



Fontaine Model 1404 Machine Manual

**Safety
Procedures**

**Operation
instructions**

**Clean up and
Maintenance**



SAFETY

1. KNOW THE MACHINE

Read and understand the operators manual. Learn the machine's operation, application, and possible hazards.

2. KEEP UNIT GROUNDED

The machine is equipped with a 3 wire cord for use on internally grounded electrical systems. Make sure your electrical system is grounded and that the machine is connected to its power source in an approved manner by a competent electrician

3. KEEP GUARD IN PLACE

Never operate machine with belt guard removed.

4. WEAR PROPER APPAREL

Never wear loose clothing or jewelry that may be caught in moving parts. Always use safety goggles while using abrasive belts.

5. KEEP WORK AREA CLEAN

Cluttered areas, beaches and slippery floors invite accidents. It is recommended to use a piece of outdoor carpet under the machine to absorb the mist generated by the wet grinding process.

6. DISCONNECT FROM POWER SOURCE

Unplug or turn off power at the source before doing maintenance or repairs on the machine.

7. KEEP MACHINE CLEAN AND IN GOOD WORKING ORDER

Replace worn or broken parts. Clean grinding residue from the belt area of the machine daily with the spray hose.

WARNING: DO NOT SPRAY ANY PART OF THE MACHINE EXCEPT THE BELT AREA.

KEEP SPRAY AWAY FROM PUSH BUTTONS AND ELECTRICAL BOX.

8. KEEP VISITORS AWAY

All visitors should be keep at a safe distance from the work area.

9. NEVER LEAVE THE MACHINE RUNNING UNATTENDED

SAFETY INSTRUCTIONS TO OPERATOR

Caution: DO NOT CONNECT TO POWER SOURCE UNTIL YOU HAVE

- a. Read and understand the instruction manual carefully.
- b. Completed the installation instructions.
- c. Examined and completed operating familiarity with the ON and OFF switches.
- d. Dressed with proper apparel, safety glasses, no loose clothing.
- e. Check to be sure belt guard is in place.
- f. Make sure abrasive belts are of the water proof type.
- g. Make sure board to be tuned has all straps tucked away or removed.

INTRODUCTION

You have purchased the "state of the art" in snowboard tuning machinery. We, at Fontaine Metal Products have spent thousands of hours on the design and development of a machine to do the best and most efficient job of snowboard tuning. We are committed to stay out in front with new development to make your tuning operation the most advanced available anywhere.

Spend a little extra time right now and carefully read this operators manual. Learn the machine operation and the care and maintenance required to keep your machine operating at peak efficiency.

UNPACKING

1. Cut plastic bands and remove box top sleeve.
2. Check for any shipping damage that may effect the operation of the machine.
3. Remove packing from pump and place it upright in the tank.

CONNECT THE POWER SOURCE

A separate, single phase circuit must be provided for the machine. Check the name plate on the power cord for the voltage.

POWER REQUIREMENTS:

230V 30AMP Circuit.

WARNING: Improper electrical connection may result in hazards to the operator, and will void the warranty on all electrical components of the machine. For your protection consult an electrician qualified to work on machinery to confirm the proper power source.

1. Test source with a volt meter.
2. Check fuse or breaker.
3. Connect receptacle and plug to conform with local and national codes.
4. Fill water tank 3/4 full.
5. Start machine without belt in place. Check motor and pump operation.

POSSIBLE PROBLEMS

Machine Cabinet Electrically "Hot.": A ground wire has been connected improperly to a hot line lead. Consult an electrician and repeat steps 1 through 3 above.

PREPARATION

*Before operating the machine make sure the section on electrical power requirements has been met.

1. **Fill the water tank** 3/4 full and add the recommended cutting fluid according to direction on the container. CAUTION: Some cutting fluids contain nitrates, these fluids will cause damage to the brass and zinc plated parts of the machine. Use only the cutting fluid supplied by Fontaine Metal Products.

2. **Install an abrasive belt: (Fig 1.)** Open belt guard doors move belt release handle to the release position and slide belt over wheels. Move belt tension handle to the tension position and shut belt guard doors.

3. **Tracking Belt: (Fig 2.)** Center belt on platen. Jog machine by holding the stop button down and tapping the start button. Turn the tracking knob clockwise to move the belt away from the center of the machine. Once the belt is tracking on the center of the platen, only minor adjustments will be necessary on occasion. Note direction arrows on some brands of belts.

4. **Clean Boards/Skis:** Remove Debris, loose edges, etc from skis/boards.

5. **Abrasive belts:** Before using coarse grit belts (60 or 80) they must be dulled slightly. Hold an old file or metal bar across the belt with the machine running to remove the high spots in the abrasive material. Coarser belts are used to remove material fast and finer belts are used to finish. A coarse belt that is well worn will also do a good job of finish grinding. The best production procedure is to grind all boards that need considerable removable of material first (boards that are concave, convex or have base or edge damage). After the belt is worn and is cutting slower, go back over the same board for one or two finishing cuts. Clean abrasive belts with a wire brush with the machine running. Always use the recommended cutting fluid. The fluid contains a rust inhibitor and grinding agents. Mix cutting fluid with water according to the directions on the container.

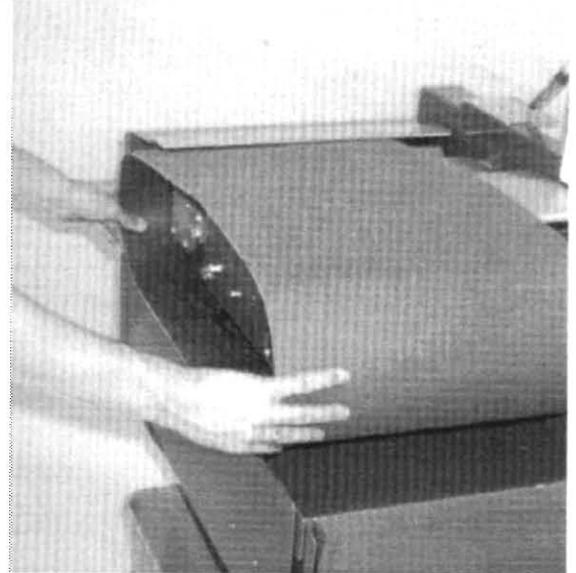


Fig 1.



Fig 2.

6. Water flow: Make sure that your spray bar is flowing. Your machine should have an even flow of water/cutting fluid across the belt. If flow is too high, it can be reduced by adjusting the water valve.

7. Platen/Edge Guide Secure: (Fig 3.) Make sure that all options are in place and secure. Check to ensure platen tabs are locked. Tighten Edge guide knob. Check belt tension release handle.

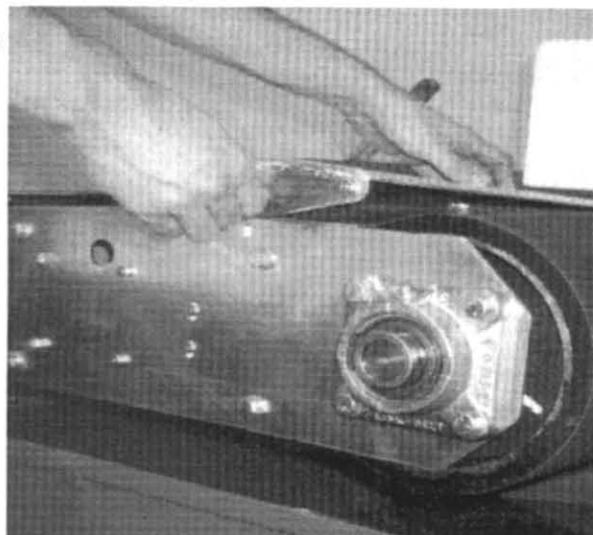


Fig 3.

MACHINE OPERATION

PLATEN GRINDING: (Fig 4.) The platen is used for grinding skis and flat boards. Use smooth even passes. Start at the tip and use even pressure throughout your pass. It is best to keep the ski/board in the center of your body and walk forward along with the pass. The standard platen (.007) Will evenly grind a flat surface. The bevel platen (.080) Will produce a 1 degree bevel. It is best to use the optional power feed with the bevel platen. However, an even, careful pass will produce a good beveled edge.

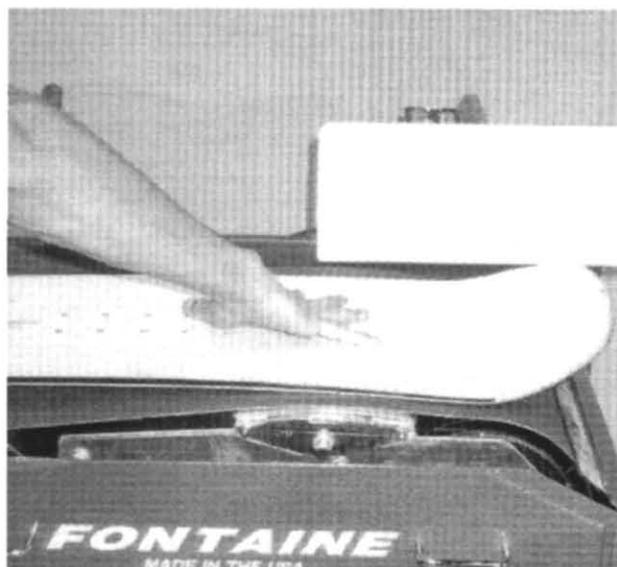


Fig 4.

CONTACT WHEEL GRINDING: (Fig 5.) The contact wheel on the 1404 is a relatively soft 40 durometer neoprene. The contact wheel is soft enough to conform to less than flat boards and make the tuning job easier and more uniform. Use even steady passes tip to tail or in both directions depending on what is most conformable for you. The last few passes should be tip to tail. A low spot or damaged area of a board can be spot ground carefully. Blend in the spot ground area with full length passes. Do not attempt to spot grind a deep depression in a board! You may grind through the base material. The most important factor is to get the board flat and true near the edges, edge to edge and tip to tail. Then work on the appearance of the base stopping prior to grinding the base material too thin.

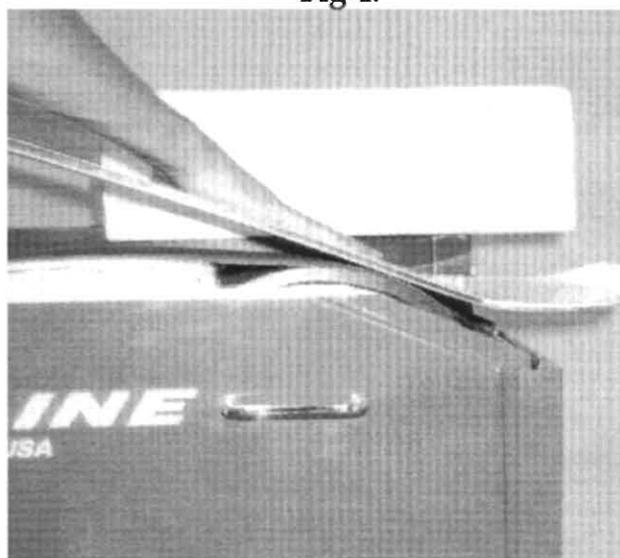


Fig 5.

CONTACT WHEEL GRINDING SKIS: The optional platen is recommended for ski grinding. If you use the contact wheel for grinding ski bases use very light pressure and full length passes tip to tail. Do not use heavy pressure when grinding ski bases. The base will conform to the contact wheel and round off the ski edges. The contact wheel works well after grinding the ski flat on the platen as a final very light pass. The contact wheel produces a sheen grain structure which is a better cosmetic look on some base materials.

EDGE GRINDING: (Fig 6.) Move the edge guide to about 1/2 inch from the outside of the platen or contact wheel. Make sure the ski/board bindings clear the side of the machine. Hold the ski/board flat against the edge guide and with pressure against the edge guide. No downward pressure is necessary. The weight of the board is sufficient downward pressure. Too much pressure will cause the edge to heat up and may damage the board/ski.

DE-TUNING EDGES: After grinding bases and edges. Edges are very sharp and must be dulled at the tip and tail, and detuned slightly with a small oil stone along the entire edge. Some boarders do some fine detuning on their own. Keep a supply of pocket oil stones on hand.



Fig 6.

PRACTICE on a throw away board prior to starting on customers boards. An hour of practice will make you a board tuning expert. Quality is important. The Fontaine Board tuning Machine will finish a board as good and in many cases better than new boards. Spend the time to get the method down pat. You will be able to turn out quality tuned boards in volume.

RECOMMENDATIONS

- 1. Water Pump:** Do not operate the machine without water in the tank. Water pump cooling depends on the pump running in water. You can turn the spray down in case of over spray. Do not turn coolant off while in operation.
- 2. Filter System:** Empty the filter bag, before it is 3/4 full to prevent grindings from entering the water tank. Change filter at least once each day or after approximately 15 boards, wash grindings from belt area into filter. Lift one side of filter up, and slide filter bag off ring. If water spray bar becomes clogged due to grindings in the tank, remove spray bar, and clean out plug. It is imperative that a full flow of water be maintained to properly grind boards.
- 3. belt over spray:** If the machine over spray is a problem, Turn down the water flow. Make sure to not turn the spray all the way off. In order for proper grinding, coolant/water must be flowing over the belt.
- 4. Belt Tension Adjustment: (Fig 2.)** The model 1404 machine is designed for 14" x 59" belts. If belt slipping occurs with any belt, take up spring tension a little at a time until the slipping stops.

MAINTENANCE

Daily: Empty filter bag daily or before the filter bag is 3/4 full. Wash grindings from the belt area into filter. Lift side of filter, up away from plastic ring and slide off. **WARNING:** Do not allow spray to contact start buttons or other electrical components. Clean grindings from tracking mechanism. Spray with WD-40 and wipe clean with a rag. **Important:** For Maximum useful life, keep the machine clean.

Weekly: Oil belt tension release pivot, with motor oil. (Fig 2) Thoroughly clean grinding residue from the entire machine. Use WD-40 on mechanical parts, and a good household cleaner on the cabinet.

Monthly: Add grease to fittings, (Fig 7.) with a standard automotive grease gun. One or two strokes of the grease gun is sufficient. Oil casters with a few drops of motor oil. Oil tracking knob thread. Empty water tank, clean out grinding residue.

Annually: End of season lay up. Clean the machine thoroughly! Remove all coolant and grinding residue. Remove the belt, filter bag, and tank. Remove the platen and spray with WD-40. Never use silicone spray anywhere on the machine. Dry the machine. Lube the machine at all lube points. If the machine is to be covered use a breathable cover not plastic.

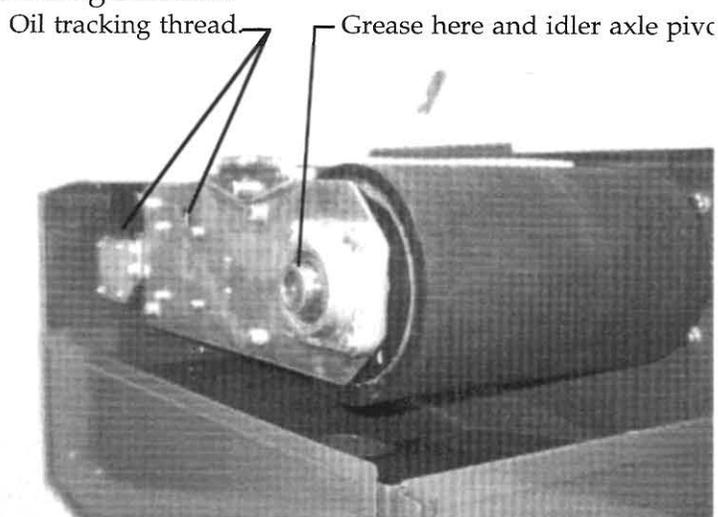


Fig 7.

Service Repairs: The Fontaine Board Tuning Machine is designed to make repairs easy. In case of a component failure, the entire sub assembly can be removed and shipped to the factory on an exchange basis. To minimize down time, parts can be shipped out of stock C.O.D. Upon receipt of the worn assembly at the factory, a core charge credit will be issued, or a full credit in case of warranty replacement.

Required for Disassembly, Service

Grease Gun, Oil Can, WD-40

Allen Wrench Set

Open End Wrenches 3/8 7/16 1/2 9/16

Screw Driver

Drive Wheel: To remove drive wheel, contact **Fontaine Metal Products** for instructions.

General: Mechanical work service and repairs must be performed in a workmanship-like manner as with any piece of machinery. Parts returned with hammer marks or in an abused condition will not be covered under warranty.

Operation of Power Feed Module for 1404

1. Start with a throw away board/ski and practice until you are confident of the operation of the machine before doing customers equipment.
2. Make sure board tops are clean and free of silicone spray before grinding. Clean board with wax remover. Do not allow onlookers to stand behind the machine during operation. Power feed wheel slippage can occur and cause boards/skis to be ejected from the machine. When grinding boards without bindings, tape the tops with 2" masking tape the full length of the board before grinding. (optional)

QUESTIONS/ COMMENTS

If you have any further questions about the Model 1404 or any Fontaine product, please call us at (503) 307-0161. We can be reached by E-mail at David.Rosso@Fontaineskiting.com

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