

WARRANTY

One-year Limited Warranty

WARNING!

Some dust created by power sanding, sawing, grinding, and other construction activities contains chemicals known to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:

- Lead, from lead-based paints
- Crystalline silica, from bricks, cement, and other masonry products
- 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 use approved personal protective equipment, such as dust masks that are specially designed to filter out microscopic particles.

KLUTCH™

Distributed by
Northern Tool & Equipment Co., Inc.
Burnsville, MN 55306
NorthernTool.com
Made in China

KLUTCH™

1/2in. Electric Impact Wrench

Instruction Manual



WARNING:

Read carefully and understand **RULES FOR SAFE OPERATION** and instructions before operating.
Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item # 15877

Specifications:

Input Voltage:	120 Volts
No-load Speed:	2100 RPM; Delivers 2700 BPM
Maximum Torque:	235 FT/LBS
Motor Power:	7 AMP

Save This Manual:

You will need this manual for the safety instructions, assembly instructions, operating procedures, parts list, and warranty. Put them in a safe, dry place for future reference.

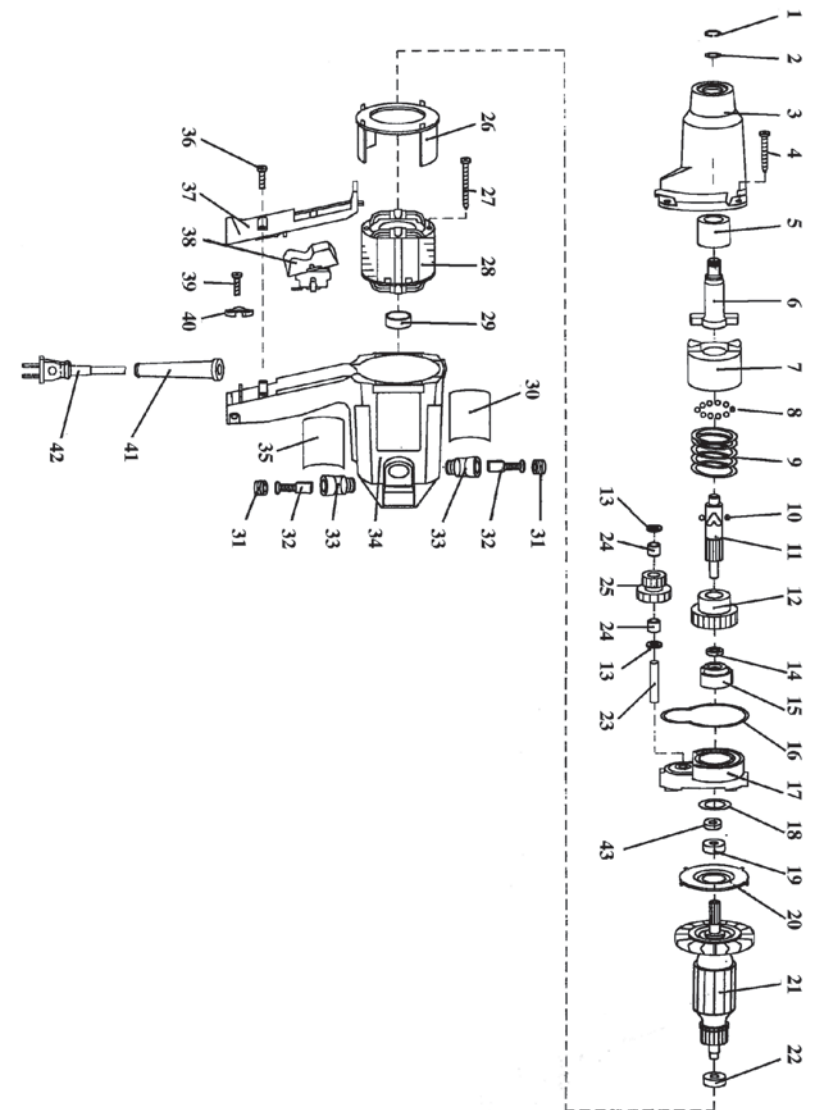
Important Safety Instructions:

Warning: When using electric tools, machines or equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.

Read All Instructions Before Using This Tool:

1. Keep work area clean. Cluttered areas invite injuries.
2. Consider work area environment. Don't use machines or power tools in damp, wet, or poorly lit locations. Don't expose to rain. Keep work area well lit. Don't use tools in the presence of flammable gases or liquids.
3. Keep children away. All children should be kept away from the work area. Don't let them handle machines, tools or extension cords.
4. Store idle equipment. When not in use, tools should be stored in a dry location to inhibit rust and locked up. If possible, also store in an area out of reach of children.
5. Don't force the machine or tool. It will do the job better and more safely at the rate for which it was intended.
6. Use the right tool. Don't force a small tool or attachment to do the work of a larger industrial tool. Don't use a tool for a purpose for which it was not intended.
7. Dress properly. Don't wear loose clothing or jewelry; they can be caught in moving parts. Protective, electrically nonconductive gloves and non-skid footwear are recommended when working. Wear protective hair covering to contain long hair, preventing it from getting caught in machinery.
8. Use eye protection. Use a full face mask if the work you're doing produces metal filings, dust or wood chips. Goggles are acceptable in other situations. Wear a clean dust mask if the work involves creates a lot of fine or coarse dust.

Functional Description



Note:

3 Includes: 5

11 Includes: 7, 8, 9, 10 & 12

17 Includes: 15, 18 & 23

21 Includes: 19, 20, 22 & 43

25 Includes: 24

Lubrication Directions:

The following part must be lubricated with bearing grease before assembling: "V" groove on the cam and the impactor, I.D. of the impactor, all steel balls, spring bearing surfaces and all thrust washers. Evenly distribute an ounce of grease in the gear case before assembly.

Parts List:

NO	DESC	QTY	NO	DESC	QTY
1	Snap Ring	1	22	Ball Bearing 608.2z	1
2	O-Ring	1	23	Spindle	1
3	Gear Case	1	24	Needle Bearing	2
4	Screw/ST5x45	4	25	Gear & Pinion	1
5	Bearing & Seal	1	26	Fan Baffle	1
6	Anvil Assembly	1	27	Screw/ST3.9x55	2
7	Impactor	1	28	Field	1
8	Seal Ball/ø5	23	29	Rubber Clip	1
9	Spring	1	30	Type Plate	1
10	Steel Ball/ø7	2	31	Brush Cap	2
11	Drive Spindle	1	32	Brush Assembly	2
12	Gear	1	33	Brush Holder	2
13	Washer	2	34	Field Case	1
14	Impact Washer	1	35	Brand Plate	1
15	Bearing	1	36	Screw/ST3.9x18	2
16	Gasket	1	37	Handle Cover	1
17	Gear Case Cover	1	38	Switch	1
18	O-Ring	1	39	Screw/ST3.9x16	2
19	Ball Bearing 6000.2z	1	40	Cord Clamp	1
20	Spindle	1	41	Cord Shield	1
21	Armature	1	42	Cord	1
			43	Felt-Ring	1

- Don't abuse the power cord. Never carry a tool by its cord. Do not yank it to disconnect it from receptacle. Do not move bench-mounted or floor-standing machines with the power cord in the outlet. Keep cord away from heat, oil, and sharp edges.
- Secure work. Use clamps or a vise to hold the work if possible. It's safer than using your hands and it frees both hands to operate the tool.
- Don't overreach. Keep proper footing and balance at all times. Do not reach over or across machines which are running.
- Maintain tools with care. Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have them repaired by an authorized service facility. Keep handles dry, clean, and free from oil and grease.
- Disconnect power when not in use, before servicing, and when changing accessories such as blades, bits, and cutters.
- Remove adjusting keys and wrenches. Make it a habit to check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
- Avoid unintentional starting. Don't carry a plugged in tool with a finger on the switch. Be sure the switch is in the off position when not in use.
- Outdoor extension cords. When the equipment is operated outdoors, use only extension cords intended for outside use. See the chart following for the proper AWG rating depending upon length of the cord.

CHART FOR MINIMUM WIRE SIZE OF EXTENSION CORD:

Nameplate AMPS	CORD LENGTH			
	25'	50'	100'	150'
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)	

- Stay alert. Watch what you are doing, use common sense. Don't operate any tool when you are tired.
- Check for damaged parts. Before using any tool, any part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and other conditions that may affect its operation. Any part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in the instruction manual. Have defective switches replaced by an authorized service center. Don't use the tool if switch does not turn on and off properly.

19. Guard against electric shock. Prevent body contact with grounded surfaces: pipes, radiators, ranges, and refrigerator enclosures. If this tool is a drill, a driver/drill, a reciprocating saw or other machine for drilling into walls, floors, or wherever "live" electrical wires may be encountered. Do not touch the chuck or any front metal parts of the drill. Hold the tool only by the plastic handle or the side grip to prevent electric shock if you hit a live wire.
20. Replacement parts. When servicing, use only identical replacement parts.
21. Do not operate portable electric tools near flammable liquids or in gaseous or explosive atmospheres. Motors in these tools normally spark, and the spark might ignite fumes.
22. Do not operate tool if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgement or reflexes are impaired while taking drug. If there is any doubt, do not operate machine.

Grounding Instructions:

Check to see if your tool has a two or three-prong plug. If your tool has a two-prong plug, you may proceed to the voltage warning. If your tool has a three-prong, please continue reading the following precautions and instructions.

1. This machine has a three-prong plug, the third (round) prong being the ground. Plug the machine's cord only into a three-prong receptacle. Don't attempt to defeat the protection the ground wire provides by cutting off the round prong.
2. If a three-prong receptacle is not available, you may use an adapter, but you must then connect the green ear on the adapter to the outlet. Unscrew the center screw of the outlet cover and put the screw through the green ear. Plug the adapter's two prongs into the outlet, and replace the center screw. Now plug the machine into the adapter.

Voltage Warning:

Before connecting the tool to a power source (receptacle, outlet, etc.) Be sure the voltage supplied is about the same as that specified on the nameplate of the tool. If one says 120V and the other says 110V then there will be no complications. Never try to plug a 110V tool into a 220V, or the other way around. The plug and outlet have completely different shapes. This is because a power source with a voltage greater than that specified on the tool can result in a 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 voltage (110V) less than the nameplate rating (220V) is harmful to the motor.

Motor Brushes:

NOTE: UNPLUG WRENCH BEFORE INSPECTING BRUSHES!

The brushes should periodically be inspected for repair. Unscrew plastic caps located in the sides of the motor housing to reveal the spring and brush assembly. Keep brushes clean and freely sliding. Symbols are inscribed on the brushes, and if it is worn down to the line closest to the spring, replace immediately.

Switch:

This impact wrench is built with a rocker switch that switches rotation from clockwise to counter-clockwise easily, allowing fasteners to be broken loose. Pressing the lower part of the switch causes the impact wrench to move clockwise; pressing the upper part of the switch causes the rotation to reverse.

Lubrication:

The impact wrench will require lubrication after 30 continuous hours or 50 intermittent hours of use. Refer to the parts diagram or contact an approved service center for lubrication services.

Accessory:

Carbon brush.