

DEPTH ADJUSTMENT: continued

being stopped by the pressure pad below. The longer the end of the depth adjustment screw is extended, the less deep the groove will be, and vice versa.

Pressing down on the handle causes the blade to plunge downward. Keep downward pressure on the handle, and keep debris off the pressure pad, or inaccurate depth of cut may result.

The blade is trapezoidal in shape. The deeper the groove, the wider the groove. Use caution not to cut a groove wider than your welding thread.

MAKING THE GROOVE:

To start the groover, you must make a starter groove with a hand groover at least as long as the distance from the front guide wheel to the back guide wheel (Fig. 6). It is best to make the starter groove close to a wall, so you can first run the groover a short distance towards a first wall, then turn the groover around and run towards the opposite wall. Set the back wide-edged guide wheel of the groover in the starter groove, and the front thin-edged guide wheel in the seamline. Check to make certain the blade is over the center of the starter groove. Turn on the groover and slowly plunge to depth. Push forward slowly along the seamline, making certain the front guide wheel stays in the seamline. Continue the groove as close to the wall as possible. Reducing hand pressure on the handle lifts the blade out of the cut. Turn the groover off only when the blade is out of the cut. For your safety, it is always best to wait for the blade to stop before removing the tool from the groove.

HAND GROOVER:

For starter grooves or short seams, such as doorways, the hand groover is best used (Fig. 7). Using a straight edge as a guide, position the hand groover to cut the seam in the exact center. The tool cuts either by pulling or pushing but works best when pulling.

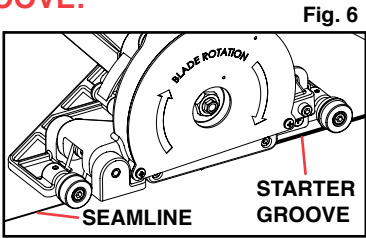


Fig. 6

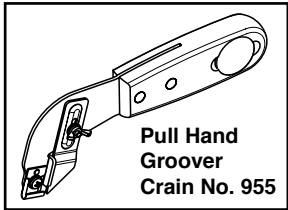
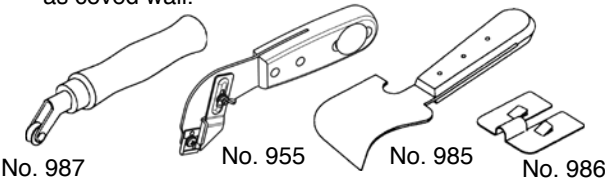


Fig. 7

OTHER USEFUL VINYL WELDING TOOLS

- **Crain No. 955 Pull Hand Groover:** Most often used at the end of the seam where the Power Groover cannot reach or at the cove walls.
- **Crain No. 985 Quarter Moon Knife:** Used for trimming the excess welding rod flush to the flat floor's surface, after the weld has cooled.
- **Crain No. 986 Trim Guide:** Helps to minimize concave seams and is most often used in the two-pass method.
- **Crain No. 987 Pressure Roller:** Used to roll the vinyl welding rod into the groove in awkward areas, such as coved wall.



GUARANTEE

This Crain No. 970 Power Groover is guaranteed to be free of defects in workmanship and quality of materials for a period of 6 months. Any parts of this groover found defective subject to the guarantee will be replaced at no charge. Credit in full or part cannot be extended by the distributor, nor will a new groover be given as a replacement or loaner. Groovers subject to this warranty must be accompanied by same, returned freight PREPAID to Milpitas, CA, and must be in assembled condition.

DATE OF MFG. _____

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 brick, cement and other masonry product, and
- arsenic and chromium from chemically-treated lumber.

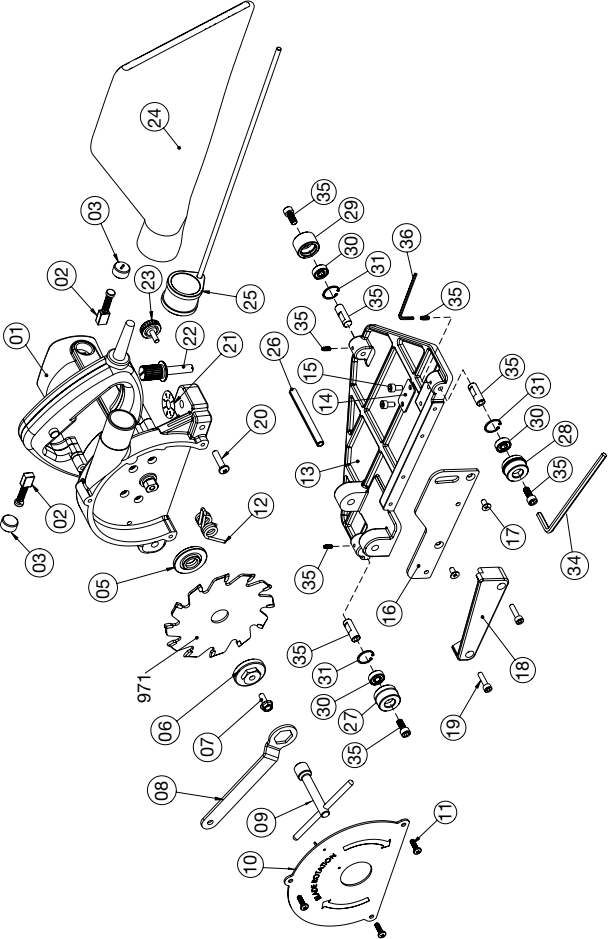
Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

CRAIN CUTTER CO., INC.

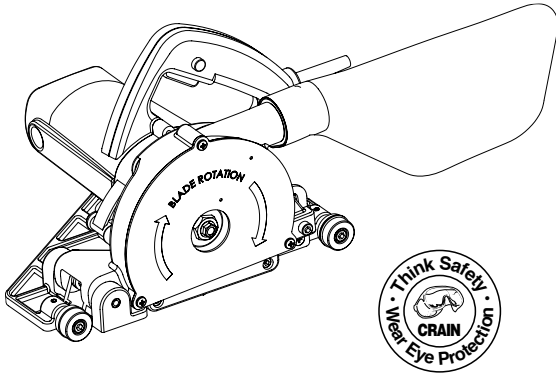
Milpitas, CA 95035 TEL: (408) 946-6100

REPLACEMENT PARTS AND ORDERING INFORMATION

Order No.	Description	Order No.	Description
1970-01	120 Volts Power Unit	1970-18	Blade Cover
1970-02	Power Unit	1970-19	Blade Cover
1970-03	Brushes Set (2)	1970-20	Fasteners (2)
1970-04	Brush Cap Set (2)	1970-21	Power Unit
1970-05	Power Cord (not shown)	1970-22	Locking Screw
1970-06	Blade Spacer	1970-23	Depth Adjusting Label
1970-07	Clamp Nut	1970-24	Depth Locking Screw
1970-08	Blade Screw	1970-25	Dust Collector Bag
1970-09	Clamp Nut Box Wrench	1970-26	Bag Collar
1970-10	Blade Screw T-Wrench	1970-27	and Supporter
1970-11	Blade Guard	1970-28	Power Unit Pivot Pin
1970-12	Blade Guard	1970-29	Front Guide Wheel
1970-13	Fasteners (3)	1970-30	Rear Wheel
1970-14	Torsion Spring	1970-31	Center Wheel
1970-15	Groover Base	1970-32	Wheel Bearing
1970-16	Pressure Pad	1970-33	Snap Ring
1970-17	Pressure Pad	1970-34	5mm Allen® Wrench
1970-18	Fasteners (2)	1970-35	Sliding Axle
1970-19	Upright Plate	1970-36	& Fasteners
1970-20	Upright Plate		2.5mm Allen® Wrench
1970-21	Fasteners (2)		



INSTRUCTION MANUAL



No. 970 POWER GROOVER

⚠ WARNINGS:

KICKBACK HAZARDS:

- **USE CAUTION WHEN ADJUSTING CUTTING DEPTH. CUTTING TOO DEEP MAY CAUSE THE BLADE TO CONTACT THE SUBFLOOR AND COULD EVEN CAUSE SUDDEN, POWERFUL KICKBACK OF THE GROOVER TOWARDS YOUR BODY. KNEEL TO THE SIDE OF THE TOOL.**
- **TIGHTEN THE DEPTH LOCKING KNOB BEFORE MAKING A GROOVE TO MAKE CERTAIN THAT CUTTING DEPTH IS CONTROLLED.**
- **THIS GROOVER SHOULD BE PUSHED IN FORWARD DIRECTION ONLY. DO NOT PULL BACKWARD TOWARDS YOURSELF.**
- **GRIP HANDLE FIRMLY FOR COMPLETE CONTROL WHILE IN USE.**
- **IN USE, KEEP HANDS AWAY FROM THE FRONT AND UNDERSIDE OF THE TOOL AT ALL TIMES.**

OPERATING INSTRUCTIONS:

This groover is designed to track in the seamline of solid vinyl or linoleum floors to cut a trapezoidal groove for welding. The groover is not designed for use on other materials such as hardwood or steel.

SAFETY INSTRUCTIONS:

- Wear safety glasses, ear plugs, and a dust mask when using this groover.
- Grip handle firmly for complete control while in use.
- Use caution when adjusting the cutting depth. Cutting too deep may cause the blade to contact the subfloor. This may cause damage to the blade, the vinyl flooring to be installed, and may even cause sudden, powerful kickback of the groover towards your body. Kneel to the side of the tool while making a groove.
- Tighten the depth locking knob before making a groove to make certain that cutting depth is controlled.
- Use groover on uniform, flat areas only, and in a straight line along a straight vinyl seam only. The groove is only accurate when the tool is pushed forward. Do not pull backward towards yourself.
- A test groove and test weld on scrap is highly advisable ON EVERY JOB before attempting to groove the actual floor. From time to time, the front and rear wheels may require adjustment especially after blade changes. If the groove is not centered over the seam line, adjustment is necessary. See instructions under "Wheel Adjustment".
- Follow the flooring manufacturer's recommendations with respect to the depth and shape of the groove that is necessary. Check the depth of cut on scrap material on every job. See instructions under "Depth Adjustment".
- Use of the carbide blade on a metal-impregnated safety floors will result in faster blade wear, and may cause sparks. Make certain that flammable gasses are not present when using this tool.
- In use, keep hands away from the front and underside of the tool at all times.
- Do not remove from the groove until the blade stops.

GUARDS, DUST BAG, RETURN SPRING:

Do not use the tool without functional blade guards, return springs, and dust bag attached. Some solid vinyl safety floors contain metal chips. Failure to maintain blade guards or dust bag may result in dust, debris, and/or metal chips being ejected in the direction of the user.

The return spring of the groover is for your safety. It causes the groover to lift out the groove and the blade to be retracted into the guard automatically. If it wears out or becomes damaged, replace immediately.

DANGEROUS ENVIRONMENTS:

Keep work area clean and dry; clutter invites accidents. Do not use on damp or wet floors, as this results in an electrocution hazard. This groover may throw sparks. Make sure no flammables are present.

ACCIDENTAL STARTING:

To avoid accidental starting, do not carry the tool while plugged in, and don't carry it with a finger on the switch.

CORD ABUSE AND EXTENSION CORDS:

Never carry the groover by the cord or yank the cord to disconnect from an outlet. Keep cords away from heat, oil, and sharp edges. If the cord or strain relief is cut or damaged, replace immediately.

Avoid using long extension cords, as these cause some loss of power. To keep the saw from overheating, use a heavy duty extension cord with these minimum wire sizes. 25' = 16 gauge 50' = 14 gauge wire

DOUBLE INSULATED:

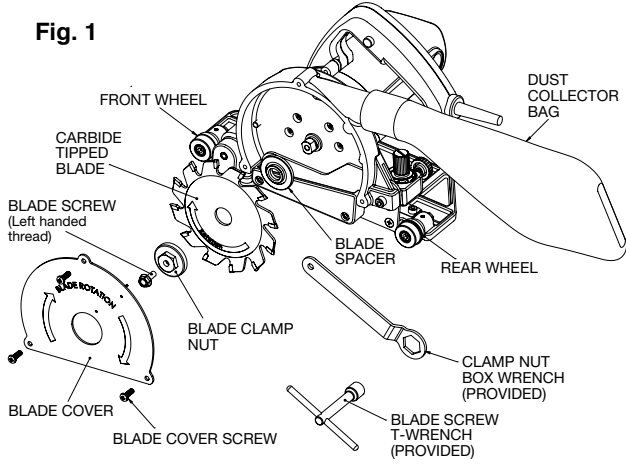
This groover's electric motor is constructed with two separate layers of electrical insulation. A motor built with this insulation system does not need to be grounded. As a result, this saw is equipped with a two prong plug without a ground pole.

OPERATION:

BLADE CHANGE:

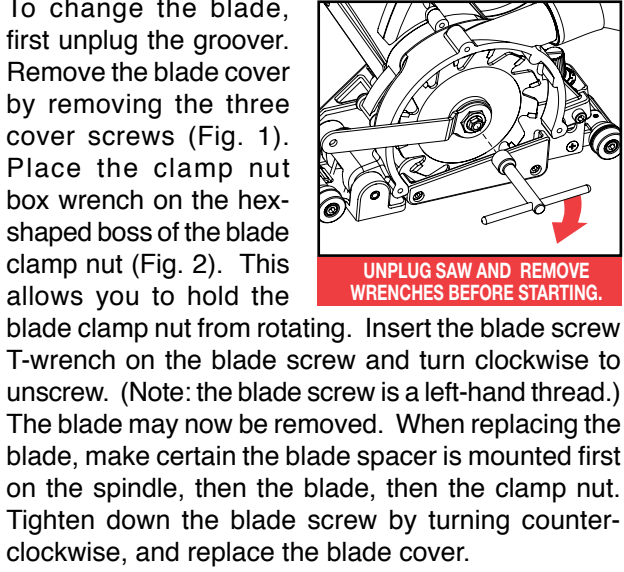
The blade on your groover is factory inspected for flatness and proper shape on the teeth. From time to time, especially when used on metal-impregnated safety floors, the blade's teeth may wear, producing

Fig. 1



a smaller or irregular groove. Keep constant watch over the shape and depth of the groove. Blades can be replaced or resharpened as necessary.

Fig. 2

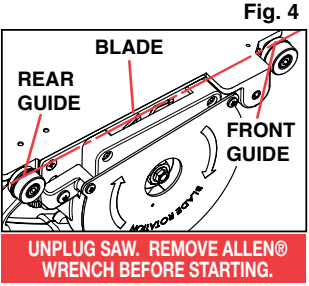


WHEEL ADJUSTMENT:

The groover is factory-calibrated so that the center line of the blade is in line with the center lines of the front and rear guide wheels. From time to time, especially after a blade change, the guide wheels may become out of calibration. If the groove does not run down the center of the seam, or the groove becomes too wide, perform the following to ad-

just the guide wheels:

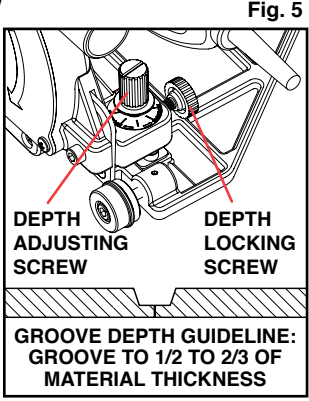
Unplug the groover. Each wheel has a set screw which holds it in position. Loosening a set screw allows a wheel to be slid inward towards the base or outward away from the base. Both the front and rear guide wheels must align with the center of the blade (Fig. 4). After adjustment, tighten both set screws to prevent the wheels from moving.



Sometimes adjustment requires several tries. Check for proper alignment by eye, and then verify with a test cut on scrap material.

DEPTH ADJUSTMENT:

Unplug the groover. Follow the flooring manufacturer's recommendations for the shape and depth of the groove. Absent recommendations, a good guideline for depth is to at least 1/2 to 2/3 of the material thickness. Use caution not to adjust the depth of cut too deep. Contact with the subfloor may damage the blade, damage the floor, or may cause sudden and forceful kickback of the groover towards your body.



The groover's depth can be adjusted from zero to approximately 5 mm in depth by turning the large depth adjustment screw at the back of the blade housing. First, loosen the depth locking screw (black) (Fig. 5). Then, turn the depth adjustment screw clockwise to decrease the depth of cut, and counterclockwise to increase the depth of cut. One full turn increases or decreases the depth by .80 mm, and each line on the label corresponds to a .10 mm change in depth. Once depth is set, tighten the depth locking screw. Do not attempt to make any groove without the depth locking screw firmly tightened, or too deep of cut may result.

The depth adjustment on this groover works by the end of the depth adjustment screw contacting and