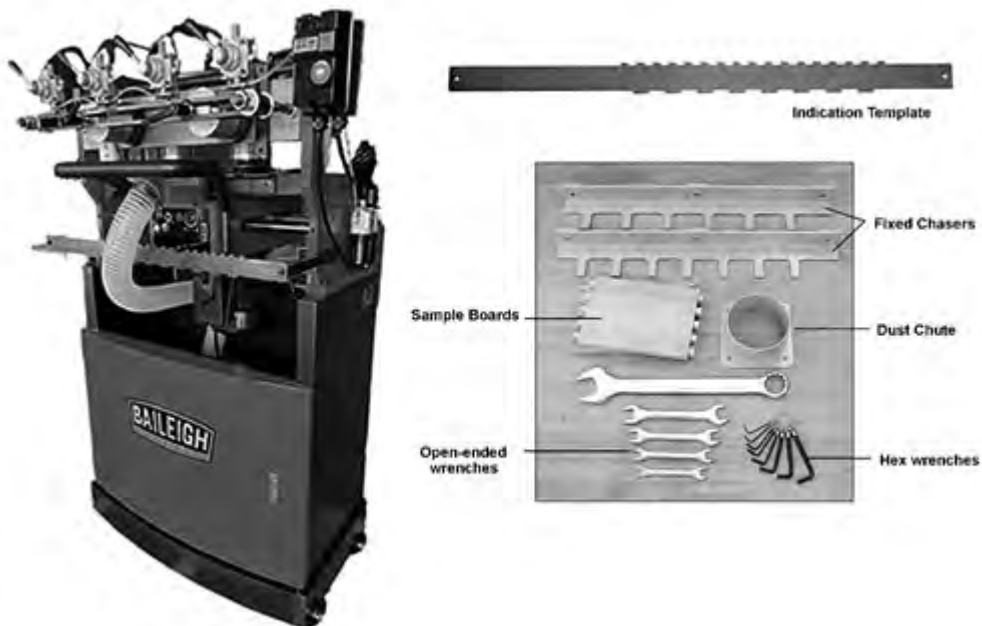




## Unpacking

Open shipping container and check for shipping damage. Report any damage immediately to your distributor and shipping agent. Do not discard any shipping material until the Dovetailer is assembled and running properly.

Remove the box from inside the cabinet. Compare the contents of your container with the following parts list to make sure all parts are intact. Missing parts, if any, should be reported to your distributor. Read the instruction manual thoroughly for assembly, maintenance and safety instructions.



**Read and understand the entire contents of this manual before attempting set-up or operation! Failure to comply may cause serious injury.**



## Installation & Assembly

### Tools required for assembly

forklift or hoist with straps/slings

14mm wrench (provided)

[NOTE: A socket set with ratchet wrench may speed assembly]

4mm hex wrench (provided)

knife or wire cutter

flat head screwdriver

1. Remove the four screws and flat washers holding the machine to the pallet with a 14mm wrench, as shown in Figure 1.
2. Place lifting straps through the two eyebolts at the top of the machine (Figure 2). Using a forklift or hoist, lift the machine off the pallet and into its desired location. The Dovetailer should be located in a dry area with sufficient lighting. Leave plenty of space around the machine for operations and routine maintenance work.
3. If desired, the Dovetailer can be further stabilized by securing it to the floor, using lag screws through the four holes at the bottom of the cabinet.
4. A group of cords holds the headstock secure to the machine frame to prevent it from moving during shipping. These cords should now be cut and removed (see Figure 3).
5. Exposed metal areas of the Dovetailer (such as the table, template bar, cylinder clamps, rods, etc.) have been factory coated with a protectant. This should be removed with a soft cloth dampened with kerosene or mineral spirits. Do not use an abrasive pad. Do not let solvent contact plastic or rubber parts as it may damage them.

### Attaching Dust Hose

1. Slide the upper end of the hose over the chute on the dust hood (Figure 4).
2. Tighten the hose clamp with the attached screw, using a flat head screwdriver.



Figure 1

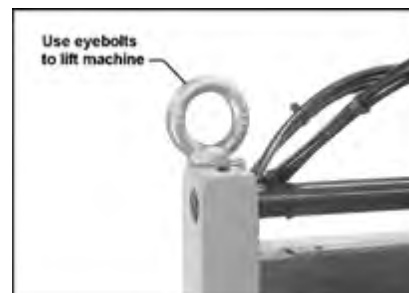


Figure 2



Figure 3

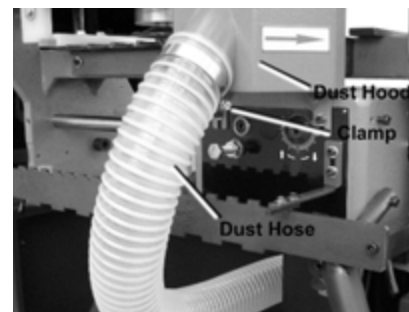


Figure 4



## **Installing Dust Chute**

Remove the four socket head cap screws at the rear of the cabinet, using a 4mm hex wrench. Place the 4" diameter dust chute (Figure 5) over the hole, and re-insert and tighten the four socket head cap screws.

## **Dust Collection**

The use of a dust collection system is strongly recommended for this machine. It will help keep your shop clean as well as minimize any health risks caused by wood dust. Make sure your dust collector has a capacity of at least 500 cubic feet per minute (CFM).

Connect the intake hose of your dust collector to the 4" diameter dust chute at the back of the cabinet (Figure 5).

NOTE: A variety of dust collection systems are available from Baileigh Industrial. Call customer service at 1-800-274-6848 or visit our website for more information.

## **Grounding Instructions**

**⚠WARNING** Electrical connections must be made by a qualified electrician in compliance with all relevant codes. This machine must be properly grounded to help prevent electrical shock and possible fatal injury.

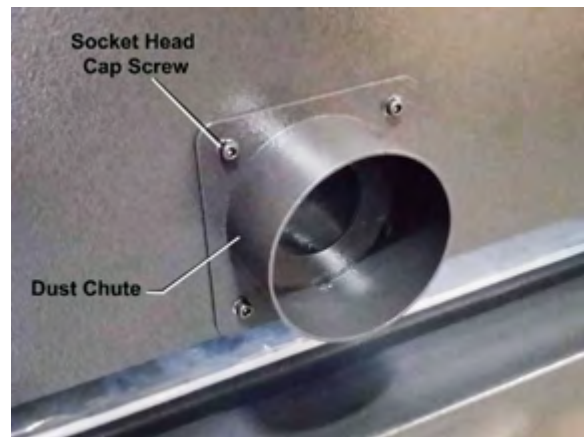
This machine must be grounded. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor, with insulation having an outer surface that is green with or without yellow stripes, is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Use only three wire extension cords that have three-prong grounding plugs and three-pole receptacles that accept the tool's plug.

Repair or replace a damaged or worn cord immediately.

Make sure the voltage of your power supply matches the specifications on the motor plate of the Dovetailer.



*Figure 5*



## 230 Volt Operation

As received from the factory, the BDTB-XXP Dovetailer is designed to run on 230 volt power only. You may either connect a UL/CSA listed 230V plug (similar to the one shown in Figure 6) or “hard-wire” the machine directly to a control panel. If hard-wired to a panel, make sure a disconnect is available for the operator. The dovetailer must comply with all local and national codes after being wired.

1. If it is to be hard-wired, make sure the fuses have been removed or the breakers have been tripped in the circuit to which the dovetailer will be connected. Place a warning placard on the fuse holder or circuit breaker to prevent it being turned on while the machine is being wired.
2. Refer to “Electrical Connections” on page 36 for connecting the motor leads.
3. The Dovetailer with a 230 volt plug should only be connected to an outlet having the same configuration. No adapter is available or should be used with the 230 volt plug.

## Extension cords

If an extension cord is necessary, make sure the cord rating is suitable for the amperage listed on the machine’s motor plate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

Use the chart in Figure 7 as a general guide in choosing the correct size cord. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

## Air Connection

Connect the air supply hose to the coupling on the air unit (Figure 8). The air is turned ON by rotating the valve lever 90 degrees counterclockwise (until it is parallel with the hose) and turned OFF by rotating the valve lever 90 degrees clockwise.

## WARNING

Even after the air has been turned off to the machine, there may be residual air inside the lines, and the clamping cylinders can still provide a hazard to fingers. After shutting off the air, always bleed residual air from the system by pushing the relief valve pin at the bottom of the air cup, shown in Figure 8. Keep the relief valve open until all air in the system has been removed.

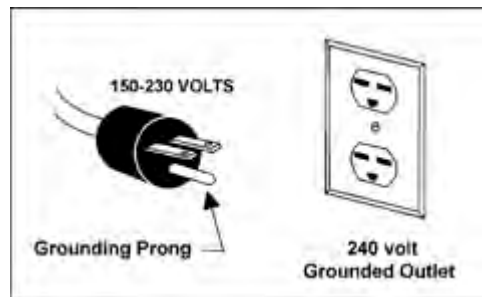


Figure 6

## Recommended Gauges (AWG) of Extension Cords

Amps	Extension Cord Length *					
	25 feet	50 feet	75 feet	100 feet	150 feet	200 feet
< 5	16	16	16	14	12	12
5 to 8	16	16	14	12	10	NR
8 to 12	14	14	12	10	NR	NR
12 to 15	12	12	10	10	NR	NR
15 to 20	10	10	10	NR	NR	NR
21 to 30	10	NR	NR	NR	NR	NR

Figure 7

\*based on limiting the line voltage drop to 5V at 150% of the rated amperes.

NR: Not Recommended.

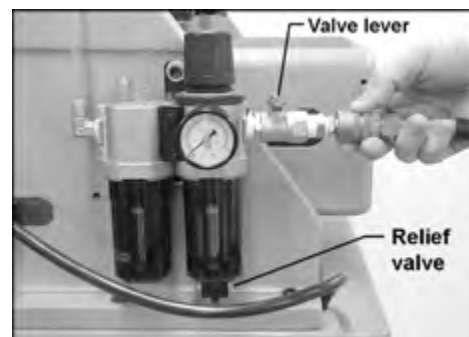




Figure 8

## Adjustments

**⚠WARNING** Disconnect machine from power source, shut off air supply and bleed residual air from system, before making adjustments. Failure to comply may cause serious injury.

### Clamping Cylinders

The workpieces are clamped to the table by pneumatically operated aluminum cylinders (A, Figure 9). Each cylinder has its own air on/off lever. Simply turn the lever (B, Figure 9) to “on” position to activate the cylinder; the cylinder will respond immediately by clamping the workpiece against the table.

**⚠WARNING** Always keep fingers out of the way of clamping cylinders. Failure to comply may cause serious injury.

Both vertical and horizontal clamping cylinders can be adjusted to match the thickness of your workpieces. To change the thickness capacity of the clamping cylinders, proceed as follows:

1. To increase the clamping capacity, loosen the top two hex nuts (A and B, Figure 10) on the stud at the end of the holder bracket, with a 30mm wrench. Do the same for the stud at the opposite end of the holder bracket.
2. Tighten the lower hex nut (C, Figure 10). You can do this without a wrench. This will raise the holder bracket. Do this incrementally on both studs until the desired height is reached. When finished, tighten top hex nuts (A & B, Figure 10) on both studs with the wrench.

NOTE: Make equal adjustment on both studs at each end of the holder bracket to ensure the clamps are parallel to the table. To check this, measure from the bottom edge of the holder bracket down to the table. Measure at each end of the holder bracket – the measurements should be equal. Figure 10 shows the horizontal clamping assembly - the procedure is identical for the vertical clamping assembly.

3. To decrease the clamping capacity, back off the lower hex nut (C, Figure 10) and tighten

the top hex nut (B, Figure 10). This will lower the holder bracket.

4. When finished, tighten the lower hex nut (C) against the holder bracket, and bring hex nut (A) down against hex nut (B).

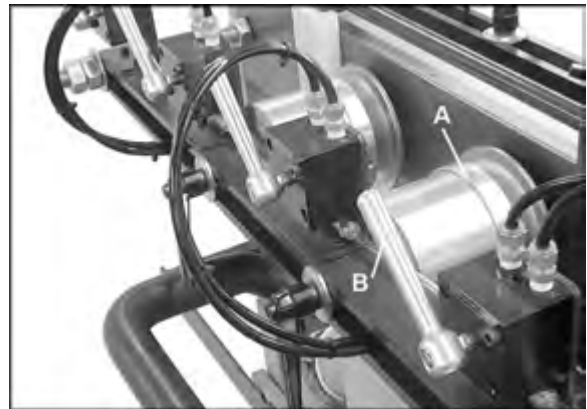


Figure 9

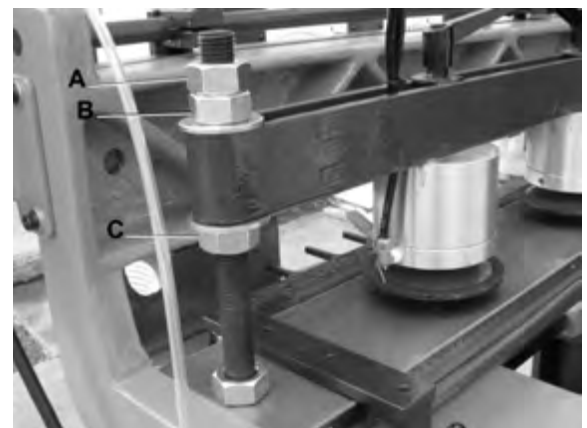


Figure 10



Figure 11





The clamping cylinders can also be adjusted laterally for better support of workpieces with differing widths. Simply loosen the locking handle (Figure 11) and slide the clamping cylinder to position. Re-tighten locking handle.

### **Clamping Pressure**

The pressure exerted by the cylinder clamps against the workpiece can be adjusted at the air regulator, shown in Figure 12. The hardness or softness of the wood will determine the amount of clamping pressure desired. Enough pressure should be used to prevent the workpiece from slipping during operations. Forty (40) psi is suitable for clamping most wood; going above that is not recommended.

To change the clamping pressure, pull up on the knob (A, Figure 12) and rotate it; clockwise to increase pressure, counterclockwise to decrease pressure. The attached needle indicator (B, Figure 12) shows the air pressure. Lock the setting by pushing the knob (A, Figure 12) back down.

### **Locking Handles**

All locking handles, such as those shown in Figure 11, can be rotated out of the way if they interfere with other machine parts. Simply lift straight out on the locking handle and rotate it, then release, making sure it seats properly.

### **Template Bar**

The four-sided template bar, shown in Figure 14, will allow you to create “half-blind” dovetails, where the dovetails are visible on only one side of the joint. It will create dovetails in one of four different “itches” or centerlines. The available pitches are 1", 1-1/2", 2" and 2-1/2". To change the pitch of a dovetail cut, proceed as follows:

1. First notice how the notches on the template bar are grouped toward the right side of the machine. The template bar should always be oriented in this fashion.
2. Release one end of the spring on the left side of the headstock (Figure 13) and pull the headstock forward until the tracer pin (Figure 14) is clear of the template bar.
3. Loosen and remove the locking handles on each end of the template bar (Figure 15).

4. Pull out the template bar, flip it to the desired side, then reinstall it. NOTE: The pitch dimension is inscribed on each side of the template bar. The side of the template bar that you have chosen should face downward when mounted on the machine.
5. Insert and tighten both locking handles.



Figure 12



Figure 13

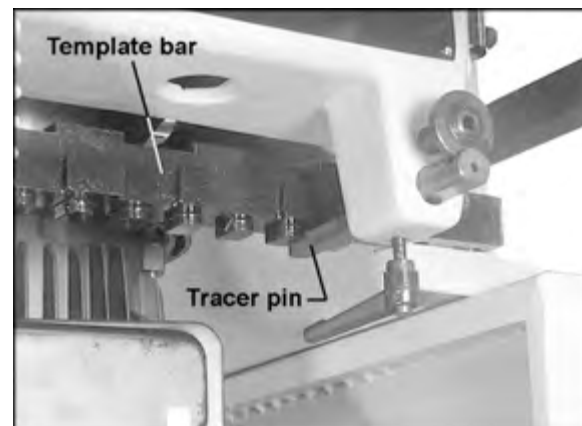




Figure 14

6. Push the headstock back and re-connect the spring (Figure 13).

You must now also shift the indication template (Figure 16). See "Indication Template".

### **Indication Template**

Because the tracer pin is not easily observed while the machine is in operation, the indication template (A, Figure 16) provides the operator with a visual record of the progress of the "hidden" tracer pin. The bracket (B, Figure 16) slides in and out of the notches on the indication template, echoing the tracer pin as it slides in and out of the notches on the template bar below.

The pitch of the indication template must match the pitch of the template bar. Therefore, when turning the template bar for a new pitch, you must also change the indication template.

1. First notice how the notches on the indication template are grouped toward the right side of the machine. The indication template should always be oriented in this fashion.
2. Remove the socket head cap screw (C, Figure 16) at each end of the indication template, with a 5mm hex wrench.
3. The indication template that came installed on your machine contains the 1" and 2" pitch. The other indication template has the 1-1/2" and 2-1/2" pitch. Either flip the indication template, or replace it with the other one as needed, to match the pitch of the template bar.
4. Re-insert and tighten the socket head cap screws (C, Figure 16).

### **Fixed Chaser**

The fixed chaser (Figure 17) provides a support on which the workpieces rest. The spacing between the "fingers" of the fixed chaser allows clearance for the cutter.

The BDTB-XXP Dovetailer comes standard with three fixed chasers at 2", 2-1/2" and 3" pitches. (Pitch is the distance between the centers of the "fingers"; see Figure 18).

NOTE: If you wish to use the 1-1/2" or 2-1/2" pitch on the template bar, you must replace the fixed chaser on the machine with one of the others provided. Figure 18 explains how the

available fixed chasers correspond to the pitch of the template bar.

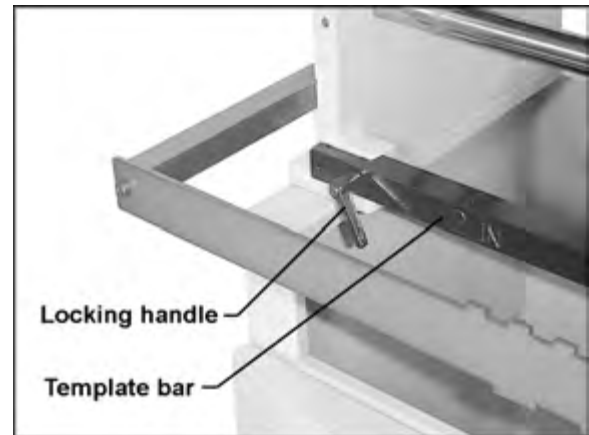


Figure 15

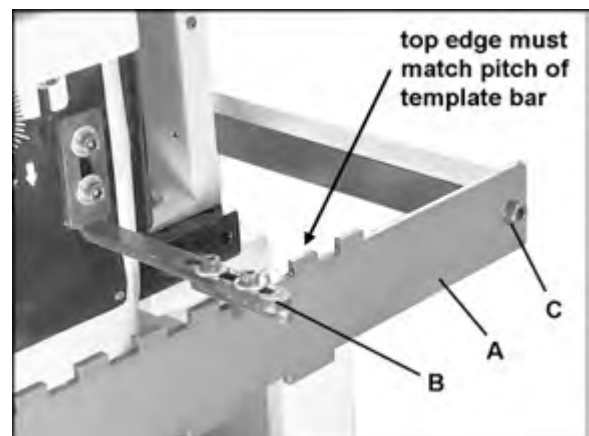


Figure 16



Figure 17



1. To replace the fixed chaser, remove the three M6 socket head cap screws and flat washers, using a 5mm hex wrench as shown in Figure 17. Remove the fixed chaser.
2. Install the new fixed chaser and make sure it is level with the main table.
3. Re-insert and tighten the socket head cap screws against the flat washers.

After mounting the fixed chaser, make sure it will correspond to your chosen pitch on the template bar. With the **machine power off**, slide the headstock across the length of the fixed chaser, allowing the cutter to move in and out of the spaces. If there is any interference between the cutter and one of the “fingers” on the fixed chaser, then try a different fixed chaser, or change the pitch of the template bar.

### Horizontal and Vertical Fences

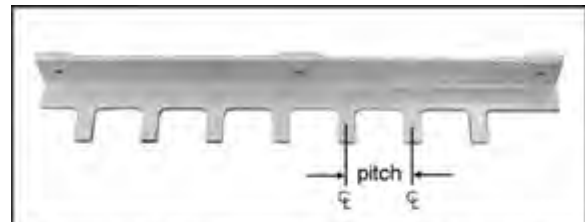
The workpieces will lie flush against the fences during cutting to ensure squareness. Two buffer pads made of polyethylene material are mounted to the fences – these provide a “chipbreaker” effect to prevent chip-out on the left edges of the workpieces. They are designed so the cutter can bite into them without any damage to the cutter.

To adjust these fences, proceed as follows:

1. Place your FRONT/BACK workpiece on the horizontal table and against the fence/buffer pad. Move the headstock to the left edge of the workpiece, then slide it to the right, allowing the tracer pin to slide just a little into the template recesses, while observing through the dust hood window the progress of the cutter. This will give you an idea where the cuts will be made and how they will be spaced across the width of the workpiece.
2. For broad movement of the horizontal fence, loosen both locking handles on the horizontal fence (A and B, Figure 19) and slide the horizontal fence into position. Tighten both locking handles (A & B, Figure 19).
3. There is also a micro adjustment on the horizontal fence; loosen locking handle (A, Figure 19), but leave locking handle (B) tight.

Loosen the screw (C, Figure 19) with a 6mm hex wrench and rotate the knurled knob (D, Figure 19) as needed for precise positioning of the horizontal fence.

4. When finished, tighten screw (C, Figure 19) and locking handle (A, Figure 19).



Template Bar	Fixed Chaser
1" pitch	used with: 2" pitch
1-1/2" pitch	used with: 3" pitch
2" pitch	used with: 2" pitch
2-1/2" pitch	used with: 2-1/2" pitch

Figure 18

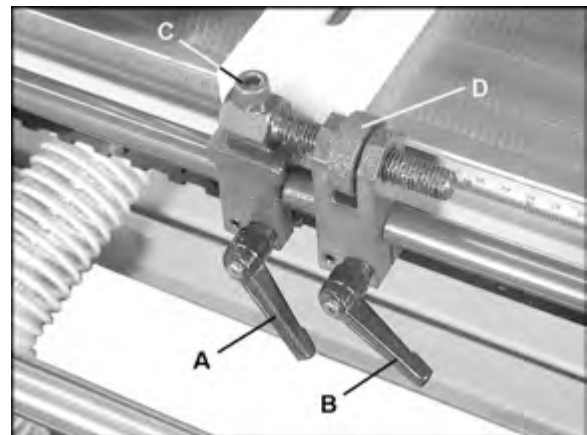


Figure 19

NOTE: Make sure locking handles (A & B, Figure 19) will not interfere with the headstock during operation.

5. Continue to check the spacing by sliding the headstock across, until the dovetail cuts will be distributed evenly across the width of the workpiece. NOTE: This is an approximate method of determining by eye where to place the workpiece. A scale in inches and millimeters is mounted to both horizontal and vertical tables, if you need more precise measurements for the location of the dovetail cuts.
6. Again, make sure the locking handles on the horizontal fence (A & B, Figure 19) are tightened. The position of the horizontal fence will now be used as the basis for locating the vertical fence.
7. Loosen the locking handle on the vertical fence.
8. As noted, the position of the horizontal fence will affect the position of the vertical fence. Therefore, if you are making a drawer that has a bottom groove, the vertical fence should be set so that the bottom groove in the drawer piece to be tenoned will go through the center of a tail. That means the bottom groove of the mortised piece will go through the center of a mortise. This will prevent the groove from being visible on the outside of the assembled drawer. See Figures 20 and 21.

**Important:** To make proper dovetail cuts, the two fences must always be offset from each other by half the pitch of the template bar. That is, offset 1/2" when using the one-inch template; 3/4" when using the 1-1/2" template; 1" when using the two-inch template, and 1-1/4" when using the 2-1/2" inch template. The measuring scales on the horizontal and vertical tables are marked in 1/16" increments and millimeters.

9. Line up the vertical fence with the horizontal fence, then offset the vertical fence by exactly half the pitch of the template bar. See Figure 22.
10. This adjustment will cause the vertical workpiece to be slightly offset to the right of

the horizontal piece (as viewed from front of machine), thus ensuring the dovetails will correspond when the two pieces are assembled.

11. Tighten the locking handle on the vertical fence.

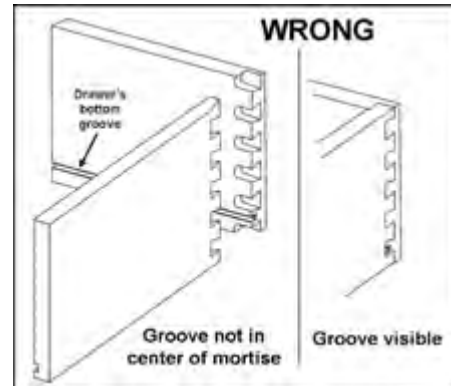


Figure 20

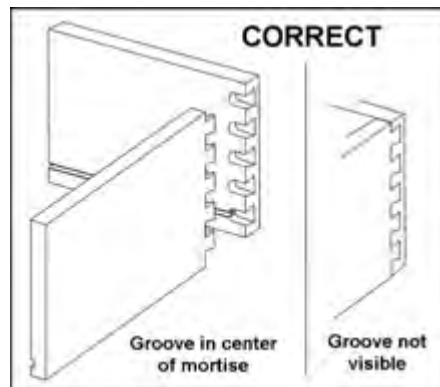


Figure 21

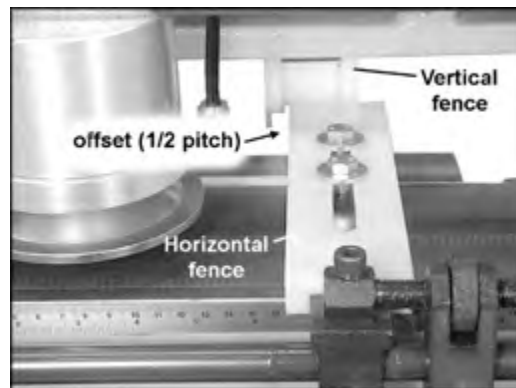


Figure 22  
(view from rear of machine)



There are a total of four fences on the BDTB-XXP Dovetailer – two vertical and two horizontal. These allow two sets of workpieces to be cut at the same time. If this is desired, position the other two fences in the same manner as the first two fences, remembering again to offset the vertical fence by half the pitch.

### **Buffer Pads**

The polyethylene buffer pads, shown in Figure 22, have slots through which they are secured to the fences by screws. These buffer pads can be re-positioned if needed.

To adjust a buffer pad, loosen the two hex cap screws (shown in Figure 22) with a 13mm wrench. Slide the buffer pad as necessary. Retighten both hex cap screws when finished.

### **Cutter Height**

This adjustment will change the height of the tail on the tenon (male) cut, and how deep the mortise (female) cut goes into the thickness of the workpiece.

1. Disconnect machine from power source.
2. Loosen the spindle lock screw (Figure 23) by turning it counterclockwise with a 6mm hex wrench.
3. Turn the spindle height adjustment screw (Figure 23) with a 5.5mm hex wrench, either clockwise to raise the cutter (increase the cutter depth), or counterclockwise to lower the cutter (decrease the cutter depth).
4. Tighten spindle lock screw by turning it clockwise.

### **Mortise Depth**

This adjustment ensures that the side pieces of your drawer will remain flush with the front and back pieces of the drawer. The correct fit will have the sides flush with the front and back of the drawer, without showing any of the mortise cut on the inside of the drawer.

The mortise depth adjustment bolt, shown in Figure 23, limits how far forward the headstock will go, and thus limits the length of your mortise cut.

1. Disconnect machine from power source.

2. Loosen the spindle lock screw (Figure 23) by turning it counterclockwise with a 6mm hex wrench.
3. Turn the spindle height adjustment screw (Figure 23) with a 5.5mm hex wrench, either clockwise to raise the cutter (increase the cutter depth), or counterclockwise to lower the cutter (decrease the cutter depth).
4. Tighten spindle lock screw by turning it clockwise.

### **Mortise Depth**

This adjustment ensures that the side pieces of your drawer will remain flush with the front and back pieces of the drawer. The correct fit will have the sides flush with the front and back of the drawer, without showing any of the mortise cut on the inside of the drawer.

The mortise depth adjustment bolt, shown in Figure 23, limits how far forward the headstock will go, and thus limits the length of your mortise cut.

1. Disconnect machine from power source.
2. Loosen the hex nut on the mortise depth adjustment bolt (Figure 23) by turning the hex nut counterclockwise with a 17mm wrench.

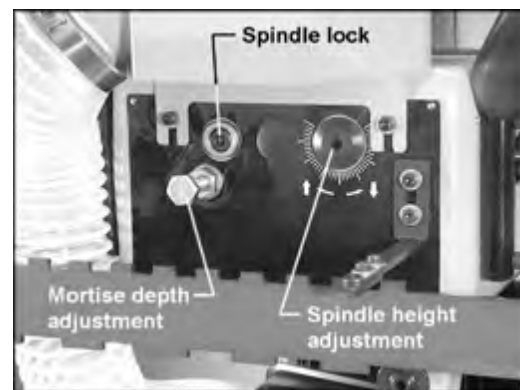


Figure 23



3. To decrease the depth of the mortise (female) cut, turn the bolt clockwise. To increase the depth of the mortise cut, turn the bolt counterclockwise.
4. Re-tighten the hex nut.

### **Thickness of Tenon Cut**

To adjust the thickness of the tenon (male) cuts, you will change the depth of the tracer pin (A, Figure 24).

1. Disconnect machine from power source.
2. Loosen the locking handle (B, Figure 24).
3. Insert a 5.5mm hex wrench into the end of the adjustment screw (C, Figure 24) and turn the adjustment screw as needed. To decrease the thickness of the tenon cut, turn the adjustment screw counterclockwise. To increase the thickness of the tenon cut, turn the adjustment screw clockwise.
4. Tighten locking handle (B, Figure 24).

### **Tightness of Mortise/Tenon Fit**

A proper dovetail fit should be snug with no gaps showing, but not overly tight as glue must later fill the joints. If the cuts seem correct, but the joint is simply too tight, or the joint is too loose, proceed as follows.

1. Disconnect machine from power source.
2. Remove the dust hood from the front of the headstock. Release one end of the spring on the headstock (see Figure 13) and pull the headstock away from the machine until the cutter becomes more accessible.
3. You will notice the cutter, shown in Figure 25, is slightly off center of the spindle. The spindle is eccentric and allows the cutter to be turned to a different position on the spindle.

**⚠WARNING** The cutter is very sharp! Use caution when working with or around it.

4. Loosen both set screws on the spindle (Figure 25) by turning them counterclockwise with a 4mm hex wrench.

5. A scale is located just above the cutter, with a plus (+) and minus (-) sign. Moving the cutting edge of the cutter toward the plus (+) side of the scale will increase the size of the mortise cut and decrease the size of the tenon cut. Moving the cutting edge of the cutter toward the minus (-) side will decrease the size of the mortise cut and increase the size of the tenon cut.

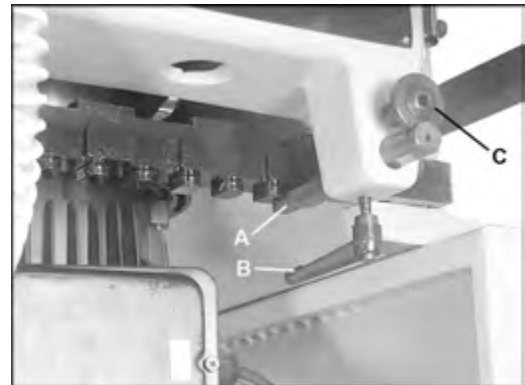


Figure 24

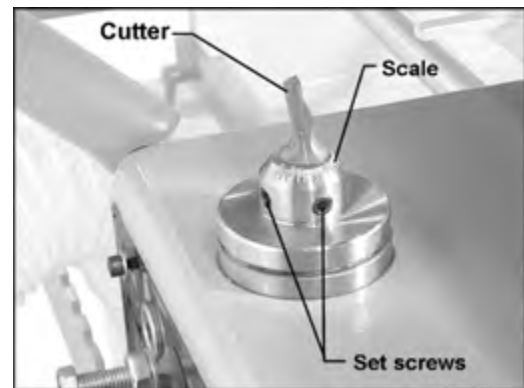


Figure 25



NOTE: One notch of the scale equals 1mm.

6. With your fingers on the shank portion of the cutter, carefully rotate the cutter toward the plus (+) or minus (-) position as needed.
7. When satisfied with the adjustment, tighten both set screws firmly.
8. Re-attach the spring on the headstock and re-install the dust hood.

### **Drive Belt Tension**

The tightness of the belt that drives the spindle has been adjusted at the factory. Further adjustment may be necessary after the machine receives some use, as the belt may stretch slightly during the “breaking in” process.

Belt tension can be adjusted by a socket head cap screw at the rear of the headstock (Figure 26) which slides the motor toward or away from the spindle. To tighten the belt, rotate this cap screw clockwise with a 6mm hex wrench. To loosen the belt, rotate the cap screw counterclockwise. The belt should be just tight enough to prevent it slipping on the spindle during operation.

### **Replacing cutter**

**⚠WARNING** The cutter is very sharp; use caution when working with or around cutter. Disconnect machine from power source! Failure to comply may cause serious injury.

1. To replace the cutter, loosen both set screws (Figure 25) and carefully pull up on the cutter until it is free from the spindle.
2. Slide the new cutter down into the spindle and align the cutting edge with your previous setting on the spindle scale.
3. Tighten both set screws.

### **Oil Output**

Oil is distributed through the air lines for constant lubrication of the clamping system. The oil output can be adjusted by rotating the oil regulator knob (A, Figure 27). Turn the knob counterclockwise to increase oil output, clockwise to decrease oil output.

The level of oil should be checked occasionally and re-filled as necessary. A minimum level is marked on the window of the oil cup (C, Figure 27). Refill by removing the screw (B, Figure 27) and pouring oil into the fill hole. When finished, re-install screw (B, Figure 27). Use standard air tool oil. This is available from your local distributor or can be found in most hardware and tool stores.



Figure 26

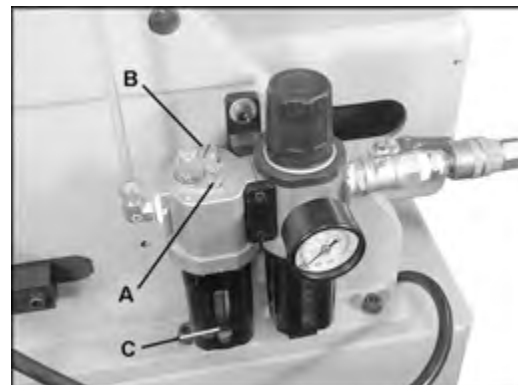


Figure 27



## Operation

NOTE: The following are basic dovetailing procedures as they apply to this machine and are not intended to be a full course of instruction in making dovetails.

Refer back to the terminology on page 7 if needed.

The Dovetailer can be used to make joints in drawers, boxes, cabinets, etc. Instructions in this manual are based upon making a drawer consisting of FRONT and BACK pieces, and two SIDE pieces. FRONT and BACK pieces are placed horizontally on top the machine's table; SIDE pieces are placed vertically.

No matter the project, prevent mistakes by laying out the pieces beforehand according to how they will be assembled. Place them with the inside facing up, and label the mating edges, as shown in Figure 28.

Before cutting on what is to be the finished piece, the operator should make test cuts on scrap wood to make sure all settings and adjustments are correct.

**IMPORTANT:** Make sure the workpiece has been cut square before making dovetails. An out-of-square workpiece will result in poor dovetail joints.

1. Check that all the following have been set correctly (See "Adjustments" above):
  - proper pitch of Template Bar
  - proper Indication Template
  - Vertical and Horizontal Fence positions (offset from each other by half the pitch of the template bar)
  - height of Clamping Cylinders for workpiece thickness
  - proper Fixed Chaser, with no cutter interference
  - height of Cutter
2. Move the headstock all the way to the right and out of the way.
3. Connect the air supply and the electrical power to the machine.

**⚠ WARNING** Keep fingers clear of clamping cylinders.

4. Place the drawer RIGHT SIDE against the vertical table and on top the fixed chaser. The RIGHT SIDE should be flush against the fence, with the bottom groove facing outward and opposite the fence (Figure 29).

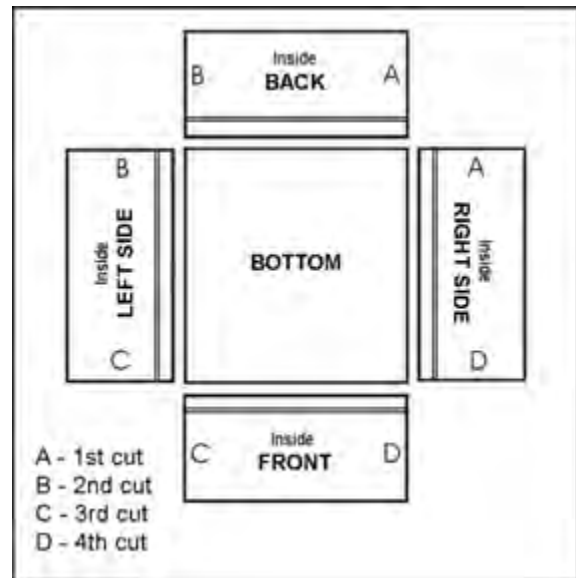


Figure 28

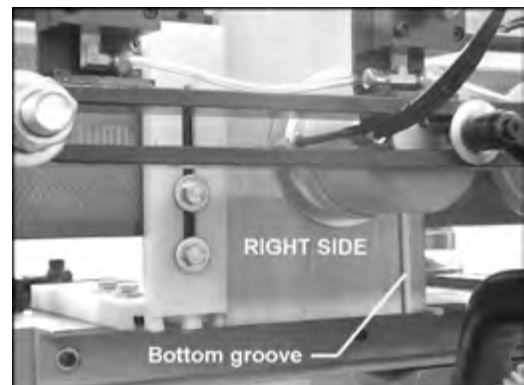


Figure 29



5. Activate the clamping cylinder in front of the RIGHT SIDE workpiece.
6. Place the drawer BACK on the horizontal table, and against the horizontal fence. Slide it flush against the RIGHT SIDE workpiece. The bottom groove on the BACK should face downward and opposite the fence. See Figure 30.
7. Activate the clamping cylinder above the BACK workpiece.
8. The BACK is now butting against the RIGHT SIDE so they are flush, with the RIGHT SIDE overlapping the edge of the BACK. Both workpieces should be firmly and evenly against the fences.
9. Turn on the machine at the switch, and slide the headstock to the left edge of the workpiece. Move the cutter in sequence, left to right, allowing the tracer pin to move in and out of the template slots. See Figure 31. You can watch the progress of the cutter through the window of the dust hood. **NOTE:** Do not rush the cut; allow the cutting unit to do the work.
10. When finished, slide the headstock out of the way and unclamp the workpieces by turning the clamping cylinder levers to "off".
11. Fit the BACK and RIGHT SIDE together and examine the joint. If the joint is not satisfactory, make any needed corrections to your settings as explained under "Adjustments." If the joint is satisfactory, proceed with the next cut as follows.
12. Insert the LEFT SIDE piece and clamp it in vertical position and against the fence. (NOTE: The bottom groove on the LEFT SIDE will face outward and toward the fence.)
13. Turn the BACK 180 degrees and clamp it in the horizontal position against the fence. (NOTE: The bottom groove on the BACK workpiece will still be face down, but toward the fence.)
14. Make the cut, then continue the dovetailing procedure with the FRONT piece, making cuts "C" and "D" (Figure 28) until all four joints of the drawer have been cut.

**TIP:** When using drawer side widths that are not "whole inch" sizes, you may wish to gauge off the top of the drawer rather than the bottom when placing workpieces in the machine. Doing this will improve the look of the drawer by providing a full tenon near the top of the drawer and the half-tenon will end up at the bottom. See Figure 32.

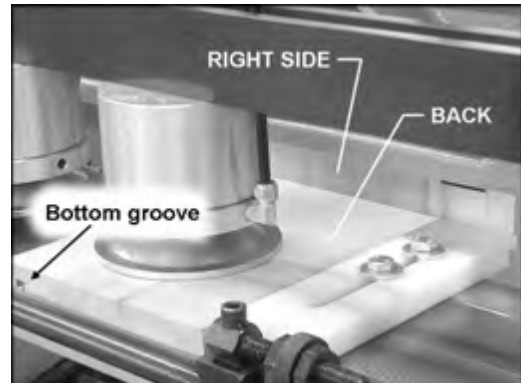


Figure 30



Figure 31

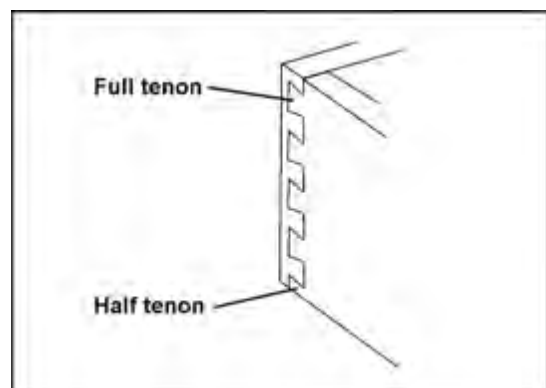


Figure 32



## **Preventing Chip Out**

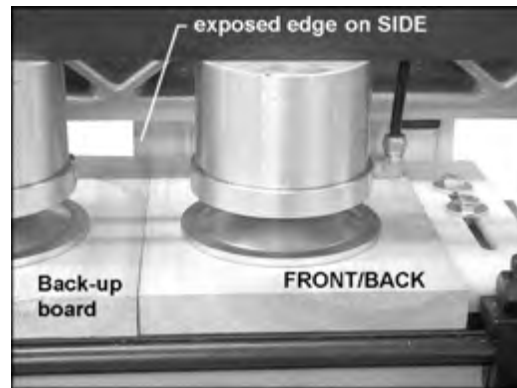
As noted previously, when the SIDE and FRONT/BACK pieces are inserted into the machine, they are offset a bit so they'll match correctly when assembled. In other words, the SIDE will rest slightly to the right of the FRONT/BACK in the machine. This leaves the right edge of the SIDE exposed without the "chipbreaker" effect that the FRONT/BACK provides for the rest of the SIDE (see Figure 33). This may result in an unsatisfactory cut at the edge of the SIDE.

This problem is resolved simply by taking a two-inch-plus wide "back-up" board, of the same thickness as the workpiece, and clamping it horizontally next to the FRONT/BACK piece, so that it backs up the exposed edge of the SIDE, as shown in Figure 33. You can use this piece over and over again.

## **Dovetails in Plywood**

Because plywood handles a bit differently than solid stock, here are some tips to follow:

1. When using plywood, the layers tend to be more fragile. Therefore, the operator should keep the movement of the cutting unit consistent and proceed relatively slowly.
2. On the rounded arcs of the tenon cuts, you may lose a bit of the top layer. This is to be expected with plywood, and does not affect either the look or the strength of the assembled dovetail joint. Rather, the strength of the dovetailed corner comes from the flat side of the tenons.
3. Plywood has a tendency to chip out on exposed edges. A back-up board may be necessary (see Figure 33).



*Figure 33  
(view from rear of machine)*



## Maintenance

**⚠ WARNING** Before doing maintenance on the machine, disconnect it from the electrical supply and the air supply, and release any residual air from the lines. Failure to comply may cause serious injury.

If the power cord is worn, cut, or damaged in any way, have it replaced immediately.

The horizontal and vertical tables and other exposed metal parts should be kept clean and free of rust. A coat of paste wax will help protect the tables from tarnishing.

After each day's use, brush or blow out dust and debris from the cutter, table, motor, etc.

Keep the clamping cylinders clean to prevent debris adhering to them, which can scar workpieces.

Keep clean the travel rods upon which the headstock slides.

### Lubrication

The linear bushings by which the headstock travels on the rods are pre-lubricated and sealed; they do not require additional lubrication.

The spindle bearing should be lubricated as needed, according to machine usage. Apply VG-120 grease through the grease nipple on the spindle (#10 in the exploded view on page 32).

Occasionally check the oil level in the oil regulator cup (see Figure 27). Add more oil as needed. Use standard air tool oil.



## Troubleshooting the BDTB-XXP Dovetailer

Trouble	Probable Cause	Remedy
Machine will not start/restart or repeatedly trips circuit breakers or blows fuses.	Machine not plugged in.	Verify machine is connected to power
	Fuse blown, or circuit breaker tripped.	Replace fuse, or reset circuit breaker.
	Cord damaged.	Replace cord.
	Overload automatic reset has not reset.	If the dovetailer overloads on the circuit breaker built in to the motor starter, it takes time for the machine to cool down before restart. Allow unit to adequately cool before attempting restart. If problem persists, check amp setting on the motor starter inside the electrical box.
	Dovetailer frequently trips.	Check the amp setting on the overload relay. Match the full load amps on the motor as noted on the motor plate. If amp setting is correct then there is probably a loose electrical lead or a failed component. See below.
	Building circuit breaker trips or fuse blows.	Verify that dovetailer is on a circuit of correct size. If circuit size is correct, there is probably a loose electrical lead. Check amp setting on motor starter.
	Loose electrical connections.	Go through all of the electrical connections on the dovetailer including motor connections, verifying the tightness of each. Look for any signs of electrical arcing which is a sure indicator of loose connection or circuit overload.
	Motor starter failure.	If you have access to a voltmeter, you can separate a starter failure from a motor failure by first, verifying incoming voltage at 220+/-20 and second, checking the voltage between starter and motor at 220+/-20. If incoming voltage is incorrect, you have a power supply problem. If voltage between starter and motor is incorrect, you have a starter problem. If voltage between starter and motor is correct, you have a motor problem.
	Motor failure.	If electric motor is suspect, you have two options: Have a qualified electrician test the motor for function or remove the motor and take it a qualified electric motor repair shop and have it tested.
	Miswiring of the unit.	Check to make certain all electrical connections are correct and properly tight. The electrical connections other than the motor are preassembled and tested at the factory. Therefore, the motor connections should be checked as the highest probability for error. If problems persist, double check the factory wiring.
On/off switch failure.	If the on/off switch is suspect, you have two options: Have a qualified electrician test the switch for function, or purchase a new on/off switch and establish if that was the problem on changeout.	



Trouble	Probable Cause	Remedy
Cutter not cutting properly.	Cutter in wrong position.	Turn cutter towards the (+) or (-) mark [page 18].
	Cutter dull or damaged.	Sharpen or replace cutter [page 19].
Dovetailed parts fit too tightly.	Cutter not adjusted properly.	Loosen set screws and turn cutter toward the (+) mark. Retighten set screws [page 18].
Dovetailed parts fit too loosely.	Cutter not adjusted properly.	Loosen set screws and turn cutter toward the (-) mark. Retighten set screws [page 18].
Cutter sometimes slips and misses revolutions.	Drive belt tension incorrect.	Adjust drive belt tension [page 19].
Dovetailed parts fit side to side but have depth gaps between the mortise and tenon cuts.	The mortise depth or tenon thickness is set incorrectly.	Change depth of mortise cut or thickness of tenon cut by using the adjustment screw [page 17 & 18].
A gap between mortise and tenon cuts increases along the dovetailed corner.	Boards not square when clamped.	Make sure the initial cuts on the board (ripping and/or crosscutting) have been done squarely, and that the board is flush against the stop before clamping.
Side piece edge is not aligned with front/back piece edge.	Fences not set correctly.	Offset the vertical fence from the horizontal fence by half the pitch of the cut [page 16].
Workpiece slips during the cut.	Clamping cylinder not positioned over center of workpiece.	Position clamping cylinder to take advantage of its full surface area [page 13].
	Clamping cylinder too high to properly contact workpiece.	Lower clamping cylinder in relation to thickness of workpiece [page 12].
	Clamping pressure too low.	Adjust pressure at air regulator [page 13].
	Surface area of workpiece too small to achieve adequate coverage from clamping cylinder.	Use larger workpiece.



## Replacement Parts

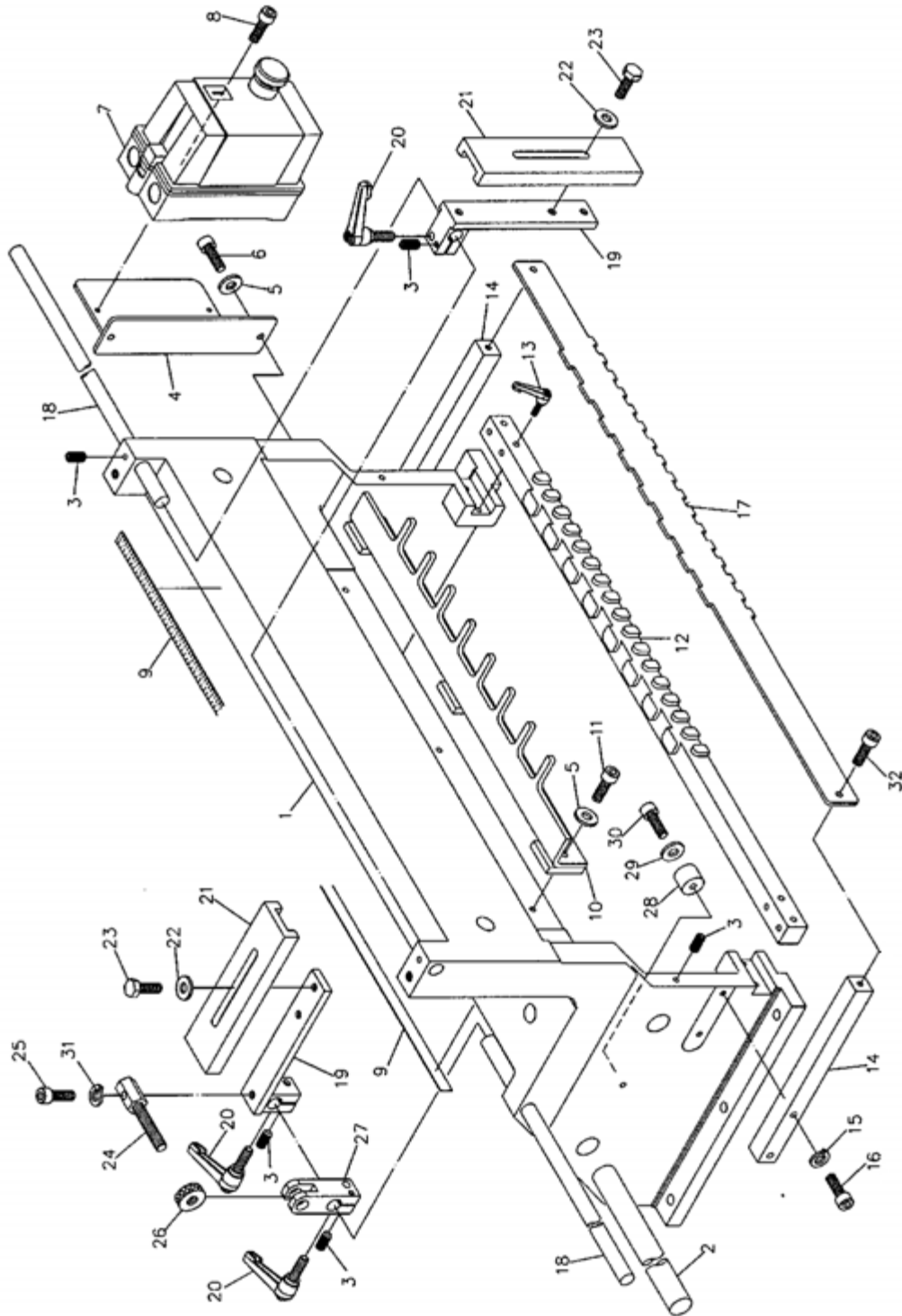
Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848, Monday through Friday (see our website for business hours, [www.baileigh.com](http://www.baileigh.com)). Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

### Parts List: Base Assembly

Index No.	Part No.	Description	Size	Qty
1	BDTMXXP-101	Worktable		1
2	DT65-102	Base Guide Rod		1
3	TS-1523041	Socket Set Screw	M6x12	13
4	BDTMXXP-104	Switch Bracket		1
5	TS-1550041	Flat Washer	M6	5
6	TS-1503041	Socket Head Cap Screw	M6x16	2
7	BDTMXXP-107	Magnetic Switch		1
8	TS-1501041	Socket Head Cap Screw	M4x12	2
9	DT65-109	Scale		2
10	DT65-110	Fixed Chaser	2" pitch	1
	DT65-110A	Fixed Chaser	2.5" pitch	1
	DT65-110B	Fixed Chaser	3" pitch	1
11	TS-1503061	Socket Head Cap Screw	M6x25	3
12	DT65-112	Template		1
13	DT45-105	Locking Handle	M6x35	2
14	DT65-114	Fixing Bar		2
15	TS-2361061	Lock Washer	M6	4
16	TS-1503081	Socket Head Cap Screw	M6x35	4
17	DT65-117	Indication Template		1
18	DT65-118	Sliding Rod		2
19	DT65-119	Fence		4
20	DT45-120	Locking Handle	M8x25	5
21	DT65-121	Buffer Pad		4
22	TS-1550061	Flat Washer	M8	8
23	TS-1490031	Hex Cap Screw	M8x20	8
24	DT45-126	Adjustment Screw		1
25	TS-1504061	Socket Head Cap Screw	M8x30	1
26	DT45-128	Knurled Knob		1
27	DT45-129	Adjustment Seat		1
28	DT45-142	Buffer Pad		2
29	TS-1550041	Flat Washer	M6	2
30	TS-1503051	Socket Head Cap Screw	M6x20	2
31	TS-2361081	Lock Washer	M8	1
32	TS-1503031	Socket Head Cap Screw	M6x12	2



# Base Assembly





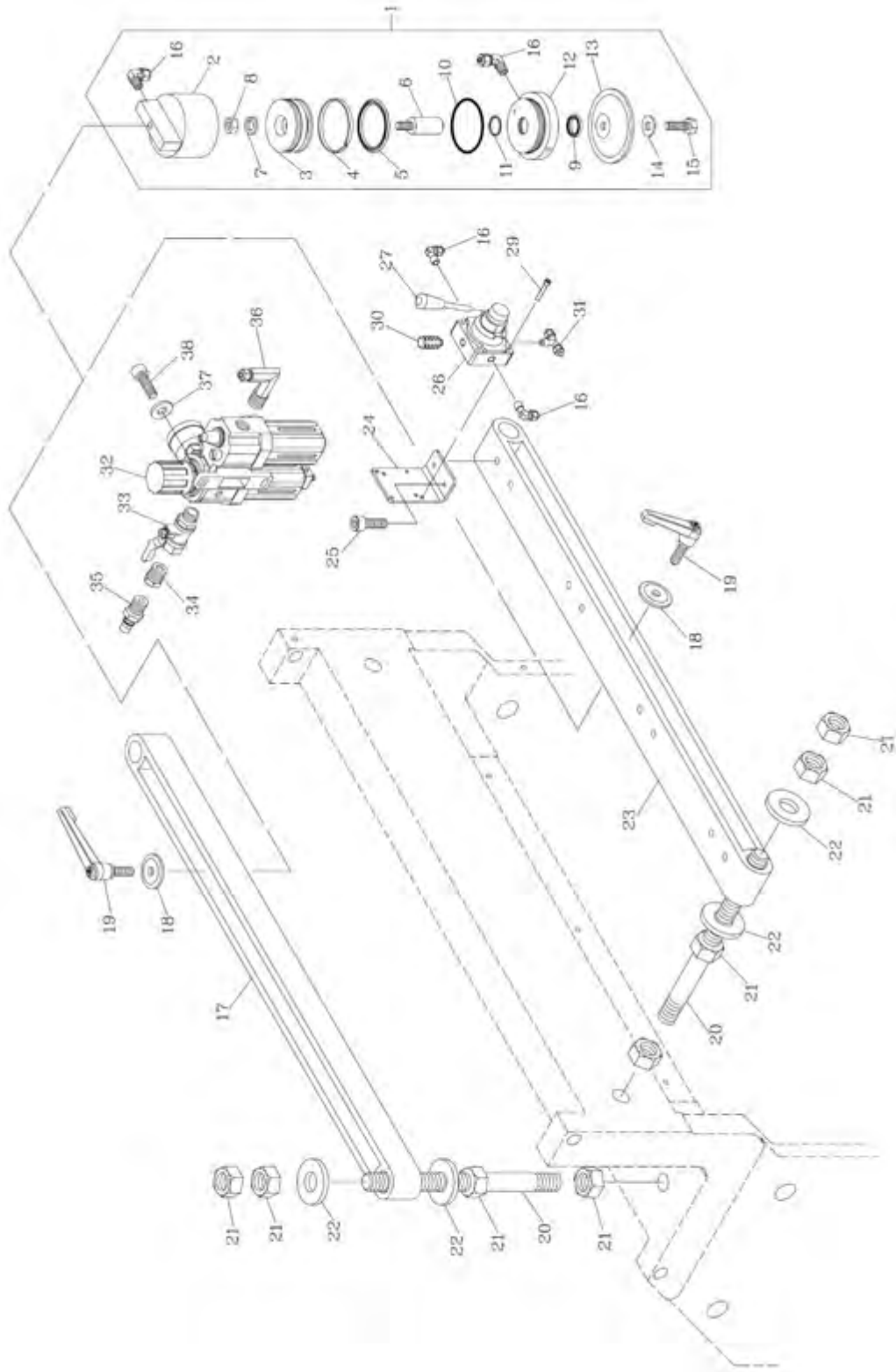
## Parts List: Hold-Down Assembly

Index No.	Part No.	Description	Size	Qty
1	DT65-301	Cylinder Assembly (Index #2 thru #16)		4
2	DT65-302	Cylinder Body		4
3	DT65-303	Piston		4
4	DT65-304	Wearing		4
5	DT65-305	Piston Backing		4
6	DT65-306	Piston Rod		4
7	TS-2361121	Lock Washer	M12	4
8	TS-1540081	Hex Nut	M12	4
9	DT65-309	Locking Piece		4
10	DT65-310	O-Ring		4
11	DT65-311	O-Ring		4
12	DT65-312	End Cover		4
13	DT65-313	Clamping Disc		4
14	TS-1550061	Flat Washer	M8	4
15	TS-1490021	Hex Cap Screw	M8x16	4
16	DT65-316	Male Elbow Connector		17
17	DT65-317	Holder Bracket		1
18	DT65-318	Special Washer		4
19	DT65-319	Locking Handle	M10x35	4
20	DT65-320	Stud		4
21	TS-2310201	Hex Nut	M20	16
22	TS-1550111	Flat Washer	M20	8
23	DT65-323	Holder Bracket		1
24	DT65-324	Fixing Bracket		4
25	TS-1502031	Socket Head Cap Screw	M5x12	8
26	DT65-326B	Control Valve		4
27	DT65-327B	Handle		4
29	TS-1502071	Socket Head Cap Screw	M5x30	8
30	DT65-330B	Silencer	1/8"	4
31	DT65-331	T- Connector	PT-1/8"-Ø6	3
32	DT65-332	Air Supply Unit		1
33	DT65-333	Air Control Valve	PT-1/8"	1
34	DT65-334	Adapter	3/8"X1/4"	1
35	DT65-335	Male Coupling	PT-1/4"	1
36	DT65-336	Male Elbow Connector	PT-3/8"-Ø6	1
37	TS-1550041	Flat Washer	M6	2
38	TS-1503041	Socket Head Cap Screw	M6x16	2
	JPU0406Z	Air Hose, Black (not shown)	Ø6mm x ø4mm	5m roll
	JPU0406W	Air Hose, Clear (not shown)	Ø6mm x ø4mm	2m roll





# Hold-Down Assembly





## Parts List: Headstock Assembly

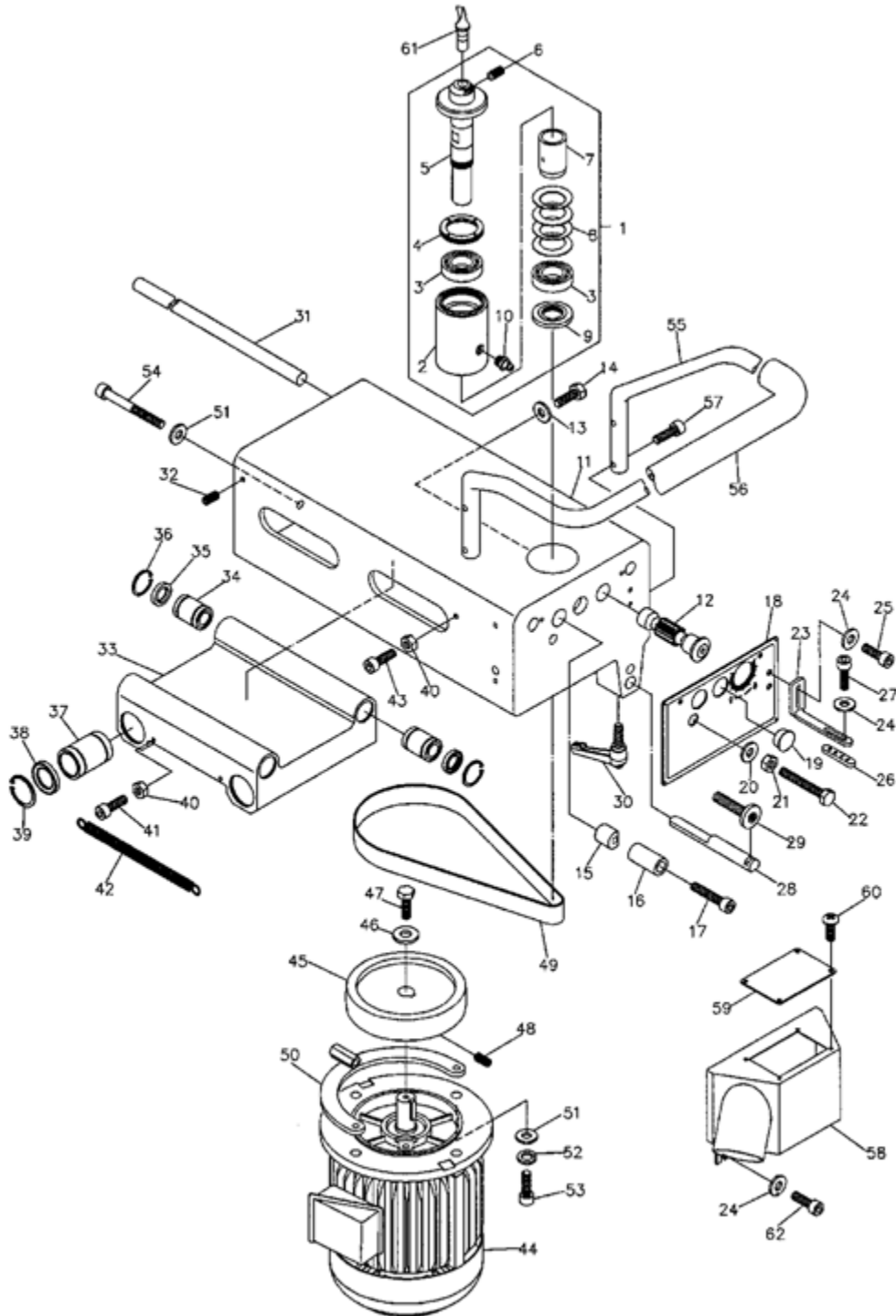
Index No.	Part No.	Description	Size	Qty
1	DT45-201	Spindle Assembly (Index #2 thru #10)		1
2	DT45-202	Spindle Bearing Housing		1
3	DT45-203	Ball Bearing (special)	6005 TB.P63	2
4	DT45-204	Fixing Nut		1
5	DT45-205	Eccentric Spindle		1
6	TS-1524021	Socket Set Screw	M8x10	2
7	DT45-207	Spacer		1
8	DT45-208	Disc Spring		4
9	DT45-209	Fixing Nut		1
10	DT45-210	Grease Nipple		1
11	BDTMXXP-211	Spindle Slide Seat		1
12	DT45-212	Gear Shaft		1
13	TS-1550061	Flat Washer	M8	1
14	TS-1490031	Hex Cap Screw	M8x20	1
15	DT45-215	Clamping Piece		1
16	DT45-216	Bushing		1
17	TS-1504121	Socket Head Cap Screw	M8x60	1
18	DT65-218	Panel		1
19	DT45-219	Plug		1
20	TS-1550071	Flat Washer	M10	1
21	TS-1540071	Hex Nut	M10	1
22	DT65-222	Hex Head Bolt	M10x150	1
23	DT65-223	Indication Bracket		1
24	TS-1550031	Flat Washer	M5	6
25	TS-1502041	Socket Head Cap Screw	M5x16	2
26	DT65-226	Adjustment Piece		1
27	TS-1501031	Socket Head Cap Screw	M4x10	2
28	DT45-247	Tracer Pin		1
29	DT45-248	Adjustment Screw		1
30	DT45-246	Locking Handle	M6x20	1
31	DT45-223	Guide Rod		2
32	TS-1523041	Socket Set Screw	M6x12	4
33	BDTMXXP-225	Carriage		1
34	DT45-226	Linear Bushing	LM16UU	4
35	DT45-227	Seal	16x28x7	4
36	DT45-228	Retaining Ring	R28	4
37	DT45-229	Linear Bushing	LM25UU	4
38	DT45-230	Seal	25x40x7	4
39	DT45-231	Retaining Ring	R40	4
40	TS-1540031	Hex Nut	M5	2
41	TS-1502081	Socket Head Cap Screw	M5x35	1
42	DT45-234	Spring		1
43	TS-1502051	Socket Head Cap Screw	M5x20	1
44	BDTMXXP-244	Motor		1
45	DT45-236	Motor Pulley		1
46	DT45-237	Fixing Washer		1
47	TS-1482041	Hex Cap Screw	M6x20	1
48	TS-1522031	Socket Set Screw	M5x10	1
49	DT45-240	Flat Belt	670-25	1
50	DT45-241	Belt Tension Adjustment Holder		1
51	TS-1550061	Flat Washer	M8	3



Index No.	Part No.	Description	Size	Qty
52	TS-2361081	Lock Washer	M8	2
53	TS-1504071	Socket Head Cap Screw	M8x35	2
54	TS-2238911	Socket Head Cap Screw	M8x100	1
55	DT45-249	Handle		1
56	DT45-250	Sponge Coating		1
57	TS-1503071	Socket Head Cap Screw	M6x30	4
52	TS-2361081	Lock Washer	M8	2
53	TS-1504071	Socket Head Cap Screw	M8x35	2
54	TS-2238911	Socket Head Cap Screw	M8x100	1
55	DT45-249	Handle		1
56	DT45-250	Sponge Coating		1
57	TS-1503071	Socket Head Cap Screw	M6x30	4
58	BDTMXXP-258	Dust Hood		1
59	DT45-255	Window		1
60	TS-2171012	Machine Screw	M4x6	4
61	DT45-257	Cutter		1
62	TS-1502031	Socket Head Cap Screw	M5x12	2



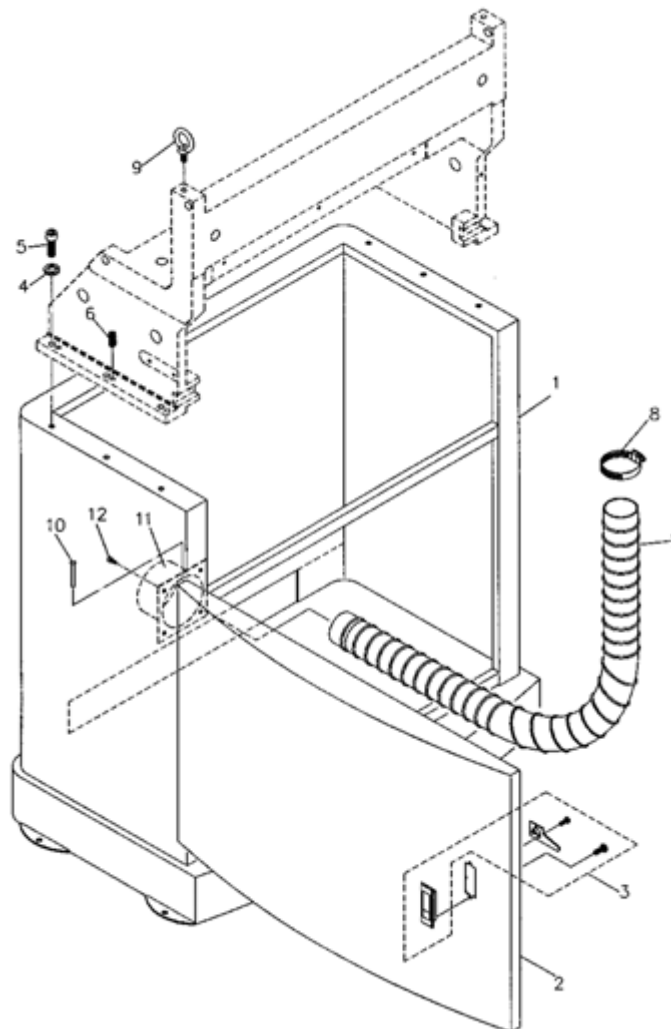
# Headstock Assembly





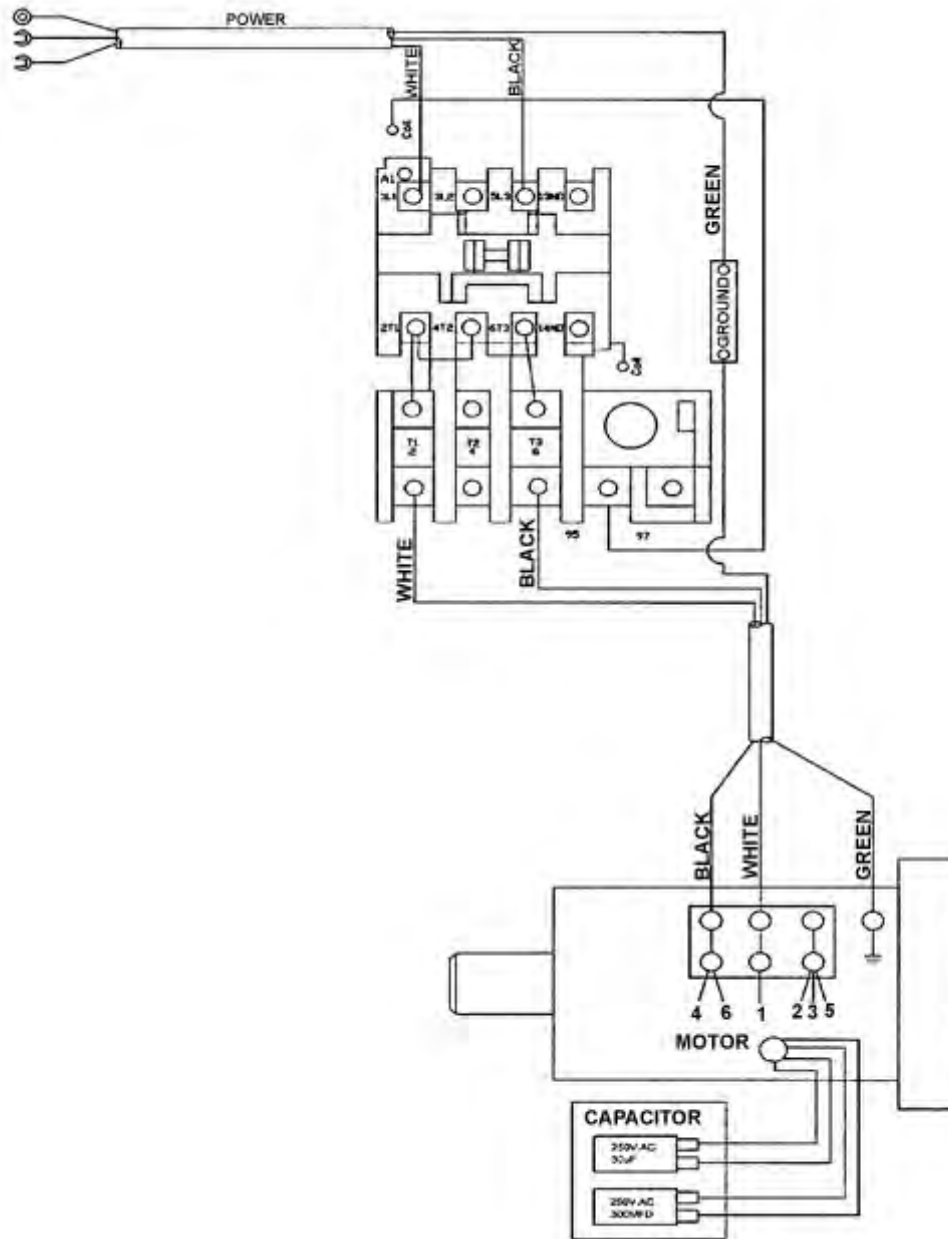
## Parts List: Cabinet Assembly

Index No.	Part No.	Description	Size	Qty
1	BDTMXXP-401	Cabinet		1
2	BDTMXXP-402	Door		1
3	DT45-303	Door Latch		1
4	TS-2361081	Lock Washer	M8	6
5	TS-1504061	Socket Head Cap Screw	M8x30	6
6	TS-1524021	Socket Set Screw	M8x10	6
7	DT65-407	Flexible Hose	2-1/2"	1
8	DT45-308	Hose Clamp	2-1/2"	2
9	DT45-309	Eye Bolt	M10	2
10	DT45-310	Pin		2
11	BDTMXXP-311	Dust Chute		1
12	TS-1502031	Socket Head Cap Screw	M5x12	4
	BL-330126	BAILEIGH Logo (not shown)	W 330 x H 126 mm	1
	BDTMXXP-WL	Warning Label (not shown)		1
	BDTMXXP-ID	I.D. Label (not shown)		1





## Electrical Connections



Capacitor Specs	Starting type 300MFD/250V and Running type 30uF/250VAC
Power Cable Specs	SJT 14 AWG x 3C 105°C, Length 1830mm
Motor Power Cable Specs	SJT 14 AWG x 3C 105°C
Switch Specs	SDE Contactor MP-09 (MA-09) and Overload relay RA-20 set at 6A



NOTES



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