

SAFETY, OPERATION MANUAL & PARTS LIST



KR-34GR15 POLISHING FLOOR MACHINE

This unit is intended for commercial use.

**READ & FOLLOW ALL
INSTRUCTIONS, WARNINGS & CAUTIONS
BEFORE USING THIS POLISHING MACHINE**

PLEASE READ CAREFULLY BEFORE OPERATING

This machine will afford you many years of trouble-free operating satisfaction if it is given the proper care. All parts have passed rigid quality control standards before being assembled to produce the finished product. Prior to packaging, the units are again inspected for assurance of flawless operation.

This polishing machine was protectively packed to prevent damage in shipment. It is recommended that upon delivery, the unit is removed from its pallet and carefully inspected for any possible damage in transit.

If damage is discovered, immediately notify the transportation company that delivered your floor machine.

As a shipper, we are unable to act upon any claim for concealed damage. You must originate any claim within 5 days of delivery.

These instructions are for your protection and information. **PLEASE READ CAREFULLY!** Failure to follow these precautions could result in injury or damage.

Treat this machine as you would any other high-grade precision-made product. Throwing, dropping, unreasonable bumping across thresholds and other misuse may result in a damaged unit and invalidate the warranty.

SAVE THESE INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

WARNING:



To reduce the risk of fire, electric shock or injury;
Read all instructions before using this grinding machine.

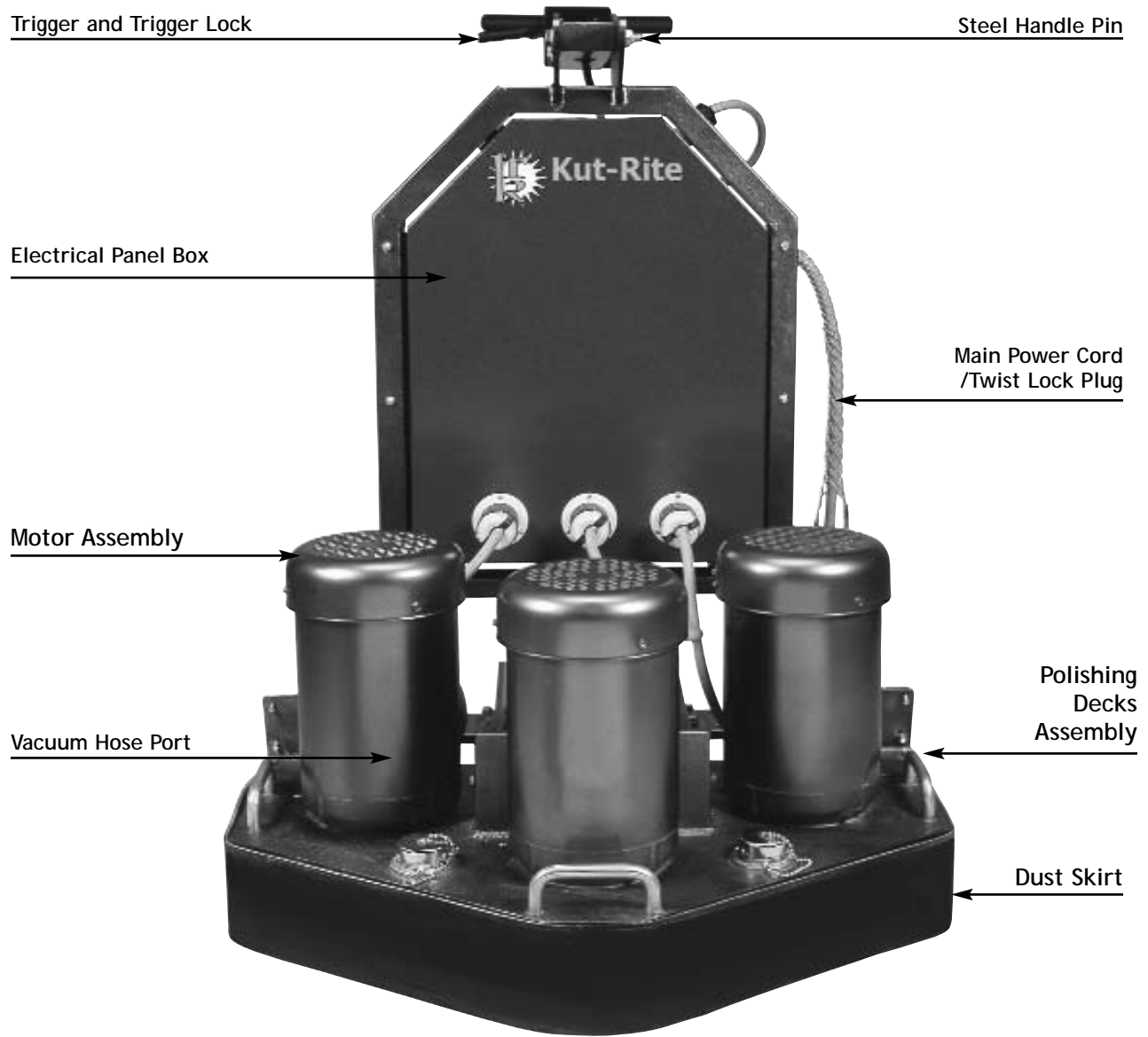
- 1) **DO NOT** leave the machine plugged in when not in use. Unplug from the outlet when not in use and/or before servicing.
- 2) Electric shock could occur if exposed to rain. Store indoors.
- 3) This is **NOT** a toy. Not recommended for use around or near children. If children must be present, protective eye wear, clothing, and close attention is necessary.
- 4) Use this machine only as described in this manual. Use only manufacturer's recommended attachments.
- 5) Inspect all power cords for damage before operating the machine and **DO NOT** use with damaged cord or plug.
- 6) If the machine is not working properly as a result of damage or exposure to the elements, stop usage immediately and contact the manufacturer or authorized service center.
- 7) **DO NOT** operate this machine in a wet environment.
- 8) **DO NOT** handle the plug or operate with wet hands.
- 9) **DO NOT** plug any equipment into the machine unless it is recommended by the manufacturer.
- 10) **DO NOT** pull the machine by the power cord. Always use the handles when moving the machine. Running over the cord with the machine, pulling the cord around sharp corners or edges, pinching the cord in doors, or exposing the cord to heated surfaces may result in permanent damage to the cord.
- 11) **DO NOT** unplug the machine by pulling on the power cord. Grasp the plug at the wall to disconnect and avoid damage or injury.
- 12) **DO NOT** put any object into motor openings.
- 13) Before flipping the motor bowl assembly back, unplug the power cord from the motor.
- 14) Take care to keep hair, loose clothing, fingers and all parts of body away from moving parts.
- 15) **DO NOT** operate this machine without a vacuum and the manufacturer's filters in place.
- 16) **DO NOT** operate where anesthetics and/or oxygen are being used.
- 17) **DO NOT** use around flammable or combustible liquids such as gasoline or use in areas where they may be present.
- 18) Replace damaged or worn parts immediately with genuine manufacturer equipment parts to maintain your safety and protect your limited warranty.
- 19) The power source **MUST** be properly grounded. If using a generator, check the manufacturer's grounding instructions.
- 20) The electrical box panel **MUST** only be opened by a licensed electrician or authorized service technician and the power cord **MUST** be unplugged.
- 21) When transporting the machine from one location to another, keep the machine on level ground.
- 22) Prior to operating this machine, ensure that the proper voltage is established - (480) 3 phase power, minimum 30 AMPS.
- 23) Ensure that proper machine rotation is established with the vacuum and motor assembly.



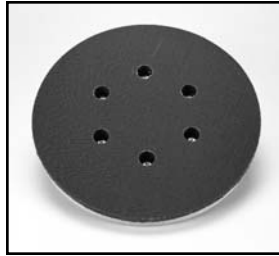
DANGER:

Improper use of the grounding plug can result in a risk of electrical shock.

ABOUT THE KR-34GR15 POLISHER



ATTACHMENT DESCRIPTION



POLISHING VELCRO PAD HOLDER:

Used to hold the diamond polishing disks in place. The velcro pad holder can remain through the polishing steps (grits: 100/200/400/800/1500/3000).

This will cut down on storage space and maximizes the use of a single set of drivers.

CHANGING AND INSTALLING ATTACHMENTS



CAUTION:

When installing or changing the velcor drivers and diamonds, turn OFF the machine and disconnect the power cord from the electrical outlet.

REMOVE THE PLUGS FROM THE POWER BOX.



1) Lift up the deck assembly and tilt back as shown.

return deck assembly to the operation position.

2) Position the diamond disks to be used on the bottom of the pad holder as shown.

6) To adjust skirt, align the skirt with the center of the machine and wrap it around with the bottom edge touching the floor.

3) Line up the holes on the pad holder with the four metal pins protruding from each of the three heads on the bowls.

7) Follow Operating Instruction and begin again.



4) Push the pad holder on by hand and if necessary, carefully tap it into place with a rubber mallet.

Pad Holder Removal

5) Move the SWOOP to where the polishing is to begin and

1) Using both hands, reach beneath the bottom side of the velcor pad holder and pull up towards yourself to free it from the machine.

GENERAL SAFETY PRECAUTIONS



CAUTION:

This machine is designed for polishing concrete. All operators and maintenance personnel should read and understand the safety procedures for this floor machine.

- 1) All personnel in the immediate work area must wear safety glasses with side shields whenever the machine is in operation. Protective clothing and safety shoes are recommended. Avoid any loose clothing.
- 2) Dust masks should be worn when polishing the floor.
- 3) Keep the power cord away from the revolving heads to avoid damage.
- 4) **DO NOT** operate this polishing machine in the rain or in areas where liquids could enter the electrical components of the machine.
- 5) **DO NOT** attempt to service or replace attachments while the machine is running or connected to a power source.
- 6) Check main power supply to assure that you have connected the equipment to a proper dedicated service.

OPERATING INSTRUCTIONS

- 1) Remove and clean the floor of any materials, loose objects and debris.
- 2) When operating this machine be aware of any protrusions such as lag bolts, shields, etc. Running over these may cause damage to the attachments and/or machine, voiding the warranty.
- 3) Install the velcro pad driver and diamonds required for the job. (See page 4 for installation instructions.)
- 4) If the handle is in the "storage" position, remove the pin and flip handle back before operation.
- 5) Remove the handle pin and adjust the handle so that it is positioned just below the operator's sternum. When it reaches the correct height, reinsert the pin.
- 6) Connect the hoses to the vacuum and vacuum port located on the motor deck assembly.
- 7) Plug the main power cord into the extension cord. Both the cords are equipped with twist-lock plugs and **MUST** be properly engaged. After plugging the cords in, slide the protective locking sleeve over the male end of the plug assembly.
- 8) Plug vacuums into the clearly labeled outlets located on the back of the electrical box panel.
- 9) Engage the appropriate breaker located on the back of the electrical panel.
- 10) Plug the extension cord into main power source.
- 11) Place your hands on the handle grips and squeeze the trigger lock beneath the right handle to activate the motors and start the operation.
- 12) To stop the machine, release the safety trigger and it will automatically turn OFF.
- 13) This machine operates in a straight path. Make sure to maintain a steady, consistent pace when using the machine.
- 14) A set of attachments **MUST** be left on the machine to protect the heads when the machine is not in use.

IMPORTANT:

After the machine is plugged into the main power source and the main power breaker is engaged, the voltage indicator should read **480 Volts**. If it does not - **DO NOT RUN THE MACHINE**. Check and correct this problem.



CAUTION:

DO NOT attempt to operate this unit if the machine is not fully assembled. When servicing or replacing accessories turn OFF the machine and **DISCONNECT FROM THE POWER SOURCE**.

ACHIEVING THE BEST RESULTS

To achieve the best results with the KR-34GR15 the following is recommended:

PACE:

The pace will change depending on the stage of the polishing operation. Also, the pace will be largely dictated by the hardness, smoothness and conditions of the concrete floor.

The operator should move the machine in as slow of a pace necessary to achieve the desired results.

As a general guideline, the pace of the operator should be between 2 inches per second at the slowest to 1 ft per second at the fastest.

PATTERN:

The KR-34GR15 polisher should be operated in a straight back and forth motion. Each path should overlap the previous path by no less than 4 to 6 inches for the best results. It is recommended that the perimeter of the production space be completed first. This will provide a 34 inch area where the machine can be turned to begin the next lap.

When turning the polisher, it should be done through a series of right angles or pivoting the machine. **NEVER** move the machine in a curve. This will leave unfinished gaps between polishing bowls.

It is recommended that alternate patterns be used for each progressive step (side to side, then front to back. This will avoid patterns or striping from being visible in the finished product.

Note: A recommended and approved method is when polishing the floor with the next grit, it should be in a pattern perpendicular to the previous pass. This crosshatch method will avoid patterns on the finish.

FLOOR CLEANING:

The floor should be thoroughly cleaned between each polishing step for the best results. This will

prevent any dust or residue left on the floor from leaving scratches on the floor surface.

Additionally, it becomes harder and harder to keep track of what has and has not been processed by the machine as the stages progress. This problem is resolved by thoroughly cleaning the floor after each stage.

Note: It is recommended for the best results, that you use an automatic scrubber with cleaning solution between each step to clean the floor.

WHAT TO AVOID:

VINYL CRACK AND JOINT FILLER

Vinyl material will often smear on the floor if processed by metal or resin diamonds at higher speeds. It is also likely that it will create a thin coating over the resin diamond, impacting its effectiveness. Avoid these areas by processing them as closely as possible from multiple directions.

ROUGH SURFACES

Rough concrete surfaces such as exposed large aggregate and areas where the cement is disintegrated must be repaired prior to the polishing process.

MISSED AREAS

It is critical that a pattern be established to ensure there are no missed areas during of the stages. Any area, no matter how small that does not get processed will continue to be one process level behind the surrounding floor through the end result. This area may be distinctly visible.

STORAGE & TRANSPORTING

This machine should be stored with the polishing deck assembly in the lowered position (seated completely on the ground).

This will ensure the stability of the machine during transportation and storage.

When moving the polisher, flip the polishing deck up .

MACHINE MAINTENANCE

- 1) Unplug the machine.
- 2) Wipe off machine with a clean cloth after each use.
- 3) Empty the vacuum you are using in accordance with specific manufacturer's safety and operation instructions.
- 4) Regularly Check for loose parts and fasteners.
- 5) Check the power cord for any breaks in the wire. Breaks will most likely occur near the plug or switch. Repair or replace any breaks immediately.

WARRANTY & REGISTRATION

Warranty coverage is available to the original owner of this polisher against defects in material and workmanship for a period of 1 year, including the motor, starting from the date of delivery.

Please note the following conditions pertaining to this warranty:

- 1) Applies only to the original owner and is non-transferrable.
- 2) Machine will not have been dismantled or tampered with in any way.
- 3) Normal wear items will be warranted from manufacturing defects for up to 90 days from the date of purchase including but not limited to the following items:
Accessories; Belts; Bearings; Casters; Drive Couplers; Electric Cords; Filters; Relays; Switches; Triggers; and like items.
- 4) This warranty does not apply to any repairs that are a result of misuse, neglect, abuse, or to any other proprietary parts.
- 5) This warranty is in lieu of and excludes every condition or warranty not herein expressly set out and all liability for any form of consequential loss or damage is hereby expressly excluded.
- 6) This Warranty is limited to repair or replacement of covered components only and reasonable labor expenses.

Warranty Registration:

It is purchaser's responsibility to fill out the warranty card included in the manual package and mail it to:

Kut-Rite Service Department
27482 Northline
Romulus, MI 48174

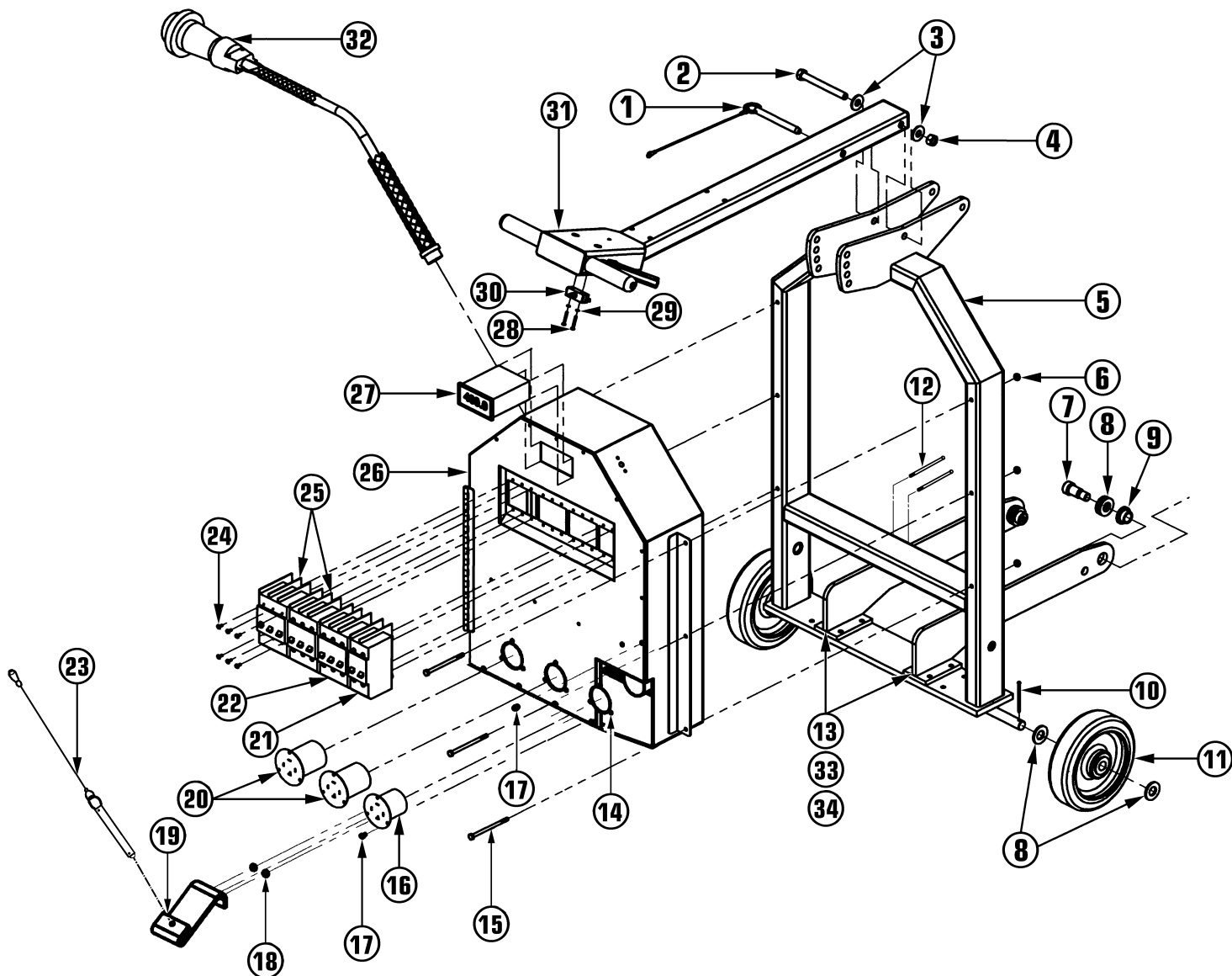
This will register your purchase and begin your warranty period. Failure to send this card within one week upon receipt of the machine may void the warranty.

ELECTRICAL & HANDLE PARTS LIST

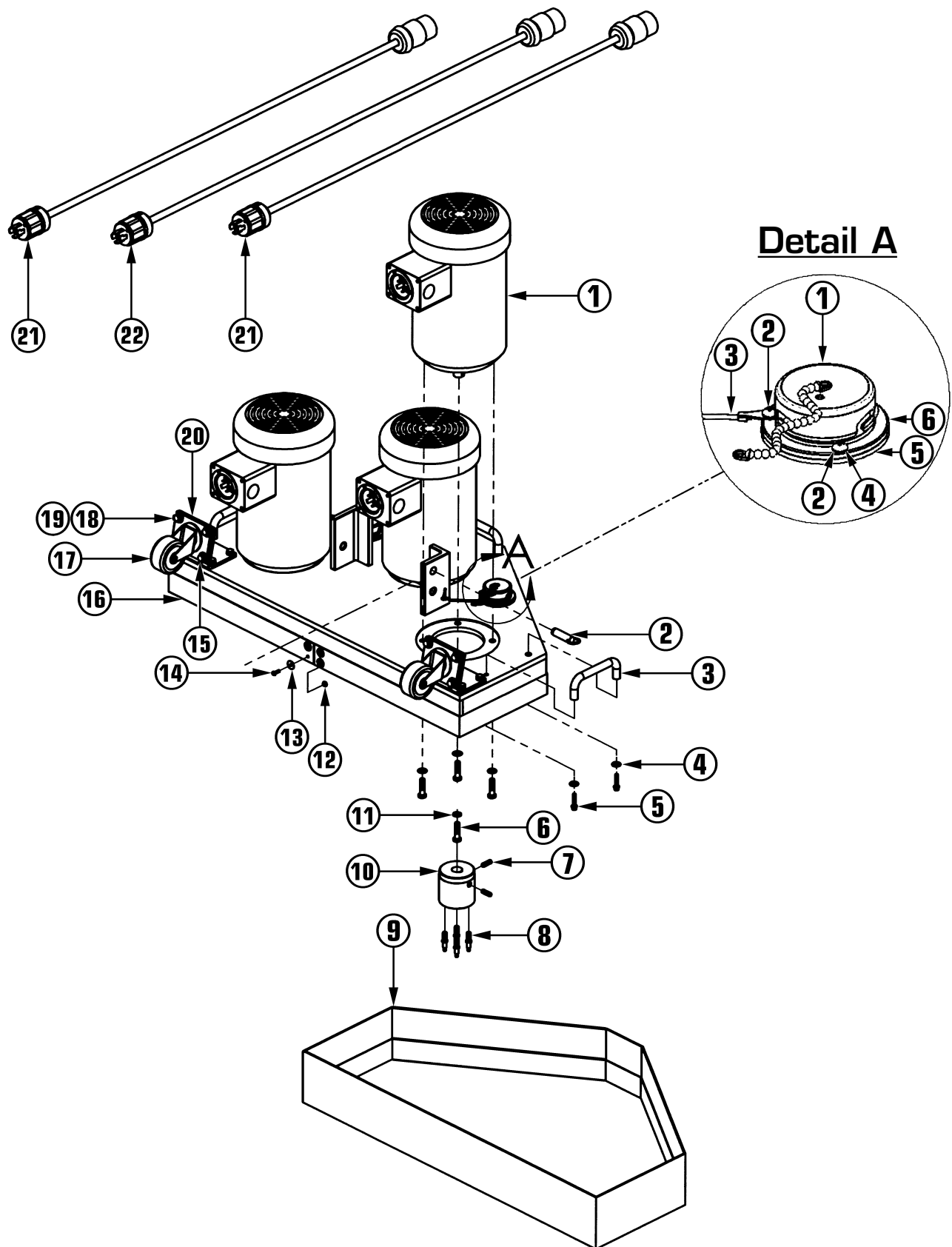


Ref No	Part Description	Qty	Part No
1	Speed Pin Assembly	1	217468
2	1/2" - 12 X 4 3/4" Hex Bolt	1	215198
3	1/2" Flat Steel Washer	2	215201
4	1/2" - 13 Nylok Nut	1	215228
5	30" Rear Frame	1	221597
6	1/4" - 20 Nylok Nut	6	380784
7	3/4" X 1" Shoulder Screw	2	463426
8	3/4" X 1 1/2" Flat Steel Washer	4	463507
9	Bronze Bushing	2	475513
10	.125 X 2 1/2" Cotter Pin	2	463515
11	8" X 2" Gray Wheel	2	463434
12	1/4" - 20 Hex Bolt	2	493945
13	Motor Housing Support Arm	2	223301
14	10 - 24 Hex Nut	20	331201
15	1/4"-20 X 4" Hex Bolt	6	307785
16	480V, 30A-3 Pole Female Twist Lok Receptacle	1	220337
17	10 - 24 x .62 Screw	35	221023
18	Nylok Nut	2	380784
19	Hitch	1	227463
20	480V, 30A-3 Pole Female Twist Lok Receptacle	5	220345
21	480V, 15AMP Circuit Breaker	1	232432
22	480V, 30AMP Circuit Breaker	1	220213
23	Speed Pin Assembly	1	217476
24	#6-32 X .37 Phillips Screw	22	377155
25	480V, 7.5A-3 Pole Circuit Breaker	2	220221
26	Control Box	1	220655
27	Digital Volt Meter Panel	1	225444
28	#6-32 X 1" Philip Screw	2	335576
29	#6 Int Tooth Lockwasher	2	355224
30	25 AMP Micro Switch w/Hex Nuts	1	469629
31	Handle Assembly	1	463647
32	480V, 30A Male Electrical Plug & Sleeve	1	223050
33	.37-16 x 1 1/2" Hex Bolt	8	437336
34	.37 - 16 Nylok Nut	8	480789

ELECTRICAL & HANDLE PARTS DRAWING



MOTOR & CHASSIS ASSEMBLY DRAWING



MOTOR & CHASSIS ASSEMBLY PARTS LIST



Ref No	Part Description	Qty	Part No
1	5 HP Motor Assembly	3	215295
2	$\frac{5}{8}$ " X $1\frac{1}{2}$ " Grip Range Pin w/Ring	1	216216
3	Lift Handle	3	490385
4	$\frac{1}{4}$ " Split Lockwasher	6	342858
5	$\frac{1}{4}$ -20 X $1\frac{1}{4}$ " Socket Head Cap Screw	6	492752
6	$\frac{3}{8}$ " -16 X $1\frac{1}{2}$ " Hex Head Bolt	12	437336
7	$\frac{5}{16}$ " X 1" Socket Set Screw	6	475939
8	$1\frac{3}{4}$ " X .33" Steel Mounting Pin	12	490458
9	Velcro Strip	1	476048
10	Driver Adaptor	3	475564
11	$\frac{3}{8}$ " Split Lockwasher	12	368849
12	#10 10-24 Hex Nut w/Lockwasher	4	331201
13	Steel Washer	4	369519
14	#10 10-24 X $\frac{5}{8}$ " Phillips Screw	4	351210
15	$\frac{5}{16}$ " -18 X 1" Hex Head Bolt	16	483249
16	Motor Housing Assembly	1	475505
17	Swivel Caster w/ $\frac{3}{4}$ " Wheel	2	479942
18	$\frac{5}{16}$ " Flat Washer	16	363219
19	.31" Lockwasher	16	316113
20	Caster Mounting Bracket	2	215015
21	48" Ext Cord w/Male & Female Plugs	2	221082
22	51" Ext Cord w/Male & Female Plugs	1	221066
Detail A			
1	Cap	2	349259
2	#10-24 x .75 Screw	6	337315
3	Retaining Wire	1	479152
4	#10 Lockwasher	6	380725
5	Circle Gasket	2	320986
6	Exhaust Fitting	2	310999

TROUBLE SHOOTING GUIDE

PROBLEM: Motor will not run.

POSSIBLE CAUSE

- 1) Defective switch.
- 2) Defective power cord or wiring.
- 3) Defective motor.
- 4) Blown fuse or tripped circuit breaker at wall panel.
- 5) Power cord not plugged in properly or damaged.
- 6) Motor hums but does not turn.

POSSIBLE SOLUTION

- 1) Check switch, replace if defective.
- 2) Check and replace if defective.
- 3) Have motor checked by an authorized service center.
- 4) Replace fuse or reset circuit breaker. If this does not correct the problem, have the machine checked by an authorized service center.
- 5) Plug in power cord properly or replace power cord if damaged.
- 6) Loss of phase, check breakers/fuses.

PROBLEM: Machine bogs down and runs slow.

POSSIBLE CAUSE

- 1) Attachment cutting too aggressively
- 2) Low line voltage in building.
- 3) Running hot and overloading.

POSSIBLE SOLUTION

- 1) Increase pace of process.
- 2) If wiring is old in the building have voltage checked by the power company.
- 3) Check incoming voltage. Ensure 480V is maintained especially when using a generator.

PROBLEM: Motor runs, driver will not rotate.

POSSIBLE CAUSE

- 1) Belts are broken.

POSSIBLE SOLUTION

- 1) See page 7 for Belt Changing Instructions.

PROBLEM: Noisy machine or vibration.

POSSIBLE CAUSE

- 1) Defective motor or loose parts.
- 2) Attachment is not level or securely attached.

POSSIBLE SOLUTION

- 1) Contact the manufacturer or authorized service center.
- 2) Level attachment and make sure all fasteners are securely attached.



Address: 27482 Northline, Romulus MI 48174
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