

FIG. A

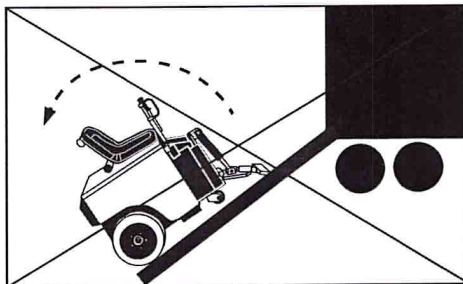


FIG. B

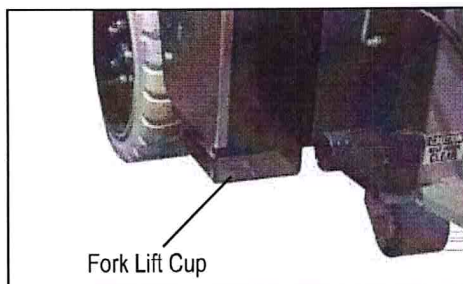


FIG. C

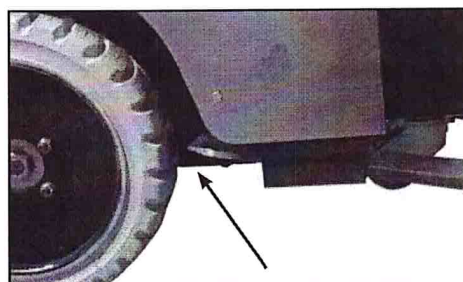


FIG. D

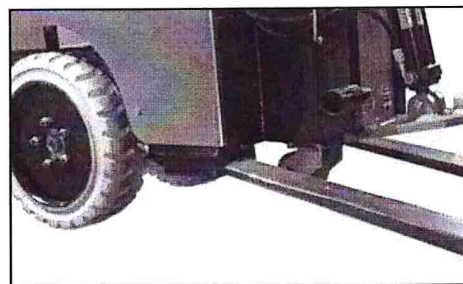


FIG. E

LOADING/UNLOADING

SAFETY PRECAUTIONS

- Always remove blade and cutting head when machine is being moved or transported
- Cutting head and slide plate can be removed to make the machine more compact.
- NEVER leave machine unattended on an incline.
- Removing added weights help to make the machine easier and safer to move in and out of a vehicle.



WARNING: MACHINE HAS A SWIVEL FRONT CASTER. NEVER SIDE HILL (FIGURE A). THE MACHINE ON AN INCLINE WITHOUT POWER, THE FRONT CASTER WILL CAUSE MACHINE TO SWING TO THE LOWEST POINT. IF IT IS NECESSARY TO RUN MACHINE ON AN INCLINE, RUN MACHINE ON CUTTING HEAD. PLACE AT LEAST A 8" CUTTING HEAD IN MACHINE. TO KEEP FROM DAMAGING FLOOR, CLAMP A PIECE OF CARPET INTO CUTTING HEAD TO SLIDE ON THE FLOOR. THIS WILL GIVE POSITIVE CONTACT WITH THE FLOOR WHEN POWER IS DISENGAGED FROM THE WHEELS.

DOCK HEIGHTS

It is best to load or unload the machine from a level/equal dock height (a van from a van dock height, a truck/semi from a regular dock height).

POWER-GATE

A power-gate can be used when the dock height is not available. Make sure gate is properly rated for 3000 lbs. Make certain the machine is secure so it does not roll off the power-gate. To better secure machine, raise machine onto the lowered cutting head, raising machine off the caster. Tie machine down, chock wheels.

RAMPS

To be safe, the ramp needs to be very long to accommodate the machine being loaded/unloaded. Remove added weight. Do not have at a steep incline. The use of a power winch or hand come-a-long is much safer. For a van, the ramp should be 12 to 18 feet in length depending on the depth of the incline. For truck height taller than a van, longer ramps will be needed. See OSHA guidelines. It is not recommended to drive the machine, connected with power, on a ramp. Make sure ramp is secure and has good contact before using. Failure to do so could cause ramp to fall away from the vehicle.



CAUTION: MACHINE IS BACK HEAVY. DO NOT RUN ON STEEP INCLINE THIS COULD CAUSE MACHINE TO TIP OVER! (FIGURE B)

FORKLIFT CUPS

There are two forklift cups mounted under the front of the machine (Figure C). Slide fork lift forks through forklift cups. Slide forks all the way back to touch the rear tire (Figure D). Before lifting machine, secure machine to fork lift with heavy 3000 lb. or heavier rope or chain. Tilt forks back to lift machine (Figure E).

WINCHES

Winches should be used for safety when loading or unloading with ramps. 3000 lb. winch minimum.

TRANSPORTING

Secure machine down with ratchet straps when transporting the machine. Chock wheels

Machine Operation

to keep machine from rolling, hydraulic levers should not be locked in the forward or backward position. Hydraulic levers should be straight up in the "neutral" position. This helps to lock drive wheels. Lift machine off swivel caster by lowering cutting head for better stabilization. Proper securing straps need to be rated at least twice the weight of the machine.

WHEEL CHOCKS

Wheel chocks will help to secure the machine but DO NOT use wheel chocks alone to secure the machine.

PALLETIZING

Only use a solid platform pallet. If a solid platform pallet is not available, place a piece of $\frac{3}{4}$ " plywood on top of a pallet. Using a forklift with the forks inserted in the forklift cups, place machine on pallet. Use ratchet straps to secure machine to pallet.

CENTER OF GRAVITY

Be aware of your surroundings and machines operating angles. When changing from a low slide plate to a high slide plate setting or a low cutting head angle to a high cutting head angle, the operating "attitude" of the machine changes. When a floor surface is not level (ramps, inclines, large amounts of debris which would lift the drive wheel of the machine, etc.), the center of gravity changes. Too much of an angle could make the machine unsafe (a cause for tip-over). Do Not run the machine in unsafe environments.

JOB SITE MOVEMENT

TAPING WHEELS

Taping the wheels with a wide like masking tape helps to prevent damage and dirt to floors during move-in and move-out.

LEAP FROGGING BOARDS

Leap frogging boards help to protect floors from damage. Use two or three $\frac{1}{4}$ " luan or plywood sheets, approximately 27" wide by 6' long. Cover one side of the board with a thin a carpet. With the carpet side to the floor, place a board in front of the machine. Drive onto the board. Set the next board in front of the machine. As you drive off one board, pick it up and set it in front of the machine.

FRONT WHEEL ASSEMBLY (FIGURE I)

To use the Front Wheel Assembly raise slide plate so the bottom of the slide plate is higher or even with the bottom of the guide channels, 6" to 8" is ideal. Raise cylinder, insert Front Wheel Assembly into cutting head. Secure with securing pin. Caster wheel should swivel freely and the Front Wheel plate should be parallel with the floor.

TO MOVE MACHINE WITHOUT POWER (PUSHING MACHINE)

Forward: To move the machine forward, levers need to be pushed forward. To lock levers in place, connect a bungee-strap from each lever (pushing levers forward), pulling straps down to and connecting to the front plate (Figure J). Never leave machine unattended with strap holding levers open.

Backward: To move machine backward, levers need to be pulled backwards. To lock levers in place, connect a bungee-strap from each lever (pushing levers backward), Pulling straps to the back of the machine and connecting behind the seat or the rear of the machine (Figure K). Never leave machine unattended with strap holding levers open.

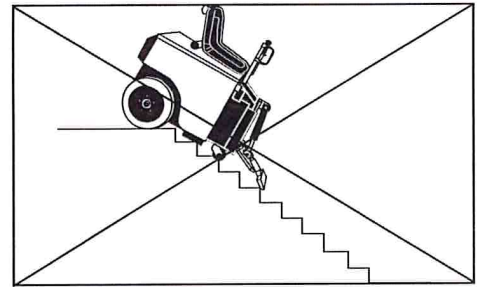


FIG. F

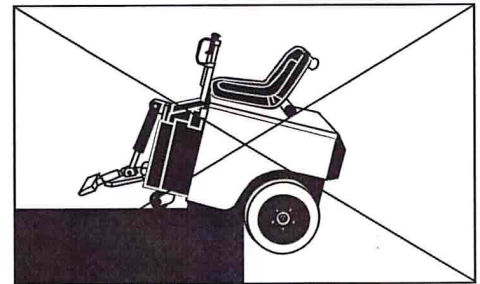


FIG. G

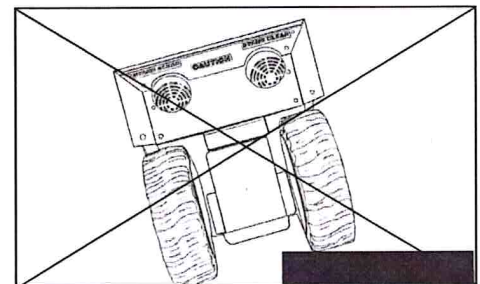


FIG. H

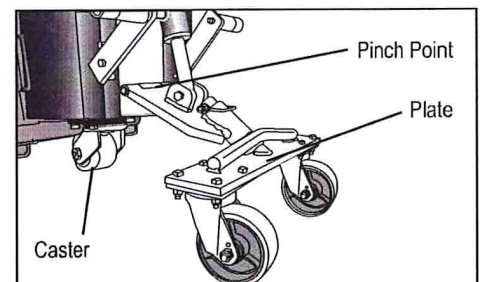


FIG. I

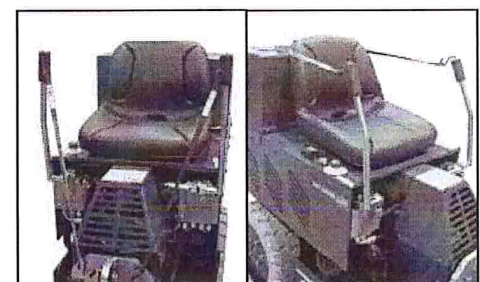


FIG. J

FIG. K



CAUTION: ALWAYS REMOVE STRAPS BEFORE STARTING MOTOR. FAILURE TO DO SO WILL MAKE MACHINE MOVE AND MAY CAUSE DAMAGE AND/OR BODILY INJURY.

Machine Operation



FIG. A



FIG. B

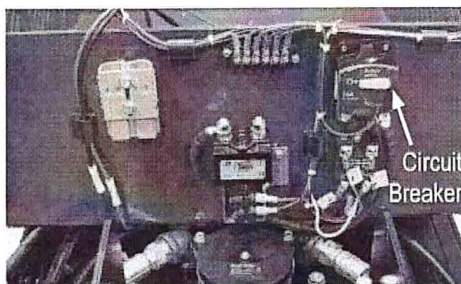


FIG. C



FIG. D



FIG. E

OPERATING CONTROLS

POWER ON SWITCH (FIGURE A)

Never use the power on/off switch as a method for speed control. Speed control is achieved by the hydraulic valve only. Using the on/off switch repeatedly will cause excessive wear, causing premature replacement of electrical components. An Emergency Stop Switch (E-Stop) is located by right hand (Figure B). To start machine, twist the E-Stop until it pops up. There is a seat safety switch. The operator must be properly seated for machine to operate. Push the on/off button to start machine.

MACHINE START-UP PROCEDURE

Verify 70 amp circuit breaker is in "On" position (Figure C)

Verify 48-volt blue plugs are firmly connected (Figure D)

Operator should be properly positioned on seat

Twist E-Stop (Figure B) to "up" position exposing green ring

Push green "on" button

Maneuver machine with hydraulic levers (see instruction below)

HYDRAULIC LEVERS (FIGURE E)

The hydraulic levers steer the machine. For smooth even movement, always move levers slowly. Fast movement of control levers will result in jerky, uneven movement.

Move levers slowly.

Both levers forward $\uparrow\uparrow$ move the machine forward.

Both levers backward $\downarrow\downarrow$ move the machine backward.

The left lever forward and the right lever backward $\uparrow\downarrow$ turn the machine quickly to the right.

The left lever backward and the right lever forward $\downarrow\uparrow$ turn the machine quickly to the left.

Only using the left or right lever forward $\uparrow$, turns the machine slowly to the right or left.

Only using the left or right lever backwards $\downarrow$, turns the machine slowly to the left or right.

Correcting direction while moving forward is accomplished by slightly reducing pressure on one lever or the other while moving.

The center position on levers causes wheels to lock-up.

Always chock wheels and tie down machine when transporting.

Control levers are low in vibration.

EMERGENCY STOP SWITCH (FIGURE B)

The emergency stop switch is designed to kill the power to the system.

SEAT SWITCH

The seat has a safety switch. Operator must be properly positioned for machine to run.

TO STORE MACHINE (FIGURE D)

When the machine is in storage, remove the blue plug and turn circuit breaker to off. This will help to keep someone from operating the machine when it shouldn't be.

Machine Operation

CYLINDER LIFT (FIGURE F)

The cylinder lift lever raises and lowers the cylinder and cutting head. After setting slide plate to proper height, use the cylinder lift lever to set blade to proper cutting angle. Pull back ▼ on the cylinder lift lever to raise the cutting head. Push the cylinder lift lever forward ▲ to lower the cutting head. Continuing to push the cylinder lift lever forward and it will adjust the angle of the cutting head. This will also jack up the front of the machine (Figure B). This will need to be done when doing maintenance on the machine (ie: wheel changing, front caster maintenance etc). When doing machine maintenance, besides raising the cutting head angle, place blocks under the machine (Figure C). Never use the cutting head only.



WARNING: DO NOT ALTER A SWITCH OR LEVER. DO NOT DEFEAT A SAFETY DEVICE.



WARNING: DISARM MACHINE BY REMOVING THE CUTTING HEAD OR DROPPING THE CUTTING HEAD TO THE FLOOR WHEN THE MACHINE IS NOT IN USE.

OPERATIONAL TIPS

CASTER

Keep clean and free of debris, make sure it can move freely. Clean as needed. Inspect before each use. Grease once a month.

Moving a "weighted" machine only on the front caster and not on the cutting head or the Front Wheel Assembly can seem to make the machine turn sluggish. It might turn hard to the right or the left. This is normal.

FOOT PEG

Keep feet resting and secured on foot pegs when operating machine. Foot pegs are adjustable. Make sure securing nut is securely tightened

SEAT

Always be properly seated before operating machine. Machine will not run if the operator is not properly seated

DISARM MACHINE

Remove blade or drop cutting head to the floor when machine is not in use.

LEAKAGE

Keep fittings and hoses tight. If a leak is noticeable, retighten fitting. If leakage persists, remove the connection and inspect.

ANGLE OF THE HEAD IS SET STEEP

When raising the front of the machine to a steep angle, the bottom of the slide plate should be raised so it is higher or even with the bottom of the guide channels, 6" to 7" off the floor. This will allow for a steep blade angle without tipping the machine too far back and is usually used for re-scraping. The most common mode for take up has the slide plate approximately (1") one inch from the floor.

RAISING OR LOWERING THE SLIDE PLATE

This will only work without a cutting head inserted in the machine. Completely loosen slide plate bolts. Use cylinder lift lever to raise or lower machine to move slide plate up or down

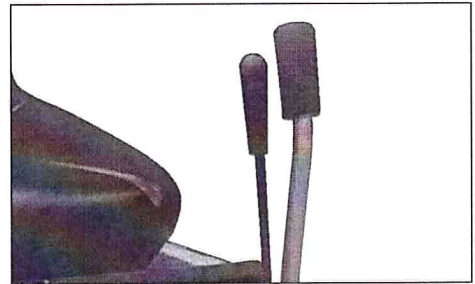


FIG. F

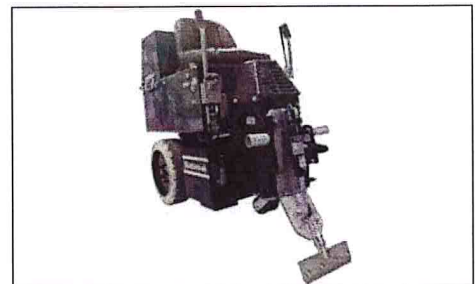


FIG. G

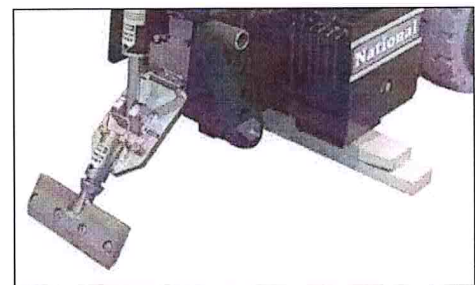


FIG. H

Machine Operation

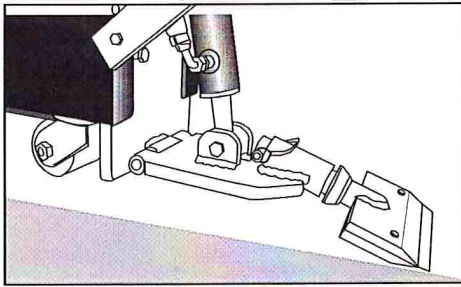


FIG. A

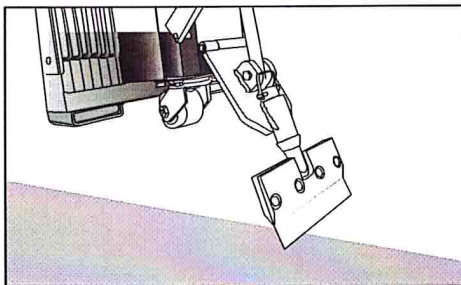


FIG. B

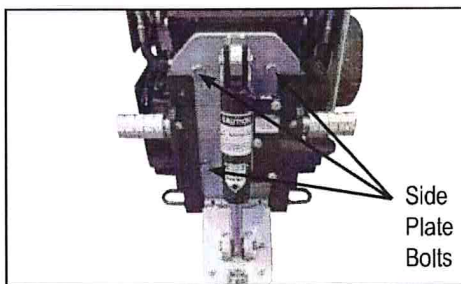


FIG. C

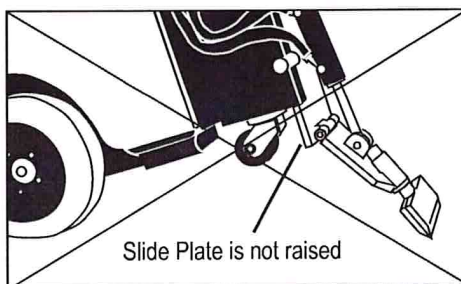


FIG. D

DIALING IN THE MACHINE

Dialing in the machine is matching the correct cutting head, blade size, blade angle and blade width to the machine to make the material removal as easy as possible. For every material being removed, there is an optimum blade width, thickness, sharpness, angle and bevel (bevel up or bevel down).

ADJUSTING THE MANUAL SLIDE PLATE AND CUTTING HEAD (FIGURE A & B)

Caution: Pinch point. When adjusting slide plate, keep feet and hands out from underneath the cutting head and slide plate. Failure to do so could cause severe bodily injury. When bolts are removed from the slide plate, the cutting head and the slide plate will drop down to the floor.

- Loosen the four bolts on the front of the slide plate with a 1-1/8" wrench (Figure C).
- Slide plate up or down to achieve the desired height of the cutting head.
- A low setting orients the slide plate approximately 1" off the floor. This is for normal removal of most materials.
- A high setting orients the slide plate approximately 6" off the floor. This is for re-scraping glue and some thin-soft coatings.
- Firmly retighten both bolts.

ADJUSTING THE DUAL LIFT SLIDE PLATE AND CUTTING HEAD

- For safety prior to adjusting the dual lift hydraulic slide plate make sure the channel guide is free of any debris and the machine is safely positioned on a flat surface.
- Be properly seated in the operator's seat.
- Twist the Red Emergency Stop switch located on the right side of the operator, the spring-loaded switch will pop up when twisted.
- Push the Green 'ON' button to start the machine.
- Adjacent to the left hand steering lever is a straight and narrow handle rod, this handle rod raises and lowers the front cylinder and is referred to as the 'cutting head lever'. To set the height of the hydraulic slide plate start by first adjusting the angle or pitch of the cutting head holder.
- Pull back on the cutting head lever and raise the cutting head holder to an angle higher than the bottom of the slide plate.
- Using the lever adjacent to the right hand steering lever raises and lowers the hydraulic slide plate and is referred to as the 'slide plate lever'. To lower the slide plate the operator must push forward on the slide plate lever. Conversely, to raise the slide plate the operator must pull back on the slide plate lever.

While the hydraulic slide plate can be adjusted to multiple positions there are two basic slide plate settings.

- **Low Setting:** the hydraulic slide plate is positioned 1" off the floor. This setting is most commonly used during initial scraping or removal applications; such as carpet, VCT, ceramic tile and wood flooring. (Note: The "low" setting on older model hydraulic slide plates may stop the plate within one to two inches of the floors surface.)
- **High Setting:** the hydraulic slide plate is positioned 6" off the floor or in most cases flush with the bottom of the slide plate channel guide. This setting is most often used for re-scraping glues, mastics, thin sets and soft coating.

Machine Operation

SHEAR POINT

The shear point is the point where material to be removed will cut cleanly from the floor. If the blade is too wide, too dull, or too steep, the shear point is lost.

WEIGHT VS. SHARPNESS

The most common way to compensate for a dull blade is to add more weight and raise the blade angle (see high setting). Weight allows dull blades to be used to a point. Weight also causes blades to dull and break easier. Blades of any thickness tend to catch cracks and expansion joints and will bend or break the blade if set at a high angle. For best results, run a small ditching blade at a low angle to identify as many cracks and joints as possible. If blades are breaking, you are misunderstanding the conditions.

CUTTING HEAD ANGLE

Set the cutting head angle to where the material comes up the easiest. Start with a lower angle setting and raise slightly as the blade wears to maximize the shear point.

STEEP CUTTING HEAD ANGLE

A steep angle is only used for re-scraping. The slide plate has to be raised so the bottom of the slide plate is higher or even with the bottom of the guide channels (Figure B). Not raising the slide plate when operating the machine at a steep angle will cause the machine to jump and buck. It does not give the operator a clear vision of the cutting head and it raises the machine to operate at a unsafe operating height (Figure D). Failure to raise the slide plate could cause machine damage and/or bodily injury.

SWIVEL HEAD

The swivel head keeps the blade in contact with the floor even when the floor is uneven. When using a flat blade, by swiveling the head over 180° allows another sharp edge on the blade without having to replace the blade.

CUTTING HEAD INSERTION

With machine off, insert desired cutting head into cutting head holder. Secure with cutting head clip.

SAVING TIME WITH EXTRA CUTTING HEADS

The machine is supplied with one cutting head. Having additional cutting heads will save time on the job. Insert blades into the extra cutting heads before starting a job. When the blade is dull, instead of taking the time to replace it or sharpen it on the job, take out the cutting head and replace it with another. Or when a different type or size of blade is needed, you have them ready to use.

Machine Operation

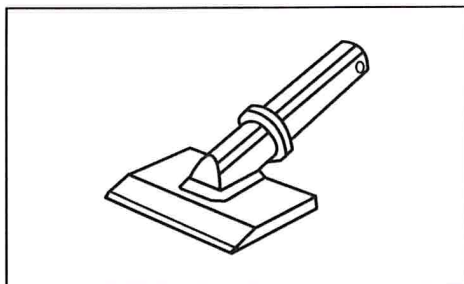


FIG. A

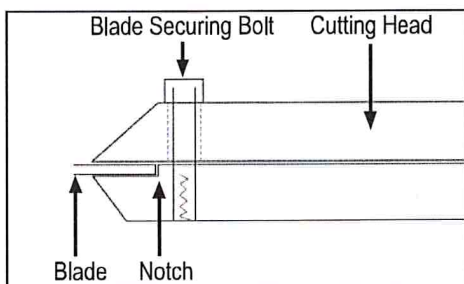


FIG. B

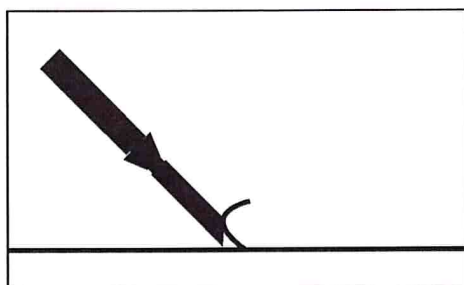


FIG. C

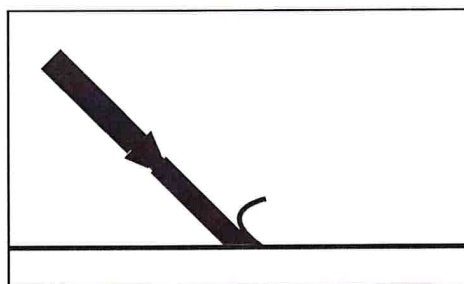


FIG. D

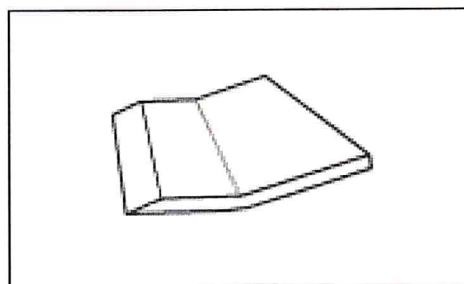


FIG. E

SHANK BLADE INSERTION

Shank blades (Figure E) do not require a cutting head. Insert desired shank blade into cutting head holder. Secure with cutting head clip.

BLADE INSERTION OR BLADE CHANGING (FIGURE F)

Using a 3/4" socket wrench, loosen bolts on cutting head. Quantity of bolts will vary depending upon cutting head size. Insert blade into the cutting head to back of notch (Figure A). Tighten firmly. Note: A cordless 3/8" drive impact wrench will speed up this process especially out on the job.



WARNING: ALWAYS WEAR GLOVES WHEN HANDLING BLADES.

BLADE SETTING

- Proper blade size and placement, depending on material and sub-floor type, affects performance.
- The harder a job comes up, for best results, use a smaller blade.
- Start with a narrow blade, then increase blade size to optimize cutting pass. Narrower blades work easier than wider blades and usually clean the floor better. Wider is not always better or faster.
- Normally bevel on blade is up for concrete (Figure G). Bevel down for wood (Figure H) and shoe blades (Figure I) for soft sub-floors.
- KEEP BLADES SHARP.
- Dull blades greatly affect the performance of the machine and reduce cutting ability, sharpen 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.

SELF-SCORING BLADES

Instead of pre-scoring a job, for soft goods (carpet, vinyl, linoleum, membrane) the self-scoring blades automatically do the scoring.

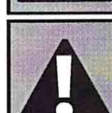
APPLICATION SET-UP

CERAMIC SET-UP (FIGURE F)

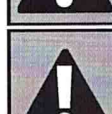
The slide plate should be adjusted to a low setting (1") on inch off the floor. Use a Shank Blade or a Shank Blade with a carbide tip.



CAUTION: BLADES ARE SHARP; USE EXTREME CAUTION WHEN HANDLING.



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



WARNING: DISARM MACHINE WHEN IT IS NOT IN USE. REMOVE THE CUTTING HEAD OR DROP CUTTING HEAD TO THE FLOOR. FAILURE TO DO SO COULD CAUSE BODILY INJURY.

Machine Operation

WOOD SET-UP (FIGURE G)

The slide plate should be adjusted to a low setting (1") one inch off the floor. Use Shank Blades, Shank Blades with carbide tips or a 6" or 8" Cutting Head with Shoe Blades, Bent Shoe Blades or Heavy Duty Blades. Note: Run machine 45° to the grain of the wood.

SECONDARY BACKING CARPET SET-UP

The slide plate should be adjusted to a low setting (1") one inch off the floor. Use a Cutting head from 10" to 27" with Heavy Duty Blades or a Cutting Head from 10" to 14" with a Self-Scoring Blade.

FOAM BACK CARPET SET-UP

The slide plate should be adjusted to a low setting (1") one inch off the floor. Use Cutting Heads from 10" to 14" with Self-Scoring Blades (Figure C). If it is not stuck tight, use a Cutting Head from 14" to 27" with a Standard Blade.

DOUBLE STICK CARPET SET-UP

The slide plate should be adjusted to a low setting (1") one inch off the floor. It is best to test to see which is the easiest way to remove double stick. Start with a Cutting Head from 10" to 14" with Self-Scoring Blades (Figure H). If self-scoring blades do not work, score thru the carpet (Figure I) the width of the blade (Standard Blade) and scrape up. In some cases, carpet might pull off the pad and then scrape up the pad separately. Usually leaving carpet connected to the pad works the best. Sharp blades are necessary for proper operation.

Note: When removing carpet from over VCT Tile and the tile needs to be saved, run the machine at a 45° angle over the tile. This should help to save the tile.

VCT TILE SET-UP

The slide plate should be adjusted to a low setting (1") one inch off the floor. If goods come up easily, change to a larger Cutting Head. If goods come up harder, use a Cutting Head from 6" to 8" with a Premium High Tempered Blade (.062) to match cutting head size. Sometimes a .094 blade may work better. If goods remove easily, a Tile Box #7074 can be used. A tile box also works for wind rowing, assists for a fast clean-up and collection of tile debris for quick removal.

RUBBER TILE SET-UP

The slide plate should be adjusted to a low setting (1") one inch off the floor. Use a Cutting Head from 6" to 14" with self-scoring blades or use ditching method with a flat blade.

RE-SCRAPING SET-UP

Slide plate should be set high, 6" to 8" off the floor. Use a Cutting Head from 8" to 27" with Scraper Blades to match cutting head size. A 15" scrapper blade would use a 14" Cutting Head. Razor Blades are faster but a Cutting Head from 8" to 14" can be used with a Standard Blade. Flip head regularly.

THIN COATING SET-UP

Slide plate could be set high, 6" to 8" or low 1" off the floor. Test to see which works best. Use a Cutting Head from 8" to 27" with Razor Blades to match cutting head size.

WORKING OVER CONCRETE

Blade should be bevel up when working over concrete. Pretty much anything over concrete works. Try different set-ups to see which works best. If goods come up difficult, the slide plate should be at a low setting, 1" off the floor. Use a smaller size blade. If goods come up easily, a wider blade can be used.

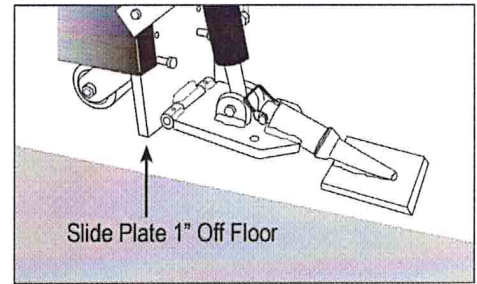


FIG. F

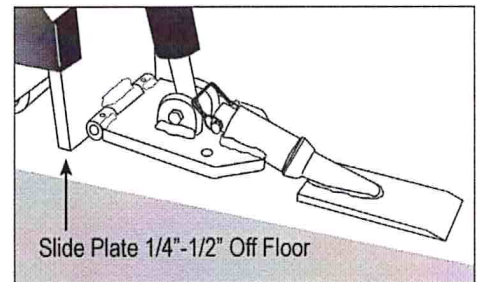


FIG. G

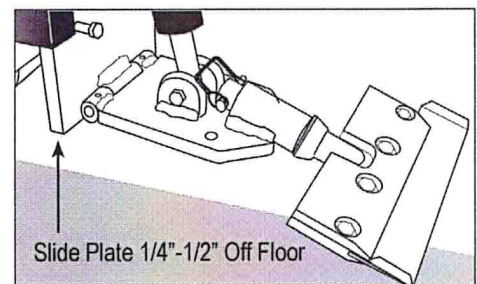


FIG. H

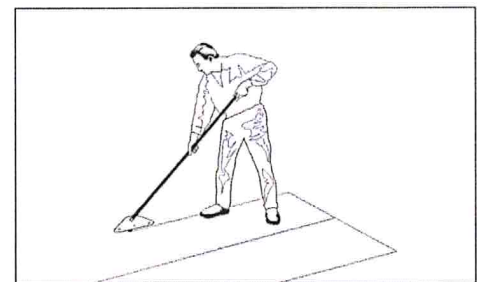


FIG. I

Machine Operation

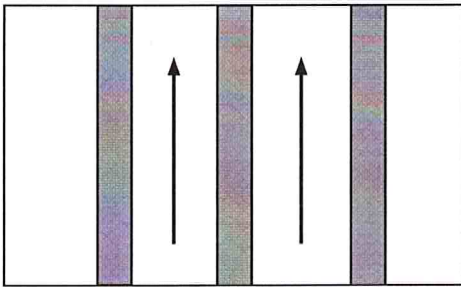


FIG. A

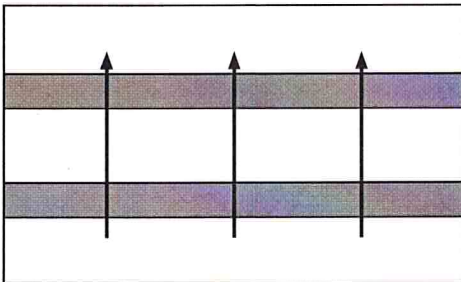


FIG. B

WORKING OVER WOOD

A heavy machine cannot be used on wood subfloors or raised panel computer floors. Keep machine light, remove all weights. A weighted machine could break through the floor. The slide plate should be adjusted to a low setting (1") on inch off the floor. Blades should be as flat of an angle as possible. Use a "shoe blade", Extra Heavy Duty Blade (these blades have a bend to them) or a regular blade, bevel up. When using a regular blade, bending up the corners of the blade will help from the blade digging into the floor. Sometimes a shank blade or a shank blade with a carbide tip will work. Allow blade to shear material from the floor. The trick on wood floors is to run the blade flat. Approach should be at a 45° angle to the board. This keeps from digging into the board and hanging up at the seams.

WORKING OVER SOFT SUB-FLOOR

The slide plate should be adjusted to a low setting (1") one inch off the floor. Blades should be as flat of an angle as possible. Use a "shoe blade", Extra Heavy Duty Blade (these blades have a bend to them) or a regular blade, bevel up. When using a regular blade, bending up the corners of the blade will help from the blade digging into the floor. Sometimes a shank blade or a shank blade with a carbide tip will work.

DITCHING

CROSS ROOM DITCHING

When removing hard to remove ceramic, VCT--- or vat, cross-room ditching will help to make the removal easier. Using a blade 2" to 6" in width, make ditches 1' to 2' apart in the same direction the machine will be removing the goods (Figure A). This "relieves" the pressure holding the tiles together. If ditching helps and the goods are coming up easy, try using a wider blade to ditch with.

CHECKER BOARD DITCHING

To make carpet removal and debris cleanup easier, checker board ditching is very helpful. Using as wide of a self-scoring blade as possible, make ditches 4' to 6' apart crossways from the way the machine will be removing the goods (Figure B). Running the machine crossways from the ditches will make smaller pieces of debris to be hauled away. Instead of large gummy rolls of carpet, there are small squares that can be rolled, palletized, put on a dolly or folded with the sticky side in. This makes removing the debris easier and reduces the amount of debris.



CAUTION: BLADES ARE SHARP; USE EXTREME CAUTION WHEN HANDLING.



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



WARNING: DISARM MACHINE WHEN IT IS NOT IN USE. REMOVE THE CUTTING HEAD OR DROP CUTTING HEAD TO THE FLOOR. FAILURE TO DO SO COULD CAUSE BODILY INJURY.