

# Trautman Carvers

Product Manual

*Fillauer*®



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# Product Specifications

## Trautman Floor Carver

The Trautman Floor Carver comes equipped with a durable brushless motor with built in thermal protectors. The motor is available in single speed and variable speed. The floor models have both height and tilt adjustment with position locks. The tool shaft extension is 14 in.

## Floor Model Specifications

Description	Single Speed		Variable Speed	
Model	2100/60	2100/50	2300/60	2300/50
Power Rating	1 Ph, 115 V, 8.4 A, 60 Hz	1 Ph, 230 V, 4 A, 50 Hz	1 Ph, 115 V, 8.1 A, 60 Hz	1 Ph, 230 V, 6.6 A, 50 Hz
Motor Speed (RPM)	3450	2860	0-3450	0-2860
Motor HP (Max)	1/2 HP		3/4 HP	
Shaft Length	14 in.		14 in.	
Shaft Thread	1/2-13 UNC		1/2-13 UNC	
Working Height	26 - 56 in.		26 - 56 in.	
Overall Height	63 in.		63 in.	
Space Requirement	24 in. × 48 in.		24 in. × 48 in.	
Weight	219 lbs. (99 kg)		228 lbs. (103 kg)	
Crated Weight	307 lbs. (139 kg)		316 lbs. (143 kg)	

**Note:** Specifications subject to change without notice.

The 2100/60, 2300/60, 2500/60, and 2600/60 models are wired for 115 V, 60 Hz single phase power supply. These models are equipped with a power cord and standard US grounded plug. The 2100/50, 2300/50, 2500/50, and 2600/50 models are wired for 230 V, 50 Hz single phase power supply. These models are equipped with a power cord and grounded plug as specified by the customer at the time of purchase.

## Trautman Bench Carver

The Trautman Bench Carver comes equipped with a durable 1/4 HP brushless motor. The motor is available in single speed and variable speed. This lightweight model features automatic thermal overload protection, adjustable height and tilt with position locks, and a tool shaft extension of 10 in. The unit can be bench mounted with the included stand or vise mounted for portability.

### Bench Model Specifications

Description	Single Speed		Variable Speed	
<b>Model</b>	<b>2500/60</b>	<b>2500/50</b>	<b>2600/60</b>	<b>2600/50</b>
<b>Power Rating</b>	<b>1 Ph, 115 V, 3.4 A, 60 Hz</b>	<b>1 Ph, 230 V, 4.1 A, 50 Hz</b>	<b>1 Ph, 115 V, 4.7 A, 60 Hz</b>	<b>1 Ph, 230 V, 6.8 A, 50</b>
<b>Motor Speed (RPM)</b>	<b>3400</b>	<b>2820</b>	<b>0-3400</b>	<b>0-2820</b>
<b>Motor HP (Max)</b>	<b>1/3 HP</b>		<b>1/3 HP</b>	
<b>Shaft Length</b>	<b>10 in.</b>		<b>10 in.</b>	
<b>Shaft Thread</b>	<b>1/2-13 UNC</b>		<b>1/2-13 UNC</b>	
<b>Working Height</b>	<b>15 - 22 in.</b>		<b>15 - 22 in.</b>	
<b>Overall Height</b>	<b>22 in.</b>		<b>22 in.</b>	
<b>Space Requirement</b>	<b>8 in. x 21 in.</b>		<b>8 in. x 28 in.</b>	
<b>Weight</b>	<b>25 lbs. (11 kg)</b>		<b>28 lbs. (13 kg)</b>	
<b>Crated Weight</b>	<b>27 lbs. (12 kg)</b>		<b>41 lbs. (19 kg)</b>	

**Note:** Specifications subject to change without notice.

### Safety Standards

In manufacturing these products, Fillauer has made every effort to comply with OSHA workplace safety standards and the EU Safety of Machinery Directive. Before installation and use, check with your local governing bodies to verify that this machinery complies with local safety standards.

# Operating Precautions

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**WARNING: These instructions should be read and understood by all users prior to installation or use of the Trautman Carvers.**

## General Machinery Safety Warnings

- Misuse of this machine can cause injury.
- Read, understand, and follow all instructions shipped with your machine.
- Always wear safety glasses when operating machinery.
- Never wear loose fitting clothing, neckties, long hair, or jewelry which can be caught in moving parts.
- To maintain proper footing, never operate machinery when floor is damp or wet. Wear soft soled footwear on a clean dry floor for safest operation.
- Always shut off the machine when not in use and never leave the machine running while unattended.
- Always disconnect the power source before performing any service to the machine. Be sure the machine is in the OFF position before reconnecting any power source to avoid accidental starting.
- Always properly secure machinery to floor or bench as instructed.
- Maintain a clean, dry, well-lit, and clutter-free work area.
- Use only recommended accessories. Properly install and maintain accessories.
- Be alert when using machinery and keep hands clear of moving parts. Never overreach to avoid slipping and falling.
- Never modify the machine. Modifications may cause safety hazards and will void the warranty.

## Trautman Use Safety Warnings

- Always wear safety glasses when using the Trautman Carvers.
- Work pieces should be held firmly with both hands.
- Avoid placing excess pressure on the work piece or tool.

- Avoid loose articles on the work piece.
- Care must be taken to keep the work piece clear of any attachment such as a dust collection shield.
- Operators must be alert and avoid all personal contact with the tool or spinning shaft.
- Use of a dust mask or an external vacuum system is recommended to avoid breathing airborne dust particles.

## Floor Carver Use

### Uncrating and Setup Instructions

- The Trautman Floor Carvers are shipped fully assembled in a wooden or cardboard crate. The floor carver should be uncrated in the vertical position. Place the entire crate near the installation location and disassemble the entire crate to expose the floor carver. Positioning the carver in the final location is a two person job. If shipped in a box rather than a wooden crate, follow uncrating process and carefully disassemble the box to expose the floor carver. If a sharp tool is used, care should be taken not to damage the carver.
- The Trautman Floor Carver should be bolted to the floor using four anchor bolts. An anchor bolt system is available from Fillauer under PN 390900. This kit includes four bolts, one drill bit, and anti-vibration stripping.
- Installation should be in a well lit, adequately ventilated, uncluttered location, with convenient access to proper electrical receptacles.
- The Trautman Floor Carver should be grounded in accordance with local codes and ordinances. A qualified electrician should be consulted if electrical work is required. Grounding the carver will prevent electrical shock. The carver should never be used with extension cords or ungrounded receptacles.
- The Trautman Floor Carver comes with a standard US plug or a custom plug that is specified at the time of purchase. A plug should never be forced into a receptacle. If the plug is not compatible with your receptacle please consult a qualified electrician or contact Fillauer for assistance.

## Operation and Adjustment

- The single speed floor carver is operated by an ON/OFF switch mounted to the side of the motor.
- The variable speed floor carver is operated by an ON/OFF and START/STOP switch located on the control panel. ON supplies power to the unit and START rotates the shaft to the speed selected on the SPEED control knob. Variable speed is accomplished by turning the SPEED control knob, with 100% speed resulting in the maximum RPM from the motor.
- The floor carvers are equipped with a thermal overload trip (TOL) device which will cut electrical power to the motor in the event of overheating. This device will reset once the motor cools to a safe level. In the event of a TOL trip, the ON/OFF button should be turned to OFF. Caution should be taken while attempting to restart as damage could occur if the unit is not properly cooled.
- Operation should be from the side of the carver which has rotation toward the operator (across the top of the shaft/tool).
- The work piece should be held firmly while avoiding excess pressure on the work tool.
- The working height of the floor carver can be adjusted by turning the height adjustment lever to release the position lock. This is a two person job. While one person holds the motor firmly, the other can unlock the lever. Set to desired height and tighten the lever securely to hold in place.
- Adjusting the height of a floor carver that has the lift assist pre-installed is simple and easy. By loosening the column clamp handle, the motor housing column clamp assembly can be raised or lowered easily without assistance from another person. When the desired height is reached, retighten the column clamp handle to secure the position. See "Trautman Motor Lift Assist" on page 11 for detailed instructions on how to use the lift assist.
- Positioning for tilt can be done by releasing the tilt adjustment lever. With the pre-installed Safety Adjustment tilting the motor is easy and safe. Rotating the shaft carefully to different positions can be achieved by loosening the tilt adjustment lever, then pulling up on the Safety Adjustment knob and pushing down on the shaft at the same time. See "Safety Adjustment" on page 17 for detailed instructions on how to use

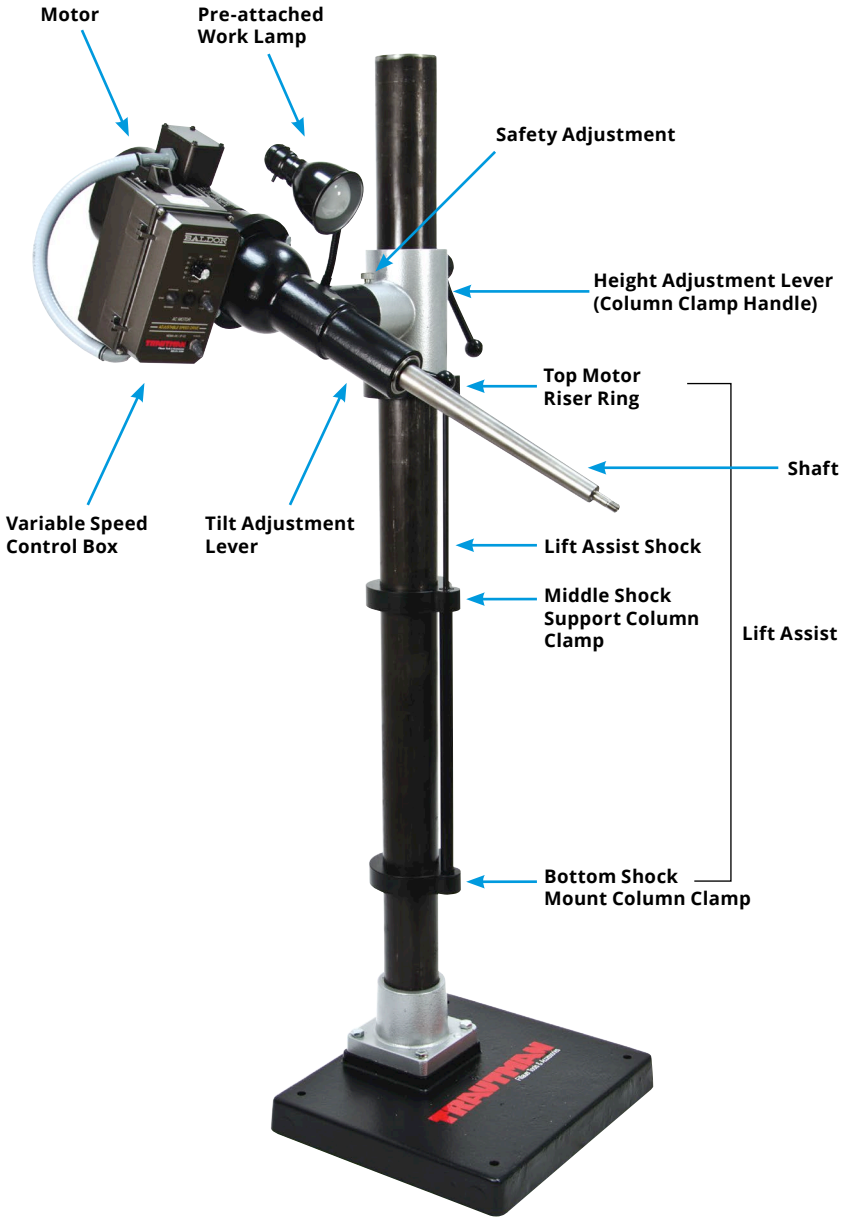


the Safety Adjustment. Shaft rotates in 27° increments. Set to desired position and tighten the lever securely.

### Recommended Materials, Adapters, and Accessories

- The floor carver is designed for use with Trautman sand cones, sand drums, felt arbors, polishing arbors, cutters, grinding rasps, and drill attachments.
- The floor carver can be used to shape plastic, lamination, carbon, wood, leather, rubber, crepe, and foams. Caution should be used with any material until the operator is familiar with its characteristics.
- Use with a Trautman rasp, cutter, drill attachment, or other sharp tool requires precaution. Applying too much pressure might cause vibration. Discontinue use if excessive vibration occurs.
- All tools should be tightened up to the shoulder on the carver shaft. Never use tools with loose or damaged threads. Discontinue use of the carver if its threads should become damaged.

# Floor Carver Diagram

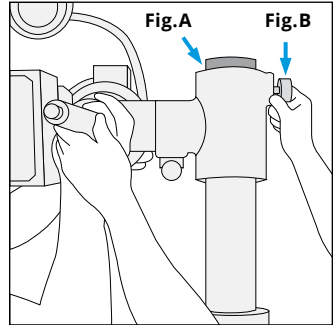


# Trautman Motor Lift Assist

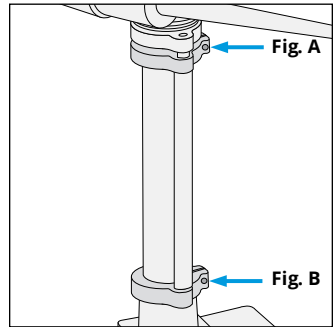
**NOTICE: In some cases the Motor Lift Assist may have been lowered for shipping purposes and must be raised to its proper position before use.**

Once you have received and installed your new Trautman Floor Carver with Lift Assist, the lift assist must be raised to its proper position before use. You will need a 5/16 in. hex key to complete this task.

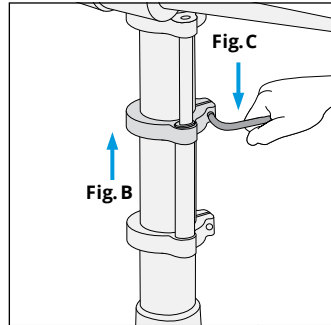
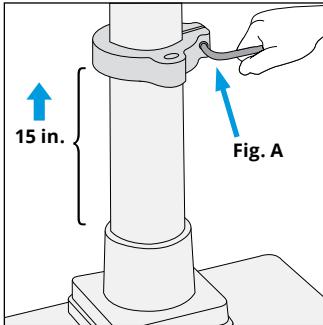
1. With assistance, raise the motor housing column clamp assembly up to the top of the column (Fig. A) and clamp it into place tightly using the column clamp handle (Fig. B).



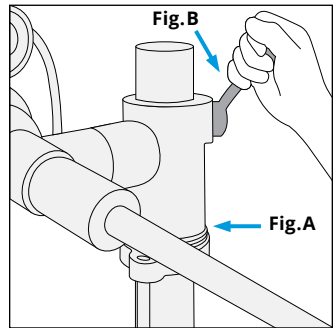
2. Next, loosen the bottom shock mount clamp and middle shock support clamp bolts from the lift assist (Fig. A and B). Raise the assist by pushing the top motor riser ring and the shock up, keeping the shock in the same alignment. The shock should be located directly underneath the motor for ease of assist.



3. Raise the bottom shock mount column clamp up 15 in. from the bottom of the clamp to the top of the base plate. Tighten the bottom shock mount column clamp bolt to 25 ft. lbs. (Fig. A). Relocate the middle shock support column clamp to the top of the shock housing (Fig. B) and tighten to 25 ft. lbs (Fig. C).

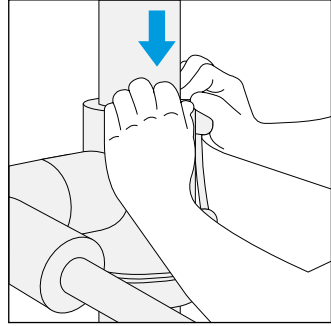
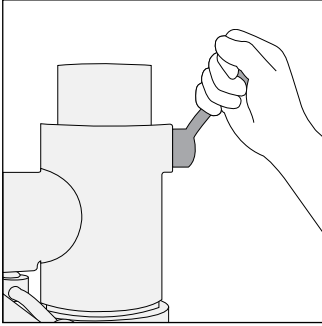


4. Once the clamps are in place, the motor housing column clamp assembly until it rests on the top ring of the lift assist (Fig. A). Make sure that the orientation of the motor and motor housing column clamp is setting over the shock and tighten the column clamp handle (Fig. B). Now your lift assist is ready to use. Please read the lift assist operation instructions in the next section before using the assist.

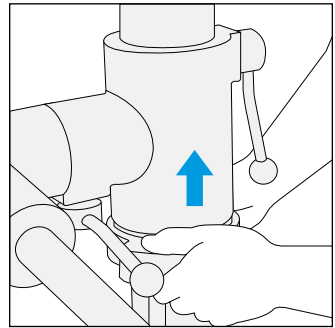


# Use of the Lift Assist

1. To lower the motor, simply loosen the column clamp handle and using both hands push down on the column clamp until desired height is achieved. Retighten the column clamp handle to secure the desired height.



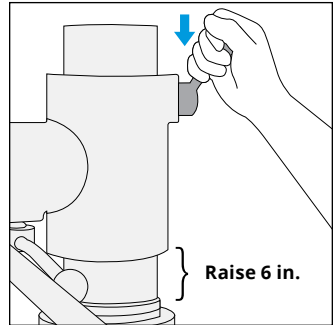
2. To raise the motor, simply loosen the column clamp handle and with both hands located under the top column motor riser ring push up on the assembly until desired height is achieved. Tighten the column clamp handle to resecure the motor into its location.



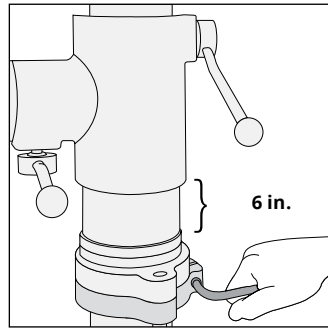
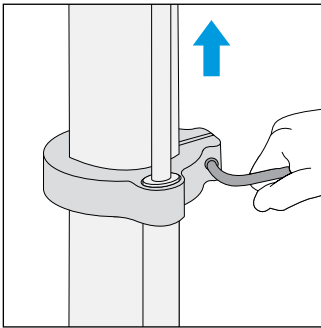
# Shock Replacement

## Removal of Old Shock

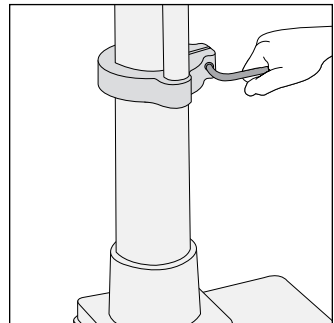
1. With assistance, raise the motor housing column clamp assembly up 6 in. above the top motor riser ring. The shock should be at full extension. Lock the motor housing column clamp into place; make sure that the motor and motor housing column clamp assembly handle is secure by trying to tighten the handle.



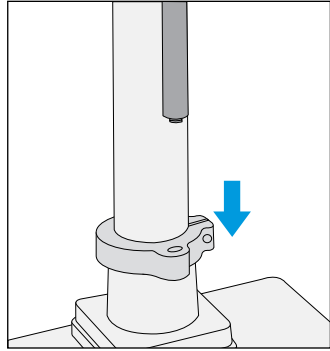
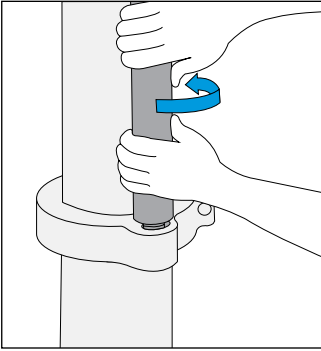
2. Loosen and raise the middle shock support column clamp. Retighten it under the top motor riser ring.



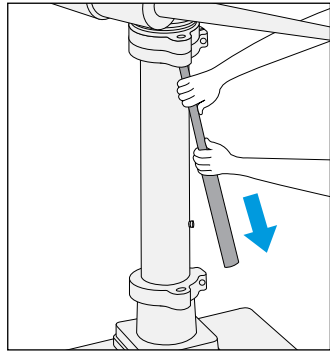
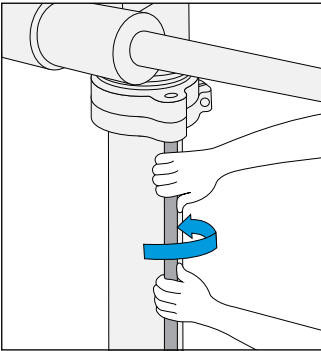
3. Loosen the bottom shock mount column clamp bolt.



4. Next, turn the bottom of the shock counterclockwise until it is free of the clamp, and then lower the clamp to the bottom of the column.

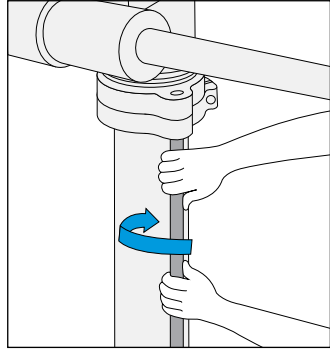
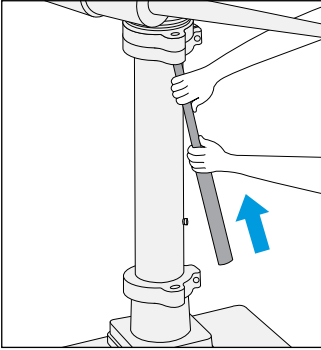


5. Loosen the top of the shock from the top motor riser ring by turning it counterclockwise until it is free and remove the shock.

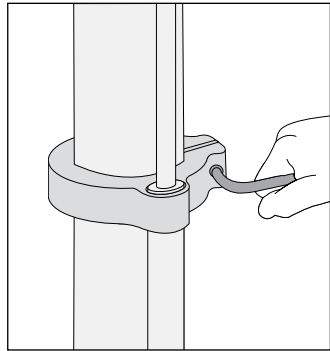
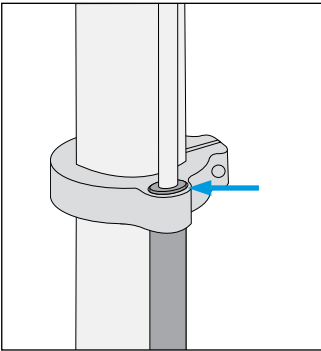


## Installation of New Shock

1. Install the new shock first by securing it to the top motor riser ring by threading it into the ring. Turn the top part of the shock into the riser ring clockwise until the thread is completely seated.

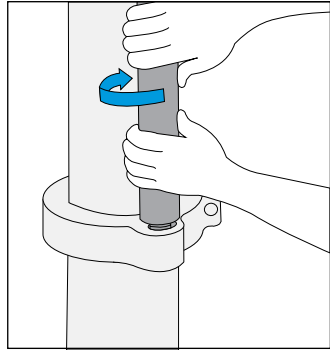
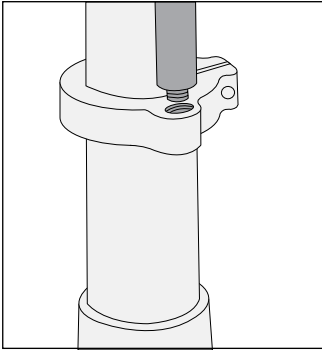


2. Lower the middle shock support clamp to the top of the shock and secure it by tightening the clamp to 25 ft. lbs.

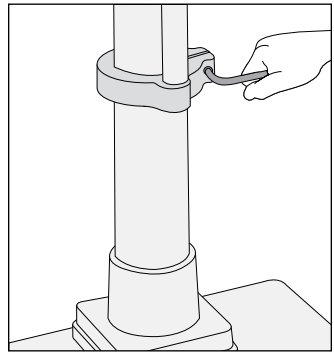




3. Raise the bottom shock mount column clamp to the bottom of the shock and thread it onto the shock by turning the bottom of the shock clockwise until it is completely threaded into the clamp. Make sure that the top part of the shock did not come loose, if so simply retighten it.

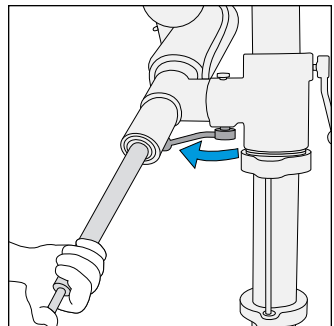


4. Tighten the bottom shock mount column clamp bolt to 25 ft. lbs. Now your lift assist is ready to use.

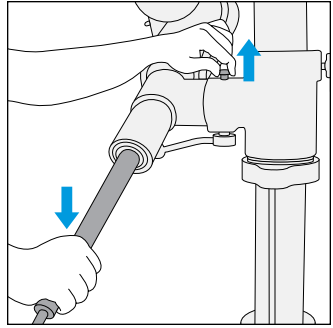


## Safety Adjustment

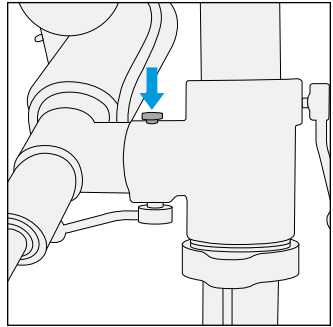
1. With your hand holding the shaft, loosen the tilt adjustment lever on the column clamp.



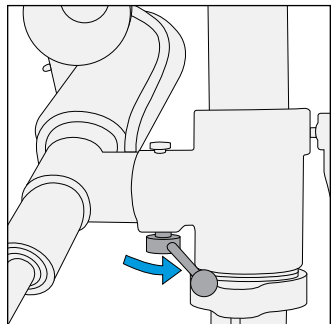
- Using two hands, push down on the carver shaft and pull up on the safety adjustment knob simultaneously to release from locked position. Rotate shaft carefully to desired position. Do not let the shaft rotate freely; this new position must be obtained manually.



- At the new position, the safety adjustment will click in place to ensure that the safety mechanism is engaged.



- Retighten the tilt adjustment lever on the column clamp to secure the new angle position. Now your carver is ready to use.



# Bench Carver Use

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## Setup Instructions

- Trautman Variable Speed and Single Speed Bench Carvers are shipped assembled complete except for the rear mounting bolt that secures the motor mounting bracket to the pivot plate. This bolt must be installed and both rear and front bolts must be firmly secured with the lock nuts that are included before starting the carver.
- The carver should be bolted securely to a bench using the four 1/4 in. bolt holes in the carver stand.
- The bench carver can also be mounted on a Bench Carver Floor Stand, PN 390190.
- The bench carver may be mounted in a vise for operation at patient care sites. This requires a vise that is large enough to fully and securely support the carver during operation. The vise must be firmly secured to a bench or stand to eliminate vibration or hazard. If the carver can not be held securely by the vise during operation, discontinue use at once.
- Installation should be in a well lit, adequately ventilated, uncluttered location, with convenient access to proper electrical receptacles.
- The Trautman Bench Carver should be grounded in accordance with local codes and ordinances. A qualified electrician should be consulted if electrical work is required. Grounding the carver will prevent electrical shock. The carver should never be used with extension cords or ungrounded receptacles.
- Both Trautman Bench Carvers come with a standard US plug or a custom plug that is specified at the time of purchase. A plug should never be forced into a receptacle. If the plug is not compatible with your receptacle please consult a qualified electrician or contact Fillauer for assistance.

## Operation and Adjustment

- The single speed bench carver is operated by an ON/OFF switch located on the rear end of the motor.
- The variable speed floor carver is operated by an ON/OFF and START/STOP switch located on the control panel. ON supplies power to the unit and START rotates the shaft to the speed selected on the SPEED control knob.

Variable speed is accomplished by turning the SPEED control knob, with 100% speed resulting in the maximum RPM from the motor.

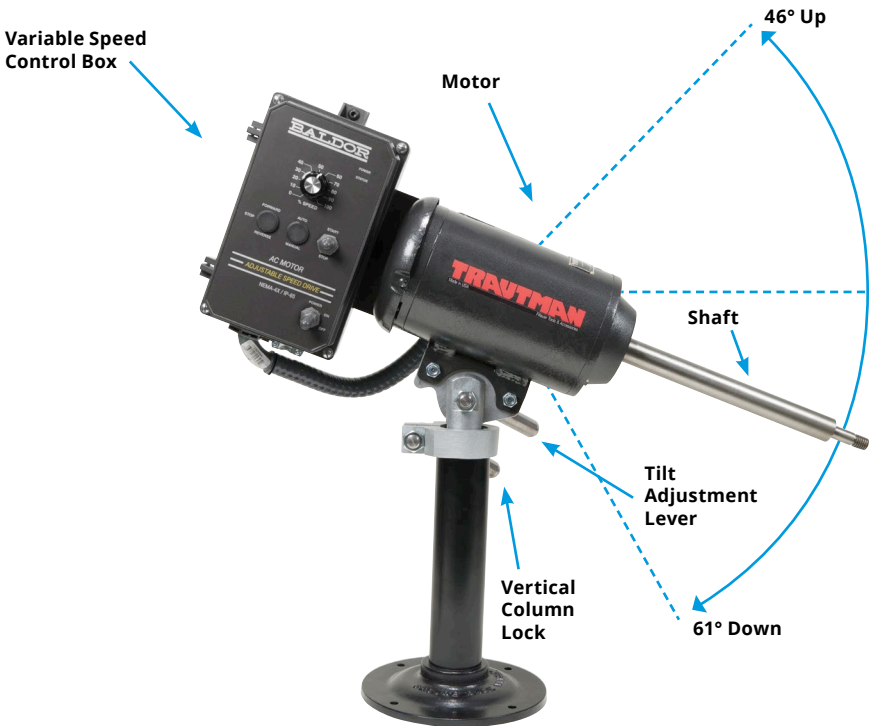
- To power down the variable machine, switch the START/STOP switch to the stop position. Do not turn on the machine any time after unplugging it.
- CAUTION: Do not make any adjustments to the variable machine's factory settings using the SETTING button located on the controller box. Changing the factory settings will void the machine's warranty.
- Operation should be from the side of the carver which has rotation toward the operator (across the top of the shaft/tool).
- The work piece should be held firmly while avoiding excess pressure on the work tool.
- The bench carvers are equipped with a thermal overload trip (TOL) device which will cut electrical power to the motor in the event of overheating. This device will reset once the motor cools to a safe level. In the event of a TOL trip, the START/STOP button should be turned to STOP. Caution should be taken while attempting to restart as damage could occur if the unit is not properly cooled.
- The height of the bench carver can be adjusted by turning the height adjustment lever to release the vertical column lock. While holding the motor firmly, unlock the height lever, set to desired height, and tighten the lever securely to hold vertical shaft in place.
- Positioning for tilt can be done by releasing the tilt adjustment lever. While holding the motor firmly, unlock the tilt lever, set to desired position and tighten the lever securely. The motor shaft assembly rotates a total of 107°, 46° upward and 61° downward.

### Recommended Materials, Adapters, and Accessories

- The bench carver is designed primarily for use with abrasives such as the Trautman sand cones, drums, and polishers such as the Trautman felt arbors.
- The bench carver can be used to shape plastic, lamination, carbon, wood, leather, rubber, crepe, and foams. Caution should be used with any material until the operator is familiar with its characteristics.

- Use with a Trautman rasp, cutter, or drill attachment requires precaution, as the bench carver might exhibit some vibration or stalling of the motor if too much pressure is applied. Discontinue use if excessive vibration occurs. These sharp tools should never be used when the bench carver is secured in a vise.
- All tools should be tightened up to the shoulder on the carver shaft. Never use tools with loose or damaged threads. Discontinue use of the carver if its threads should become damaged.

## Bench Carver Diagram



# Maintenance

**WARNING: Always disconnect the machine's power source before performing any maintenance. Never disassemble the machine or expose wiring without disconnecting the electrical power.**

- All required lubrication of internal parts is performed at the factory and no additional lubrication is required.
- As required, the machines should be cleaned of dust and debris using compressed air or a soft dry cloth.
- Periodic cleaning of external surfaces is suggested if buildup of dust and debris occurs. After cleaning, lubricate unpainted external surfaces with a light coating of oil for rust prevention.

# Warranty

## **Trautman Equipment Warranty**

Trautman equipment and equipment accessories are warranted for manufacturing defects for 12 months from the date of shipment from the Fillauer warehouse or from an authorized Fillauer distributor. Items will be replaced or repaired at Fillauer's discretion at no charge to the customer (see Trautman Warranty Repair/Replacement Procedure and Agreement). The warranty will be void if the item has been modified, abused, or used outside of Fillauer's recommendations.

# Troubleshooting Chart

This chart provides possible causes and solutions for common problems. It is meant to be a guide and no guarantee is made about its application or fitness for use. Please contact Fillauer with all troubleshooting and repair inquiries. Detailed repair instructions can be obtained upon request.

Problem	Possible Cause	Possible Solution
The carver will not start and there is no sound coming from the motor.	<ol style="list-style-type: none"> <li>1. Unit is not connected to the power source</li> <li>2. Circuit breaker is tripped</li> <li>3. Damaged cord</li> <li>4. Defective switch</li> <li>5. Defective motor</li> </ol>	<ol style="list-style-type: none"> <li>1. Check plug</li> <li>2. Reset circuit breaker</li> <li>3. Replace cord</li> <li>4. Replace switch</li> <li>5. Replace/repair motor</li> </ol>
The carver will not start but there is sound coming from the motor.	<ol style="list-style-type: none"> <li>1. If the motor will start by turning the shaft by hand, the capacitor may be defective</li> <li>2. If the shaft will not turn by hand, the bearings may be defective</li> <li>3. If the shaft will turn by hand but will not start, the start motor switch may be defective (GE motor only)</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace capacitor/motor</li> <li>2. Replace bearings</li> <li>3. Replace switch/motor</li> </ol>
The shaft vibrates when the motor is running.	<ol style="list-style-type: none"> <li>1. The motor housing bolts may be loose</li> <li>2. Coupling connecting motor to shaft is worn</li> <li>3. Bearings may be worn</li> <li>4. Shaft may be worn</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten bolts</li> <li>2. Replace coupling</li> <li>3. Replace bearings</li> <li>4. Replace shaft</li> </ol>
The adapter will not thread onto the shaft.	<ol style="list-style-type: none"> <li>1. Adapter thread might be wrong</li> <li>2. Adapter thread damaged</li> <li>3. Shaft thread damaged</li> <li>4. Adapter might contain debris</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm 1/2-13 Trautman thread with adapter mfg</li> <li>2. Discard damaged adapter</li> <li>3. Replace shaft</li> <li>4. Clean out debris</li> </ol>

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[www.fillauer.com](http://www.fillauer.com)

**Fillauer LLC**

2710 Amnicola Highway  
Chattanooga, TN 37406  
423.624.0946  
Fax 423.629.7936



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