KING CANADA

3.5 CUBIC FEET PORTABLE CEMENT MIXER

02/2015

MODEL: KC-15CM-2

INSTRUCTION MANUAL

WARRANTY INFORMATION

2-YEAR LIMITED WARRANTY FOR THIS CEMENT MIXER	**KING CANADA TOOLS** OFFERS A 2-YEAR LIMITED WARRANTY FOR NON-COMMERCIAL USE.

PROOF OF PURCHASE

Please keep your dated proof of purchase for warranty and servicing purposes.

REPLACEMENT PARTS

Replacement parts for this product are available at our authorized King Canada service centers across Canada.

LIMITED TOOL WARRANTY

King Canada makes every effort to ensure that this product meets high quality and durability standards. King Canada warrants to the original retail consumer a 2-year limited warranty as of the date the product was purchased at retail and that each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, normal wear and tear, negligence or accidents, repairs done by an unauthorized service center, alterations and lack of maintenance. King Canada shall in no event be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products.

To take advantage of this limited warranty, return the product at your expense together with your dated proof of purshase to an authorized King Canada service center. Contact your retailer or visit our web site at www.kingcanada.com for an updated listing of our authorized service centers. In cooperation with our authorized serviced center, King Canada will either repair or replace the product if any part or parts covered under this warranty which examination proves to be defective in workmanship or material during the warranty period.

NOTE TO USER

This instruction manual is meant to serve as a guide only. Specifications and references are subject to change without prior notice.

PARTS DIAGRAM & PARTS LISTS

Refer to the Parts section of the King Canada web site for the most updated parts diagram and parts list.

KING CANADA INC. DORVAL, QUÉBEC, CANADA H9P 2Y4

www.kingcanada.com

GENERAL & SPECIFIC SAFETY INSTRUCTIONS

VOLTAGE WARNING: Before connecting the tool to a power source (receptacle, outlet, etc.) be sure the voltage supplied is the same as that specified on the nameplate of the tool. A power source with voltage greater than that for the specified tool can result in SERIOUS INJURY to the user - as well as damage to the tool. If in doubt DO NOT PLUG IN THE TOOL. Using a power source with less voltage is harmful to the motor.

1. KNOW YOUR TOOL
Read and understand the owners manual and labels affixed to the tool. Learn its application and limitations as well as its specific potential hazards.

2. GROUND THE TOOL.
This tool is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. **NEVER** connect the green wire to a live terminal.

3. KEEP GUARDS IN PLACE.
Keep in good working order, properly adjusted and aligned.

4. REMOVE ADJUSTING KEYS AND WRENCHES.
Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

5. KEEP WORK AREA CLEAN.
Cluttered areas and benches invite accidents. Do not leave tools or pieces of wood on the machine while operating.

6. AVOID DANGEROUS ENVIRONMENT.
Don't use power tools in damp or wet locations or expose them to rain. Keep work area well lit and provide adequate surrounding work space.

7. KEEP CHILDREN AND VISITORS AWAY.
All visitors should be kept a safe distance from work area.

8. MAKE WORKSHOP CHILD-PROOF.
Use padlocks, master switches or remove starter keys.

9. USE PROPER SPEED.
A tool will do a better and safer job when operated at the proper speed.

10. USE RIGHT TOOL.
Don't force the tool or the attachment to do a job for which it was not designed.

11. WEAR PROPER APPAREL.
Do not wear loose clothing, gloves, neckties or jewelry (rings, watch) because they could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll up long sleeves above the elbows.

12. ALWAYS WEAR SAFETY GLASSES.
Always wear safety glasses (ANSI Z87.1). Everyday eye-glasses only have impact resistant lenses, they are **NOT** safety glasses. Also use a face or dust mask if cutting operation is dusty.

13. DON'T OVERREACH.
Keep proper footing and balance at all times.

14. MAINTAIN TOOL WITH CARE.
Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. DISCONNECT TOOLS.
Before servicing, when changing accessories or attachments.

16. AVOID ACCIDENTAL STARTING.
Make sure the switch is in the ''OFF'' position before plugging in.

17. USE RECOMMENDED ACCESSORIES.
Consult the manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.

18. NEVER STAND ON TOOL.
Serious injury could occur if the tool tips over. Do not store materials such that it is necessary to stand on the tool to reach them.

19. CHECK DAMAGED PARTS.
Before further use of the tool, a guard or other parts that are damaged should be carefully checked to ensure that they will operate properly and perform their intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other parts that are damaged should be properly repaired or replaced.

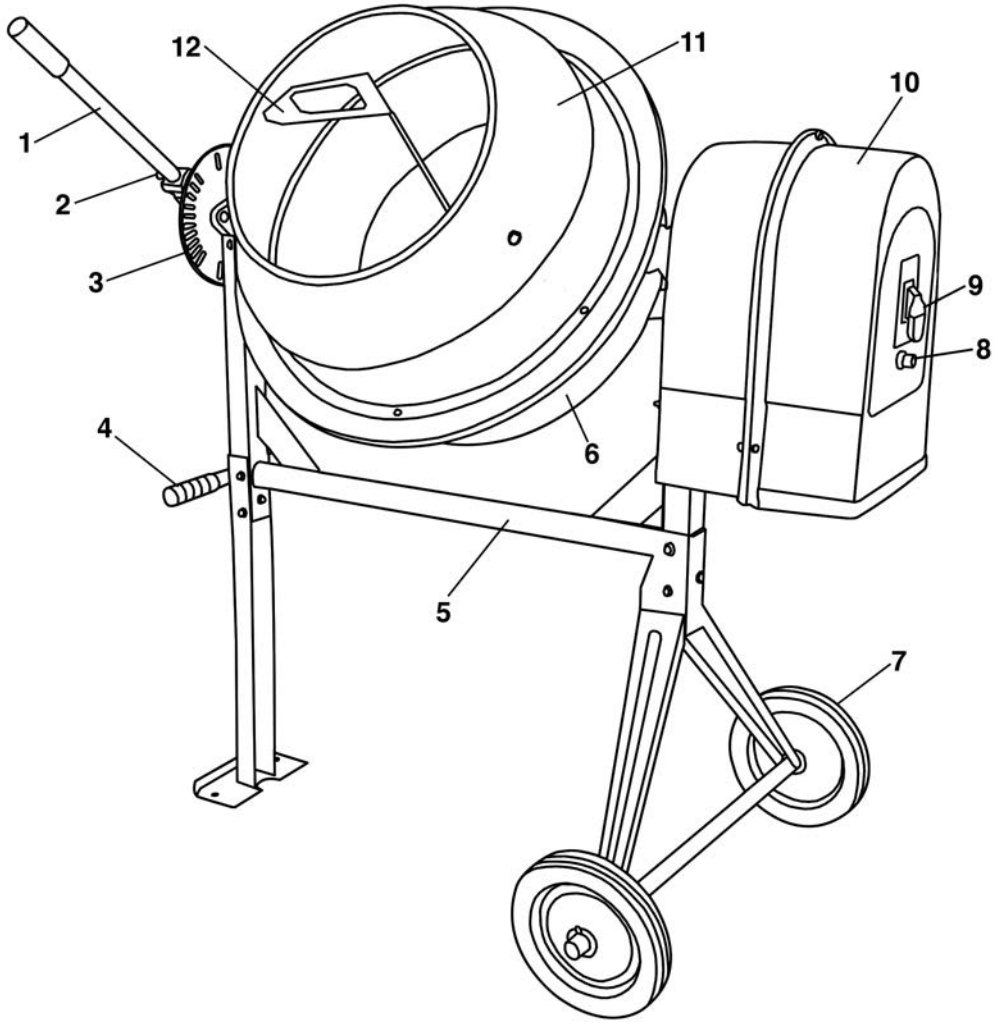
20. NEVER LEAVE MACHINE RUNNING UNATTENDED.
Turn power ''OFF''. Don't leave any tool running until it comes to a complete stop.

SPECIFIC SAFETY RULES FOR CEMENT MIXERS

To prevent serious injury, read and follow these safety warnings :

1. **Do not attempt to use this cement mixer** until you are totally familiar with how to operate it safely. Read instruction manual for details.
2. **Make sure** cement mixer is properly grounded.
3. **Do not insert** hands or shovel into rotating drum.
4. **Do not perform any setup work** while cement mixer is operating.
5. **Always wear safety glasses/face shield** while operating this cement mixer.
6. **Always disconnect cement mixer from power source** before performing any maintenance or repairs.
7. **Operators should not wear** loose clothing, jewelry or unrestrained hair styles while using this cement mixer.
8. **Do not move cement mixer** while motor is running or with cement in drum.
9. **Do not exceed** 220 lbs drum capacity.
10. **Block tires before use.**
11. **Use only** on flat, level surface.

GETTING TO KNOW YOUR PORTABLE CEMENT MIXER



1. Drum tilting lever
2. Tiliting lever spring tension adjustment bolt
3. Tilting lever angle control plate
4. Lifting handle (1 of 2)
5. Frame
6. Lower drum
7. 9” wheel (1 of 2)
8. Thermal overload reset
9. On/Off switch with removeable key
10. Motor housing & cover
11. Upper drum
12. Mixing paddle (1 of 2)

MODEL	KC-15CM-2
Drum capacity	3.5 cu.ft.
Drum opening	15”
Drum speed	36 RPM
Motor	1/3 HP
Amperage (running/peak)	3.5 Amp. / Max. 10.7 Amp.
Voltage	120V, 1 phase, 60 Hz
Dimensions (LxWxH)	46” x 27-3/4” x 57-3/8”
Weight	115 lbs

ELECTRICAL INFORMATION

WARNING!

ALL ELECTRICAL CONNECTIONS MUST BE DONE BY A QUALIFIED ELECTRICIAN. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY! ALL ADJUSTMENTS OR REPAIRS MUST BE DONE WITH THE CEMENT MIXER DISCONNECTED FROM THE POWER SOURCE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY!

POWER SUPPLY

WARNING: YOUR MACHINE MUST BE CONNECTED TO A 110-120V, 15-AMP CIRCUIT BREAKER. FAILURE TO CONNECT IN THIS WAY CAN RESULT IN INJURY FROM SHOCK OR FIRE.

GROUNDING

This machine must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current, to reduce the risk of electric shock. This machine is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Your machine must be properly grounded. Not all outlets are properly grounded. If you are not sure if your outlet is properly grounded, have it checked by a qualified electrician.

WARNING: TO MAINTAIN PROPER GROUNDING, DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER.

WARNING: IF NOT PROPERLY GROUNDED, THIS MACHINE CAN CAUSE ELECTRICAL SHOCK, PARTICULARLY WHEN USED IN DAMP LOCATIONS. TO AVOID SHOCK OR FIRE, IF THE POWER CORD IS WORN OR DAMAGED IN ANY WAY, HAVE IT REPLACED IMMEDIATELY.

110-120V OPERATION

As received from the factory, your machine is ready to run for 110-120V operation. This machine is intended for use on a circuit that has an outlet and a plug which looks like the one illustrated in Fig.1.

WARNING: DO NOT USE A TWO-PRONG ADAPTOR FOR THEY ARE NOT IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES. NEVER USE IN CANADA.

EXTENSION CORDS

The use of any extension cord will cause some loss of power. Use the following table to determine the minimum wire size (A.W.G-American Wire Gauge) extension cord. Use only 3-wire extension cords which have 3-prong grounding type plugs and 3-hole receptacles which accept the tool's plug.

For circuits that are further away from the electrical circuit box, the wire size must be increased proportionately in order to deliver ample voltage to the motor. Refer to Fig.2 for wire length and size.

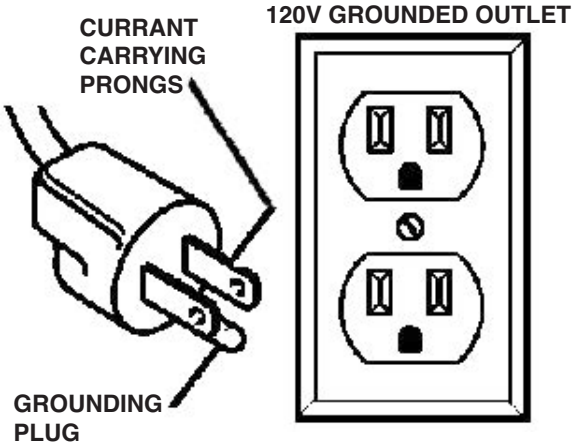


FIGURE 1

Tool's Amperage Rating	Cord Size in A.W.G.			
	Cord Length in Feet			
	25	50	100	150
3-6	18	16	16	14
6-8	18	16	14	12
8-10	18	16	14	12
10-12	18	16	14	12
12-16	14	12	-	-

FIGURE 2

ASSEMBLY

UNPACKING

Due to modern mass production techniques, it is unlikely that your King Canada cement mixer is faulty or that a part is missing. If you find anything wrong, do not operate until the parts have been replaced or the fault has been rectified. Failure to do so could result in serious personal injury.

Carefully lift all loose parts from the carton and place them on a level work surface.

Assembling Support Stand & Wheels

1. Place the horizontal support (A) Fig.3 into the wheel bracket (B) so that the bolt holes line up.

2. Secure the support and wheel bracket together using 3 long hex. bolts, washers and flange hex. nuts. Tighten with a wrench (not included).

3. Place support bracket (C) Fig.3 over the horizontal support (A) so that the bolt holes line up.

4. Secure them together using 3 long hex. bolts, washers and flange hex. nuts (A) Fig.4. Tighten with a wrench (not included).

5. Place Stand upright.

6. To install the wheels (D) Fig.3. First slide 2 large washers onto each wheel bracket shafts, then slide a wheel (B) Fig.5, another washer (C), then insert a cotter pin (D) into the bracket's axle hole and split the ends. Repeat for the second wheel.

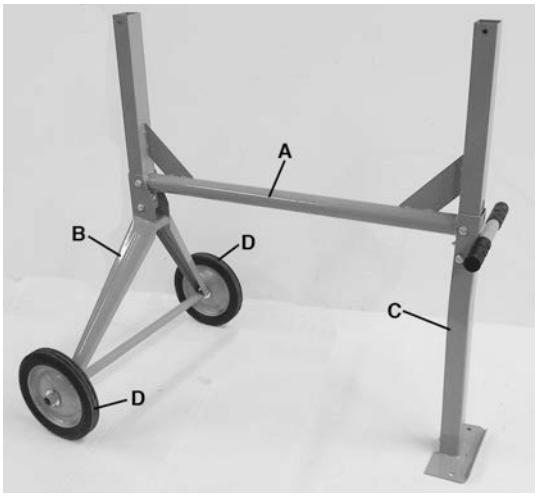


FIGURE 3

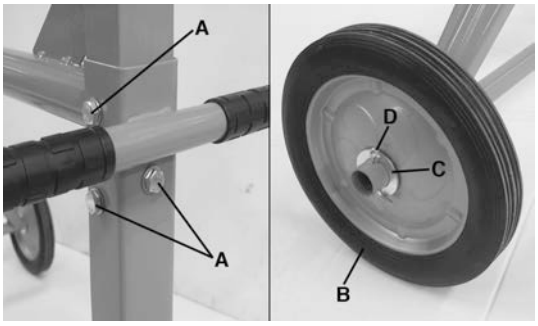


FIGURE 4

Assembling Lower Drum to Support Stand

1. With assistance, lift the lower drum assembly (A) Fig.5 & 6, insert both supporting arms (B) into the top of the stand posts (C).

2. Secure the supporting arms to the stand posts using 2 long hex. bolts, washers and flange hex. nuts (D) Fig.6. Tighten with a wrench (not included).

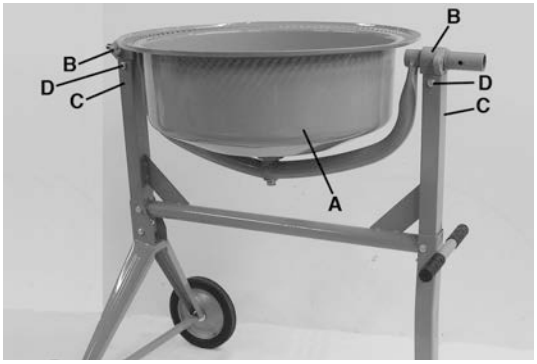


FIGURE 5

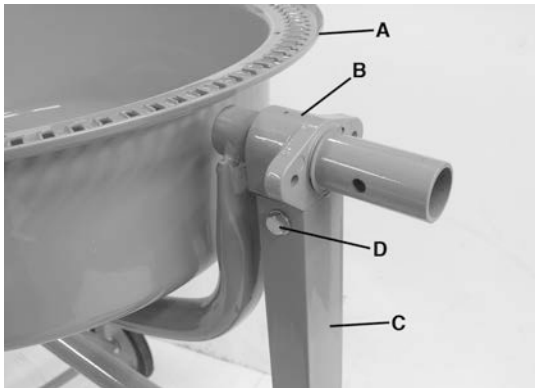


FIGURE 6

ASSEMBLY

Assembling Tilt Lever

1. Install the tilting lever angle control plate (A) Fig.7 to the support bracket shaft (B) using 2 short hex. bolts, washers and spring washers (C).

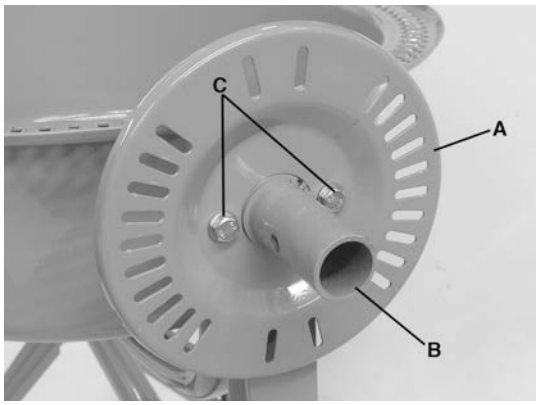


FIGURE 7

2. In order to install the tilting lever assembly, first locate the tilting lever (A) Fig.8 and insert spring (B) inside the tilting lever.

3. Then install the tilting lever (A) to the support bracket shaft (C) using a thick and long hex. bolt, washer and a nylon hex. nut (D). Tighten with a wrench (not included).

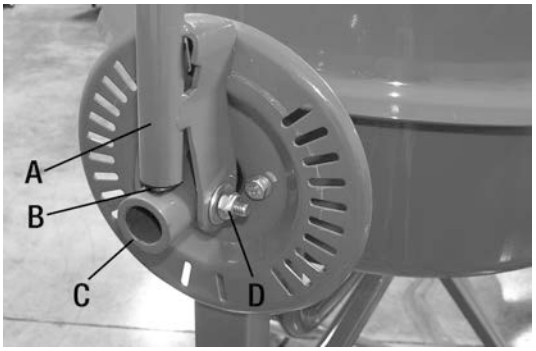


FIGURE 8

Assembling Motor Housing, Motor Plate, Drum Pulley & Motor

1. Install the motor housing (A) Fig.9 to the pinion shaft side of the support bracket using 2 short hex. bolts, washers, and spring washers (B).

2. Install the motor plate (C) Fig.9 to the motor housing (A) using 2 long thin hex. bolts, washers, flange hex. nuts (D) and fixing plate (E) as shown in Fig.9. Only hand tighten hardware since the motor plate will be adjusted up or down later.

3. Clean the pinion shaft (A) Fig.10 of all plastic protective material and other debris. Also clean out any debris from the motor pulley's hub. Position shaft retaining key (B) into the pinion shaft slot.

4. Smear a few drops of lubricating oil on the pinion shaft and squarely push the large drum pulley (C) onto the pinion shaft so that the groove in the pulley engages the shaft retaining key. The pulley should be flush with the step on the pinion shaft.

WARNING! Do not hammer the drum pulley onto the pinion shaft. Doing so can damage the unit and possibly lead to a loose fitting belt.

5. Place the motor (D) Fig.10 onto the motor plate.

6. Loosely bolt the motor to the motor plate using 4 short hex. bolts, washers and flange hex. nuts. Only hand tighten hardware since the motor will be adjusted forward or backward later.

7. Once the drum pulley is pushed in all the way, secure the pulley to the pinion shaft using a thin pan head screw, spring washer and washer (E) Fig.10.

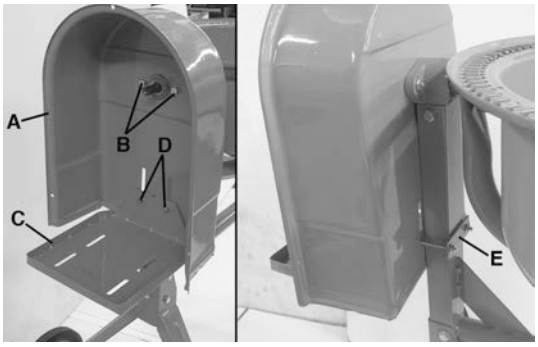


FIGURE 9

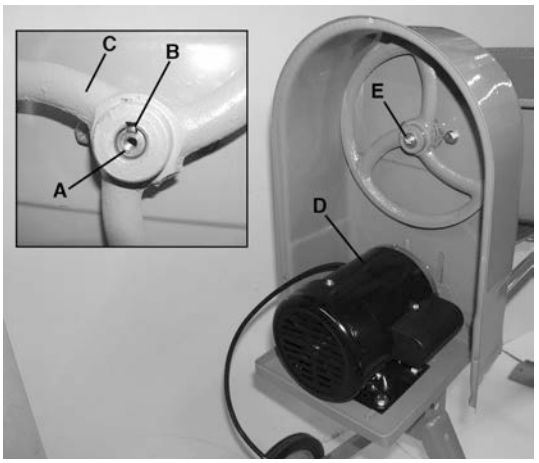


FIGURE 10

ASSEMBLY

Assembling V-belt

1. Position the V-Belt (A) Fig.11 around the motor pulley (B) and then over the drum pulley (C). It may be neccessary to lift the motor plate in order to place V-belt around the pulleys. Then push the motor inward until it is directly under the drum pulley. Tighten the motor hardware to secure the motor.

2. Push the motor and motor plate downward until the v-belt tension is tight. When proper V-Belt tension is achieved, tighten the motor plate hardware to secure the motor position.

3. Check if motor and V-belt turns correctly. Hand turn the drum pulley and verify that motor pulley and drum pulley do not rub against any other part. Adjust motor location as needed.

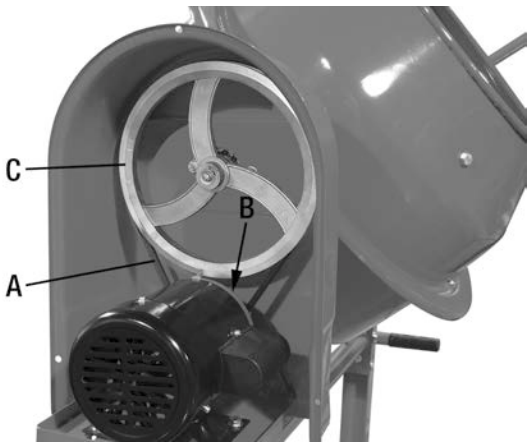


FIGURE 11

Proper V-Belt Tension

1. Press on the centre of the longest span on the belt with moderate finger pressure. Then measure the deflection distance, the distance that the belt moved. The belt should deflect anywhere from 1/2" to 3/4". See Fig.12.

2. If the belt deflects too much, tighten belt by loosening the motor mounting bolts and moving the motor away from the other pulley slightly. Secure motor mounting bolts and retest tension.

3. If the belt deflects too little, loosen the motor plate bolts and lift it upward. Secure motor mounting plate and retest tension.

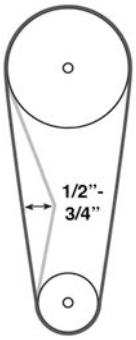


FIGURE 12

Wiring Motor Cord to Switch

WARNING! Make sure power cord is disconnected from power source before attempting to wire electrical wires to switch.

The motor cord is not wired to the switch. The motor cord black & white wire connectors must be connected to the switch, the green ground wire must be secured to the motor housing cover. To wire motor cord to switch, follow these instructions;

1. Locate the motor housing cover. Unscrew and remove 3 small pan head screws and slide the switch box cover (A) Fig.13 out of the way.

2. Position the motor housing cover close enough to the motor so the motor cord (B) can reach the switch box. Insert the 3 motor cord wires into the switch box and secure motor cord to switch box using a strain relief wire clamp (C).

3. Then connect the black and white wire connectors (D) to the bottom terminals on the switch. Either wire connector can be connected to either terminal.

4. Undo the top grounding hex. nut (E) and secure green ground wire (F) to screw.

5. Secure the switch box cover (A) using the same 3 pan head screws removed in step 1.

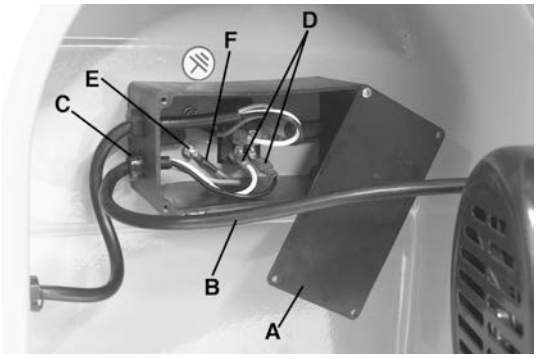


FIGURE 13

Installing Motor Housing Cover

1. Mount the motor housing cover (A) Fig.14 to the motor housing using 5 medium sized hex. bolts, washers and flange hex. nuts (B).

CAUTION! Make sure that the power cord from the motor to the switch does not come in contact with any moving parts.

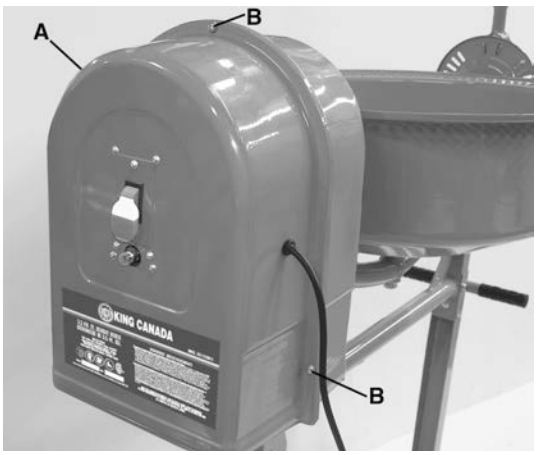


FIGURE 14

ASSEMBLY & OPERATION

Assembling Drum Gasket & Upper Drum Cover

1. Place the rubber gasket (A) Fig.15 onto the lower drum (B) as shown. Line up the rubber gasket mounting holes with the ones on the lower drum. It is recommended to use a gasket sealer (not included) to fix the rubber gasket to the lower drum. The rubber gasket must be set flat to ensure proper seal.

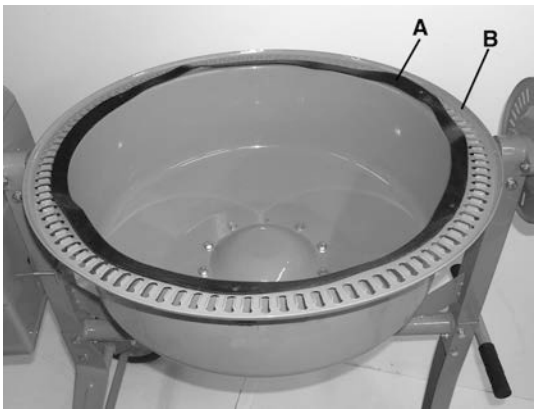


FIGURE 15

2. Turn the lower drum so the small A label (A) Fig.16 is facing you. Then position and align the small A label (B) of the upper drum (C) with the small A label on the lower drum, lower upper drum onto lower drum making sure the mounting holes align in both.

3. Insert six hex. bolts (D) into each mounting hole. Fasten drums together using washers and flange hex. nuts.

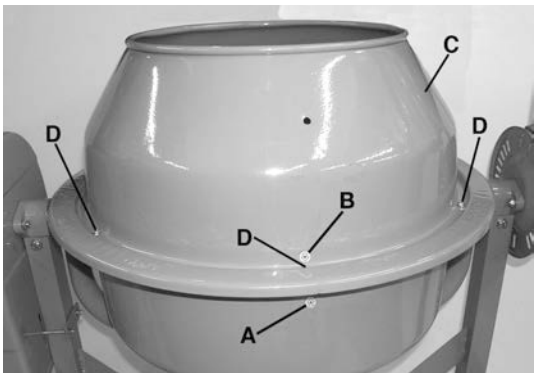


FIGURE 16

Assembling Mixing Paddles Inside Drum

1. Mount both mixing paddles (A) Fig.17 inside the assembled drum as shown.

2. Fasten paddles to drum using 4 short hex. bolts, washers, and flange hex. nuts (B).

OPERATION

Operational Guidelines

1. Place the cement mixer on a solid, even and level surface.

2. Connect the power cord to an electric outlet (or properly rated grounded three prong extension cord).

3. Fill up half of the drum with pre-mix cement and water.

4. Adjust the drum angle by pulling outward on the tilting control handle, make sure the locking pins are no longer engaged and then pull the tilting control handle until the desired angle is reached. To secure it into position, re-engage the locking pins.

5. Flip the switch (A) Fig.18 upwards to the “ON” (I) position.

6. Once the cement is mixed, tilt drum and dump material. The material gets dumped while the drum rotates.

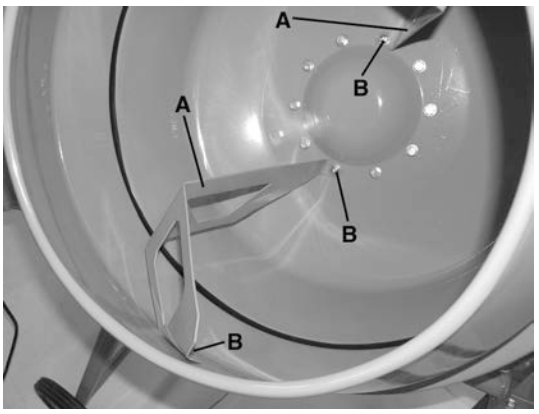


FIGURE 17

WARNING! Do not attempt to move the cement mixer when it is full and/or in operation. Do not turn cement mixer “Off” while full of cement.

7. When finished, flip the switch (A) downwards to the “OFF” (O) position and disconnect the power cord. To prevent unauthorized use, pull out the safety key (B) from the switch.

8. Tilt the drum as far down as possible to drain all fluids from drum. Clean, then store indoors and out of children’s reach. Refer to maintenance instructions on the following page.

FIGURE 18

MAINTENANCE & TROUBLESHOOTING

MAINTENANCE

1. Place the cement mixer on a solid, even and level surface.

2. Connect the power cord to an electric outlet (or properly rated grounded three prong extension cord).

3. Before each use, inspect the general condition of the cement mixer. Check for loose hardware, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, damaged or cracked V-belt, and any other condition that may affect its safe operation.

4. After Use, immediately wash out all debris from the inside and outside of the cement mixer. Scrub the inside of the drum with a long handled bristle brush for best results. Wipe external surfaces of the cement mixer with clean cloth.

5. DO NOT apply water in or around the motor housing or motor housing cover.

6. PERIODICALLY recheck all fasteners and other connections for tightness.

WARNING! If the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.

Belt Inspection & Tensioning

The V-belt must be retightened after the first 25 hours of use. To test the tension, follow these steps.

1. Remove the motor housing cover.
2. Examine V-belt for cracks, tears in the backing, or other damage. Replace V-belt if damaged.
3. Check and adjust V-belt tension. Press on the center of the longest span on the belt with moderate finger pressure. Then measure the deflection distance, the distance that the V-belt moved. The belt should deflect anywhere from 1/2" to 3/4". See Fig.12.

Problem	Corrective action	Corrective action
Tool will not start.	1. Cord not connected. 2. No power at outlet. 3. Internal damage or wear.	1. Check that cord is plugged in. 2. Check power at outlet. If outlet is unpowered, turn off tool and check circuit breaker. If breaker is tripped, make sure circuit has the correct capacity for the tool and circuit has no other loads. 3. Have technician service tool.
Tool operates slowly.	1. Extension cord too long or wire size too small.	1. Eliminate use of extension cord. If an extension cord is needed, use shorter/heavier gauge cord. See Electrical Information section.
Excessive noise or rattling.	1. Belt loose (slipping) or too tight (bearing damage). 2. Internal damage or wear.	1. Properly tension belt. 2. Have technician service tool.
Overheating/Overloading.	1. Running at 100% load for extended time. 2. Blocked motor housing vents. 3. Motor being strained by long or small diameter extension cord.	1. Allow for lighter no-load intervals. 2. Wear ANSI-approved safety goggles and NIOSH approved dust mask/respirator while blowing dust out of motor using compressed air. 3. Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load. See Electrical Information section.