

Operating Instructions and Parts Manual for

Industrial Portable

Tripod Mixer

with Interchangeable drums



! WARNING !

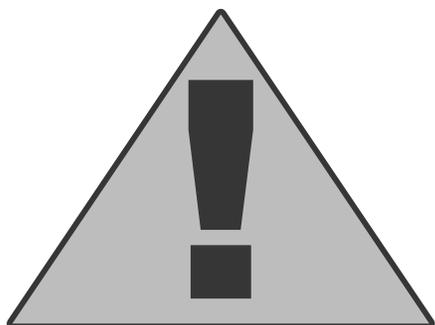
Do not attempt to start or operate the machine until all the Instructions have been read and Understood by the operator. Failure to do so could result in Serious bodily injury and/ or Property damage!

K
KUSHLAN
PRODUCTS, LLC

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(281) 313 - 2506 • (800) 469-4178

SHOULD YOU REQUIRE ANY
**SET-UP OR OPERATING ASSISTANCE WITH YOUR PRODUCT,
DO NOT RETURN TO ORIGINAL PLACE OF PURCHASE.**

- After referring to the operation manual, if assistance is still needed, please consult our web Site at **www.kushlanproducts.com**. From our web site you may **e-mail us** directly.
- If assistance is still required, please call our customer service department at **1-800-469-4178**.



Safety Alert Symbol: This safety alert symbol is used to attract your attention!

Personal Safety is involved when you see this symbol, Pay extra attention, become alert-be sure to heed it's message. Failure to do so may lead to serious personal injury or damage may occur.

Warnings and safety instruction: If these warnings and safety instructions are not read and carefully followed, serious personal injury could occur.



1. Do not use, start, or attempt to operate this machine until all of the instructions have been read and fully understood.
2. Never allow anyone to operate this machine unless the person is well acquainted with these rules of safe operation.
3. Never operate this machine without all guards in place and firmly attached to the machine.
4. Make certain that the mixing drum is clear of obstructions and stand clear of the machine with out all guards in place and firmly attached to the machine.
5. When cleaning, lubricating, or adjusting the mixer, disconnect the power plug.
6. Keep all people (except operator) a minimum of five (5) feet away from the machine during operation.
7. Always make certain that the mixer is connected to a properly grounded electrical circuit to protect the operator from possible electric shock.
8. Do not plug or unplug the motor while standing in or around damp or wet ground.
9. Do not start the motor if the drum is Fully loaded
10. Do not overload the mixer
11. Never attempt to move the mixer while the motor is running.

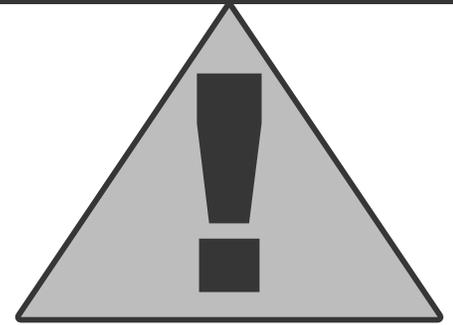


Safety Instructions

For the safety of yourself and others around you, it is extremely important that you observe the following notes.

1. Keep hands and clothing away from moving parts at all times.
2. Do not operate this machine under the influence of alcohol or while taking medication that impairs the senses or reactions.
3. Make certain that the work area around the machine is clear of debris and obstructions.
4. Keep all unauthorized and untrained people away from the machine at all times.
5. Never let the mixer run unattended even for a brief moment.
6. Turn off the motor when you leave the machine.
7. Only use or operate the mixer on level ground to prevent the mixer from tipping over.
8. Do not abuse the power cord; i.e. Never yank on the cord to disconnect it. Keep the cord away from heat, oil, and sharp edges.
9. Do not over reach while working with the mixer. Keep proper footing and balance at all times when loading or unloading the mixer.
10. Never allow children or inexperienced operators to operate or repair the mixer.
11. Use only factory authorized parts for replacement.
12. Keep these operation instructions with the machine at all times.
13. Always wear safety glasses and safety shoes when operating and moving equipment.
14. Safety decals-replace missing or damaged safety decals.

Mixer Instructions



A. Lubrication: Grease wheel bearings (29). Apply any type of multipurpose grease until grease begins to come out of the bushings/bearings on wheels.

Lubricate all fittings before each use

B. Extension Cord: Use only outdoor approved, 14 gauge or larger, grounded extension cords.

C. General: Check all screws for tightness before each use.

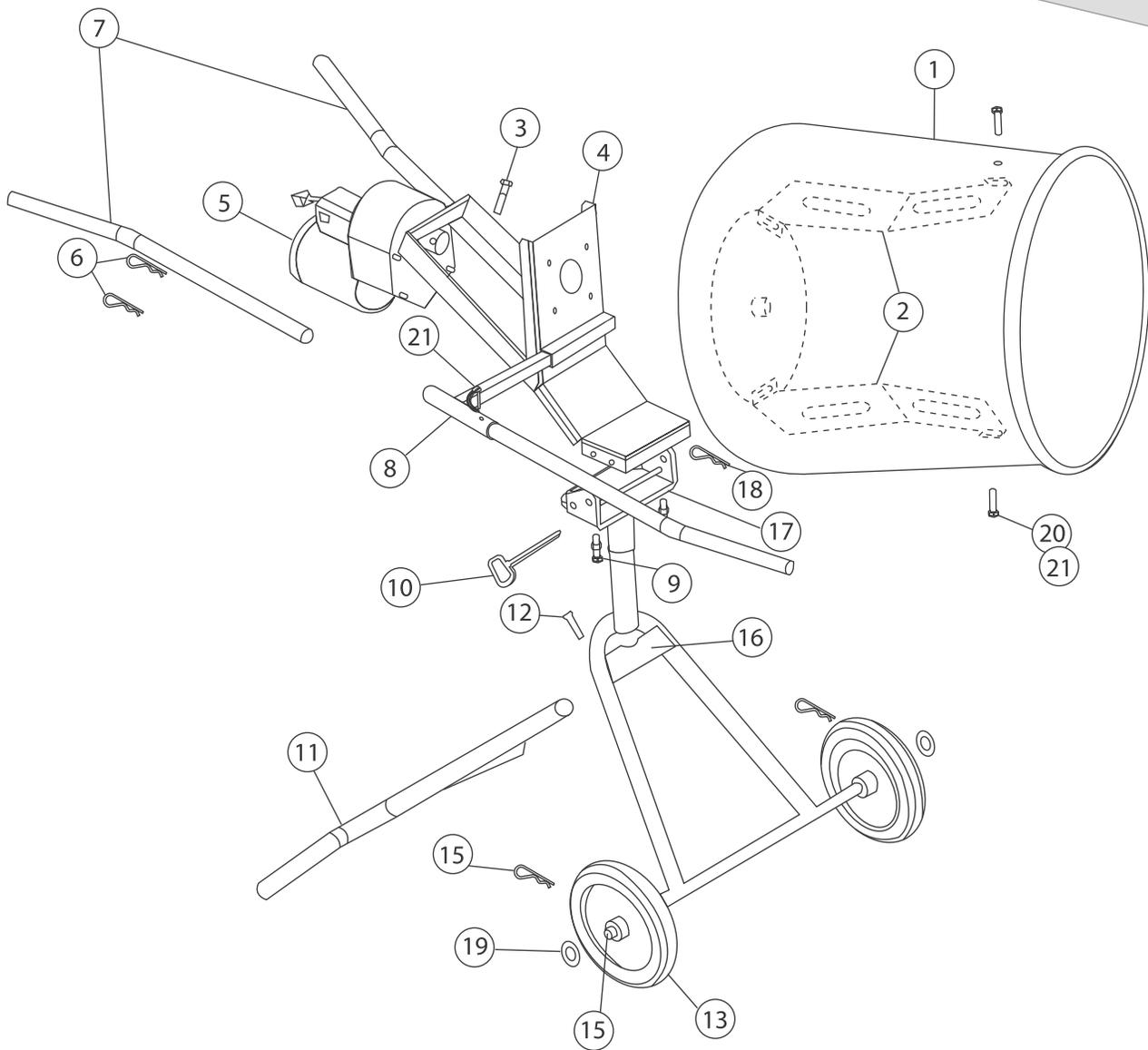
D. Concrete Mixing: Do not insert sharp objects into the plastic mixing drum. Doing so will damage the drum.

E. Cleaning: Do not spray water on or into the motor. Thorough cleaning of the mixer after each use is recommended and will add to the service life.

Model 450DD & Removable Liner Parts List

Reference	DESCRIPTION	Note
1	Plastic Drum	
2	Wire basket for Drum	
3	Hex Socket Screw	M14X75
4	Gear Motor Mounting Base	
5	Gear Motor	
6	R-Clip Pin	3
7	Dump Handle	
8	Side Handle	
9	Bolt	M10X100
10	Pivot Axle Pin	12
11	Draw- Bar	
12	Bolt	M10X60
13	PU Foam Wheel	
14	Wheel Bearing	16X22
15	R-Clip Pin	3
16	Main Frame	
17	Swivel Bracket	
18	R-Clip Pin	3

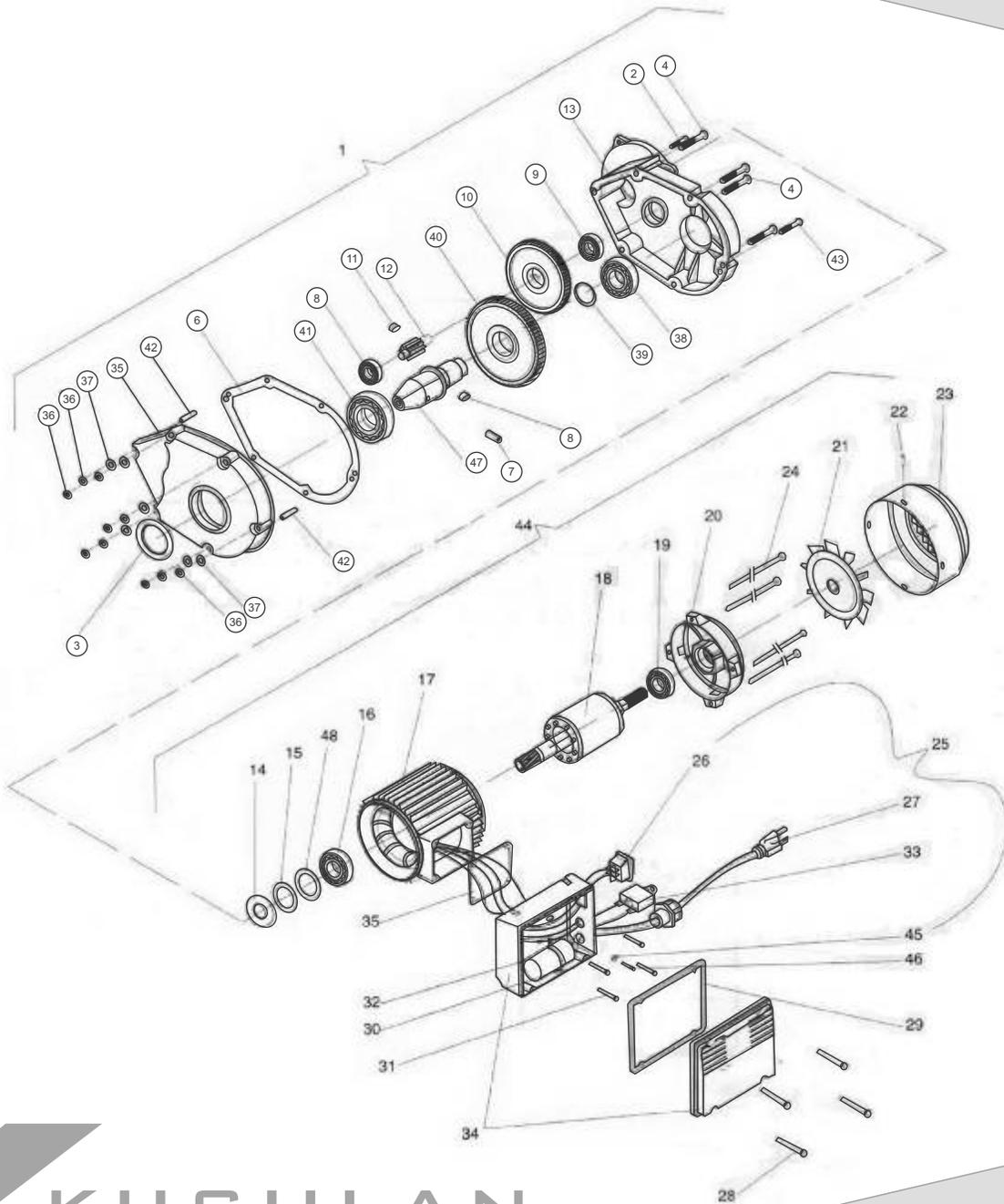
Industrial Portable Tripod Mixer Assembly

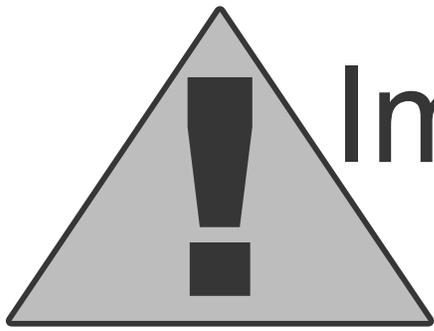


Gearbox and Motor Assembly Parts List

1	105890DM01	Gearbox and Motor Assembly	110V-60Hz
2	105890DM02	Screw	Ø 0.23"x 0.98" L
3	105890DM03	Seal	1.56"
4	105890DM04	Screw	Ø 0.23"x 1.95" L
5	105890DM05	Gearbox Case Front Half	
6	105890DM06	Gearbox Gasket	
7	105890DM07	Pin	Ø 0.31"x 0.78" L
8	105890DM08	Locking Key for Gear and Axle	0.31" D X 0.27" W x 0.59" L
9	105890DM09	Gearbox Ball Bearing	36201
10	105890DM10	Gear	Z79
11	105890DM11	Locking Key for Gear and Axle	0.2" D X 0.2" W x 0.47" L
12	105890DM12	Pinion	Z9
13	105890DM13	Gearbox Case Back Half	
14	105890DM14	Motor Seal	0.78"
15	105890DM15	Space Washer	1.78"
16	105890DM16	Motor Bearing	6004z
17	105890DM17	Motor Casing	
18	105890DM18	Motor Rotor	
19	105890DM19	Motor Bearing	6003z
20	105890DM20	Bell Housing	
21	105890DM21	Fan	
22	105890DM22	Screw	Ø 0.16"x 0.39" L
23	105890DM23	Fan Cover	
24	105890DM24	Bolt	Ø 0.2"x 5.37" L
25	105890DM25	Electric Panel	110V - 60HZ
26	105890DM26	Electric Panel	
27	105890DM27	Power Cord with Plug	
28	105890DM28	Screw	Ø 0.16"x 0.85" L
29	105890DM29	Electric Panel Gasket	
30	105890DM30	Support	
31	105890DM31	Screw	Ø 0.16"x 0.69" L
32	105890DM32	Condenser	30 µF
33	105890DM33	Manual Reset Thermal Protector	
34	105890DM34	Electric Box Assembly	
35	105890DM35	Motor Gasket	
36	105890DM36	Gearbox Nut	0.23"
37	105890DM37	Gearbox Washer	0.23"
38	105890DM38	Gearbox Bearing	36205
39	105890DM39	Space Washer	1.17"
40	105890DM40	Gear	Z68
41	105890DM41	Gearbox Bearing	36208
42	105890DM42	Locating Pin	Ø 0.23"x 0.39" L
43	105890DM43	Bolt	Ø 0.23"x 1.56" L
44	105890DM44	Motor	110V*60Hz
45	105890DM45	Gearbox Washer	0.16"
46	105890DM46	Screw	Ø 0.16"x 0.23" L
47	105890DM47	Gearbox Drive Shaft	
48	105890DM48	Stop Ring	0.17"

Gearbox & Motor Assembly





Important Safety Instructions

CAUTION

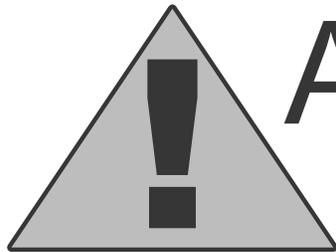
The Cement Mixer has been designed to meet certain safety standards. However, as with any type of tool or machinery one should pay close attention to certain Do's and Don'ts

DO'S...

- Read all instructions carefully before assembling the cement mixer
- Keep the mixer clean; remove old build-up after each use
- Periodically Lightly grease all moving parts
- Check your mixer for wear and damage frequently
- Wear safety gear (hard hat, gloves, goggles and snug fitting clothing)
- Keep your hands free of the drum while in operation
- Keep all tools, etc. away from the drum while in operation
- Unplug the unit before cleaning or working on the unit
- Keep the drum rotating when filling or emptying the mixer

DON'T...

- Operate the mixer on an uneven surface
- Operate the unit around water or allow water to come in contact with the motor
- Leave the machine unattended
- Drink alcohol or ingest drugs while operating the cement mixer
- **START OR STOP THE MIXER WITH ANY MATERIAL IN THE DRUM AS THE MOTOR WILL BE DAMAGED.**

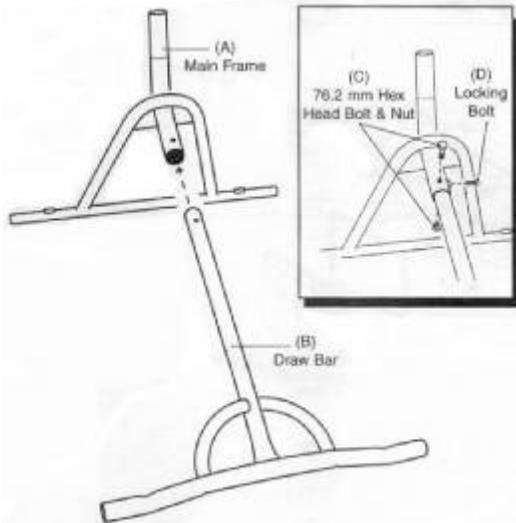


Assembly Instructions

Step 1

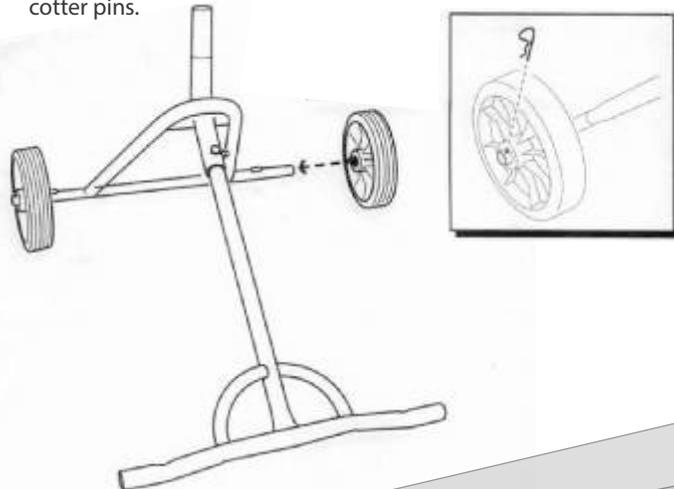
MAIN FRAME

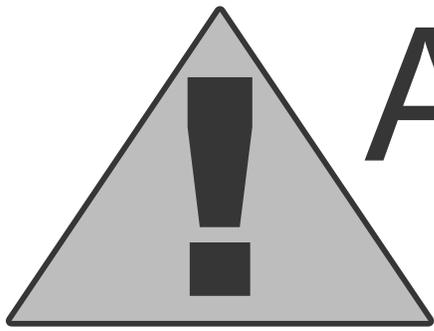
Place the main frame (A) on a level surface, insert the draw bar (B) into the main frame. Secure with the 76.2 mm hex head bolt and nut (C) on top (A) and the locking bolt (D) to the side (B), (Use the open wrench provided).



WHEELS

Slide the wheels onto the main frame bar and secure with cotter pins.



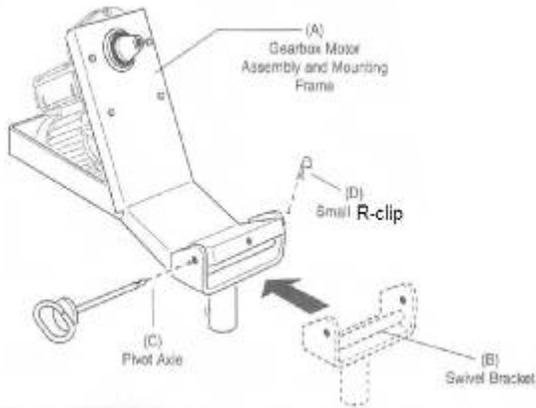


Assembly Instructions

Step 2

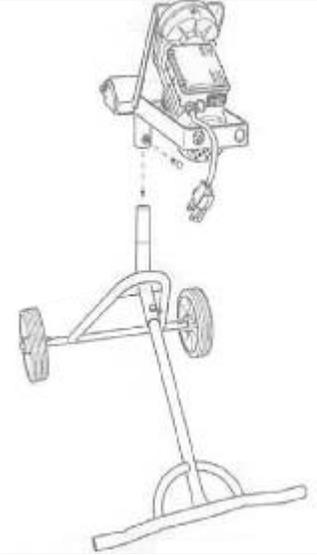
GEARBOX & MOTOR ASSEMBLY

Fit the gearbox motor assembly and mounting frame (A) into the swivel bracket (B) with the pivot axle (C). Slide the cotter pin (D) through the axle pivot hole.



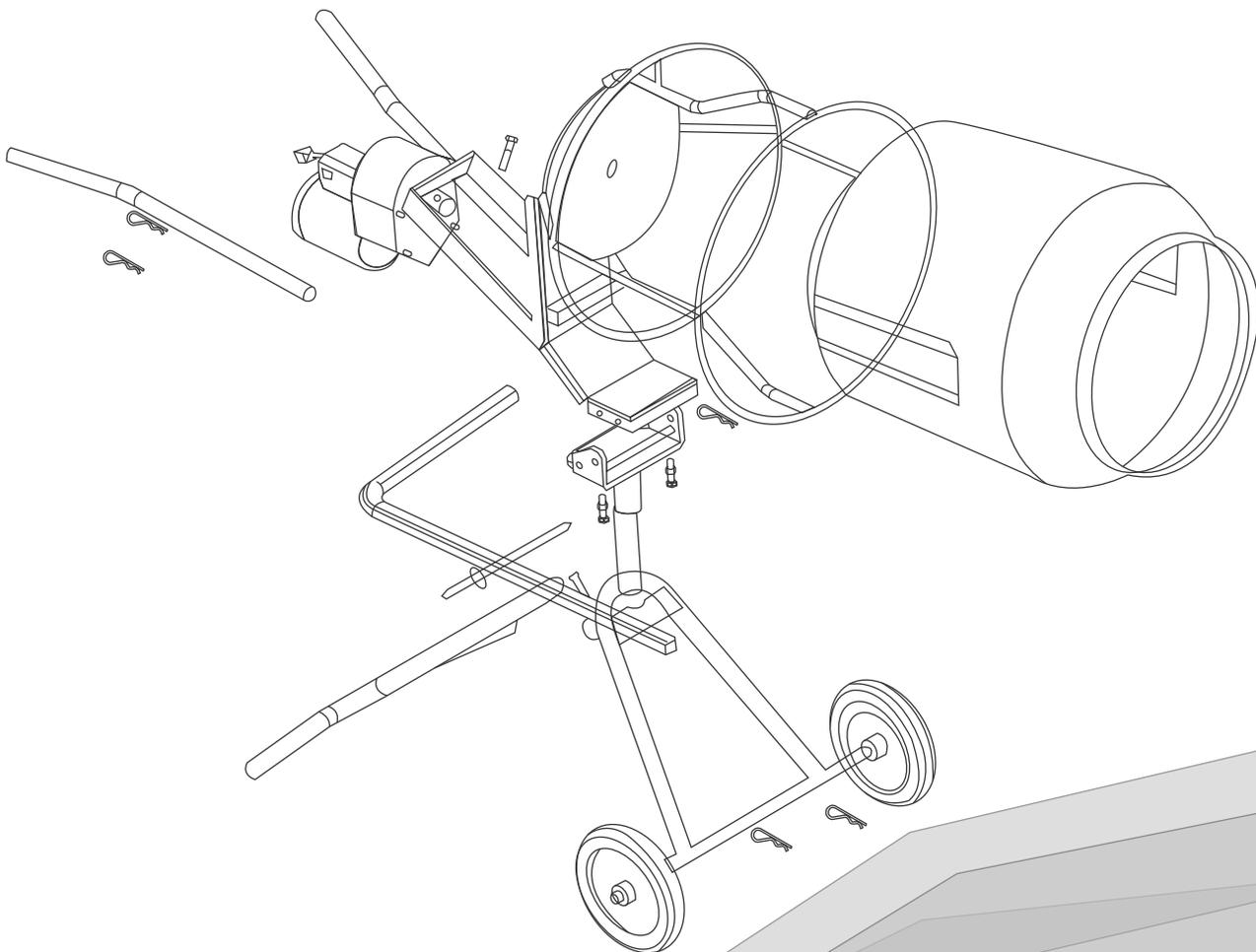
Slide the swivel bracket onto the upright main frame. The gearbox and motor assembly are mounted into this swivel bracket.

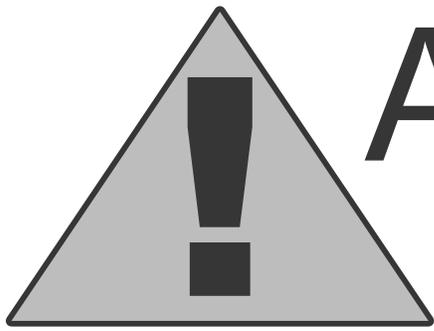
(When mixing concrete, align the drum in the position you intend to pour concrete from, tighten down stability bolt and star unit. Add ingredients while drum is rotating for thorough mixing and easy pouring.)



Step 3

MOUNTING THE MIXING DRUM



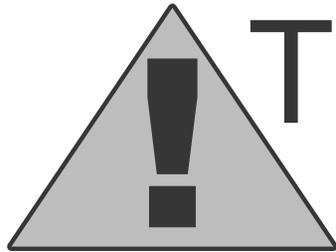
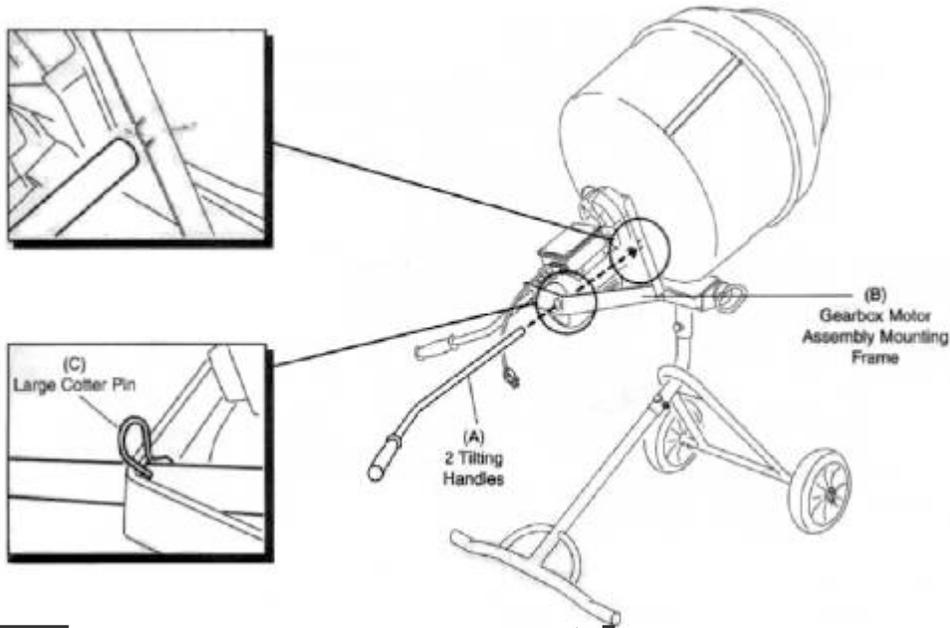


Assembly Instructions

Step 4

TILTING HANDLE

Finally, insert both tilting handles (A) in the gearbox motor assembly mounting frame (B) (as shown) and lock using the cotter pin (C)



Transporting the Mixer

CAUTION

Disconnect the power cord. Hold the support leg and dump handle and move as shown below. Make sure there is no material in the drum.



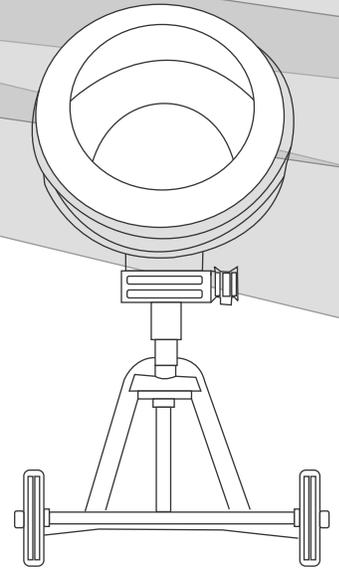
Operation

CAUTION

1. Position the mixer on a level surface. (NOTE: Maximum slope is 5° (degrees). Before filling the drum, make sure the mixer can empty into a wheel barrow).
2. Use a 3 prong, grounded, 110v/120v power connection. Although the minimum gauges are listed below, we recommend that a 14 gauge (AWG) wire be used for all lengths.

Cord Length (Total Feet)	25	50	100	150
AWS (Wire gauge)	18	16	16	14
Volts	120			
Ampere Rating	↔ 0 - 6 ↔			

3. While the drum is rotating add water, concrete and aggregate. Secure the stability bolt prior to drum rotation.
4. To pour the concrete, elevate the dump handle while the drum is rotating.
5. In the event of overheating and your motor shuts down, turn off the On/Off switch and unplug the unit for 15 minutes. After the cooling period, plug in the unit and press the Manual Reset Thermal Protector button, then turn the On/Off switch to on.



When tilting the drum to pour the concrete, do so in a very slow, smooth manner. This keeps the mixer balanced and upright.

Maintenance and Cleaning

CAUTION

DISCONNECT THE POWER CORD.

1. Clean thoroughly after each use. Remove all concrete from the mixer.
2. Lightly grease all moving parts.
3. Keep the motor cooling fins clean and free of build up.
4. When cleaning the mixer, wipe the On/Off switch assembly and motor with a damp cloth. Do not spray water directly onto this area. Protect motor and switch assembly from rain.

Kushlan Products, LLC

Limited Warranty Policy

Kushlan Products makes every effort to assure that its products meet high quality and durability standards and warrants to the original retail consumer purchaser of our products (you) that each such product be free from defects in materials and workmanship as follows:

ONE(1)YEAR limited warranty on motors. This warranty covers replacement of parts found to be defective in material or workmanship for a period of 90 days from the date of purchase. This warranty does not apply to typical replacement of parts or assemblies that fail as a consequence of normal wear and tear. For example: bushings, tires, belts, and pinion gears.

This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations outside our facilities or the lack of maintenance. WE LIMIT ALL IMPLIED WARRANTIES TO THE PERIOD SPECIFIED ABOVE FROM THE DATE OUR PRODUCT WAS PURCHASED AT RETAIL EXCEPT AS STATED HEREIN. ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. WE SHALL, IN NO EVENT, BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY OR FOR INCIDENTAL, CONTINGENT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

To take advantage of this warranty, the product or part must be returned for examination, postage prepaid, to Kushlan Products. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will either repair or replace the product, at our election, or we may elect to refund the purchase price if we cannot readily and quickly provide you with repair or replacement, if you are willing to accept such refund. We will return the repaired product or replacement at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of storing and returning this product. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. For service contact Kushlan Products.



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