

SELF-PROPELLED WALK BEHIND SCRAPER INSTRUCTION MANUAL





Caution: Read Manual Before Operating Machine



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Declaration of Conformity



National Flooring Equipment Inc.

9250 Xylon Ave N Minneapolis, MN 55445 USA

Declares that under our sole responsibility the products:

6280-COM, 6280-COM-EUR, 6280-COM-AUS, 6280-COM-UK, 5280, 5280-EUR, 5280-AUS, 5280-UK, 6280HD-COM, 6280HD-COM-EUR, 6280HD-COM-AUS, 6280HD-COM-UK

Are in conformity with the provisions of the following EC Directive, including all amendments, and with national legislation implementing this directive:

Machinery Directive 2006/42/EC

The Following Harmonized Standards were applied:

EN 60335-2-67:2003 + A1 :2006 with EN 60335-1:2002 + A1:04 + A2:06 + A11:04 + A12:06 EN ISO 12100:2010, ISO 4413:2010

This Product Carries the CE Mark, which was first affixed in 2013

Date

05/19/2014

Place Signature Minneapolis, MN

John Gunsch Vice President of Operations 9250 Xylon Ave N Minneapolis, MN 55445 USA

Place Signature Date

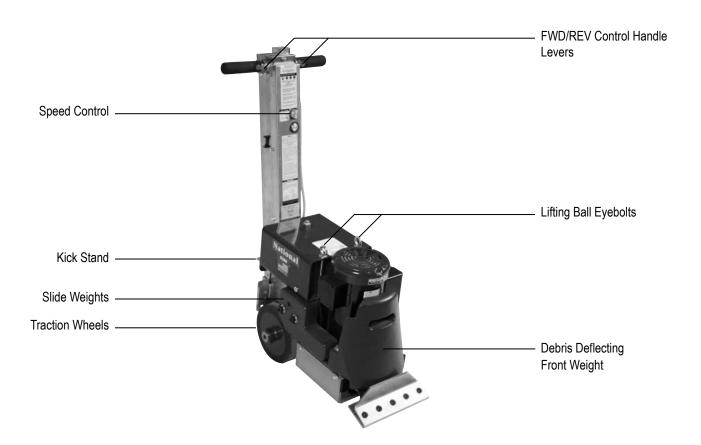
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Features and Specifications



FEATURES

Speed Control Dial - Limit maximum forward speed.

<u>Kick Stand</u> - Aides operator in tilting the machine back for easier moving and maneuvering.

<u>Traction Wheels</u> - These industrial grade wheels are self-cleaning and disengage for loading/unloading.

<u>Side Weights with Quick Adjust Levers</u> - Applies additional pressure to the scraper head as desired or if more traction is needed.

FWD/REV Control Handle Levers - Simple twist grips control both speed and direction of scraper.

<u>Lifting Bail Eyebolts</u> - Eases loading/unloading.

<u>Debris Deflecting Front Weight</u> - Prohibits material and devris from clogging or obstructing production.

Quick Adjust Multi Position Handle - Allow adjustment of handle angle to suit operator or work conditions. Folds flat over machine for storage or transport.

	Product Specifications							
Width	Length	Height	Weight	Speed	RPM	Voltage	НР	Amps (full load)
15" (38.1 cm)	32.25" (81.9 cm)	46" (116.8 cm)	334 lb (151.5 kg) (machine only) 424 lb (192.3 kg) (with weights)	10-45 ft/min (3-14 m/min)	3450	115	1.5	13

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.
- 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.
- 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 is hazardous. Be sure accessories are properly installed and maintained. Do not remove 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.
- 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. Keep away from children.
- 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.
- 27. DO NOT ALLOW the oscilating plates to come into contact with the supply cord.
- 28. 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.

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 times and never lets guard down.

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

Judgment: Uses sound judgement. Does not take uncessary 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.

HYDRAULIC SAFETY TIPS

MAINTAINING A SAFE WORK ENVIRONMENT

Establishing a safe working environment in and around your hydraulic equipment is just common sense. The easiest and most effective way to avoid problems is to make sure associates understand their equipment, know how to operate it safely and recognize the danger it represents if handled carelessly. A few things you must be aware of include:

- 1. PRESSURE: Hydraulic fluid under pressure is dangerous and can cause serious injury.
- FLAMMABILITY: When ignited, some hydraulic fluids can explode and/or cause fires.
- 3. **MECHANICAL:** Hydraulic fluid creates movement, which causes parts of your equipment to move or rotate. Always be aware of what you are doing.
- **4. MOISTURE:** Use caution when operating in wet or high moisture conditions. Make sure all electrical fittings, switches, cords plus stain reliefs are in good condition. Always unplug when not in use and when doing any service work.
- **5. ELECTRICAL:** Faulty wiring can also be an electrical hazard. A regular preventive maintenance program should always include a wiring check. Unplug batteries and/or charger before serving.
- **6. TEMPERATURE**: Because this machine operates at a relatively low pressure, overheating is not common. If surface of tank becomes too hot to touch by hand (above 130° F, 55° C), shut off machine and allow to cool off.

PRESSURE

Our system runs at or below 2,000 psi. Never look for a leak when unit is under pressure. Using your hand could cause serious injury. A few common ways to encounter hydraulic fluid under pressure include:

- 1. **PINHOLE:** Fluid under pressure can cause serious injury. It can be almost invisible escaping from a pinhole, and it can pierce the skin into the body. Do not touch a pressurized hydraulic hose assembly with any part of your body. If fluid punctures the skin, even if no pain is felt, a serious emergency exists. Obtain medical assistance immediately. Failure to do so can result in loss of the injured part or death.
- 2. LEAK: Keep fittings and hoses tight. Only check and service when not under pressure. Leaking hydraulic fluid is not only unsightly, it's hazardous. In addition to making workplace floors slippery and dangerous, leaks also contaminate the environment. Before cleaning an oil spill, always check EPA, state and local regulations.

- **3. BURST:** Whether due to improper selection or damage, a ruptured hose can cause injury. If it bursts, a worker can be burned, cut, injected or may slip and fall.
- 4. COUPLING-BLOW OFF: If the assembly is not properly made or installed, the coupling could come off and hit or spray a worker, possibly resulting in serious injury. Never operate machine without guards.

FLAMMABILITY



CAUTION: NEVER USE YOUR HANDS TO CHECK FOR LEAKS OVER HOSE OR HYDRAULIC CONNECTIONS. USE A PIECE OF CARDBOARD TO LOCATE A PRESSURIZED LEAK. FOR LOW PRESSURE LEAKS (DRIPS), USE A RAG TO CLEAN THE AREA AND DETERMINE WHERE THE LEAK ORIGINATES.

With the exception of those comprised primarily of water, all hydraulic fluid is flammable when exposed to the proper conditions (including many "fire-resistant" hydraulic fluids).

Leaking pressurized hydraulic fluids may develop a mist or fine spray that can flash or explode upon contact with a cause of ignition. These explosions can be very severe and could result in serious injury or death.

Precautions should be taken to eliminate all ignition sources from contact with escaping fluids, sprays or mists resulting from hydraulic failures. Sources of ignition could be electrical discharges (sparks), open flames, extremely high temperatures, sparks caused by metal-to-metal contact, etc.

HYDRAULIC FLUID

Only use Texaco Rando 46 Hydraulic Oil or Compatible Fluid like IS032. Non-compatible fluids could cause damage to unit or serious injury.



WARNING: 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 TOOL. NEVER REMOVE THE GROUNDING PRONG FROM THE PLUG. DO NOT USE THE TOOL 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 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 tool 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 tool. The green wire in the cord must be the only wire connected to the tool's grounding system and must never be attached to an electrically "live" terminal.

The scraper must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in Figure A.

EXTENSION CORDS

Grounded tools require a three wire extension cord. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords

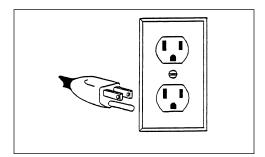


FIG. A

Safety

EXTENSION CORDS (CONTINUED)

with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage.

The smaller the gauge number of the wire, the greater the capacity 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. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum wire size.

GUIDELINES FOR USING EXTENSION CORDS

- If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" 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.
- Keep away from water. Do not use if wet.
- Inspect thoroughly before each use. DO NOT USE IF DAMAGED.
- Make sure equipment is OFF before connecting cord outlet.
- · 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.
- National recommends using a single 50' (15 m) 12 gauge extension cord.



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

TRANSPORTING

Transport wheels help to eliminate damage to flooring and make movement of unit easier.



WARNING: NEVER HAVE TRANSPORT WHEEL ASSEMBLY MOUNTED ONTO MACHINE OR WEHEELS DISENGAGED WHEN GOING UP OR DOWN A LOADING RAMP OR INCLINE. FAILURE TO DO SO COULD CAUSE MACHINE RUNAWAY, DAMAGE TO MACHINE, DAMAGE TO PROPERTY OR CAUSE SERIOUS INJURY.

ATTACHING/REMOVING TRANSPORT WHEELS

- Remove two outside blade cover bolts (Figure B).
- 2. Tip machine back and block up front of machine so cutting head has enough clearance for front wheel assembly to fit under (Figure C).
- 3. Mount front wheel assembly over blade cover. Replace two outside blade cover bolts (Figure D).
- 4. Remove blocks.
- 5. DO NOT leave machine in transport mode while in transit in vehicle without machine being secured.
- 6. To remove reverse procedure from above.

WHEELS ENGAGING OR DISENGAGING

Wheels engage and disengage for easier maneuverability. Wheels in the "engage mode" are secured with the axle pins (See Figure E). This engages the wheels for the machine to be self-propelled.

When wheels are in the "disengage mode" (See Figure F). Machine can be moved around freely when the machine IS NOT under power.

DISENGAGING WHEELS

Pull up on end of pin to release. Slide pin out. Repeat on second wheel. Note: Keeping axle pin facing straight up will make re-engaging easier.

RE-ENGAGING WHEELS

Line up wheel hub hole and axle hole (See Figure G). Insert axle pin and secure pin end. Repeat on second wheel.

LOADING/UNLOADING



CAUTION: ALWAYS REMOVE ALL COUNTER WEIGHTS & BLADES AND MAKE SURE THE WHEELS ARE IN "ENGAGE MODE" (FIGURE E) BEFORE LOADING OR UNLOADING. FAILURE TO DO SO COULD RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

LIFTING BAIL

The lifting bails make loading/unloading easier when not able to drive or using a ramp. Location on lifting bails centrally locates balance of the machine to safely pick-up machine.

- 1. Place rope, hook system or chain through eyelets located on top of machine.
- 2. Raise machine with a fork lift or winch.
- Slowly lower to desired location.



FIG. B



FIG. C



FIG. D

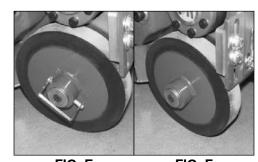


FIG. E FIG. F

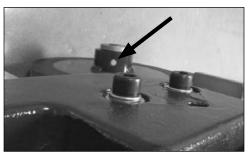


FIG. G



FIG. H

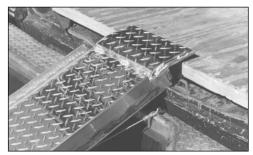


FIG. I

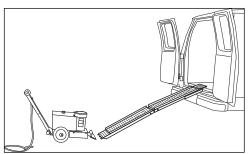


FIG. J

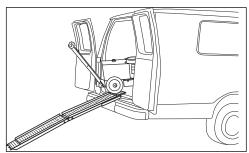


FIG. K



FIG. L

RAMP LOADING

- 1. Put the wheels in "engage mode" (Figure E).
- 2. Make sure ramp is clean and dry, free of grease or oil.
- 3. Position the ramp securely to back of vehicle, making sure there is good contact (See Figure I).
- 4. Position machine at bottom of ramp (See Figure J).
- Engage power switch and drive onto vehicle.

RAMP UNLOADING

- 1. Put the wheels in "engage mode" (Figure E).
- Position ramp securely to back of vehicle, making sure there is good contact (See Figure I).
- 3. Position machine at the back of the truck in line with the ramp (See Figure J).
- 4. Carefully move machine onto ramp leaving cutting head down (in contact with ramp surface). CAUTION: Machine even without weights weighs 334 lb (151.5 kg). Make sure you have machine under control. Failure to do so could cause machine runaway, damage to machine, damage to property or cause serious injury.
- 5. Slowly back machine down ramp (Figure K).

OPERATING CONTROLS

MACHINE START-UP PROCEDURE:

- 1. Machine MUST be off before plugging machine into power source.
- 2. Plug machine into outlet.
- 3. Turn speed control to slowest position (Figure L).
- 4. Push "ON/OFF" switch to the ON position.
- 5. Move machine forward and backwards by depressing the button on the right or left handle.

SPEED CONTROL

- Speed control knob can be adjusted while machine is running.
- Turning speed control knob counter clockwise will increase maximum forward speed (See Figure L).
- Turning speed control knob clockwise will decrease maximum forward speed (See Figure L).

FORWARD/REVERSE

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- To move the machine forward depress the button on the right handle.
- To move the machine backwards depress the button on the left handle.

ADDING/REMOVING OPTIONAL SLIDE SIDE WEIGHTS

1. There are two slotted channels located on the back side of each slide weight. To install each side slide weight, position the longer slotted channel below the shorter slotted channel. Next, insert the longer slotted channel over the two bolt heads; these currently secure the standard fixed side weight in place. Holding each side slide weight in place, install the lever bold with washers into the threaded hole aligned with the shorter channel slot. Hand tighten the bolt with the lever raised, securing it to the side of the walk behind scraper, then lower lever into channel in weight to lock.

To move the side slide weight forward/back based on job application conditions, raise the lever and gently shift the weight to the desired location. After moving each side slide weight to this position, lower the lever into the channel in the weight.

 Use a 3/4" socket wrench to tighten the bolt, securing it to the side of the walk behind scraper. In order to position the side slide weight forward/back based on job ap-

plication conditions, loosen the once tightened bolt and gently shift the weight to the desired location. After moving each side slide weight to this position, re-tighten each bolt firmly.

PREPARING MACHINE FOR JOB

BLADE SETTING

Note: The 6280 is designed to remove soft good materials.

- Proper blade size and placement, depending on material and sub-floor type, affects performance.
- · For difficult materials, use smaller blades.
- Start with a narrow blade, then increase blade size to optimize cutting pass. Narrower blades work easier than wider blades and usuaûıyclean the floor better.
 Wider is not always better or faster.
- Normally bevel on blade is up for concrete (Figure M). Bevel down for wood (Figure N).
- 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: pound 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 O).
- 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 P). Score flooring to the width of the blade.
- Self scoring blades are available in a number of sizes. These blades eliminate the
 need for pre-scoring material. Depending upon the type of material being removed
 and the sharpness of the blade and scoring wings, the self scoring blades may
 make it harder to control the machine. Keep scoring wings sharp at all times.

BLADE CHANGING

- 1. Place a block under the front of the machine as shown in Figure Q, using a flat piece of 2 x 4" or something similar.
- 2. Use supplied extended "T" wrench or a 7/32 Allen wrench with at least a 3" extension to keep hand safely away from the sharp edge of the blade. Loosen five (5) allen head bolts (Figure R). It is not necessary to remove bolts.
- 3. Place blade into cutting head, sliding all the way back to the bolts. If the blade is wider than the cutting head, center blade to head. If blade is smaller than the cutting head, first pass blade should be mounted in center of the cutting head. After first pass is made, blade can be offset in head to allow wheels to keep even contact with the floor and allow easy access to the wall.
- 4. Hand tighten the bolts.



CAUTION: BLADES ARE SHARP, USE EXTREME CAUTION WHEN HANDLING. NEVER CHANGE CUTTING HEAD OR SERVICE BLADES WHILE MACHINE IS RUNNING.

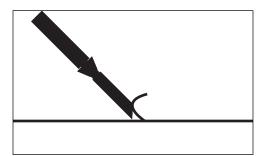


FIG. M

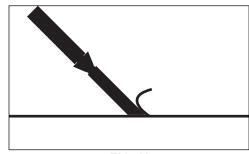


FIG. N

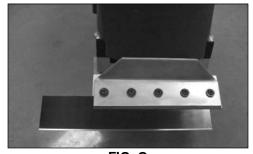


FIG. O



FIG. P



FIG. Q



FIG. R

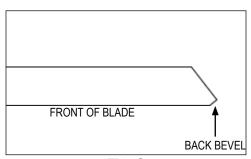


FIG. S

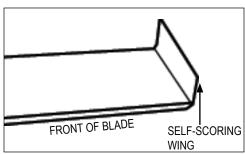


FIG. T

APPLICATION SET-UP

VCT TILE

Never use a blade wider than the size of the tile being removed. If materials being removed still does not come up clean or machine jumps on top of materials reduce blade size or use a smaller portion of the blade.

PURE VINYL RUBBER TILE

Materials will need to be scored down to 10 to 12" (25 to 30.5 cm) for proper removal. Self scoring blades can be used with some materials. A 10" blade is recommended for this application.

DIRECT GLUED CARPET

Can be done with either self scoring blades or by pre-scoring carpet to blade width prior to stripping with #584 Scoring Tool. Pre-scored carpet makes machine easier to control and blades stay sharper longer. Blades up to 16" wide can be used. Normally 12" to 14" (30.5 to 35.5 cm) blades are used on direct glued carpet, secondary backed, unitary, double glued, vinyl foam, urethane foam. Latex foams come up easily with a 16" blade.

CONCRETE

When working on concrete slab a 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.

BLADE SHARPENING

Always check for blade sharpness before using; because dull blades greatly reduce cutting effectiveness. Over time, the used blades will develop a back bevel. While resharpening, blades will not recover entirely 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 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.
- While 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 T)

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.

STANDARD BLADE (FIGURE U)

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
136	5" X 8" BLADE	.062
147	4" X 6" BLADE	.062
148	5" X 6" BLADE	.062

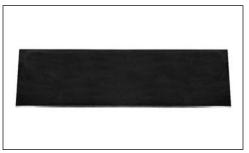


FIG. U

BLADES WITH SLOTS (FIGURE V)

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

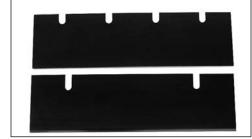


FIG. V

DOUBLE EDGE BLADES (FIGURE W)

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

PREMIUM HIGH TEMPERED BLADES (FIGURE X)

These ultra-high quality spring steel blades are extra hard; ensuring long blade life between sharpenings. They work on all glued down carpets, VCT, VAT, rubber tile, cork, re-scraping adhesive and elastomeric coatings. Great for floor accumulations!

PART#	DESCRIPTION	THICKNESS (IN.)
7050-200	3"X6" PREMIUM HIGH TEMPERED BLADE	.062
7050-201	3"X8" PREMIUM HIGH TEMPERED BLADE	.062
7050-202	3"X10" PREMIUM HIGH TEMPERED BLADE	.062
7050-203	3"X12" PREMIUM HIGH TEMPERED BLADE	.062
7050-204	3"X14" PREMIUM HIGH TEMPERED BLADE	.062
7050-205	3"X27" PREMIUM HIGH TEMPERED BLADE	.062

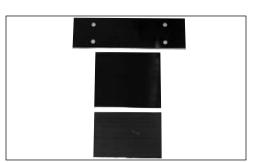
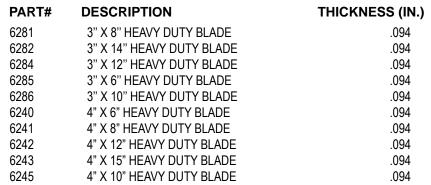


FIG. W

HEAVY DUTY BLADES (FIGURE Y)

This heavy duty blade is flexible and delivers jobsite versatility. Made with National's proven blade hardening process, these blades will stay sharper longer with better overall performance than any other blade on the market. They work on VCT, VAT, wood, tile, rubber, epoxy, elastomeric coatings, scraping thin-set and glued ceramic.



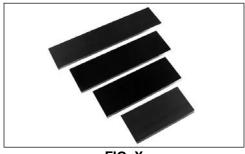


FIG. X



FIG. Y

Blades

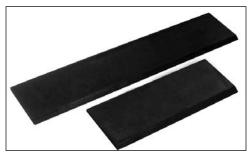


FIG. Z

EXTRA HEAVY DUTY BLADES (FIGURE Z)

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. AA

SELF-SCORING BLADES (FIGURE AA)

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
6258-BU	3" X 12" SELF-SCORING BLADE	.062
6259-BU	3" X 14" SELF-SCORING BLADE	.062
6277-BU	3" X 12" SELF-SCORING BLADE	.094
6278-BU	3" X 14" SELF-SCORING BLADE	.094
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. BB

INCREASED ANGLE BLADES (FIGURE BB)

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.

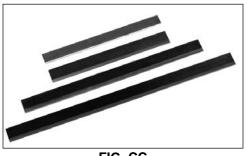


FIG. CC

	, 9	
PART#	DESCRIPTION	THICKNESS (IN.)
7081	3" X 10" INCREASED ANGLE BLADE	.062
7083	3" X 8" INCREASED ANGLE BLADE	.062

RAZOR/SCRAPER BLADES (FIGURE CC)

These razor sharp blades are designed for super hard thin epoxies, thin mil coatings (like urethane paint), poured elastomeric coatings up to 60 mil and hard to remove adhesives.

PART#	DESCRIPTION	THICKNESS (IN.)
363-2	3/4" X 8" RAZOR/SCRAPER BLADE (50/PKG)	.032
368-8	7/8" X 8" RAZOR/SCRAPER BLADE (50/PKG)	.045
368-12	7/8" X 12" RAZOR/SCRAPER BLADE (50/PKG	.045
368-15	7/8" X 15" RAZOR/SCRAPER BLADE (50/PKG	.045

Machine Maintenance



WARNING: ALWAYS UNPLUG MACHINE BEFORE MAINTAINING.

WHEEL CLEANER ADJUSTMENT

- 1. Loosen wheel cleaner with 9/16" wrench (See Figure Z).
- 2. Slide cleaner up to face of wheel until it touches but DOES NOT dig into wheel surface.
- 3. Retighten firmly.
- 4. Over tightening wheel cleaner will damage wheel.

WHEEL REMOVAL

- 1. Unplug machine.
- 2. Examine back of wheels for built-up debris.
- 3. Remove yarn build up.
- 4. Lay machine on its side.
- 5. Use provided 3/16" allen wrench.
- 6. Remove Axle Pin (See Figure AA).
- 7. Remove wheel securing screw. (See Figure AA).
- 8. Remove wheel securing cap.
- 9. Wheel will slide off.
- 10. Remove wheel spacer. This should be inspected at regular intervals.

ADDING OR CHANGING HYDRAULIC FLUID

- 1. Occasionally blow out the Filler Port Cap filter to remove debris.
- Change or add fluid when needed and/or at least once a year under normal conditions. Check fluid level if there has been a leak, damaged or ruptured hose or a loose fitting. Fluid should be level with bottom of Tank Plug Hole (See Figure BB).
- 3. To add fluid, unscrew Filler Port Cap from top of machine (See Figure CC).
- To change fluid, remove Filler Port Cap. Remove drain plug from side of machine (See Figure CC). A container approximately two gallons in size will be needed to drain fluid into (fluid will not be removed from hoses).
- 5. Machine has a straining system, but add fluid through a filter or funnel with a screen to keep fluid clean.
- 6. Use Texaco Rando 46 Hydraulic Oil Light, stock #6280-1 or comparable.

INSPECTION OF INTERNAL PARTS

Visual inspection of internal parts can be done without draining tank.

- 1. Remove two lifting bail eyebolts and the two bolts from the back of the tank.
- 2. Carefully lift tank 3" to 4" (7.6 to 10 cm).
- 3. Using a flashlight, inspect drive chain, hoses, front seal on motor and suction and pressure line on pump.
- 4. If service is necessary, follow procedure for tank removal.

NOTE: Figures EE through HH are shown without sliding side weights for clarity.

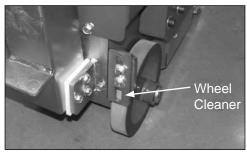


FIG. DD

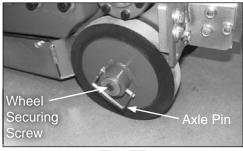


FIG. EE



FIG. FF



FIG. GG

Machine Maintenance

TANK REMOVAL

Removing the tank will be necessary to repair the pump or to replace or service internal hoses.

- 1. Drain tank by removing top Filler Port Cap and Drain Plug on side of machine (See Figure GG). A container approximately two gallons in size will be needed to drain fluid into.
- 2. Replace Drain Plug and Filler Port Cap (See Figure GG).
- 3. Remove two lifting bail eyebolts and the two bolts from the back of the tank.
- 4. Disconnect return line on back of tank, carefully lift tank 3 to 4" (7.6 to 10 cm) and disconnect suction line. Tank can now be removed.

POWER CORD

If power cord is damaged, it must be replaced by National or its service agent, or a similar qualified person in order to avoid a hazard.

Troubleshooting Guide

Problem	Cause	Solution
Machine will not start.	Insufficient power.	Ensure you are using the 12 gauge 50' (15 m) power cord provided by NFE.
	Loose capacitor leads.	Check capacitor leads to ensure good connection.
	Overload button on motor has been tripped.	Button is located on the bottom of the electric box on motor. If button tripped does not click, the motor was not overloaded. Press in until it clicks.
	Faulty ON/OFF switch.	Replace if needed.
Machine will not move.	Wheels are "engaged"	Make sure that wheel pins are installed to engage wheels.
	Broken belt.	Remove wheels and bottom cover to inspect. Replace if needed.
	Broken chain.	Remove wheels and bottom cover to instpect. Repair or replace if needed.
	Control valve or Control Handle Mechanism failure.	Inspect valve and control mechanism. Repair or replace as needed.
Motor is humming but machine does not run, or blows breakers.	Failed isolators.	Remove wheels and bottom cover to inspect.
	Failed capacitors.	Replace as needed.
	Dirty start switch connections.	Remove fan cover and fan. Clean start switch (set of points) with an emery board or cloth between the points. Reassemble.
Machine is leaking hydraulic fluid.	Leak in hose(s).	Tighten as needed. Replace if needed.
	Loose hydraulic fittings.	Tighten as needed or replace.
Motor is heating up.	Motor shaft is binding.	Remove wheels and cover to inspect isolators. Inspect cutting head bearing and eccentric to ensure that they are not binding.If issue continues, contact NFE for additional support.

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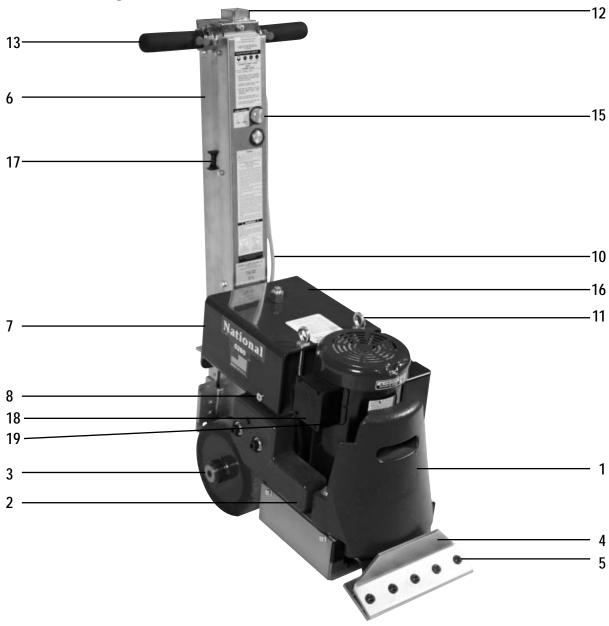
Complete Parts List

	PART# I	DESCRIPTION	QTY		PART#	DESCRIPTION	QTY
1	74852	WEIGHT, FRONT	1	66	401698	BOX, MOTOR JUNCTION 3"X3.3"	1
2	L95K	LABEL, RAMP	2	67	6280-151B	CAPACITOR, MOTOR START	1
3	L95H	LABEL, CAUTION DO NOT	1	68	6280-151A	CAPACITOR, MOTOR RUN	1
4	L95G	LABEL, FLUID LEVEL (NOT VISIBLE)	1	69		COVER, CAPACITOR	1
5	L95F	LABEL. FLUID LEAK	1	70	6280-148A	SCREW, FAN COVER, HEX HEAD 8-32X3/8	3
6	L95E	LABEL, SPEED CONTROL	1	71	6280-147-2	ACTUATOR, STARTER SWITCH	1
7	L95D	LABEL, REVERSE	1	72		SWITCH, STARTER	1
8	L95C	LABEL, FORWARD	1	73	6280-145	COVER, FRONT	1
9	L49	LABEL, CORD CAUTION	1	74	6280-330	HEAD, CUTTING	1
10	L37	LABEL, CAUTION SHARP BLDS	1		6280-139	COVER, REAR	1
11	L223	LABEL, PATENT NUMBER	1	76	6280-138	COVER, MAIN BOTTOM	1
12	L220	LABLE, BLADE SETTING	1	77	6280-136	COVER, BLADE	1
13	L189	LABEL, ASBESTOS HD	1	78		CAP, IDLER BEARING	1
14	L188	LABEL, CAUTION GEN INFO	1	79	6280-125W	BRACKET AND PIN, IDLER MOUNT	i
	L187	LABEL, REMOVE CENTER WEIGHT HD	1	80	6280-125	IDLER ASSEMBLY, COMPLETE	1
16			1	81			1
47	1 475	LABEL, ON/OFF SWITCH	2	82		BELT, PUMP DRIVE, DD12	1
17 18	L175	LABEL, NATIONAL, SMALL	2	83		HOSE, SUCTION	1
10	LIIJD	LABEL, NATIONAL 0200	2		6280-119	SPACER, PUMP	1
19	L141	LABEL, FLAG MADE IN US	2		6280-118	FITTING, SUCTION HOSE TO PUMP	l 4
20	6280-167	HANDLE BODY	1	85	6280-117	FITTING, PUMP	1
21	74853	WEIGHT, SIDE	2	86	6280-116A	SHAFT, SPLINE PUMP	1
22	6280HD-131	KEY, ECCENTRIC	1	87		RETAINER, PUMP SHEAVE W/HARDWARE	1
23	6280S-HANDLE	HANDLE, ASSEMBLY 6280	1	88	6280-115	SHEAVE, PUMP	1
24	6280-405	LABEL, NATIONAL, SMALL LABEL, NATIONAL 6280 LABEL, FLAG MADE IN US HANDLE BODY WEIGHT, SIDE KEY, ECCENTRIC HANDLE, ASSEMBLY 6280 ECCENTRIC HOLDER, BLADE WRENCH	1	89	6280-114B	PUMP DRIVE ASSEMBLY, SPLINED	1
					6280-113S	PUMP, SPLINE, #4	1
26		WRENCH, ALLEN, 7/32	1	91	6280-112	CAP, WHEEL	2
27		WHEEL, ONLY, FRONT TRANSPORT	2	92	6280-110	SPACER, WHEEL, 1/2	2
28	6280-300	BRACKET, TRANSPORT WHEEL	1		6280HD-107	PLATE, BASE, NEW STYLE	1
29		WHEEL ASSEMBLY, FRONT	1	94		SUPPORT, AXLE BEARING, RIGHT	1
30	6280-229	LINK, MASTER, DRIVE CHAIN	1	95	6280-105L	SUPPORT, AXLE BEARING, LEFT	1
31		CHAIN, DRIVE	1		6280-104	SPROCKET, AXLE	1
32	6280-226	BRACKET, MOUNTING, HYDRAULIC MOTOR		97	6280-103A	SNAP RING	2
33	6280-225	SPACER, HYDRAULIC MOTOR	1	98	6280-103-1	SHAFT, AXLE	1
34	6280-223	KEY, SHAFT, HYDRAULIC MOTOR	1	99	6280-100	CONNECTOR, HIRSHMAN TSII WITH LEAD	
35	6280-221	CONNECTOR, HYRDAULIC MOTOR	2			WIRES (NOT SHOWN)	1
36	6280-220A	MOTOR, HYDRAULIC	1		6251-1	SET, PINCH POINT GUARD	1
37	6280-217	SOLENOID COILS 115V	2	101		SPROCKET, AXLE	1
38		SOLENOID VALVE CARTRIDGE	1	102		SCREW, 6-32 X 3/16 SSS CP (NOT SHOWN	
39		PLUG, VALVE BLOCK ASSEMBLY (NOT SHO		103		HANDLE BAR GRIPS	2
40		VALVE BLOCK ASSEMBLY	1		400304	HANDLE BAR, COMPLETE	1
41		PLUG, DRAIN, OIL LEVEL	2	105	400303	SWITCH, WIRED	1
42	6280-209	PRESSURE CARTRIDGE VALVE	1	106	400328	WHEEL, DRIVE, WITH BEARING	2
43		KNOB, SPEED CONTROL			400001	COVER, MOTOR FAN	1
44	6280-208	SPEED CONTROL CARTRIDGE	1	108	74851	WEIGHT, SLIDE, 47 LB EACH	2
45	6280-207	SWITCH, ON/OFF	1	109	74763	GROMMET, RUBBER 1/2"	1
46	6280-182	RETURN LINE HOSE	1	110	74402	SCREW, CUP POINT SET 10-32X3/8 (NOT	
47	6280-181	PRESSURE HOSE	1			SHOWN)	1
48	6280-180	MOTOR HOSE	2	111	73906	WRENCH, ALLEN, 3/16	1
49	6280-179	RING, MOTOR SPACER	1	112	73426	BOLT, HEX HEAD CAP 1/2-13X4-3/4	2
50	6280-170	HANDLE BAR	2	113	73425	WASHER, FLAT USS ZINC 1/2	2
51	6280-168	CORD, POWER, NEW STYLE	1	114	73424	WASHER, FLAT, ZINC SAE 1/2	2
52	6280-166D	RUBBER FOAM SEAL, LARGE	1	115	73423	WASHER, INTERIOR/EXTERIOR LOCK 1/2"	
53	6280-166C	HANDLE COVER PLATE	1	116	73418	BOLT, HEX HEAD 1/2-20X1	4
54	6280-166B	SWITCH PLATE CAP	1	117	73403	WASHER, SPLIT LOCK 1/2	2
55	6280-165	CLEANER, WHEEL	2	118	73402	NUT, NYLOCK 1/2-13	2
<u>56</u>	6280-162	TANK, HYDRAULIC	1	119	73401	NUT, STRAIN RELIEF, STEEL, 1/2" (NOT	
57	6280-162E	PLUG, DRAIN, OIL LEVEL (NOT SHOWN)	1			SHOWN)	1
58	6280-161D	PLUG, FILLER PORT	1	120	73332	BOLT, HEX HEAD CAP 5/16-18X5/8	2
59	6280-161B	PLUG, VENT , FILLER CAP	1	121	73330	PIN, LOCKING, 5/16X2	2
60	6280-156R	BODY, MAIN, UPPER, RIGHT	1	122	73318	BOLT, WIZLOCK FLANGE 5/16-18X5/8	10
61	6280-156L	BODY, MAIN, UPPER, LEFT	1	123	73313	SCREW, FH SOCKET CAP 5/16-18X1/2	2
62	6280-152-4	GASKET, JUNCTION BOX FRAME	1	124	73311	SCREW, SH CAP, GRADE 5 5/16-18X1	6
63	6280-152-3	GASKET, COVER ONLY	1	125	73310	SCREW, SH CAP, GRADE 5 5/16-18X7/8	2
64	6280-152-2	SCREW, MTR JUCTN BOX CVR	6	126	73304	WASHER, WAVEY 5/16 (NOT SHOWN)	1
65	401699	COVER, MOTOR JUNCTION BOX 3"X3.3"	1	127	73264	WASHER, FLAT, ZINC USS 3/8	2

Complete Parts List

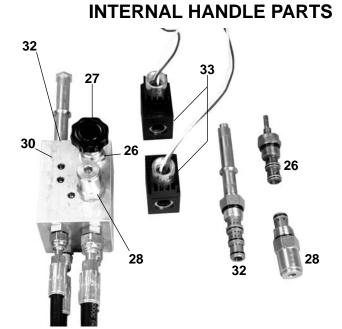
	PART#	DESCRIPTION	QΤΥ		PART#	DESCRIPTION	QTY
128	73242	SCREW, BH CAP WITH FLANGE 3/8-16X1	10	145	72816	FITTING, ELBOW, 90 DEGREE, 3/8"	1
129	73228	EYEBOLT, 3/8-16X8	4	146	72804	STRAIN RELIEF, STRAIGHT, 1/2" (NOT SHO)WN) 1
130	73222	BOLT, FLANGE 3/8-16X1	8	147	72554	CORD, MOTOR	[′] 1
131	73217	BOLT, LOW HEAD SOCKET 3/8-16X3/4	5	148	72553	HANDLE CORD (NOT SHOWN)	1
132	73215	WASHER, EXTERNAL LOCK 3/8	1	149	72461	SWITCH THERMO OVERLOAD	1
133	73211	NUT, FLANGE ZINC 3/8-16	2	150	72365	MOTOR, 115 VOLT, 1.5 HP	1
134	73204	WASHER, SPLIT LOCK 3/8	2	151	71141	BEARING, 1-7/16" ID 16SC4FB	1
135	73201	BOLT, CAP 3/8-16X1	2	152	71132	BEARING, 1-1/4	1
136	73101	SPACER, ID 1/8X1-1/4ODX1"	1	153	71118	BEARING, FLANGE	1
137	73039	SCREW, CUP POINT SCKET SET 1/4-20X3/16	1	154	71115	BEARING, 1X2X1/2	4
138	73033	KEY, 1/4 X 1/4 X 1"	1	155	71072	BEARING, 1/2 ID DCTN-1616	2
139	73022	HEXHEAD, BOLT 1/4-28X1/2 GRADE 5	8	156	70810	ISOLATOR, VIBRATION	7
140	73019	HEXHEAD, BOLT 1/4-20X3/4 GRADE 5	4	157	70609	CAP, SWITCH (NOT SHOWN)	1
141	73010	SCREW, SET 1/4-20X1/4	2	158	70601	STRAINER, TANK MOUNTED	1
142	73003	SCREW, BH SOCKET CAP 1/4-20X5/8	1	159	6254	CORD, EXTENSION, 50FT	1
143	73002	WASHER, SPLIT 1/4	10	160	6251	RAMP, LOADING	1
144	72863	COVER, CLEAR, CIRCUIT BREAKER (NOT		161	72862	BREAKER, CIRCUIT, PUSH BUTTON	1
		SHOWN)	1	162	72863	COVER, CLEAR, CIRCUIT BREAKER	1

EXTERNAL PARTS

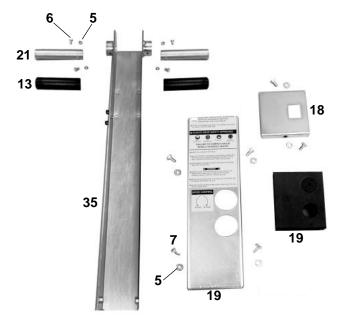


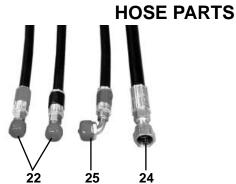
PART#	DESCRIPTION	QTY		PART#	DESCRIPTION	QTY
74852	WEIGHT, FRONT	1	11	73228	EYEBOLT, 3/8-16X8	2
74853	WEIGHT, SIDE	2	12	6280-207	SWITCH, ON/OFF	1
400328	WHEEL, DRIVE, WITH BEARING	2	13	400304	HANDLE BAR, COMPLETE	2
6280-136	COVER, BLADE	1	14	400303	SWITCH, WIRED	1
73242	SCREW, BH CAP WITH FLANGE 3/8-16)	K1 5	15	6280-208A	KNOB, SPEED CONTROL	1
6280S-HANDLE	HANDLE, ASSEMBLY 6280	1	16	6280-209	VALVE, PRESS CARTRIDGE	1
6280-162	TANK, HYDRAULIC	1	17	6280-404	HOLDER, BLADE WRENCH	1
6280-161B	PLUG, VENT, FILLER CAP	1	18	401699	COVER, MOTOR JUNCTION BOX 3"X3.3"	1
6280-161D	PLUG, FILLER PORT (NOT SHOWN)	1	19	401698	BOX, MOTOR JUNCTION 3"X3.3"	1
6280-168	CORD, POWER, NEW STYLE	1				
	74852 74853 400328 6280-136 73242 6280S-HANDLE 6280-162 6280-161B 6280-161D	74852 WEIGHT, FRONT 74853 WEIGHT, SIDE 400328 WHEEL, DRIVE, WITH BEARING 6280-136 COVER, BLADE 73242 SCREW, BH CAP WITH FLANGE 3/8-16) 6280S-HANDLE HANDLE, ASSEMBLY 6280 6280-162 TANK, HYDRAULIC 6280-161B PLUG, VENT, FILLER CAP 6280-161D PLUG, FILLER PORT (NOT SHOWN)	74852 WEIGHT, FRONT 1 74853 WEIGHT, SIDE 2 400328 WHEEL, DRIVE, WITH BEARING 2 6280-136 COVER, BLADE 1 73242 SCREW, BH CAP WITH FLANGE 3/8-16X1 5 6280S-HANDLE HANDLE, ASSEMBLY 6280 1 6280-162 TANK, HYDRAULIC 1 6280-161B PLUG, VENT, FILLER CAP 1 6280-161D PLUG, FILLER PORT (NOT SHOWN) 1	74852 WEIGHT, FRONT 1 11 74853 WEIGHT, SIDE 2 12 400328 WHEEL, DRIVE, WITH BEARING 2 13 6280-136 COVER, BLADE 1 14 73242 SCREW, BH CAP WITH FLANGE 3/8-16X1 5 15 6280S-HANDLE HANDLE, ASSEMBLY 6280 1 16 6280-162 TANK, HYDRAULIC 1 17 6280-161B PLUG, VENT, FILLER CAP 1 18 6280-161D PLUG, FILLER PORT (NOT SHOWN) 1 19	74852 WEIGHT, FRONT 1 11 73228 74853 WEIGHT, SIDE 2 12 6280-207 400328 WHEEL, DRIVE, WITH BEARING 2 13 400304 6280-136 COVER, BLADE 1 14 400303 73242 SCREW, BH CAP WITH FLANGE 3/8-16X1 5 15 6280-208A 6280S-HANDLE HANDLE, ASSEMBLY 6280 1 16 6280-209 6280-162 TANK, HYDRAULIC 1 17 6280-404 6280-161B PLUG, VENT, FILLER CAP 1 18 401699 6280-161D PLUG, FILLER PORT (NOT SHOWN) 1 19 401698	74852 WEIGHT, FRONT 1 11 73228 EYEBOLT, 3/8-16X8 74853 WEIGHT, SIDE 2 12 6280-207 SWITCH, ON/OFF 400328 WHEEL, DRIVE, WITH BEARING 2 13 400304 HANDLE BAR, COMPLETE 6280-136 COVER, BLADE 1 14 400303 SWITCH, WIRED 73242 SCREW, BH CAP WITH FLANGE 3/8-16X1 5 15 6280-208A KNOB, SPEED CONTROL 6280S-HANDLE HANDLE, ASSEMBLY 6280 1 16 6280-209 VALVE, PRESS CARTRIDGE 6280-162 TANK, HYDRAULIC 1 17 6280-404 HOLDER, BLADE WRENCH 6280-161B PLUG, VENT, FILLER CAP 1 18 401699 COVER, MOTOR JUNCTION 3"X3.3" 6280-161D PLUG, FILLER PORT (NOT SHOWN) 1 19 401698 BOX, MOTOR JUNCTION 3"X3.3"

	PART#	DESCRIPTION	QTY
1	70609	CAP, SWITCH (NOT SHOWN)	1
2	72553-W	CORD, HANDLE, 220V (NOT SHOWN)	1
3	72804	STRAIN RELIEF, STRAIGHT, 1/2" (NOT	
		SHOWN)	1
4	72938	NUT, ROUND SWITCH (NOT SHOWN)	1
5	73002	WASHER, SPLIT 1/4	10
6	73019	HEXHEAD, BOLT 1/4-20X3/4 GRADE 5	4
7	73022	HEXHEAD, BOLT 1/4-28X1/2 GRADE 5	8
8	73305	WASHER, WAVEY 5/16 (NOT SHOWN)	1
9	73401	NUT, STRAIN RELIEF, STEEL, 1/2" (NOT	
		SHOWN)	1
10	74402	SCREW, CUP POINT SET 10-32X3/8 (NOT	
		SHOWN)	1
11	400303	SWITCH, WIRED (NOT SHOWN)	1
12	400304	HANDLE BAR, COMPLETE	1
13	400306	HANDLE BAR GRIPS	2
14	400340	SCREW, 6-32 X 3/16 SSS CP (NOT SHOWN)	
15	6280-100	CONNECTOR, HIRSHMAN TSII WITH LEAD	
		WIRES (NOT SHOWN)	1
16	6280-117	FITTING, PUMP (NOT SHOWN)	1
17	6280-162E	PLUG, DRAIN, OIL LEVEL (NOT SHOWN)	1
18	6280-166B	SWITCH PLATE CAP	1
19	6280-166D	RUBBER FOAM SEAL, LARGE	1
20	6280-166C	HANDLE COVER PLATE	1
21	6280-170M	BAR, HANDLE	2
22	6280-180	MOTOR HOSE	1
23 24	6280-181 6280-182	PRESSURE HOSE RETURN LINE HOSE	1
2 4 25	6280-207	SWITCH, ON-OFF (NOT SHOWN)	1
26	6280-207	SPEED CONTROL CARTRIDGE	1
27	6280-208A	SPEED CONTROL KNOB ONLY	1
28	6280-209	PRESSURE CARTRIDGE VALVE	1
29	6280-214	BLOCK PLUG (NOT SHOWN)	1
30	6280-215	VALVE BLOCK ASSEMBLY	1
31	6280-215A	PLUG, VALVE BLOCK ASSEMBLY (NOT	
٥.	5200 2 10/ t	SHOWN)	1
32	6280-216	SOLENOID VALVE CARTRIDGE	1
33	6280-217	SOLENOID COILS 110V	2
34	6280-404	HOLDER, BLADE WRENCH (NOT SHOWN)	1
35	6280-167	BODY, HANDLE	1

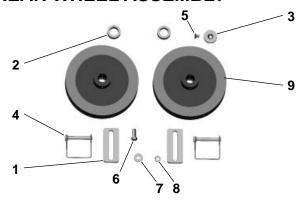


HANDLE PARTS



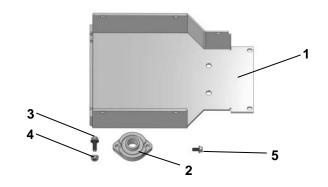


REAR WHEEL ASSEMBLY



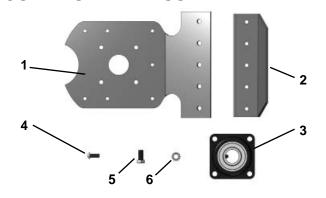
	PART#	DESCRIPTION	QTY
1	6280-165	CLEANER, WHEEL	2
2	6280-110	SPACER, WHEEL, 1/2	2
3	6280-112	CAP, WHEEL	2
4	73330	PIN, LOCKING, 5/16X2	2
5	73313	SCREW, FH SOCKET CAP 5/16-18X1/2	2
6	73201	BOLT, CAP 3/8-16X1	2
7	73264	WASHER, FLAT, ZINC USS 3/8	2
8	73204	WASHER, SPLIT LOCK 3/8	2
9	400328	WHEEL, DRIVE, WITH BEARING	2

BOTTOM COVER & BEARING ASSEMBLY



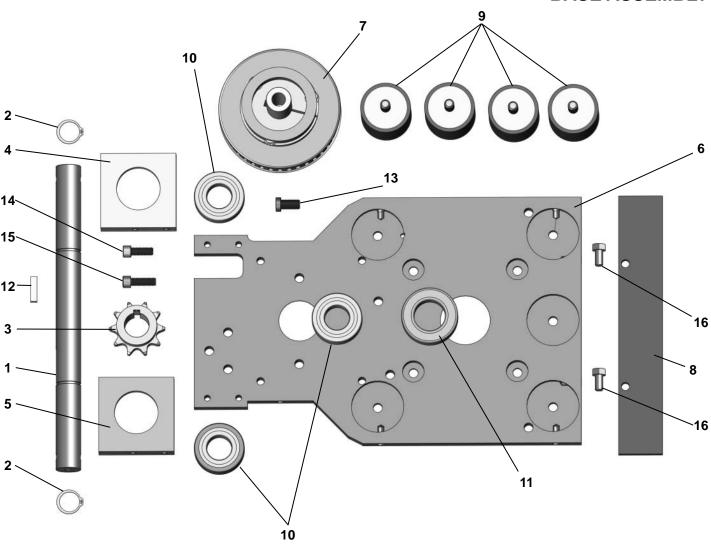
	PART#	DESCRIPTION	QTY
1	6280-138	COVER, MAIN BOTTOM	1
2	71118	BEARING, FLANGE	1
3	73222	BOLT, FLANGE 3/8-16X1	2
4	73211	NUT, FLANGE ZINC 3/8-16	2
5	73318	BOLT, WIZLOCK FLANGE 5/16-18X5/8	8

CUTTING HEAD ASSEMBLY



	PART#	DESCRIPTION Q	ΤY
1	6280-330	HEAD, CUTTING	1
2	6280-136	COVER, BLADE	1
3	71141	BEARING, 1-7/16" ID 16SC4FB	1
4	73242	SCREW, BH CAP WITH FLANGE 3/8-16 X 1	5
5	73418	BOLT, HEX HEAD 1/2-20X1	4
6	73423	WASHER, INTERIOR/EXTERIOR LOCK 1/2"	4

BASE ASSEMBLY



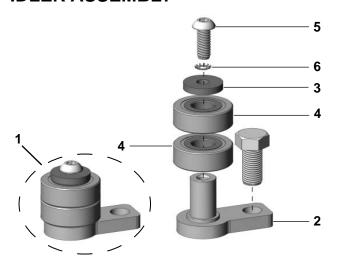
	PART#	DESCRIPTION	QTY		PART#	DESCRIPTION	QTY
1	6280-103-1	SHAFT, AXLE	1	9	70810	ISOLATOR, VIBRATION	7
2	6280-103A	SNAP RING	2	10	71115	BEARING, 1X2X1/2	3
3	6280-104	SPROCKET, AXLE	1	11	71132	BEARING, 1-1/4	1
4	6280-105L	SUPPORT, AXLE BEARING, LEFT	1	12	73033	KEY, 1/4 X 1/4 X 1"	1
5	6280-105R	SUPPORT, AXLE BEARING, RIGHT	1	13	73217	BOLT, LOW HEAD SOCKET 3/8-16X3/4	5
6	6280HD-107	PLATE, BASE, NEW STYLE	1	14	73310	SCREW, SH CAP, GRADE 5 5/16-18X7/8	3 2
7	6280-114B	PUMP DRIVE ASSEMBLY, SPLINED	1	15	73311	SCREW, SH CAP, GRADE 5 5/16-18X1	2
8	6280-145	COVER, FRONT	1	16	73332	BOLT, HEX HEAD CAP 5/16-18X5/8	2

PUMP DRIVE ASSEMBLY



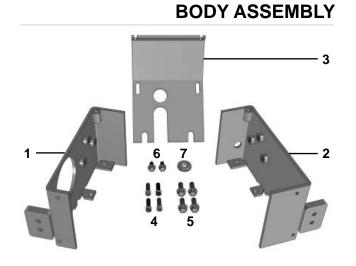
	PART#	DESCRIPTION	QTY
1	6280-114B	PUMP DRIVE ASSEMBLY, SPLINED	1
2	6280-103A	SNAP RING	1
3	6280-115	SHEAVE, PUMP	1
4	6280-1151	RETAINER, PUMP SHEAVE W/HARDW	ARE 1
5	6280-116A	SHAFT, SPLINE PUMP	1
6	73101	SPACER. ID 1/8X1-1/4ODX1"	1

IDLER ASSEMBLY

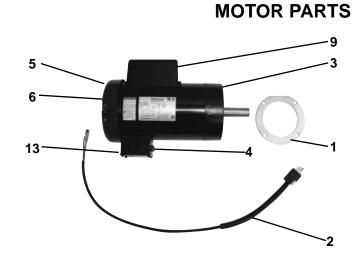


	PART#	DESCRIPTION	QTY
1	6280-125	IDLER ASSEMBLY, COMPLETE	1
2	6280-125W	BRACKET AND PIN, IDLER MOUNT	1
3	6280-126A	CAP, IDLER BEARING	1
4	71072	BEARING, 1/2 ID DCTN-1616	2
5	73003	SCREW, BH SOCKET CAP 1/4-20X5/8	1
6	73215	WASHER, EXTERNAL LOCK 3/8	1

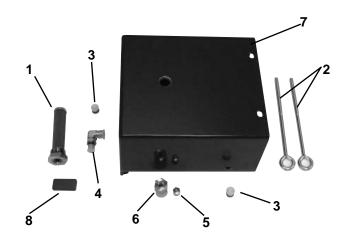
PART# **DESCRIPTION QTY 1** 6280-156L BODY, MAIN, UPPER, LEFT **2** 6280-156R BODY, MAIN, UPPER, RIGHT 1 COVER, REAR **3** 6280-139 **4** 73311 SCREW, SH CAP, GRADE 5 5/16-18X1 4 BOLT, FLANGE 3/8-16X1 5 73222 4 **6** 73318 BOLT, WIZLOCK FLANGE 5/16-18X5/8 2 **7** 74763 GROMMET, RUBBER 1/2" 1



	PART#	DESCRIPTION	QTY
1	6280-179	RING, MOTOR SPACER	1
2	72554	CORD, MOTOR	1
3	72365	MOTOR, 115 VOLT, 1.5 HP	1
4	72461	SWITCH THERMO OVERLOAD	1
5	400001	COVER, MOTOR FAN	1
6	6280-148A	SCREW, FAN COVER, HEX HEAD 8-32X3/	8 3
7	6280-147-1	SWITCH, STARTER	1
8	6280-147-2	ACTUATOR, STARTER SWITCH	1
9	6280-150	COVER, CAPACITOR	1
10	6280-151A	CAPACITOR, MOTOR RUN	1
11	6280-151B	CAPACITOR, MOTOR START	1
12	401698	BOX, MOTOR JUNCTION	1
13	401699	COVER, MOTOR JUNCTION BOX	1
14	6280-152-2	SCREW, MTR JUCTN BOX CVR	6
15	401869	GASKET, COVER ONLY	1
16	401870	GASKET, JUNCTION BOX FRAME	1

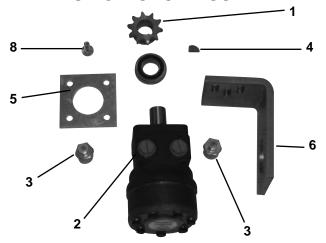


	PART#	DESCRIPTION	QTY
1	70601	STRAINER, TANK MOUNTED	1
2	73228	EYE BOLT, 3/8-16X8	2
3	6280-214	PLUG, DRAIN, OIL LEVEL	2
4	72816	FITTING, ELBOW, 90 DEGREE, 3/8"	1
5	6280-161B	PLUG, VENT , FILLER CAP	1
6	6280-161D	PLUG, FILLER PORT	1
7	6280-162	TANK, HYDRAULIC	1



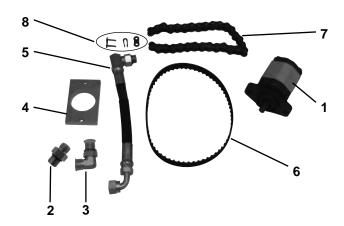
TANK PARTS

HYDRAULIC MOTOR ASSEMBLY



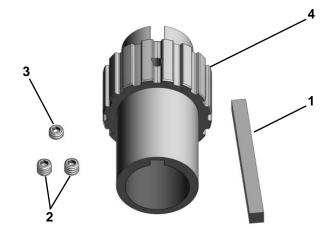
	PART#	DESCRIPTION	QTY
1	6280-104	SPROCKET, AXLE	1
2	6280-220A	MOTOR, HYDRAULIC	1
3	6280-221	CONNECTOR, HYRDAULIC MOTOR	2
4	6280-223	KEY, SHAFT, HYDRAULIC MOTOR	1
5	6280-225	SPACER, HYDRAULIC MOTOR	1
6	6280-226	BRACKET, MOUNTING, HYDRAULIC M	IOTOR1
7	71115	BEARING, 1X2X1/2	1
8	73222	BOLT, FLANGE 3/8-16X1	4

PUMP ASSEMBLY



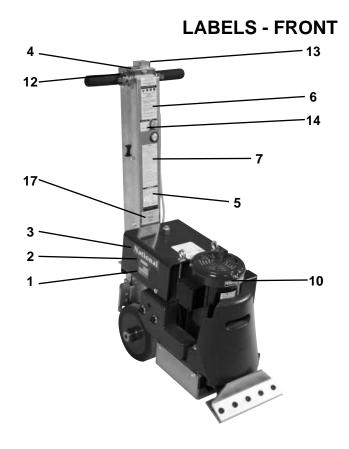
	PART#	DESCRIPTION	QTY
1	6280-113S	PUMP, SPLINE, #4	1
2	6280-117	FITTING, PUMP	1
3	6280-118	FITTING, SUCTION HOSE TO PUMP	1
4	6280-119	SPACER, PUMP	1
5	6280-120	HOSE, SUCTION	1
6	6280-124	BELT, PUMP DRIVE, DD12	1
7	6280-228	CHAIN, DRIVE	1
8	6280-229	LINK, MASTER, DRIVE CHAIN	1

ECCENTRIC ASSEMBLY

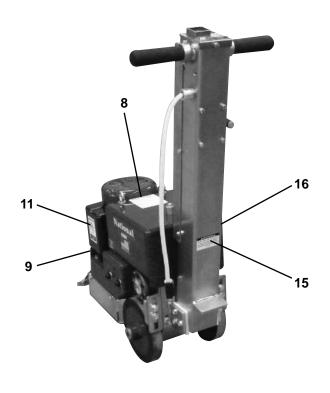


	PART#	DESCRIPTION G	ΥT
1	6280HD-131	KEY, ECCENTRIC	1
2	73010	SCREW, SET 1/4-20X1/4	2
3	73039	SCREW, CUP POINT SCKET SET 1/4-20X3/16	1
4	6280-405	ECCENTRIC	1

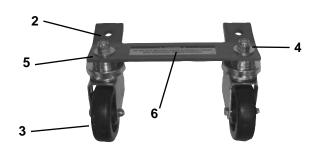
	PART#	DESCRIPTION	QTY
1	L141	LABEL, FLAG MADE IN US	2
2	L173B	LABEL, NATIONAL 6280	2
3	L175	LABEL, NATIONAL, SMALL	2
4	L186	LABEL, ON/OFF SWITCH	1
5	L187	LABEL, REMOVE CENTER WEIGHT HD	1
6	L188	LABEL, CAUTION GEN INFO	1
7	L189	LABEL, ASBESTOS HD	1
8	L220	LABLE, BLADE SETTING	1
9	L223	LABEL, PATENT NUMBER	1
10	L37	LABEL, CAUTION SHARP BLDS	1
11	L49	LABEL, CORD CAUTION	1
12	L95C	LABEL, FORWARD	1
13	L95D	LABEL, REVERSE	1
14	L95E	LABEL, SPEED CONTROL	1
15	L95F	LABEL, FLUID LEAK	1
16	L95G	LABEL, FLUID LEVEL (NOT VISIBLE)	1



LABELS - BACK

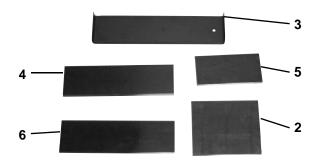


FRONT CASTER WHEELS



PART# DESCRIPTION	QTY
1 6280-299 WHEEL ASSEMBLY, FRONT	1
2 6280-300 BRACKET, TRANSPORT WHEEL	1
3 6280-301 WHEEL, ONLY, FRONT TRANSPO	RT 2
4 73402 NUT, NYLOCK 1/2-13	2
5 73425 WASHER, FLAT USS ZINC 1/2	2
6 L95H LABEL, CAUTION DO NOT	1

BLADE PACKAGE



	PART#	DESCRIPTION	QTY
1	5173	KIT, BLADES, 5280 AND 6280	1
2	148	BLADE, 5"X6"	1
3	6258-BU	BLADE, SELF SCORING 3"X12"	1
4	6286	BLADE, HEAVY DUTY 3"X10"	1
5	7050-200	BLADE, PREMIUM HIGH TEMP 3"X6"	1
6	7050-202	BLADE. PREMIUM HIGH TEMP 3"X10"	1

RAMP



	PART#	DESCRIPTION	QTY
1	6251	RAMP, LOADING	1
2	6251-1	SET, PINCH POINT GUARD	1
3	L95K	LABEL, RAMP	2

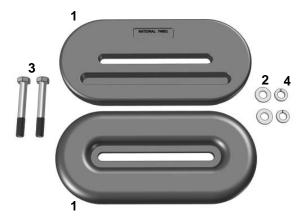
STARTER PACKAGE

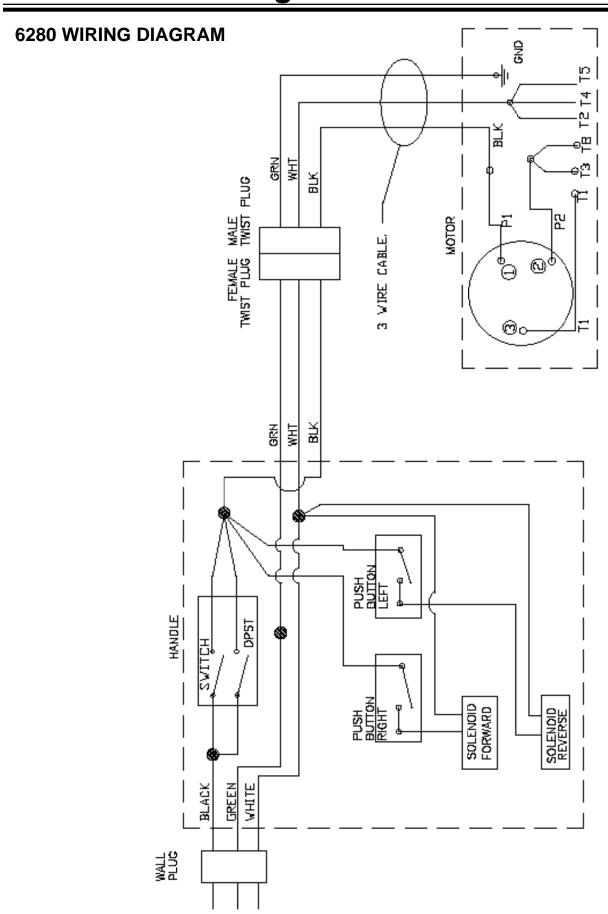


	PART#	DESCRIPTION	QTY
1	1009	GLASSES, SAFETY	1
2	6254	CORD, EXTENSION, 50FT	1
3	5173	KIT, BLADES, 5280 AND 6280	1
4	6280-401B	WRENCH, ALLEN, 7/32	1
5	73906	WRENCH, ALLEN, 3/16	1

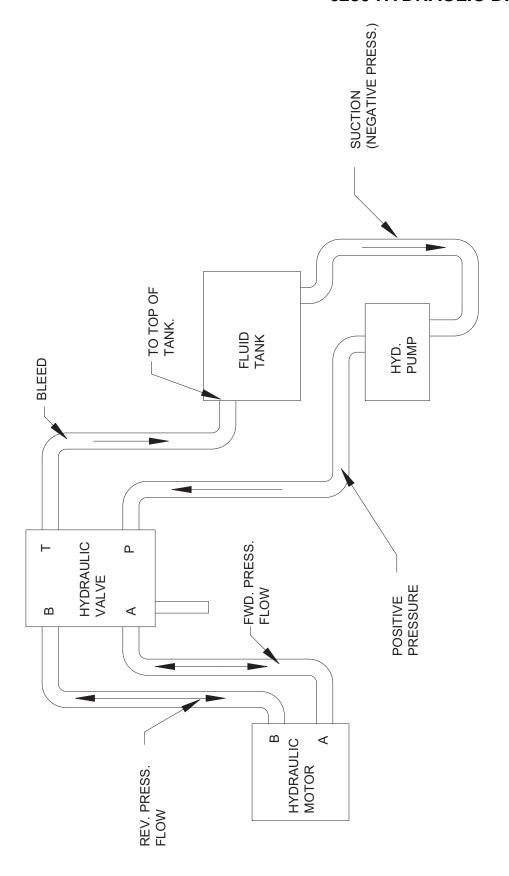
QTY PART# **DESCRIPTION** 74851 WEIGHT, SLIDE, 47 LB EACH 2 2 2 73424 WASHER, FLAT, ZINC SAE 1/2 **3** 73426 BOLT, HEX HEAD CAP 1/2-13X4-3/4 2 2 **4** 73403 WASHER, SPLIT LOCK 1/2

SIDE SLIDE WEIGHTS





6280 HYDRAULIC DIAGRAM



CHEVRON HD 22 - 68 - HYDRAULIC FLUID

PRODUCT IDENTIFICATION AND COMPANY IDENTIFICATION

Product Number(S): CPS221655, CPS221658, CPS221659

Synonyms: Texaco Rando HD22, Texaco Rando HD 32, Texaco

Rando HD 46, Texaco Rando HD 68

Company Information

Chevron Products Company

a division of Chevron U.S.A. Inc.

6001 Bollinger Canyon Road

San Ramon, CA 94583

United States of America

www.chevronlubricants.com

Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

Health Emergency

Chevron Emergency Information Center: Located in the USA.

International collect calls accepted. (800) 231-0623 or (510) 231-0623

Product Information

email: lubemsds@chevron.com Product Information: 800-LUBE-TEK MSDS Requests: 800-414-6737

HAZARDOUS INGREDIENTS / IDENTIFY INFORMATION

MATERIALS/COMPONENTS	CAS NUMER	AMOUNT
Highly Refined Mineral Oil (C15 - C50)	mixture	90-100% weight

IMMEDIATE HEALTH EFFECTS

Eye: Not expected to cause prolonged or significant eye irritation.

Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The inital wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

Ingestion: Not expected to be harmful if swallowed.

Inhalation: Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

FIRST AID MEASURES

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

Skin: No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

Note to Physicians: In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

FIRE FIGHTING MEASURES

Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

FIRE CLASSIFICATION: OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

NFPA RATINGS: Health: 0 Flammability: 1 Reactivity: 0

FLAMMABLE PROPERTIES:

Flashpoint: (Clevland Open Cuo) 150 C (302 F) (Min)

Autoignition: No Data Available

Flammability (Explosive) Limits (% by volume in the air): Lower: Not Applicable Upper: Not Applicable

CHEVRON HD 22 - 68 - HYDRAULIC FLUID (CONTINUED)

EXTINGUSHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

PROTECTION OF FIRE FIGHTERS: Fire Fighting instructions: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved are created when this material undergoes combustion.

ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustable absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials and contaminated soil in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

HANDLING AND STORAGE

Precautionary Measures: DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be a necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA standard 29 CFR 1910.106, Flamable and Combustable Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS: Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS: Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

Respiratory Protection: No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

CHEVRON HD 22 - 68 - HYDRAULIC FLUID (CONTINUED)

PHYSICAL AND CHEMICAL PROPERTIES

Attention: The data below are typical values and do not constitute a specification.

Color: Yellow Physical State: Liquid Odor: Petroleum odor

pH: Not applicable Vapor Pressure: <0.01 mmHg @ 37.8 C (100 F) Vapor Density (Air = 1): >1

Boiling Point: >315.6 C (600 F) Solubility: Soluble in hydrocarbons; insoluble in water Freezing Point: Not Applicable

Melting Point: Not Applicable Specific Gravity: 0.86 - 0.87 @ 15.6 C (60.1 F) / 15.6 (60.1 F) Density: 0.86 kg/l - 0.9 kg/l @ 15 C (59 F)

Viscosity: 22 cSt - 61.2 cSt @40 C (104 F) (Min)

STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage andhandling conditions of temperature and pressure.

Incompatibility With Other Materials: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products: None known. (None expected) Hazardous Polymerization: Hazardous polymerization will not occur.

TOXICOLOGICAL INFORMATION IMMEDIATE HEALTH EFFECTS

Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials or product components.

Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials or product components.

Skin Sensitization: No product toxicology data available.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

ADDITIONAL TOXICOLOGY INFORMATION

This product contains petroleum base oils which may be refined by various processes including severe solvent extractio, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1),I probably carcinogenic to humans (Group 2), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Confrence of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance (A3).

ECOLOGICAL INFORMATION

ECOTOXICITY

This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components of a similar material.

ENVIRONMENTAL FATE

This material is not expected to be readily biodegradeable.

DISPOSAL CONSIDERATIONS

Use material for its intended purpose of recycle is possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales reoresentative or local environmental or health authorities for approved disposal or recycling methods.

TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirments (e.g., technical name) and mode-specific or quantity-specific shipping requirments.

DOT Shipping Description: PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR Additional Information: NOT HAZARDOUS BY U.S. DOT. ADR/RID HAZARD CLASS NOT APPLICABLE

IMO/IMDG Shipping Description: PETROLEUM LUBRICATING OIL; NOT REGULATED AS DENGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

ICAO/IATA Shipping Description: PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODSA FOR TRANSPORT UNDER ICAO

REGULATORY INFORMATION

EPCRA 311/312 CATAGORIES:

Immediate (Acute) Health Effects: NO
 Delayed (Chronic) Health Effects: NO
 Fire Hazard: NO
 Sudden Release of Pressure Hazard: NO

Reactivity Hazzard: NO

REGULATORY LISTS SEARCHED:

01-1=IARC Group1 03=EPCRA 313 01-2A=IARC Group 2A 04=CA Proposition 65

01-2B=IARC Group 2 05=MA RTK 02=NTP Carcinogen 06=NJ RTK

No components of this material were found on the regulatory lists above.

CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirments: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States)

One or more components is listed on ELINCS (European Union). Secondary notification by the importer may be required.

NEW JERSEY RTK CLASSIFICATION:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Hydraulic oil)

WHMIS CLASSIFICATION:

This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

OTHER INFORMATION

NFPA RATINGS: Health: 0 Flammability: 1 Reactivity: 0 HMIS RATINGS: Health: 1 Flammability: 1 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation,*-Chronic Effect Indicatior). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

LABEL RECOMMENDATION: Label Category: INDUSTRIAL OIL 1 - IND1

REVISION STATEMENT: This revision updates the following sections of this Material Safety Data Sheet:

Revision Date: January 15, 2007

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshhold Limit Value TWA - Time weighted Average STEL - Short-term Exposure Llimit PEL - Permissible Exposure Limit

CAS - Chemical Abstract Service Number IMD?IMDG - International Maritime Dangerous Goods Code

API - American Petroleum Institute MSDS - Material Safety Data Sheet

ACGIH - American Confrence of Government Industrial Hygienists CVX - Chevron

NFPA - National Fire Protection Association (USA)

DOT - Department of Transportation

NFPA - NationalToxicology Program(USA)

IARC - International Agency for Research on Cancer

OSHA - Occupational Safety and Health Administration

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Stanard (Z400.1) by the Chevron Energy Technology Company, 100 Chevron Way, Richmond, California 94802.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determintion of the suitability of the material for his particular purpose.

Guarantee

National Flooring Equipment, Inc. (National) warrants to the first consumer/purchaser that this National brand product 6280 Self-Propelled Walk Behind 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 hereiû 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 6280 Self-Propelled Walk Behind 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:	

