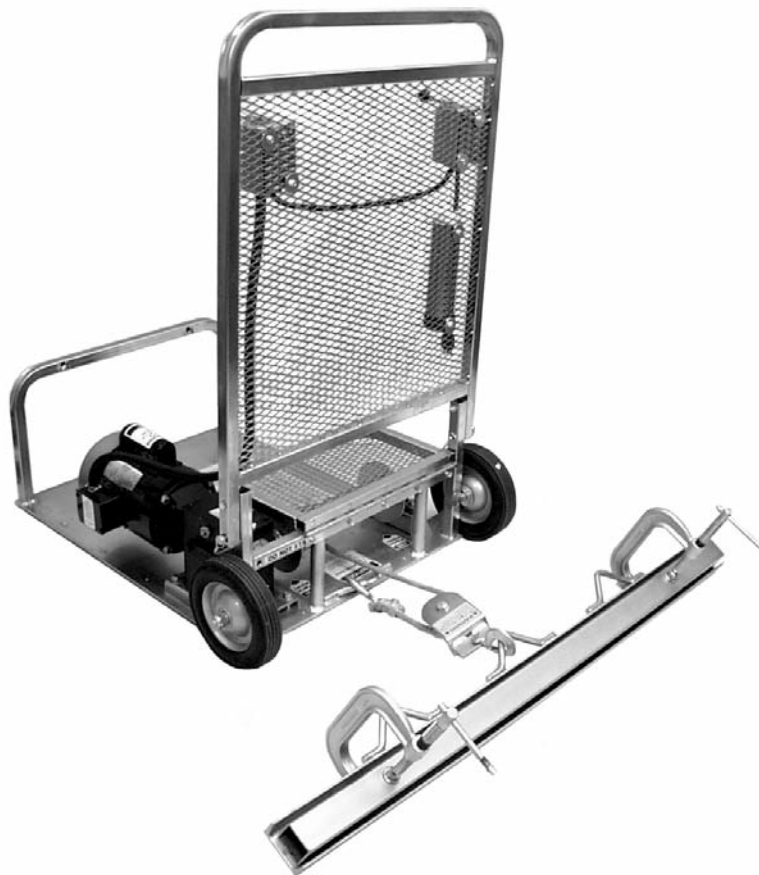


# #71 POWERED CARPET PULLER INSTRUCTION MANUAL



Read Manual Before Operating Machine



***National***  
*Flooring Equipment, Inc.*



9250 XYLON AVENUE NORTH • MINNEAPOLIS, MN 55445 • U.S.A.  
800-245-0267 • 763-535-8206 • FAX 763-535-8255 • FAX 800-648-7124  
WEB SITE: [www.nationalequipment.com](http://www.nationalequipment.com) • E-MAIL: [info@nationalequipment.com](mailto:info@nationalequipment.com)

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# RULES FOR SAFE OPERATION



**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 the equipment applications and limitations as well as potential hazards associated with this type of equipment.
- 2. KEEP HANDS AWAY FROM ALL MOVING PARTS, WINDING SHAFT, ROPE, PULLEY AND PULL BAR.**
- 3. DO NOT STAND BETWEEN MACHINE AND PULL BAR IN SNAP BACK/RECOIL AREA.**
- 4. DO NOT RUN MACHINE WITHOUT PROTECTIVE SCREEN AND ROPE GUARD.**
- 5. MAINTAIN LABELS AND NAMEPLATES:** These carry important information. If unreadable or missing, contact National for a free replacement. Manual should be kept with machine in supplied holder for access by operator at all times.
- 6. GROUND YOUR TOOL:** See Grounding.
- 7. DO NOT DEFEAT OR ALTER A SWITCH OR SAFETY DEVICE.**
- 8. 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.
- 9. KEEP WORK AREA CLEAN AND WELL LIT:** Cluttered, dark work areas invite accidents.
- 10. DRESS PROPERLY:** Do not wear loose clothing or jewelry. These may be caught in moving parts. Keep hands and gloves away from moving parts. Never touch or hold rope or winding shaft during operation.
- 11. 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.
- 12. PROTECT OTHERS IN THE WORK AREA:** Provide barriers or shields as needed to protect others from debris and machine operation.
- 13. 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.
- 14. 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 a damaged tool. Tag damaged tools "DO NOT USE" until repaired. A guard, switches, pull bar, pulley, rope or other damaged parts should be properly repaired or replaced. For all repairs, insist on only identical National replacement parts.
- 15. GUARD AGAINST ELECTRIC SHOCK:** Prevent body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. When scoring, always check the work area for hidden wires or pipes. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.
- 16. AVOID ACCIDENTAL STARTING:** Be sure equipment is turned off before plugging it in. Do not use if the power switches do not turn to the off position.

# RULES FOR SAFE OPERATION

17. **DO NOT FORCE TOOL:** Equipment will perform best at the rate for which it was designed. Excessive force can damage motor.
18. **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.
19. **DO NOT OVERREACH. MAINTAIN CONTROL:** Keep proper footing and balance at all times. Maintain a firm grip when standing or sitting on puller.
20. **STAY ALERT:** Watch what you are doing, and use common sense. Do not use a tool 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. Failure to do so could cause electric shock.
22. **UNPLUG EQUIPMENT:** When it is not in use, unplug equipment before changing accessories or performing recommended maintenance or when not in use.
23. **MAINTAIN EQUIPMENT CAREFULLY:** Keep handles dry, clean and free from oil and grease. Follow instructions for lubricating and changing accessories. Periodically inspect tool cords and extension cords for damage. Have damaged parts repaired or replaced.
24. **STORE IDLE EQUIPMENT:** When not in use, store in a dry, secured place. Keep away from children. Keep pin guard cover in place when not in use.
25. **MACHINE IS HEAVY, DO NOT DROP:** Take caution when moving or transporting.
26. **KEEP GRIPPER STRIPS CLEAN SO THEY PROPERLY ENGAGE CARPET.**
27. **ONLY USE ROPE THAT IS SPECIFIED BY NATIONAL:** To replace rope, use National's Stock #71-P33 Replacement Rope or rope with specs no less than 13900 pound tensile strength with no more than 6 to 8% stretch. **NEVER USE CABLE TO REPLACE ROPE.**

# RULES FOR SAFE OPERATION

## 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.

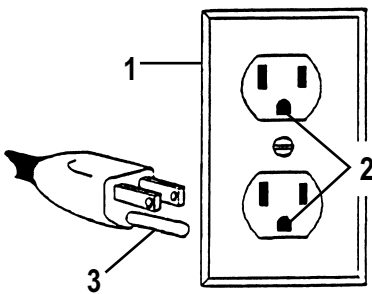


Figure A

1. Cover of grounded outlet box
2. Outlet ground
3. Grounding prong
4. Temporary adapter
5. Screw
6. Green grounding ear

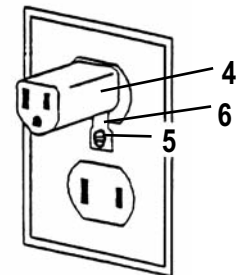


Figure B

### GROUNDING 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.

Figure B illustrates a temporary adapter available for connecting grounded plugs (Figure A) to two prong outlets. The green rigid ear or lug extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box or receptacle. Simply remove the center screw from the outlet, insert the adapter and reattach the screw through the green grounding ear to the outlet. If in doubt of proper grounding, call a qualified electrician. A temporary adapter should only be used until a properly grounded outlet can be installed by a qualified electrician. The Canadian Electrical Code prohibits the use of temporary adapters.

# RULES FOR SAFE OPERATION


## 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. 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 or run machinery over cord.
- Do not drive, drag or place objects over cord.
- Minimum cord size is 12 gauge, no more than 50 feet in length.

**READ AND SAVE ALL INSTRUCTIONS FOR FUTURE REFERENCE.**




# SAFETY INSTRUCTIONS



Read and understand operators instruction manual before operating this equipment.

**⚠ WARNING:** Know and understand before operation. Failure to do so could cause damage to equipment or bodily injury.

- Operator or support personnel should never stand in line of pull in case of rope breakage or the pull bar should let loose. Failure to do so could cause serious bodily injury or death.
- Manual should be kept with machine in supplied holder for access by operator at all times.
- Always have remote switches in hand. Do not allow yourself or others to become entangled in pulley, rope, winding shaft or pull bar.
- Only qualified, trained personnel should operate this unit.
- Pulley should be inspected before each use. Loose or damaged parts should be replaced immediately. Failure to do so could cause equipment damage or serious injury.
- Rope should be inspected. Worn or cut rope should be replaced with (rope dia. 3/8", 13900 lbs. minimum test, 6% to 8% stretch) Nationals Replacement Rope stock #71-P33. Failure to do so could cause damage to equipment or bodily injury.
- Switches, cord, plug and receptacle should be inspected. (Disconnect power before repairs to prevent electrical shock). Unplug when not in use. Do not use if defective. Switches should return to off when released.
- Drive shaft should engage and disengage freely. Grease both ends of drive shaft on an 'as needed' basis or once a year. Oil level should be checked in gear box once a year or if gear box begins to run excessively loud or an oil leak is noticed.
- Inspect pulley, pulley wheel hook, hook securing pin and pulley housing. Replace if damaged. Do Not use if damaged.
- Power control box, motor and switches should be completely enclosed at all times with no exposed wiring.
- Disconnect power from unit before servicing. Failure to do so can cause electrical shock. 
- Only use National components (ie. rope, pulley, switch, etc.). Failure to do so could cause damage or serious injury.
- Always be aware of support personnel and their proximity when in operation.

**⚠ WARNING:** Failure to follow any of the above instructions could cause damage to machine, damage to property or serious bodily injury or death.

# SPECIFICATIONS

SPECIFICATIONS		#71
Length:	30"	
Width:	24"	
Height:	• 42" (w/screen) • 12.5" (screen folded down)	
Weight (machine only):	178 lbs.	
Speed:	15 - 22 feet per minute	
MOTOR INFORMATION		
RPM:	1725	
Volts:	110	
HP:	1	
Amps-Full Load:	12	
Continuous Duty		





# TRANSPORTATION

1. Make sure Gripper Strips are covered with protective cover when transporting or when machine is not in use. Failure to do so could cause property damage or bodily injury.
2. Use caution not to get scratched on sharp gripper pins. Failure to do so could cause bodily injury.
3. Screen should be folded down for transport mode and secured with screen pins (See Figure A).
4. When machine is not in use, lay machine down flat to safely store (See Figure B). Failure to do so could cause machine or property damage or bodily injury. Keep pin guard cover in place when machine is not in use.
5. When machine is being transported, lay machine flat (See Figure B). Secure machine to wall of truck. Failure to do so could cause damage to vehicle, machine or bodily injury. Keep pin guard cover in place when machine is being transported.
6. To easily move machine on job-site, lean machine back onto wheels to easily roll (like a two wheel dolly), holding screen as a handle (See Figure C). Remember to release any pressure from rope before trying to move or reposition machine.
7. **Do not** leave machine standing-up freely (See Figure A). Machine is tippy and could fall over causing damage to machine and/or bodily injury.

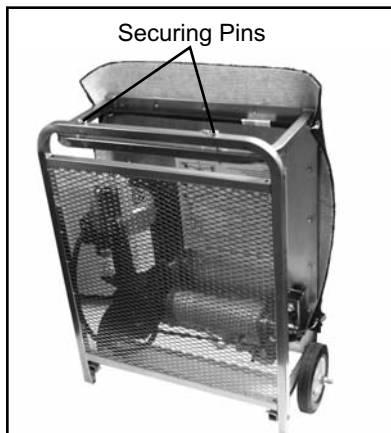


Figure A

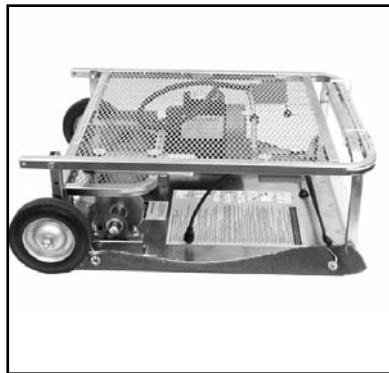


Figure B




Figure C

**⚠ WARNING:** Do not leave machine standing-up freely.

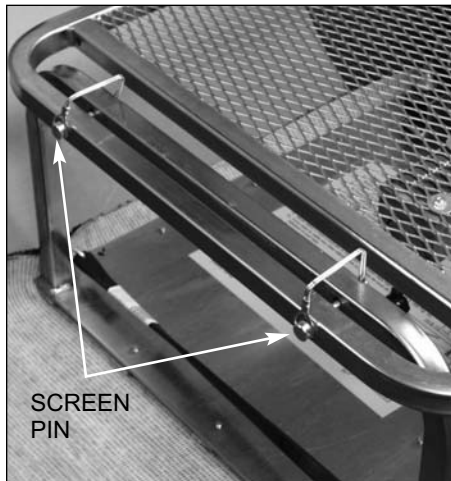
**⚠ WARNING:** Failure to follow any of the above instructions could cause damage to machine, damage to property or serious bodily injury or death.

# SET UP

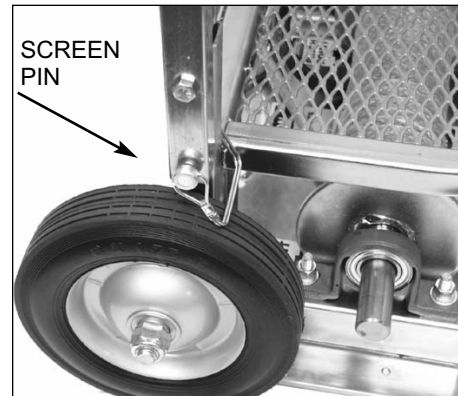
- Read instruction manual and view enclosed VCR instruction video before operating.  Failure to do so could cause machine or property damage or bodily injury.
- Inspect area to be removed for any possible obstruction on floor or defects in carpet (Floor outlets, seams, posts, etc.).
- Remove all debris from carpet area that machine will be anchored to. Keep pin base clear of obstructions. (Sweep with broom or vacuum).
- Set machine down onto gripper strip.
- The Powered Carpet Puller can only be anchored to a carpeted surface. The machine can not be used on a smooth surface like concrete, wood, tile or ceramic.
- Remove two screen pins connected to frame and screen (See Figure A).
- Fold screen up and replace screen pins on both sides of lower screen (See Figure B).

**⚠ CAUTION:** Never use machine with damaged gripper strips, rope, pulley, pull bar or switch. Failure to do so could cause property damage or bodily injury.

- Use a #12-3 grounded or heavier electric cord. Cord should not be over 50 feet.
- Inspect machine and all components before using. See machine inspection on page 10.
- Do not allow anyone to use this equipment if they are not properly trained.
- Create a safe working environment. Block off work area to keep anyone from entering area you are working in.
- NEVER operate machine without safety screens in place. Failure to do so could cause bodily injury.



**Figure A**



**Figure B**

**⚠ WARNING:** Failure to follow any of the above instructions could cause damage to machine, damage to property or serious bodily injury or death.

# MACHINE INSPECTION

## Inspect machine and all components before each use.

- Make certain protective screens are in place before operating (See Figure A). Failure to do so could cause property damage or bodily injury.
- **Rope guard is in place:** Guard should be in the down position to cover rope and drive shaft (See Figure B). Failure to do so could cause bodily injury resulting in loss of limbs. **Do not defeat guard.**
- **Extension Cord:** A #12-3 grounded or heavier electric cord is required. Cord should not be over 50 ft. Inspect cord to ensure that it is in good condition.
- **Pull Bar:** Inspect weld points making sure they are secure. Inspect clamps to ensure they are not bent or damaged.
- **Pulley:** Inspect for loose or damaged parts on the pulley wheel, pulley housing, pulley hook and pin.
- **Rope:** Inspect rope for cuts or fraying. Replace frayed or damaged rope with National stock #71-P33. Make sure rope hook is fastened correctly to rope. Do not tie knots in rope.
- **Gripper Strips:** Keep pins clean and free from debris. Replace damaged pins with new Gripper Strips, National stock #71-P7. Clean dirty pin strips with a stiff wire brush. Brush in direction of pin angle. Failure to keep pins clear of debris could cause the machine to slip during operation causing property damage or bodily injury.
- **Switches and Wiring:** Inspect wiring for cuts or damage and switches to ensure they are in good working condition. Switches must return to the off position when released.
- Be sure fill plug is installed on gear unit.
- Motor should not be run without a fan cover in place. Never set machine on power cord.
- **Do not** run the Powered Carpet Puller with damaged or missing parts.
- **Keep labels and manual readable.** If labels need replacing, contact National.
- **Do not** modify or alter the Powered Carpet Puller or components in any way. Doing so could cause damage to machine and/or bodily injury.
- Pulley should be inspected before each use. Loose or damaged parts should be replaced immediately. Failure to do so could cause equipment damage or serious injury.
- Rope should be inspected. Worn or cut rope should be replaced with National's Replacement Rope stock #71-P33.

**⚠ WARNING:** Failure to inspect machine components could cause property damage or bodily injury.

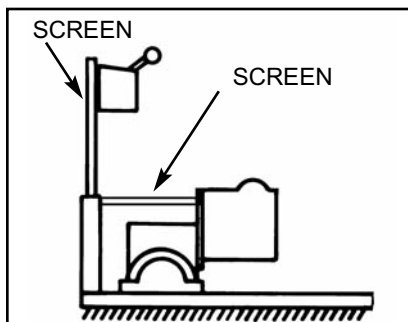


Figure A

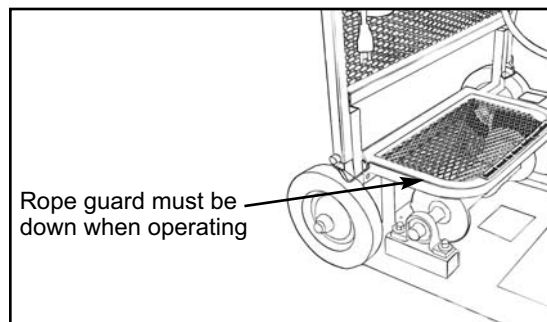


Figure B

Labels and operators manual are free of charge. If need replacing, contact National.

# OPERATION

**⚠ WARNING:** Know and understand before operation. Failure to do so could cause damage to equipment or bodily injury.

**⚠ WARNING:** Never attempt to guide rope by hand onto shaft while under power. Operator could become entangled in winding shaft causing serious injury.


**⚠ WARNING:** Never touch rope or winding shaft while operating. Doing so could cause bodily injury.



**⚠ WARNING:** Never stand in front or next to pull bar or try to pull on it when rope has tension on it. Doing so could cause serious bodily injury.

**⚠ WARNING:** Never try to operate machine unattended. Do not alter switches or guards. Do not defeat a safety device.

**⚠ CAUTION:** Switches must come to neutral position and spool/rope come to stop before reverse drive will engage

- Read instruction manual and view enclosed DVD instruction video before operating. 
- **Do not allow anyone to use this equipment if they are not properly trained.**
- Inspect area to be removed for any possible obstruction on floor, defects in carpet, cross seams, floor outlets, columns or posts. Failure to do so could cause property damage or bodily injury.
- Remove all debris from carpet area that machine will be anchored to. Keep pin base clear of obstructions. Clear/clean if obstructed. Dirty, damaged or missing pin strips could cause machine to slip.
- Score carpet in 6 ft. widths or narrower if needed.
- Carpet should be pulled in the length direction whenever possible. Observe caution when pulling cross breadth. Carpet is the weakest, especially in woven or axminster construction, when pulling cross breadth. Watch for cross seams. If there is a small piece of carpet attached to the pull bar and the pull bar meets a cross seam, the pull bar will jump forward rapidly.

# OPERATION

- Determine where the tear-out will begin. To hook the pull bar up properly, loosen the carpet approximately 12 to 18 inches from the wall. (The #99 Cobra Clamp is an easy way to get ahold of carpet to pull away from the wall). Attach pull bar to loosened carpet. Make certain enough carpet is loosened so the carpet goes all the way through the channel bar, reaching out the other side (all 3 sides) (See Figure A). Insert bar and tighten "C" clamps. Make sure "C" clamps are tightened very tightly and channel bar fits flatly into channel of clamping bar with carpet on all three sides of the bar. (See Figure A). Failure to do so could cause bar to disengage carpet prematurely.
- Move machine into place making sure rope will pull straight into the machine. If rope is pulling at an angle (See Figure B), stop machine. Release pressure on rope. Using front screen to lift base (See Figure C), reposition machine for a straight pull.
- Release drive shaft from pin to extend rope out to pull bar quickly.
- Hook rope to pull bar. Either hook rope onto pull bar (See Figure D) or hook pulley onto pull bar and insert rope hook through pulley attaching hook to rope (See Figure E). See Page 12 for double pull instructions.
- With power off, take up slack quickly by hand. Reengage drive shaft to pin.
- Lower rope guard safety screen over shaft before operation under power.

**⚠ WARNING:** Never attempt to guide rope by hand onto shaft while under power. Operator could become entangled in winding shaft causing serious injury.

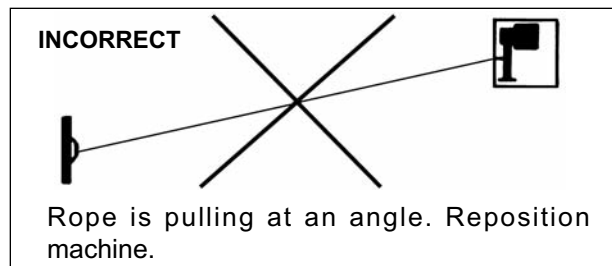
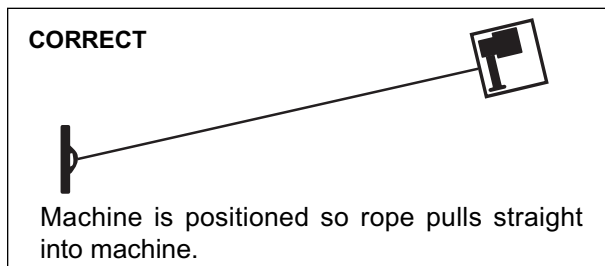


Figure B

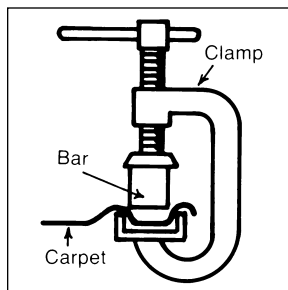


Figure A



Figure C

**⚠ WARNING:** Never attempt to guide rope by hand onto shaft while under power. Operator could become entangled in winding shaft causing serious injury.



Figure D



Figure E

# OPERATION

- Rope feeds in from the bottom of the drive shaft (See Figure A).
- Single pull will remove approximately 20 feet. per minute. Double pull will remove approximately 12 feet per minute.
- Rope guard must be down before operating machine (See Figure B).

**⚠ WARNING:** Never touch rope or winding shaft while operating. Doing so could cause bodily injury.



- If machine seems to bog down when pulling on single pull, immediately shut off machine and go to a double pull (See Figure C). Double pull requires the use of a pulley attached to the pull bar. Loop rope through pulley and attach rope hook to securing point on puller base (See Figure D).
- Be extremely careful that pull bar is always free from obstructions such as posts or other solid objects. If you should hit an obstruction, release tension on rope before adjusting pull bar.
- Rope is usually hooked into the center “hook up” on the pull bar. Hooking to the right or left “shift hook”

**⚠ WARNING:** Never stand in front or next to pull bar or try to pull on it when rope has tension on it. Doing so could cause serious bodily injury.

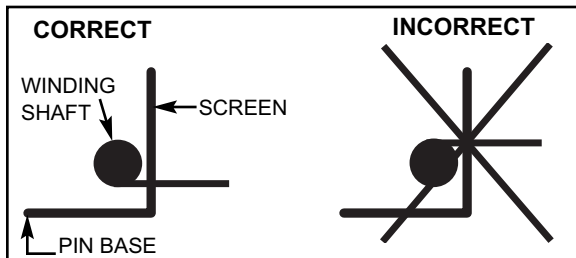


Figure A

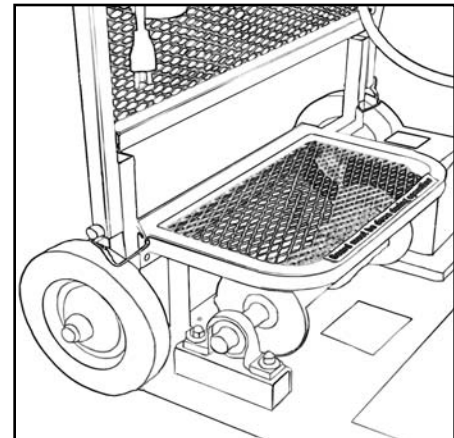


Figure B

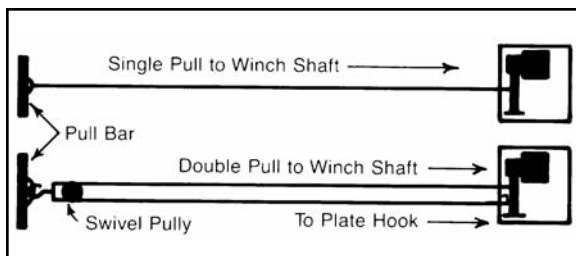


Figure C



Figure D

**⚠ WARNING:** Failure to follow any of the above instructions could cause damage to machine, damage to property or serious bodily injury or death.

# OPERATION

- Make certain that no one is standing between the pull bar and the machine (See Figure A).
- If you need to make any adjustments on pull bar, be sure all pressure is released on pull rope.
- If strength of carpet does not allow 6 ft. width to be pulled without breaking the carpet or stalling the machine, cut carpet into smaller widths or convert from single to double pull mode (See Figure B).
- Stand behind the screen, on the bottom plate when operating the machine.

**⚠ WARNING:** Never try to operate machine unattended. Do not alter switches or guards. Do not defeat a safety device.

**⚠ CAUTION:** Never handle or touch rope or winding spool while machine is running. Doing so could cause severe bodily injury.

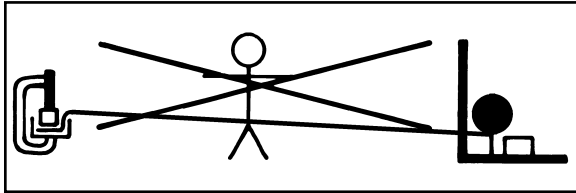


Figure A

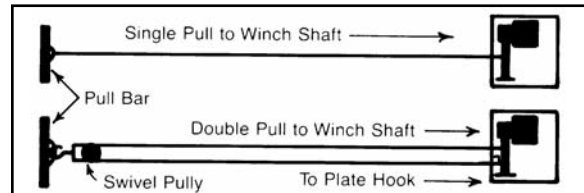


Figure B

# OPERATION

- Make certain protective screens are in place before operating (See Figure A).
- Switches are spring activated. Both switches need to be held on to keep the machine running (See Figure B). Do not defeat switches.  
Left Switch On/Off - (power cord switch), Center is off, Left is on.  
Right Switch (motor cord switch), Center is off, Right pulls rope in, left releases rope out.

**⚠ CAUTION:** Switches must come to neutral position and spool/rope come to stop before reverse drive will engage

**⚠ CAUTION:** Never rapidly move the switch from forward to reverse. Pulling direction will not change.

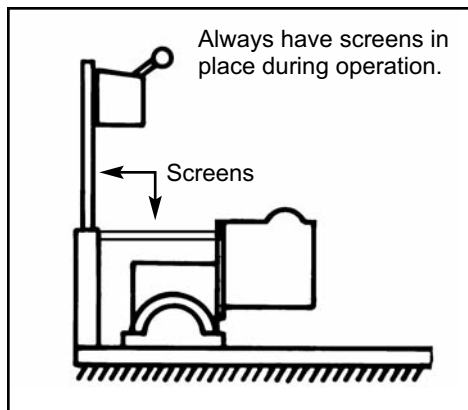


Figure A

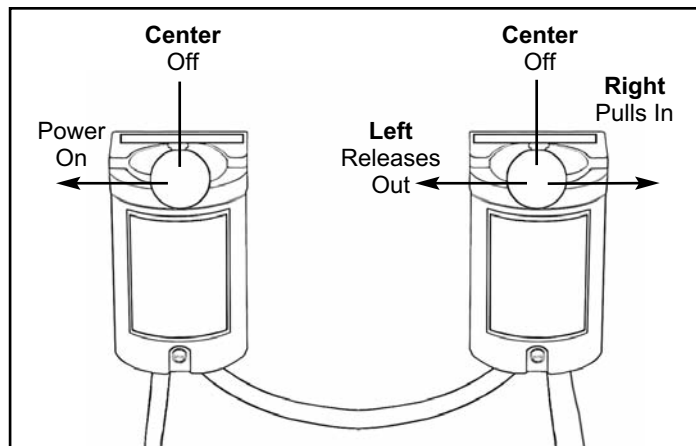



Figure B

**⚠ WARNING:** Failure to follow any of the above instructions could cause damage to machine, damage to property or serious bodily injury or death.

**⚠ WARNING:** Do not defeat or alter a switch or safety device.



# OPERATION

- **Always** release tension on rope and pull bar when machine is stopped.
- Run pull bar up to machine but NOT into machine.
- Pull rope should always be at a 90 degree angle to the machine. Always have rope going straight into the machine. **Never** have machine at an angle where the rope winds sideways on the shaft (See Figure A). This could cause the rope to wind improperly on the shaft and damage the rope.
- To adjust machine base, make sure tension is released from rope and pull bar. Lift base using front screen. Adjust machine (See Figure B) and set back down.
- If you are using an angle pull from one room to another, make sure hallways are blocked off to keep anyone from walking through the pulling path.
- Unplug machine when it is not in use. 
- Cover pins with protective Grip Strip cover when machine is not in use
- Always block off work area from other people.

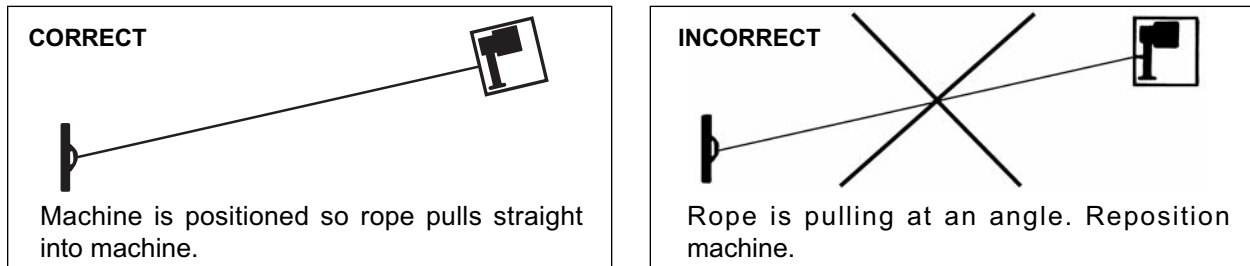


Figure A



Figure B

**⚠ WARNING:** Failure to follow any of the above instructions could cause damage to machine, damage to property or serious bodily injury or death.

# ROPE

- If rope becomes frayed, it should be cut off or replaced with National stock #71-P33 Replacement Rope. Do Not tie rope together. Do Not use any other type of rope that does not meet national specifications (less than 6 to 8% stretch, 13900 pound tensile strength). Failure to do so could cause property damage or bodily injury.

**⚠ WARNING:** Do Not use cable. Doing so could cause property damage or bodily injury.

- Rope should always pull straight into the machine. Never at an angle.
- Rope feeds in from the bottom of the drive shaft.
- Never have machine at an angle where the rope winds sideways on the shaft. This could cause the rope to wind improperly on the shaft and damage the rope.
- Do Not modify or alter rope, switches or guards in any way.
- Make sure hook is securely tied to rope. See instruction video for demonstration of the correct knot.



**⚠ CAUTION:** The improper use of rope is dangerous, resulting in bodily injury or death.

**⚠ WARNING:** Rope failure can cause serious injury.

**⚠ WARNING:** Rope will fail if worn, damaged, abused, overloaded or not properly maintained.

**⚠ WARNING:** Do Not stand within recoil (snapback) area, unless protected by screen. Failure to do so could cause serious bodily injury or death.

- The user is responsible to determine the suitability of the rope for specific applications.
- Use only rope in good condition, without cuts or frays.
- Know the working load limit (WLL) of your rope.
- **Do Not** use over rough surfaces without chafe protection. Doing so could cause damage to rope.
- **Do Not** bend around unprotected, sharp corners. Doing so could cause damage to rope.
- Use sheaves (pulleys) that are in good condition.

**⚠ WARNING:** Do not use any other type of rope that does not meet National specifications. Other types of rope which may have the proper WLL, generally have a high elongation or stretch factor, making machine potentially dangerous from rope snap back resulting in bodily injury or death. Only use National #71-P33 Replacement Rope for safe operation. Failure to do so could cause property damage or bodily injury. NEVER use cable.

# MAINTENANCE

## PREVENTIVE MAINTENANCE

**⚠ WARNING:** Make certain that the power supply is disconnected before attempting to service or remove any components. Failure to do so could cause electric shock.



1. Inspect for damage on all exposed power cords, rope, switches and guards. Worn or broken cords and switches could result in electrical shock.
2. Oil level in gear box should be checked once a year. Remove level screw on side of gearbox, add if needed. (Mobil SHC 634)
3. Pull rope should be replaced when excessive wear (reduction in diameter), frays or cuts into your rope are visible. Use #71-P33 Replacement Rope.
4. During operation, make sure guard stays down over rope. **Do Not** defeat guard. Failure to do so could cause bodily injury.

**⚠ WARNING:** **Do Not** use CABLE of any type. Only use rope that meets Nationals specifications. Failure to do so could cause property damage or bodily injury.

5. Drive shaft and pillow block bearing should be greased for free shaft movement to engage and disengage grease when needed.
6. Pulley should be examined prior to each use for free movement of pulley wheel and to ensure pulley frame and hook are free from damage.
7. Always read instruction manual and view instruction video before operating Powered Carpet Puller for the first time.



## CLEANING

Properly selected and installed electric motors are capable of operating for long periods with minimal maintenance. Periodically clean dirt accumulations from open-type motors, especially in and around vent openings, preferably by vacuuming (avoids imbedding dirt in windows). At the same time, check that electrical connections are tight.

## ROPE

Replace rope if frays or cuts are noticeable.

To Remove Rope: Lift guard. Release drive shaft pin. Pull rope off of drive shaft. Cut knot off at the end of rope to remove.

To Install Rope: Insert rope through hole in drive shaft on the side winder guide. Tie a knot on end of rope to secure. Take up slack quickly by hand, then reengage drive shaft pin. Release guard down into place. Turn switch to forward to wind rope onto drive shaft.

Rope Hook: Secure rope hook to end of rope with knot demonstrated on instruction video (See Figure A).



Figure A

## PULL BAR

Internal clamping bar could build up with residue. Remove bar. Wearing gloves, scrape off residue with a razor scraper or wipe off with a safety solvent. Inspect clamp for proper condition. Make sure “C” clamps

**⚠ WARNING:** Failure to follow any of the above instructions could cause damage to machine, damage to property or serious bodily injury or death.

# MAINTENANCE

## GRIPPER STRIPS

Use protective cover over gripper strips when the machine is being transported or not in use. Keep gripper pins free of debris.

**⚠ CAUTION:** Never use machine with damaged or clogged gripper strips. Clogged gripper strips will not allow machine to stay secured which could cause damage to machine, property damage or bodily injury.

**🧤 Care:** Wearing gloves, use a wire brush. Brush over pins in a downward motion, (from back of machine to front of machine) removing debris caught in pins (See Figure A). Use a long shank screwdriver to pry out debris that is embedded into the pins. Not wearing gloves could cause bodily injury.



## REPLACING GRIPPER STRIPS

Remove six phillips head screws. Take off damaged gripper strip and replace with a new gripper strip. Gripper strip pins are angled. The angle faces towards the front of the machine (See Figure B). Repeat with four remaining gripper strips.

Screw replacement - See Figure C



Figure A

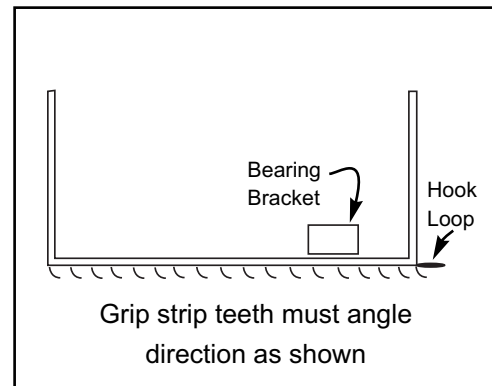


Figure B

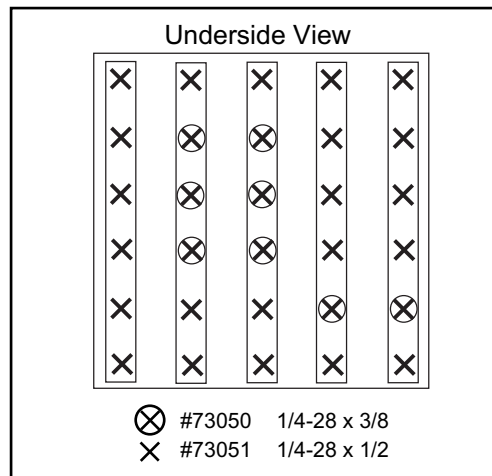


Figure C

# MAINTENANCE

## LUBRICATION

Figure A illustrates the correct locations for the oil fill plug, the oil level plug, and the oil drain plug on the reducer. Plugs may vary in location on the sides of the reducer.

**⚠ CAUTION:** If oil level is too low, reducer bearings and gears will not get enough lubrication. Too much oil in the reducer may cause oil to leak from the air vent, or may cause the oil to churn and foam, which may cause overheating. Either too much or too little oil can cause reducer bearing and gear damage.

For new reducers, change the oil 120 hours after the reducer starts operating (based on 8 hours per day operation). After the first change, change oil every 2,000 operating hours, or every six months, whichever occurs first.

Use Mobil SHC® 634 gear lubricant or a similar synthetic gear oil. ISO viscosity grade 460. Available from National, stock #1450-40, 1 quart.

## ADDING OIL

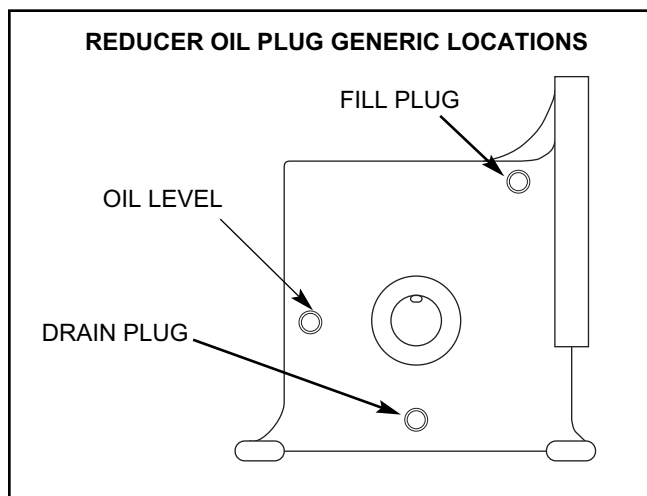
Remove both the fill plug and oil level plug. Place oil in the fill plug hole. Keep adding oil in until it starts to come out of the oil level plug hole. Replace plugs.

## CHANGING OIL

Drain oil out of unit by removing drain plug. Replace drain plug. Remove both the fill plug and the oil level plug. Place oil in the fill plug hole. Keep adding oil in until it starts to come out of the oil level plug hole. Repeat.

## CHANGING THE OUTPUT OIL SEAL

Remove the rope shaft and the gear reducer from the unit. Place some form of support, (2 x 4 etc.), under the gear reducer shaft to keep it from bending. Drive out the gear reducer shaft pin. Pick out the old seal. Clean out the area where the old seal was. Install the new seal, carefully press it in. Install drive pin again. Put some "Locktite" around the middle of the pin and carefully press into the shaft. If you find that the pin is loose, you may need a new pin. Depending on how much oil leaked, check to see if your unit needs more oil. Add oil if needed. Install the rope shaft.



**PLUGS MAY VARY ON THE SIDES OF THE REDUCER.**

**Figure A**

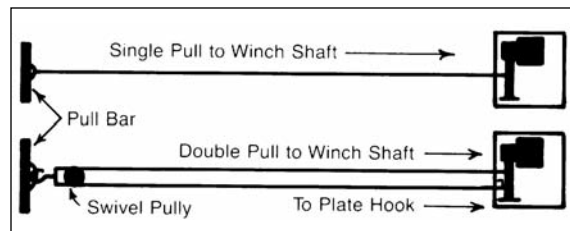
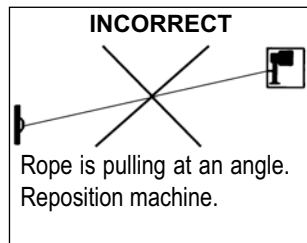
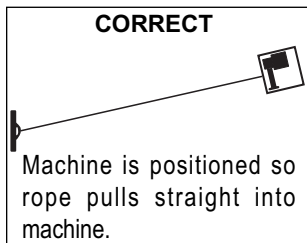
# TROUBLESHOOTING

## TROUBLESHOOTING CHART

SYMPTOM	POSSIBLE CAUSE (S)	CORRECTIVE ACTION
Unit fails to operate	<ol style="list-style-type: none"> <li>1. Blown fuse or open circuit breaker</li> <li>2. No power</li> <li>3. Defective motor</li> <li>4. Excessive load</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace fuse or reset circuit breaker</li> <li>2. Check power source — number 12 wire cord must be used not over 50 ft.</li> <li>3. Repair or replace</li> <li>4. Convert to double pull (reduce load)</li> </ol>
Input motor runs, but speed reducer output shaft doesn't turn	<ol style="list-style-type: none"> <li>1. No input pin on shaft</li> <li>2. Defective gear(s)</li> </ol>	<ol style="list-style-type: none"> <li>1. Install pin (see installation)</li> <li>2. Check and replace if necessary</li> </ol>
Intermittent rotation of output shafts	<ol style="list-style-type: none"> <li>1. Poor electrical connection</li> <li>2. Damaged gear assembly, possibly caused by shock load</li> </ol>	<ol style="list-style-type: none"> <li>1. Check connection</li> <li>2. Replace gear and, if possible, avoid shock load</li> </ol>
Excessive noise	<ol style="list-style-type: none"> <li>1. Bearings worn</li> <li>2. Shaft misalignment</li> <li>3. Weight overload — exceeds ratings and causes bearing wear</li> <li>4. Insufficient lubrication</li> <li>5. Dented Fan Cover</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace</li> <li>2. Adjust shaft</li> <li>3. Correct load and/or replace bearing</li> <li>4. Check oil level</li> <li>5. Replace fan cover</li> </ol>
Oil leak	<ol style="list-style-type: none"> <li>1. Fill plug not installed</li> <li>2. Gasket broken or not sealed</li> <li>3. Damaged or worn seal</li> <li>4. Too much oil</li> </ol>	<ol style="list-style-type: none"> <li>1. Install fill plug</li> <li>2. Replace or reseal gasket</li> <li>3. Replace seal</li> <li>4. Check oil level</li> </ol>
Machine moves while in use	<ol style="list-style-type: none"> <li>1. Gripper Strips</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean or replace gripper strips</li> <li>2. Remove debris from floor surface before setting machine in place to pull</li> </ol>
Rope doesn't wind on shaft correctly	<ol style="list-style-type: none"> <li>1. Pulling at an angle</li> </ol>	<ol style="list-style-type: none"> <li>1. Release pressure on rope. Using screen, position machine for a straight pull (See Figure A).</li> </ol>

If machine seems to bog down when pulling on single pull, immediately shut off machine, release pressure and go to a double pull. Double pull requires the use of a pulley attached to the pull bar. Loop rope through pulley and attach hook to puller base (See Figure B).

If strength of carpet does not allow 6 ft. width to be pulled without breaking, cut carpet into smaller widths.



**Figure A**

**Figure B**

# COMPLETE PARTS LIST

## COMPLETE PARTS LIST

<u>PART #</u>	<u>DESCRIPTION</u>
71-1	1 FT. PULL BAR
71-2	46" PULL BAR
71-2A	46" CLAMP BAR INSERT ONLY
71-3	7 FT. PULL BAR
71-20	ROPE GUARD
71-C	"C" CLAMP ONLY
71-P8	REPLACEMENT GRIPPER STRIP (5 STRIPS PER BASE) (SPECIFY COLOR OF MACHINE)
71-P8S	GRIPPER STRIP SPACER (5) (NOT SHOWN)
71-P10	CASTER WHEEL (NOT SHOWN)
71-P15	ROPE HOOK
71-P16	PULLEY COMPLETE
71-P16-1	PULLEY WHEEL & BUSHING ONLY (NOT SHOWN)
71-P16-1A	PULLEY WHEEL ONLY (NOT SHOWN)
71-P16A	PULLEY BUSHING ONLY (NOT SHOWN)
71-P16B	PULLEY BODY ONLY
71-P16-2	PULLEY HOOK ONLY
71-P17	DRIVE SHAFT
71-P24	SWITCH ONLY (NOT WIRED) (2)
71-P24A	SWITCH WITH CORD ONLY (LEFT)
71-P24B	SWITCH WIRED COMPLETE 20" (OLD STYLE) (NOT SHOWN)
71-P25	SWITCH BAR ONLY (OLD STYLE) (NOT SHOWN)
71-P26D	SWITCH TO SWITCH WIRE ONLY
71-P27	DOUBLE SWITCHES WIRED COMPLETE (SET)
71-P27-1	REVERSING DRUM SWITCH WITH MOTOR CORD ONLY (RIGHT)
71-P27-1A	MOTOR CORD ONLY
71-P27-2	ON/OFF SWITCH WITH POWER CORD ONLY
71-P28	LARGE WIRE CLAMP
71-P29	METAL GREENFIELD
71-P32	PROTECTIVE GRIP STRIP COVER & STRAPS (NOT SHOWN)
71-P33	50 FT. ROPE
71-P33-1	ROPE 600' SPOOL (NOT SHOWN)
71-P56	REVERSING DRUM SWITCH WITH MOTOR CORD & FEMALE PLUG (RIGHT)
71-P58	MOTOR CORD WITH MALE PLUG (5 PRONG)
71-S1	SCREEN (OLD STYLE) (SQUARE CORNERS, SLIPS INTO MACHINE) (NOT SHOWN)
71-S1A	SCREEN "T" KNOB (OLD STYLE) (NOT SHOWN) (2)
71-S2	SCREEN ( NEW STYLE )
71-VI	INSTRUCTION VIDEO (NOT SHOWN)
500-12	WIRE WITH MOLDED PLUG ONLY
500-29	WHEEL (EACH)
1450-2	INPUT OIL SEAL (NOT SHOWN)
1450-13	BOX SEAL (DAYTON), SHAFT END (EXTERNAL)
1450-27	GEAR BOX SEAL (DAYTON), INTERNAL SHAFT END (NOT SHOWN)
1450-28	DRIVE SHAFT PIN ONLY (NOT SHOWN)
1450-40	GEAR OIL, 1 QT. (NOT SHOWN)

# COMPLETE PARTS LIST

## COMPLETE PARTS LIST (continued)

<u>PART #</u>	<u>DESCRIPTION</u>
1450-50	SPACER PLATE FOR GEAR (NOT SHOWN)
1451	GEAR REDUCER WITH PLATE & PIN
1451-1	GEAR HOUSING (NOT AVAILABLE)
1451-2	PLUG, PIPE HEX SOCKET
1451-3	PLUG, POPPET VENT .25-18 NPT
1451-4	PLATE, OIL SPLASH GUARD
1451-5	COVER, INPUT BLIND
1451-6	O-RING, AS568A-031
1451-7	SCREW, HEX HEAD CAP
1451-8	SHAFT, INPUT QUILL (2.06 C.D)
1451-9	BEARING, BALL INPUT (#204)
1451-10	RING RETAINER - EXTERNAL
1451-11	BEARING, OUTPUT TAPPED ROLLER
1451-12	SPACER, SOLID OUTPUT (2.06)
1451-13	GEAR, SOLID OUTPUT (2.06)
1451-14	O-RING, AS568A-043
1451-15	SHIM, OUTPUT
1451-19	GEAR REDUCER SEAL, OIL OUTPUT (NATIONAL)
1451-20	FLANGE, QUILL (56C/140TC)
1451-21	SEAL, OIL, INPUT FLANGE
1451-30	SOLID OUTPUT ASSEMBLY REPLACEMENT (NOT SHOWN)
62180	MOTOR FAN COVER
62181	MOTOR FAN (NOT SHOWN)
62182	CAPACITOR COVER
62183	CAPACITOR (NOT SHOWN)
62190	CONDUIT BOX ONLY
62191	CONDUIT BOX COVER ONLY
62192	CONDUIT BOX COVER SCREW ONLY (4)
70602	INSTRUCTION TUBE
70603	INSTRUCTION TUBE CAP
71112	PILLOW BLOCK BEARING
72352	1 HP MOTOR
72803	1/2 STRAIGHT CABLE CONNECTOR
72804	1/2 STRAIGHT CORD CONNECTOR
73007	1/4 FLAT WASHER (4)
73025	1/4 RIVET (5)
73031	1/4 X 1 FENDER WASHER (2-SCREEN, 1-CORDS)
73050	1/4-28 X 3/8 BUTTON HEAD CAP SCREW (8))
73051	1/4-28 X 1/2 BUTTON HEAD CAP SCREW (22)



# COMPLETE PARTS LIST

## COMPLETE PARTS LIST (continued)

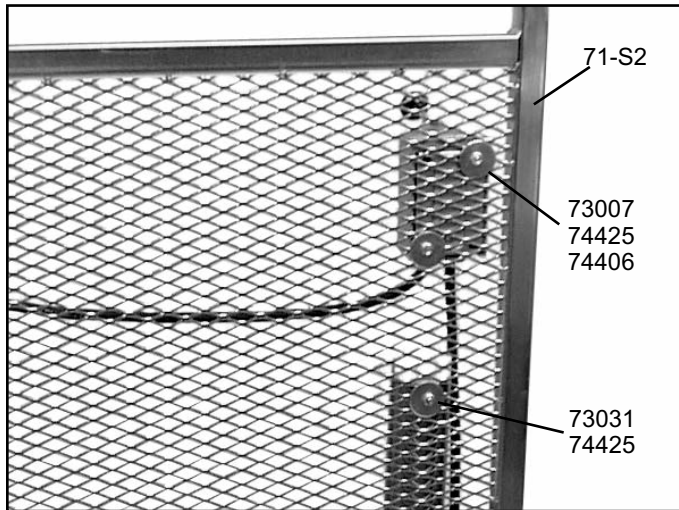
<u>PART #</u>	<u>DESCRIPTION</u>
73201	3/8-16 X 1 HEXHEAD BOLT (4)
73203	3/8 FLAT WASHER (6)
73204	3/8 LOCK WASHER (4)
73205	3/8-16 X 3/4 HEXHEAD BOLT (4) (NOT SHOWN)
73206	3/8-16 X 1¼ HEXHEAD BOLT (2)
73210	3/8 INT/EXT LOCK WASHER (SCREEN-4, ROPE & DRIVE SHAFT PARTS-2)
73215	3/8 EXTERNAL LOCK WASHER (4)
73241	3/8-24 X 1½ HEXHEAD BOLT (4)
73260	3/8 90° CABLE CONNECTOR (2)
73261	3/8 STRAIGHT CABLE CONNECTOR (3)
73322	5/16-18 NYLON LOCK NUT (2)
73327	5/16-18 X 2½ HEXHEAD BOLT (2)
73330	5/16 X 2 PIN (NEW STYLE) (2)
73409	1/2-13 X 2½ HEXHEAD CAP SCREW
73420	1/2-13 HEX NUT
73525	5/8-11 NYLON LOCK NUT
73526	5/8 FLAT WASHER ONLY (4) (NOT SHOWN)
74406	10-32 X 3/8 PHILLIPS HEAD MACHINE SCREW (4)
74407	10-32 X 1/2 MACHINE SCREW SCREW
74425	10-32 KEPS NUT (5)
74426	10-32 HEX NUT

## LABELS

<u>PART #</u>	<u>DESCRIPTION</u>
L08	STAND CLEAR LABEL (2)
L26	DO NOT STAND BETWEEN (3)
L27	OPERATING INSTRUCTIONS LABEL
L32	STOCK #71 LABEL
L33A	GUARD MUST BE DOWN LABEL
L33B	CAUTION MOVING PARTS LABEL (2)
L33C	INSTRUCTION MANUAL LABEL
L33D	OPERATE BY AUTHORIZED/TRAINED PERSONNEL ONLY LABEL
L49	CAUTION CORD LABEL
L66	CAUTION LABEL (2)
L106	PINCH POINT LABEL (3)
L107	MOTOR MUST STOP LABEL (2)
L110A	ON LABEL
L110B	OFF LABEL
L110C	IN LABEL L110D OUT LABEL
L135	NO STEP LABEL
L1000	PULLEY WARNING LABEL
L62191	CONDUIT WIRING INSTRUCTIONS LABEL

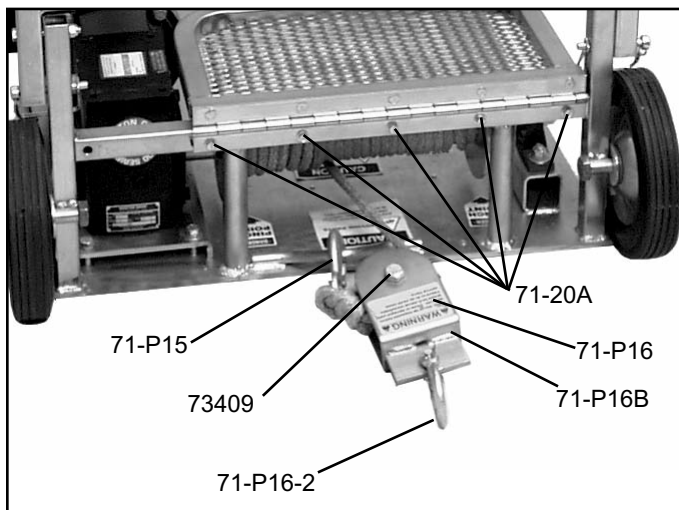
# PART NUMBERS & DIAGRAMS

## SCREEN



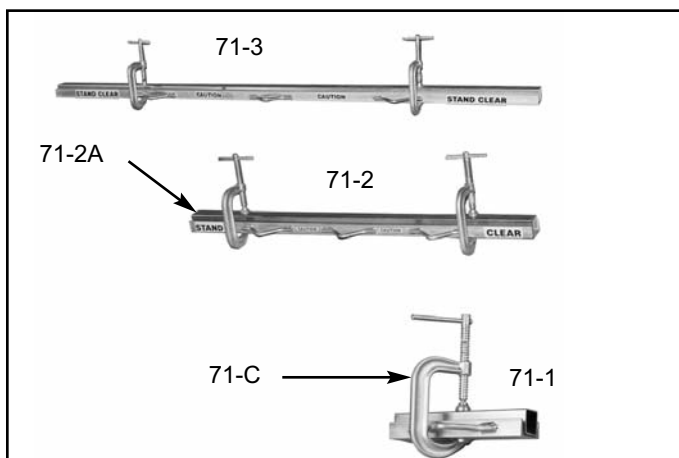
<u>PART #</u>	<u>DESCRIPTION</u>
71-S1	Screen (Old Style - square corners, slips into machine) (Not Shown)
71-S2	Screen (New Style)
73007	1/4 Flat Washer (4)
73031	1/4 x 1 Fender Washer (2)
73205	3/8-16 x 3/4 Hexhead Bolt (4) (Not Shown)
73210	3/8 Ext/Int Lock Washer (4) (Not Shown)
74406	10-32 x 3/8 Phillips Head Machine Screw (4)
74425	10-32 Keps Nut (5)

## PULLEY



<u>PART #</u>	<u>DESCRIPTION</u>
71-20A	1/4 Rope Guard Rivet (5)
71-P10	Caster Wheel (Not Shown)
71-P15	Rope Hook
71-P16	Pulley Complete
71-P16-1	Pully Wheel & Bushing Only (Not Shown)
71-P16-1A	Pully Wheel Only (Not Shown)
71-P16A	Pully Bushing Only (Not Shown)
71-P16B	Pulley Body Only
71-P16-2	Pulley Hook Only
73409	1/2-13 x 2½ Hexhead Cap Screw

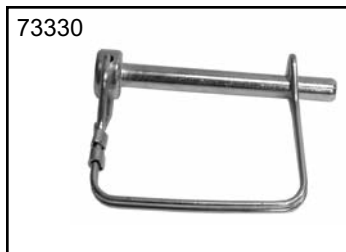
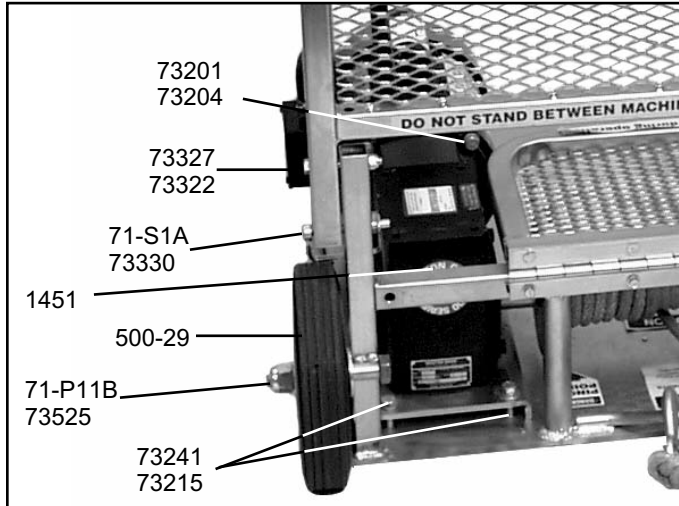
## PULL BAR



<u>PART #</u>	<u>DESCRIPTION</u>
71-1	Pull Bar 1'
71-2	Pull Bar 46"
71-2A	46" Clamp Bar Insert Only
71-3	Pull bar 7'
71-C	"C" Clamp Only

# PART NUMBERS & DIAGRAMS

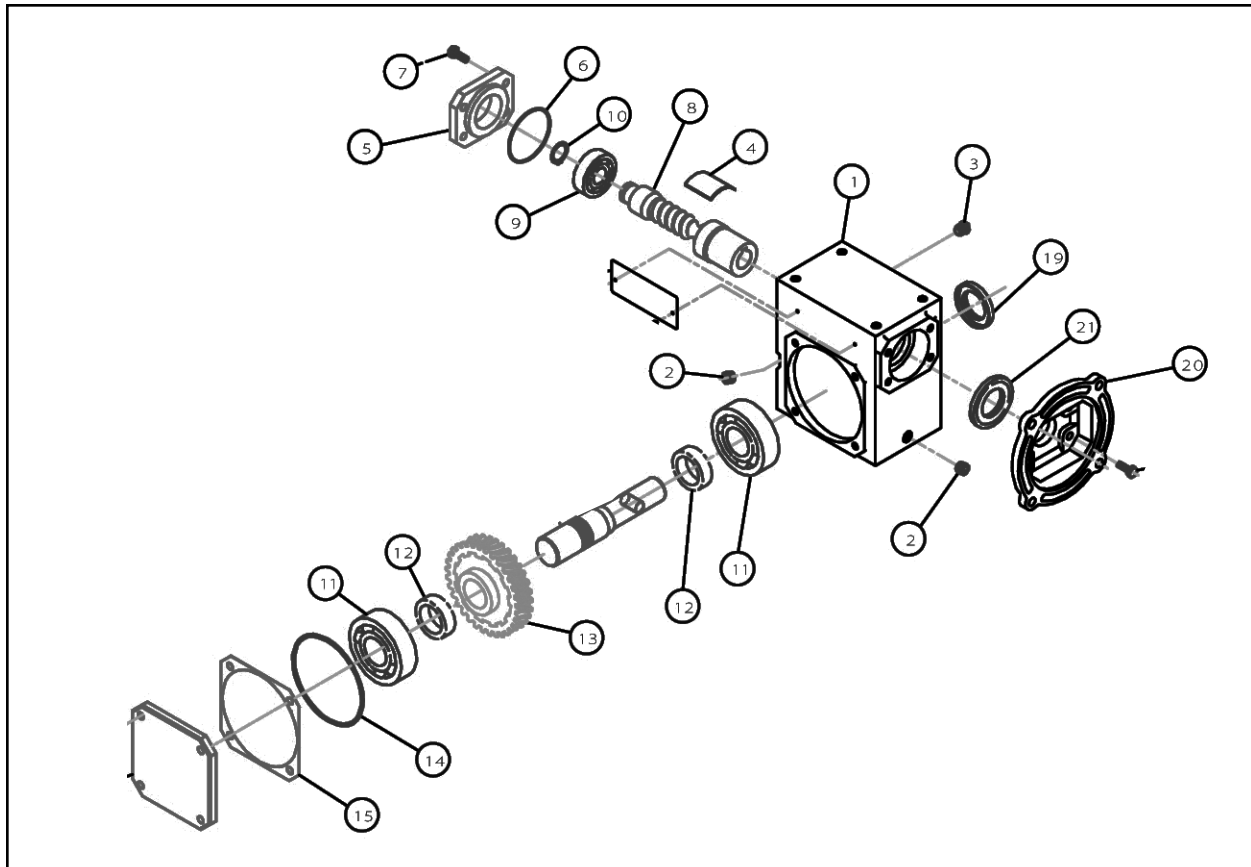
## WHEEL & GEAR REDUCER



<u>PART #</u>	<u>DESCRIPTION</u>
71-S1A	Screen "T" Knob (Old Style) (Not Shown) (2)
500-29	Wheel (Each)
1450-13	Box Seal (Dayton), Shaft End (External)
1450-27	Gear Box Seal (Dayton), Shaft End (Not Shown) (Internal)
1450-28	Drive Shaft Pin Only (Not Shown)
1451	Gear Reducer with Plate & Pin
1451-19	Gear Reducer Seal (National)
73201	3/8-16 x 1 Hexhead Bolt (4)
73204	3/8 Lock Washer (4)
73215	3/8 External Lock Washer (4)
73241	3/8-24 x 1¼ Hexhead Bolt (4)
73322	5/16-18 Nylon Lock Nut (2)
73327	5/16 x 18 x 2½ Hexhead Bolt (2)
73330	5/16 x 2 Pin (2)
73525	5/8-11 Nylon Lock Nut

# PART NUMBERS & DIAGRAMS

## PARTS BREAKDOWN FOR #1451 GEAR REDUCER

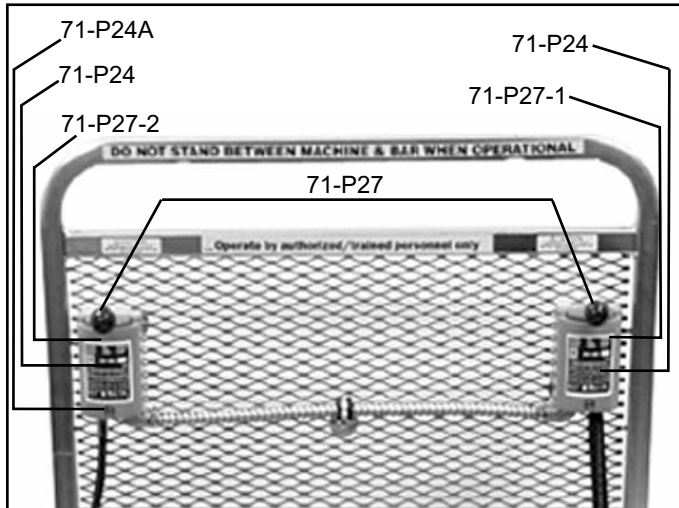


<u>PART #</u>	<u>DESCRIPTION</u>	<u>PART #</u>	<u>DESCRIPTION</u>
1450-28	Drive Shaft Pin (Not Shown)	1451-9	Bearing, Ball Input (#204)
1450-40	Gear Oil, 1 Qt. (Not Shown)	1451-10	Ring, Retainer - External
1450-50	Spacer Plate for Gear (Not Shown)	1451-11	Bearing, Output Tapered Roller
1451	Gear Reducer w/Plate & Pin (Not Shown)	1451-12	Spacer, Solid Output, (2.06)
1451-1	Gear Housing (Not Available)	1451-13	Gear, Solid Output, (2.06)
1451-2	Plug, Pipe Hex Socket	1451-14	O-Ring, AS568A-043
1451-3	Plug, Poppet Vent .25-18 NPT	1451-15	Shim, Output
1451-4	Plate, Oil Splash Guard	1451-19	Seal, Oil Output
1451-5	Cover, Input Blind	1451-20	Flange, Quill (56C/140TC)
1451-6	O-Ring, AS568A-031	1451-21	Seal, Oil, Input Flange
1451-7	Screw, Hex Head Cap	1451-30	Solid Output Assembly Replacement (Not Shown)
1451-8	Shaft, Input Quill (2.06 C.D.)		

# PART NUMBERS & DIAGRAMS

## UNIT WITH FOLD DOWN SCREEN

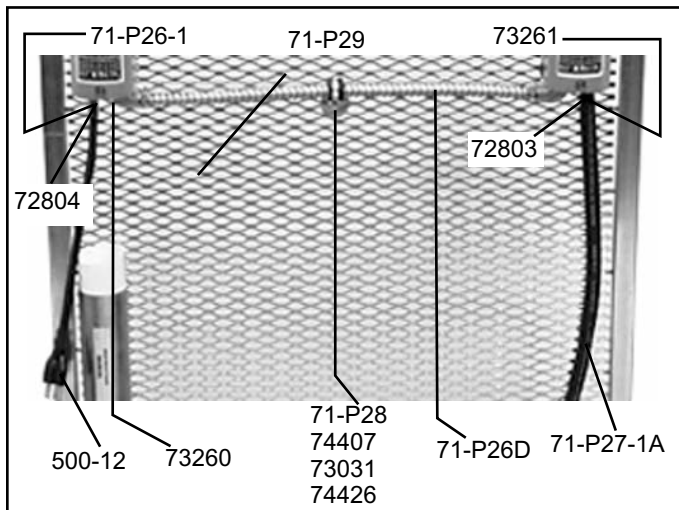
### SWITCH PARTS



<u>PART #</u>	<u>DESCRIPTION</u>
71-P24	Switch Only (Not Wired) (2)
71-P24A	Switch with Cord (Left)
71-P27	Double Switches Wired Complete (Set)
71-P27-1	Reversing Drum Switch With Motor Cord Only (Right)
71-P27-2	On/Off Switch With Power Cord Only

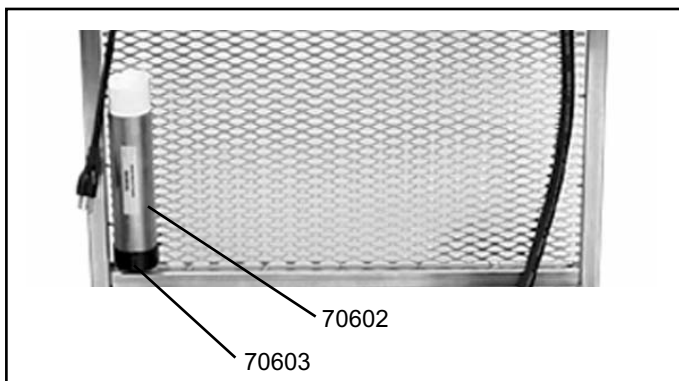
**Note:** See page 23.2 for switches on removable screen styles

### CORDS



<u>PART #</u>	<u>DESCRIPTION</u>
71-P26D	Switch to Switch Wire Only
71-P27-1A	Motor Cord Only
71-P28	Large Wire Clamp
71-P29	Metal Greenfield
500-12	Wire with Molded Plug Only
72803	1/2 Straight Cable Connector
72804	1/2 Straight Cord Connector
73031	1/4 x 1 Fender Washer
73260	3/8 90° Cable Connector (2)
73261	3/8 Straight Cable Connector (3)
74407	10-32 x 1/2 Machine Screw
74426	10-32 Hex Nut

### INSTRUCTION TUBE

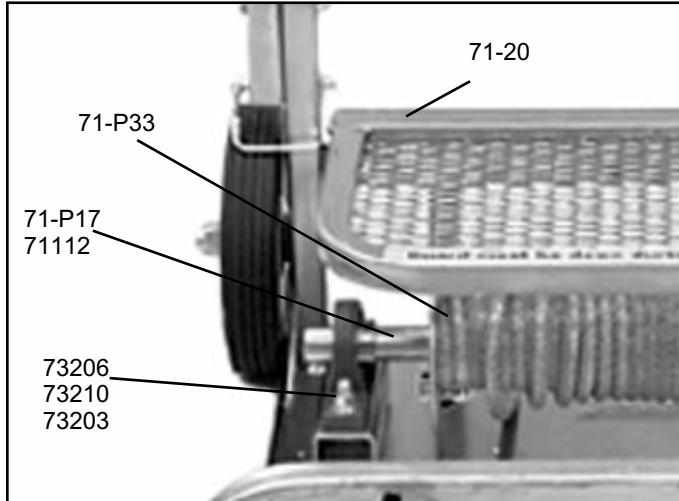


<u>PART #</u>	<u>DESCRIPTION</u>
70602	Instruction Tube
70603	Instruction Tube Cap

# PART NUMBERS & DIAGRAMS

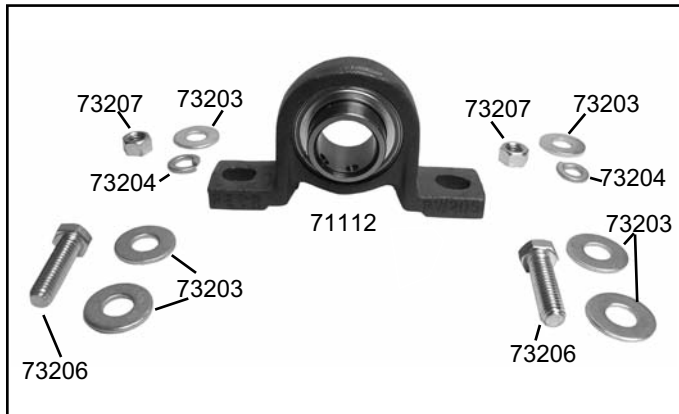
## UNIT WITH FOLD DOWN SCREEN (CONT.)

### ROPE & DRIVE SHAFT



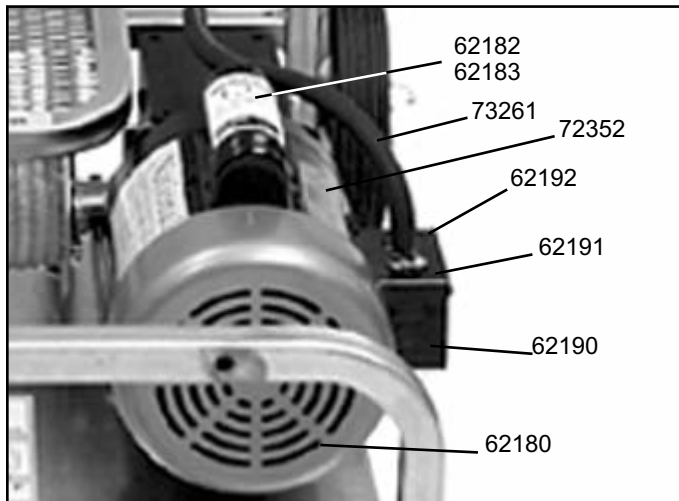
<u>PART #</u>	<u>DESCRIPTION</u>
71-20	Rope Guard
71-P17	Drive Shaft
71-P33	50 ft. Rope
71112	Pillow Block Bearing
73203	3/8 Flat Washer (6)
73206	3/8-16 x 1¼ Hexhead Bolt (2)
73210	3/8 Int/Ext Lock Washer (2)

### PILLOW BLOCK BEARING PARTS



<u>PART #</u>	<u>DESCRIPTION</u>
71112	1" ID Bearing
73203	3/8 Flat Washer (6)
73204	3/8 Split Lock Washer (4)
73206	3/8-16 x 1¼ Hexhead Bolt (2)
73207	3/8 Nylon Lock Nut (2)

### MOTOR

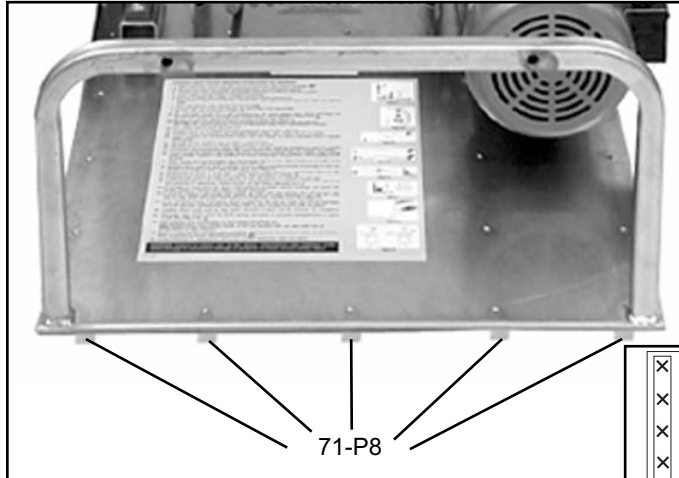


<u>PART #</u>	<u>DESCRIPTION</u>
1450-2	Input Oil Seal (Old Style) (Not Shown)
62180	Motor Fan Cover
62181	Motor Fan (Not Shown)
62182	Capacitor Cover
62183	Capacitor
62190	Conduit Box Only
62191	Conduit Box Cover Only
62192	Conduit Box Cover Screw Only (4)
73261	3/8 Straight Cable Connector (3)
72352	1 HP Motor

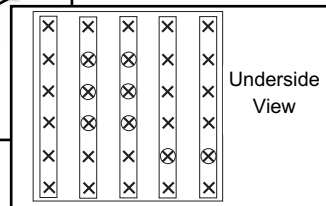
# PART NUMBERS & DIAGRAMS

## UNIT WITH FOLD DOWN SCREEN (CONT.)

### GRIPPER STRIP

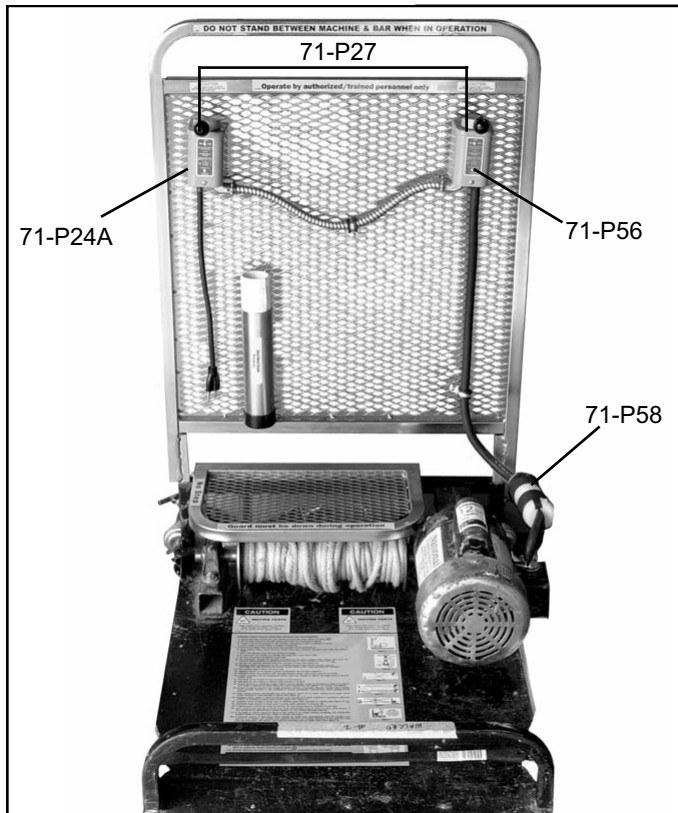


<u>PART #</u>	<u>DESCRIPTION</u>
71-P8	Replacement Gripper Strip (5 Strips per base)
71-P8S	Gripper Strip Spacer (5) (Not Shown)
71-P32	Protective Grip Strip Cover & Straps (Not Shown)
73051	1/4-28 x 1/2 (22) ( X )
73050	1/4-28 x 3/8 (8) ( ⊗ )



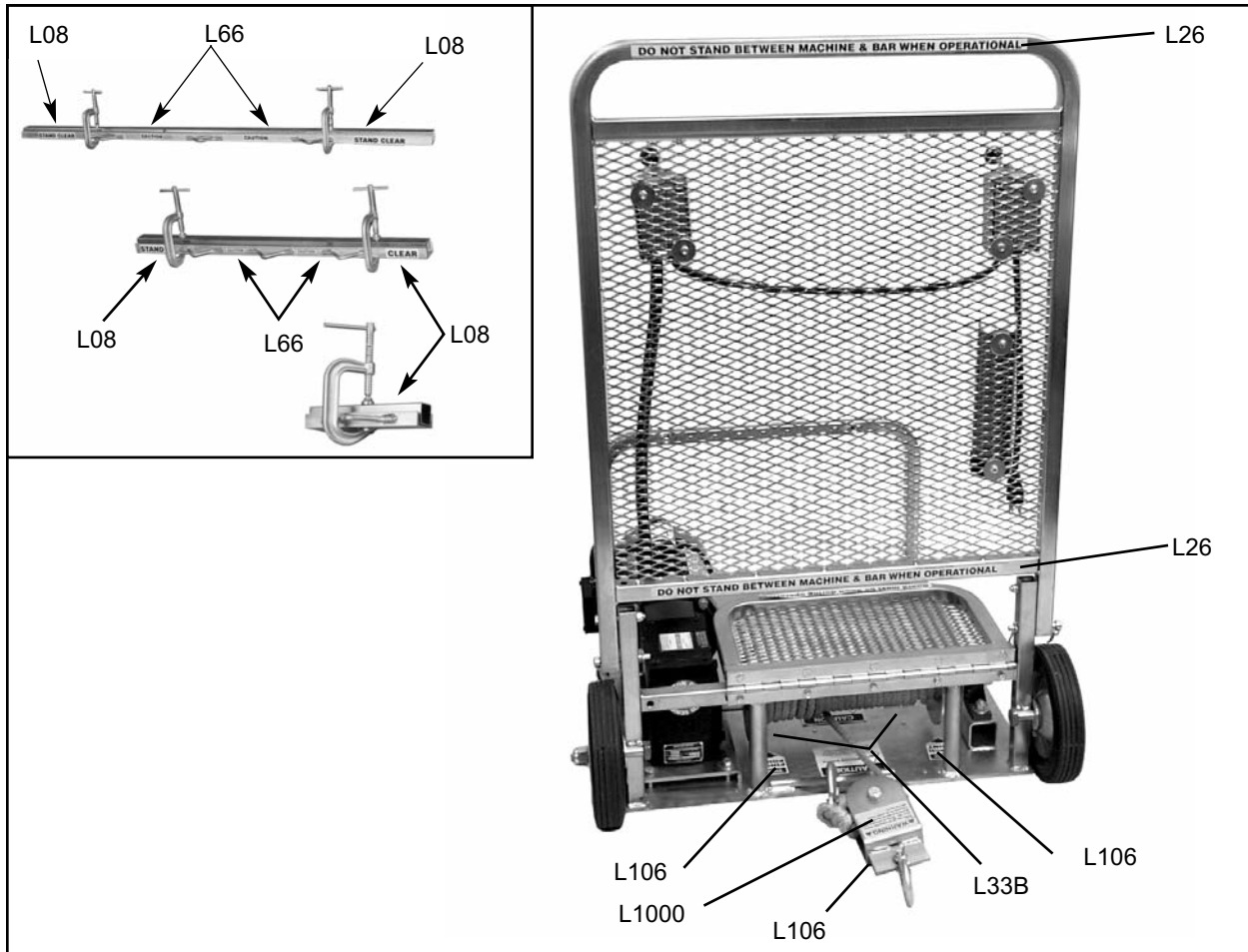
## UNIT WITH REMOVABLE SCREEN

### SWITCH & CORDS



<u>PART #</u>	<u>DESCRIPTION</u>
71-P24A	Switch with Cord Only (Left)
71-P24B	Switch Wired Complete 20" (Old Style) (Not Shown)
71-P25	Switch Bar Only (Old Style) (Not Shown)
71-P27	Double Switches Wired Complete (Set)
71-P56	Reversing Drum Switch with Motor Cord & Female Plug (Right)
71-P58	Motor Cord with Male Plug (5 prong)

# LABELS

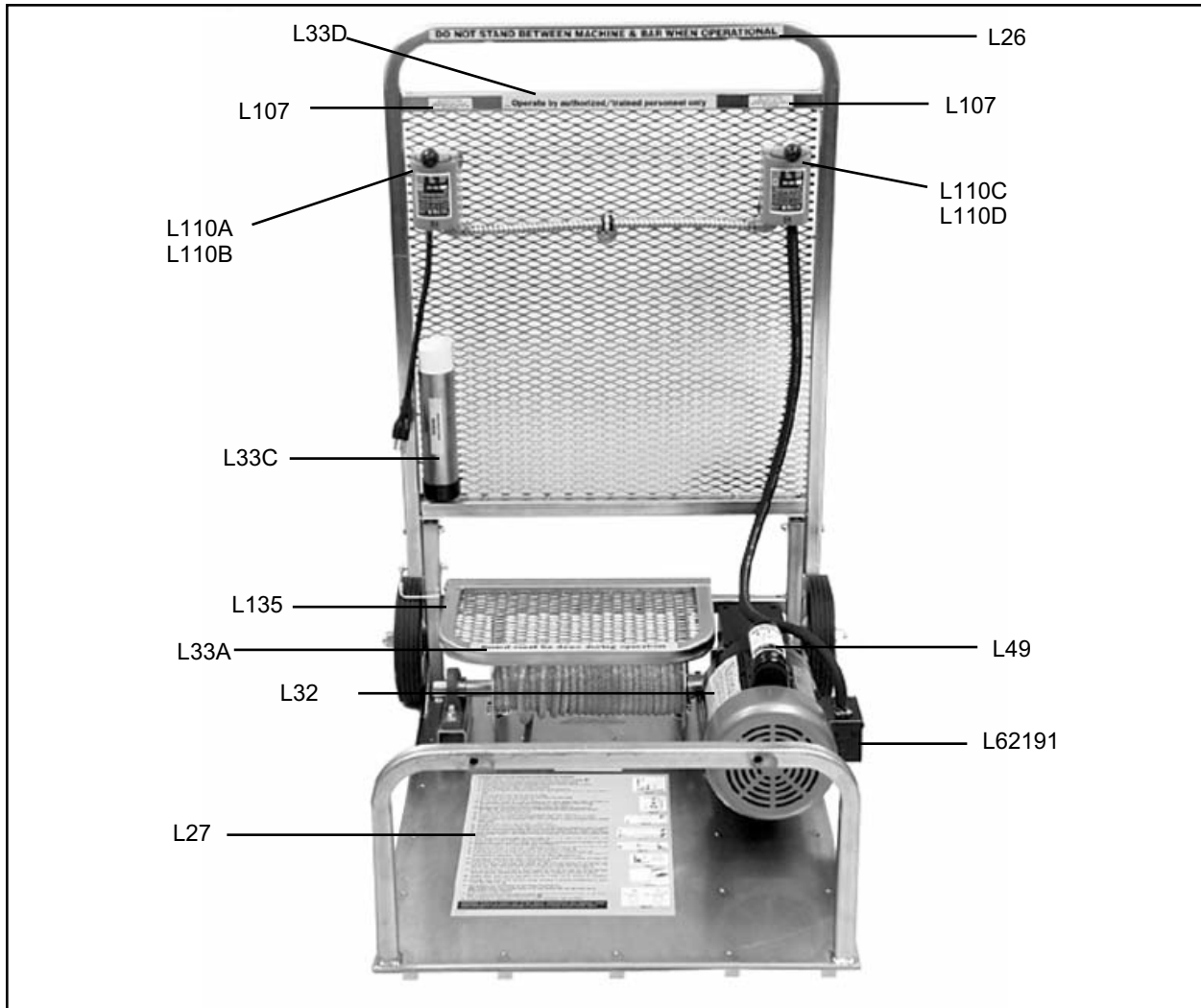


<b>PART #</b>	<b>DESCRIPTION</b>
L08	Stand Clear Label (2 Per Bar)
L26	Do Not Stand Between (3)
L33B	Caution Moving Parts Label (2)

<b>PART#</b>	<b>DESCRIPTION</b>
L66	Caution Label (2 Per Bar)
L106	Pinch Point Label (3)
L1000	Pulley Warning Label



# LABELS

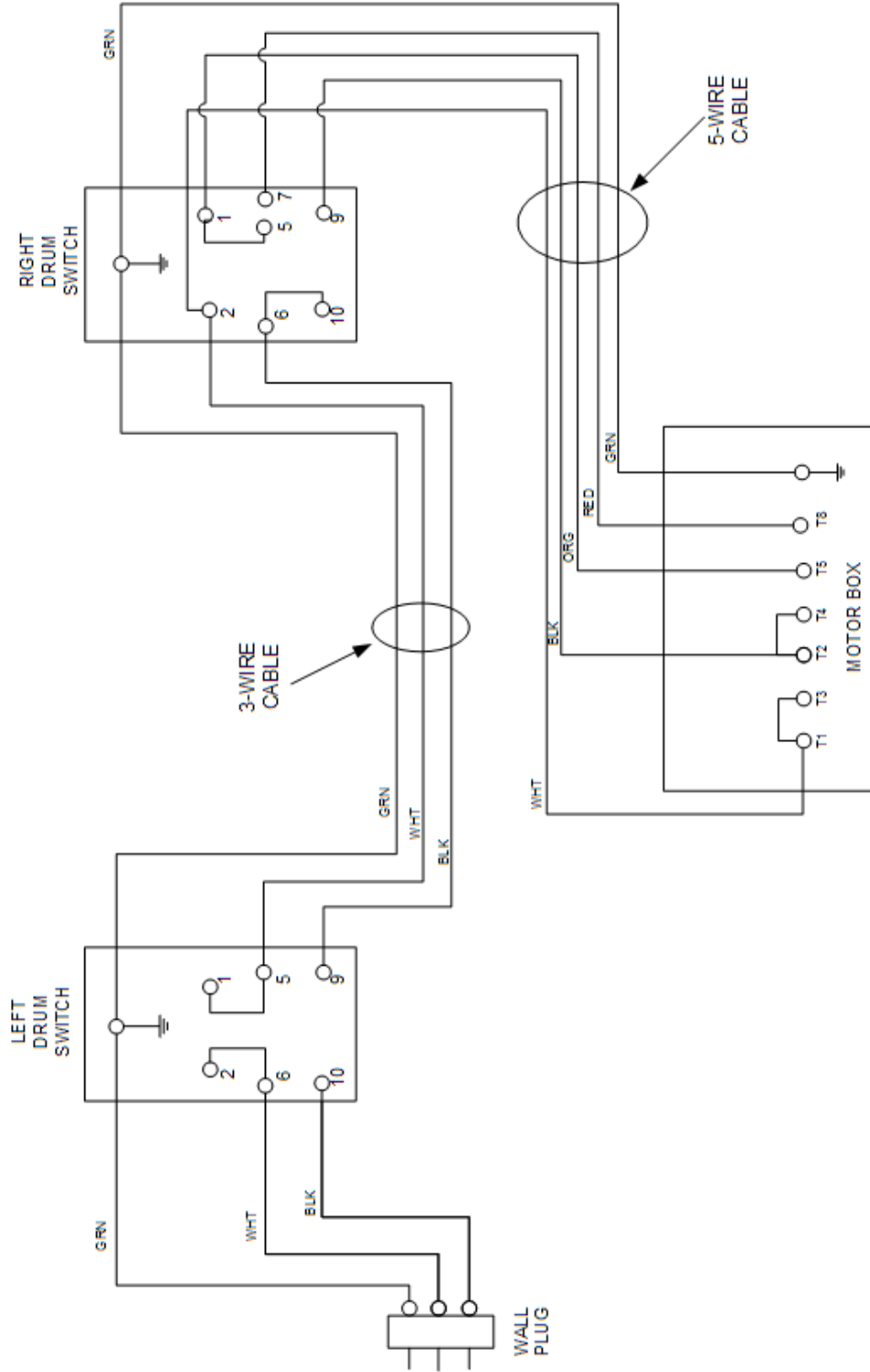


<u>PART #</u>	<u>DESCRIPTION</u>	<u>PART #</u>	<u>DESCRIPTION</u>
L26	Do Not Stand Between (3)	L107	Motor Must Stop Label (2)
L27	Operating Instructions Label	L110A	On Label
L32	Stock #71 Label	L110B	Off Label
L33A	Guard Must Be Down Label	L110C	In Label
L33C	Instruction Manual Label	L110D	Out Label
L33D	Authorized Personnel Only Label	L135	No Step Label
L49	Caution Cord Label	L62191	Conduit Wiring Instruction Label

# WIRE DIAGRAM

2/18/08

110-120 VOLT SYSTEM  
71 CARPET PULLER ELECTRICAL SCHEMATIC  
FOR 2-DRUM SWITCHES AND STATIONARY SCREEN



# GUARANTEE

National Flooring Equipment, Inc. (National) warrants to the first consumer/purchaser that this National brand product (the #71 Powered Carpet Puller), 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 National Powered Carpet Puller 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 SHEET

Company Name \_\_\_\_\_

Contact Name \_\_\_\_\_

Telephone Number \_\_\_\_\_

Approximate Usage (hours) \_\_\_\_\_

Problems Encountered \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Check One:  Repair

Do you wish to be contacted before repairing  Yes  No

Return

Contact National if a loaner is needed

Return Authorization Number \_\_\_\_\_ Date \_\_\_\_\_  
required, contact National

Customer Number \_\_\_\_\_  
if known

Purchased From \_\_\_\_\_  
if not directly from National

<b>INTERNAL USE ONLY</b>	
Date Received	_____
Unit Serial Number	_____
Subject To Warranty	_____