# #5280 HYDRAULIC PANTHER®

## **INSTRUCTION MANUAL**

Read Manual Before Operating Machine







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### **5280 HYDRAULIC SAFE OPERATION**

#### 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.
- 2. 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:** Never operate in wet or high moisture conditions without a proper GFI grounded switch. 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**: Disconnect power before servicing. Unplug cord so it can't be started. Faulty wiring can also be an electrical hazard. A regular preventive maintenance program should always include a wiring check.
- **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°), shut off machine and allow to cool off.

#### **PRESSURE**

Our system runs at or below 1,200 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.

#### LEAK AT THREAD END/SEAT

**Problem:** Coupling leaks at thread or seat. This may be caused by any of the following:

- a. Missing or damaged O-rings.
- b. Damaged threads or seat angle.
- c. Thread alignment.
- d. Incompatible thread ends or seat angles.
- e. Over or undertorquing.

**Solution:** Remove the connection and inspect.

 Certain couplings require the use of an O-ring. If it is missing, replace it. If an O-ring is used, check for damage caused by installation or possible material breakdown from heat or fluid incompatibility. Alternative O-ring materials may be required. Replace if necessary.

### **5280 HYDRAULIC SAFE OPERATION**

#### PRESSURE (continued)

- 2. Check the threads and/or seat angle for damage that may have occurred prior to or during installation. Any ding or burr may be a potential leak path. Replace if necessary.
- 3. If the coupling was misaligned during installation, threads may have been damaged. Replace and carefully install.
- 4. Overtorquing of a threaded connection can stretch and damage threads and mating seat angles. Overtorquing can also damage the staking area of the nut. Undertorquing does not allow proper sealing.
- **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.

**CAUTION:** Never check for leaks over hose or hydraulic connections. Instead, use a piece of cardboard to locate a pressurized leak. For drips (low pressure leaks), use a rag to clean the area and determine where the leak originates.

**A** CAUTION: Never touch a pressurized hose assembly. Shut down the hydraulic system before checking hose temperature.

**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**

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 (stock # 6280-1). Non-compatible fluids could cause damage to unit or serious injury.

**WARNING:** When using electric tools, always follow basic safety precautions to reduce the risk of electric shock and personal injury.

READ AND SAVE ALL INSTRUCTIONS FOR FUTURE USE. Before use, be sure everyone operating this equipment reads and understands this manual as well as any labels packaged with or attached to the machine and components and view the instruction video. Extra copies of the manual and video are available upon request.

- 1. KNOW YOUR EQUIPMENT: Read this manual and view instruction video carefully to learn equipment applications and limitations as well as potential hazards associated with this type of equipment.
- 2. GROUND YOUR TOOL: See Grounding.
- **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. DRESS PROPERLY:** Do not wear loose clothing. These may be caught in moving parts. When working outdoors, wear rubber gloves and insulated non-skid footwear. Keep hands and gloves away from moving parts.
- **6. USE SAFETY EQUIPMENT:** Everyone in the work area should wear safety goggles or glasses complying with current safety standards. 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.
- 7. **KEEP BYSTANDERS AWAY:** Children and bystanders should be kept at a safe distance from the work area to avoid distracting the operator and contacting the tool or extension cord. Operator should be aware of who is around them and their proximity.
- **8. PROTECT OTHERS IN THE WORK AREA:** Provide barriers or shields as needed to protect others from debris and machine operation.
- **9. USE PROPER ACCESSORIES:** Using accessories that are not recommended may be hazardous. Be sure accessories are properly installed and maintained. Do not delete a guard or other safety device when installing an accessory or attachment.
- 10. CHECK FOR DAMAGED PARTS: Inspect guards and other parts before use. Check for misalignment, binding of moving parts, improper mounting, broken parts and any other conditions that may affect operation. If abnormal noise or vibration occurs, turn the tool off immediately and have the problem corrected before further use. Do not use damaged equipment. Tag damaged tools "DO NOT USE" until repaired. A guard or other damaged parts should be properly repaired or replaced. For all repairs, insist on only identical replacement parts.
- **11. 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.
- **12. GUARD AGAINST ELECTRIC SHOCK:** Prevent body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. When scoring or making cuts, always check the work area for hidden wires or pipes. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.
- **13. AVOID ACCIDENTAL STARTING:** Be sure equipment is turned off before plugging it in. Do not use if the power switch does not turn the machine on and off.
- **14. 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.

- 15. KEEP HANDS AWAY FROM ALL CUTTING EDGES AND MOVING PARTS.
- 16. WEAR GLOVES WHEN CHANGING BLADES.
- 17. DO NOT ABUSE CORD: Never unplug by yanking 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.
- **18. DO NOT OVERREACH. MAINTAIN CONTROL:** Keep proper footing and balance at all times. Maintain a firm grip.
- **19. 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.
- 20. STARTING MACHINE: On/off switch must be in off position before connecting to power source.
- **21. UNPLUG EQUIPMENT:** When it is not in use, unplug tool before changing blades, accessories or performing recommended maintenance or when not in use.
- **22. 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. Periodically inspect tool cords and extension cords for damage. Have damaged parts repaired or replaced.
- 23. STORE IDLE EQUIPMENT: When not in use, store in a dry, secured place. Keep away from children.
- **24. MAINTAIN LABELS AND NAMEPLATES:** These carry important information. If unreadable or missing, contact National for a free replacement.

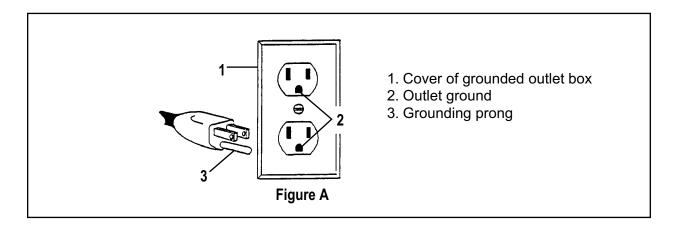
▲ WARNING: Exposure to dust may cause respiratory ailments. Use approved NIOSH or OSHA respirators, safety glasses or face shields, gloves and protective clothing. Provide adequate ventilation to eliminate dust, or to maintain dust level below the Threshold Limit Value for nuisance dust as classified by OSHA.

**25. MACHINE IS HEAVY, DO NOT DROP:** Counter weights are heavy. Take caution when removing or reassembling. Take caution when moving or transporting.

#### **GROUNDING**

⚠ 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.

**WARNING:** Electrical cords can be hazardous. Misuse can result in fire or death by electrical shock. Read carefully and follow all directions.



#### **GROUNDED TOOLS: TOOLS WITH THREE PRONG PLUGS**

Tools marked "Grounding Required" have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet (See 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.

Your tool 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**

⚠ WARNING: Electrical cords can be hazardous. Misuse can result in fire or death by electrical shock. Read carefully and follow all directions.

Grounded tools require a three wire extension cord. Double insulated tools can use either a two or three wire extension cord. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords 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 14 gauge cord can carry a higher current than a 16 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" ("W" in Canada) to indicate that it is acceptable for outdoor use.
- · Be sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.
- Protect your extension cords from sharp objects, excessive heat and damp or wet areas.
- 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.





## **5280 GENERAL OPERATION**

#### **SPECIFICATIONS**

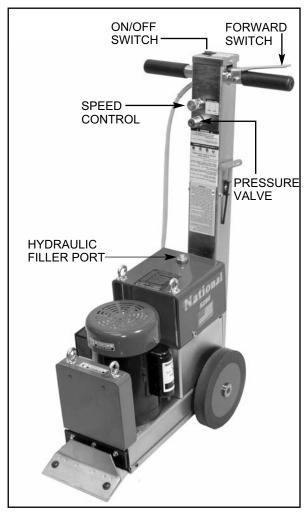
SPECIFICATIONS		#5280	
Length:		25.5"	
Width:		11.5"	
Height:		38.5"	
Weight (machine or	nly):	207 lbs.	
Speed:		12 - 50 feet per minute	
MOTOR INFORMATION			
RPM:	1725		
Volts:	115		
HP:	1		
Amps-Full Load:	Amps-Full Load: Under 10		
	Conti	nuous Duty	

A well-maintained machine is a productive machine. If not properly maintained, it could be unsafe and could break down. A scheduled maintenance program should insure a long system life and a safe work environment.

#### MACHINE START UP PROCEDURE

#### TO RUN MACHINE:

- 1. Machine MUST be off before plugging machine into power source.
- 2. Plug machine into outlet.
- 3. Turn speed control to slowest position.
- 4. Turn machine on.
- 5. Engage forward switch.
- 6. Increase speed control to desired speed.



### **5280 GENERAL OPERATION**

#### **MAINTENANCE**

- 1. Always wear eye protection.
- 2. Keep flammable and fragile objects away from this tool.
- 3. Always check nuts and bolts to make sure they are tight.
- 4. Always use the tool with proper voltage specified in the machine's name plate.
- 5. Always keep guards in place.
- 6. Do not operate around water or wet conditions without use of GFI on cord.
- 7. Use properly grounded cord and receptacle.
- 8. Unplug from power before servicing.
- 9. Use 12 gauge or heavier wire cord, not exceeding 50 feet in length.
- 10. Do not force machine.
- 11. Do not alter machine.
- 12. Pressure valve has been factory set and should NOT be tampered with.
- 13. Hydraulic Fluid: Keep clean and at a proper level.
- 14. Keep wheels free from debris.

## INSPECTION PROCEDURE HYDRAULIC PREVENTIVE MAINTENANCE CHECKLIST

By following this preventive maintenance checklist, you can maintain your equipment hose efficiently, safely and with very little effort. Each step is covered in detail in the following section.

**WARNING:** Do not lock wheel drive into a permanent on position. If operator would lose control or be disabled, machine continues to operate.

$\hfill \square$ Always turn off and unplug electrical source before servicing.	
☐ Place equipment and components in a safe or neutral position.	
$\hfill \square$ Remove access panels (if any) and inspect hose and fittings for damage or leaks.	
☐ Repair or replace as needed.	
☐ Inspect all hydraulic components.	
☐ Reinstall the access panels.	
☐ Turn power back on.	
☐ Be aware of your equipment, always look and listen for anything unusual.	

## **5280 TRANSPORTATION**

**A** WARNING: When maneuvering machine on any type of a incline (ramp, hill, etc.), wheel engage pins MUST be in place (in engaged mode) (See Figure B) and counterweights removed.

#### **LOADING**

ALWAYS REMOVE ALL COUNTERWEIGHTS AND BLADES BEFORE LOADING OR UNLOADING.

#### **LIFTING BAIL**

- Easy loading when not driving or using a ramp.
- Use rope, hook system or chain through eyelets located on top of machine (See Figure A).
- · Location on lifting bails centrally locates balance of the machine to safely pick-up machine.
- · Raise machine with a fork lift or winch.

**A WARNING:** Keep hands and feet out from under machine.

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**WARNING:** Make sure ramp is secure before using. Failure to do so could cause ramp to fall away from truck, causing damage to the machine and/or injury to the operator.

#### **RAMP**

- Make sure ramp is clean and dry, free of grease or oil.
- Attach ramp securely to back of vehicle, making sure there is good contact (See Figure B).
- Position machine at back of ramp (See Figure A). Engage power switch and drive onto vehicle.



Figure A

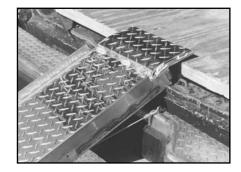


Figure B

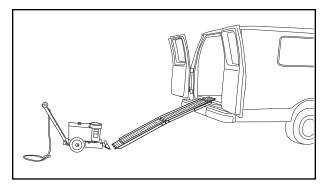
## **5280 TRANSPORTATION**

#### **UNLOADING**

- Position machine at the back of the truck in line with the ramp (See Figure B).
- Carefully move machine onto ramp leaving cutting head down (in contact with ramp surface).

**A WARNING:** Ramp must have good contact with the back of the vehicle. Failure to do so could cause ramp to lose contact with back of vehicle resulting in damage to the machine or injury to the operator.

- 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.
- · Slowly back machine down ramp.



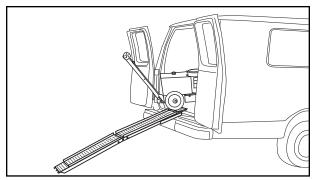


Figure A Figure B

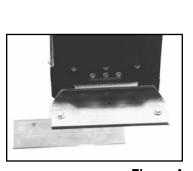
#### **BLADE SETTING**

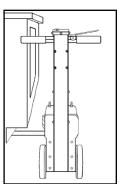
- Dull blades greatly reduce cutting ability. Re-sharpen or replace as needed.
- Proper blade size and placement, depending on material and sub-floor type, affects performance.
- The harder a job comes up, for best results, use a smaller blade.
- Start with a narrow blade, then increase blade size to 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. Bevel down for wood or soft sub-floors.





- 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 A).
- Sheet vinyl, solid vinyl, rubber tile, urethane or PVC sheet roofing, will need to be scored for best removal results use #584 Scoring Tool (See Figure B).
- · Score flooring to the width of the blade (See Figure C).
- Keep in mind, narrow width blades will make a cleaner floor surface.
- KEEP BLADES SHARP!
- Dull blades greatly affect the performance of the machine.





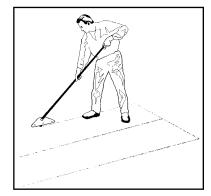


Figure A

Figure B

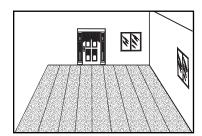


Figure C

#### **BLADE SETTING (continued)**

- 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.
- · 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.

#### **BLADE CHANGING**

**A** CAUTION: Blades are sharp.

- Sharp blades are imperative for good performance.
- · Always wear gloves when changing blades.
- Use supplied extended wrench or a socket wrench with at least a 3" extension to keep hand safely away from the sharp edge of the blade.
- 1. Place a block under the front of the machine as shown in Figure A, using a flat piece of 2 x 4 or something similar.
- 2. Loosen five (5) hex head bolts with extended bolt wrench (See Figure B). It is not necessary to remove bolts. 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.



Figure A



Figure B

#### **BLADE SHARPENING**

- · Always wear gloves and safety glasses.
- Using hand grinder, block up front of machine so blade is off the floor.
- Grind blade using a 4" diameter disk with 120 or finer grit. Be careful not to catch disk on edge or corner of blade. Blade bevel up (See Figure A). Blade bevel down (See Figure B).
- Pass grinder back and forth along blade edge being careful to hold grinder at proper angle of blade. Grind until sharp.
- Using a good quality fine tooth hand file, use same procedure as above (See Figure C).
- 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 resharpen dull blades on proper bench or belt grinder in the shop, so the blades are ready for the next job.

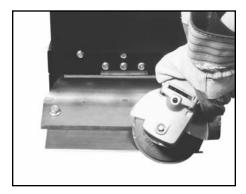


Figure A



Figure B

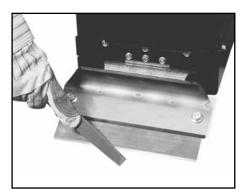
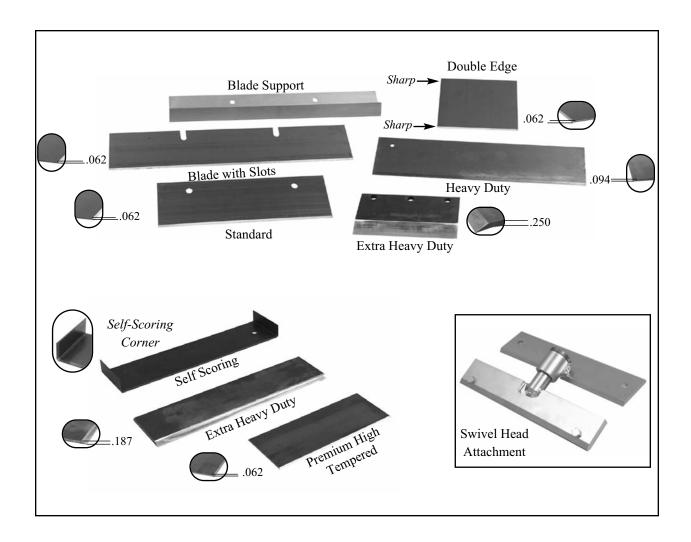
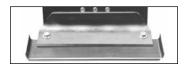
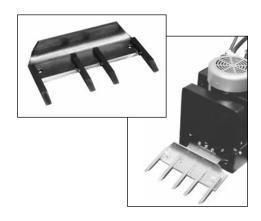


Figure C





**SELF SCORING BLADES:** Eliminates pre-scoring carpet. See sizes and accessories on Page 17.1.



**#6253 RIPPER TEETH:** Used on real hard to remove goods; Hardwood, Vct and some ceramics

Part #	Description	Application	Thickness
#130-S	3" x 10" Blade with slots	Glued down carpet, tile or resilient	.062
#130-D	3" x 10" Blade with both edges sharpened	Carpet, tile or resilient on wood & concrete floors	.062
#131-S	3" x 16" Blade with slots	Glued down rubber carpet, floor accumulation	.062
#135	5" x 16" Blade	Rubber back carpet on wood or concrete floors, excellent for cleanup and longer durability	.062
#136	5" x 8" Blade	Removal of wood flooring	.062
#147	4" x 6" Blade	Tile or linoleum on concrete floors	.062
#147-D	4" x 6" Blade with both edges sharpened	Tile or linoleum on concrete floors	.062
#148	5" x 6" Blade	Tile or linoleum on wood floors	.062
#148-D	5" x 6" Blade with both edges sharpened	Tile or linoleum on wood floors	.062
#363-2	3/4" x 8" Scraper Blade (50/pkg)		.032
#368-8	7/8" x 8" Razor/Scraper Blade (50/pkg)	Razor sharp, super hard for scraping thin epoxies, thin mil coatings like; urethane paint, poured elastomeric coatings up to 60 mil, hard	.045
#368-12	7/8" x 12" Razor/Scraper Blade (50/pkg)	to remove adhesive and much more	.045
#368-15	7/8" x 15" Razor/Scraper Blade (50/pkg)		.045
#6253	Self-Propelled Ripper Teeth	Difficult surfaces: ceramic, hardwood, heavy tile, etc.	
#6255-BU	4" x 6" Self Scoring Blade - Bevel Up		.062
#6256-BU	4" x 6" Self Scoring w/4" Bevel Up	Works on attached cushion, Unitary or secondary backing, vinyl	.062
#6257-BU	3" x 9" Self Scoring Blade - Bevel Up	backing, soft to medium Pvc, linoleum, carpet tiles, soft cork,	.062
#6258-BU	3" x 12" Self Scoring Blade - Bevel Up	Enhancer and Uniband hot melts	.062
#6259-BU	3" x 14" Self Scoring Blade - Bevel Up		.062
#6277-BU	3" x 12" Self Scoring Blade	Same application as the .062 blade but w/45° angle, self scoring wings for	.094
#6278-BU	3" x 14" Self Scoring Blade	easy sharpening. The thickness greatly reduces breakage.	.094
#6270	1-1/2" x 3" Extra Heavy Duty Blade	Ultra tough coatings, ceramic & hardwood	.250
#6271	3" x 6" Extra Heavy Duty Blade	Ultra tough coatings, ceramic & hardwood	.250
#6273	3" x 11" Extra Heavy Duty Blade	Ultra tough coatings, ceramic & hardwood	.250
#5280-500	Holds razor blades up to 1" wide	Unique attachment rotates to use the other sharp edge without having to Works on thin soft coatings, paint, hard to remove gummy or dry adhesives.	change blade.
#6281	3" x 8" Heavy Duty Blade	A heavy duty blade that still gives a little flex. Made with our proven	.094
#6282	3" x 14" Heavy Duty Blade	blade hardening process, these blades will stay sharper longer with	.094
#6284	3" x 12" Heavy Duty Blade	better overall performance than any other blade on the market.	.094
#6285	3" x 6" Heavy Duty Blade	Works on Vct, Vat, wood, tile, rubber epoxy, thin-set, elastomeric	.094
#6286	3" x 10" Heavy Duty Blade	coatings, scraping thin-set, glued ceramic	.094
#6290	3" x 6" Extra Heavy Duty Blade	Extremely hard, high abrasion alloy for tough tear-up situations. Vct,	.187
#6291	3" x 8" Extra Heavy Duty Blade	Vat, wood, tile, thin ceramic, re-scraping thin-set, all carpets, cork,	.187
#6292	3" x 12" Extra Heavy Duty Blade	elastomeric coatings, re-scraping rubber and urethane coatings.	.187
#6293	3" x 14" Extra Heavy Duty Blade	Holds the edge extremely well.	.187
#7050-200	3" x 6" Premium High Tempered Blade		.062
#7050-201	3" x 8" Premium High Tempered Blade	Ultra high quality spring steel is extra hard for long blade life	.062
	3" x 10" Premium High Tempered Blade	between sharpening. Works on all glue down carpets, Vct, Vat, rubber tile, cork, re-scraping adhesive, elastomeric coatings. Great	.062
#7050-202	3 x 10 1 felliluli i ligit fellipereu biaue		
#7050-202 #7050-203	3" x 12" Premium High Tempered Blade	for floor accumulations	.062
	3" x 12" Premium High Tempered Blade		.062 .062
#7050-203			

## **5280 PROCEDURES**

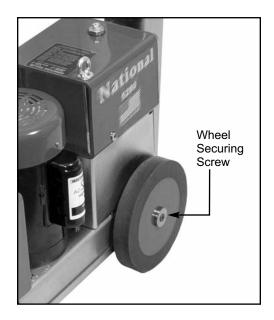
#### WHEEL REMOVAL

- Examine back of wheels (with a flashlight is helpful) to see if debris is built up.
- Keep clean from yarn build up.
- · Unplug machine.
- · Lay machine on its side.
- Use provided 3/16" allen wrench.
- · Remove wheel securing screw
- · Remove wheel securing cap.
- Wheel will slide off. Watch for keyway key. DO NOT LOSE.
- Remove wheel spacer. This should be inspected at regular intervals.

#### **INSPECTION OF INTERNAL PARTS**

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

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



## **5280 PROCEDURES**

#### SPEED CONTROL

- Speed control knob can be adjusted while machine is running.
- Turning speed control knob counter clockwise will make machine run faster (See Figure C).
- Turning speed control knob clockwise will make machine run slower (See Figure C).

#### SPEED CONTROL REPLACEMENT

- Use a 3/32" allen wrench to remove plastic knob.
- Use a 1" deep socket to remove and replace speed control valve.
- · Re-install plastic knob.

#### PRESSURE VALVE REPLACEMENT

This has been factory set and should not be tampered with.

 Use a 1" deep socket to remove old unit and install new.

#### FORWARD SWITCH REPLACEMENT

- · Disconnect power source to unit.
- Remove 2 1/4 20 x 1/2 hexhead bolts from handle.
   Use 7/16 diameter wrench or socket.
- Remove 1/4-20 bolt from lever
- · Remove switch.
- · Remove 2 spade connectors from switch.
- For switch replacement, bend the 2 prongs 90° from both ends of switch. Use old switch as a pattern.

#### **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.

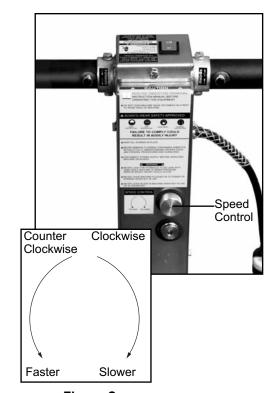


Figure C

## **5280 PROCEDURES**

#### HYDRAULIC FLUID LEVEL

- · Machine is run at a low temperature and pressure.
- · Check fluid level if there has been a leak, damaged or ruptured hose or a loose fitting.
- Fluid level should be 1" from the top of the tank (See Figure B).

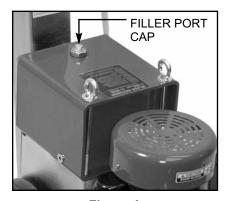
#### ADDING OR CHANGING HYDRAULIC FLUID

- · Occasionally blow out the Filler Port Cap filter to remove debris.
- · Change or add fluid only when needed.
- To add fluid, unscrew Filler Port Cap from top of machine (See Figure A).
- To change fluid, remove Filler Port Cap. Remove drain plug from side of machine (See Figure B). A container approximately two gallons in size will be needed to drain fluid into (fluid will not be removed from hoses).
- · Machine has a straining system, but add fluid through a filter or funnel with a screen to keep fluid clean.
- Use texaco Rando 46 Hydraulic Oil Light, stock #6280-1 or comparable.

#### TANK REMOVAL

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

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





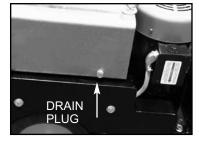


Figure B

## **5280 TROUBLESHOOTING**

#### IF THERE IS NO FORWARD OR REVERSE:

- 1. Check speed control valve. Turn counterclockwise to open valve.
- 2. Check belt. Remove front cover plate (#6280-145) and inspect.

#### IF MOTOR SHUTS OFF OR WILL NOT START:

Push reset button located on electric box on motor, located on right hand side (See Figure A).
 See label on motor.



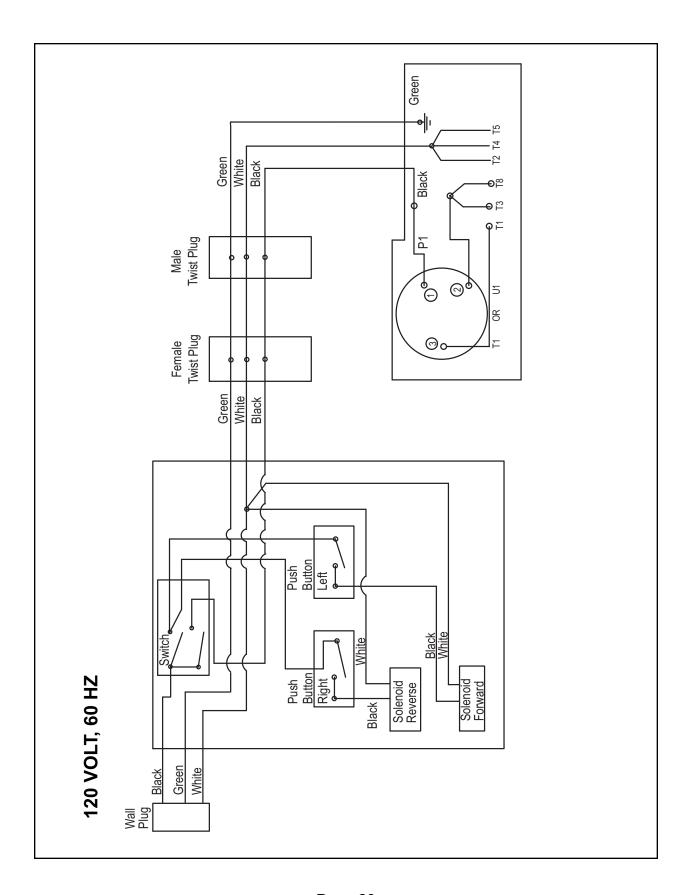
Figure A

## **5280 WIRING DIAGRAM**

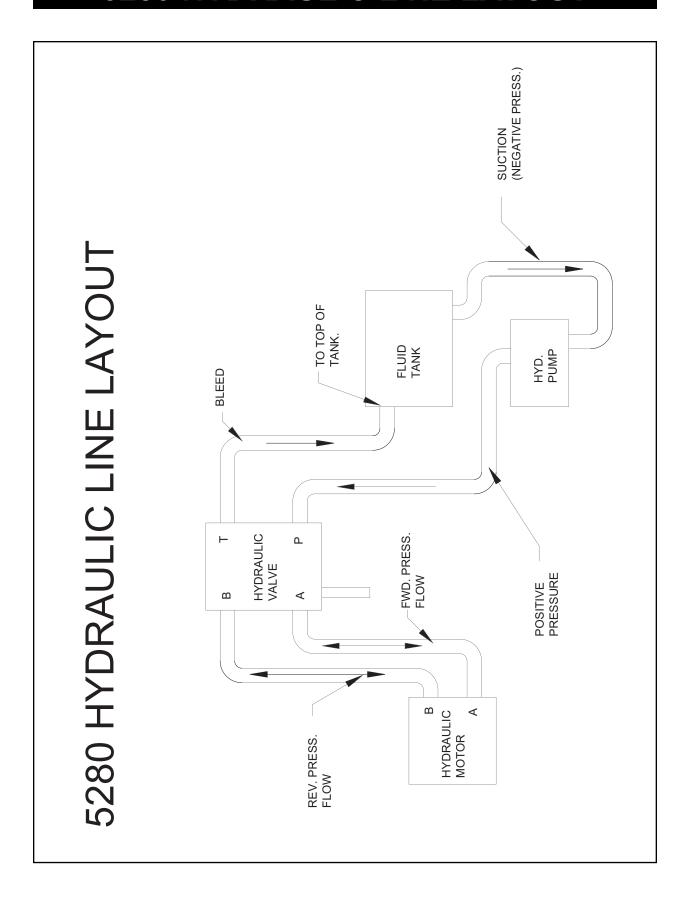
#### **ON/OFF SWITCH WIRE DIAGRAM**

- 2 blue wires to right spades
- 2 white wires to left spades
- Power source wires always go to copper spades

## **120 VOLT WIRING DIAGRAM**



## **5280 HYDRAULIC LINE LAYOUT**



PART#	DESCRIPTION
5280-1	DRIVE CHAIN 40 STRAND
5280-1L	MASTER LINK
5280-2	AXLE SPROCKET 40 BS 13 X 3/4"
5280-3	HYDRAULIC MOTOR SPROCKET 40 BS 12 X 1
5280-4	PUMP DRIVE BELT
5280-8	CUTTING HEAD
5280-9	WHEEL SPACER (NOT SHOWN)
5280-12	AXLE CLIP 1000-087 ST (4)
5280-37	BASE PLATE
5280-102	HYDRAULIC MOTOR BRACKET
5280-103	DRIVE AXLE
5280-103B	DRIVE AXLE KEY
5280-111	DRIVE WHEEL (2)
5280-113	HYDRAULIC PUMP
5280-117	PRESSURE HOSE TO PUMP CONNECTOR (3)
5280-118	SUCTION HOSE TO PUMP CONNECTOR
5280-120	SUCTION LINE
5280-129	ECCENTRIC
5280-132C	PUMP PULLEY
5280-132D	PUMP KEY
5280-133	CUTTING HEAD SUPPORT (4)
5280-136	BLADE COVER
5280-137W	BLADE WRENCH
5280-138	BOTTOM PLATE
5280-139	HANDLE ADJUSTMENT BRACKET
5280-139C	HANDLE VIBRATION ISOLATOR
5280-151	MOTOR CAPACITOR (NOT SHOWN)
5280-153	MAIN UPPER BODY
5280-161C	HYDRAULIC TANK FILLER CAP (OLD STYLE)
5280-162	HYDRAULIC TANK BODY
5280-162E	DRAIN PLUG/OIL LEVEL PLUG (2)
5280-167	HANDLE BODY
5280-167B	HANDLE BODY COVER
	HANDLE SWITCH PLATE
5280-167C 5280-168	POWER CORD
5280-170A	HANDLE BAR GRIP (2)
5280-170A 5280-172A	HANDLE LEVER
	POWER CORD STRAIN RELIEF
5280-178	
5280-208	SPEED CONTROL CARTRIDGE
5280-208A	SPEED CONTROL KNOB ONLY (WITHOUT SCREW)
5280-210	FRONT SHIELD
5280-214	VALVE BLOCK PLUG
5280-216	VALVE CARTRIDGE
5280-219	VALVE BODY FITTING
5280-220	HYDRAULIC MOTOR
5280-221	HYDRAULIC MOTOR CONNECTOR (2)
5280-400	FRONT COUNTER WEIGHT
5280-401	FRONT COUNTER WEIGHT ADD ON
5280-402	SADDLEBAG WEIGHT

## PARTS (continued) PART# DESCRIPTION

6280-161D FILLER CAP (NEW STYLE)

6280-162G MAGNET 6280-112 WHEEL CAP

6280-170A HANDLE BAR GRIP (2)
6280-180 MOTOR LINE (2)
6280-181 PRESSURE LINE
6280-182 RETURN LINE
6280-207 ON/OFF SWITCH

6280-209 PRESSURE CARTRIDGE VALVE
6280-215 VALVE BLOCK ASSEMBLY
6280-404 BLADE WRENCH HOLDER
62180 MOTOR FAN COVER
62181 MOTOR FAN (NOT SHOWN)
62182 CAPACITOR COVER

62190 ELECTRIC BOX 62191 ELECTRIC BOX COVER

62192 ELECTRIC BOX COVER SCREWS (2) 62504 CAP O-RING (FOR OLD STYLE PLUG)

70601 TANK MOUNTED STRAINER

71092 3/4" ID BEARING (2) 71131 1-1/4" ID BEARING 72353 1 HP MOTOR 72554 MOTOR CORD 72810 SPLICE CAP (3)

72811 SPLICE CAP INSULATOR (3)
72816 RETURN LINE ELBOW
72832 #10 SPADE TERMINAL
73002 1/4 SPLIT LOCK WASHER (4)
73005 1/4-20 X 1/2 HEXHEAD BOLT (4)

73008 1/4-20 NYLOCK NUT

73023 1/4-20 X 2 HEXHEAD CAP SCREW

73032 VALVE CARTRIDGE NUT
73039 1/4-20 X 3/16 SET SCREW (3)
73204 3/8 SPLIT LOCK WASHER (4)
73205 3/8-16 X 3/4 HEXHEAD BOLT (4)
73209 3/8-16 X 8½ HEXHEAD CAP SCREW (2)

73211 3/8-16 WIZLOCK NUT (4)

73217 3/8-16 X 3/4 LOWHEAD SOCKET BOLT (4)

73228 3/8-16 X 8 EYEBOLT (2)

73231 3/8-16 X 3/4 BUTTON HEAD BOLT W/FLANGE (4)

73264 3/8 FLAT WASHER (4)

73315 5/16-18 X 1 FLAT HEAD ALLEN SCREW (2)

73401 CONNECTOR NUT (2)

73502 1/2" STRAIGHTSTRAIN RELIEF .3376-.5685 (2)

73654 M10 WIZLOCK NUT (4) 73902 3/16 X 3/16 X 3/4 KEY (2) 73903 3/16 X 3/16 X 2-1/4 KEY

74402 10-32 X 3/8 CUP POINT SET SCREW

74619 M6 SPLIT LOCK WASHER (9)

74623 6MM X 25 BUTTON HEAD CAP SCREW (5)

74630 M6-12 HEXHEAD BOLT (9)

74649 M10-25 BUTTON HEAD CAP SCREW W/ FLANGE (6)

74650 M10-25 WIZLOCK BOLT (17) 74654 M10 FLANGE LOCKNUT (10)

#### **ACCESSORIES**

PART#	<u>DESCRIPTION</u>
5280-401	ADDITIONAL FRONT WEIGHT
5280-402	OPTIONAL SADDLE WEIGHT
5280-500	SWIVEL HEAD ATTACHMENT
6254	50' POWER CORD

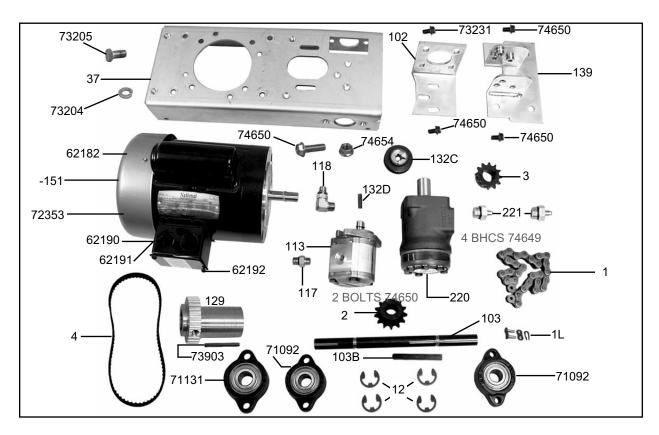
73216 3/8-16 X 1-3/4 HEXHEAD BOLT (FOR 1 ADD. WEIGHT) (NOT SHOWN) 73220 3/8-16 X 3 HEXHEAD BOLT (FOR 2 ADD. WEIGHTS) (NOT SHOWN)

#### **BLADES**

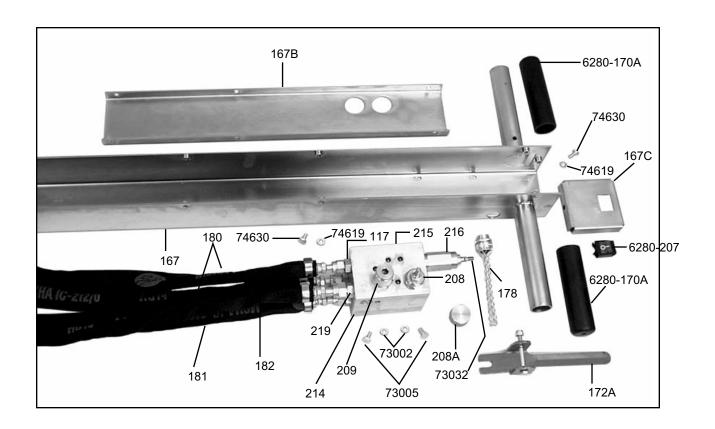
PART #         DESCRIPTION           130-S         3" X 10" BLADE WITH SLOTS           130-D         3" X 10" DOUBLE EDGE BLADE           131-S         3" X 16" BLADE WITH SLOTS           135         5" X 16" BLADE           136         5" X 8" BLADE           147         4" X 6" BLADE           147-D         4" X 6" DOUBLE EDGE BLADE           148         5" X 6" BLADE           148-D         5" X 6" DOUBLE EDGE BLADE
130-D       3" X 10" DOUBLE EDGE BLADE         131-S       3" X 16" BLADE WITH SLOTS         135       5" X 16" BLADE         136       5" X 8" BLADE         147       4" X 6" BLADE         147-D       4" X 6" DOUBLE EDGE BLADE         148       5" X 6" BLADE         148-D       5" X 6" DOUBLE EDGE BLADE
131-S       3" X 16" BLADE WITH SLOTS         135       5" X 16" BLADE         136       5" X 8" BLADE         147       4" X 6" BLADE         147-D       4" X 6" DOUBLE EDGE BLADE         148       5" X 6" BLADE         148-D       5" X 6" DOUBLE EDGE BLADE
135 5" X 16" BLADE 136 5" X 8" BLADE 147 4" X 6" BLADE 147-D 4" X 6" DOUBLE EDGE BLADE 148 5" X 6" BLADE 148-D 5" X 6" DOUBLE EDGE BLADE
136 5" X 8" BLADE 147 4" X 6" BLADE 147-D 4" X 6" DOUBLE EDGE BLADE 148 5" X 6" BLADE 148-D 5" X 6" DOUBLE EDGE BLADE
147       4" X 6" BLADE         147-D       4" X 6" DOUBLE EDGE BLADE         148       5" X 6" BLADE         148-D       5" X 6" DOUBLE EDGE BLADE
147-D       4" X 6" DOUBLE EDGE BLADE         148       5" X 6" BLADE         148-D       5" X 6" DOUBLE EDGE BLADE
148 5" X 6" BLADE 148-D 5" X 6" DOUBLE EDGE BLADE
148-D 5" X 6" DOUBLE EDGE BLADE
363-2 3/4" X 8" SCRAPER BLADE (50/PKG)
368-8 7/8" X 8" RAZOR/SCRAPER BLADE (50/PKG)
368-12 7/8" X 12" RAZOR/SCRAPER BLADE (50/PKG)
368-15 7/8" X 15" RAZOR/SCRAPER BLADE (50/PKG)
6253 RIPPER TEETH
6255-BU 4" X 6" SELF SCORING BLADE - BEVEL UP
6256-BU 4" X 6" SELF SCORING BLADE W/ 4" BEVEL UP
6257-BU 3" X 9" SELF SCORING BLADE - BEVEL UP
6258-BU 3" X 12" SELF SCORING BLADE - BEVEL UP
6259-BU 3" X 14" SELF SCORING BLADE - BEVEL UP
6277-BU 3" X 12" SELF SCORING BLADE - BEVEL UP
6258-BU 3" X 12" SELF SCORING BLADE - BEVEL UP 6259-BU 3" X 14" SELF SCORING BLADE - BEVEL UP 6277-BU 3" X 12" SELF SCORING BLADE - BEVEL UP 6278-BU 3" X 14" SELF SCORING BLADE - BEVEL UP
6270 1-1/2" X 3" EXTRA HEAVY DUTY BLADE
6271 3" X 6" EXTRA HEAVY DUTY BLADE
6271 3" X 6" EXTRA HEAVY DUTY BLADE 6273 3" X 11" EXTRA HEAVY DUTY BLADE 5280-500 SWIVEL HEAD ATTACHMENT
5280-500 SWIVEL HEAD ATTACHMENT
3 X 6 HEAVY DOLY BLADE
6282 3" X 14" HEAVY DUTY BLADE
6284 3" X 12" HEAVY DUTY BLADE
6285 3" X 6" HEAVY DUTY BLADE
6286 3" X 10" HEAVY DUTY BLADE
6290 3" X 6" EXTRA HEAVY DUTY BLADE
6291 3" X 8" EXTRA HEAVY DUTY BLADE
6292 3" X 12" EXTRA HEAVY DUTY BLADE
6293 3" X 14" EXTRA HEAVY DUTY BLADE
7050-200 3" X 6" PREMIUM HIGH TEMP BLADE
7050-201 3" X 8" PREMIUM HIGH TEMP BLADE
7050-202 3" X 10" PREMIUM HIGH TEMP BLADE
7050-203 3" X 12" PREMIUM HIGH TEMP BLADE
7050-204 3" X 14" PREMIUM HIGH TEMP BLADE
7080 3" X 8" INCREASED ANGLE BLADE
7081 3" X 10" INCREASED ANGLE BLADE

#### **LABELS**

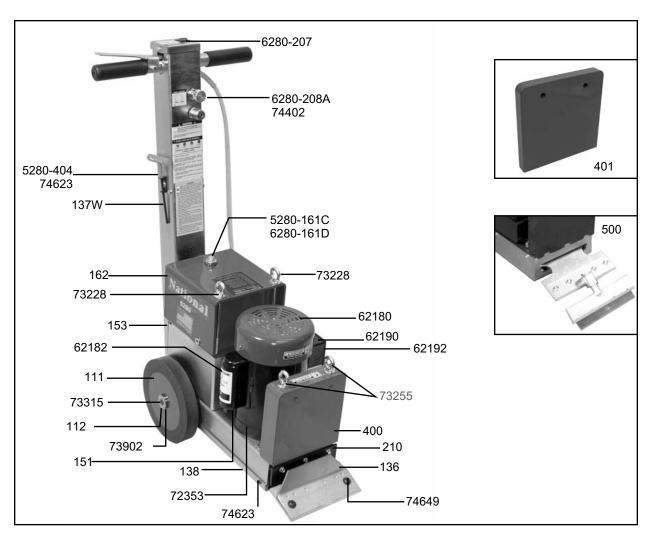
PART#	<u>DESCRIPTION</u>
L37	CAUTION SHARP BLADES LABEL (2)
L49	CAUTION CORD LABEL
L95B	ON/OFF SWITCH LABEL
L95C	FORWARD LABEL
L95E	SPEED CONTROL LABEL
L95F	FLUID LEAK LABEL
L95G	FLUID LEVEL LABEL (NOT SHOWN)
L95J	110V LABEL (NOT SHOWN)
L141	FLAG LABEL (2)
L173A	5280 LABEL (2)
L175	NATIONAL LABEL, SMALL (2)
L188	CAUTION GENERAL INFO LABEL
L189	SAFE OPERATING TIPS LABEL
L220	BLADE LABEL
L223	PATENT NUMBER LABEL (NOT SHOWN)



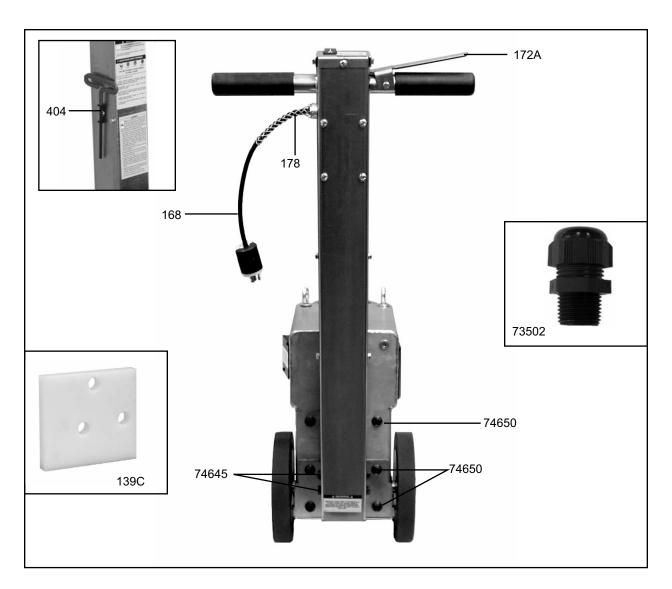
PART #	<u>DESCRIPTION</u>	PART #	<u>DESCRIPTION</u>
5280-1	Drive Chain 40 Strand	5280-221	Hydraulic Motor Connector (2)
5280-1L	Master Link	62182	Capacitor Cover
5280-2	Axle Sprocket 40 Bs 13 x 3/4"	62190	Electric Box
5280-3	Hydraulic Motor Sprocket 40 Bs 12 x 1	62191	Electric Box Cover
5280-4	Pump Drive Belt	62192	Electric Box Cover Screws (2)
5280-12	Axle Clips (4)	71092	3/4" ID Bearing (2)
5280-37	Base Plate	71131	1-1/4" ID Bearing
5280-102	Hydraulic Motor Bracket	72353	1 HP Motor
5280-103	Drive Axle	72554	Motor Cord (not shown)
5280-103B	Drive Axle Key	73039	1/4-20 x 3/16 Set Screw (3) (Not Shown)
5280-113	Hydraulic Pump	73204	3/8 Split Lock Washer (4)
5280-117	Pressure Hose to Pump Connector	73205	3/8-16 x 3/4 Hexhead Bolt (4)
5280-118	Suction Hose to Pump Connector	74654	M10 Flange Lock Nut (10)
5280-129	Eccentric	73231	3/8-16 x 3/4 Button Head Bolt w/Flange (4)
5280-132C	Pump Pulley	73903	3/16 x 3/16 x 2-1/4 Key
5280-132D	Pump Key	74650	M10-25 Wizlock Bolt (7)
5280-139	Handle Adjustment Bracket	74649	M10-25 Button Head Cap Screw w/Flange (4)
5280-151	Replacement Capacitor Only		
5280-220	Hydraulic Motor		
5280-220B	Hydraulic Motor Woodruff Key 1/4 x 1		
	(Not Shown)		



PART#	<u>DESCRIPTION</u>	PART#	DESCRIPTION
5280-117	Pressure Hose to Pump Connector (3)	6280-170A	Handle Bar Grip (2)
5280-167	Handle Body	6280-180	Motor Line (2)
5280-167B	Handle Body Cover	6280-181	Pressure Line
5280-167C	Handle Switch Plate	6280-182	Return Line
5280-172A	Handle Lever	6280-207	On/Off Switch
5280-178	Power Cord Strain Relief	6280-215	Valve Block Assembly
5280-208	Speed Control Cartridge	73002	1/4 Split Lock Washer (4)
5280-208A	Speed Control Knob only	73005	1/4-20 x 1/2 Hexhead Bolt (4)
5280-214	Valve Body Plug	73032	Valve Cartridge Nut
5280-216	Valve Cartridge	74619	M6 Split Lock Washer (11)
5280-219	Valve Body Fitting	74630	M6-12 Hexhead Bolt (11)
6280-209	Pressure Cartridge Valve		



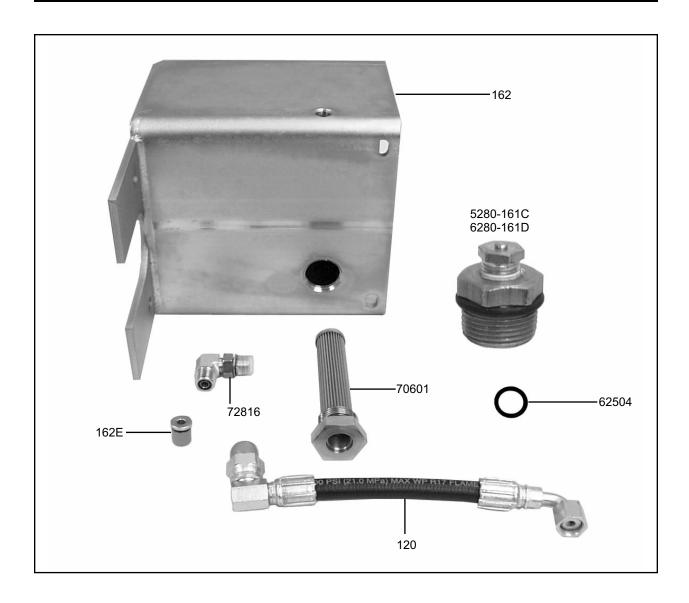
PART#	<u>DESCRIPTION</u>	PART#	DESCRIPTION
5280-111	Drive Wheel	6280-404	Blade Wrench Holder
5280-136	Blade Cover	62180	Motor Fan Cover
5280-137W	Blade Wrench	62181	Motor Fan (Not Shown)
5280-138	Bottom Plate	62182	Capacitor Cover
5280-151	Motor Capacitor	62190	Electric Box
5280-153	Main Upper Body	62191	Electric Box Cover (Not Shown)
5280-161C	Hydraulic Tank Filler Cap (Old Style)	62192	Electric Box Cover Screw
5280-162	Hydraulic Tank Body	72353	Motor
5280-210	Front Shield	73216	3/8-16 x 1-3/4 Hexhead Bolt (For 1
5280-400	Front Counter Weight		Additional Weight) (Not Shown)
5280-401	Front Counterweight Add On	73228	3/8-16 x 8 Eyebolt
5280-404	Blade Wrench Holder	73315	5/16-18 x 1 Flat Head Allen Screw (2)
5280-500	Swivel Head Attachment	73902	3/16 x 3/16 x 3/4 Key (2)
6280-112	Wheel Cap	74402	10-32 x 3/8 Cup Point Set Screw
6280-161D	Hydraulic Tank Filler Cap (New Style)	74623	M6-10 Button Head Cap Screw (5)
6280-207	On/Off Switch	74649	M10-25 Button Head Cap Screw
6280-208A	Speed Control Knob only (w/o Screw)		w/Flange (2)



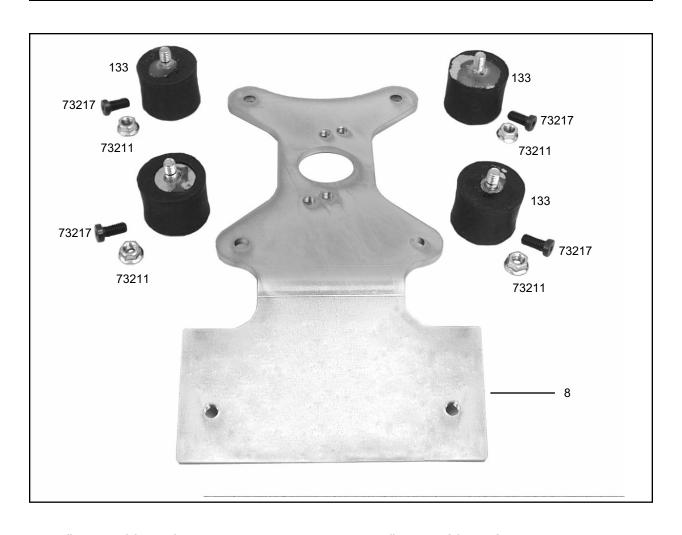
PART#	DESCRIPTION	PART#	<u>DESCRIPTION</u>
5280-139C	Handle Vibration Isolator (2)	73502	1/2 Straight Strain Relief (2)
5280-168	Power Cord	74645	M10-16 Wizlock Bolt (4)
5280-172A	Handle Lever	74650	M10-25 Wizlock Bolt (10)
5280-178	Power Cord Strain Relief		` '

5280-404

Blade Wrench Holder

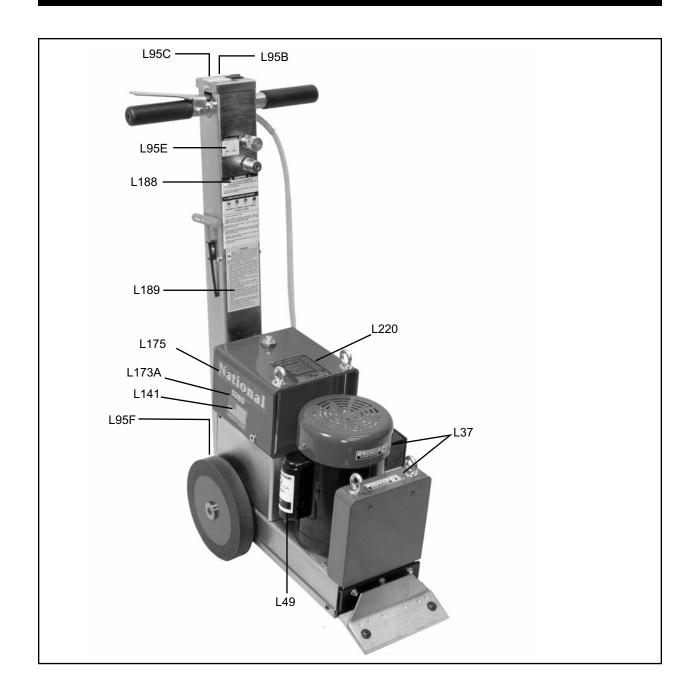


PART#	DESCRIPTION	PART#	<u>DESCRIPTION</u>
5280-120	Suction Line	6280-162G	Magnet (Not Shown)
5280-161C	Hydraulic Tank Filler Cap (Old Style)	62504	Cap O-Ring (for Old Style Plug)
5280-162	Hydraulic Tank Body	70601	Tank Mounted Strainer
5280-162E	Drain Plug/Oil Level Plug (2)	72816	Return Line Elbow
6280-161D	Hydraulic Tank Filler Cap (New Style)		



PART#	<u>DESCRIPTION</u>	PART#	<u>DESCRIPTION</u>
5280-8	Cutting Head	73211	3/8-16 Wizlock Nut (4)
5280-133	Cutting Head Support (4)	73217	3/8-16 x 3/4 Lowhead Socket Bolt (4)

## **5280 LABELS**



PART#	<u>DESCRIPTION</u>	PART#	<u>DESCRIPTION</u>
L37	Caution Sharp Blades Label (2)	L141	Flag Label
L49	Caution Cord Label	L173A	5280 Label
L95B	On/Off Switch Label	L175	National Label,Small
L95C	Forward Label	L188	Caution General Info Label
L95E	Speed Control Label	L189	Safe Operating Tips Label
L95F	Fluid Leak Label	L220	Blade Label
L95G	Fluid Level Label (Not Shown)	L223	Patent Number Label (Not Shown)
L95J	110V Label (Not Shown)		

## **5280 ACCESSORIES**



#5280-402 REPLACEMENT SADDLE WEIGHT

Adds an extra 45 lbs. to the drive wheels.





#### #5280-500 SWIVEL HEAD ATTACHMENT

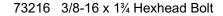
Unique Swivel Head rotates to use the second sharp edge of the blade without having to remove the blade. Designed to hold razor/scraper blades. Works on thin soft coatings, paint and hard to remove gummy or dry adhesives. This attachment is the ultimate for adhesive removal. Swivel Head allows blade to stay in contact with the floor.





#### #5280-401 ADDITIONAL FRONT WEIGHT

Mounts onto existing front weight. Adds 15 lbs. extra weight onto the cutting head.







#### #6254 50' POWER CORD

12 gauge power cord.

### **Material Safety Data Sheet**

#### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

#### Texaco Rando® HD 22 - 68

Product Number(s): CPS221655, CPS221657, CPS221658, CPS221659

Synonyms: Texaco Rando® HD 22, Texaco Rando® HD 32, Texaco Rando® HD 46, Texaco Rando® HD 68

Company Identification
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

#### **SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	90 - 100 %weight

#### **SECTION 3 HAZARDS IDENTIFICATION**

#### **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 initial 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.

#### **SECTION 4 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.

#### **SECTION 5 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: (Cleveland Open Cup) 150 °C (302 °F) (Min)

Autoignition: No Data Available

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

**EXTINGUISHING 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 when this material undergoes combustion.

#### **SECTION 6 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-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials 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.

#### **SECTION 7 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.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be 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, 'Flammable and Combustible

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.

#### SECTION 8 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 work place 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 the 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.

#### SECTION 9 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°C (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)

#### SECTION 10 STABILITY AND REACTIVITY

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling 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.

#### SECTION 11 TOXICOLOGICAL INFORMATION

#### **IMMEDIATE HEALTH EFFECTS**

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

**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 extraction, 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 they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

#### SECTION 12 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 or a similar material.

#### **ENVIRONMENTAL FATE**

This material is not expected to be readily biodegradable.

#### SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if 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 representative or local environmental or health authorities for approved disposal or recycling methods.

#### SECTION 14 TRANSPORT INFORMATION

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

**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 DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

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

#### SECTION 15 REGULATORY INFORMATION

EPCRA 311/312 CATEGORIES: 1. Immediate (Acute) Health Effects: NO

- 2. Delayed (Chronic) Health Effects: NO
- 3. Fire Hazard: NO
- 4. Sudden Release of Pressure Hazard: NO
- 5. Reactivity Hazard: NO

#### REGULATORY LISTS SEARCHED:

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

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

#### **CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: 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.

#### **SECTION 16 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 Indicator). 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: 2.

Revision Date: January 15, 2007

#### ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

ADDICEVIATIONS THAT MAT TIXTE BEEN SOLE	110 11110 2000111111
TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Government Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet

CVX - Chevron	NFPA - National Fire Protection Association (USA)	
DOT - Department of Transportation (USA)	NTP - National Toxicology 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 Standard (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 determination of the suitability of the material for his particular purpose.

### **5280 GUARANTEE**

National Flooring Equipment, Inc. (National) warrants to the first consumer/purchaser that this National brand product (the #5280 Self-Propelled Stripper), when shipped in its original container, will be free from defective workmanship and materials and agrees that it will, at its option, either repair the defect or replace the defective product or part thereof at no charge to the purchaser for parts or labor for the period(s) set forth below.

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

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

The limited warranty described herein is in addition to whatever implied warranties may be granted to purchasers by law. ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE PERIODS FROM THE DATE OF PURCHASE AS SET FORTH BELOW. Some states do not allow time limitations on an implied warranty, so the above limitation may not apply to you.

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

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

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

#### **WARRANTY PERIOD**

The #5280 Self-Propelled Stripper 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.

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## **5280 RETURN SHEET**

Company Name	
Contact Name	
Telephone Number	
Approximate Usage (hours)	
Problems Encountered	
Check One: □ Repair	
Do you wish to be contacted before repairi	ing 🗆 Yes 🗅 No
☐ Return	
Contact National if a loaner is needed	
Return Authorization Number	Date
Customer Number	
if known	_
Purchased Fromif not directly from	om National
INTERNAL USE ONL	Y
Date Received	
Unit Serial Number	
Subject To Warranty	

## **5280 BLADE ORDER FORM**

Part #	Description	Thickness	Quantity
#130-S	3" x 10" Blade with Slots	.062	
#130-D	3" x 10" Double Edge Blade	.062	
#131-S	3" x 16" Blade with Slots	.062	
#135	5" x 16" Blade	.062	
#136	5" x 8" Blade	.062	
#147	4" x 6" Blade	.062	
#147-D	4" x 6" Double Edge Blade	.062	
#148	5" x 6" Blade	.062	
#148-D	5" x 6" Double Edge Blade	.062	
#363-2	3/4" x 8" 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	
#6253	Ripper Teeth	.062	
#6255-BU	4" x 6" Self Scoring Blade	.062	
#6257-BU	3" x 9" 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	
#6270	1-1/2" x 3" Extra Heavy Duty Blade	.250	
#6271	3" x 6" Extra Heavy Duty Blade	.250	
#6273	3" x 11" Extra Heavy Duty Blade	.250	
#5280-500	Swivel Head Attachment		
#6281	3" x 8" Heavy Duty Blade	.094	
#6282	3" x 14" Heavy Duty Blade	.094	
#6284	3" x 12" Heavy Duty Blade	.094	
#6285	3" x 6" Heavy Duty Blade	.094	
#6286	3" x 10" Heavy Duty Blade	.094	
#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	
#7050-200	3" x 6" Premium High Temp Blade	.062	
#7050-201	3" x 8" Premium High Temp Blade	.062	
#7050-202	3" x 10" Premium High Temp Blade	.062	
#7050-203	3" x 12" Premium High Temp Blade	.062	
#7050-204	3" x 14" Premium High Temp Blade	.062	
#7080	3" x 8" Increased Angle Blade	.062	
#7081	3" x 10" Increased Angle Blade	.062	

BILL TO:
Attn:
Company:
Address:
Phone:
SHIP TO:
Attn:
Company:
Address:
Phone:

#### TO ORDER:

Phone: 800-245-0267 or

763-535-8206

Fax: 800-648-7124 or

763-535-8255

Online:www.nationalequipment.com

All orders and payment terms to be verified prior to shipping.

National Flooring Equipment, Inc. • 9250 Xylon Avenue • Minneapolis, MN 55445 U.S.A.

Phone 800-245-0267 or 763-535-8206 • Fax 800-648-7124 or 763-535-8255

Web Site: www.nationalequipment.com • E-Mail: info@nationalequipment.com