

550

ADJUSTABLE HANDLE SCRAPER INSTRUCTION MANUAL





This symbol is used to indicate warnings and cautions. Always read and understand these special instructions to ensure prevention of injury and damage to the machine.

Table of Contents

Table of Contents	3
Features and Specifications	4
Safety	5-8
General Use for Safe Operation	5-6
Characteristics of a Defensive Operator	7
Grounding	8
Extension Cords	9
Machine Operation	10-14
Assembly	10
Wheel Adjustment.....	10
Handle Adjustment.....	10
Machine Start Procedure	10
User General Information	10
Transportation.....	11
Preparing The Machine For The Job	12
Blade Changing	12-13
Application Setup	13
Blade Sharpening	14
Blades	15-16
Machine Maintenance	17
Maintaining Equipment	17
Cleaning.....	17
Repairs	17
Troubleshooting Guide	18
Parts List and Diagrams	19-26
Complete Parts List	19
External Parts	20
Handle Assembly	21
Cutting Head Assembly	21
Eccentric Parts.....	21
Switch Parts	22
Handle Parts	22
Adjustment Parts	23
Bearing Plate Securing Mounts	23
Wheel Parts	24
Motor.....	24
Front Weight	25
Blade Cover	25
Blade Wrench	25
Shank Holder	25
Optional Add-on Front Weight	25
550 Labels	25
Guarantee	27

Features and Specifications



Heavy duty random orbital action floor removal system. Works over wood or concrete type surface and will remove virtually any substance adhered to the floor including wood and ceramic.

FEATURES

Adjustable Handle - The adjustable handle allows the operator to adjust for comfort.

Foot Bar - The foot bar enables the operator greater ease of production by creating more momentum through the material. The use of lower body strength reduces fatigue.

Angle Adjustment - The manual angle adjustment wheel allows the operator to adjust the pitch of the blade from shallow to steep depend-

ing on the material being removed. This keeps the scraper "in work" and prevents floor and sub-floor gouging.

Lift Handle - Allows for single person loading and unloading.

Cutting Head - The oscillating action drive rotates the cutting head in a circular motion. This efficiently cuts through multiple substrate materials and increases blade longevity.

Product Specifications

Width	Length	Height	Weight	Speed	RPM	Voltage	HP	Amps (full load)
15" (38.1 cm)	24" (61 cm)	42.5" w/handle 20" w/o handle	126 lb (machine only)	Manual	1725	115	1	Under 10

GENERAL RULES FOR SAFE OPERATION

READ AND SAVE ALL INSTRUCTIONS FOR FUTURE USE. Before use, ensure operators reads and understand this manual. Read and understand labeling on machine and components. All operators must view the instruction video. Extra copies of the manual and video are available by contacting National Flooring Equipment.

1. **KNOW YOUR EQUIPMENT:** Read this manual carefully to learn equipment applications and limitations, potential hazards associated with this type of equipment. Keep this manual with the equipment it is associated with.
2. **GROUND YOUR EQUIPMENT:** See Grounding Page 7.
3. **AVOID DANGEROUS ENVIRONMENTS:** Do not use in rain, damp or wet locations, or in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials). Remove materials or debris that may be ignited by sparks. The machine is for dry use only.
4. **KEEP WORK AREA CLEAN AND WELL LIT:** Cluttered, dark work areas invite accidents.
5. **DO NOT USE ON STEPS.**
6. **DRESS PROPERLY:** Do not wear loose clothing. These may be caught in moving parts. When working wear gloves and insulated non-skid footwear. Keep hands and gloves away from moving parts.
7. **USE SAFETY EQUIPMENT:** Proper eye protection should be worn at all times. Wear hearing protection during extended use and a dust mask for dusty operations. Hard hats, face shields, safety shoes, etc. should be worn when specified or necessary.
8. **KEEP BYSTANDERS AWAY:** Children and other bystanders should be kept at a safe distance from the work area to avoid distracting the operator and contacting the equipment or extension cord. Operator should be aware of the proximity of bystanders. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge. Equipment is not to be used by children.
9. **PROTECT OTHERS IN THE WORK AREA:** Provide barriers or shields as needed to protect others from debris.
10. **USE PROPER ACCESSORIES:** Using accessories that are not recommended may be hazardous. Be sure accessories are properly installed and maintained. Do not delete a guard or other safety device when installing an accessory or attachment.
11. **CHECK FOR DAMAGED PARTS:** Inspect guards and other parts before use. Check for misalignment, binding of moving parts, improper mounting, broken parts and other conditions that may affect operation. If abnormal noise or vibration occurs, turn off immediately and have the problem corrected before further use. Do not use damaged equipment. Tag damaged equipment "DO NOT USE" until repaired. Missing or damaged parts should be properly repaired or replaced immediately. For all repairs, use only identical National replacement parts.
12. **REMOVE ALL ADJUSTING KEYS AND WRENCHES:** Make a habit of checking that the adjusting keys, wrenches, etc. are removed from the tool before turning it on.
13. **GUARD AGAINST ELECTRIC SHOCK:** Prevent body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. When making cuts, always check the work area for hidden wires or pipes. Hold your equipment by insulated nonmetal grasping surfaces. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.
14. **AVOID ACCIDENTAL STARTING:** Be sure equipment is turned off before plugging in. Do not use equipment if the power switch does not turn the equipment on and off.
15. **DO NOT FORCE EQUIPMENT:** Equipment will perform best at the rate for which it was designed. Excessive force only causes operator fatigue, increased wear and reduced control.
16. **KEEP HANDS AWAY FROM ALL CUTTING EDGES AND MOVING PARTS.**
17. **WEAR** gloves when changing accessories and handling blades.
18. **DO NOT ABUSE CORD:** Never unplug by pulling the cord from the outlet. Pull plug rather than cord to reduce the risk of damage. Keep the cord away from heat, oil, sharp objects, cutting edges and moving parts.
19. **DO NOT OVERREACH. MAINTAIN CONTROL:** Keep proper footing and balance at all times. Maintain a firm grip.
20. **STAY ALERT:** Watch what you are doing, and use common sense. Do not use when you are tired, distracted or under the influence of drugs, alcohol or any medication causing decreased control.
21. **STARTING MACHINE:** On/Off switch must be in off position before connecting to power source.
22. **UNPLUG EQUIPMENT:** When not in use and before changing accessories or performing recommended maintenance, unplug machine.
23. **MAINTAIN EQUIPMENT CAREFULLY:** Keep handles dry, clean and free from oil and grease. Keep cutting edges sharp and clean. Follow instructions for lubricating and changing accessories. Inspect tool cords and extension cords for damage. Replace damaged parts. Use

Safety

only identical National replacement parts.

24. **STORE IDLE EQUIPMENT:** When not in use, store in a dry, secured place indoors. Keep away from children.
25. **MAINTAIN LABELS AND NAMEPLATES:** These carry important information. If unreadable or missing, contact National for a replacement.
26. **MACHINE IS HEAVY, DO NOT DROP.** Ensure proper lifting procedures are followed when transporting, all equipment and straps rated for over 200 lb.
27. **WHEN OPERATING MACHINE,** tether cord must be connected to operator.
28. **DO NOT ALLOW** the oscillating plates to come into contact with the supply cord.
29. **REGULARLY EXAMINE** the supply cord for damage, such as cracking or aging. If damaged, replace the cord before further use. Only replace the supply cord with the type specified in this manual.
30. **THIS MACHINE IS INTENDED FOR COMMERCIAL USE ONLY** (ex: hotels, schools, hospitals, factories, shops, offices and rental businesses).

CHARACTERISTICS OF A DEFENSIVE OPERATOR

A Good Operator is a "Defensive" Operator!

QUALITIES INCLUDE:

Education: Educates themself on the machine and the environment.

Alert: Stays alert at all time and never lets guard down.

Skills: Only performs duties he/she is qualified to do. Always tries to improve.

Judgment: Use sound judgement. Does not take unnecessary risks.

Common Sense: Applies knowledge in practical situations.

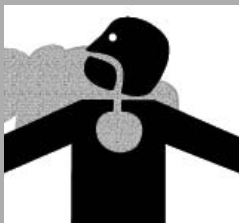
Recognizes the Hazards: Maintains alertness. Anticipates danger.

Understands the Defense: Knows that safety isn't an accident...it's a thinking person's choice.

Acts Correctly: Does not give in to peer pressure. Performs correctly when supervised or not.



WARNING: SILICA DUST WARNING GRINDING/CUTTING/DRILLING/SCRAPING OF MASONRY, CONCRETE, METAL AND OTHER MATERIALS CAN GENERATE DUST, MISTS AND FUMES CONTAINING CHEMICALS KNOWN TO CAUSE SERIOUS FATAL INJURY OR ILLNESS, SUCH AS RESPIRATORY DISEASE, CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. IF YOU ARE FAMILIAR WITH THE RISKS ASSOCIATED WITH THE PARTICULAR MATERIAL BEING CUT, REVIEW THE MATERIAL SAFETY DATA SHEET AND/OR CONSULT YOU EMPLOYER, THE MATERIAL MANUFACTURER/SUPPLIER, GOVERNMENTAL AGENCIES SUCH AS OSHA AND NIOSH AND OTHER AUTHORITIES ON HAZARDOUS MATERIALS. CALIFORNIA AND SOME OTHER AUTHORITIES, FOR INSTANCE, HAVE PUBLISHED LISTS OF SUBSTANCES KNOWN TO CAUSE CANCER, REPRODUCTIVE TOXICITY, OR OTHER HARMFUL EFFECTS. CONTROL DUST, MIST AND FUMES AT THE SOURCE WHERE POSSIBLE. IN THIS REGARD USE GOOD WORK PRACTICES AND FOLLOW THE RECOMMENDATIONS OF THE MANUFACTURER/SUPPLIER, OSHA/NIOSH, AND OCCUPATIONAL AND TRADE ASSOCIATIONS. WHEN THE HAZARDS FROM INHALATION OF DUST, MISTS AND FUMES CANNOT BE ELIMINATED, THE OPERATOR AND ANY BYSTANDERS SHOULD ALWAYS WEAR A RESPIRATOR APPROVED BY OSHA/MSHA FOR THE MATERIAL BEING CUT.





WARNING: ELECTRICAL CORDS CAN BE HAZARDOUS. MISUSE CAN RESULT IN FIRE OR DEATH BY ELECTRICAL SHOCK. READ CAREFULLY AND FOLLOW ALL DIRECTIONS.

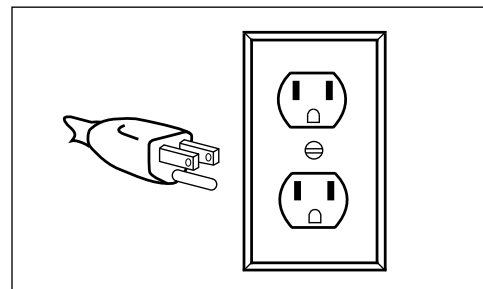


FIG. A

GROUNDING

Jobsite receptacles can vary. Check the voltage at different receptacles on the jobsite for a more accurate voltage reading. 15 amp GFI outlets are not recommended.



CAUTION: IMPROPERLY CONNECTING THE GROUNDING WIRE CAN RESULT IN THE RISK OF ELECTRIC SHOCK. CHECK WITH A QUALIFIED ELECTRICIAN IF YOU ARE IN DOUBT AS TO WHETHER THE OUTLET IS PROPERLY GROUNDED. DO NOT MODIFY THE PLUG PROVIDED WITH THE EQUIPMENT. NEVER REMOVE THE GROUNDING PRONG FROM THE PLUG. DO NOT USE THE EQUIPMENT IF THE CORD OR PLUG IS DAMAGED. IF THE PLUG WILL NOT FIT THE OUTLET, HAVE A PROPER OUTLET INSTALLED BY A QUALIFIED ELECTRICIAN.

GROUNDING TOOLS: TOOLS WITH THREE PRONG PLUGS

Equipment marked "Grounding Required" have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet (Figure A). If the equipment should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user; reducing the risk of electric shock.

The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the equipment. The green wire in the cord must be the only wire connected to the equipment's grounding system and must never be attached to an electrically "live" terminal.

The equipment must be plugged into an appropriate outlet, one which is properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like the example in Figure A.

EXTENSION CORDS

Grounded equipment requires a three wire extension cord. As the distance from the supply outlet increases, you must use a larger diameter extension cord. Using extension cords with inadequately sized wire causes a substantial drop in voltage, resulting in loss of power and possible equipment damage.

The smaller the gauge number of the wire, the greater the capacity and larger diameter of the cord. For example, a 10 gauge cord can carry a higher current than a 12 gauge cord. When using more than one extension cord to make up the total length, be sure each cord contains at least the minimum wire size required.

GUIDELINES FOR USING EXTENSION CORDS

- If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate that it is acceptable for outdoor use.
- Be sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.
- Protect your extension cords from sharp objects, excessive heat and damp or wet areas.

Safety

GUIDELINES FOR USING EXTENSION CORDS (CONTINUED)

- Keep away from water. Do not use if wet.
- Inspect thoroughly before each use. DO NOT USE IF DAMAGED.
- Make sure equipment is not running before disconnecting cord.
- FULLY INSERT plug into outlet.
- Do not remove, bend or modify any metal prongs or pins of cord.
- Do not use excessive force to make connections.
- Do not connect a three prong plug to a two-hole cord.
- Avoid overheating. Uncoil cord and do not cover it with any material.
- Do not walk on cord.
- Do not drive, drag or place objects over cord.
- Use a 12 gauge, 115V cord, 50ft (15.25 m) maximum length with this machine.
- Regularly examine the supply cord for damage, such as cracking or aging. If damage is found, replace the cord before further use.
- Only replace the supply cord with the type specified in the instruction manual.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

ACCIDENT OR BREAKDOWN

In the event of an accident or breakdown (oil spill, fuel leak, battery acid or other spillage) stop operation of machine immediately and disconnect power from machine.

Machine Operation

GENERAL OPERATION INFORMATION



WARNING: STAY CLEAR OF BLADE WHEN MACHINE IS OPERATING.



WARNING: KEEP HANDS AND FEET OUT FROM UNDER THE MACHINE.

1. Always wear eye protection.
2. Keep flammable and fragile objects away from the equipment.
3. Always check nuts and bolts to make sure they are tight.
4. Always use the machine with proper voltage specified in the machines nameplate.
5. Do not operate around water or wet conditions.
6. Use properly grounded cord and receptacle.
7. Unplug from power before servicing or changing blades.
8. Use 12-3 or heavier wire cord, not exceeding 50 feet (15.25 m) in length.
9. Do not force machine.
10. Do not alter machine.
11. Keep wheels free of debris.
12. Make sure blade is sharp.
13. Dropping machine onto cutting head could cause damage to blade holder or blade and cause undue wear on bearing surface.
14. Removable handle and front weight makes machine portable (fits in a trunk of a car).
15. Do not leave machine unattended while machine is running or plugged in.
16. Operate on dry, flat surface

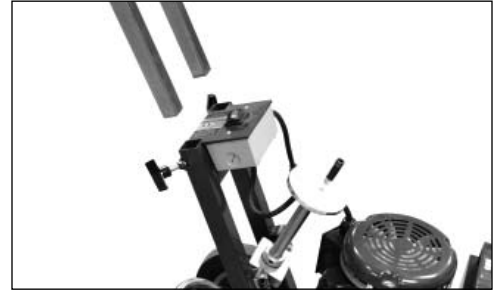


FIG. B



FIG. C

TRANSPORTATION

ALWAYS REMOVE COUNTERWEIGHT AND BLADES BEFORE LOADING OR UNLOADING

Machine breaks down for easy transportation:

- Handle removes (See Figure B).
- Handle and/or wheel angle can be lowered.
- Remove blade when not in use or transporting machine (See Figure C).
- Blades are sharp, use caution when handling blade.

Machine Operation

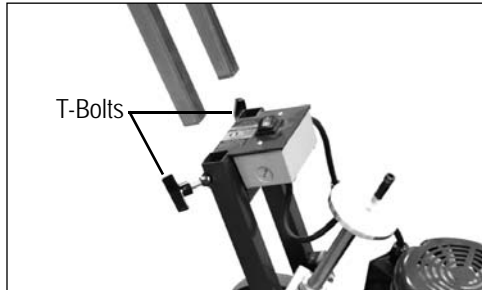


FIG. D



FIG. E



FIG. F

ASSEMBLY

THE 550 COMES DISASSEMBLED.

1. Loosen both handle T-bolts on the handle frame.
2. Insert handle into handle frame (See Figure D) and adjust the handle to the desired height.
3. Retighten T-bolts on the handle frame (See Figure D).

WHEEL ADJUSTMENT

Adjusting the wheel angle will change the blade angle to the floor. A steep wheel angle is recommended on hard tear-outs such as tile over concrete. A low wheel angle is recommended for vinyl removal over plywood floors. These are estimations. Experiment with the angle to see what works the best for the jobs application.

Rotate handle clockwise to raise wheels and counterclockwise to lower wheels to the desired blade angle (See Figure E).

Note: Adjustment by trial at the beginning of a job will allow optimum performance.



CAUTION: LOOSEN SWITCH AND BOLTS BEFORE TRYING TO REMOVE THE HANDLE.

HANDLE ADJUSTMENT

AFTER THE PROPER WHEEL ADJUSTMENT IS ACHIEVED, ADJUST THE HANDLE

No matter what the wheel angle is set at, the handle should be adjusted to the "belt-line" of the operator or to what the operator is comfortable with. (See Figure F).

- Low setting works best on soft sub floors, plywood, luan, particleboard and wafer board.
- In some cases, a higher setting works best on direct glued down carpet, vinyl or tile on concrete in some cases.

Make certain handle and bolts are secured tightly.

NOTE: Adjustment by trial at the beginning of the job will allow optimum performance.



WARNING: DO NOT OPERATE MACHINE AROUND EXCESSIVE MOISTURE AREAS, SUCH AS ABATEMENT WORK AND FLOODED POOL AREAS. ALWAYS USE A GFI WALL OUTLET OR PLUG (STOCK #530 CIRCUIT GUARD IS RECOMMENDED). FAILURE TO DO SO COULD CAUSE DAMAGE IN MACHINE OR INJURY TO OPERATOR.

MACHINE START PROCEDURE

1. Machine MUST be off before plugging machine into power source.
2. Plug machine into extension cord and/or outlet.
3. Turn switch ON.



CAUTION: ADJUST MACHINE WHEN ON A FLAT SURFACE AND MACHINE IS TURNED OFF.

Machine Operation

PREPARING MACHINE FOR THE JOB

BLADE SETTING

- Blade size and placement will affect performance.
- For best results use a smaller blade for more difficult removal applications.
- Start with a narrow blade, then increase blade size to optimize cutting pass. Narrower blades work better than wider blades and usually maximize production rates. Wider may not necessarily be more efficient.
- Bevel on blade is up for concrete (Figure G). Position the bevel down for wood (Figure H).
- **KEEP BLADES SHARP.** Dull blades greatly affect the performance of the machine and reduce cutting ability, resharpen or replace as needed.
- Keep your work area clean and clear of debris. After you have removed a portion of material, remove it out of the way. This will give the machine maximum performance and help to keep the work area safe.
- Always wear gloves when handling blades.
- Everyone in work area should wear eye protection.
- Wood or wood like floors: hammer down or remove any nails or metal obstruction to avoid blade damage.
- Blades can be offset in cutting head for easier access to toe kicks or removal along the wall (See Figure I).
- Sheet vinyl, solid vinyl, rubber tile, urethane or PVC sheet roofing, will need to be scored for best removal results. Nationals #584 Scoring Tool (See Figure J). Score flooring to the width of the blade.
- Self-scoring blades are available in a number of sizes. Self-scoring blades eliminate the need for pre-scoring material. Self-scoring blades may make it harder to control the machine, depending on material. Keep scoring wings sharp at all times.

BLADE CHANGING



CAUTION: BLADES ARE SHARP, WEAR GLOVES AND USE EXTREME CAUTION WHILE HANDLING.



CAUTION: NEVER CHANGE CUTTING HEAD OR SERVICE BLADES WHILE MACHINE IS RUNNING.

1. Place a block under the front of the machine as shown in Figure K raising blade holder, using a flat piece of 2 x 4 or something similar.
2. Using the T-handle wrench included with the 550, keep hand safely away from the sharp edge of the blade and loosen blade cover bolts. It is not necessary to remove bolts.
3. Insert blade into cutting head, sliding it all the way back to the recessed channel on the cutting head. If the blade is wider than the cutting head, center the blade to head. If blade is smaller than the cutting head, first pass blade should be mounted in the center of the cutting head. After the first pass is made, the blade can be offset in head to allow wheels to keep even contact with the floor and allow access to the wall.
4. Securely tighten bolts.

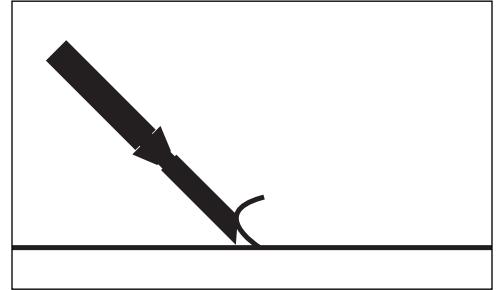


FIG. G

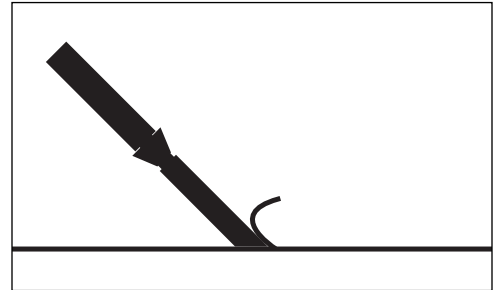


FIG. H

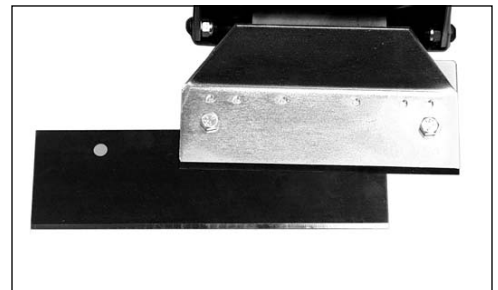


FIG. I

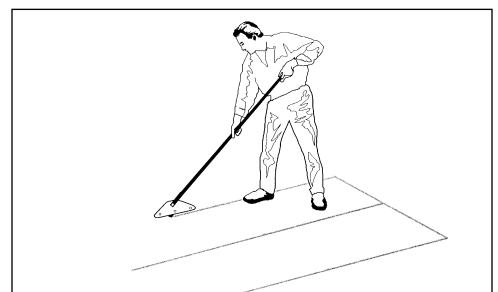


FIG. J



FIG. K

Machine Operation



FIG. L

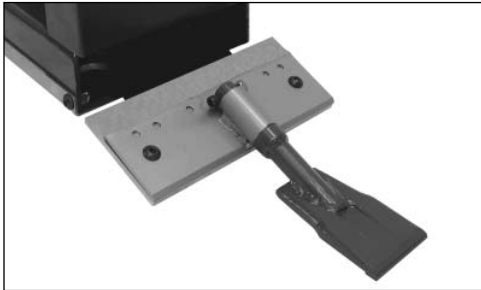


FIG. M

- Blades are extremely sharp, use caution.
- A new sharp blade being used on wood or alike sub floors may work better when slightly dulled to avoid digging or gouging.
- Use National Flooring Equipment replacement blades.

APPLICATION SET-UP



CAUTION: BEWARE OF EXPANSION JOINTS AND FLOOR MOUNTED RECEPTACLES OR OTHER OBSTACLES IN THE FLOOR.

VCT TILE

Never use a blade wider than the size of the tile being removed (See Figure L). If material being removed does not come up clean or machine jumps on top of material, reduce blade size to a smaller blade. The most common blade sizes when removing tile are a 10.16 x 15.24 cm (4" x 6") or a 12.7 x 15.24 cm (5" x 6"), but a 7.62 x 25.4 cm (3" x 10") works in some cases.

PURE VINYL RUBBER TILE

Material will need to be scored down to 25.4 to 30.48 cm (10 to 12") for proper removal. Self scoring blades can be used with some materials. A 25.4 cm (10") blade is recommended for this material, but determine what size blade works best.

DIRECT GLUED CARPET

Can be done with either self scoring blades or pre-score carpet to blade width prior to stripping with #584 Scoring Tool. Pre-scored carpet is easier to control and blades stay sharper longer. Blades up to 40.64 cm (16") wide can be used. Normally 12.7 to 25.4 cm (5" to 10") blades are used on direct glued carpet, secondary backed, unitary, double glued, vinyl foam and urethane foam. Rubber back & latex foams come up easily with a 40.64 cm (16") blade. If using a self-scoring blade, they must be kept sharp.

CERAMIC

Requires a Ceramic Blade Cover and a ceramic bit (See figure O). Ceramic over a wood sub-floor requires a low angle so the blade is flat to the floor. Ceramic over hard sub-floor such as concrete, requires an increased angle. Experiment with the angle to see which works the best. Clear debris from area as it is removed.

WOOD

When working over plywood sub-flooring, try to run machine in a 45° angle to the grain in the wood. Blade in most cases should be bevel down. On solid wood floors, like plank, run 45° to the plank parallel to grain. Removing the front counter weight will help on all soft surfaces. Rounding off the corners of the blade will help from digging into the floor.

Machine Operation

CONCRETE

When working on concrete slab, normal blade position is bevel up for best performance, especially when cleaning adhesive. On occasion, bevel down gives better blade life. Test each job for best performance.

GIBCRETE AND SOFT POURED FLOORING

Requires blade bevel down to create a better wearing surface.

HARD TO REMOVE SURFACES

Ripper teeth can be used on hard surfaces to remove material (hardwood & VCT).

GLUED HARDWOOD FLOORING

A 6" blade is recommended for regular adhesive. For proper removal of hardwood flooring (parkay laminated, plank laminated, plank solid) flooring must be scored. This is done by using a circular saw set at a depth of 100% of the thickness of the board, just missing the subfloor surface when on concrete (See Figure N). A chalk line for scoring lines can be used across the floor the width of the blade. A ripping guide attached to the saw can be used to eliminate chalk line marks. Open an area large enough to fit machine or start from a doorway. It is important to keep all debris cleaned up for maximum performance of machine. Ture parkay scoring will come up in small pieces so scoring is not necessary.

BLADE SHARPENING

Always check for blade sharpness before using; dull blades greatly reduce cutting effectiveness. Over time, used blades will develop a back bevel (Figure O); when sharpening, blades will not recover until the back bevel is completely leveled out. NOTE: Thinner blades are easier to sharpen, but they also break easier.

- Always wear gloves and safety glasses.
- Grind blade using a 10.16 cm (4") diameter disk with 120 or finer grit. Be careful not to catch disk on edge or corner of blade.
- Pass grinder along blade edge starting on one end and continuing in one direction being careful to hold grinder at proper angle of blade. Grind until sharp.
- Using a high quality fine tooth hand file, follow the same procedure as above.
- Blades are sharp. Use extreme caution.
- Have plenty of sharp blades on each job so on-the-job blade sharpening is eliminated.
- It is best to re-sharpen dull blades on proper bench or belt grinder in the shop, so the blades are ready for the next job.

SELF-SCORING BLADE SHARPENING (FIGURE P)

It is important to keep the "wings" on these self-scoring blades sharp. Use a file on the edge. Sharpen the flat part of the blade, the same way as described above.

CARBIDE TIPPED BLADE SHARPENING

To sharpen carbide tipped blades, a carbide grinding wheel is necessary, ie: silicon carbide or green wheel.

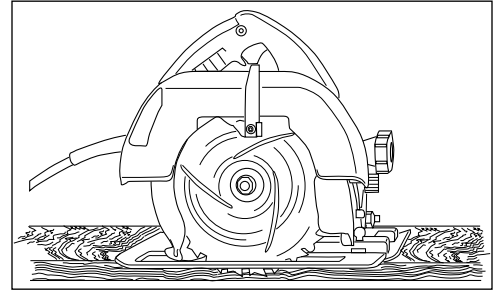


FIG. N

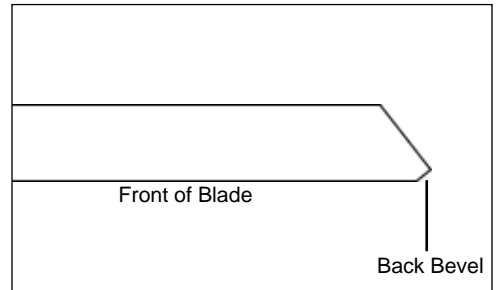


FIG. O

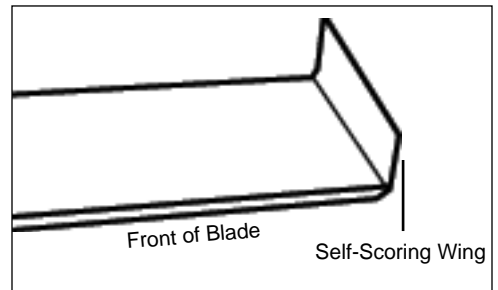
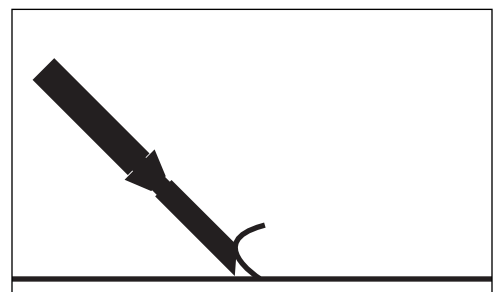
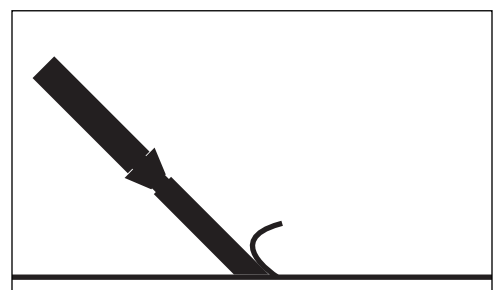


FIG. P



BEVEL UP



BEVEL DOWN

Blades

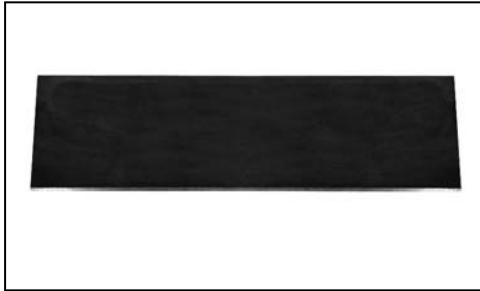


FIG. Q

STANDARD BLADE (FIGURE Q)

This heavy duty blade is designed to remove soft goods, carpet, and vinyl flooring. Its .062 thickness offers flexibility to maximize the shear point angle.

PART#	DESCRIPTION	THICKNESS (IN.)
135	5" X 16" BLADE	.062
147	4" X 6" BLADE	.062
148	5" X 6" BLADE	.062

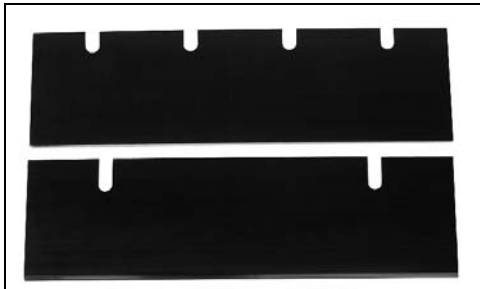


FIG. R

BLADES WITH SLOTS (FIGURE R)

PART#	DESCRIPTION	THICKNESS (IN.)
130-S	3" X 10" BLADE WITH SLOTS	.062
131-S	3" X 16" BLADE WITH SLOTS	.062



FIG. S

DOUBLE EDGE BLADES (FIGURE S)

PART#	DESCRIPTION	THICKNESS (IN.)
130-D	3" X 10" DOUBLE EDGE BLADE	.062
147-D	4" X 6" DOUBLE EDGE BLADE	.062
148-D	5" X 6" DOUBLE EDGE BLADE	.062



FIG. T

TAPERED CUTTING HEAD SHANKS (FIGURE U)

The longer taper works great on tough wood floors (glued & nailed). The long length allows the blade to easily slide under tough materials. They work through most ceramics and VCT.

PART#	DESCRIPTION	THICKNESS (IN.)
6281	3" X 8" HEAVY DUTY BLADE	.094
6282	3" X 14" HEAVY DUTY BLADE	.094
6284	3" X 12" HEAVY DUTY BLADE	.094
6285	3" X 6" HEAVY DUTY BLADE	.094
6286	3" X 10" HEAVY DUTY BLADE	.094
6240	4" X 6" HEAVY DUTY BLADE	.094
6241	4" X 8" HEAVY DUTY BLADE	.094
6242	4" X 12" HEAVY DUTY BLADE	.094
6243	4" X 15" HEAVY DUTY BLADE	.094
6245	4" X 10" HEAVY DUTY BLADE	.094



FIG. U

EXTRA HEAVY DUTY BLADES (FIGURE V)

These extremely hard, high abrasion alloy blades are designed for tough tear up situations. VCT, VAT, wood, tile, lighter ceramic, re-scraping thin-set, all carpets, cork, elastomeric coatings, re-scraping rubber and urethane coatings. They hold all edges extremely well.

PART#	DESCRIPTION	THICKNESS (IN.)
6290	3" X 6" EXTRA HEAVY DUTY BLADE	.187
6291	3" X 8" EXTRA HEAVY DUTY BLADE	.187
6292	3" X 12" EXTRA HEAVY DUTY BLADE	.187
6293	3" X 14" EXTRA HEAVY DUTY BLADE	.187



FIG. V

SELF-SCORING BLADES (FIGURE W)

These 90° angled self-scoring wing tipped blades are tough and long lasting. Made from National's proven blade hardening process, they perform up to ten times longer than the competition. They work on attached cushion, unitary or secondary backing, vinyl back, soft to medium PVC, linoleum, carpet tiles, soft cork, enhancer and unibond hot melts.

PART#	DESCRIPTION	THICKNESS (IN.)
6255-BU	4" X 6" SELF-SCORING BLADE	.062
6247	4" X 10" SELF-SCORING BLADE	.094
6249	4" X 12" SELF-SCORING BLADE	.094
6256-BU	4" X 6" W/ 4" BU SELF-SCORING BLADE	.062
6261-BU	3" X 12" W/ 4" BU SELF-SCORING BLADE	.062



FIG. W

INCREASED ANGLE BLADES (FIGURE X)

These blades are mainly used for VCT, but can be used on most other applications. They supply a greater angle when needed. Prevents machine from jumping off material. They contribute to keeping the machine steady and reduce jumping.

PART#	DESCRIPTION	THICKNESS (IN.)
7081	3" X 10" INCREASED ANGLE BLADE	.062
7083	3" X 8" INCREASED ANGLE BLADE	.062

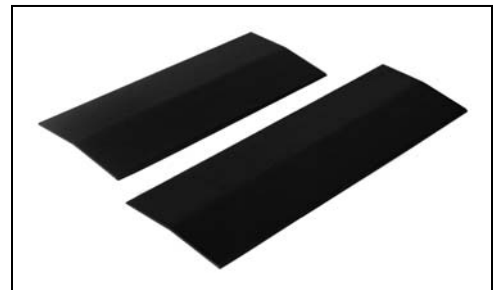


FIG. X

Machine Maintenance

MAINTAINING EQUIPMENT



WARNING: ALWAYS UNPLUG MACHINE BEFORE MAINTAINING. NEVER DISASSEMBLE THE TOOL OR TRY TO DO ANY REWIRING ON THE TOOL'S ELECTRICAL SYSTEM. FAILURE TO DO SO COULD CAUSE DAMAGE TO MACHINE OR SERIOUS INJURY. CONTACT NATIONAL FOR ALL REPAIRS.

Keep equipment in good repair by adopting a regular maintenance program. Before use, examine the general condition of equipment. Inspect guards, switches, equipment cord set and extension cord for damage. Check for loose screws, misalignment, binding of moving parts, improper mounting, broken parts and any other conditions that may affect safe operation. If abnormal noise or vibration occurs, turn the equipment off immediately and have the problem corrected before further use. Do not use damaged equipment. Tag damaged equipment "DO NOT USE" until repaired. See **Repairs** below.

MAINTENANCE GUIDELINES

- Perform mechanical inspection.
- Cleaning: pulleys, spindles, bearings, housing, etc.
- Electrical inspection (switch, cord, plugs, etc.).
- Testing to assure proper mechanical and electrical operation.
- Check nuts on shock absorbers and bottom plates.
- Check all screws and fittings for a tight and secure fit.
- Keep a sharp blade in machine for optimum performance.
- Remove blade when machine is not in use.

CLEANING

Clean dust and debris from vents. Keep the equipment handle clean, dry and free of oil or grease. Use only mild soap and a damp cloth to clean since certain cleaning agents and solvents are harmful to plastic and insulated parts. Do not clean with: gasoline, turpentine, lacquer thinner, paint thinner, chlorinated cleaning solvents, ammonia or household detergents containing ammonia. Never use flammable or combustible solvents around equipment.

Machine is pressure washable. Motor, motor junction box, capacitor box and switch are protected from splashes of water but CAN NOT be subjected to jets of high pressure. Thoroughly dry machine before use. Do not use machine when wet or damp.

REPAIRS

If your equipment is damaged, contact National for a return authorization number and return the complete set of equipment.

- Shipments are not accepted without a return authorization number (Reference Guarantee on Page 27).
- COD or freight collect shipments will not be accepted.

Troubleshooting Guide

Problem	Cause	Solution
There is no power	Insufficient power	Inspect electrical cord for damage.
	Switch/Circuit	Check switch and/or if circuit breaker is tripped.
Motor Noise	Fan guard is malfunctioning	Make sure fan guard is not bent.
Machine is hard to handle	Machine is too heavy	Remove counterweight.
	Blade is too large	Try changing to a smaller blade size.
	Blade is too dull	Remove blade and sharpen before reattaching.
Blows fuses or circuit breakers.	Power Cord	Check and/or change attached power cord. Use a 12 gauge or heavier cord, 50' or less.
	Poor quality outlet	Move to a different outlet or better circuit.
Rattling	Loose fasteners	Check for loose nuts and bolts and re-tighten.
Shank Insertion	Shank holder	If it is difficult to insert a shank into the holder, remove paint from shaft of the shank by using sandpaper, emery cloth or a solvent.

Complete Parts List

PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY		
1	551	ANGLE SHANK HOLDER	1	44	74433	SCREW, PHILLIPS MACHINE 10-32 X 1/2	1
2	552	ANGLE SHANK HOLDER W CARBIDE ONLY	1	45	74508	SCREW, PHILLIPS PAN HEAD MACHINE 6-32X1/2	2
3	62140	HANDLE, UPPER	1	46	74510	SCREW, PHILLIPS PAN HEAD MACHINE 6-32X3/8	2
4	62180	MOTOR FAN COVER	1	47	500-12	CORD, POWER, COMPLETE W PLUG	1
5	62181	MOTOR FAN (NOT SHOWN)	1	48	500-15	GRIP, HANDLE	2
6	62185	CAPACITOR COVER	1	49	500-25	BRACKET, WHEEL-LEG	2
7	62190	ELECTRIC BOX ONLY	1	50	500-29	WHEEL, PNEUMATIC 2 1/2 CENTERED HUB, POLYPRO	2
8	62191	ELECTRIC BOX COVER ONLY	1	51	500-30	AXLE	1
9	70810	ISOLATOR, VIBRATION	4	52	505-1000	COVER, BOTTOM PLATE	1
10	71101	BEARING, 7/8 ID, R14-2RS	1	53	5280-136	COVER, BLADE	1
11	71131	BEARING, 1-1/4 ID, SBLF 206-20	1	54	550-1001	HEAD, CUTTING	1
12	72351	MOTOR, 1 HP, 116691.00	1	55	550-101	ECCENTRIC	1
13	72901	O RINGS	2	56	550-11	ASSEMBLY, WHEEL ADJUSTMENT	1
14	73001	BOLT, WIZLOCK 1/4-20 X 1/2	4	57	550-12	ADJUSTMENT WHEEL W/ HANDLE ONLY	1
15	73002	1/4 SPLIT LOCK WASHER	1	58	550-12C	SPACER, SLEEVE FOR HANDLE KNOB	1
16	73005	1/4-20 X 1/2 HEXHEAD BOLT	1	59	550-12D	WHEEL, ADJUSTMENT	1
17	73008	NUT, NYLOCK 1/4-20	1	60	550-15	BOX, ELECTRICAL W/O COVER	1
18	73010	SCREW, 1/4-20 X 1/4	3	61	550-18	GASKET, ELECTRIC BOX	1
19	73013	BOLT, HEXHEAD 1/4-20X1-1/4	1	62	550-23	CAPACITOR (NOT SHOWN)	1
20	73102	SPACER, .16X1 OD X 0.88 ID	2	63	550-28-SV	WEIGHT, FRONT COUNTER	1
21	73205	3/8-16 X 3/4 HEX HEAD SCREW	4	64	550-29	WHEEL, PNEUMATIC, 2 1/2 CENTERED HUB	2
22	73207	NUT, NYLOCK 3/8-16	4	65	550-4	T-BAR, ADJUSTMENT	1
23	73210	3/8 INTERNAL/EXTERNAL LOCK WASHER	4	66	550-5	PLATE, BEARING	1
24	73211	NUT, FLANGE ZING 3/8-16	6	67	550-5B	COLLAR, SHAFT 7/8"	1
25	73212	3/8-16 X 3/4 BUTTON HEAD CAP SCREW	2	68	550-6	SHAFT, ADJUSTMENT	1
26	73217	BOLT, LOW HEAD, 3/8-16 X 3/4	4	69	550-7-SV	FRAME, BASE	1
27	73222	BOLT, FLANGE 3/8-16 X 1	2	70	550-8	COVER, BRACKET	2
28	73240	T-KNOB, 3/8-16	2	71	6280-207	SWITCH, ON/OFF	1
29	73249	SCREW, SOCKET HEAD CAP 16X2	1	72	6280-401B	BLADE WRENCH	1
30	73273	SCREW, THUMB 3/8-16X3/4	2	73	63-P30	CLAMP, WIRE 3/8"	2
31	73301	BOLT, BUTTON HEAD SOCKET CAP 5/16-18X1/2	1	74	L105	SAFE OPERATING TIPS LABEL	1
32	73303	WASHER, SPLIT LOCK 5/16	1	75	L13	DO NOT DROP LABEL	1
33	73308	BOLT, BUTTON HEAD CAP 5/16-18 X 3/4	4	76	L141	MADE IN THE USA LABEL	1
34	73322	NUT, NYLOCK 5/16-18	4	77	L173C	STOCK NUMBER LABEL (NOT SHOWN)	1
35	73401	NUT, STRAIN RELIEF, STEEL 1/2"	1	78	L175	NATIONAL LABEL	1
36	73402	NUT, NYLOCK 1/2-13	2	79	L184	MACHINE WASHING LABEL	1
37	73407	BOLT, HEX HEAD 1/2-13X1-1/2	2	80	L239	BLADE SETTING LABEL	1
38	73424	WASHER, FLAT, ZINC SAE 1/2	2	81	L49	CAUTION CORD LABEL	1
39	73502	STRAIN RELIEF, STRAIGHT 1/2" .3376-.5686	3	82	L51	CAUTION SHARP BLADE	1
40	73525	NUT, NYLOCK 5/8-11	1	83	L95B	DISCONNECT POWER LABEL	1
41	73526	WASHER, FLAT, SAE, 5/8	1				
42	73651	9/32 ID X 1 OD 5/32 WASHER	1				
43	73902	SHAFT KEY	1				

Parts List and Diagrams

EXTERNAL PARTS



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	500-15 GRIP, HANDLE (EACH)	2	8	550-28-SV WEIGHT, FRONT COUNTER	1
2	73240 T-KNOB, 3/8-16	2	9	550-1001 HEAD, CUTTING	1
3	500-12 CORD, POWER, COMPLETE W PLUG	1	10	5280-136 COVER, BLADE	1
4	550-29 WHEEL, PNEUMATIC, 2 1/2 CENTERED HUB	2			
5	72351 MOTOR 1HP, 116691.00	1			
6	62140 HANDLE, UPPER	1			
7	550-12D WHEEL, ADJUSTMENT	1			

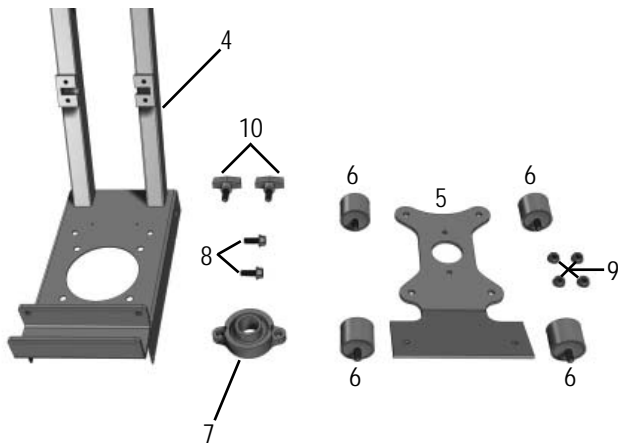
Parts List and Diagrams

BOTTOM BASE PLATE

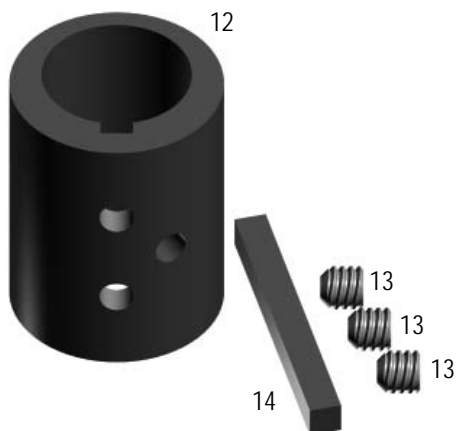


PART#	DESCRIPTION	QTY
1	505-1000 COVER, BOTTOM PLATE	1
2	73308 BOLT, BUTTON HEAD CAP 5/16-18 X 34	4
3	73322 NUT, NYLOCK 5/16-18	4
4	550-7-SV FRAME, BASE	1
5	550-1001 HEAD, CUTTING	1
6	70810 ISOLATOR, VIBRATION	4
7	71131 BEARING, 1-1/4 ID, SBLF 206-20	1
8	73222 BOLT, FLANGE 3/8-16 X 1	2
9	73211 NUT, FLANGE ZING 3/8-16	6
10	73240 BOLT, 3/8-16	2
11	73217 BOLT, LOW HEAD, 3/8-16 X 3/4	4
12	550-101 ECCENTRIC	1
13	73010 SCREW, 1/4-20 X 1/4	3
14	73902 SHAFT KEY	1

CUTTING HEAD PARTS



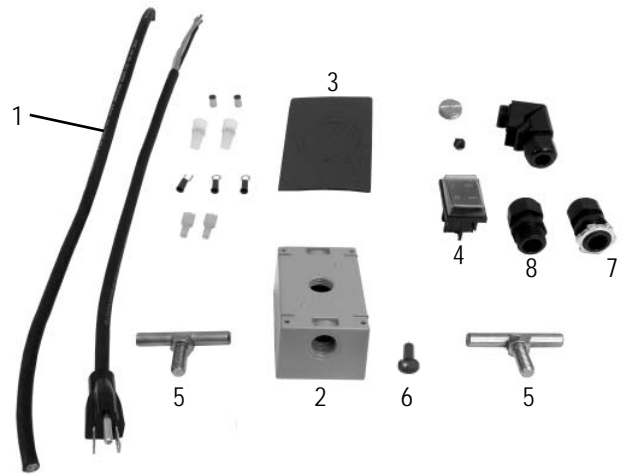
ECCENTRIC PARTS



Parts List and Diagrams

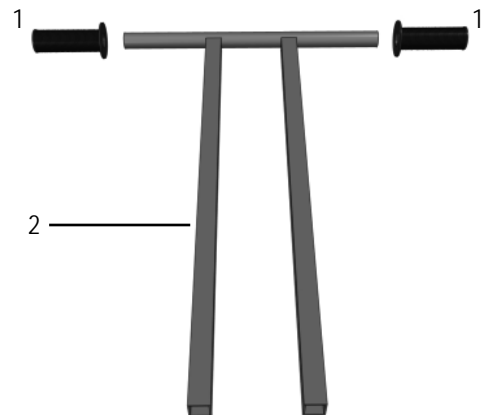
PART#	DESCRIPTION	QTY	
1	500-12	CORD, POWER COMPLETE W PLUG	1
2	550-15	BOX, ELECTRICAL W/O COVER	1
3	550-18	GASKET, ELECTRIC BOX	1
4	6280-207	SWITCH, ON/OFF	1
5	73240	BOLT 3/8-16	2
6	74433	SCREW, PHILLIPS MACHINE 10-32 X 1/2	1
7	73401	NUT, STRAIN RELIEF, STEEL 1/2"	1
8	73502	STRAIN RELIEF, STRAIGHT 1/2" .3376-.5686	3
9	74510	SCREW, PHILLIPS PAN HEAD MACHINE 6-32X3/8	2

SWITCH PARTS



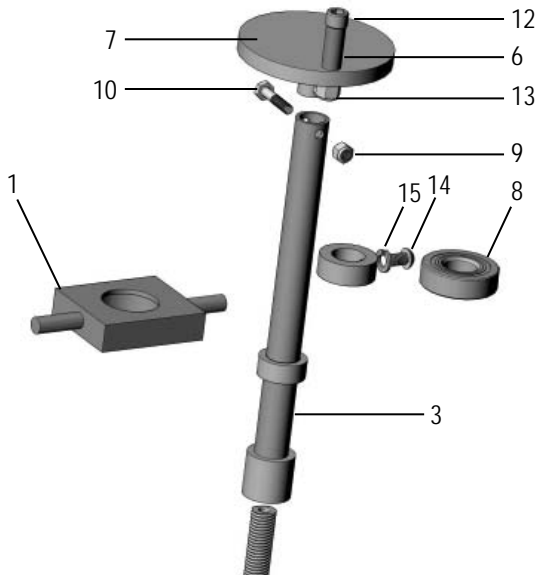
PART#	DESCRIPTION	QTY	
1	500-15	GRIP, HANDLE	2
2	62140	HANDLE, UPPER	1

HANDLE PARTS



Parts List and Diagrams

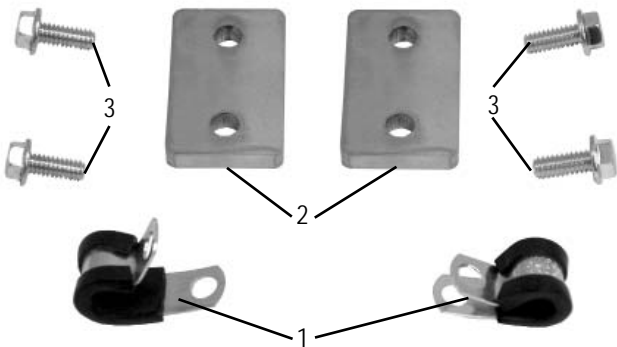
ADJUSTMENT PARTS



	PART#	DESCRIPTION	QTY
1	550-5	PLATE, BEARING	1
2	550-5B	COLLAR, SHAFT 7/8"	1
3	550-6	SHAFT, ADJUSTMENT	1
4	550-11	ASSEMBLY, WHEEL ADJUSTMENT	1
5	550-12	ADJUSTMENT WHEEL W/ HANDLE ONLY	1
6	550-12C	SPACER, SLEEVE FOR HANDLE KNOB	1
7	550-12D	WHEEL, ADJUSTMENT	1
8	71101	BEARING, 7/8 ID, R14-2RS	1
9	73008	NUT, NYLOCK 1/4-20	1
10	73013	BOLT, HEXHEAD 1/4-20X1-1/4	1
11	73102	SPACER, .16X1 OD X 0.88 ID	2
12	73249	SCREW, SOCKET HEAD CAP 16X2	1
13	73207	NUT, NYLOCK 3/8-16	4
14	73301	BOLT, BUTTON HEAD SOCKET CAP 5/16-18X1/2	1
15	73303	WASHER, SPLIT LOCK 5/16	1

BEARING PLATE SECURING MOUNTS

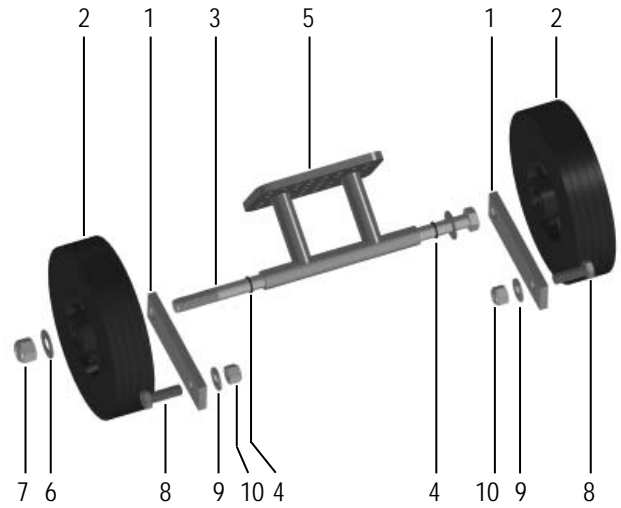
	PART#	DESCRIPTION	QTY
1	63-P30	CLAMP, WIRE 3/8"	2
2	550-8	COVER, BRACKET	2
3	73001	BOLT, WIZLOCK 1/4-20 X 1/2	4



Parts List and Diagrams

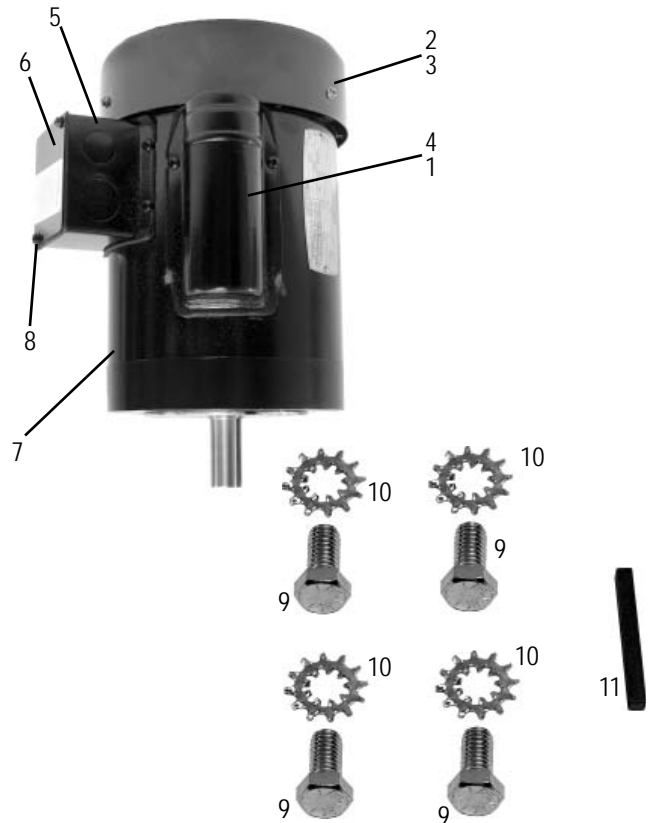
PART#	DESCRIPTION	QTY
1	500-25 BRACKET, WHEEL-LEG	2
2	500-29 WHEEL, PNEUMATIC 2 1/2 CENTERED HUB, POLYPRO	2
3	500-30 AXLE	1
4	72901 O RINGS	2
5	550-4 T-BAR, ADJUSTMENT	1
6	73526 WASHER, FLAT, SAE, 5/8	1
7	73525 NUT, NYLOCK 5/8-11	1
8	73407 BOLT, HEX HEAD 1/2-13X1-1/2	2
9	73424 WASHER, FLAT, ZINC SAE 1/2	2
10	73402 NUT, NYLOCK 1/2-13	2

WHEEL PARTS



PART#	DESCRIPTION	QTY
1	550-23 CAPACITOR (NOT SHOWN)	1
2	62180 MOTOR FAN COVER	1
3	62181 MOTOR FAN (NOT SHOWN)	1
4	62185 CAPACITOR COVER	1
5	62190 ELECTRIC BOX ONLY	1
6	62191 ELECTRIC BOX COVER ONLY	1
7	72351 MOTOR, 1 HP, 116691.00	1
8	74508 6-32 X 1 1/2 MACHINE SCREW	2
9	73205 3/8-16 X 3/4 HEX HEAD SCREW	4
10	73210 3/8 INTERNAL/EXTERNAL LOCK WASHER	4
11	74508 3/16 X 3/16 1 1/8 KEY	1

MOTOR PARTS



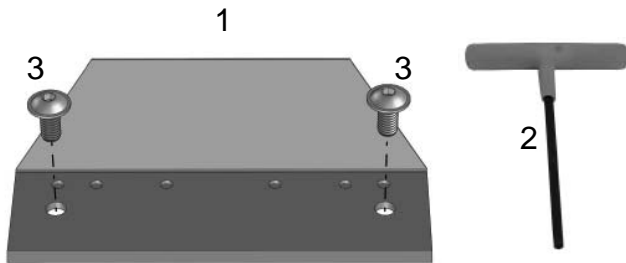
Parts List and Diagrams

FRONT WEIGHT PARTS



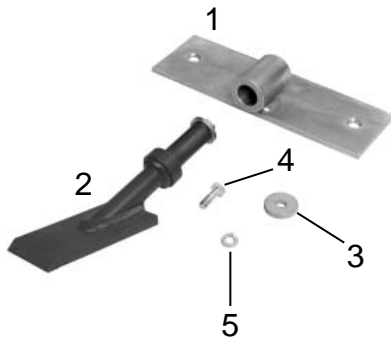
	PART#	DESCRIPTION	QTY
1	550-28-SV	WEIGHT, FRONT COUNTER	1
2	73273	SCREW, THUMB 3/8-16X3/4	2

BLADE COVER PARTS



	PART#	DESCRIPTION	QTY
1	5280-136	BLADE COVER	1
2	6280-401B	BLADE WRENCH	1
3	73212	3/8-16 X 3/4 BUTTON HEAD CAP SCREW	2

SHANK HOLDER PARTS



	PART#	DESCRIPTION	QTY
1	551	ANGLE SHANK HOLDER	1
2	552	ANGLE SHANK HOLDER W CARBIDE ONLY	1
3	73002	1/4 SPLIT LOCK WASHER	1
4	73005	1/4-20 X 1/2 HEXHEAD BOLT	1
5	73651	9/32 ID X 1 OD 5/32 WASHER	1

Parts List and Diagrams

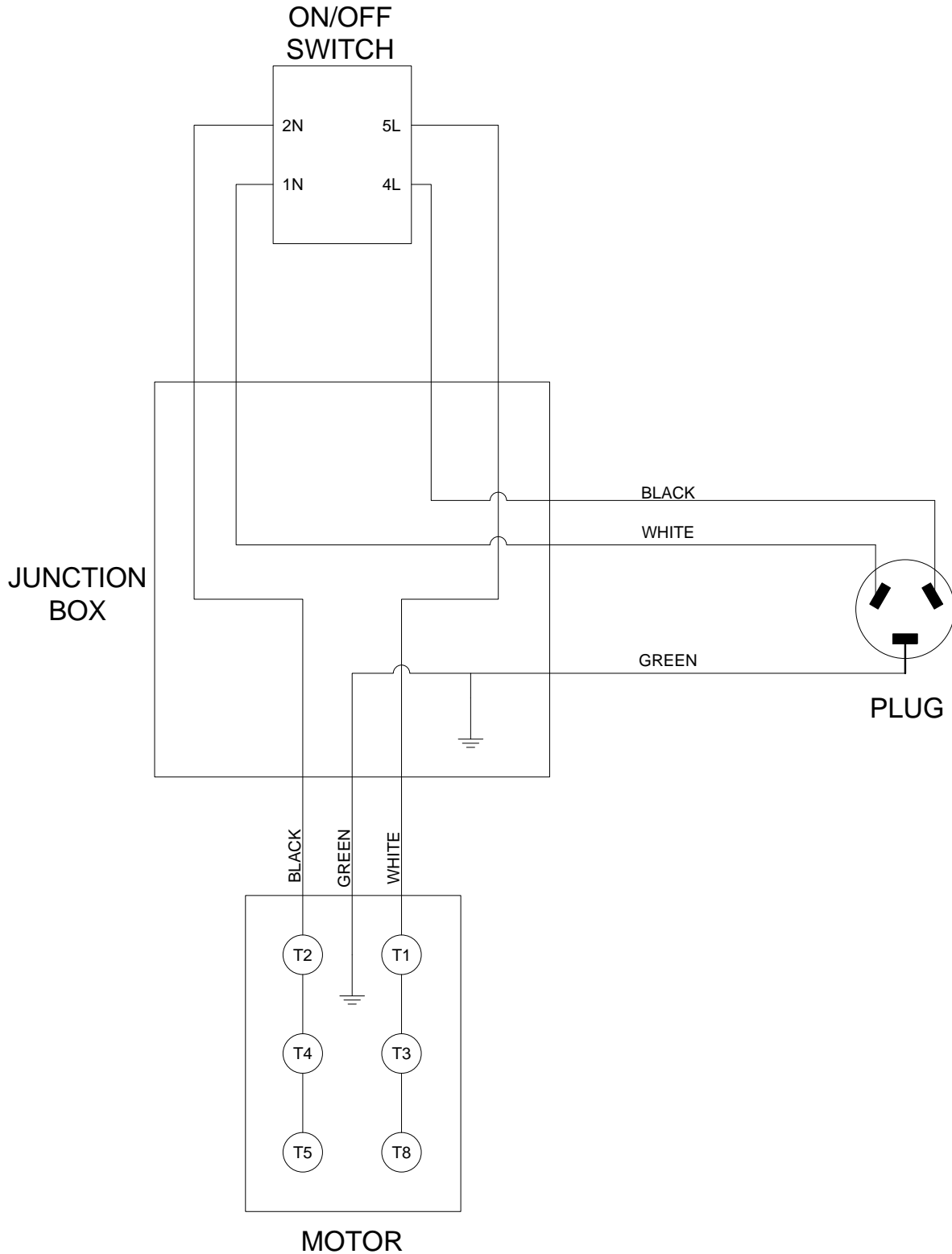
LABELS



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	L13 DO NOT DROP LABEL	1	6	L141 MADE IN THE USA LABEL	1
2	L49 CAUTION CORD LABEL	1	7	L173C STOCK NUMBER LABEL (NOT SHOWN)	1
3	L51 CAUTION SHARP BLADE	1	8	L175 NATIONAL LABEL	1
4	L95B DISCONNECT POWER LABEL	1	9	L184 MACHINE WASHING LABEL	1
5	L105 SAFE OPERATING TIPS LABEL	1	10	L239 BLADE SETTING LABEL	1

Parts List and Diagrams

550 WIRING DIAGRAM



Guarantee

National Flooring Equipment, Inc. (National) warrants to the first consumer/purchaser that this National brand product (**550 Adjustable Handle Scraper**) when shipped in its original container, will be free from defective workmanship and materials and agrees that it will, at its option, either repair the defect or replace the defective product or part thereof at no charge to the purchaser for parts or labor for the period(s) set forth below.

This warranty does not apply to any appearance items of the product, to the additional excluded items set forth below, or to any product, the exterior of which has been damaged or defaced, which has been subjected to misuse, abnormal service or handling, or which has been altered or modified in design or construction.

In order to enforce the rights under this limited warranty, the purchaser should follow the steps set forth below and provide proof of purchase to National.

The limited warranty described herein is in addition to whatever implied warranties may be granted to purchasers by law. All implied warranties including the warranties of merchantability and fitness for use are limited to the periods from the date of purchase as set forth below. Some states do not allow time limitations on an implied warranty, so the above limitation may not apply to you.

Neither the sales person of the seller, nor any other person, is authorized to make any other warranties other than those described herein, or to extend the duration of any warranties beyond the time period described herein on behalf of National.

The warranties described herein shall be the sole and exclusive warranties granted by National and shall be the sole and exclusive remedy available to the purchaser. Correction of defects in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of National to the purchaser with respect to the product and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall National be liable, or in any way responsible for any damage or defects in the product which were caused by repairs or attempted repairs performed by anyone other than National. Nor shall National be liable, or in any way responsible, for any incidental or consequential, economics or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

WARRANTY PERIOD

The **550 Adjustable Handle Scraper** is guaranteed to be free of manufacturer defective workmanship and in quality of materials for a period of one year.

Items excluded from warranty coverage, unless found and reported defective immediately upon removal from the original shipping container and before being used by the original purchaser.

A freight damage claim must be filed with the carrier by the purchaser, the shipper cannot file the freight claim.

TO OBTAIN SERVICE CONTACT NATIONAL FLOORING EQUIPMENT, INC. TOLL FREE AT 800-245-0267 FOR A REPAIR AUTHORIZATION NUMBER. COD FREIGHT RETURNS WILL NOT BE ACCEPTED. FREIGHT COLLECT SHIPMENTS WILL NOT BE ACCEPTED. WARRANTY REPAIRS MUST BE ACCOMPANIED BY DATE OF PURCHASE RECEIPT AND A RETURN/REPAIR AUTHORIZATION NUMBER.

RETURN/REPAIR AUTHORIZATION NUMBER: _____

MACHINE SERIAL NUMBER: _____



550 Machine Data

Weight	Length	Width	Height	Max Speed	HP
115 lbs (52 kg)	24" (61 cm)	12" (30.5 cm)	43" (109.2 cm)	Manual	1.5

To Lift - use lifting eyes to make loading/unloading easier when not utilizing ramp. Place rope, hook system or chain through eyelets and raise machine using fork lift or winch.

To Transport - handle can be removed and wheel angle can be lowered. Remove blade when transporting machine (use caution when handling blades are sharp).

401491



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