



## Portable Cement Mixers

### Owner's Manual



**Item 49413**  
**3.5 Cu. Ft.**



**Item 49417**  
**2.0 Cu. Ft.**

**! WARNING:** Read and understand all instructions, warnings, and cautions before using this product. Failure to follow the instructions, warnings, and cautions may result in serious personal injury and/or property damage.

**Items # 49413 & 49417**

**SAVE THESE INSTRUCTIONS**

Thank you very much for choosing a Klutch product!

For future reference, please complete the owner's record below:

Item Number: \_\_\_\_\_

Serial Number/Lot Date Code: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Save the receipt, warranty, and this manual.

These cement mixers are designed for certain applications only. Northern Tool and Equipment cannot be responsible for issues arising from modification or use of this product in an application for which it was not designed. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed.

For technical questions, please call **1-800-222-5381**.

## Table of Contents

Intended Use.....	4
Technical Specifications - 49413.....	4
Technical Specifications - 49417.....	4
Important Safety Information.....	5
Grounding.....	7
Extension Cords.....	8
Assembly Instructions - 49413.....	9
Assembly Instructions - 49417.....	10
Operating Instructions.....	11
Maintenance.....	11
Parts Diagram - 49413.....	12
Parts List - 49413.....	13
Parts Diagram - 49417.....	14
Parts List - 49417.....	15
Troubleshooting.....	16
Replacement Parts.....	16
Limited Warranty.....	17

## Intended Use

These portable electric cement mixers are ideal for smaller concrete jobs such as footings and bases, binding block and concrete patching. When the job is complete, the portable electric cement mixers easily fit into the trunk of most vehicles.

## Technical Specifications - 49413

Property	Specification
Power Consumption	120 VAC, 60 Hz, single phase, 500 watts
Drum	Polyethylene construction Loading capacity: 3.5 Cu. Ft. Mixing capacity: 1.77 Cu. Ft.
Drum Opening	14-1/2"
Drum Speed	26 RPM
Tires	13" dia. x 4" wide
Weight	90 lbs.

## Technical Specifications - 49417

Property	Specification
Power Consumption	120 VAC, 60Hz, single phase, 330 watts
Drum	Polyethylene construction Loading capacity: 2.0 Cu. Ft. Mixing capacity: 0.88 Cu. Ft.
Drum Opening	11-1/4"
Drum Speed	26 RPM
Tires	Solid rubber, 10" dia. x 1-5/8" wide
Weight	68 lbs.

## Important Safety Information

### **⚠ WARNING**

- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this tool. Always be aware of the environment and ensure that the tool is used in a safe and responsible manner.
- DO NOT allow persons to assemble or operate this product until they have read this manual and have developed a thorough understanding of how the product works.
- Use the right tool for the job. DO NOT attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. It will do the job better and more safely at the capacity for which it was intended. DO NOT use this equipment for a purpose for which it was not intended.
- Industrial or commercial applications must follow OSHA requirements.

### **⚠ WARNING**

- Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:
  - lead from lead-based paints,
  - crystalline silica from bricks and cement and other masonry products, and
  - arsenic and chromium from chemically-treated lumber.Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well-ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.
- Handling the power cord on corded products may expose you to lead, a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

### **⚠ WARNING**

#### **WORK AREA SAFETY**

- Inspect the work area before each use. Keep the work area clean, dry, free of clutter, and well lit. Cluttered, wet, or dark work areas can result in injury.
- Do not use the tool where there is a risk of causing a fire or an explosion; e.g., in the presence of flammable liquids, gases, or dust. The tool can create sparks, which may ignite the flammable liquids, gases, or dust.
- Do not allow the tool to come into contact with an electrical source. The tool is not insulated and contact will cause electrical shock.
- Keep children and bystanders away from the work area while operating the tool. Do not allow children to handle the tool.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be hidden from your view and may cause personal injury and/or property damage if contacted.

## **⚠ WARNING**

### **ELECTRICAL SAFETY**

- Always check to ensure the power supply corresponds to the voltage on the rating plate.
- Do not abuse the cord. Never carry or pull a cement mixer by its power cord, or yank power cords or extension cords from the receptacle. Keep power and extension cords away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords may cause a fire and increase the risk of electric shock.
- Grounded motors must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is grounded.
- When operating an electric cement mixer outside, use an outdoor extension cord marked "W-A" or "W." These cords are rated for outdoor use and reduce the risk of electric shock.
- Use only Listed extension cords. If used outdoors, they must be marked For Outdoor Use. Those cords having 3-prong grounding type plugs and mating receptacles are to be used with grounded cement mixers.
- Check the name plate rating of the cement mixer. Use of improper size or gauge of extension cord may cause unsafe or inefficient operation of the cement mixer. Be sure the extension cord is rated to allow sufficient current flow to the motor. Use the following table to determine the proper extension cord wire gauge.

## **⚠ CAUTION**

### **CEMENT MIXER USE AND CARE**

- Do not force the cement mixer to perform an operation other than its intended use. Cement mixers do a better and safer job when used in the manner for which they are designed. Plan your work, and use the correct cement mixer for the job.
- Do not use a cement mixer with a malfunctioning power switch. Any cement mixer that cannot be controlled with the power switch is dangerous and must be repaired by an authorized service representative before using.
- Disconnect the power supply from the cement mixer and place the power switch in the locked or off position before servicing, adjusting, installing accessories or attachments, or storing. Such preventive safety measures reduce the risk of starting the cement mixer accidentally.
- Check for damaged parts before each use. Carefully check that the cement mixer will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the cement mixer with a damaged part.
- Store the cement mixer when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the cement mixer for good working condition prior to storage and before re-use.
- Use only accessories that are recommended by the manufacturer for use with the cement mixer. Accessories that may be suitable for one cement mixer may create a risk of injury when used with another cement mixer.
- Keep guards in place and in working order.
- Keep the cement mixer blades clean.
- Do not leave the cement mixer running unattended.

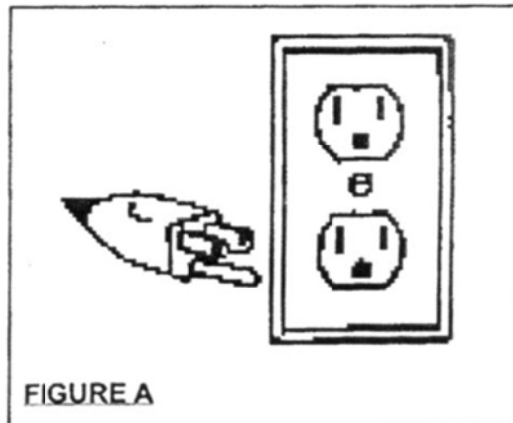
## Grounding

### Grounded Tools: Tools with 3-Prong Plugs

Tools marked with **Grounding required** have a 3-wire cord and 3-prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. (See Figure A.)

The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool's grounding system and must never be attached to an electrically live terminal. (See Figure A.)

Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration.



## Extension Cords

- Grounded tools require a 3-wire extension cord. Double Insulated tools can use either a 2- or 3-wire extension cord.
- As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage.
- The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14-gauge cord can carry a higher current than a 16-gauge cord. Minimum extension cord wire size is shown in the following table:

<b>Minimum Wire Size Of Extension Cords</b>				
<b>Nameplate AMPS</b>	<b>Cord Length</b>			
	<b>25'</b>	<b>50'</b>	<b>100'</b>	<b>150'</b>
0-6	18 AWG	16 AWG	16 AWG	14 AWG
6-10	18 AWG	16 AWG	14 AWG	12 AWG
10-12	16 AWG	16 AWG	14 AWG	12 AWG
12-16	14 AWG	12 AWG	NOT RECOMMENDED	

- When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required.
- If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size.
- If you are using an extension cord outdoors, make sure it is marked with the suffix **W-A** (**W** in Canada) to indicate it is acceptable for outdoor use.
- Make sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
- Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.



## Assembly Instructions - 49413

1. Place the frame assembly (16) in a clean work area with a flat, level floor surface. (See Fig.1)
2. Align the holes of two handles (21) and the frame assembly (16) and insert the hex bolt (20), hex nut (17), spring washer (18) flat washer (19), then secure handle sleeve (22) to the handle (21). (See Fig.2 or See Parts Diagram.)
3. Slide the wheel shaft (40) through (in order): one side of the frame, a wheel (with the long side of the bearing casing of the wheel towards the frame; see cover photo), the interval tube, the other wheel (long side of bearing casing towards the other side of the frame), and the other side of the frame. Attach a locking collar (36) to both ends of the wheel shaft outside the frame and tighten the locking screw (39). (See the parts diagram.)
4. Secure the motor & gear box assembly (31) to the five holes in the frame assembly (16) with flat washer (28), spring washer (29) and hex nut M6 (30). Tighten them by wrench. (See the parts diagram.)
5. Attach the protective net (27) to the frame assembly (16). Secure the net with three bolts M6 x 16 (23) above the net, then the frame and flat washers 6 (24), spring washers 6 (25) and nuts M6 (26) on each bolt. (See the parts diagram.)
6. Secure the drum (6) to the gearbox shaft with T- bolt assembly (1). Tighten firmly with a wrench. (See Fig.4 & 5 or the parts diagram.)
7. Secure the mixer blades (2) to the inner side of drum (3): Start with bolts M8 x 20 (1) on the outside of the drum pushed through the blade holes into the drum, then a leather washer (8) next to the drum inside, and the mixer blades. Secure the blades with flat washer 8 (9), spring washer 8 (10) and nuts M8 (11). (See the parts diagram.)
8. The cement mixer assembly is complete. Retighten all nuts and bolts.



Fig.1



Fig.2



Fig.3



Fig.4



Fig.5

## Assembly Instructions - 49417

1. Place the frame assembly (16) in a clean work area with a flat, level floor surface. (See Fig.1.)
2. Align the holes of two handles (21) with the frame assembly (16) and insert the hex bolt (20), hex nut (17), spring Washer (18) flat washer (19), then secure handle sleeve (22) to the handle (21). (See Fig.2 or the parts diagram.)
3. Insert hex bolt (34) with flat washer (35) through the whole on the frame (16) (See fig.3 & 4), then put the flat washer (35) and across the middle of the hole in a wheel (36). Place a flat washer (37) and hex nut (38) in the other side of the wheel and tighten the nut. Repeat this procedure with the other wheel on the other side of the frame.

**Note:** After tightening nut M12 (38), if there is a large clearance between the wheel (36) and flat washer (35), then remove the nut, include a second washer, and retighten the nut.

4. Secure the motor & gear box assembly (31) to the five holes (Fig.5) in the frame assembly (16) with flat washer (28), spring washer (29) and hex nut M6 (30). Tighten them by wrench. (See Fig.6 and the parts diagram.)
5. Attach the protective net (27) to the frame assembly (16). The net with three bolt M6 x 16 (23) above the net, then the frame then and flat washers 6 (24), spring washers 6 (25) and hex nuts M6 (26) on each bolt. (See the parts diagram.)
6. Secure the drum (6) to the gearbox shaft with T bolt assembly (1) (See fig.7). Tighten firmly with a wrench. (Fig.8)
7. Secure the mixer blades (2) to the inner side of drum (3): Start with bolts M8 x 20 (1) on the outside of the drum and pushed through the blade holes into the drum, then a leather washer (8) next to the drum inside, then the mixer blades. Secure the blades with flat washers 8 (9), spring washers 8 (10) and nuts M8 (11). (See the parts diagram.)
8. The cement mixer assembly is complete. Retighten all the nuts and bolts.



Fig.1



Fig.2



Fig.3



Fig.4



Fig.5

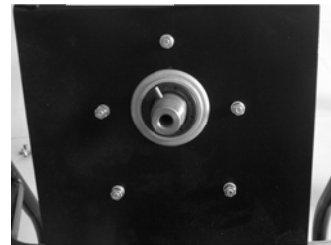


Fig.6

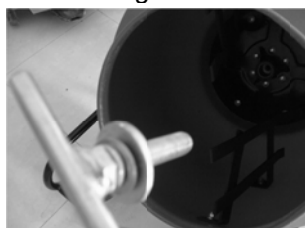


Fig.7



Fig.8

## Operating Instructions

### **⚠ WARNING**

Do not move the cement mixer when it is full and/or in operation. Personal injury could result.

Do not operate the cement mixer if any parts are worn or damaged. Faulty operation and possible personal injury could result.

1. Place the cement mixer on a solid, level surface.
2. Inspect the cement mixer for worn or damaged parts and repair or replace any parts as needed before use.
3. Connect the motor's power cord to an electric outlet (or properly rated three-prong extension cord).
4. To start the cement mixer, turn the motor's power switch on the motor to the ON position.
5. With the drum rotating, load material into the drum:
  - 49417, 2 Cu. Ft. model: typical maximum quantities are 1 gallon of water, 2 shovels of cement, and 8 shovels of aggregate rock (using a size 3 shovel, not included).
  - 49413, 3.5 Cu. Ft. model: typical maximum quantities include: 2 gallons water with 3 shovels of cement and 15 shovels aggregate rock (using a size 3 shovel, not included.)

## Maintenance

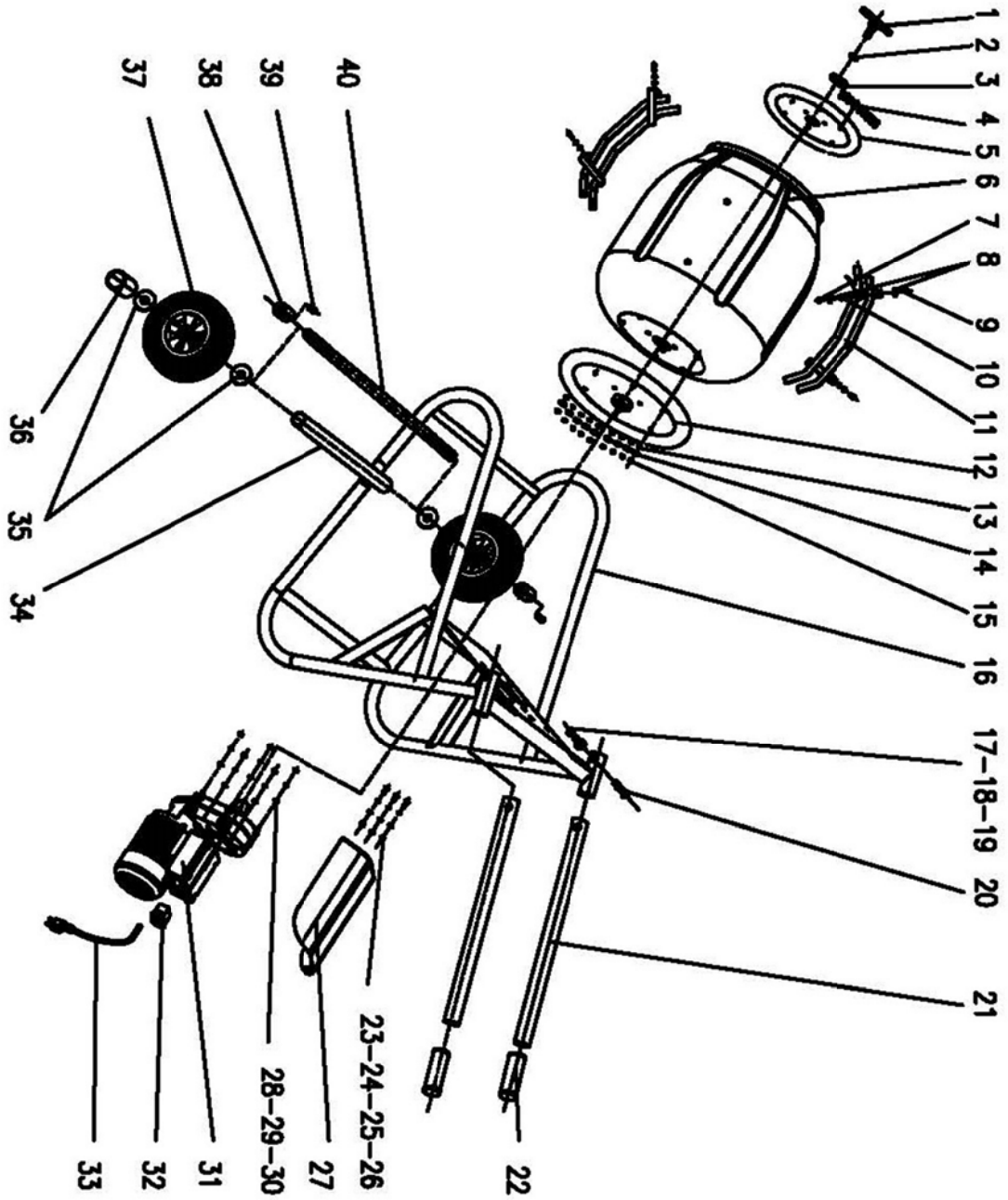
### **⚠ WARNING**

Make sure the cement mixer is turned off and disconnected from power before attempting any maintenance, cleaning, or inspection to prevent accidental starts and possible personal injury.

Maintain the cement mixer by adopting a program of conscientious repair and maintenance in accordance with the following recommended procedures:

- After each use, immediately wash out all debris from the inside and outside of the cement mixer.
- Keep the motor clean and free of buildup.
- Do not apply water in or around the motor.
- Periodically recheck all nuts, bolts, and screws for tightness.
- Lightly grease all moving parts.

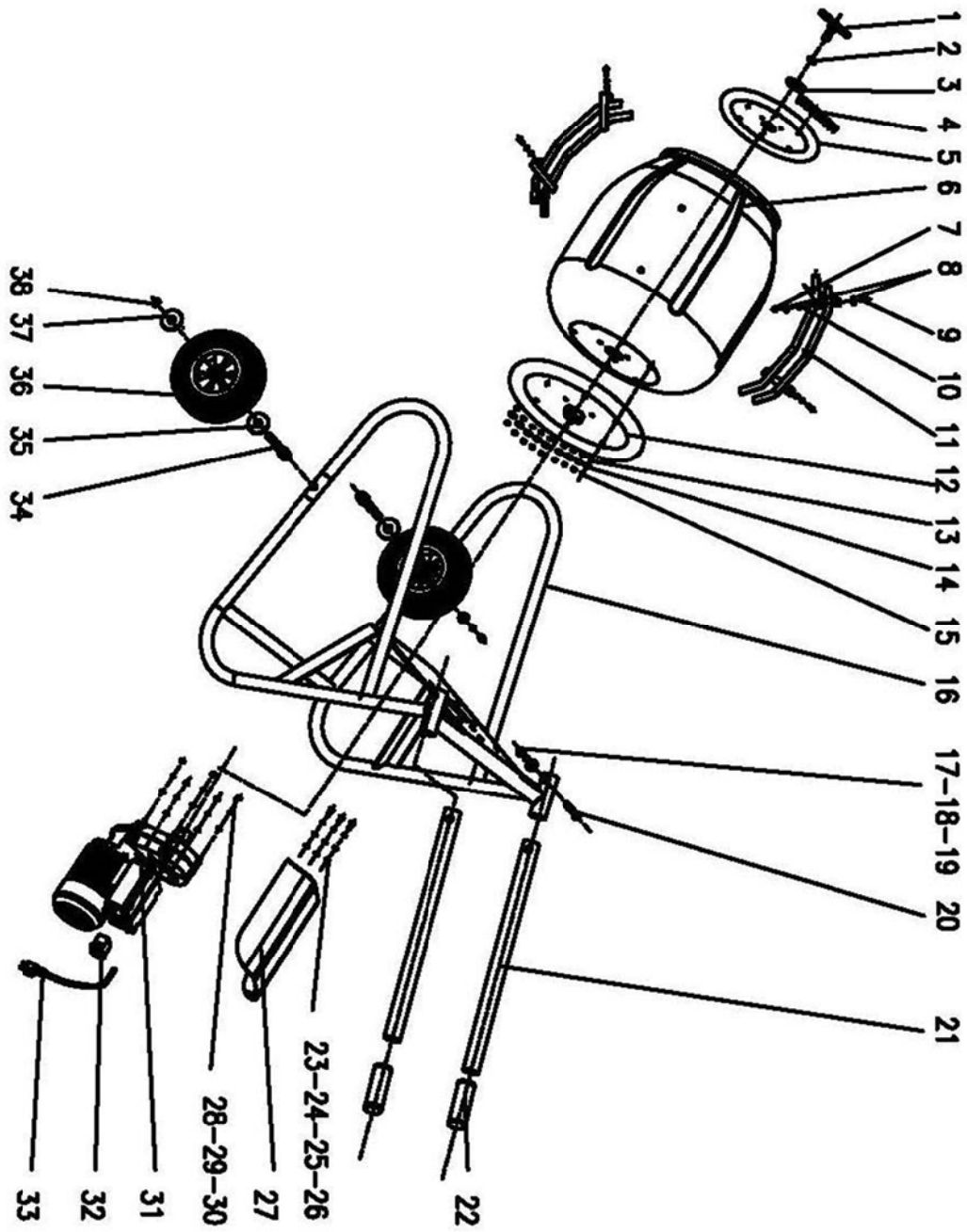
Parts Diagram - 49413



## Parts List - 49413

Part No.	Description	Quantity
1	T Bolt Assembly M14*35	1
2	Spring Washer 14	1
3	Flat Washer 14	1
4	Hex Bolt M10*25	9
5	Connect Plate	1
6	Drum	1
7	Hex Nut M10	4
8	Flat Washer 10	8
9	Hex Bolt M10*25	4
10	Spring Washer 10	4
11	Mixer Blade	2
12	Strengthen Plate	1
13	Spring Washer 10	9
14	Flat Washer 10	9
15	Hex Bolt M10	9
16	Frame Assembly	1
17	Hex Nut M8	2
18	Spring Washer 8	2
19	Flat Washer 8	2
20	Hex Bolt M8*45	2
21	Handle	2
22	Handle Sleeve	2
23	Hex Bolt M6*16	3
24	Flat Washer 6	3
25	Spring Washer 6	3
26	Hex Nut M6	3
27	Protect Nat	1
28	Flat Washer 6	5
29	Spring Washer 6	5
30	Hex Nut M6	5
31	Motor & Gearbox Assembly	1
32	Switch	1
33	Cord	1
34	Long Shaft Sleeve	1
35	Flat Washer 12	4
36	Locking Collar	1
37	Wheel	2
38	Short Shaft Sleeve	2
39	Locking Screw M8*16	2
40	Wheel shaft	1

Parts Diagram - 49417



## Parts List - 49417

Part No.	Description	Quantity
1	T Bolt Assembly M14*35	1
2	Spring Washer 14	1
3	Flat Washer 14	1
4	Hex Bolt M8*25	9
5	Connect Plate	1
6	Poly Drum	1
7	Hex Nut M10	4
8	Flat Washer 10	8
9	Hex Bolt M10*25	4
10	Spring Washer 10	4
11	Mixer Blade	2
12	Strengthen Plate	1
13	Spring Washer 10	9
14	Flat Washer 10	9
15	Hex Bolt M10	9
16	Frame Assembly	1
17	Hex Nut M8	2
18	Spring Washer 8	2
19	Flat Washer 8	2
20	Hex Bolt M8*45	2
21	Handle Sleeve	2
22	Hex Bolt	2
23	Hex Bolt M6*16	3
24	Flat Washer 6	3
25	Spring Washer 6	3
26	Hex Nut M6	3
27	Protect Nat	1
28	Flat Washer 6	5
29	Spring Washer 6	5
30	Hex Nut M6	5
31	Motor & Gearbox Assembly	1
32	Switch	1
33	Cord	1
34	Hex Bolt M12*70	2
35	Flat Washer 12	2
36	Wheel	2
37	Flat Washer 12	2
38	Hex Nut M12	2

## Troubleshooting

Problem	Solution
The drum will not turn on.	<ul style="list-style-type: none"><li>• Make sure that power is available and that the cord is fully plugged in to the socket.</li><li>• Reset the motor speed reducer.</li><li>• Check if the motor speed reducer is burned out. If so, replace it.</li><li>• Make sure the drum is not overloaded. If so, remove some of the material.</li></ul>
Angle of the drum will not adjust	<ul style="list-style-type: none"><li>• Rotate the drum to make it match with the pin (26), then tighten the T bolt.</li></ul>

## Replacement Parts

- For replacement parts and technical questions, please call Customer Service at **1-800-222-5381**.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts in the assembly sequence.
- When ordering parts, the following will be required: model number, serial number/lot date code, and description.
- The distributor reserves the rights to make design changes and/or improvements to product lines and manuals without notice.



## Limited Warranty

Northern Tool and Equipment Company, Inc. ("We" or "Us") warrants to the original purchaser only ("You" or "Your") that the KLUTCH product purchased will be free from material defects in both materials and workmanship, normal wear and tear excepted, for a period of **one year** from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty, Your sole and exclusive remedy is that We will, at our sole option and within a commercially reasonable time, either replace the product or product component without charge to You or refund the purchase price (less shipping). This limited warranty is not transferable.

### Limitations on the Warranty

This limited warranty does not cover: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) product alteration in any manner by anyone other than Us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner.

### Obligations of Purchaser

You must retain Your product purchase receipt to verify date of purchase and that You are the original purchaser. To make a warranty claim, contact Us at 1-800-222-5381, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to Us in order to process Your warranty claim. Any returned product that is replaced or refunded by Us becomes our property. You will be responsible for return shipping costs or costs related to Your return visit to a retail store.

### Remedy Limits

Product replacement or a refund of the purchase price is Your sole remedy under this limited warranty or any other warranty related to the product. We shall not be liable for: service or labor charges or damage to Your property incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to Your improper use, installation, or maintenance of the product or product component; or any indirect, incidental or consequential damages of any kind for any reason.

### Assumption of Risk

You acknowledge and agree that any use of the product for any purpose other than the specified use(s) stated in the product instructions is at Your own risk.

### Governing Law

This limited warranty gives You specific legal rights, and You also may have other rights which vary from state to state. Some states do not allow limitations or exclusions on implied warranties or incidental or consequential damages, so the above limitations may not apply to You. This limited warranty is governed by the laws of the State of Minnesota, without regard to rules pertaining to conflicts of law. The state courts located in Dakota County, Minnesota shall have exclusive jurisdiction for any disputes relating to this warranty.



Distributed by  
Northern Tool and Equipment Company, Inc.  
Burnsville, Minnesota 55306  
[NorthernTool.com](http://NorthernTool.com)

Made in China