

Grizzly *Industrial, Inc.*®

MODEL T21383 4-TON NOTCHER OWNER'S MANUAL



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**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**
(FOR MODELS MANUFACTURED AFTER 11/09) #JB12288 PRINTED IN CHINA

 **WARNING!**

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

Failure to read, understand and follow the instructions given in this manual may result in serious personal injury, including amputation, electrocution or death.

The owner of this machine/equipment is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, blade/cutter integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

 **WARNING!**

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

Your risk from these exposures 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 those dust masks that are specially designed to filter out microscopic particles.

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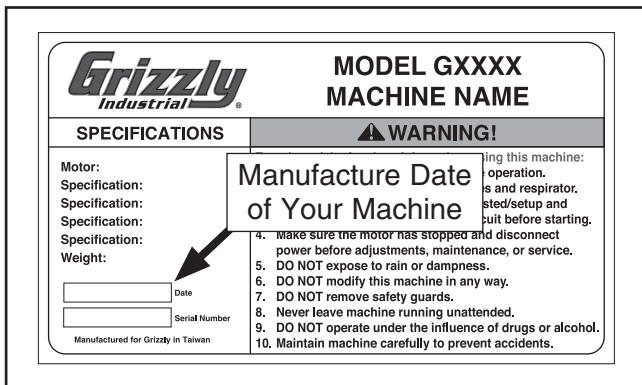
INTRODUCTION

Manual Accuracy

We are proud to offer this manual with your new machine! We've made every effort to be exact with the instructions, specifications, drawings, and photographs of the machine we used when writing this manual. However, sometimes errors do happen and we apologize for them.

Also, owing to our policy of continuous improvement, **your machine may not exactly match the manual**. If you find this to be the case, and the difference between the manual and machine leaves you in doubt, check our website for the latest manual update or call technical support for help.

Before calling, find the manufacture date of your machine by looking at the date stamped into the machine ID label (see below). This will help us determine if the manual version you received matches the manufacture date of your machine.



For your convenience, we post all available manuals and manual updates for free on our website at www.grizzly.com. Any updates to your model of machine will be reflected in these documents as soon as they are complete.

Contact Info

We stand behind our machines. If you have any service questions, parts requests or general questions about the machine, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
c/o Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

Machine Description

A notcher is used to remove portions (notches) from the edges of sheet-metal workpieces. Because the notcher blades form a 90° angle, all notches are right angles.

To use the Model T21383, the operator places the sheet metal workpiece on the work table, aligning the workpiece with the notching blades. If repetitive cuts will be made, the operator can place the work stops against the workpiece so that subsequent cuts can be quickly aligned. Once the workpiece is in place, the operator pulls the handle to lower the blades into and through the workpiece.



Identification

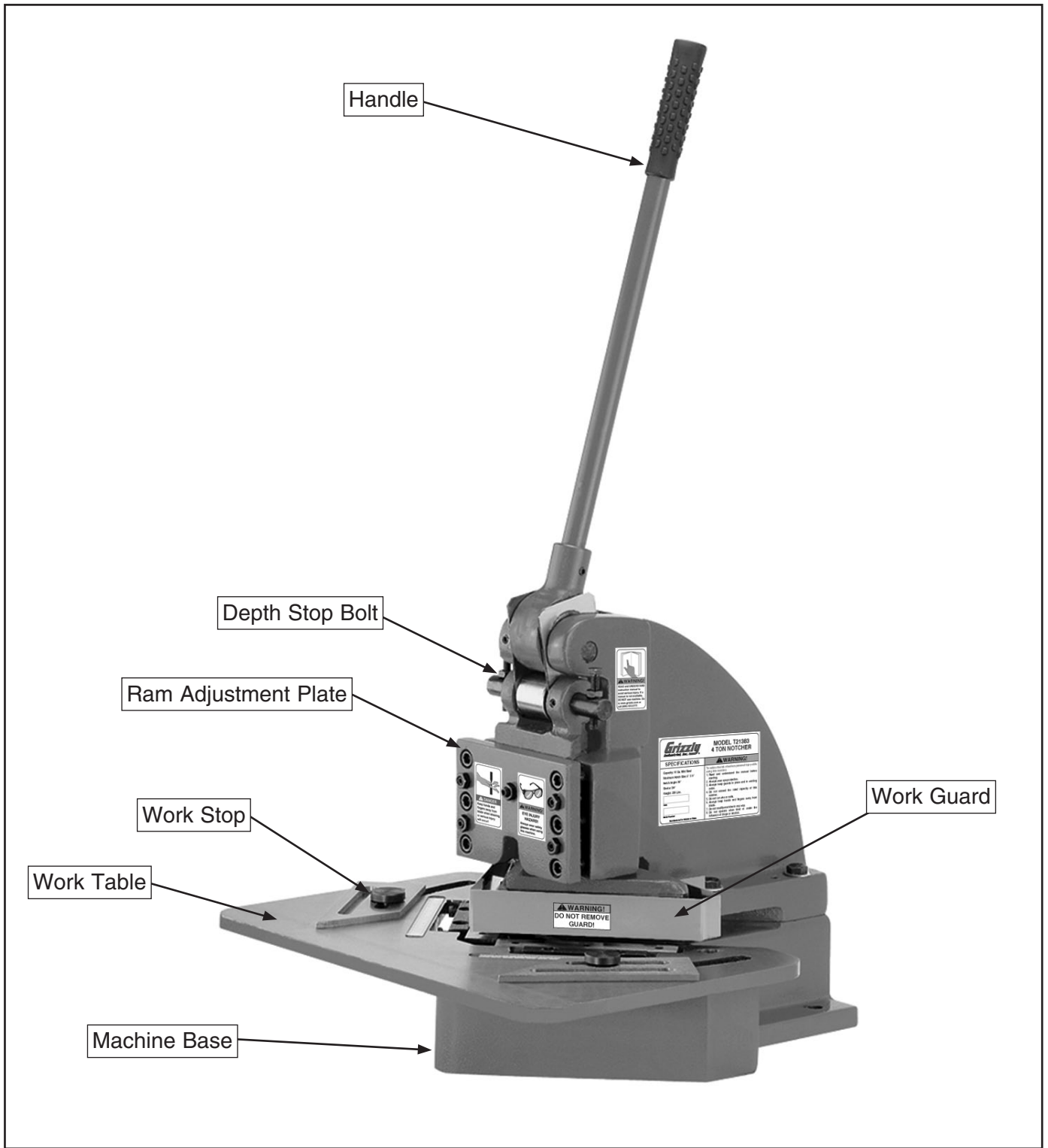


Figure 1. Identification.





MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

MODEL T21383 4-TON NOTCHER

Product Dimensions:

Weight 198 lbs.
 Length/Width/Height 20" x 18³/₈" x 36³/₁₆"
 Footprint (Length/Width) 33¹/₂" x 18³/₈"
 Work Table..... 12³/₈" x 18³/₈"

Shipping Dimensions:

Type Wood Crate
 Content..... Machine
 Weight..... 223 lbs.
 Length/Width/Height..... 22" x 20" x 19"

Capacities:

Maximum Notch Size 6" x 6"
 Notch Angle 90°
 Maximum Thickness 16 Ga. Mild Steel
 Notch Stroke ³/₄"

Construction

Shear Blades Precision Ground Hardened Steel
 Frame..... Cast Iron
 Table Ground Cast Iron

Other Specifications:

Country Of Origin China
 Warranty..... 1 Year
 Serial Number Location ID Label on Side of Machine
 Assembly Time 15 minutes

Features:

Adjustable Work Stops
 4-Ton Notching Force



SECTION 1: SAFETY

WARNING

For Your Own Safety, Read Instruction Manual Before Operating this Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the machine.

WARNING

Safety Instructions for Machinery

- 1. READ ENTIRE MANUAL BEFORE STARTING.** Operating machine before reading the manual greatly increases the risk of injury.
- 2. ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
- 3. ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Most types of dust (wood, metal, etc.) can cause severe respiratory illnesses.
- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing loss.
- 5. WEAR PROPER APPAREL. DO NOT** wear loose clothing, gloves, neckties, rings, or jewelry that can catch in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 6. NEVER OPERATE MACHINERY WHEN TIRED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.



WARNING

Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.
8. **KEEP CHILDREN/VISITORS AWAY.** Keep all children and visitors away from machinery. When machine is not in use, disconnect it from power, lock it out, or disable the switch to make it difficult for unauthorized people to start the machine.
9. **UNATTENDED OPERATION.** Leaving machine unattended while its running greatly increases the risk of an accident or property damage. Turn machine **OFF** and allow all moving parts to come to a complete stop before walking away.
10. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
11. **KEEP WORK AREA CLEAN AND WELL LIGHTED.** Clutter and dark shadows may cause accidents.
12. **USE A GROUNDED POWER SUPPLY RATED FOR THE MACHINE AMPERAGE.** Grounded cords minimize shock hazards. Operating machine on an incorrect size of circuit increases risk of fire.
13. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.
14. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
15. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**
16. **REMOVE CHUCK KEYS OR ADJUSTING TOOLS.** Make a habit of never leaving chuck keys or other adjustment tools in/on the machine—especially near spindles!
17. **DAMAGED MACHINERY.** Check for binding or misaligned parts, broken parts, loose bolts, other conditions that may impair machine operation. Always repair or replace damaged parts before operation.
18. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
19. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
20. **DO NOT OVERREACH.** Maintain stability and balance at all times when operating machine.
21. **MANY MACHINES CAN EJECT WORKPIECES TOWARD OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."
22. **STABLE MACHINE.** Machines that move during operations greatly increase the risk of injury and loss of control. Verify machines are stable/secure and mobile bases (if used) are locked before starting.
23. **CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Be aware of the type of dust you are exposed to and always wear a respirator designed to filter that type of dust.
24. **EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact our Technical Support Department at (570) 546-9663.



WARNING

Additional Safety Instructions for Notchers

- 1. GUARDS.** Keep all guards in place and in working order. If the guard is removed or not in position, fingers may be accidentally placed in the path of the blades, resulting in severe injury during use.
- 2. HANDS AND FINGERS.** Always keep hands and fingers away from the blade during notching operations. If hands or fingers are in the path of the blades during use, severe injury may occur.
- 3. OPERATOR POSITION.** Keep all body parts out of the way of all moving parts to avoid the risk of pinch or cut injuries.
- 4. CAPACITY.** Never exceed the rated capacity of this notcher. Doing so could result in machine failure and bodily injury as a result of flying debris or sudden movement.
- 5. COMFORTABLE CUTTING OPERATIONS.** Avoid awkward operations and hand positions where a sudden slip could cause your hand or body to fall into a sharp edge or corner.
- 6. EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the notcher! Contact Tech Support at (570) 546-9663.

WARNING

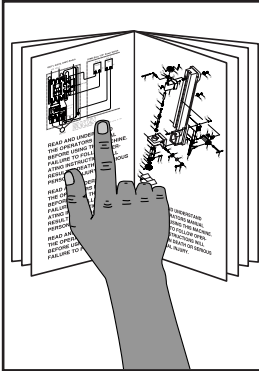
Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.

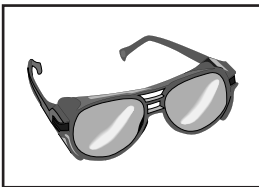


SECTION 2: SETUP



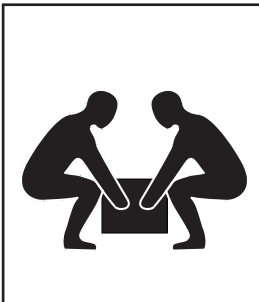
!WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before operating the machine!



!WARNING

Wear safety glasses during the entire setup process!



!WARNING

This machine and its components are very heavy. Get lifting help or use power lifting equipment such as a forklift to move heavy items.

Needed for Setup

The following items are needed to complete the setup process, but are not included with your machine:

Description	Qty
• Safety Glasses	1
• Hex Wrench 4mm.....	1
• An assistant for lifting help	1
• Mounting Hardware	As needed

Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover the machine is damaged, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, inventory the contents.



Inventory

The following is a description of the main components shipped with your machine. Lay the components out to inventory them.

Note: *If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for shipping purposes.*

Inventory: (Figure 2)	Qty
A. 4 Ton Notcher.....	1
B. Actuator Lever	1

If any nonproprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

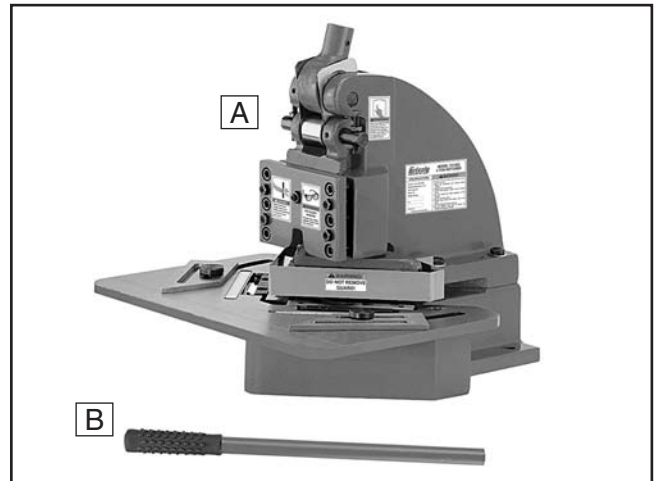



Figure 2. Inventory.

	<p>! WARNING SUFFOCATION HAZARD! Immediately discard all plastic bags and packing materials to eliminate choking/suffocation hazards for children and animals.</p>
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Cleanup

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage.

This rust preventative has been your machine's close ally and guardian since it left the factory. If your machine arrived to you free of rust, then be thankful that the rust preventative protected it during its journey...and try to stay thankful as you clean it off, because it can be challenging to remove if you are unprepared and impatient.

Plan on spending some time cleaning your machine. The time you spend doing this will reward you with smooth sliding parts and a better appreciation for the proper care of your machine's unpainted surfaces.

Although there are many ways to successfully remove the rust preventative, these instructions walk you through what works well for us.

Before cleaning, gather the following:

- Disposable Rags
- Cleaner/degreaser (see below)
- Safety glasses & disposable gloves

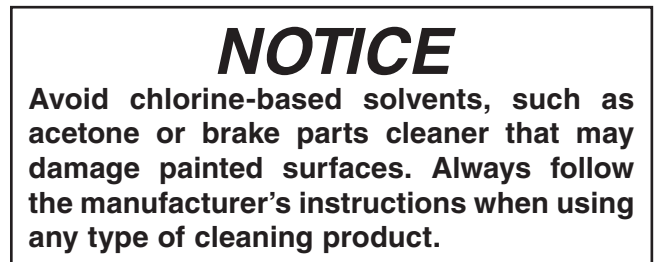
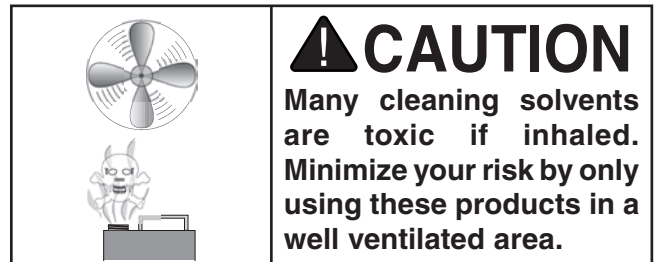
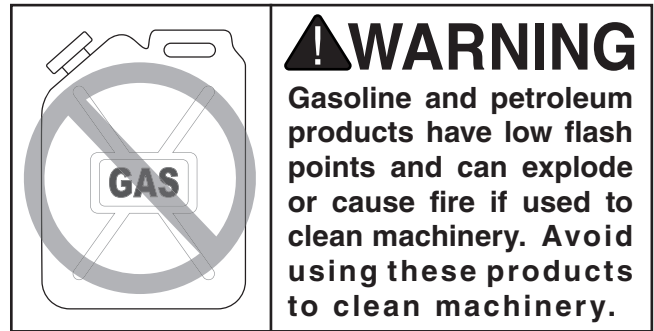
H9692—Orange Power Cleaner & Degreaser

One of the best cleaners we've found for quickly and easily removing rust preventative.



Figure 3. Model H9692 Industrial Orange Power Cleaner/Degreaser (99.9% biodegradable).

Note: *In a pinch, automotive degreasers, mineral spirits or WD•40 can be used to remove rust preventative. Before using these products, though, test them on an inconspicuous area of your paint to make sure they will not damage it.*



Basic steps for removing rust preventative:

1. Put on safety glasses and disposable gloves.
2. Coat all surfaces that have rust preventative with a liberal amount of your cleaner/degreaser and let them soak for few minutes.
3. Wipe off the surfaces. If your cleaner/degreaser is effective, the rust preventative will wipe off easily.

Note: *To clean off thick coats of rust preventative on flat surfaces, such as tables, use a PLASTIC paint scraper to scrape off the majority of the coating before wiping it off with your rag. (Do not use a metal scraper or you may scratch your machine.)*

4. Repeat **Steps 2–3** as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.



Site Considerations

Physical Environment

The physical environment where your machine is operated is important for safe operation and the longevity of its components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range exceeds 41°–104°F; the relative humidity range exceeds 20–95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

Space Allocation

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. **See below for working clearances.**

Weight Load

Refer to the **Machine Data Sheet** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.

	<p>⚠ CAUTION Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.</p>
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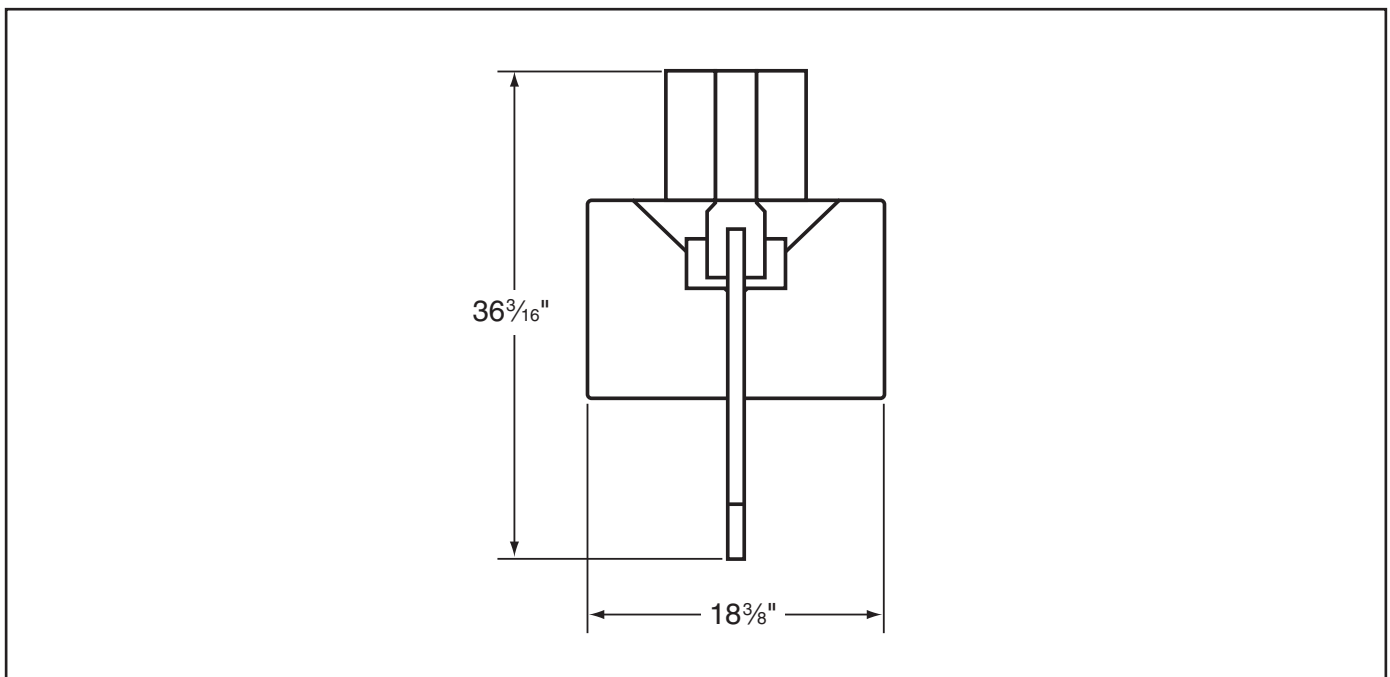


Figure 4. Minimum working clearances.



Assembly

Assembly for the Model T21383 consists of attaching the handle to the machine. Insert the handle into the handle base, then tighten the set screw, as shown in **Figure 5**.

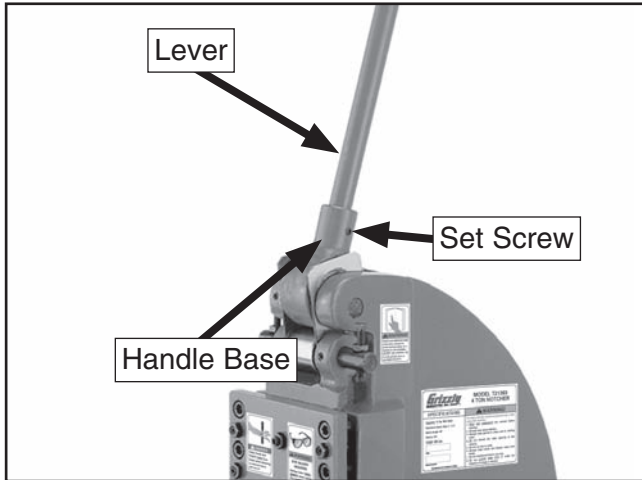


Figure 5. Attaching lever.

Mounting

Once your machine is assembled, mount it to a workbench through the holes in the base. Adjusting the blades, replacing the blades, or removing cutting waste on the Model T21383 requires open access to the underside of the machine. Keep this in mind when mounting the machine.

We recommend mounting the machine so that the front portion of the base hangs over the edge of the workbench. Due to the increase in force applied to the mounting hardware from this method, we strongly recommend that you use a "Through Mount" (**Figure 6**) and that your workbench is anchored to the floor or wall.

Another option is to make a hole in your workbench to allow access to the underside of the machine for blade adjustments and removal of waste material.

The alternative method is to mount the machine completely over the top of the workbench and remove the machine from the workbench whenever adjustments are made to the blades or when scraps must be removed.

The strongest mounting option is a "Through Mount" where holes are drilled all the way through the workbench, and hex bolts, washers, and hex nuts are used to secure the machine to the workbench.

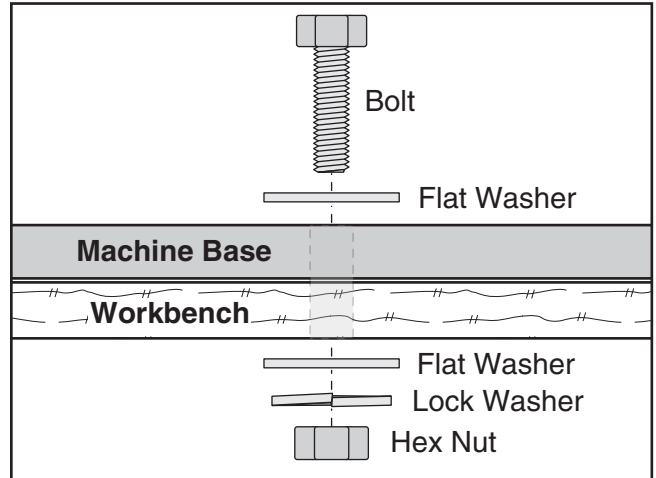


Figure 6. Example of a through mount setup.

Another option for mounting is a "Direct Mount" where the machine is simply secured to the workbench with a lag screw.

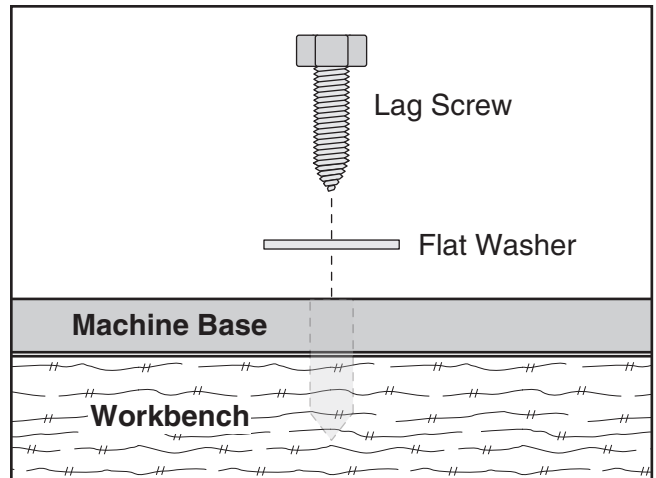
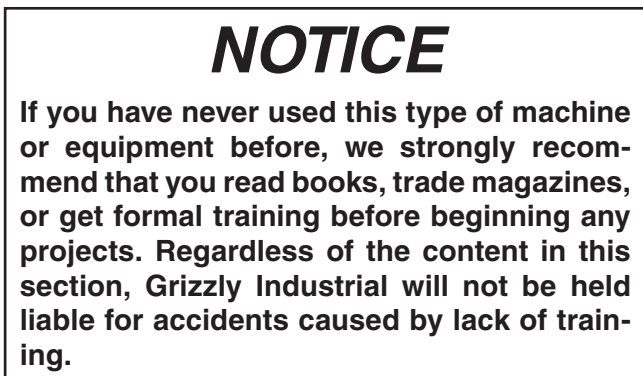
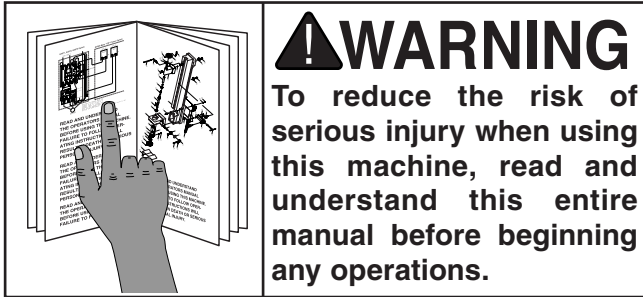


Figure 7. Example of a direct mount setup.



SECTION 3: OPERATIONS



Basic Controls

Use the descriptions and **Figures 8–9** to become familiar with the basic controls of your machine.

Depth Stop Adjustment: Adjusts the distance that the blade ram moves into the table.

Ram Adjustment Plate: Adjusts to provide aligned, accurate, and easy blade movement.

Blade Adjustment Bolts: Allow for precise positioning of the bottom blades.

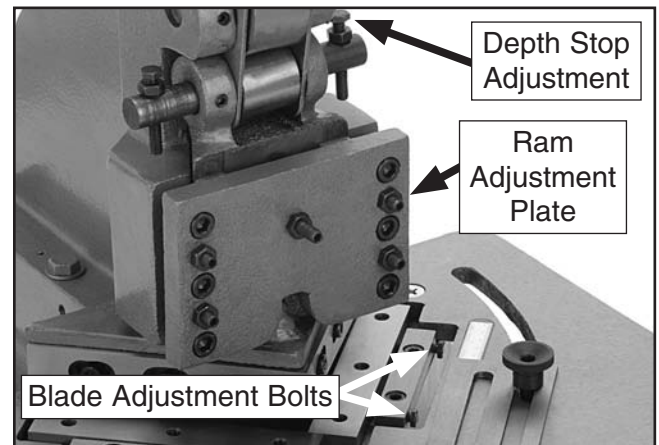


Figure 8. Adjustment knobs.

Lever: Actuates the ram, lowering the blades into the workpiece.

Work Stops: Easily align the workpiece for making repetitive cuts.

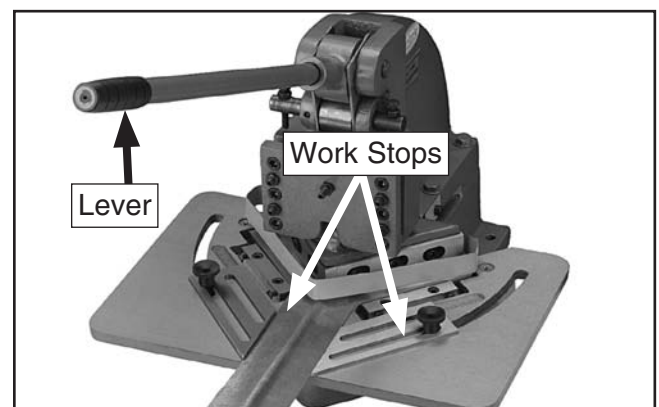


Figure 9. Controls.



Creating Notches

Be aware that during notching with the Model T21383, the waste from the cut will be ejected from the bottom of the machine. If the machine is mounted as recommended with the underside of the machine exposed, the waste will drop to the floor beneath the machine.

If the machine is mounted to a workbench in such a way that the underside of the table is not exposed, it will be necessary to periodically remove waste material from the base of the machine.

To make notches:

1. Wearing gloves and safety glasses or a face shield, place the workpiece on the table, lining it up with the blades as needed.

CAUTION

Injury to your feet could result when material is ejected from the bottom of the machine. Always wear heavy-toed leather footwear when operating this machine.

NOTICE

Only use the Model T21383 as it was designed. Use of a cheater bar or other method of increasing leverage may exceed the machine capacities, resulting in possible failure and personal injury, and will void the warranty.

2. Pull the handle down to move the top blades into and through the workpiece. Continue pulling until the cut is complete.
3. Lift the handle back to the uppermost position, then remove the workpiece.

Work Stops

The Model T21383 has adjustable stops attached to the work table. These allow rapid alignment of workpieces during repetitive operations.

To use the work stops:

1. Align the workpiece as necessary on the table and make the desired cut. Check that the cut meets your requirements.
2. Once the cut is to your standards, lower the blade so that the top blades are below the level of the table.
3. Position the workpiece on the work table so that the workpiece rests against the top blades (**Figure 10**).

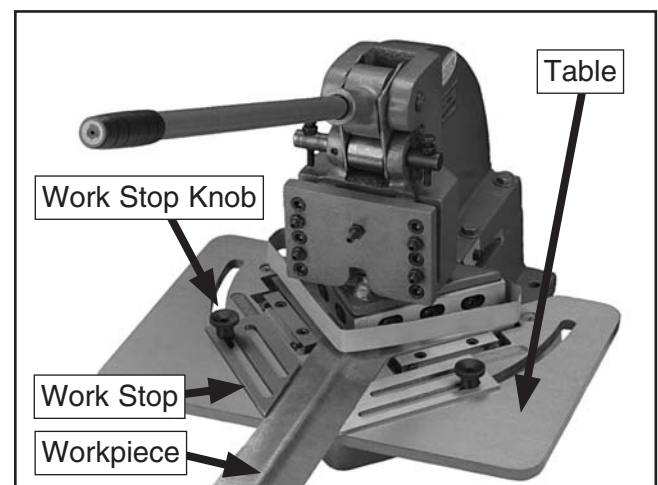


Figure 10. Work stops.

4. Adjust the work stops as necessary to provide adequate support and proper alignment with the workpiece, then tighten the work stop knobs (**Figure 10**).
5. Remove the workpiece and return the handle to the uppermost position.
6. For additional cuts, place the workpiece against the work stops and make the cut.



Blade Alignment

For optimal cutting performance, it is important that the blades on the Model T21383 are properly aligned.

Tools Needed	Qty
Hex Wrench 6mm.....	1
Feeler Gauge 0.004"	1
Wrench 10mm	1

To align the top blades:

1. Loosen the three cap screws that secure the longer top blade to the blade ram (**Figure 11**).

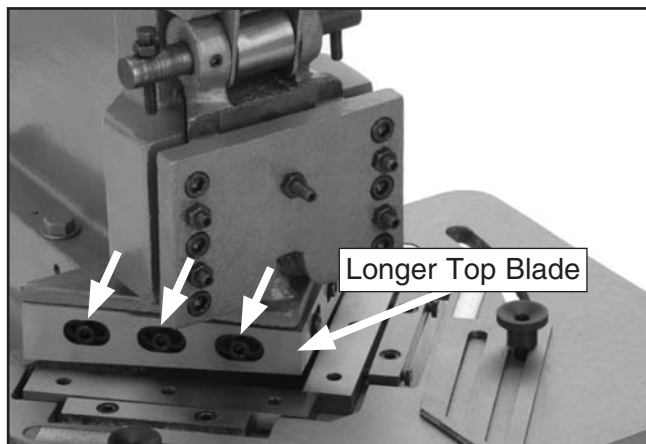


Figure 11. Longer blade alignment (guard removed for clarity).

2. Adjust the position of the longer blade so that its end is perfectly flush with the face of the shorter blade, then tighten the cap screws (**Figure 12**).

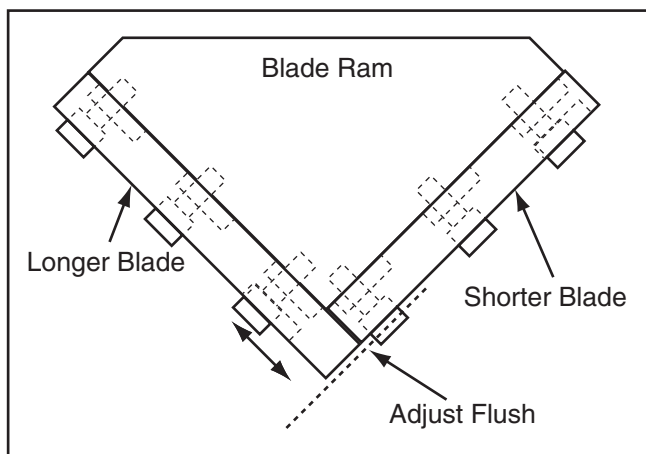


Figure 12. Aligning blades.

3. Loosen the three cap screws that secure the shorter top blade to the blade ram (**Figure 13**).

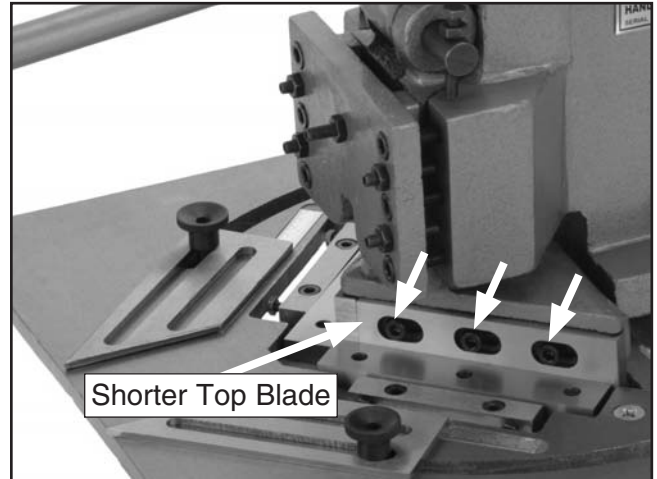


Figure 13. Shorter blade alignment (guard removed for clarity).

4. Adjust the position of the shorter blade so that its end is directly against the rear face of the longer blade to remove any gap, then tighten the cap screws (**Figure 14**).

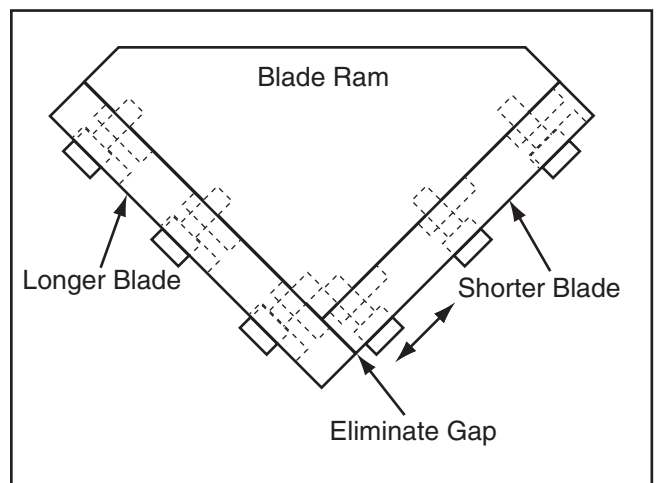


Figure 14. Eliminating blade gap.



To align the bottom blades:

1. Loosen the six cap screws located inside the machine base on the underside of the bottom blades (**Figure 15**).

—If your mounting position does not allow access to the underside of the machine, we recommend removing the work table, removing the mounting hardware, and carefully placing the machine on its side in order to complete this procedure.

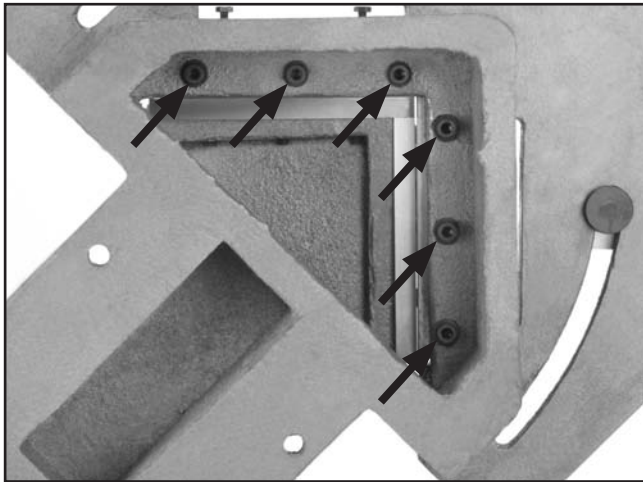


Figure 15. Loosening bottom blades.

2. Loosen the four hex bolts and slide the bottom blades back so that a feeler gauge can be placed between the top and bottom blades (**Figure 16**).

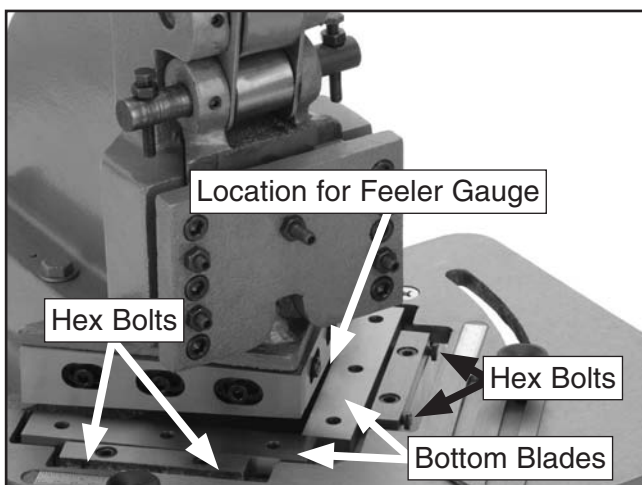


Figure 16. Adjusting bottom blades.

3. Pull the handle to lower the top blades into the table.
4. Place the 0.004" feeler gauge between the top and bottom blades in the position shown in **Figure 16**, then turn the hex bolts to adjust one bottom blade until it just pinches the feeler gauge between the blades.
5. Adjust the blade so the gap is even along its entire length.
6. Repeat **Steps 4–5** for the other bottom blade.
7. Tighten all six cap screws located inside the machine base on the underside of the bottom blades (**Figure 15**).

Depth Stops

The Model T21383 is equipped with depth stops to limit the vertical travel of the top blades. These must be adjusted to allow enough travel to complete the cut. As the blades wear and are re-sharpened, it may be necessary to adjust the depth stops to achieve the necessary travel.

To adjust the depth stop:

1. Loosen the jam nuts on the depth stop bolts (**Figure 17**).

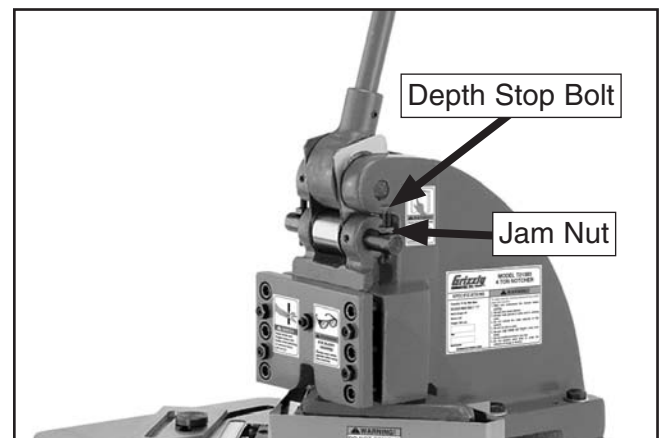


Figure 17. Depth stop adjustment.

2. Adjust the depth stop bolts to provide adequate blade travel, then tighten the jam nuts without turning the depth stop bolts.



SECTION 4: ACCESSORIES

G5618—Deburring Tool with two Blades

The quickest tool for smoothing freshly sheared metal edges. Comes with two blades, one for steel and aluminum and one for brass and cast iron.



Figure 18. Model G5618 Deburring tool.

G8781—4½" Suction Cup

Handle plate glass, glass mirrors and sheet metal with safety and security. Simple hand lever action provides tremendous gripping power on any flat, smooth material. Buy two Suction Cups for two-handed control!



Figure 19. Model G8781 4½" Suction Cup.

T20798—40" Pan & Box Brake

Bend 14 gauge mild steel up to 40" wide or use the various sized box fingers to make bent tabs. A foot operated clamping beam locks the workpiece in place and a hand operated brake handle bends any angle up to 135°. A great addition to any sheet metal shop!



Figure 20. Model T20798 40" Pan & Box Brake.

G8124—Pneumatic Nibbler

Push type Pneumatic Nibbler makes quick work of sheet steel up to 1/16" thick and soft metal up to 5/64" thick. Features 3500 strokes per minute at an average air consumption of 6 CFM.



Figure 21. Model G8124 Pneumatic Nibbler.

Call 1-800-523-4777 To Order



SECTION 5: MAINTENANCE

Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Daily Check:

- Loose mounting bolts.
- Any other unsafe condition.
- Worn or damaged blades.

Weekly Maintenance:

- Clean machine.
- Lubricate apron pivots.
- Lubricate bushings.

Cleaning

Cleaning the Model T21383 is relatively easy. Periodically wipe down the machine to remove dust and oil. Treat all unpainted surfaces with a non-staining lubricant after cleaning.

Unpainted Surfaces

Protect the unpainted surfaces on the machine by wiping it clean after every use—this ensures rust-promoting debris does not remain on bare metal surfaces.

Keep the machine rust-free with regular applications of rust-preventative products like Boeshield® T-9.

Lubrication

Lubricating the Model T21383 consists of applying lubricant to all of the moving parts.

Oiling Locations

Apply several drops of SAE 30 or equivalent oil from an oil can into the joints and sliding surfaces shown in **Figure 22**. Move each component back and forth several times to disperse the oil, then wipe off any excess oil.



Figure 22. Oil locations.



SECTION 6: SERVICE

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting

Operations

Symptom	Possible Cause	Possible Solution
Heavy resistance is felt when cuts are attempted.	<ol style="list-style-type: none">1. Machine capacities are exceeded.2. Blades are dull.3. Blade alignment is improperly set.	<ol style="list-style-type: none">1. Use materials within the capacity of the machine.2. Rotate/sharpen blades (Page 20).3. Adjust blades (Page 15).
Cut is not consistent across workpiece.	<ol style="list-style-type: none">1. Machine capacities are exceeded.2. Blades are dull.3. Top and bottom blades are not properly aligned.4. Top blades are not aligned to one another.	<ol style="list-style-type: none">1. Use materials within the capacity of the machine.2. Rotate/sharpen blades (Page 20).3. Adjust blades (Page 15).4. Adjust blades (Page 15).



Rotating/Sharpening Blades

To maximize the blade life on the Model T21383, the top and bottom blades can be rotated to expose fresh cutting surfaces or sharpened to restore the cutting edge.

Each of the top blades has two cutting edges and each of the bottom blades has four cutting edges.

Top Blades

1. Remove the six cap screws that secure the top blades (**Figure 23**).

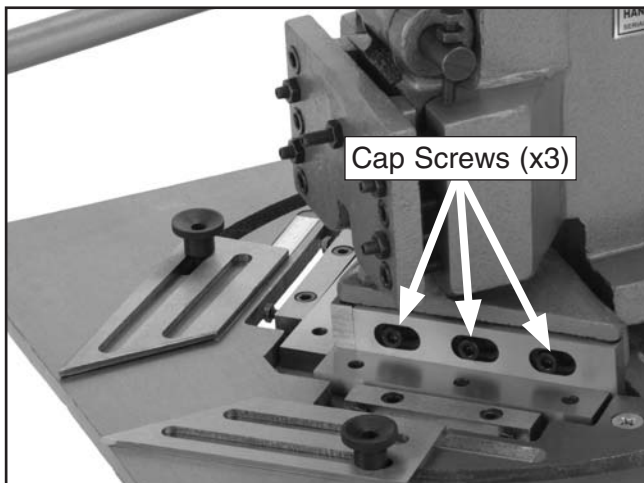


Figure 23. Screws for top blade removal.

2. Reverse the positions of the two upper blades. Doing this will position the fresh edge against the bottom blade.
3. Re-align the blades (see **Blade Alignment** on **Page 15**).

Bottom Blades

1. Remove the six cap screws located inside the machine base on the underside of the bottom blades (**Figure 24**).

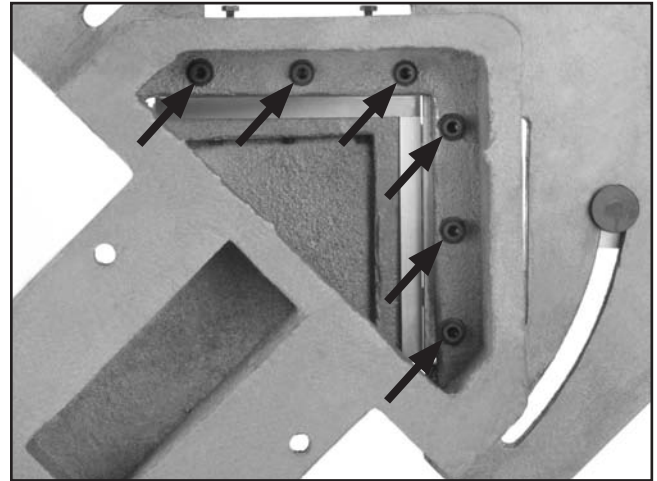


Figure 24. Screws for removing bottom blades.

2. Remove each of the bottom blades and rotate them as necessary to expose new blade edges, re-install them, then loosely re-thread the six cap screws.
3. Align the bottom blades (see **To align the bottom blades** on **Page 16**).

Sharpening Blades

When rotating the blades no longer exposes a fresh cutting edge, the blades can be sharpened. We recommend using a surface grinder to restore a flat edge to the blades. Only sharpen the short edge of the blade (**Figure 25**).

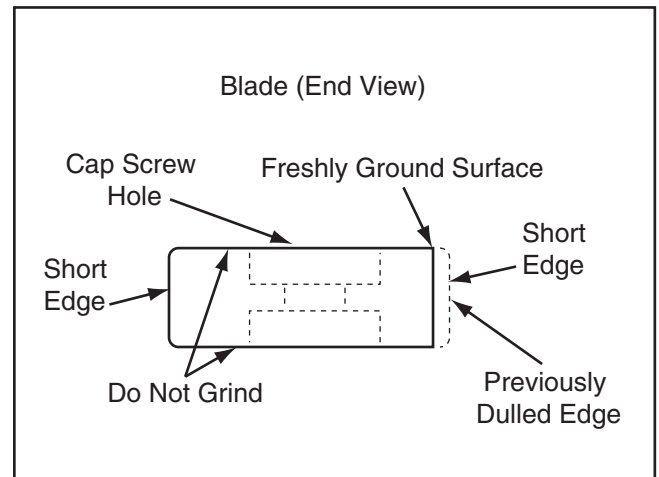
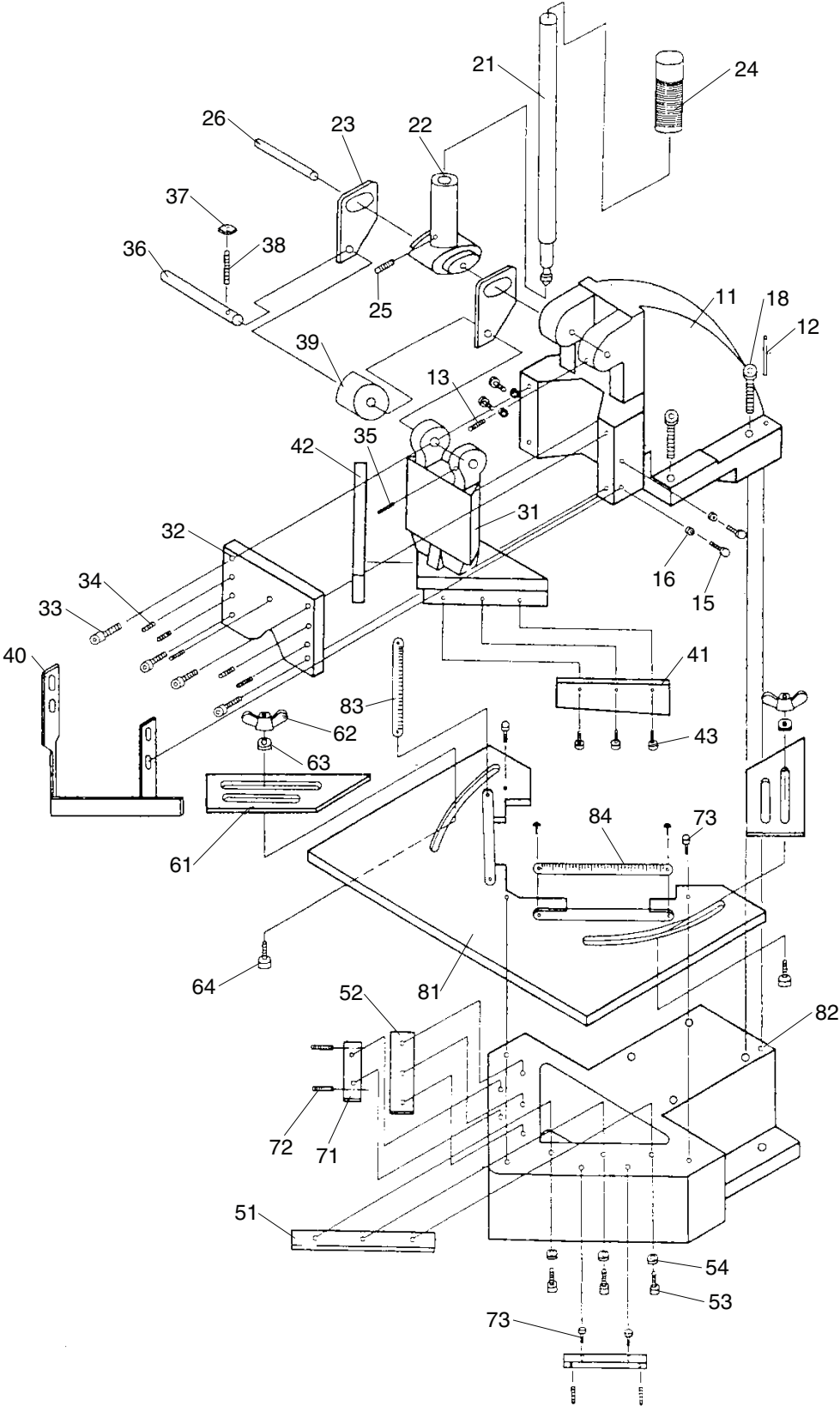


Figure 25. Blade grinding illustration.



SECTION 7: PARTS

Parts Breakdown

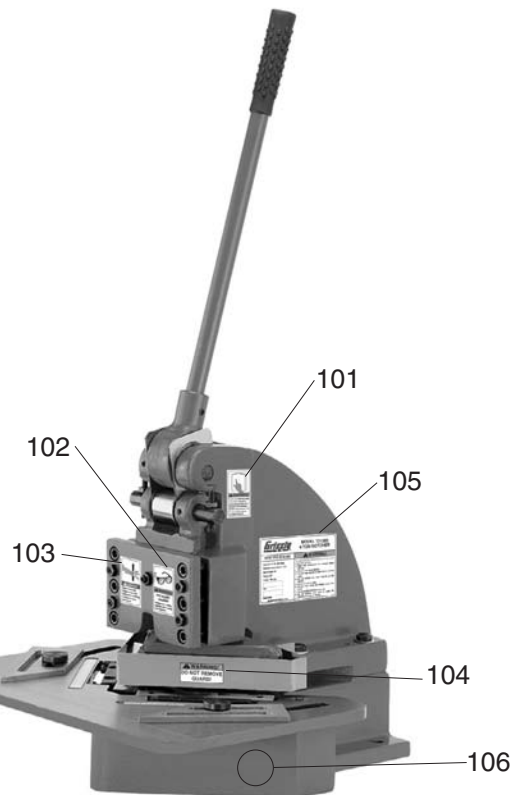


Parts List

REF	PART #	DESCRIPTION
11	PT21383011	MACHINE BODY
12	PRP34M	ROLL PIN 6 X 55
13	PCAP02M	CAP SCREW M6-1 X 20
15	PCAP26M	CAP SCREW M6-1 X 12
16	PW03M	FLAT WASHER 6MM
18	PB125M	HEX BOLT M12-1.75 X 65
21	PT21383021	ACTUATOR LEVER
22	PT21383022	ACTUATOR CAM
23	PT21383023	LINK PLATE
24	PT21383024	LEVER GRIP
25	PSS16M	SET SCREW M8-1.25 X 10
26	PT21383026	ACTUATOR CAM SHAFT
31	PT21383031	NOTCHING RAM
32	PT21383032	FRONT COVER
33	PCAP31M	CAP SCREW M8-1.25 X 25
34	PSS09M	SET SCREW M8-1.25 X 20
35	PSS91M	SET SCREW M6-1 X 14
36	PT21383036	CAM ROLLER PIN
37	PN03M	HEX NUT M8-1.25
38	PSS44M	SET SCREW M8-1.25 X 40

REF	PART #	DESCRIPTION
39	PT21383039	SHAFT BUSHING
40	PT21383040	FENCE GUARD
41	PT21383041	RIGHT UPPER BLADE
42	PT21383042	LEFT UPPER BLADE
43	PCAP64M	CAP SCREW M10-1.5 X 25
51	PT21383051	RIGHT LOWER BLADE
52	PT21383052	LEFT LOWER BLADE
53	PCAP31M	CAP SCREW M8-1.25 X 25
54	PW01M	FLAT WASHER 8MM
61	PT21383061	WORK STOP
62	PWN04M	WING NUT M10-1.5
63	PW04M	FLAT WASHER 10MM
64	PCAP47M	CAP SCREW M10-1.5 X 40
71	PT21383071	BLADE POSITIONING BLOCK
72	PSS25M	SET SCREW M6-1 X 20
73	PCAP14M	CAP SCREW M8-1.25 X 20
81	PT21383081	WORK TABLE
82	PT21383082	BASE
83	PT21383083	LEFT SCALE
84	PT21383084	RIGHT SCALE

Labels Breakdown & List



REF	PART #	DESCRIPTION
101	PLABEL-12C	READ MANUAL LABEL
102	PLABEL-11B	SAFETY GLASSES LABEL
103	PT21383103	FINGER SHEARING LABEL

REF	PART #	DESCRIPTION
104	PT21383104	NO GUARD REMOVAL LABEL
105	PT21383105	MACHINE ID LABEL
106	PPAINT-1	GREEN TOUCHUP PAINT





WARRANTY CARD

Name _____
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 Phone # _____ Email _____ Invoice # _____
 Model # _____ Order # _____ Serial # _____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.**

1. How did you learn about us?

Advertisement Friend Catalog
 Card Deck Website Other:

2. Which of the following magazines do you subscribe to?

<input type="checkbox"/> Cabinetmaker & FDM	<input type="checkbox"/> Popular Science	<input type="checkbox"/> Wooden Boat
<input type="checkbox"/> Family Handyman	<input type="checkbox"/> Popular Woodworking	<input type="checkbox"/> Woodshop News
<input type="checkbox"/> Hand Loader	<input type="checkbox"/> Precision Shooter	<input type="checkbox"/> Woodsmith
<input type="checkbox"/> Handy	<input type="checkbox"/> Projects in Metal	<input type="checkbox"/> Woodwork
<input type="checkbox"/> Home Shop Machinist	<input type="checkbox"/> RC Modeler	<input type="checkbox"/> Woodworker West
<input type="checkbox"/> Journal of Light Cont.	<input type="checkbox"/> Rifle	<input type="checkbox"/> Woodworker's Journal
<input type="checkbox"/> Live Steam	<input type="checkbox"/> Shop Notes	<input type="checkbox"/> Other:
<input type="checkbox"/> Model Airplane News	<input type="checkbox"/> Shotgun News	
<input type="checkbox"/> Old House Journal	<input type="checkbox"/> Today's Homeowner	
<input type="checkbox"/> Popular Mechanics	<input type="checkbox"/> Wood	

3. What is your annual household income?

\$20,000-\$29,000 \$30,000-\$39,000 \$40,000-\$49,000
 \$50,000-\$59,000 \$60,000-\$69,000 \$70,000+

4. What is your age group?

20-29 30-39 40-49
 50-59 60-69 70+

5. How long have you been a woodworker/metalworker?

0-2 Years 2-8 Years 8-20 Years 20+ Years

6. How many of your machines or tools are Grizzly?

0-2 3-5 6-9 10+

7. Do you think your machine represents a good value? Yes No

8. Would you recommend Grizzly Industrial to a friend? Yes No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?

Note: We never use names more than 3 times. Yes No

10. Comments: _____

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We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

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