

Operating Instructions • Warning Information  
• Parts Breakdown



## ⚠ WARNING

Some dust created by power sanding, sawing, grinding, drilling, 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 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 those dust masks that are specially designed to filter out microscopic particles.

## SPECIFICATIONS

Free Speed .....	25,000 RPM
Collet Size .....	1/4"
Air Inlet .....	1/4" NPT
Minimum Hose Size .....	3/8" I.D.
Maximum Air Pressure .....	90 psig, 6.2 bar
Average Air Consumption .....	3 CFM
Length .....	4-3/4"
Weight .....	0.81 Lbs
Sound Level .....	93 dBA

## ⚠ WARNING

- MAXIMUM RPM OF 25,000
- MAX. AIR PRESSURE:  
90 PSIG, 6.2 BAR



ALWAYS READ  
INSTRUCTIONS BEFORE  
USING POWER TOOLS



ALWAYS WEAR  
SAFETY GOGGLES



ALWAYS WEAR HEARING  
PROTECTION



AVOID PROLONGED  
EXPOSURE TO VIBRATION



RATED RPM OF THE  
ACCESSORY MUST  
EXCEED THE MAXIMUM  
TOOL RPM SHOWN

# CAT511

## 1/4" Mini Die Grinder

# WARNING

## FAILURE TO OBSERVE THESE WARNINGS COULD RESULT IN INJURY.

### THIS INSTRUCTION MANUAL CONTAINS IMPORTANT SAFETY INFORMATION.



#### READ THIS INSTRUCTION MANUAL CAREFULLY AND UNDERSTAND ALL INFORMATION BEFORE OPERATING THIS TOOL.

- It is the responsibility of the owner to make sure all personnel read this manual prior to using this air tool. It is also the responsibility of the air tool owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, contact Cornwell for replacements. If the operator is not fluent in English, the product and safety instructions shall be read to and discussed with the operator in the operator's native language by the purchaser/owner or his designee, making sure that the operator comprehends its contents.

- Always operate, inspect and maintain this tool in accordance with American National Standards Institute Safety Code of Portable Air Tools (ANSI B186.1) and any other applicable safety codes and regulations.



- For safety, top performance and maximum durability of parts, operate this tool at 90 psig: 6.2 bar max air pressure with 3/8" diameter air supply hose.



- Always wear impact-resistant eye and face protection when operating or performing maintenance on this tool (users and bystanders).



- Always wear hearing protection when using this tool (users and bystanders). High sound levels can cause permanent hearing loss. Use hearing protection as recommended by your employer or OSHA regulation.

- Keep the tool in efficient operating condition.

- Operators and maintenance personnel must be physically able to handle the bulk, weight and power of this tool.



- Air under pressure can cause severe injury. Never direct air at yourself or others. Always turn off the air supply, drain hose of air pressure and detach tool from air supply before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool. Failure to do so could result in injury. Whip hoses can cause serious injury. Always check for damaged, frayed or loose hoses and fittings, and replace immediately. Do not use quick detach couplings at tool. See instructions for correct set-up on page 4.



- Air powered tools can vibrate during use. Vibration, repetitive motions or uncomfortable positions over extended periods of time may be harmful to your hands and arms. Discontinue use of tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.

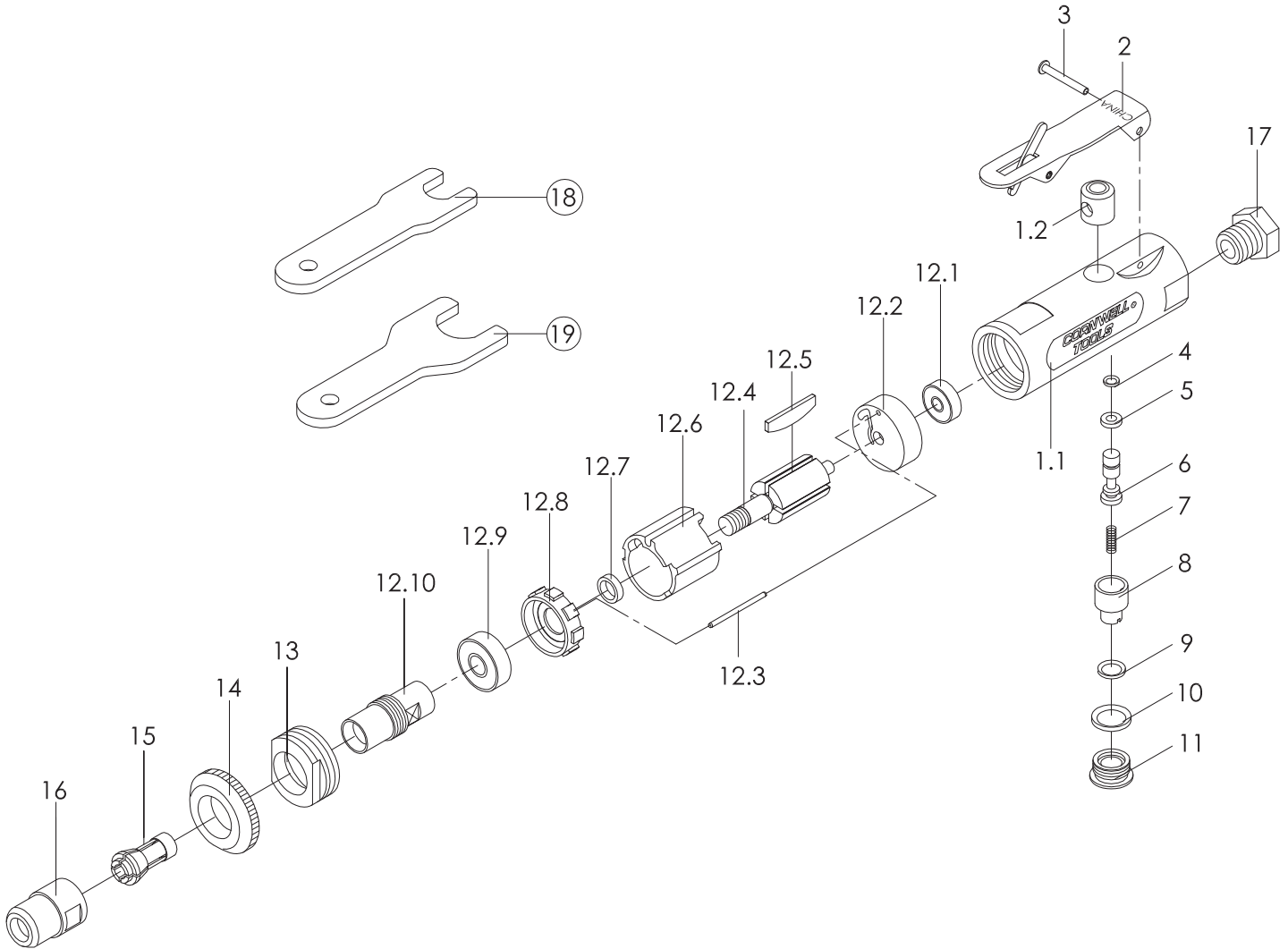


- Slipping, tripping and/or falling while operating air tools can be a major cause of serious injury or death. Be aware of excess hose left on the walking or work surface.



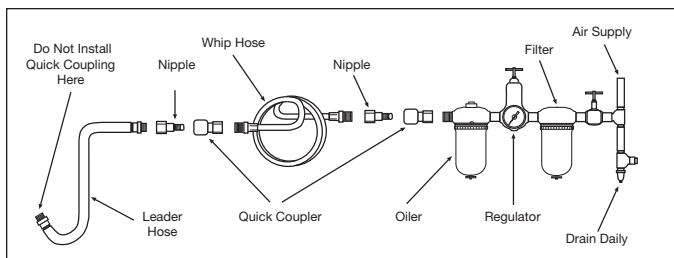
- Keep body working stance balanced and firm. Do not overreach when operating the tool.
- Anticipate and be alert for sudden changes in motion during start up and operation of any power tool.
- Do not carry tool by the hose. Protect the hose from sharp objects and heat.
- Tool shaft may continue to rotate briefly after throttle is released. Avoid direct contact with accessories during and after use. Gloves will reduce the risk of cuts or burns.
- Keep away from rotating end of tool. Do not wear jewelry or loose clothing. Secure long hair. Scalping can occur if hair is not kept away from tool and accessories. Choking can occur if neckwear is not kept away from tool and accessories.
- Note direction of rotation BEFORE operating tool.
- Do not use (or modify) the tool for any other purpose than that for which it was designed without consulting the manufacturer's authorized representative.
- Correct bonded abrasive mounted point grinding wheels, rotary files and carbide burrs are necessary to prevent injury from broken accessories. Do not use chipped or cracked bonded abrasive mounted point grinding wheels, rotary files and carbide burrs. Tighten the bonded abrasive mounted point grinding wheels, rotary files and carbide burrs on the collet to prevent spin off when the Die Grinder is turned off.
- Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel.
- This tool is not insulated against electric shock.
- This tool must not be used in explosive atmospheres.
- Servicing and repairs should only be made by an authorized service center.
- Do not force tool beyond its rated capacity.
- RPM of the accessory must exceed tool RPM.**
- Use accessories rated at 25,000 RPM or more.**
- Use accessories recommended by Cornwell Tools.**
- Never mount a grinding wheel, cut-off wheel, router cutter or drill bit on a Die Grinder.**
- Never use an arbor, mandrel, or any other adaptor to convert the die grinder for any other application.**
- Do not lock, tape or wire the "on/off" safety lever in the "on" position, as the lever must be free to return to the "off" position when released.**
- Keep tool out of reach of children.
- Do not remove any labels. Replace any damaged labels.
- Do not lock, tape or wire the "on/off" safety lever in the "on" position, as the lever must be free to return to the "off" position when released.**
- Handling the brass parts of this product will expose you to lead, a chemical known to the State of California to cause birth defects and other reproductive harm. *Wash hands thoroughly after handling.*

# PARTS BREAKDOWN - CAT511



Ref. #	Item #	DESCRIPTION	QTY	Ref. #	Item #	DESCRIPTION	QTY
1	RS3430131	Housing Assembly (incl. #1.1 - 11)	1	12.3		Set Pin	1
1.1		Housing	1	12.4		Rotor	1
1.2		Valve Bushing	1	12.5		Rotor Blade	4
2		Trigger Assembly (incl. #2, 28, 29, 30, 31)	1	12.6		Cylinder	1
3		Throttle Pin	1	12.7		Rotor Spacer	1
4		O-Ring	1	12.8		Front Plate	1
5		O-Ring	1	12.9		Bearing (608ZZ)	1
6		Valve Stem	1	12.10		Collet Holder	1
7		Spring	1	13	RS231B28	Retainer	1
8		Air Regulator	1	14	RS231B29	Housing Cap	1
9		O-Ring	1	15	RS26437	Collet	1
10		O-Ring	1	16	RS26438	Collet Nut	1
11		Valve Plug	1	17	RS26441	Air Inlet	1
12	RS14320112	Cylinder Assembly (incl. #12.1 - 12.10)	1	18	RS26439	Wrench	1
12.1		Bearing (625ZZ)	1	19	RS26440	Wrench	1
12.2		Rear End Plate	1	Not Shown	RSCAT511LK	Product Label Kit	1

Only parts identified by part number above are available for purchase.



## AIR SUPPLY

Tools of this class operate on a wide range of air pressures. It is recommended that air pressure measures 90 psig at the tool with the trigger fully depressed and no load applied to the tool. Higher pressure (over 90 psig; 6.2 bar) raises performance beyond the rated capacity of the tool, which will shorten tool life and could cause injury.

Always use clean, dry air. Dust, corrosive fumes and/or water in the air line will cause damage to the tool. Drain the water from air lines and compressor prior to running tool. Clean the air inlet filter screen weekly. The recommended hookup procedure can be viewed in the above figure.

The air inlet used for connecting air supply has standard 1/4" NPT. Line pressure should be increased to compensate for unusually long air hoses (over 25 feet). Minimum hose diameter should be 3/8" I.D. and fittings should have the same inside dimensions and be tightly secured.

Ensure an accessible emergency shut off valve has been installed in the air supply line and make others aware of its location.

## LUBRICATION

Lubricate the air motor daily with high quality air tool oil. If no air line oiler is used, run 1/2 oz. of oil through the tool. The oil can be squirted into the tool air inlet or into the hose at the nearest connection to the air supply, then run the tool. A rust inhibitive oil is acceptable for air tools.

**WARNING:** After an air tool has been lubricated, oil will discharge through the exhaust port during the first few seconds of operation. The exhaust port must be covered with a towel before applying air pressure to prevent serious injury.

## WARRANTY

Cornwell Quality Tools Company ("Cornwell") warrants this product against defects in material and workmanship for a period of ONE (1) YEAR from the date of original retail purchase. Subject to the conditions and limitations set forth below, Cornwell will, at its option, either repair or replace any part of the product(s) that proves defective by reason of improper workmanship or materials.

This warranty does not cover any damage to this product that results from accident, abuse, misuse, natural or personal disaster, or any unauthorized disassembly, repair, or modification. Repairs, disassembly and modification are only authorized to be made by Cornwell or a Cornwell Authorized Warranty Center.

### WARRANTY SERVICE

In order to have your tool repaired, return the tool to any Cornwell Authorized Warranty Center, freight prepaid. Please include a copy of your proof of purchase and a brief description of the problem. The tool will be inspected and if any part or parts are found to be defective in material or workmanship, they will be repaired free of charge, and the repaired tool will be returned to you freight prepaid.

### EXCLUSIONS AND LIMITATIONS

THIS WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. CORNWELL SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, TO THE EXTENT PERMITTED BY APPLICABLE LAW, ANY WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF CORNWELL CANNOT LAWFULLY DISCLAIM IMPLIED WARRANTIES UNDER THIS LIMITED WARRANTY, ALL SUCH IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

IN NO EVENT SHALL CORNWELL BE LIABLE TO THE PURCHASER OR TO THE USER OF A CORNWELL PRODUCT FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, TORT, OR ANY OTHER LEGAL THEORY. SUCH DAMAGES INCLUDE, WITHOUT LIMITATION, EXPENSES, LOST REVENUES, LOST SAVINGS, LOST PROFITS, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE PURCHASE, USE OR INABILITY TO USE THE CORNWELL PRODUCT.

Some states do not allow the exclusion or limitation of incidental or consequential damages or exclusions or limitation on the duration of implied warranties or conditions, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary by state.

Repair kits and replacement parts are available for many Cornwell products, regardless of whether or not the product is still covered by a warranty plan.

## OPERATION

When using the Die Grinder, be careful not to exert excessive force which could be hazardous and cause mounted spindle to bend or break.

Bonded abrasive mounted point grinding wheels, rotary files and carbide burrs can be mounted providing their speed rating exceeds the speed of the Die Grinder. The shank size of the mounted accessory must match the collet size fitted in the Die Grinder. Insert the shank of the mounted point as far as possible into the collet and tighten the nut using the supplied wrenches. Minimum shank gripping length must be 10mm.

After mounting a new point, start the Die Grinder under bench and run for a few seconds. If the Die Grinder starts to vibrate when first fitting a mounted point or during operation, immediately remove from service. If Die Grinder is dropped, replace bonded abrasive mounted grinding wheel, rotary file or carbide burr.

**NOTE:** During operation, safety goggles must always be worn to guard against flying rust and chips (users and bystanders).

**NOTE:** Always shut off air supply, drain hose of air pressure and disconnect tool from air supply when not in use, before changing accessories or when making repairs.

## TROUBLESHOOTING

Other factors outside the tool may cause loss of power or erratic action. Reduced compressor output, excessive drain on the air line, moisture or restrictions in air pipes or the use of hose connections of improper size or poor conditions may reduce air supply. Grit or gum deposits in the tool may cut power and may be corrected by cleaning the air strainer and flushing out the tool with gum solvent oil or an equal mixture of SAE #10 and kerosene. If outside conditions are in order, disconnect tool from hose and take tool to your nearest authorized service center.