

6280

COMMANDER 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
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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

Place
Minneapolis, MN

Signature

Date
05/19/2014

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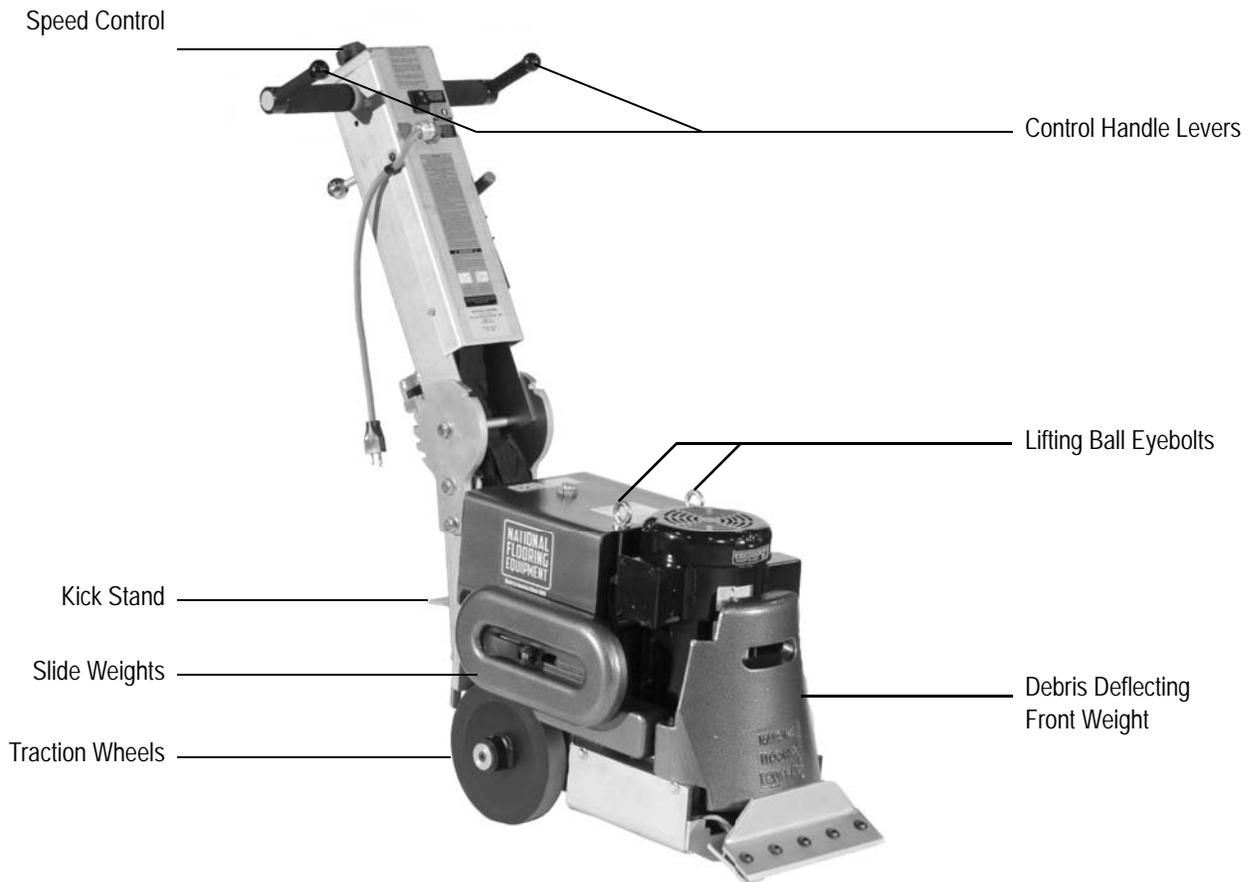
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Features and Specifications



FEATURES

Speed Control Dial- Limit maximum forward speed.

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

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

Side Slide Weights with Quick Adjust Levers- Applies additional pressure to the scraper head as desired or if more traction is needed, slide them back over the wheels.

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

Lifting Bail Eyebolts- Eases loading/unloading.

Debris Deflecting Front Weight- 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	HP	Amps (full load)
15" (34.3 cm)	32.25" (81.9 cm)	41" (104.1 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.
2. **GROUND YOUR EQUIPMENT:** See Grounding Page 7.
3. **AVOID DANGEROUS ENVIRONMENTS:** Do not use in rain, damp or wet locations, or in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials). Remove materials or debris that may be ignited by sparks.
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 only identical National replacement parts.

Safety

24. **STORE IDLE EQUIPMENT:** When not in use, store in a dry, secured place. Keep away from children.
25. **MAINTAIN LABELS AND NAMEPLATES:** These carry important information. If unreadable or missing, contact National for a replacement.
26. **MACHINE IS HEAVY, DO NOT DROP.** Ensure proper lifting procedures are followed when transporting.
27. **DO NOT ALLOW** the oscillating 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 themselves 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 unnecessary risks.

Common Sense: Applies knowledge in practical situations.

Recognizes the Hazards: Maintains alertness. Anticipates danger.

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

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

HYDRAULIC SAFETY TIPS

MAINTAINING A SAFE WORK ENVIRONMENT

Establishing a safe working environment in and around your hydraulic equipment is necessary to prevent injury and work effectively. The easiest and most effective way to avoid problems is to make sure associates understand equipment, know how to operate safely and recognize the danger if careless. A few items to consider before operation:

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.
4. **MOISTURE:** Use caution when operating in wet or high moisture conditions. Make sure all electrical fittings, switches, cords plugs strain 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 servicing.
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 55°C, 130°F), shut off machine and allow to cool off.

PRESSURE

Machine 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.

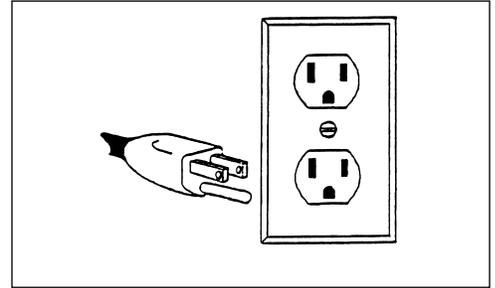


FIG. A

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.

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.

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.

Safety

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 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" ("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.
- 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.

Machine Operation

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 WHEELS 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.



FIG. B

ATTACHING/REMOVING TRANSPORT WHEELS

1. 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.



FIG. C

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.



FIG. D

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.

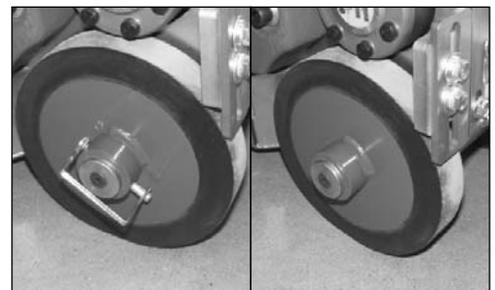


FIG. E

FIG. F

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.
3. Slowly lower to desired location.

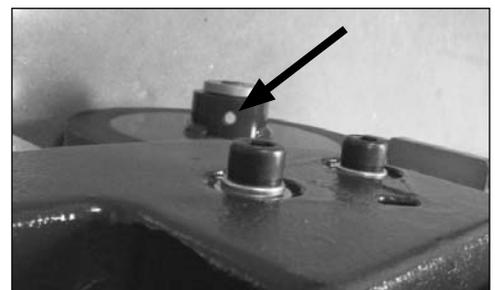


FIG. G

RAMP LOADING

Machine Operation

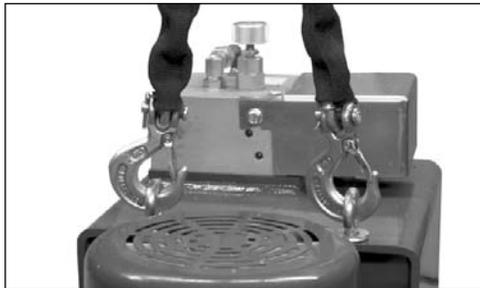


FIG. H

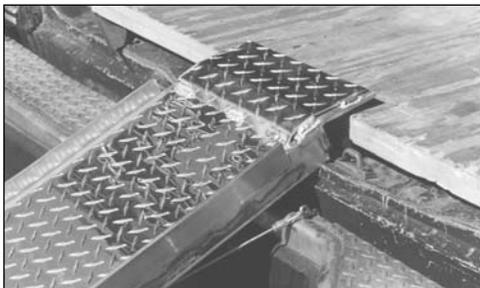


FIG. I

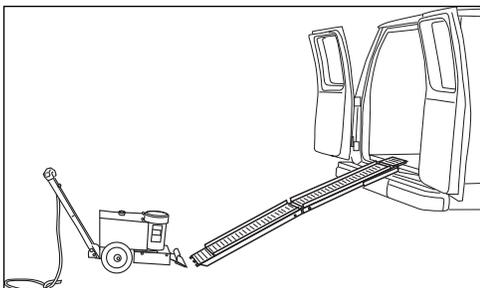


FIG. J

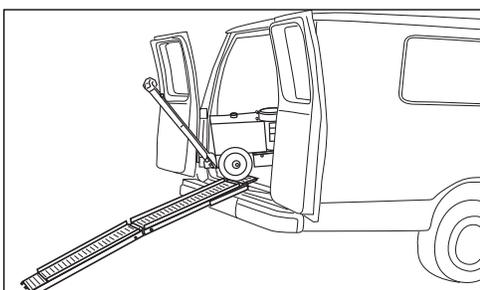


FIG. K

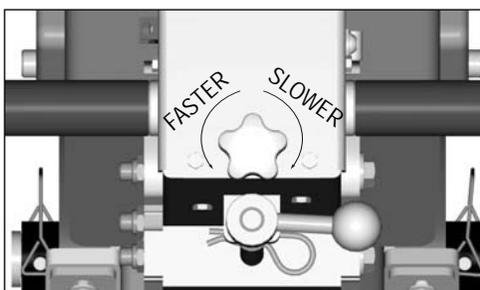


FIG. L

RAMP UNLOADING

1. Put the wheels in "engage mode" (Figure E).
2. 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 151.5 kg (334 lb). 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

- 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 bolt 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.

2. Use a $\frac{3}{4}$ " 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 application 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 usually clean 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.

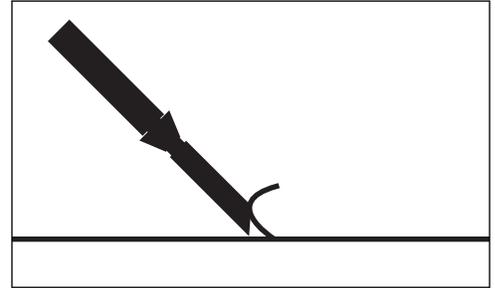


FIG. M

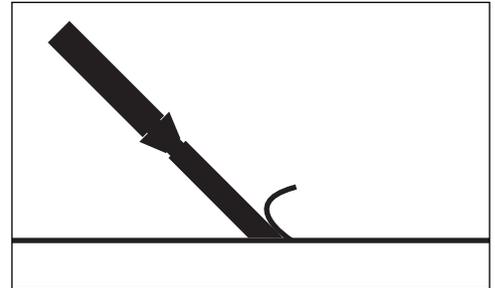


FIG. N

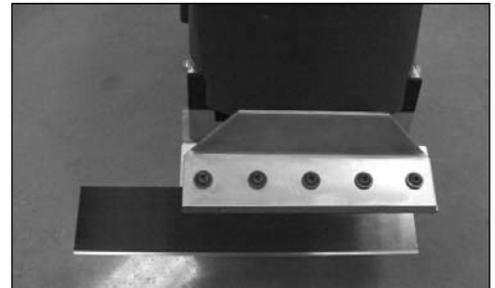


FIG. O

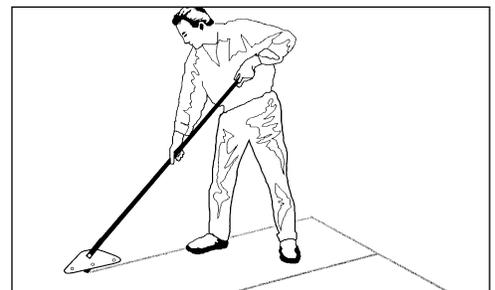


FIG. P



FIG. Q

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

Machine Operation



FIG. R

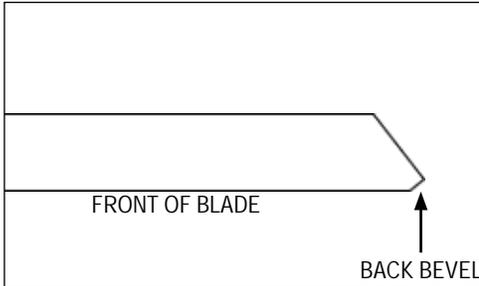


FIG. S

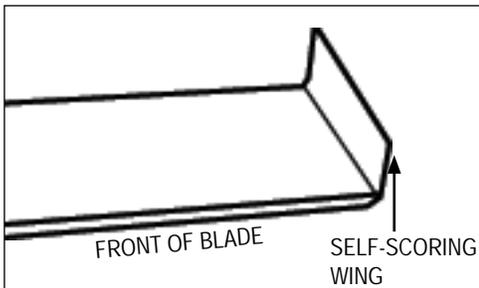


FIG. T

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 re-sharpening, 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

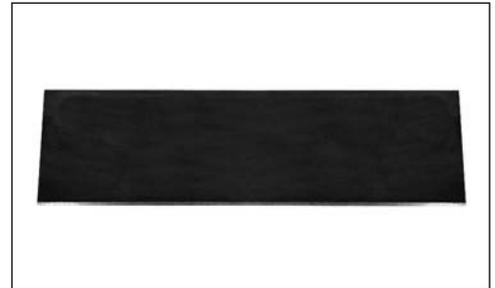


FIG. U

BLADES WITH SLOTS (FIGURE V)

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

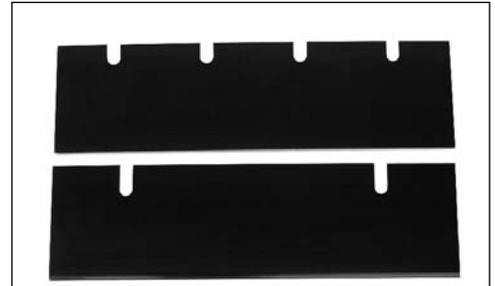


FIG. V

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



FIG. W

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" X 6" PREMIUM HIGH TEMPERED BLADE	.062
7050-201	3" X 8" PREMIUM HIGH TEMPERED BLADE	.062
7050-202	3" X 10" PREMIUM HIGH TEMPERED BLADE	.062
7050-203	3" X 12" PREMIUM HIGH TEMPERED BLADE	.062
7050-204	3" X 14" PREMIUM HIGH TEMPERED BLADE	.062
7050-205	3" X 27" PREMIUM HIGH TEMPERED BLADE	.062



FIG. X

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.

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

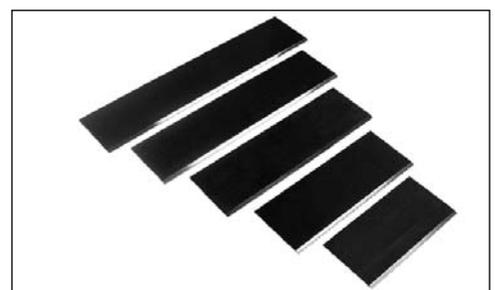


FIG. Y

Blades

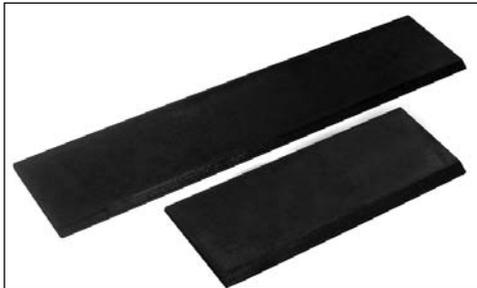


FIG. Z

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 unbond 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

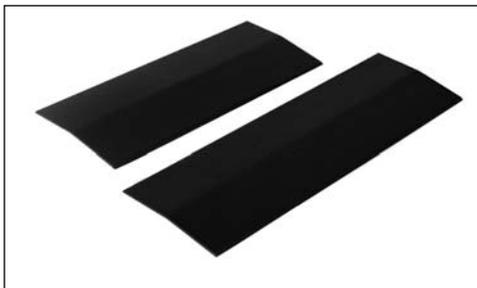


FIG. BB

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.

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

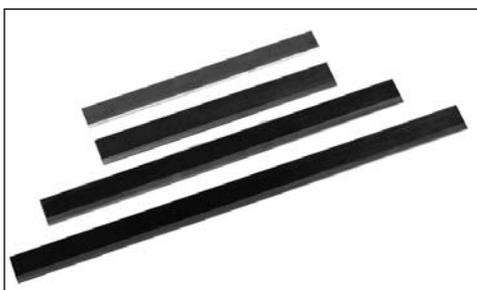


FIG. CC

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 DD).
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 EE).
7. Remove wheel securing screw. (See Figure EE).
8. Remove wheel securing cap.
9. Wheel will slide off. Watch for keyway key. DO NOT LOSE.
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.
2. 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 FF).
3. To add fluid, unscrew Filler Port Cap from top of machine (See Figure GG).
4. To change fluid, remove Filler Port Cap. Remove drain plug from side of machine (See Figure GG). 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 DD through GG are shown without sliding side weights for clarity.

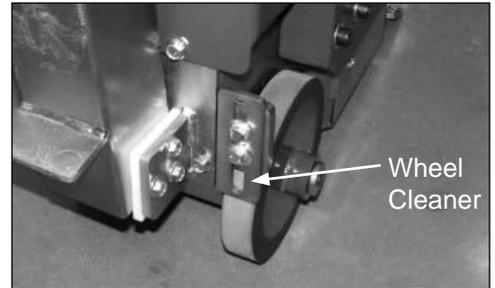


FIG. DD

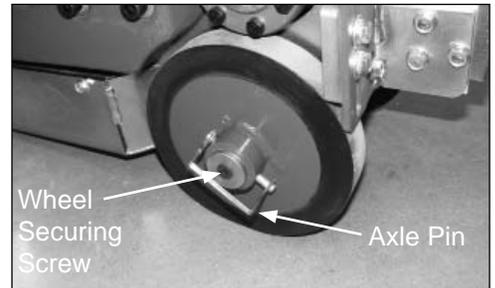


FIG. EE



FIG. FF

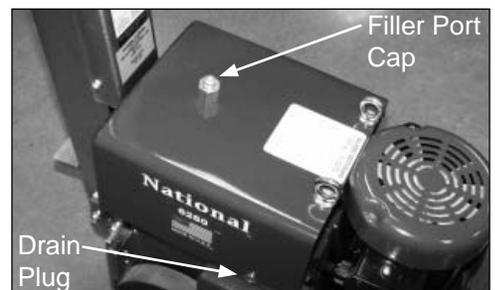


FIG. GG

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 on Page 15). 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 on Page 15).
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.

CONTROL VALVE REPLACEMENT

Drain tank by removing top Filler Port Cap and Drain Plug on side of machine (See Figure GG on Page 15). A container approximately two gallons in size will be needed to drain fluid into.

Replace Drain Plug and Filler Port Cap (See Figure GG on Page 15).

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 foot 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 does not click, the motor was not overloaded. If tripped press button 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 inspect. Repair or replace if needed.
	Control Handle Mechanism failure.	Inspect 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.

Complete Parts List

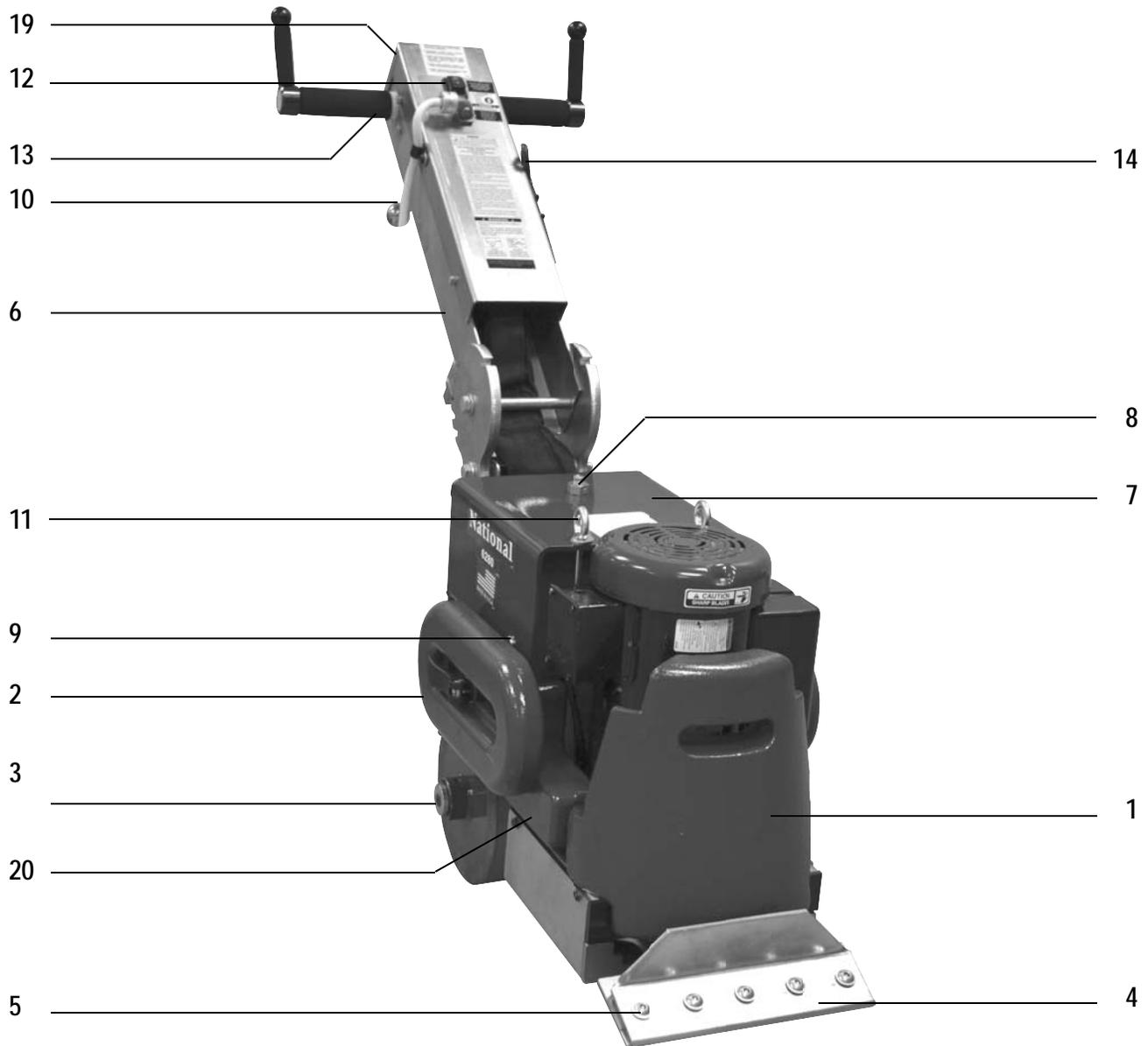
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	70601 STRAINER, TANK MOUNTED	1	51	73401 NUT, STRAINING RELIEF, STEEL, 1/2"	1
2	70623 GRIP, FOAM	2	52	73402 NUT, NYLOCK 1/2-13	2
3	70624 VALVE, SINGLE SPOOL, TAPERED	1	53	73403 WASHER, SPLIT LOCK 1/2	2
4	70636 LEVER, ADJUSTABLE, RIGHT HAND	1	54	73417 LEVER, LOCK W/ BOLT	2
5	70637 LEVER, ADJUSTABLE, LEFT HAND	1	55	73418 BOLT, HEX HEAD 1/2-20X1	4
6	70638 KNOB, ADJUSTABLE	1	56	73423 WASHER, INTERIOR/EXTERIOR LOCK 1/2"	4
7	70810 ISOLATOR, VIBRATION	7	57	73424 WASHER, FLAT, ZINC SAE 1/2"	3
8	71072 BEARING, 1/2 ID DCTN-1616	2	58	73425 WASHER, FLAT USS ZINC 1/2	2
9	71115 BEARING, 1X2X1/2	4	59	73536 PIN, HITCH CLIP 5/8"	1
10	71118 BEARING, FLANGE	1	60	74406 SCREW, PHILLIPS PAND HEAD 10-32X3/8	1
11	71132 BEARING, 1-1/4	1	61	74413 WASHER, INTERNAL LOCK #10	1
12	71141 BEARING, 1-7/16" ID 16SC4FB	1	62	74619 WASHER, SPLIT LOCK M6	6
13	72365 MOTOR, 115 VOLT, 1.5 HP	1	63	74630 BOLT, HEX HEAD CAP M6-12 8.8	6
14	72461 SWITCH THERMO OVERLOAD	1	64	74763 GROMMET, RUBBER 1/2"	1
15	72554 CORD, MOTOR	1	65	74851 WEIGHT, SLIDE, 20 LB EACH	2
16	72556 WIRE, 12/3, 2.5MM, BLACK, CE	6	66	74852 WEIGHT, FRONT	1
17	72799 DISCONNECT, 22-18 GAUGE, NYLON, QUICK	3	67	74853 SIDE WEIGHT	2
18	72802 CONNECTOR, 1/2", 90 DEGREE	1	68	400001 COVER, MOTOR FAN	1
19	72816 FITTING, ELBOW, 90 DEGREE, 3/8"	1	69	400328 WHEEL, DRIVE, WITH BEARING	2
20	72818 DISCONNECT, NYLON, 16-14 GAUGE (31512)	1	70	400024 GRIP, FOAM, 1"	2
21	72819 CONNECTOR, FEMALE, PUSH ON, 90 °	2	71	401577 HANDLE, ASSEMBLY, 6280-KGM	1
22	72873 CLAMP, CABLE 3/8	1	72	400031 HOSE, 40" AX04 1J9HY 4 4 X 1JSHY 6 4	1
23	73003 SCREW, BH SOCKET CAP 1/4-20X5/8	1	73	400032 HOSE, 33" AX04 106HY 04 04 X 1J9HY 6 4	2
24	73010 SCREW, SET 1/4-20X1/4	2	74	400033 HOSE, 36" AX06 1JSHY 6 6 X 1JSHY 6 6	1
25	73033 KEY, 1/4 X 1/4 X 1"	1	75	400034 FITTING, FF1231 06 08	2
26	73039 SCREW, CUP POINT SOCKET SET 1/4-20X3/16	1	76	400056 BOLT, HEX HEAD 1/2-13X6-1/2	3
27	73066 NUT, HEX JAMB 3/8-16	1	77	400077 GASKET, HANDLE	2
28	73091 WASHER, FLAT, ZINC, SAE 1	4	78	400097 WRAP, KEVLAR (25' ROLL)	2
29	73101 SPACER, ID 1/8X1-1/4ODX1"	1	79	400098 SPRING, 1 1/2 X 1/2	0.5
30	73201 BOLT, CAP 3/8-16X1	2	80	400119 LEVEL, CAM	1
31	73204 WASHER, SPLIT LOCK 3/8	2	81	400304 HANDLE BAR, COMPLETE	2
32	73211 NUT, FLANGE ZINC 3/8-16	2	82	400348 NUT, 1/2-13 NYLOCK THIN	3
33	73215 WASHER, EXTERNAL LOCK 3/8	1	83	401434 LINKAGE, VALVE, HANDLE KOM	1
34	73217 BOLT, LOW HEAD SOCKET 3/8-16X3/4	5	84	5280-118 FITTING, 90 DEGREE	2
35	73222 BOLT, FLANGE 3/8-16X1	4	85	6280-103-1 SHAFT, AXLE	1
36	73228 EYE BOLT, 3/8-16X8	4	86	6280-103A SNAP RING	2
37	73242 SCREW, BH CAP WITH FLANGE 3/8-16X1	5	87	6280-104 SPROCKET, AXLE	1
38	73263 WASHER, FLAT, ZINC, SAE 3/8	2	88	6280-105L SUPPORT, AXLE BEARING, LEFT	1
39	73264 WASHER, FLAT, ZINC USS 3/8	2	89	6280-105R SUPPORT, AXLE BEARING, RIGHT	1
40	73301 BOLT, BUTTON HEAD SOCKET CAP 5/16-18X1/2	1	90	6280-108 PLATE, BASE, NEW STYLE	1
41	73310 SCREW, SH CAP, GRADE 5 5/16-18X7/8	2	91	6280-110 SPACER, WHEEL, 1/2	2
42	73311 SCREW, SH CAP, GRADE 5 5/16-18X1	4	92	6280-112 CAP, WHEEL	2
43	73313 SCREW, FH SOCKET CAP 5/16-18X1/2	2	93	6280-113S PUMP, SPLINE, #4	1
44	73318 BOLT, WIZLOCK FLANGE 5/16-18X5/8	8	94	6280-114B PUMP DRIVE ASSEMBLY, SPLINED	1
45	73322 NUT, NYLOCK 5/16-18	4	95	6280-115 SHEAVE, PUMP	1
46	73327 BOLT, HEX HEAD CAP 5/16-18X2 1/2	2	96	6280-1151 RETAINER, PUMP SHEAVE W/HARDWARE	1
47	73330 PIN, LOCKING, 5/16X2	2	97	6280-116A SHAFT, SPLINE PUMP	1
48	73332 BOLT, HEX HEAD CAP 5/16-18X5/8	2	98	6280-117 FITTING, PUMP	1
49	73334 SCREW CAP HEAD, 5/16-18X1 1/2"	1	99	6280-118 FITTING, SUCTION HOSE TO PUMP	1
50	73351 WASHER, FLAT SAE ZINC 5/16	1	100	6280-119 SPACER, PUMP	1
			101	6280-120 HOSE, SUCTION	1
			102	6280-124 BELT, PUMP DRIVE, DD12	1
			103	6280-125W BRACKET AND PIN, IDLER MOUNT	1
			104	6280-126A CAP, IDLER BEARING	1

Complete Parts List

PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
105	6280-136 COVER, BLADE	1	145	6280-405 ECCENTRIC	1
106	6280-138 COVER, MAIN BOTTOM	1	146	6280-600 PLATE, INDEX, HANDLE	2
107	6280-139 COVER, REAR	1	147	6280-601 WELDMENT, UPPER HANDLE	1
108	6280-330 HEAD, CUTTING	1	148	6280-602 COVER, UPPER HANDLE	1
109	6280-145 COVER, FRONT	1	149	6280-603 HANDLE, LOWER	1
110	6280-147-1 SWITCH, STARTER	1	150	6280-606 HANDLE, BALL	1
111	6280-147-2 ACTUATOR, STARTER SWITCH	1	151	6280-607 BUSHING, HANDLE BAR	2
112	6280-148A SCREW, FAN COVER, HEX HEAD 8-32X3/8	3	152	6280-608 WELDMENT, HANDLE BAR	1
113	6280-150 COVER, CAPACITOR	1	153	6280-610 ROD, ADJUSTMENT, LARGE	1
114	6280-151A CAPACITOR, MOTOR RUN	1	154	6280-611 LOCK, ADJUSTMENT BAR	1
115	6280-151B CAPACITOR, MOTOR START	1	155	6280-613 BRACKET, VALVE CONNECTOR	1
116	6280-152 BOX, MOTOR JUNCTION	1	156	6280-618 TUBE, SPACER, LONG	1
117	6280-152-1 COVER, MOTOR JUNCTION BOX	1	157	6280-619 TUBE, SPACER, SHORT	2
118	6280-152-2 SCREW, MTR JUCTN BOX CVR	6	158	6280S-BASEASSY SUBASSEMBLY, BASE, 6280	1
119	6280-152-3 GASKET, COVER ONLY	1	159	6280HD-131 KEY, ECCENTRIC	1
120	6280-152-4 GASKET, JUNCTION BOX FRAME	1	160	92800-12 SPRING, ADJUSTMENT, 3.5"	1
121	6280-156L BODY, MAIN, UPPER, LEFT	1	161	92800-98 ROD, ADJUSTMENT, SHORT	1
122	6280-156R BODY, MAIN, UPPER, RIGHT	1	162	92800-99 ROD, ADJUSTMENT	1
123	6280-161B PLUG, VENT , FILLER CAP	1	163	L141 LABEL, FLAG MADE IN US	2
124	6280-161D PLUG, FILLER PORT	1	164	L173B LABEL, NATIONAL 6280	2
125	6280-162 TANK, HYDRAULIC	1	165	L175 LABEL, NATIONAL, SMALL	2
126	6280-162G TANK, MAGNET	1	166	L186 LABEL, ON/OFF SWITCH	1
127	6280-165 CLEANER, WHEEL	2	167	L187 LABEL, REMOVE CENTER WEIGHT HD	1
128	6280-168 CORD, POWER, NEW STYLE	1	168	L188 LABEL, CAUTION GEN INFO	1
129	6280-175W PLUG, FEMALE, TWIST LOCK	1	169	L189 LABEL, ASBESTOS HD	1
130	6280-179 RING, MOTOR SPACER	1	170	L220 LABEL, BLADE SETTING	1
131	6280-207 SWITCH, ON-OFF	1	171	L223 LABEL, PATENT NUMBER	1
132	6280-214 PLUG, DRAIN, OIL LEVEL	2	172	L37 LABEL, CAUTION SHARP BLDS	1
133	6280-220A MOTOR, HYDRAULIC	1	173	L49 LABEL, CORD CAUTION	1
134	6280-221 CONNECTOR, HYDRAULIC MOTOR	2	174	L95C LABEL, FORWARD	1
135	6280-223 KEY, SHAFT, HYDRAULIC MOTOR	1	175	L95D LABEL, REVERSE	1
136	6280-225 SPACER, HYDRAULIC MOTOR	1	176	L95E LABEL, SPEED CONTROL	1
137	6280-226 BRACKET, MOUNTING, HYDRAULIC MOTOR	1	177	L95F LABEL, FLUID LEAK	1
138	6280-228 CHAIN, DRIVE	1	178	L95G LABEL, FLUID LEVEL (NOT VISIBLE)	1
139	6280-229 LINK, MASTER, DRIVE CHAIN	1	179	L95H LABEL, CAUTION DO NOT	1
140	6280-299 WHEEL ASSEMBLY, FRONT	1	180	L95H LABEL, SERIAL NUMBER	1
141	6280-300 BRACKET, TRANSPORT WHEEL	1			
142	6280-301 WHEEL, ONLY, FRONT TRANSPORT	2			
143	6280-320 KIT, SLIDE WEIGHT	1			
144	6280-404 HOLDER, BLADE WRENCH	1			

Parts List and Diagrams

EXTERNAL PARTS

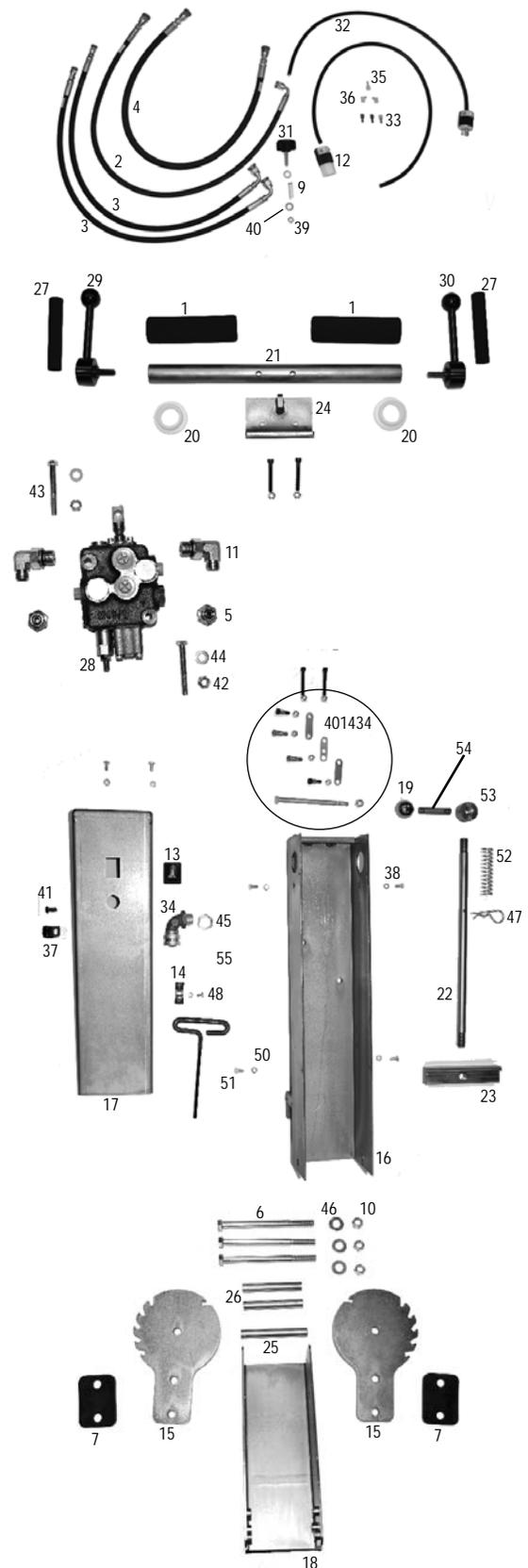


PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY		
1	74852	WEIGHT, FRONT	1	11	73228	EYE BOLT, 3/8-16X8	2
2	74851	WEIGHT, SLIDEWEIGHT	2	12	6280-207	SWITCH, ON-OFF	1
3	400328	WHEEL, DRIVE, WITH BEARING	2	13	400304	HANDLE BAR, COMPLETE	2
4	6280-136	COVER, BLADE	1	14	6280-404	HOLDER, BLADE WRENCH	1
5	73242	SCREW, BH CAP WITH FLANGE 3/8-16X1	5	15	74851	WEIGHT, SLIDE	2
6	400025	HANDLE, ASSEMBLY, 6280-KGM	1	16	400119	LEVEL, CAM	1
7	6280-162	TANK, HYDRAULIC	1	17	70636	HANDLE, ADJ. (RIGHT)	1
8	6280-161B	PLUG, VENT , FILLER CAP	1	18	70637	HANDLE, ADJ. (LEFT)	1
9	6280-161D	PLUG, FILLER PORT	1	19	70638	KNOB, MAX SPEED	1
10	6280-168	CORD, POWER, NEW STYLE	1	20	74853	SIDE WEIGHT	2

Parts List and Diagrams

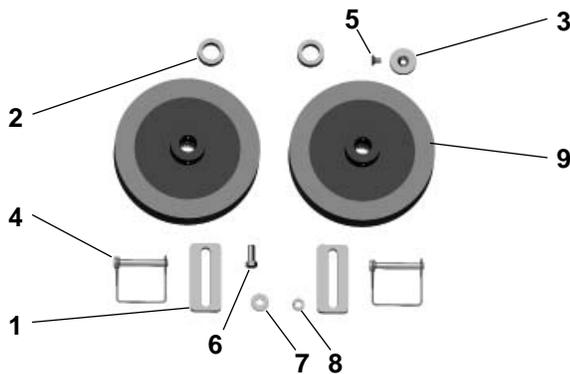
PART#	DESCRIPTION	QTY
1	400024 GRIP, FOAM, 1"	2
2	400031 HOSE, 40" AX04 1J9HY 4 4 X 1JSHY 6 4	1
3	400032 HOSE, 33" AX04 106HY 04 04 X 1J9HY 6 4	2
4	400033 HOSE, 36" AX06 1JSHY 6 6 X 1JSHY 6 6	1
5	400034 FITTING, FF1231 06 08	2
6	400056 BOLT, HEX HEAD 1/2-13X6-1/2	3
7	400077 GASKET, HANDLE	2
8	400097 WRAP, KEVLAR (25' ROLL)	2
9	400098 SPRING, 1 1/2 X 1/2	0.5
10	400348 NUT, 1/2-13 NYLOCK THIN	3
11	5280-118 FITTING, 90 DEGREE	2
12	6280-175W PLUG, FEMALE, TWIST LOCK	1
13	6280-207 SWITCH, ON/OFF	1
14	6280-404 HOLDER, BLADE WRENCH	1
15	6280-600 PLATE, INDEX, HANDLE	2
16	6280-601 WELDMENT, UPPER HANDLE	1
17	6280-602 COVER, UPPER HANDLE	1
18	6280-603 HANDLE, LOWER	1
19	6280-606 HANDLE, BALL	1
20	6280-607 BUSHING, HANDLE BAR	2
21	6280-608 WELDMENT, HANDLE BAR	1
22	6280-610 ROD, ADJUSTMENT, LARGE	1
23	6280-611 LOCK, ADJUSTMENT BAR	1
24	6280-613 BRACKET, VALVE CONNECTOR	1
25	6280-618 TUBE, SPACER, LONG	1
26	6280-619 TUBE, SPACER, SHORT	2
27	70623 GRIP, FOAM	2
28	70624 VALVE, SINGLE SPOOL, TAPERED	1
29	70636 LEVER, ADJUSTABLE, RIGHT HAND	1
30	70637 LEVER, ADJUSTABLE, LEFT HAND	1
31	70638 KNOB, ADJUSTABLE	1
32	72556 WIRE, 12/3, 2.5MM, BLACK, CE	6
33	72799 DISCONNECT, 22-18 GAUGE, NYLON, QUICK	3
34	72802 CONNECTOR, 1/2", 90 DEGREE	1
35	72818 DISCONNECT, NYLON, 16-14 GAUGE (31512)	1
36	72819 CONNECTOR, FEMALE, PUSH ON, 90 °	2
37	72873 CLAMP, CABLE 3/8	1
38	73091 WASHER, FLAT, ZINC, SAE 1	4
39	73066 NUT, HEX JAMB 3/8-16	1
40	73263 WASHER, FLAT, ZINC, SAE 3/8	2
41	73301 BOLT, BUTTON HEAD SOCKET CAP 5/16-18X1/2	1
42	73322 NUT, NYLOCK 5/16-18	4
43	73327 BOLT, HEX HEAD CAP 5/16-18X2 1/2	2
44	73351 WASHER, FLAT SAE ZINC 5/16	1
45	73401 NUT, STRAING RELIEF, STEEL, 1/2"	1
46	73424 WASHER, FLAT, ZINC SAE 1/2"	3
47	73536 PIN, HITCH CLIP 5/8"	1
48	74406 SCREW, PHILLIPS PAND HEAD 10-32X3/8	1
49	74413 WASHER, INTERNAL LOCK #10	1
50	74619 WASHER, SPLIT LOCK M6	6
51	74630 BOLT, HEX HEAD CAP M6-12 8.8	6
52	92800-12 SPRING, ADJUSTMENT, 3.5"	1
53	92800-98 ROD, ADJUSTMENT, SHORT	1
54	92800-99 ROD, ADJUSTMENT	1
55	73334 BOLT, HEX HEAD CAP 5/16-18X1-1/2	2

HANDLE ASSEMBLY



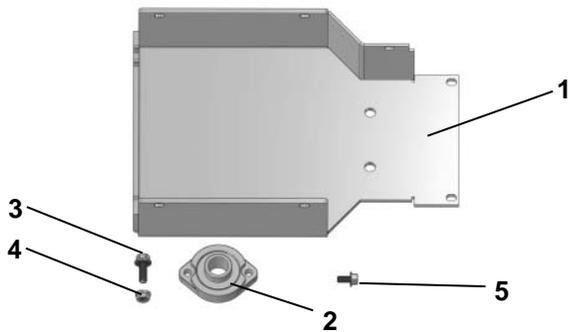
Parts List and Diagrams

REAR WHEEL ASSEMBLY



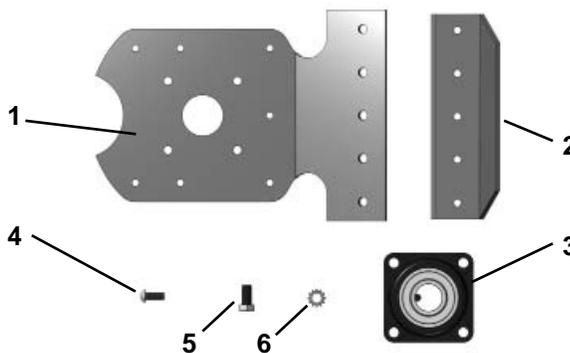
PART#	DESCRIPTION	QTY
1	6280-165 CLEANER, WHEEL	2
2	6280-110 SPACER, WHEEL, 1/2	2
3	6280-112 CAP, WHEEL	2
4	73330 PIN, LOCKING, 5/16X2	2
5	73313 SCREW, FH SOCKET CAP 5/16-18X1/2	2
6	73201 BOLT, CAP 3/8-16X1	2
7	73264 WASHER, FLAT, ZINC USS 3/8	2
8	73204 WASHER, SPLIT LOCK 3/8	2
9	400328 WHEEL, DRIVE,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

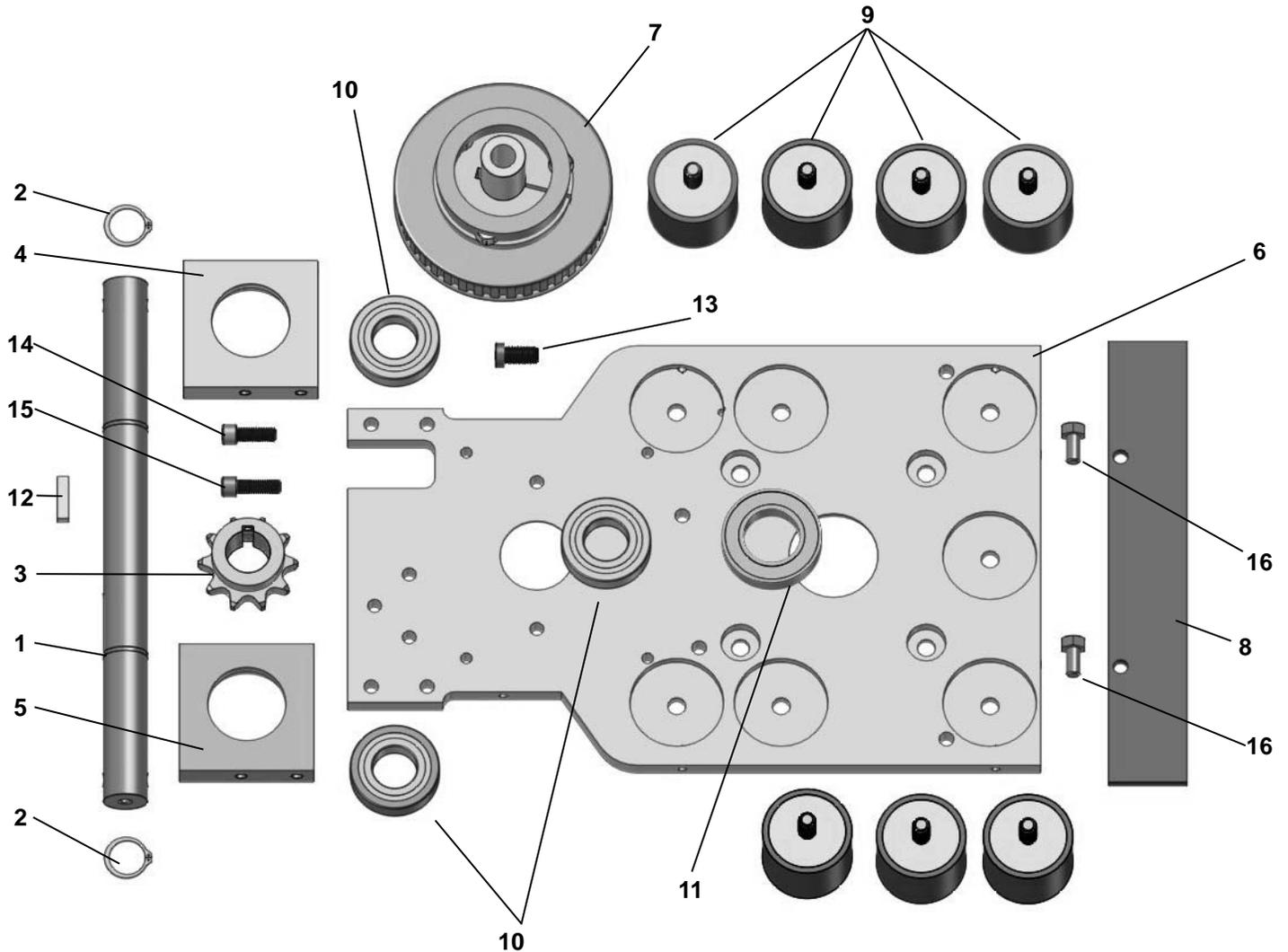
CUTTING HEAD ASSEMBLY



PART#	DESCRIPTION	QTY
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

Parts List and Diagrams

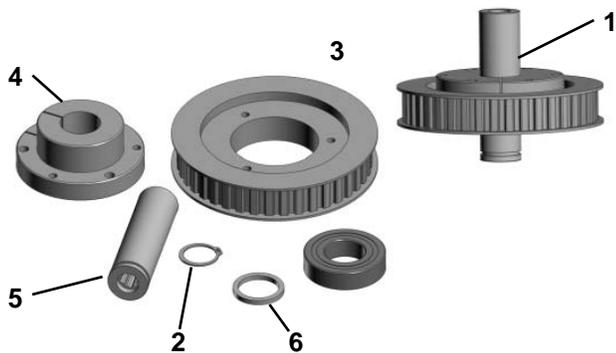
BASE ASSEMBLY



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	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

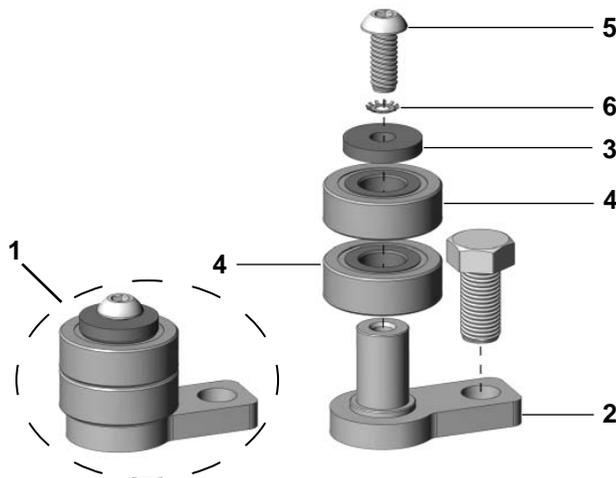
Parts List and Diagrams

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/HARDWARE	1
5	6280-116A	SHAFT, SPLINE PUMP	1
6	73101	SPACER, ID 1/8X1-1/4ODX1"	1

IDLER ASSEMBLY

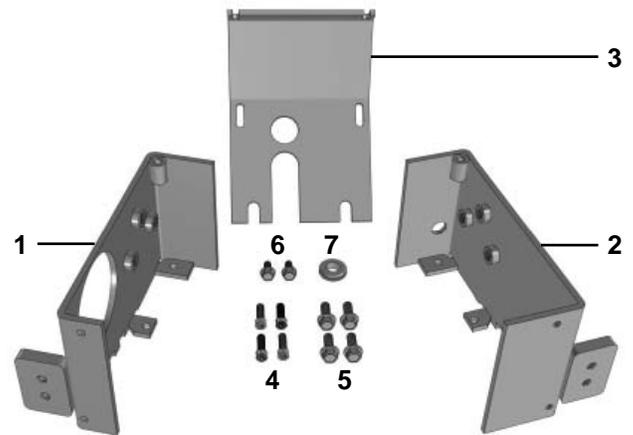


	PART#	DESCRIPTION	QTY
1	6280-125	IDLER ASSEMBLY, COMPLETE	1
2	6280-125W	BRACKET AND PIN, IDLER MOUNT	1
3	6280-126A	CAP, IDLER BEARING	1
4	71072	BEARING, 1/2 ID DCTN-1616	2
5	73003	SCREW, BH SOCKET CAP 1/4-20X5/8	1
6	73215	WASHER, EXTERNAL LOCK 3/8	1

Parts List and Diagrams

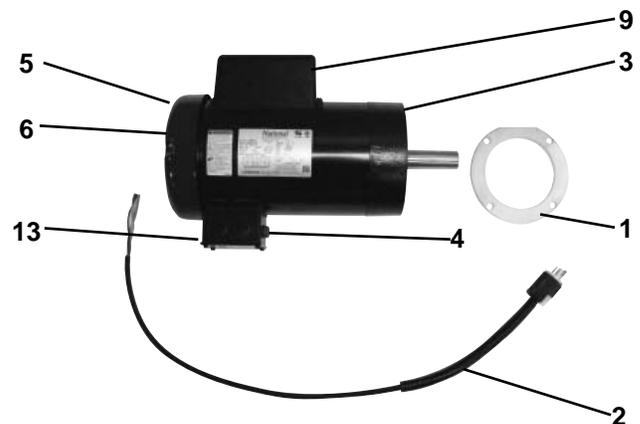
PART#	DESCRIPTION	QTY
1	6280-156L BODY, MAIN, UPPER, LEFT	1
2	6280-156R BODY, MAIN, UPPER, RIGHT	1
3	6280-139 COVER, REAR	1
4	73311 SCREW, SH CAP, GRADE 5 5/16-18X1	4
5	73222 BOLT, FLANGE 3/8-16X1	4
6	73318 BOLT, WIZLOCK FLANGE 5/16-18X5/8	2
7	74763 GROMMET, RUBBER 1/2"	1

BODY ASSEMBLY



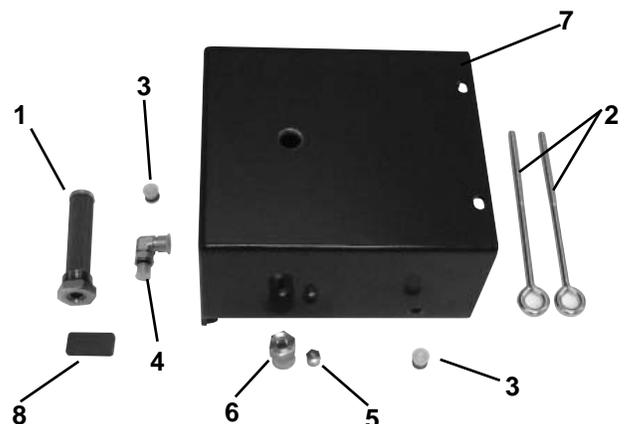
PART#	DESCRIPTION	QTY
1	6280-179 RING, MOTOR SPACER	1
2	72554 CORD, MOTOR	1
3	72365 MOTOR, 115 VOLT, 1.5 HP	1
4	72461 SWITCH THERMO OVERLOAD	1
5	400001 COVER, MOTOR FAN	1
6	6280-148A SCREW, FAN COVER, HEX HEAD 8-32X3/8	3
7	6280-147-1 SWITCH, STARTER	1
8	6280-147-2 ACTUATOR, STARTER SWITCH	1
9	6280-150 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

MOTOR PARTS



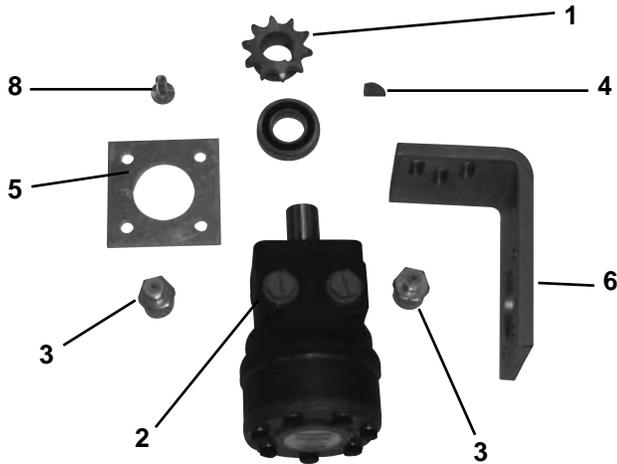
TANK PARTS

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
8	6280-162G TANK, MAGNET	1



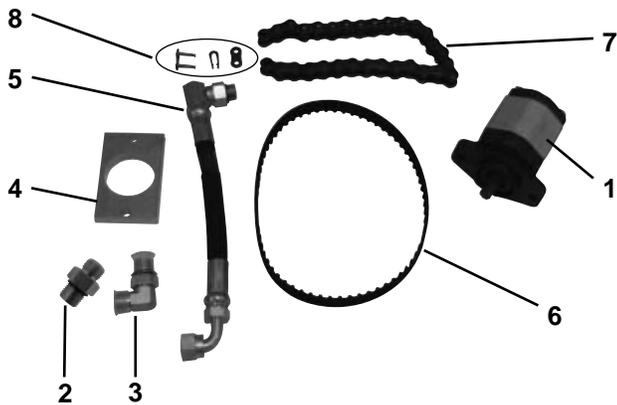
Parts List and Diagrams

HYDRAULIC MOTOR ASSEMBLY



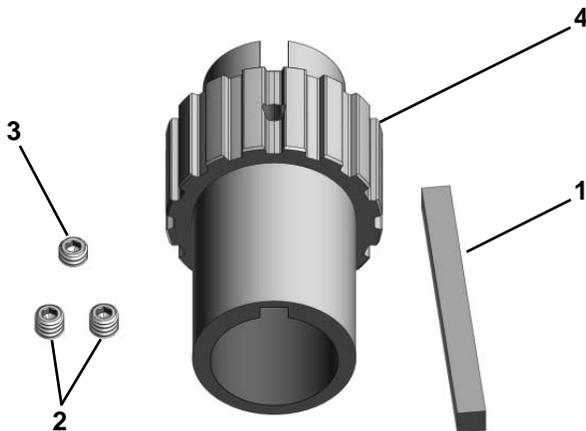
PART#	DESCRIPTION	QTY
1	6280-104 SPROCKET, AXLE	1
2	6280-220A MOTOR, HYDRAULIC	1
3	6280-221 CONNECTOR, HYDRAULIC MOTOR	2
4	6280-223 KEY, SHAFT, HYDRAULIC MOTOR	1
5	6280-225 SPACER, HYDRAULIC MOTOR	1
6	6280-226 BRACKET, MOUNTING, HYDRAULIC MOTOR	1
7	71115 BEARING, 1X2X1/2	1
8	73222 BOLT, FLANGE 3/8-16X1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

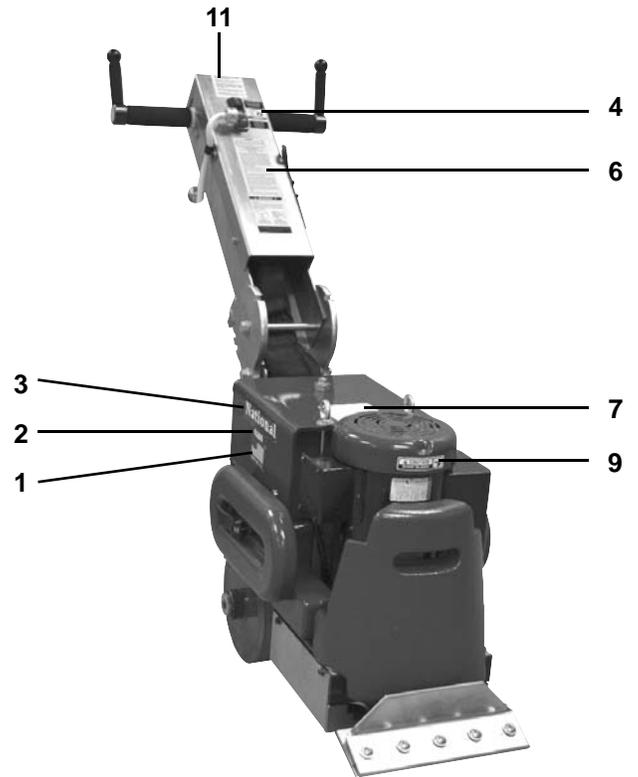


PART#	DESCRIPTION	QTY
1	6280HD-131 KEY, ECCENTRIC	1
2	73010 SCREW, SET 1/4-20X1/4	2
3	73039 SCREW, CUP POINT SOCKET SET 1/4-20X3/16	1
4	6280-405 ECCENTRIC	1

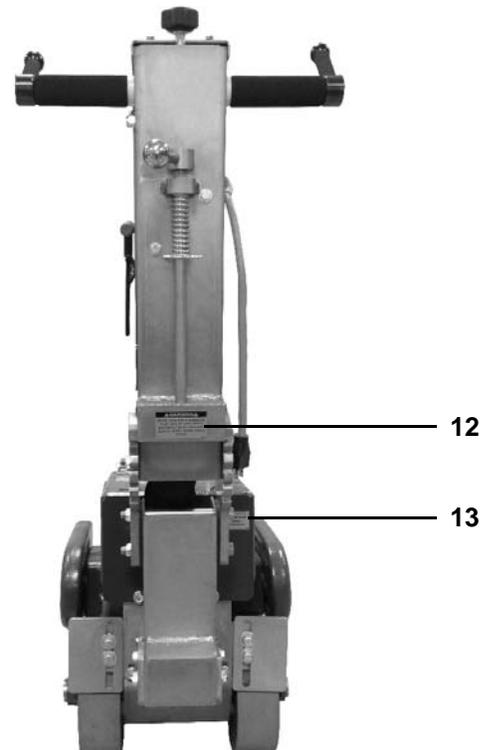
Parts List and Diagrams

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	L220 LABEL, BLADE SETTING	1
8	L223 LABEL, PATENT NUMBER	1
9	L37 LABEL, CAUTION SHARP BLADES	1
10	L49 LABEL, CORD CAUTION	1
11	L95E LABEL, SPEED CONTROL	1
12	L95F LABEL, FLUID LEAK	1
13	L95G LABEL, FLUID LEVEL (NOT VISIBLE)	1
14	L95H LABEL, SERIAL NUMBER	1

LABELS - FRONT

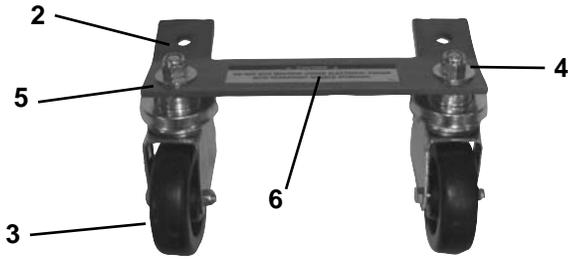


LABELS - BACK



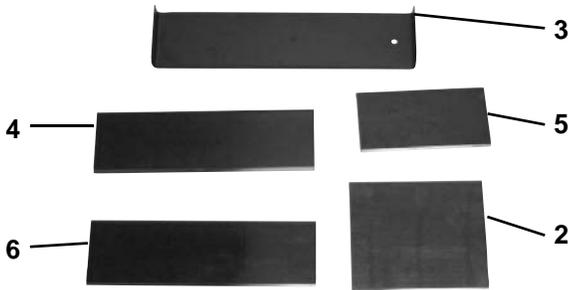
Parts List and Diagrams

FRONT CASTER WHEELS



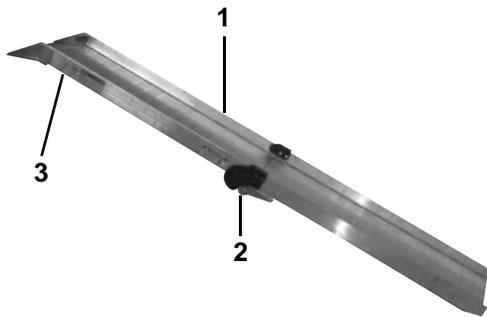
PART#	DESCRIPTION	QTY
1 6280-299	WHEEL ASSEMBLY, FRONT	1
2 6280-300	BRACKET, TRANSPORT WHEEL	1
3 6280-301	WHEEL, ONLY, FRONT TRANSPORT	2
4 73402	NUT, NYLOCK 1/2-13	2
5 73425	WASHER, FLAT USS ZINC 1/2	2
6 L95H	LABEL, CAUTION DO NOT	1

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

Parts List and Diagrams

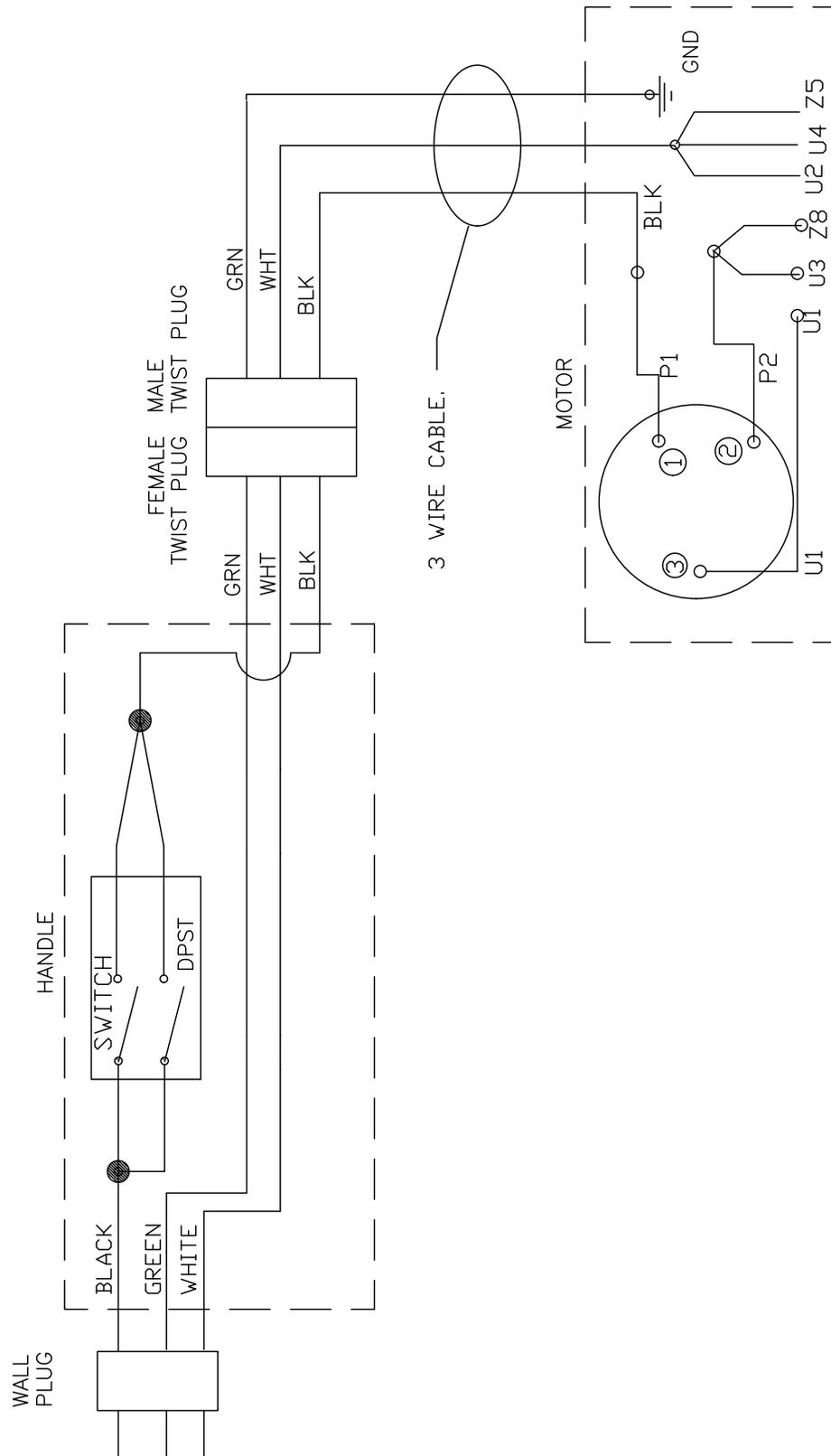
PART#	DESCRIPTION	QTY
1 74851	WEIGHT, SLIDE, 47 LB EACH	2
2 73424	WASHER, FLAT, ZINC SAE 1/2	2
3 73426	BOLT, HEX HEAD CAP 1/2-13X4-3/4	2
4 73403	WASHER, SPLIT LOCK 1/2	2

SIDE SLIDE WEIGHTS



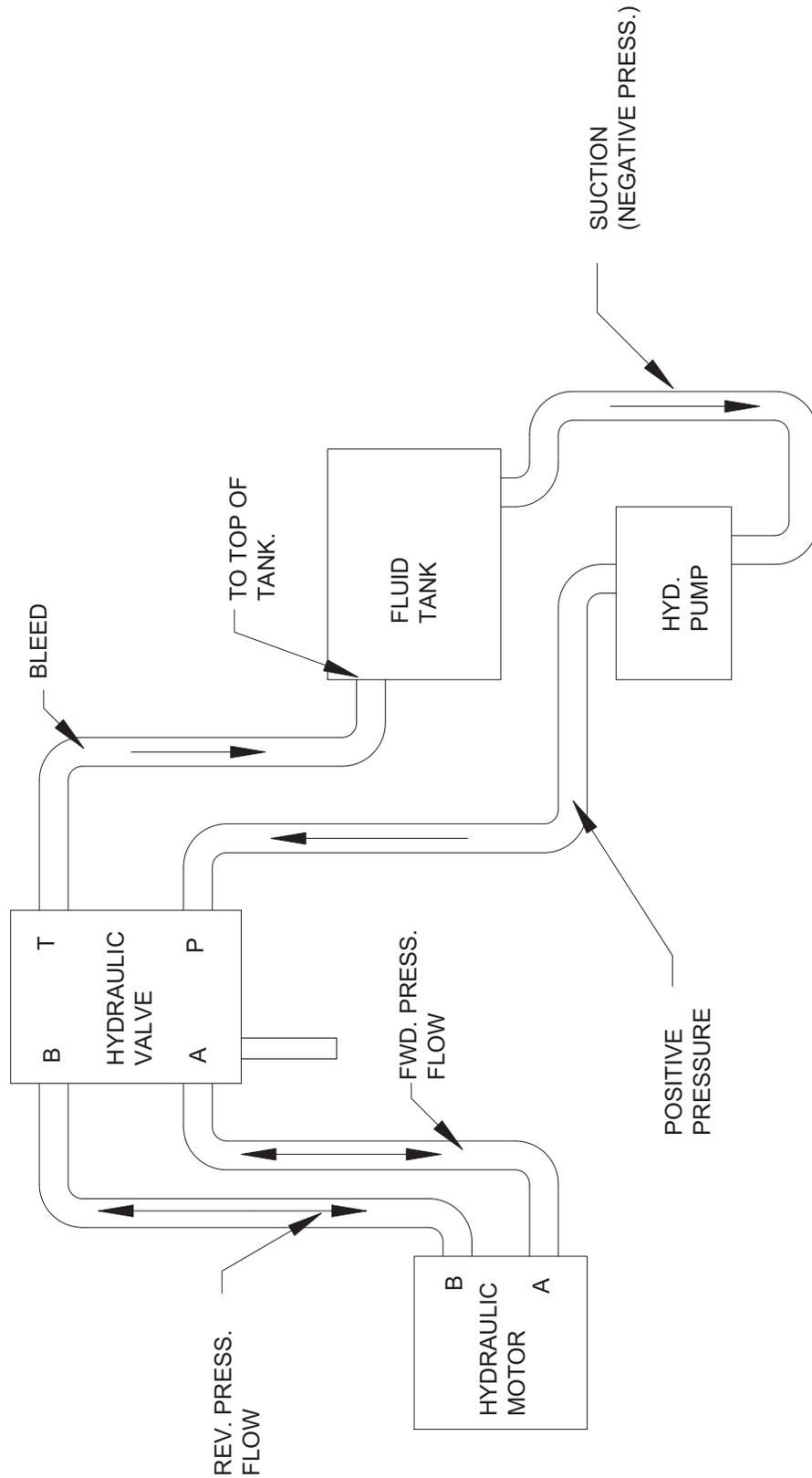
Parts List and Diagrams

6280-COM 115V WIRING DIAGRAM



Parts List and Diagrams

6280-COM HYDRAULIC DIAGRAM



Material Safety Data Sheet (MSDS) Information

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 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.

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: (Cleveland Open Cup) 150 C (302 F) (Min)

Autoignition: No Data Available

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

Material Safety Data Sheet (MSDS) Information

CHEVRON HD 22 - 68 - HYDRAULIC FLUID (CONTINUED)

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 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-combustible 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, '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.

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.

Material Safety Data Sheet (MSDS) Information

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 (60.1F)	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 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.

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 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 been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2), 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 (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 biodegradable.

DISPOSAL CONSIDERATIONS

Use material for its intended purpose if 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 representative 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 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

Material Safety Data Sheet (MSDS) Information

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 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 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.

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:

Revision Date: January 15, 2007

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

- | | |
|---|--|
| TLV - Threshold Limit Value | TWA - Time weighted Average |
| STEL - Short-term Exposure Limit | PEL - Permissible Exposure Limit |
| CAS - Chemical Abstract Service Number | IMDG - International Maritime Dangerous Goods Code |
| API - American Petroleum Institute | MSDS - Material Safety Data Sheet |
| ACGIH - American Conference of Government Industrial Hygienists | CVX - Chevron |
| NFPA - National Fire Protection Association (USA) | DOT - Department of Transportation |
| NTPA - 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.

Guarantee

National Flooring Equipment, Inc. (National) warrants to the first consumer/purchaser that this National brand product **6280-COM 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 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 **6280-COM 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: _____



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