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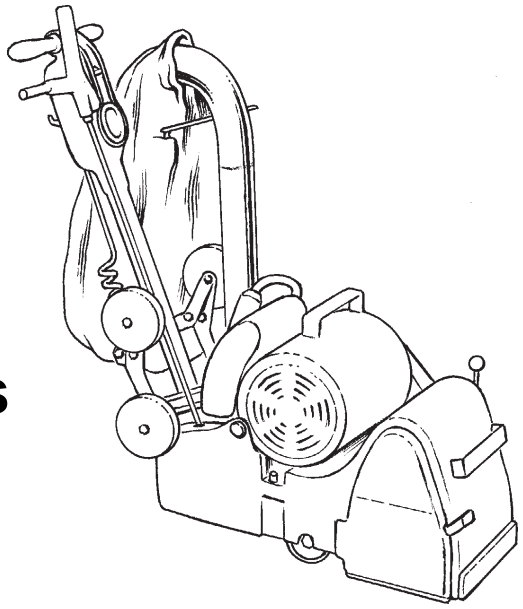

Operator's Manual

FloorCrafter Belt Sander

U.S. Patent No. 5,575,710 and No. 6,578,858

READ THIS BOOK

This book has important information for the use and safe operation of this machine. Failure to read this book prior to operating or attempting any service or maintenance procedure to your Clarke American Sanders machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If your operator cannot read English, have this manual explained fully before attempting to operate this machine.

Si Ud. o sus operadores no pueden leer el Inglés, se hagan explicar este manual completamente antes de tratar el manejo o servicio de esta máquina.

All directions given in this book are as seen from the operator's position at the rear of the machine.

For new books write to: Clarke®, 2100 Highway 265, Springdale, Arkansas 72764

Form No. 70255B 8/04

Clarke American Sanders

Printed in the U.S.A.

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OPERATOR SAFETY INSTRUCTIONS

WARNING **AVERTISSEMENT** **ADVERTENCIA**

DANGER means:	Severe bodily injury or death can occur to you or other personnel if the **DANGER** statements found on this machine or in this Operator's Manual are ignored or are not adhered to. Read and observe all **DANGER** statements found in this Operator's Manual and on your machine.
WARNING means:	Injury can occur to you or to other personnel if the **WARNING** statements found on your machine or in this Operator's Manual are ignored or are not adhered to. Read and observe all **WARNING** statements found in this Operator's Manual and on your machine.
CAUTION means:	Damage can occur to the machine or to other property if the **CAUTION** statements found on your machine or in this Operator's Manual are ignored or are not adhered to. Read and observe all **CAUTION** statements found in this Operator's Manual and on your machine.

DANGER:

Failure to read the Operator's Manual before operating or servicing this sanding equipment could result in injury to the operator or to bystanders and could cause damage to the equipment. Read and observe all safety statements found in this manual and on the sanding equipment. Make sure all labels, decals, warnings, cautions and instructions are fastened to the equipment. Replace any that are damaged or missing. You must have training in the operation of this equipment before using it. **If the operator is unable to read this manual, have it explained fully before they attempt to use this equipment.**

DANGER:

Sanding/finishing wood floors can create an environment that can be explosive. The following safety procedures must be adhered to:

- Cigarette lighters, pilot lights and any other source of ignition can create an explosion when active during a sanding session. All sources of ignition should be extinguished or removed entirely if possible from the work area.
- Work areas that are poorly ventilated can create an explosive environment when certain combustible materials are in the atmosphere, i.e., solvents, thinners, alcohol, fuels, certain finishes, wood dust and other combustible materials. Floor sanding equipment can cause flammable material and vapors to burn. Read the manufacturer's label on all chemicals used to determine combustibility. Keep the work area well ventilated.
- Spontaneous combustion or an explosion can occur when working with sanding dust. The sanding dust can self-ignite and cause injury or damage. Sanding dust should be disposed of properly. Always empty the sanding dust into a metal container that is located outside of any building(s).
- Remove the contents of the dust bag when the bag is 1/3 full. Remove the contents of the dust bag each time you finish using the equipment. Never leave a dust bag unattended with sanding dust in it.
- Do not empty the contents of the dust bag into a fire.
- Hitting a nail while sanding can cause sparks and create an explosion or fire. Always use a hammer and punch to countersink all nails before sanding floors.

DANGER: Operating partially assembled sanding equipment could result in injury to the operator or bystander and could cause damage to the equipment or to other property.

- Do not operate this equipment unless it it fully assembled and all guards, doors and covers are secured.
- Keep all fasteners tight.
- Keep all adjustments within manufacturers specifications.

DANGER: Moving parts on this sanding equipment can cause injury to the operator or bystanders.

- Keep hands, feet and loose clothing away from all moving parts.
- Do not change or adjust the abrasive while the sanding equipment is running.
- Do not service the sanding equipment while it is running.

DANGER: This sanding equipment requires a supply of electricity. Improper use could result in electrical shock or fire.

- Connect only to an electrical source matching what is shown on the equipment name-plate.
- Do not use this sanding equipment on an ungrounded electrical circuit. Consult an electrician if you suspect the circuit is not properly grounded.
- Do not use this sanding equipment with a damaged electrical cord. Inspect before each use.
- Avoid striking the elelctrical cord with the abrasive. Always lift the electrical cord over the sanding equipment.
- Do not use the electrical cord to move the sanding equipment.
- Disconnect the electrical source before servicing this equipment.

WARNING: In the event of a bag fire, injury can occur to the operator if the operator is tied or strapped to equipment. Use operating belt properly (follow procedure on page 8).

WARNING: Injury to the operator or bystander can occur if protective gear is not worn while sanding. Always use eye, ear, and respiratory protection while performing any sanding operation.

WARNING: Bodily injury could occur if power is applied to the equipment with the power switch already in the "ON" position. Always check to assure that the power switch is in the "OFF" position before connecting power supply.

CAUTION: Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Maintenance and repairs performed by unauthorized personnel will void your warranty. Servicing of this unit must always be referred to an authorized Clarke American Sanders distributor.

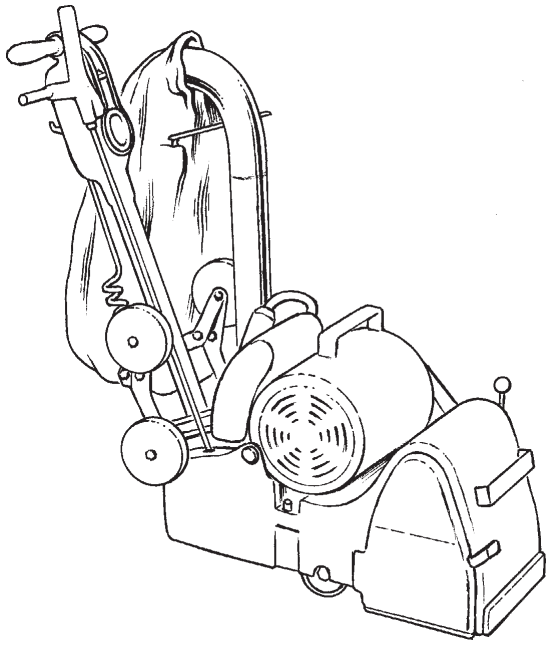
CAUTION: Use of this equipment to move other objects or to climb on could result in injury or damage. Do not use this equipment as a step or furniture. Do not ride on this equipment.

CAUTION: Damage could occur to the equipment if not properly kept in a dry building for storage. Store the equipment in a dry building.

CAUTION: The equipment is heavy. When transporting the equipment, remove the motor. Get help to lift the equipment and motor.

CAUTION: Serious damage to the floor can occur if the sanding equipment is left running in one spot while the sanding drum is in contact with the floor. To avoid damage to the floor, feather cut in at a normal sanding rate. Do not dwell while lowering or raising the contact wheel. Always sand at a constant rate.

Introduction and Machine Specifications



MODEL	07104A	07111A	07117A
Electrical Requirements	~208-240V 60Hz	~220-240V 50Hz	~220-240V 50Hz
Amperage	15.7	11.8	11.8
Sound Level (Lpm)	93.0 dB(A)	96.2 dB(A)	96.2 dB(A)
Vibration	< .15 inches/s	2.88 m/s^2 rms	2.88 m/s^2 rms
Contact Wheel Rate (rpm)	2450	2042	2042
Abrasive Rate	4500 ft./min.	3750 ft./min.	1143 meter/min
Fan Flow Rate	234 cfm	195 cfm	92 liters/s
Drum Pressure Settings	80 lbs., 70 lbs., 60 lbs.	80 lbs., 70 lbs., 60 lbs.	36 kg, 32 kg, 27 kg
Abrasize Size	29½" x 7 7/8"	29½" x 7 7/8"	750 mm x 200 mm
Motor	4 Hp Continuous	2.2 kW Continuous	2.2 kW Continuous
Overload Protection	Magnetic Circuit Breaker	Magnetic Circuit Breaker	13A Fuse
Operating Controls	Adjustable Lever/Grip	Adjustable Lever/Grip	Adjustable Lever/Grip
Leveling Controls	Externally Adjustable	Externally Adjustable	Externally Adjustable
Electrical Cable	50' 10-3 SJO with L6-20P Plug	100' 12-3 SJO with AU2-15P Plug	15 m HO7RN-F3GI .5 with UK1-13P Plug
Operating Wheels	80 Durometer Clear Urethane	80 Durometer Clear Urethane	80 Durometer Clear Urethane
Weight	204 lbs.	204 lbs.	92.7 kg
Dimensions	35" x 13 3/4" x 38 3/4"	35" x 13 3/4" x 38 3/4"	890mm X 350mm x 984mm
Shipping Values			

NOTE: *rpm (Revolutions per minute)
*sfm (Surface feet per minute)
*cfm (cubic feet per minute)

⚠ CAUTION: Your equipment may be inappropriate on some installations. Some softer woods used in flooring cannot support the pressure created by hard wheels.

Always consult with the flooring manufacturer on the proper installation, preparation, and finishing of their product. Determine suitability of your equipment in preparing the product.

230V Electrical Connection Instructions

CAUTION: This machine will operate only on AC frequency and on electrical voltage shown on the motor nameplate. Make sure you have the correct frequency and voltage before connecting the power cord to an outlet. See example in figure 1.

This machine must be connected to an electrically ground circuit in order to protect the operator from electric shock. This machine has an approved power cord with three conductors as well as a plug with three terminals. Connect the plug into a three holed receptacle. For maximum protection against electric shock, use a circuit that is protected by a ground fault circuit interrupter.

DANGER: Electrocution could occur if the machine is exposed to water or rain. Keep the machine in a dry building.

DANGER: Electrocution could occur if machine is improperly connected to the electrical system. To prevent possible electric shock, always use a 3-wire electrical system connected to an electrical ground. For maximum protection against electrical shock, use a circuit that is protected by a ground fault circuit interrupter. Consult your electrical contractor.

DANGER: Electrocution could occur if the ground pin is tampered with in any way. Do not cut, remove, or break the ground pin. Do not try to fit a three-terminal plug into a receptacle or connector body other than a three plug receptacle or connector body. If the outlet does not fit the plug, consult your electrical contractor.

DANGER: Electrocution could occur if the machine is used with a damaged plug or power cord. If the cords or plugs are worn or damaged in any way, have them replaced by an authorized service person or electrician.

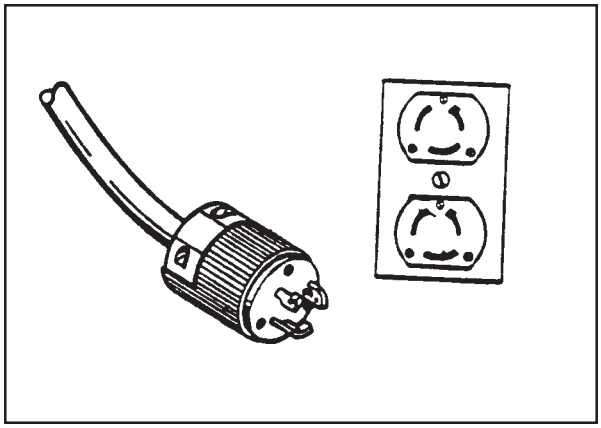


Figure 1

Extension Cords

Use only an approved three-pronged extension cord with two main conductors and one earthing conductor. This machine is equipped with a power cord. When greater range is needed follow the table below to determine cable gauge of additional footage. Refer to the following chart for extension cord information.

Feet/Wire Guage (Stranded Copper)

Source Voltage	0 - 100'	100 - 250'
208	6	Use Voltage Booster
230	10	8

If motor appears to labor or takes a considerable longer time to come up to speed reduce sanding pressure.

How to Transport the Machine

WARNING: **The machine is heavy. Remove the motor from the machine before transporting. Get help loading the machine and motor. Use proper lifting techniques.**

Transporting the Machine - Using the Dolly Cart

CAUTION: **When deploying the dolly, the drum will contact the floor or ground over which the machine is resting. Care should be taken to avoid surfaces which might damage or contaminate the drum.**

CAUTION: **While transporting using the dolly, abrupt changes in the direction of travel or the surface over which the machine is being transported could cause the machine to tip over. Also, the machine is more likely to tip over when transporting across inclined surfaces.**

Attach the dolly to the rear of the machine as follows:

1. Open the quick release levers (2A) and unscrew the adjustment nuts (2B) to allow installation of the dolly. (See figure 2)
2. Insert the quick release skewers into the dolly brackets and immediately tighten the adjustment nuts until the dolly mechanism will just swing free.

Deploy the dolly under the machine as follows:

1. With the dolly mechanism in place as described above, tip the machine by lifting up on the operators handle to raise the rear of the machine off the floor/ground until the dolly swings under the machine. (See figure 3)
2. Hold the dolly in position using your foot and allow the machine to tip back and rest on the dolly wheels. (See figure 4)
3. Tip the machine back on all four wheels and close the quick release levers for transport. Some adjustment of the quick release skewers may be necessary to allow the levers to be tightened securely.

Removing/Storing the dolly:

The dolly can be stored on the machine in the "UP" position or it can be removed and stored separately.

1. Open the quick release levers to loosen the dolly.
2. Lift up on the operators handle to tip the machine forward.
3. Swing the dolly out from under the machine and lower the machine until it rests on its own wheels.

CAUTION: **Be careful when lowering the machine. The dolly will swing back toward the operator as the machine is lowered.**

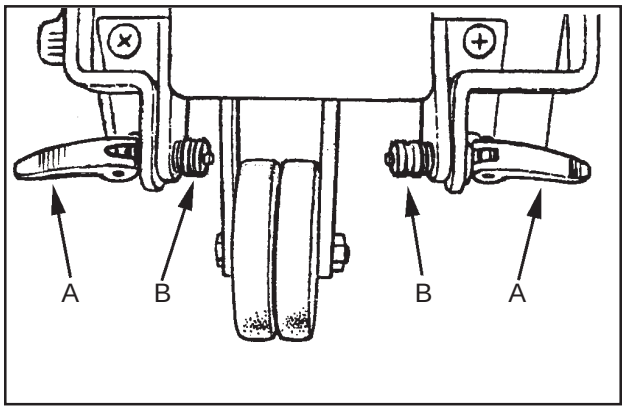


Figure 2

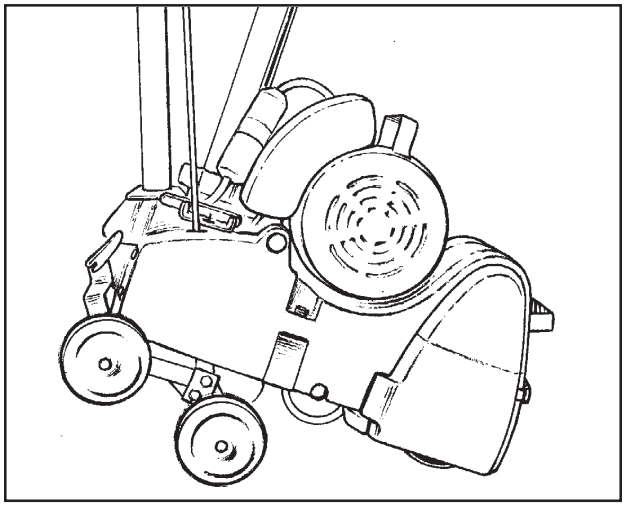


Figure 3

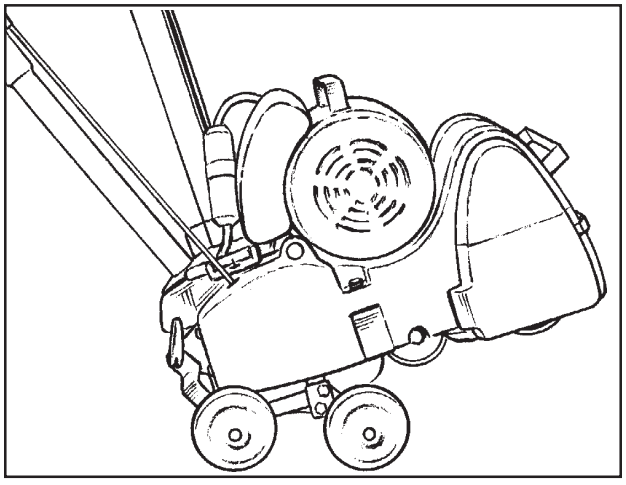


Figure 4

How to Transport the Machine (cont.)

4. To store the dolly in the "UP" position, swing the dolly up against the top of the mainframe as far as it will travel and close the quick release levers to secure it in place. (See Figure 5)
5. To remove the dolly, loosen the quick release adjustment nuts until the levers and nuts clear the counter-bore on the dolly brackets, and remove the dolly.
6. Tighten the adjustment nuts until the quick release levers can be closed to secure the dolly in place.

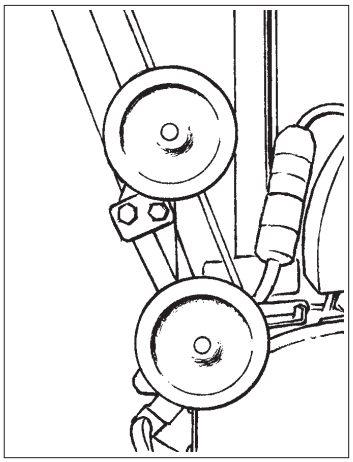


Figure 5

Transporting the Machine - One Person

NOTE: This is accomplished by removing the motor from the chassis and transporting the motor and chassis separately.

To transport the machine, follow this procedure:

1. Make sure the power cable is disconnected from the electrical outlet.
2. Release the tension on the drive belts using the quick release lever. (See Figure 6A)
3. Open the belt guard by pulling on the handle immediately above the left truck wheel. (See Figure 6B)
4. Remove the drive belts from the machine
5. Disconnect the motor pigtail from the handle pigtail. (See Figure 7)
6. Unscrew the motor mounting knobs to loosen the motor. (See Figure 8)
7. Straddle the motor and grasp the motor lift handle. Using your legs, lift the motor off the chassis and take it to the work site.
8. Lift the chassis by grasping the front and rear handles. Lift the frame and bring the belt guard against your chest. Take the chassis to the work site.

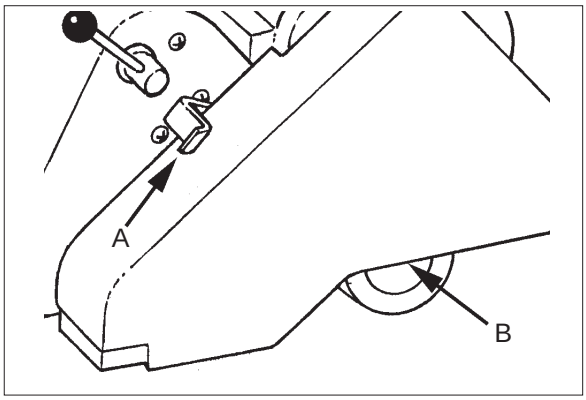


Figure 6

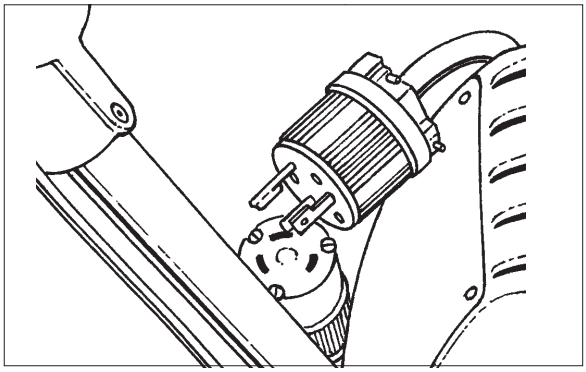


Figure 7

To assemble the machine after transporting, follow this procedure:

1. Open the belt guard door. Place the motor assembly on the chassis and screw the motor mounting knobs sufficiently to engage and secure the motor.
2. Install the drive belts. Tighten the belts using the belt tension quick release lever.
3. Check the tension on the belts and close the belt guard door.

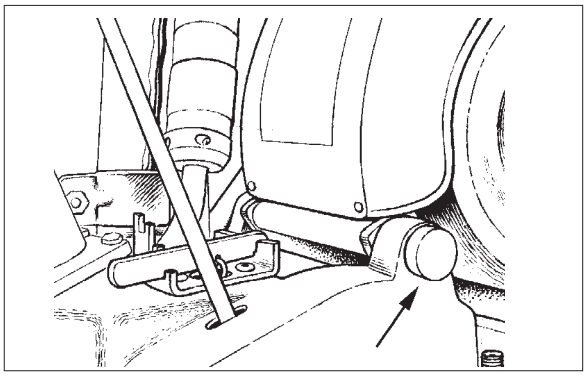


Figure 8

CAUTION: **Premature bearing failure can occur if the fan belt is set too tight. The fan belt should deflect ½" at the center of the span with 5 lbs. of pressure.**

NOTE: It is necessary to adjust the fan belt independently during this procedure or during replacement. The idler pulley is factory adjusted.

Transporting the Machine by Carrying - Two People

1. Person #1 places his hands under the front of the machine's main casting.

2. Person #2 lifts the machine by the operating handle.

Machine Set-Up

To set-up your machine follow this procedure:

1. Familiarize yourself with the machine and read all danger, warning and caution statements. Make sure all operators of this machine have read this Owner's Manual. If they cannot read English, have the manual explained fully before allowing anyone to operate the sander.

2. Locate the power supply. The receptacle should be compatible with the plug. The receptacle must be grounded and must be fused (30 amp) to avoid an electrical hazard.

3. Clip the dust bag to the elbow. (See figure 9) Cross the strings on the dust bag and draw tight over the flare on the elbow. Wrap the string around the elbow and secure.

4. Wind the power cord through the cable arm. (See figure 10) Keep the power cord out of path of equipment.

5. Pull the draw latch forward to release the access door to gain entry to the sanding chamber.

6. Rotate the release lever forward. (See Figure 11)

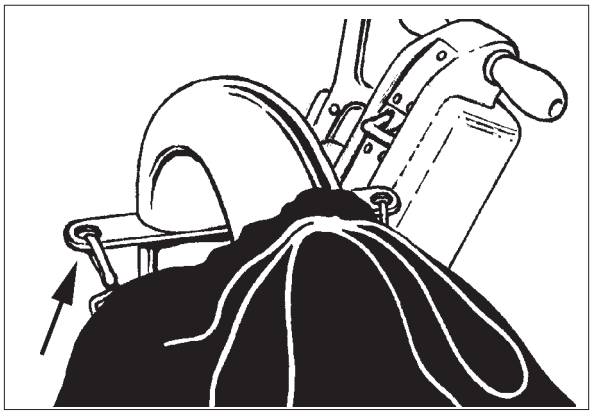


Figure 9

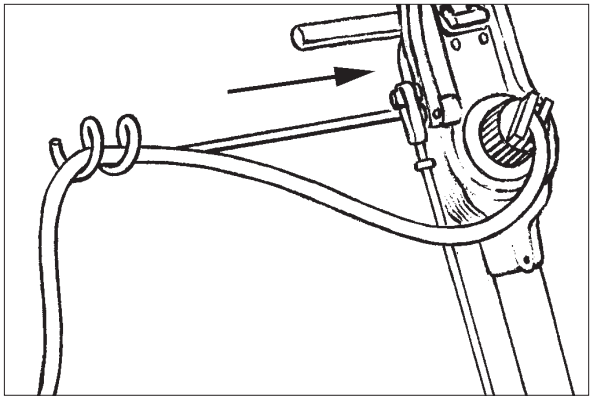


Figure 10

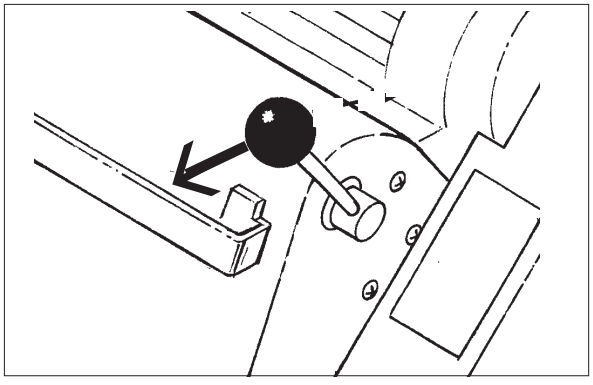


Figure 11

Machine Set-Up (Cont)

7. Install a new abrasive belt by sliding the abrasive over the tension roller and contact wheel. (See figure 12)

8. Rotate the release lever backward to tighten the abrasive belt.

CAUTION: **Do not force the release lever. Doing so can damage the tracking mechanism and cause the abrasive belt to mis-track.**

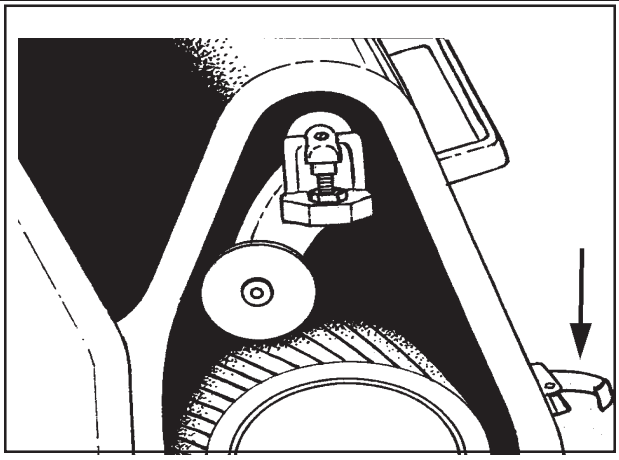


Figure 12

9. Make sure the motor circuit breaker is in the "Off" position. Plug the pigtailed power cord into the handle. Twist the cord connection clockwise to lock.

10. Jog (turn on momentarily) the motor circuit breaker while observing the belt tracking. Follow the procedures outlined in the "Sander Adjustment Procedures" on page 16 to correct the belt tracking. There is also a label on the inside of the access door that outlines the belt adjustment.

11. Close the access door. Place the end of the draw latch over the keeper on the access door and push the draw latch flat against the mainframe to secure.

How to Operate the Machine

DANGER: **Sanding/finishing wood floors can create an environment that can be explosive. Cigarette lighters, pilot lights and any other source of ignition can create an explosion when active during a sanding session. All sources of ignition should be extinguished or removed entirely if possible from the work area.**

DANGER: **Work areas that are poorly ventilated can create an explosive environment when certain combustible materials are in the atmosphere, i.e., solvents, thinners, alcohol, fuels, certain finishes, wood dust and other combustible materials. Floor sanding machines can cause flammable material and vapors to ignite. Read the manufacturer's label on all chemicals used to determine combustibility. Keep the work area well ventilated.**

DANGER: **Sanding dust can spontaneously ignite and cause an injury or damage. Sanding dust should be disposed of properly. Always empty the sanding dust into a metal container. Remove the contents of the dust bag when the bag is 1/3 full.**

DANGER: **Sanding dust can spontaneously ignite and cause an injury or damage. Remove the contents of the dust bag each time you finish using the machine. Always dispose of the dust in a metal container located outside of the building. Never leave a dust bag unattended with sanding dust in it. Do not empty the contents of the dust bag into a fire.**

DANGER: **Hitting a nail while sanding can cause sparks and create an explosion or fire. Always use a hammer and punch to countersink all nails before sanding floors.**

To operate the machine follow this procedure:

1. Before sanding, decide on best approach for sanding desired area. If the floor is uneven, it may be necessary to sand diagonally to the direction that the floor is laid. This will help "pull" or stretch low and high spots in the floor over a greater area, producing a flatter surface. Premiminary cuts should be performed at angles approximately 15° to the direction of the wood grain. Cut direction should change on succesive cuts with the final cut performed in the direction of the wood grain. This will minimize the tendency of waves to form and provide the most even floor surface.

   When sanding the area, work in a way so that you are moving away from where the cord set enters the room. This will help to avoid entanglement with the cord set and eliminate the need to move the cord set out of the way so frequently.

   Work the area in a way that avoids interruption or termination points (an end of pass.) Make long continuous passes.

2. Swing cable arm to side of machine opposite the direction you intend to work. Rotate elbow on dust pipe until dust bag rest on motor. This will maintain balance and sanding pressure as the dust bag fills. The machine should be operated with the dust bag in this position whenever possible.

3. If the operating belt (Clarke American Sanders PN 60724A) is used proceed as follows:
   a. Position the operating belt around waist.
   b. Cross the straps at the waist. See figure #13.
   c. Slide the belt loop end over the handle on the control lever side. Adjust the length as needed.
   d. Wrap the remaining strap around the opposite side of the handle, and hold it in place with your hand.

WARNING: **Serious operator injury could occur if the operator has tied or strapped the loose end of the operator's belt strap to the machine. Always wrap the strap so that you can let go and get away quickly in case of bag fire or explosion.**

4. Turn the control switch to the "On" position.

CAUTION: **To prevent damage to the floor, make sure the machine is in motion when the contact wheel is engaged with the floor.**

5. Feather-cut in by easing the contact wheel down onto the surface with the control lever while the sander is in motion.

6. When contact wheel is fully engaged with the surface, gradually adjust your pace for adequate finish removal. Keep sander in motion while the contact wheel is engaged with the surface or dwell marks will occur.

7. Move the machine in the direction of the grain in the wood whenever it is possible. Sand the surface at a constant pace.

8. Gradually feather-cut out at the termination point by easing the contact wheel up with the control lever. (See Figure 13)

9. Repeat technique described in steps 5, 6, 7, and 8 and sand back down pass just made. When completed, begin a new pass by overlapping previous pass half the width of the abrasive. Stagger termination points to prevent a distinct ridge and a better blend when edging.

10. Empty contents of the dust bag into a metal container located outside the building. Dust bag should be emptied whenever full, as indicated on bag.

WARNING: **Do not overfill dust bag or serious fire may result. Never leave a dust bag containing dust unattended. Sanding dust can spontaneously ignite and cause a fire or explosion. Use only genuine Clarke American Sanders replacement bags.**

CAUTION: **An overfilled dust bag may effect machine balance and performance. Do not handle or disturb dust bag and elbow while sanding or damage to the floor may occur.**

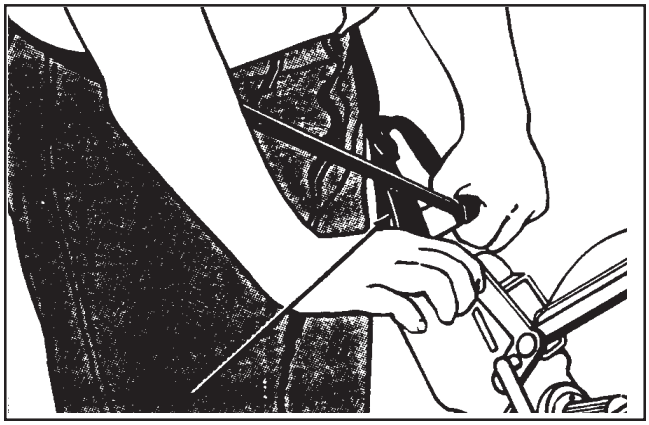


Figure 13

Sanding Cuts and Sandpaper

Initial Cut

The purpose of the initial cut is to remove old finish and gross imperfections on the floor surface. The sanding equipment should be adjusted to heavy sanding pressure setting and a coarse abrasive belt should be used. If the surface is severely damaged by deep scratches, preexisting dwell marks, uneven planks, etc., it may be necessary to sand across or diagonally to the grain to restore evenness to the surface. If these conditions are not present, the initial cut should be done in the direction of the grain.

If glazing, loading, or burning takes place immediately into an initial cut, select a coarser abrasive. If this should occur during an initial cut, the abrasive has dulled and must be replaced.

Final Cuts

The purpose of a finishing cut is to remove the scratches produced during the initial cut. Use a fine (60 - 80 grit) grain abrasive and a reduced sanding pressure setting.

If the surface remains rough after a finishing cut, it may be necessary to use an even finer grain of abrasive (80 - 100 grit). Care should be taken in selecting the grit size of the abrasive. A very fine grain will close the pores on a wood floor making admission of a stain difficult.

If glazing or burning should occur immediately into a finishing cut, reduce the sanding pressure. If it should occur during a finishing cut, the abrasive has dulled and must be replaced.

Abrasive Belts

Note: All part numbers listed are for a carton of 10 belts

Grain	Use	Aluminum Oxide	Silicon Carbide	Ceramic Alum.Oxide
16 grit	For removing gross imperfections and restore evenness to old flooring. To remove build-up of paints and varnishes.	-	945844	-
36 grit	For first sanding of new flooring (maple, oak). For removing minor imperfections and finishes from old flooring.	-	945842	945901
40 grit	For first sanding of new flooring (oak, walnut). For removing minor imperfections and finishes from old flooring.	-	945841	945902
50 grit	For first sanding of new flooring (cedar, pine, fir) For cleanup of 16 grit.	-	945840	945903
60 grit	For cleanup from initial cut 36 - 40 grit.	945839	-	945904
80 grit	For final sanding of certain hardwoods. For cleanup of initial cuts (50 grit).	945838	-	945905
100 grit	For final sanding of certain hardwoods where a smooth surface is desired.	945837	-	945909
120 grit	For final sanding of certain conifers.	945836	-	945910
150 grit	For final sanding of certain conifers where a smooth surface is desired.	945835	-	945911
180 grit	For surface roughing between coats of finish.	945834	-	-

Chatter Wave Prevention

Clarke Sanders are designed and manufactured to the most rigid tolerances. However, after a finishing cut it is possible to see “chatter” or “waves”.

The best guarantee to remove the chatter is to finish the floor with a rotating horizontal sander, such as Clarke’s Sander 16.

To minimize chatter when using a belt or drum sander the following steps should be taken:

1. DRUM MARKS...are caused by the operator lowering the drum to the floor without forward traverse. These marks should be removed by cutting at a 45 degree angle to the mark. Cutting at the mark while maintaining the same path will only increase the mark depth and width. (See figure 14)

2. UNEVEN WALKING SPACE...can leave lengthy “waves”. The machine cuts more material during the slower pace. Pay particular attention to a steady, even pace.

3. EXCESSIVE LIGHT CUTS...may reveal high spots on the paper/contact wheel and cause chatter. Take a heavier cut and increase the pace.

4. DEBRIS...lodged between the paper and the drum will leave chatter. On a belt sander, debris may be adhered to the drum. Insure the drum is clean and free of debris before placing the paper on.

5. ABRASIVE QUALITY...may vary. Belt seams can be thicker on low quality paper and cause chatter. Use only Clarke specified sandpaper. Store abrasive according to manufacturers recommendation.

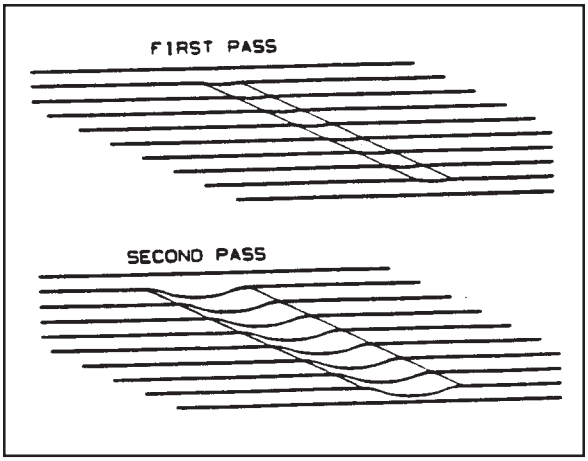


Figure 14

PROPER CARE OF YOUR MACHINE CAN MINIMIZE CHATTER AND WAVES.

1. V-BELTS...can cause vibration and chatter if they are of low quality. Use only belts specified by Clarke.

2. TRUCK AND CASTER WHEELS...with flat spots, out-of-roundness, or debris adhered to their surface can cause “waves” or a “chatter effect”. Always clean and inspect all wheels before starting to sand, and before the finish cut. Replace or true the wheels if found to be out-of-round. Never allow the sander to stand on hard surfaces for lengthy periods of time.

3. DUST PICK-UP SHOES...may need adjusted differently for different materials that are to be sanded. An improperly adjusted shoe will leave trailing debris that will be run over by the wheels and cause “random waves”.

4. CONTACT WHEELS (DRUMS)...may be out-of-round and cause “chatter”. Contact your Clarke dealer for assistance to true or replace the drum.

5. BEARINGS...in the motor, drum, or fan system may become worn and induce vibration which could cause “chatter”.

6. PULLEYS...that are damaged or severly worn can induce vibration and cause “chatter”. Contact your Clarke dealer for assistance.

7. SANDPAPER TENSION...should always be released when the machine is shut off for 10 minutes or longer to avoid compression of the drum.

NOTE: Clarke is not responsibile for rework of floors that are unacceptable to the customer. It is your responsibility to insure your equipment is in proper operating order, and that you use the right machine for the job.

Sander Adjustment Procedures

DANGER: Electrocution could occur if maintenance and repairs are performed on a unit that is not properly disconnected from the power source. Disconnect the power supply before attempting any maintenance or service.

DANGER: Moving parts of this machine can cause serious injury and/or damage. Keep hands, feet and loose clothing away from all moving parts of the sander.

The following information provides details on how to adjust different features/controls of the sander.

Dust Shoe

To adjust the dust shoe follow this procedure:

1. Disconnect machine from power supply.
2. Loosen the three screws fastening the dust shoe to the chassis.
3. Adjust the dust shoe down to reduce clearance.
4. Adjust the dust shoe up to increase clearance.
5. Align the dust shoe to the chassis and tighten screws. (See figure 15)

Sanding Pressure

There are three pressure settings to select from: heavy, medium and light. The lower the position the heavier the setting. To change settings, raise the lever and place in desired position. (See figure 16)

Leveling the Drum

CAUTION: The belt tracking maybe adversely effected if machine is operated unleveled.

The machine is leveled at the factory set and no adjustments should be necessary. After any maintenance is performed to the carriage system, the pointer on the leveling bracket must be returned to original mark (See figure 17).

If it is necessary to reset level after replacing wheels follow this procedure:

1. Lower the contact wheel to the floor.

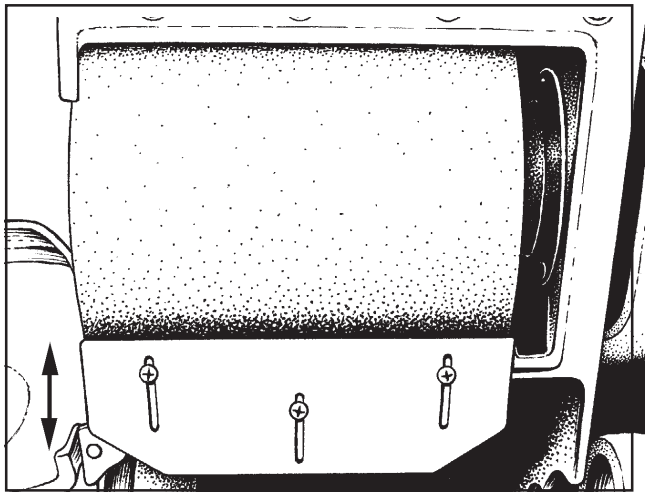


Figure 15

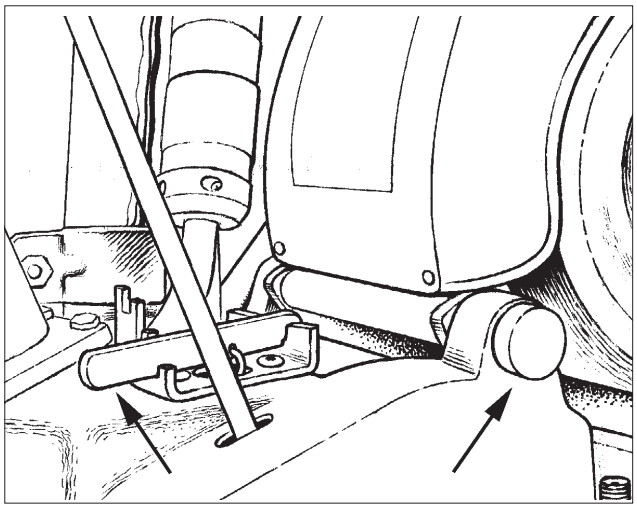


Figure 16

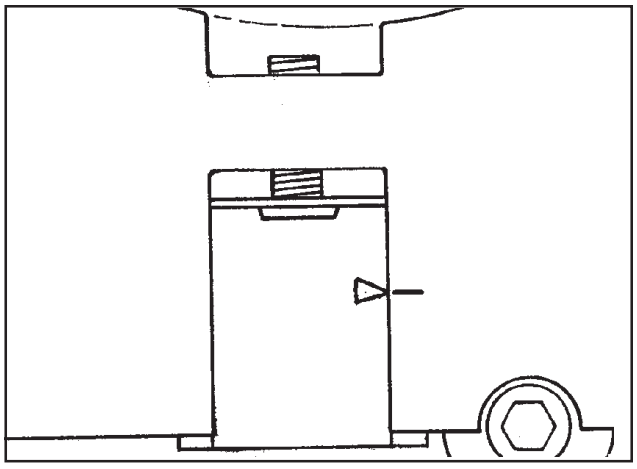


Figure 17

2. Drive the adjusting screw **in**, to sand heavier on the left (the drive belt side). Back the adjusting screw **out**, to sand heavier on the right (the side opposite the drive belts). Test the setting on an even surface. Make further adjustments if necessary.

3. Mark new pointer location on main frame

Belt Tracking

WARNING: **Injury to the operator could occur if any machine adjustments are made while the motor is running. Do not attempt to make any adjustments while the machine is plugged in or running.**

To adjust the belt tracking follow this procedure:

1. Locate the belt tracking adjuster screw. (See figure 18A)
2. Hold the belt tracking adjuster screw and loosen the locknut. (See figure 18B).
3. Rotate the tracking adjuster screw counterclockwise to move the belt in.
4. Rotate the tracking adjuster screw clockwise to move the belt out.
5. Test adjustment and tighten the locknut.

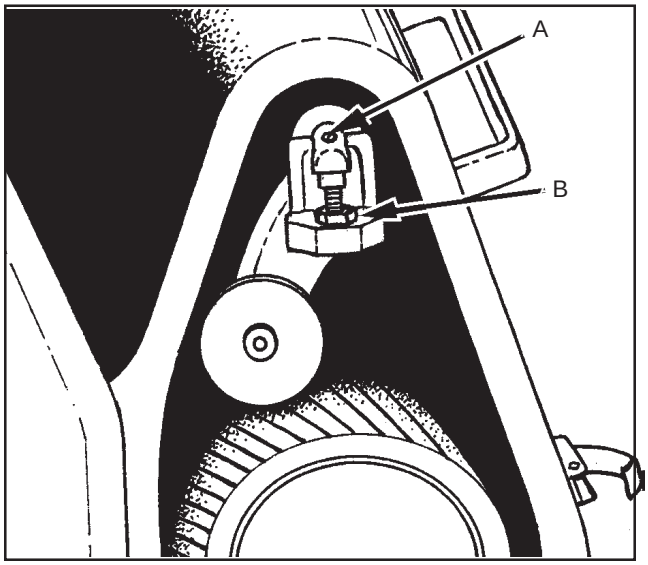


Figure 18

Operating Control

To **increase** the travel or extend the reach on the grip control follow this procedure:

1. Loosen the locknut on the control rod. (See figure 19A)
2. Screw the control rod adjuster (See figure 19B) **"In"** until the desired reach is found.
3. Tighten the locknut.

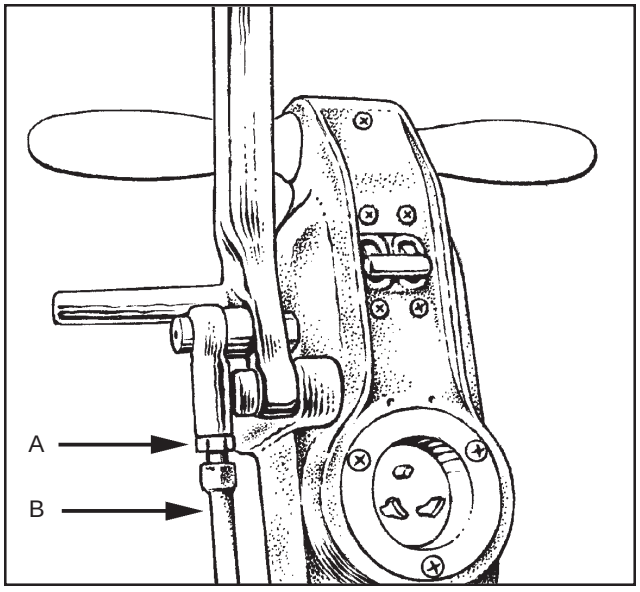


Figure 19

Sanding Adjustment Procedures (Cont)

To **decrease** the travel or reduce the reach on the grip control follow this procedure:

1. Loosen the locknut on the control rod. (See figure 20A)
2. Screw the control rod adjuster **"out"** until desired reach is found.
3. Tighten the locknut.

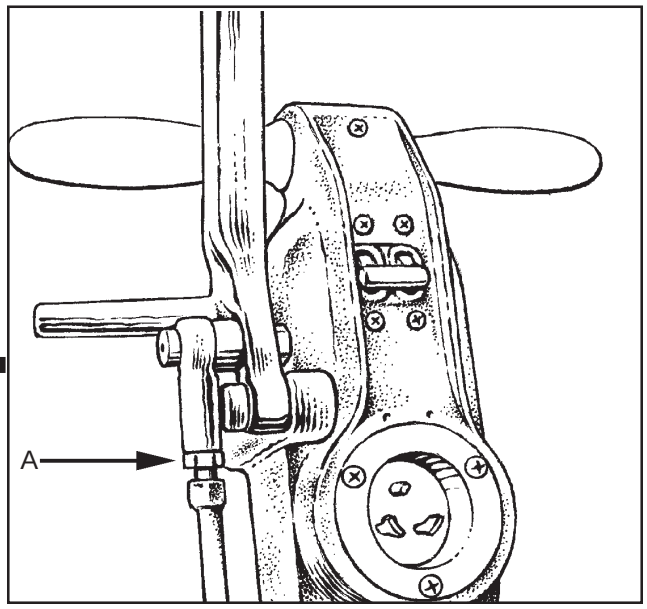


Figure 20

Routine Maintenance

The following items need to be periodically inspected and maintained to keep your sander in good working condition.

Sanding Chamber

Periodically blow out the sanding chamber to prevent large accumulations of debris which could interfere with the performance of the tension roller.

Wheels

Periodically remove the debris from the truck and caster wheels. Debris can cause waves on a sanded surface.

Dust Bag

Remove the dust bag from the machine and shake it thoroughly to remove the sanding dust from the dust bag. Turn the dust bag inside out and machine wash in cold water to prevent pore blockage and loss of dust recovery.

Drive Belt

Drive belt tension is factory set and should not require adjustment. Periodically check the drive belt tension. Proper belt tension is achieved when 10 lbs. of force at the mid-span of the belt produces ½ inch of deflection.

To increase belt tension, release tension using quick release lever (See Figure 6).

Turn the adjustment screw "OUT" (See Figure 21) one quarter turn. Restore tension using quick release lever and check adjustment. Repeat this process if necessary. To lower tension, the adjustment screw is turned "IN".

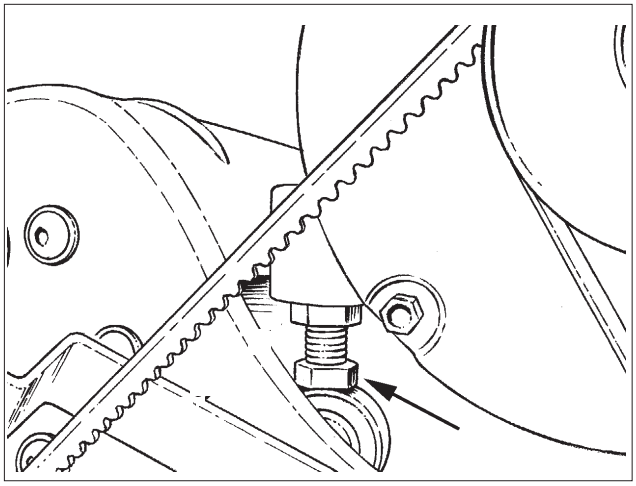


Figure 21

Bearings

Periodically check the bearings for wear or damage according to the following schedule:

Guide rollers	after 1st 650 hrs.
Idler pulley	after 1st 1500 hrs.
Fan shaft	after 1st 2500 hrs.
Tension roller	after 1st 2500 hrs.
Arbor shaft	after 1st 5000 hrs.
Motor shaft	after 1st 5000 hrs.

Rollers

Periodically check the guide rollers and the tension roller for wear.

Troubleshooting

Problem	Cause	Action
Drive belts slip. (Squeaking or squealing sound)	Insufficient tension.	Tension drive belt as described in adjustment procedures. (See pg. 7)
	Worn belts.	Replace belts.
Squealing, growling or grinding noise coming from machine.	Damaged and/or worn bearing.	Remove drive belts, rotate arbor motor, fan, shafts and idler pulley to locate dragging or rough bearing. Contact an authorized dealer.
Dust pickup is poor.	Dust bag is over 1/3 full.	Empty contents of bag.
	Dust bag is dirty.	Shake debris from bag and wash.
	Dust shoe is improperly adjusted.	Readjust dust shoe.
	Dust chute is obstructed.	Remove fan cover and clear throat.
Motor will not start.	Defective motor starter.	Contact an authorized dealer.
	Defective start capacitor.	Contact an authorized dealer.
	Defective electronic start switch.	Contact an authorized dealer.
	Low voltage from poor connection.	Contact an authorized dealer.
	Defective motor.	Contact an authorized dealer.
	No power.	Check power supply and connections.
Motor runs sluggishly.	Low voltage from excessive footage, undersized extension cord, or poor connection.	Locate power source nearer to work site. Decrease sanding pressure.
	Defective run capacitor.	Contact an authorized dealer.
	Defective motor.	Contact an authorized dealer.
Motor circuit breaker trips/ repeatedly trips.	Excessive load.	Contact an authorized dealer.
	Defective electronic start switch.	Contact an authorized dealer.
	Defective motor starter.	Contact an authorized dealer.
	Low voltage from poor connection.	Contact an authorized dealer.
	Defective motor.	Contact an authorized dealer.
	Defective capacitor.	Contact an authorized dealer.
Uneven cuts.	Leveling out of adjustment.	Readjust leveling. Fig. 13 page 15.
	Abrasive belt tracking.	Adjust belt to track towards the edge of drum with deepest cut.

Troubleshooting

Problem	Cause	Action
Burning or glazing.	Dull abrasive.	Replace abrasive.
	Excessive sanding pressure.	Decrease sanding pressure setting. (Fig. #12, page 14).
	Too fine of an abrasive belt.	Use coarser abrasive.
Slow cutting.	Dull abrasive.	Replace abrasive.
	Too fine of an abrasive belt.	Use a coarser abrasive belt.
	Insufficient sanding pressure.	Increase sanding pressure setting. (Fig. #12, page 14).
Waves on sanded surface.	Debris on wheels.	Remove and clean wheels.
	Flat spot on tire(s).	Replace tires.
Chatter marks on sanded surface. (Close evenly spaced ripples)	See Chatter Wave Prevention, page 13.	See Chatter Wave Prevention, page 13.
Difficult to actuate tension release lever.	Debris interferes with mechanism	Blow out sanding chamber. Remove and disassemble mechanism. Clean out.
	Worn sleeve bearing.	Replace.
	Galled linkages.	Lubricate with WD-40.
Abrasive belt hunts (seeks).	Worn washers.	Replace (items #84 & 88, pg. 20,21).
	Worn sleeve bearing.	Check for excessive play, replace.
	High edges on contact wheel.	Contact an authorized dealer or replace the contact wheel.
Abrasive belt will not track.	Extreme difference in side-to-side length of belt.	Replace abrasive belt.
	High edge on contact wheel.	Check several different abrasive belts. Contact an authorized dealer or replace the contact wheel.
Abrasive belt tears along its length.	Debris built-up on (top) tension roller.	Clean tension roller.

Clarke®

American Sanders

Division of ALTO®

FloorCrafter
Belt Sander
Section II
Parts and Service Manual

(70255B)

U.S. Patent No. 5,575,710 and No. 6,578,858

Clarke®
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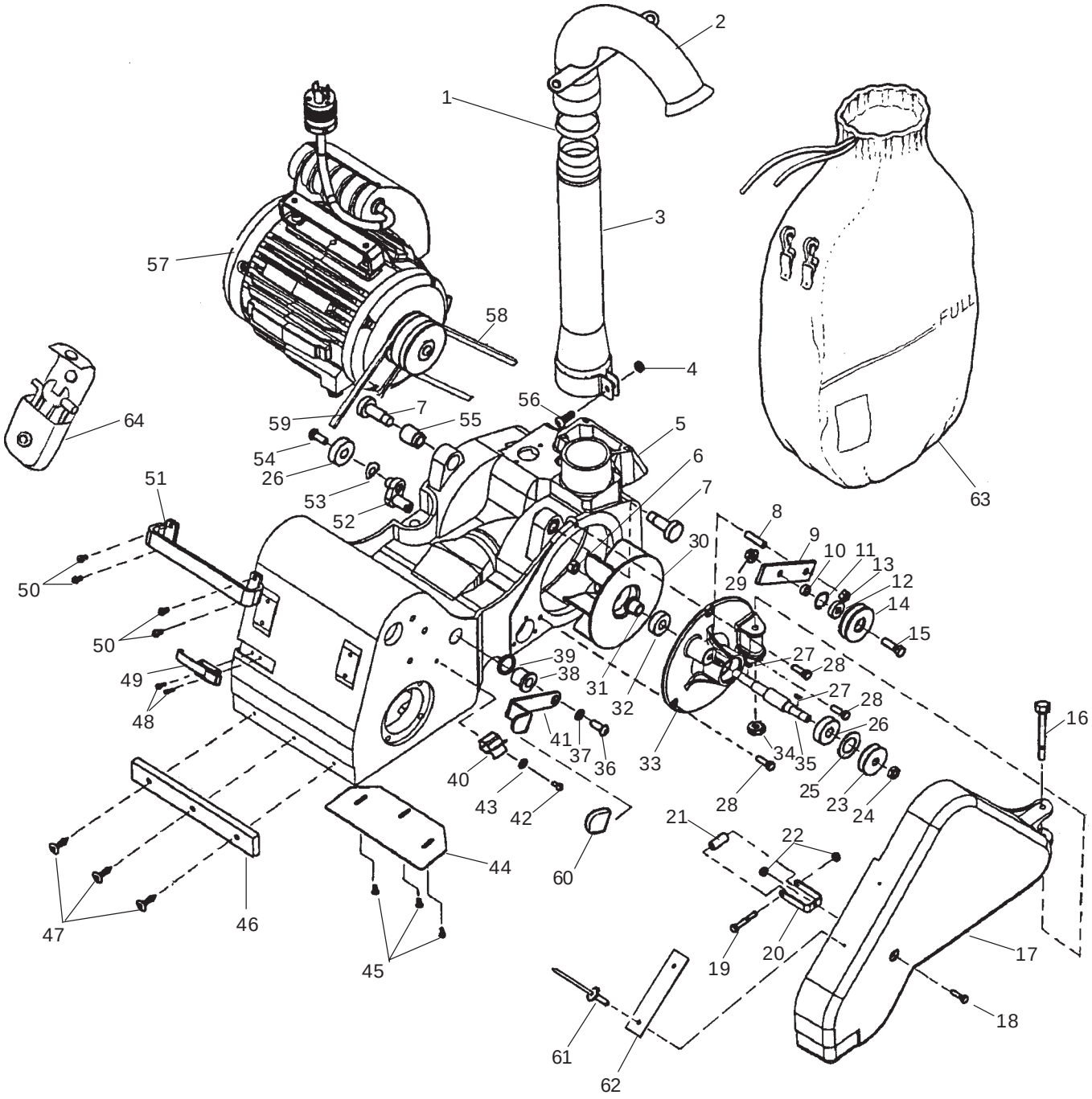
FloorCrafter
Main Assembly Drawing #1 6/02



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FloorCrafter Belt Sander
Main Assembly Parts List #1 1/04

Ref No.	Part No	Description	Qty
1	60342A	Seal, Felt	1
2	10142A	Asm., Dust Tube Elbow	1
3	10144A	Asm., Tube, Dust	1
4	920342	Nut, 3/8 -16 Lock	1
5	20022A	Mainframe	1
6	81202A	Nut, 7/16 -14 L.H.	1
7	60476A	Pin, Motor Mount	2
8	68010A	Stud, Idler Arm	1
9	60414A	Arm, Idler	1
10	67875A	Spacer	1
11	57801A	Ring, Retaining	1
12	902619	Bearing	1
13	81108A	Nut, Lock 3/8 -24	1
14	66170A	Pulley, Idler	1
15	962216	Screw, 3/8 -16 x 1¼	1
16	80017A	Bolt, 3/8 x 2¾	1
17	20023A	Guard, Belt	1
18	80131A	Screw, Carriage, ¼-20 x ¾	1
19	85702A	Screw, ¼-20 x ¾	1
20	60384A	Bracket, Latch	1
21	68393A	Tube, Latch	1
22	81102A	Nut, ¼-20 ESNA	2
23	60366A	Pulley, Fan	1
24	920196	Nut	1
25	877304	Ring, Retaining, Internal	1
26	51111A	Bearing, Ball	2
27	915561	Key	2
28	85812A	Screw, 5/16 -18 x 7/8	3
29	171101	Nut, 3/8 -16 Flange	1
30	23301A	Fan	1
31	61602A	Collar	1
32	902567	Beaing, Ball	1
33	20026A	Cover, Fan	1
34	920110	Nut, 5/16 -18	1

Ref No.	Part No	Description	Qty
35	60370A	Shaft, Fan	1
36	962870	Screw, 3/8 -16 x 7/8 Button	1
37	87000A	Washer	1
38	51215A	Bearing, flange	1
39	87052A	Washer	2
40	61600A	Clip-dust	1
41	60368A	Lever, Belt Tensioning	1
42	86111A	Screw, ¼-20 x ½	1
43	980657	Washer, Lk ¼ Std	1
44	60397A	Cover, Dust Throat	1
45	85517A	Screw, 10-24 x ½	13
46	60392A	Bumper, Front	1
47	51219A	Rivet, Nylon	3
48	962727	Screw, 8-32 x ½	2
49	52338A	Latch, Draw	1
50	87700A	Screw, ¼-20 x ½	5
51	60386A	Handle, Mainframe	1
52	51093A	Cam, Belt Release	1
53	60482A	Spacer	1
54	962565	Screw	1
55	60475A	Bolt, Adjustment	2
56	962216	Screw, 3/8 -16 x 1¼	1
57	Ref.	Assembly, Motor	1
58	51039A	Belt, Fan	1
59	51024A	Belt Drive	1
60	52420A	Cover, Lever	1
61	930093	Rivet, 1/8 x 5/16	2
62	74045A	Plate, Danger	1
63	50954A	Bag	1
*64	10332A	Tool Kit (includes * items)	1
*	*51273A*	*3/32 Hex Key (incl. in #64)*	*1*
*	*51274A*	*7/32 Hex Key (incl. in #64)*	*1*
*	*51347A*	*Pouch (incl. in #64)*	*1*
*	*59810A*	*Wrench 9/16 x 7/16 (incl. in #64)*	*2*

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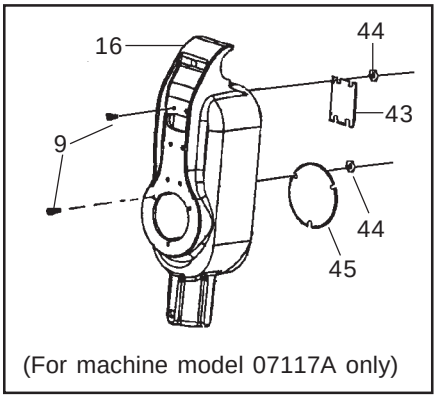
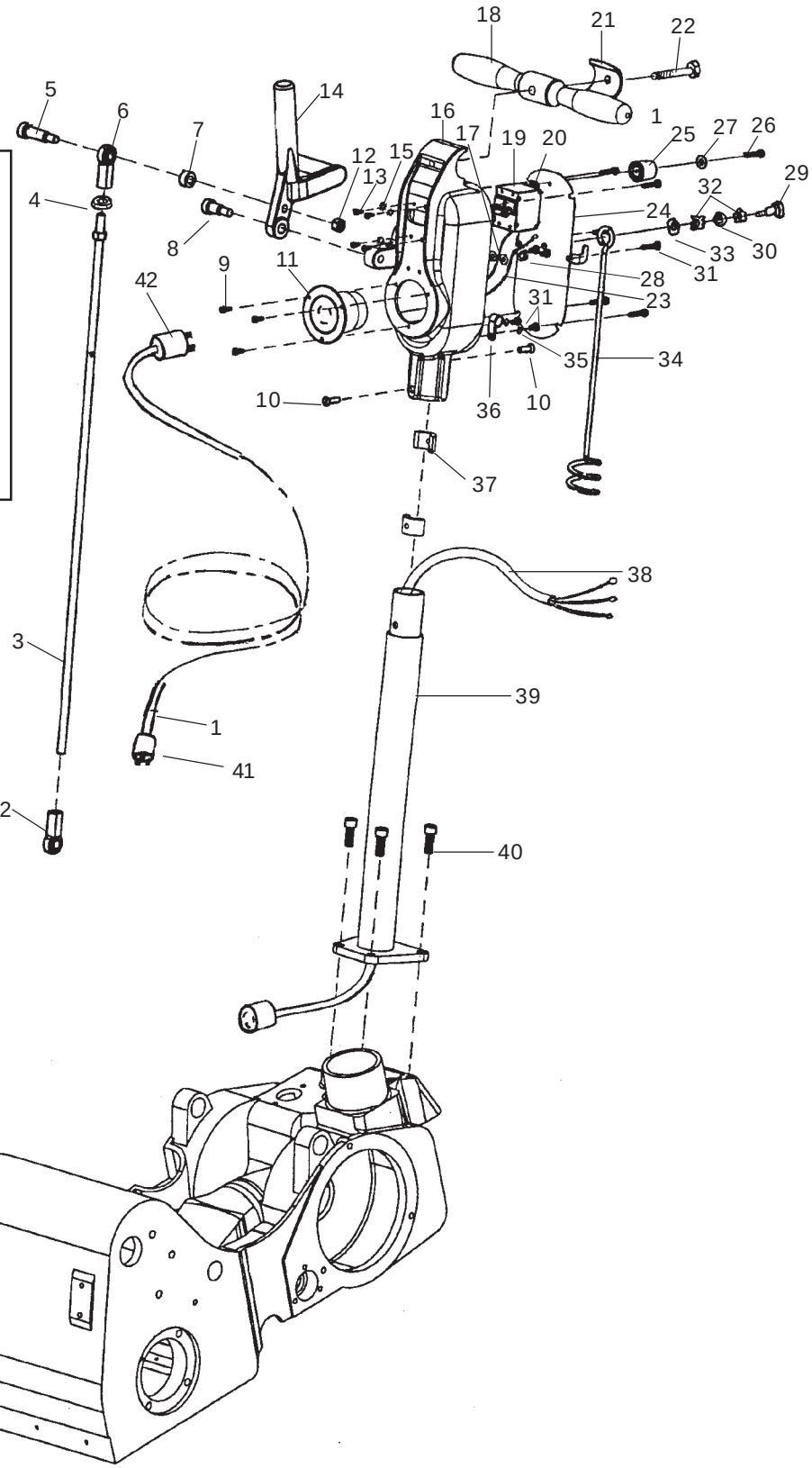
FloorCrafter Belt Sander
Handle Control Assembly Drawing #2 1/04



(For machine model 07117A only)



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FloorCrafter Belt Sander
Handle Control Assembly Parts List #2 1/04

Ref No.	Part No	Description	Qty
1	42200A	Cord Set	1
	40010A	Cable Asm. AU2-15P	1
	40673A*	Cable Asm. UK1-13P	1
2	53538A	Rod, End 3/8 -24 L.H.	1
3	60387A	Rod, Control	1
4	920204	Nut, 3/8 -24 Hex Jam	1
5	80035B	Bolt, Shoulder 3/8 x1¼	1
6	53537A	Rod, End, 3/8 -24 R.H.	1
7	898203	Spacer, Rod End	1
8	80155A	Bolt, Shoulder ½ x 5/8	1
9	962727	Screw, 8-32 x ½	3
	962727	Screw, 8-32 x ½	7*
10	80132A	Screw, ¼-20 x ¾	2
11	43501A	Inlet, Flanged	1
12	920110	Nut, Lk 5/16 -18	1
13	85313C	Screw, 6-32 x 3/8 Pan Hd	4
14	25601A	Lever, Control	1
15	980607	Washer, #6 Tooth Pltd.	4
16	20016A	Control Housing	1
17	48900A	Wire Assembly	1
18	64405A	Handle, Steering	1
19	41411A	Circuit Breaker, 30 Amp	1
20	81109A	Nut, Hex, Elastic, Lock, 8-32	1
21	21904C	Clamp, Steering Handle	1
22	85818A	Screw, 5/16 -18 x 2½ Hx Hd	1
23	49023A	Wire, Assembly	1
24	10155A	Assy, Cordholder	1
25	51220A	Bumper, Plastic	1
26	85613A	Screw, 8-32 x 7/8	1
27	980982	Washer, #10 SAE, Flat Hd	1
28	81112A	Nut, Lk., 5/16 -18	1
29	80026A	Bolt, Shoulder, 3/8 x½	1
30	87619A	Washer, Flat, .63 x .38 x .03	1
31	85517A	Screw, 10-24 x ½	10
32	980022	Washer, Wave	2
33	87618A	Washer, Flat	1
34	60372A	Arm, Cord	1
35	980699	Washer	2
36	51074A	Clamp, Cable	2
37	60374A	Clamp, Retainer	2
38	41917A	Cord, Interconnecting	1
39	10145A	Mount, Handle Control	1
40	962288	Screw, 3/8 -16 x 1	4
41	45608A	Plug (for 42200A)	1
	40024A	Plug (for 40010A)	1
	45609A	Plug (for 40673A)	1
42	41706A	Connector	1
	40039A*	Connector (for 40673A)	1
43	40674A*	Cover Switch	1
44	920065*	Nut, #8	7
45	40675A*	Cover Inlet	1

NOTE: ◆ indicates a change has been made since the last publication of this manual.

* NOTE: used on machine model 07117A only.

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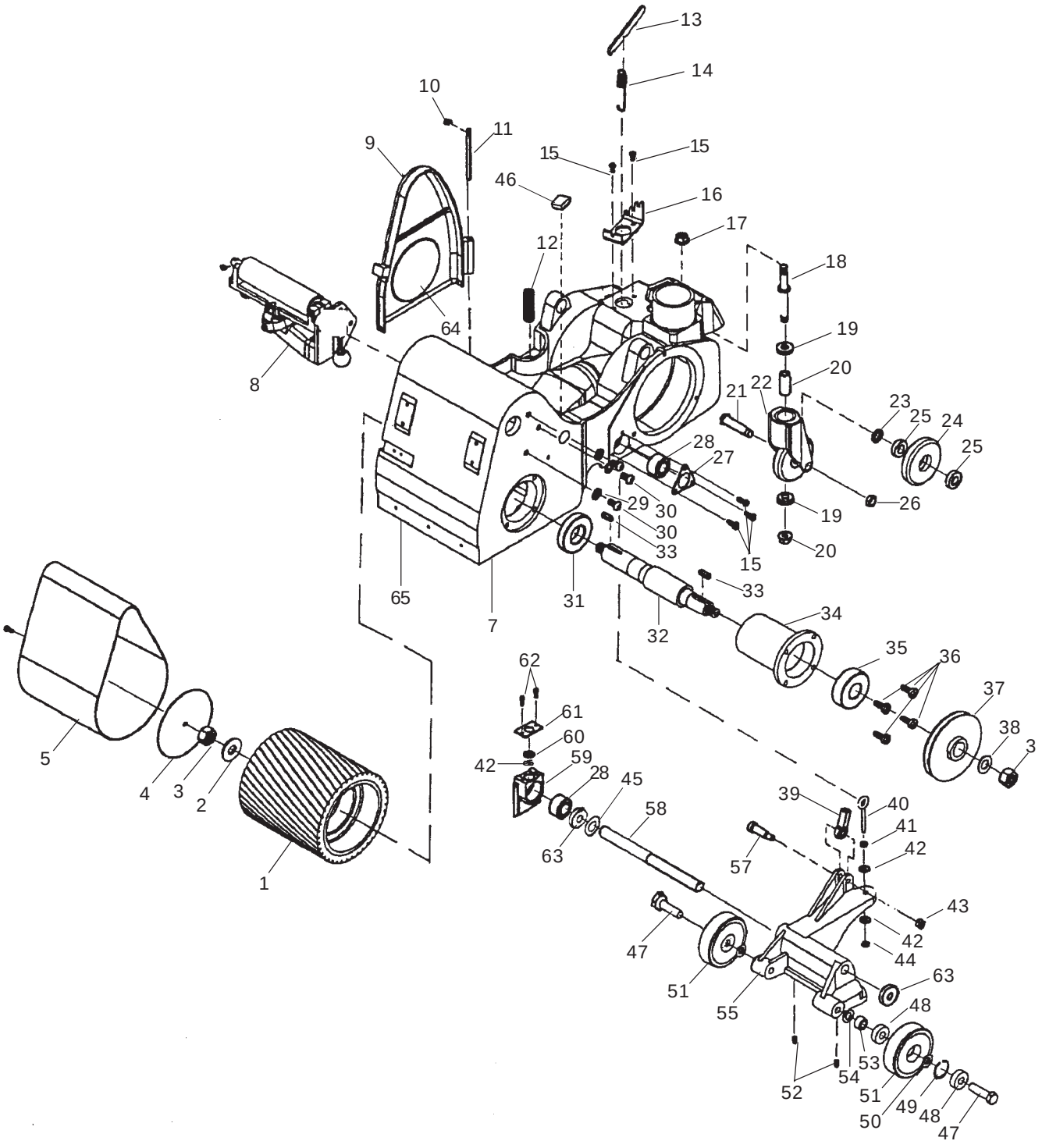
FloorCrafter Belt Sander

Contact Wheel & Truck Assembly Drawing #3 10/01



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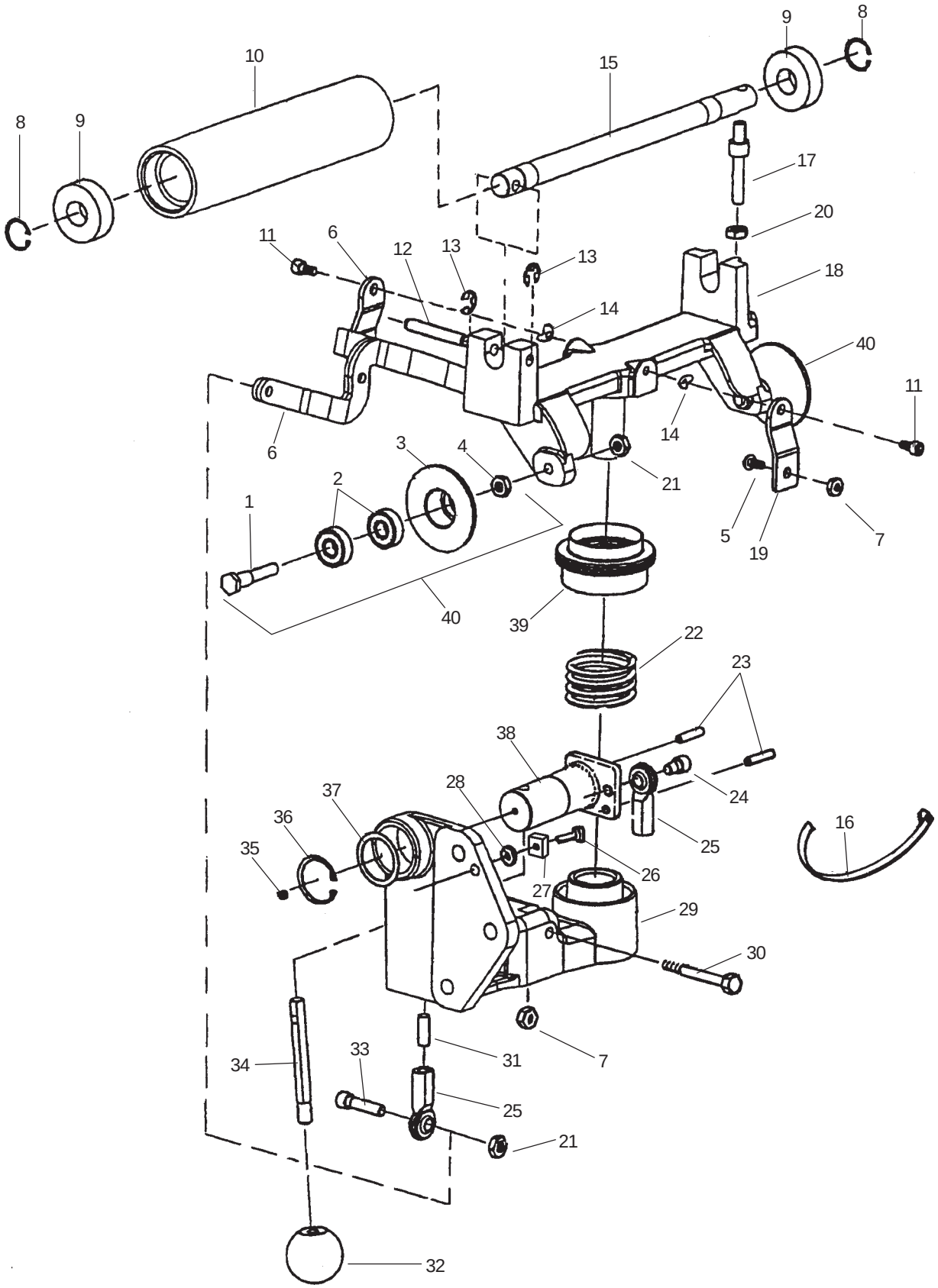
FloorCrafter Belt Sander
Contact Wheel & Truck Assembly Parts List #3 10/01

Ref No	Part No.	Description	Qty
1	20015A	Wheel, Contact	1
2	60377A	Retainer, Contact Wheel	1
3	81106A	Nut, Hex, Lock ¾-10	2
4	60376A	Plate, Drum End	1
5	50913A	Belt, Abrasive	1
6	87700A	Screw, ¼-20 x ½	1
7	20022A	Mainframe	1
8	10244A	Tensioner Assembly	1
9	20021A	Access, Door	1
10	51211A	E-Ring, .25 Dia.	5
11	60389A	Pin, Hinge	1
12	60380A	Screw, Leveling	1
13	60356A	Lever, Pressure Adj.	1
14	51096A	Spring, Pressure Adj.	1
15	962823	Screw, ¼-20 x ½	5
16	60357A	Bracket, Pressure Adj.	1
17	81209A	Nut, Large Flange	1
18	60352A	Shaft, Yoke	1
19	51279A	Bearing, Ball	2
20	60355A	Spacer, Caster, Bearing	1
21	60353A	Axle, Wheel	1
22	20024A	Yoke, Caster	1
23	87003A	Washer	2
24	19611A	Wheel, Asm., Caster	2
25	51226A	Bearing, Ball	4
26	920196	Nut, ½-13	2
27	66972A	Retainer, Bearing	1
28	51190A	Bearing, Self Aligning	2
29	980645	Washer, 3/8 Flat SAE	3
30	962870	Screw, 3/8-16 x 1	3
31	51223A	Bearing, Ball	1
32	51052A	Shaft, Arbor	1

Ref No	Part No.	Description	Qty
33	60394A	Key	2
34	51051A	Bearing, Carrier	1
35	51224A	Bearing, Ball	1
36	86110A	Screw, 3/8-16 x 1	4
37	51053A	Pully, Drum	1
38	60378A	Retainer, Motor Pulley	1
39	53538A	Rod, End. 3/8 - 24	1
40	80119A	Bolt, Eye, ½ ID	1
41	920208	Nut, Hex, ¼-20	1
42	87007A	Washer	3
43	920110	Nut, Lk, 5/16-18	1
44	81102A	Nut, ¼-20 ESNA	2
45	980679	Washer	1
46	52241A	Stop Pad	1
47	51340A	Shaft, Truck Wheel	2
48	51225A	Bearing, Ball	4
49	167312	Ring, Retaining	2
50	60481A	Spacer	2
51	50992A	Wheel, Asm., Truck	2
52	962184	Screw, ¼-20 x 3/8, Set	2
53	67817A	Spacer	1
54	87003A	Washer	2
55	20017A	Control Carriage	1
56	51339A	Spacer, Truck Wheel	1
57	80035B	Bolt, Shoulder, 3/8 x 1¼	2
58	60375A	Axle, Truck	1
59	20019A	Bracket, Leveling	1
60	51203A	E-Ring	1
61	60351A	Plate, Retaining	1
62	962911	Screw, 10-24 x ½	2
63	193944	Grommet, Rubber, ¾ x 7/16	1
64	70236A	Label, Belt Tracking	1
65	30186A	Bumper Front Edge	1

Floorcrafter Belt Sander
Belt Tensioner Assembly Drawng #4 6/02



Clarke®
American Sanders

Floorcrafter Belt Sander
Belt Tensioner Assembly Parts List #4 6/02

Ref. No	Part No.	Description	Qty
1	Ref.	Shaft, Guide Roller	2
2	Ref.	Bearing	4
3	Ref.	Roller Guide	2
4	920208	Nut, Hex ¼-20	3
5	60391A	Bolt, Shoulder	2
6	60393A	Lever, Draw	1
7	920296	Nut, 10-24	3
8	747380	Ring, Roller, Retaining	2
9	902567	Bearing, Ball	3
10	67201B	Roller, Tension	1
11	60395A	Screw, Link, Retaining	2
12	60396A	Pin, Roller Shaft	1
13	51211A	E-Ring	4
14	80140A	Washer	2
15	60383A	Shaft, Tension Roller	1
16	699202	Wire Tie	1
17	60381A	Adjuster, Tracking	1
18	20018A	Carriage, Tension Roller	1
19	60382A	Link, Draw	2
20	81303A	Nut, Hex Jam, ¼-28	1
21	81217A	Nut, ¼-20	3
22	60379A	Spring	1
23	925546	Pin, Roll	2
24	962822	Screw, ¼-20 x 5/8	1
25	51216A	Rod, End, Female	2
26	962508	Screw, ¼-20 x 3/4	1
27	60906A	Block, Wear	1
28	87007A	Washer	1
29	20020A	Support, Tensioner	1
30	80020A	Bolt, Shoulder	1
31	51221A	Link, Connecting	1
32	51099A	Knob, Release	1
33	80139A	Screw, ¼-20 x 7/8	1
34	60364A	Lever, Tension Relief	1
35	962165	Screw, 10-24 x 3/16	1
36	51277A	Ring, Retaining	1
37	87052A	Washer, Flat, Nylon	2
38	10247A	Cam, Release	1
39	30087A	Boot, Belt Tensioning	1
40	14704A	Guide Roller Assembly	2

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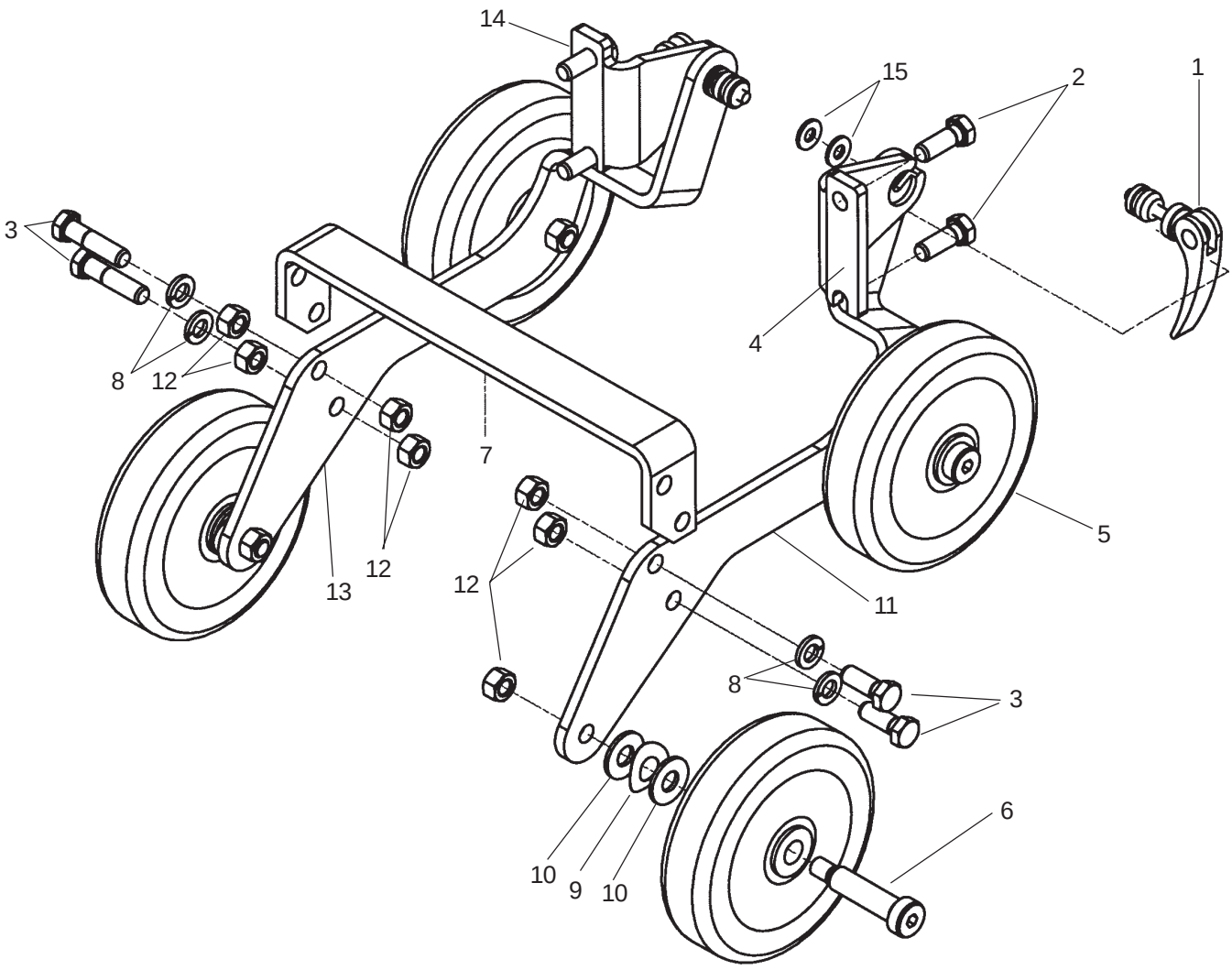
FloorCrafter Belt Sander

Dolly Assembly Drawing & Parts List #5 6/02



Ref No.	Part No	Description	Qty
1	51372A	Skewer, Clamp	2
2	962216	Screw, 3/8 -16 x 1¼	4
3	962288	Screw, 3/8 -16 x 1	4
4	60345A	Bracket, Left Mounting	1
5	39857A	Wheel	4
6	80047A	Bolt, Shoulder ½ Dia x 1¾	4
7	60347A	Brace, Dolly	1
8	170883	Washer, 3/8 Lock	4
9	87627A	Washer, .875 O.D. Bowed	4
10	980648	Washer	8
11	60349A	Bracket,Left	1
12	920260	Nut, Hex 3/8 -16	8
13	60348A	Bracket, Right	1
14	60346A	Bracket, Right Mounting	1
15	980646	Washer, ¼	4

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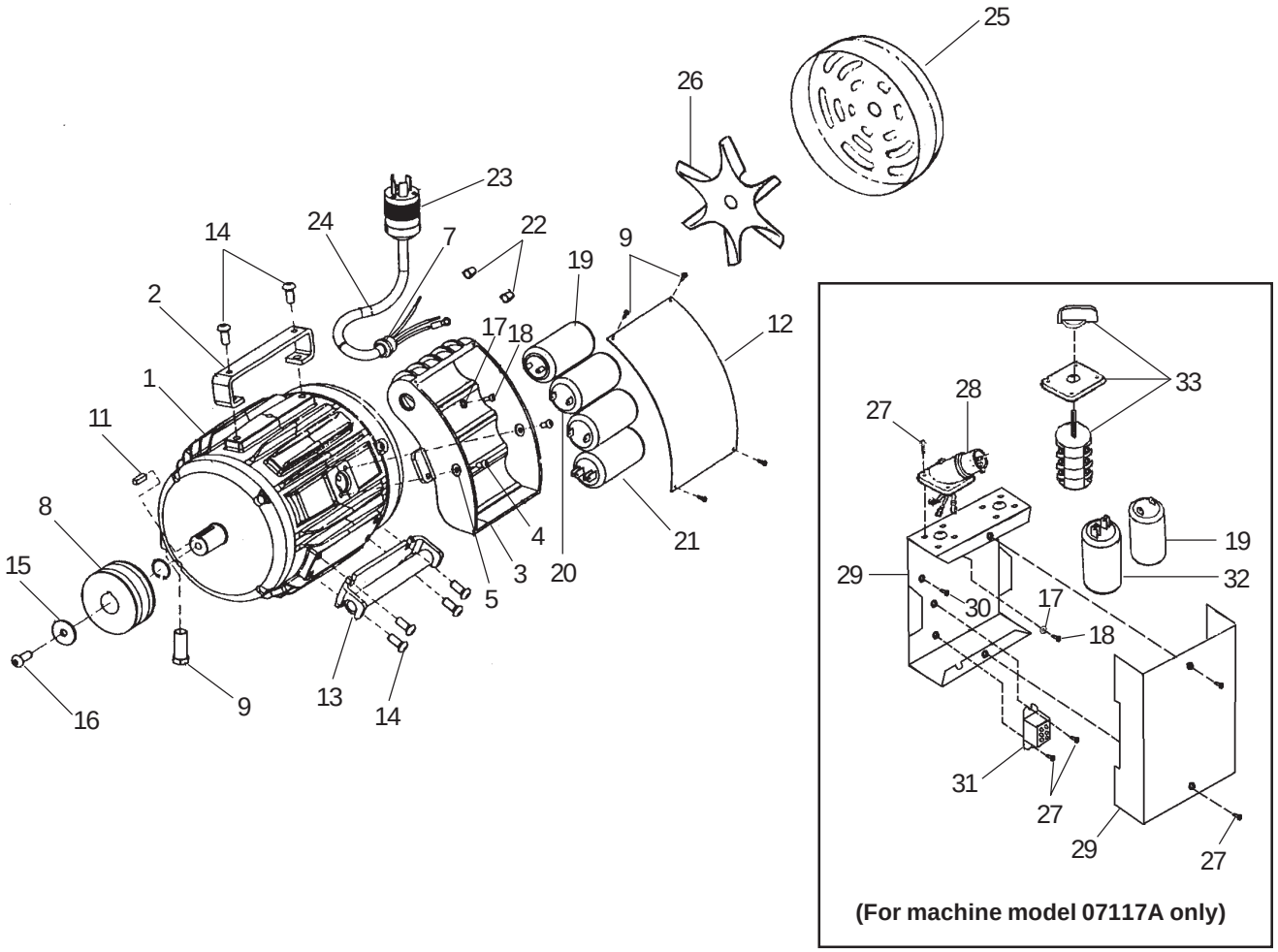
FloorCrafter Belt Sander
Motor Assembly Drawing & Parts List #6 7/04



Ref No.	Part No	Description	Qty
1	40151A	Motor, 4 Hp 60 Hz	1
	40531A	Motor, 2.2 kW 50Hz	1
◆	40672A*	Motor, 2.2 kW 50 Hz (07117A)	1
2	60350A	Handle, Motor	1
3	22904A	Enclosure, Motor, Start	1
4	85806A	Screw, ¼-20 x ½	2
5	980657	Washer, LK, ¼	2
6	962330	Screw, 6-32 x 3/8	4
7	697502	Strain Relief	1
8	60365A	Pulley, Motor	1
9	51222A	Screw, Belt Tensioning	1
10	57712A	Ring, Retaining, Motor Shaft	1
11	60394A	Key ¼ x 1 3/8	1
12	73715A	Plate, Elecric/Fire Warning	1
13	10173A	Motor, Rear Mount	1
14	962565	Screw, 3/8 -16 x ¾	6
15	87034A	Retainer, Motor Pulley	1
16	962870	Screw, 3/8 -16 x 1	1

Ref No.	Part No	Description	Qty
17	980603	Washer	1
18	85833A	Screw	1
19◆	41304A	Capacitor, 40 MFD	1
20	41305A	Capacitor, Start	1
21	47378A	Switch, Start	1
22	170674	Connector, Wire Nut	2
23	45604A	Plug, Electric	1
24	41945A	Cord, Motor	1
25	52769A	Fan Cover	1
26	40546A	Fan	1
27	962727*	Screw, 8 -32 x ½	8
28	10603A*	Inlet Asm.	1
29	40677A*	Enclosure Switch	1
30	87700A*	Screw, ¼-20 x ½	2
31	46323A*	Relay	1
32◆		Capacitor 60 MFD	1
33	40676A*	Switch Control	1

* NOTE: used on machine model 07117A only.

NOTE: ◆ indicates a change has been made since the last publication of this manual.

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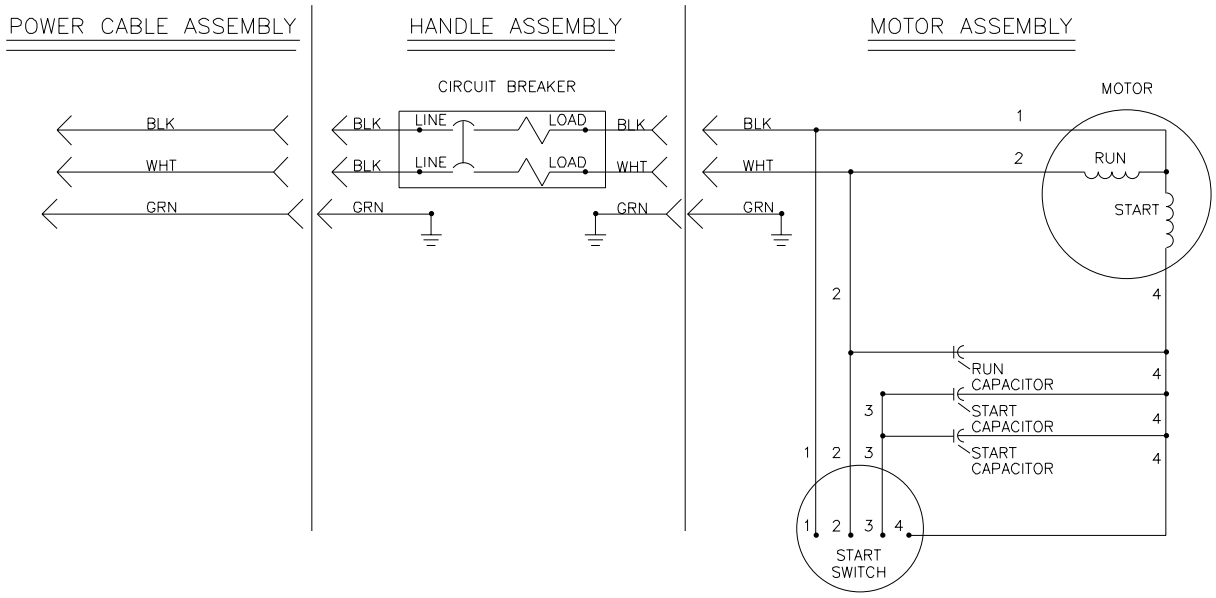
Wiring Diagram 1/01 (models 07104A and 07111A)



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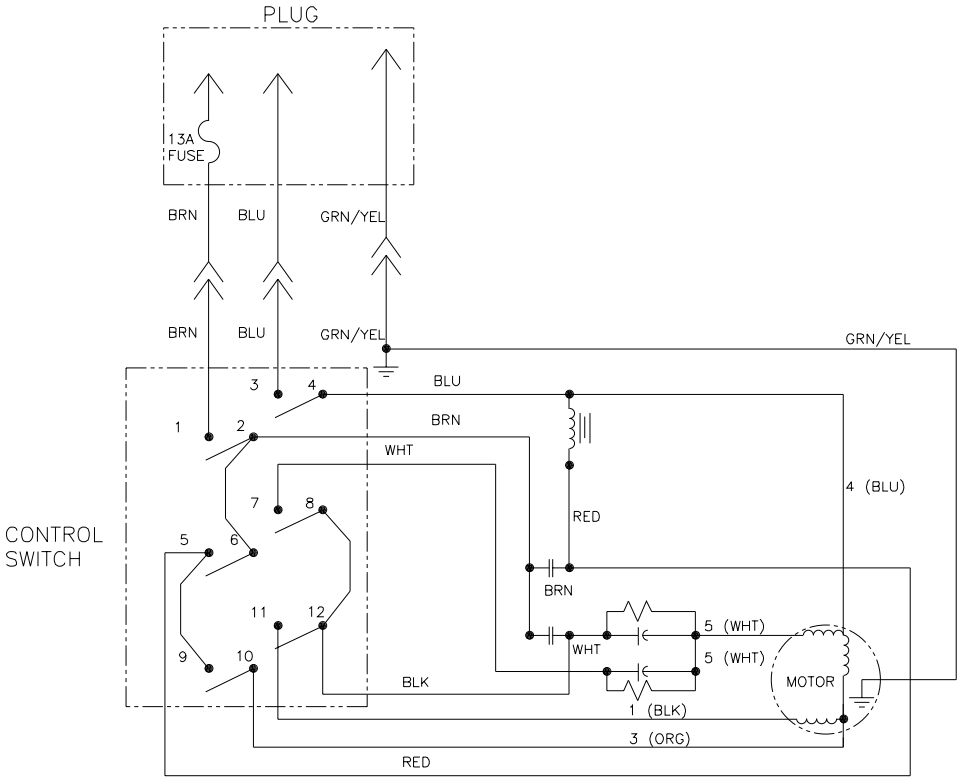
Wiring Diagram 1/04 (model 07117A)



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Clarke® American Sanders U. S. Warranty

This Clarke American Sanders Industrial/Commercial Product is warranted to be free from defects in materials and workmanship under normal use and service for a period of one year from the date of purchase, when operated and maintained in accordance with Clarke American Sanders's Maintenance and Operations Instructions.

This warranty is extended only to the original purchaser for use of the product. It does not cover normal wear parts such as electrical cable or V-belts.

If difficulty develops with the product, you should:

(a). Contact the nearest authorized Clarke American Sanders repair location or contact the Clarke American Sanders Service Operations Department, 2100 Highway 265, Springdale, Arkansas 72764, for the nearest authorized Clarke American Sanders repair location. Only these locations are authorized to make repairs to the product under this warranty.

(b). Return the product to the nearest Clarke American Sanders repair location. Transportation charges to and from the repair location must be prepaid by the purchaser.

(c). Clarke American Sanders will repair the product and or replace any defective parts without charge within a reasonable time after receipt of the product.

Clarke American Sanders's liability under this warranty is limited to repair of the product and/or replacement of parts and is given to purchaser in lieu of all other remedies, including INCIDENTAL AND CONSEQUENTIAL DAMAGES.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SPECIFIED HEREIN. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. NO WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTY OF MECHANTABILITY, SHALL BE IMPLIED. A warranty registration card is provided with your Clarke American Sanders product. Return the card to assist Clarke American Sanders in providing the performance you expect from your new floor machine.

Clarke, 2100 Highway 265, Springdale, Arkansas 72764.

Clarke American Sanders reserves the right to make changes or improvements to its machine without notice.

Always use genuine Clarke American Sanders Parts for repair.

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American Sanders
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2100 Highway 265
Springdale, Arkansas, 72764