

**INSTRUCTION MANUAL**

**Air Supply Requirements**

1. Supply tool with 90 psig (6.2 bar) of clean, dry air. Higher pressure drastically reduces tool life.
2. Connect tool to air line using pipe, hose and fitting sizes shown in the diagram on page 12.
3. Do not install a quick coupler directly into the grinder throttle handle.

**Lubrication**

1. Motor - Use an air line lubricator with SAE #10 oil, adjusted to two drops per minute. If an air line lubricator cannot be used, add air motor oil to the inlet once a day.
2. Gears - Remove screw (Index no. 2). Use grease gun C098689 with Mobilux EP-2 or equal grease. Re-install screw (Index no 2).

**Noise & Vibration Declaration\***

Sound pressure level 85 dB(A), re. PN8NTC1.2. For sound power, add 10 dB(A).  
Vibration value 4.4 m/s<sup>2</sup>, re. ISO 8662-8.

**Maintenance**

1. Disassemble and inspect air motor and governor assembly every three months if the tool is used every day. Replace damaged or worn parts.
2. High wear parts are underlined in the parts list.
3. To keep downtime to a minimum, the following service kit, detailed on page 12, is recommended: C138089 Tune-Up Kit

\*These declared values were obtained by laboratory type testing in compliance with the stated standards and are not adequate for use in risk assessments. Values measured in individual work places may be higher than the declared values. The actual exposure values and risk of harm experienced by an individual user are unique and depend upon the way the user works, the workpiece and the workstation design, as well as upon the exposure time and the physical condition of the user. We, Chicago Pneumatic, cannot be held liable for the consequences of using the declared values, instead of values reflecting the actual exposure, in an individual risk assessment in a work place situation over which we have no control.

**EC DECLARATION OF CONFORMITY**

We, Chicago Pneumatic Tool Company, 1800 Overview Drive, Rock Hill, SC 29730 USA, declare under our sole responsibility that the product to which this declaration relates, is in conformity with the requirements of the Council Directive of June 1998 on the approximation of the laws of the Member States relating to machinery (98/37/EC).

**Machine Name** CP854/854 E Angle Grinder

**Machine Type** Power tool equipped with 3/8" spindle for use with various grinding wheels for grinding - No other use is permitted.

**Serial No.** Tools with No. 94200K or higher

**Technical Data**

Spindle 3/8" - 24, M10 x 1.5  
Wheel 4" (100 mm), 5" (125 mm)  
Free speed 13,000 RPM  
Air pressure 90 psi (6.2 bar)

**Harmonized Standards Applied** EN ISO 12100

**National Standards Applied** SO 8662-1, PN8NTC1.2

**Name and Position of Issuer** Yves Antier, General Manager, Chicago Pneumatic Tool Company

**Signature of Issuer** 



**WARNING**

To reduce risk of injury, everyone using, installing, repairing, maintaining, changing accessories on, or working near this tool must read and understand these instructions before performing any such task.

**Air Supply And Connection Hazards**

- ⚠ Air under pressure can cause severe injury.
- ⚠ 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.
- ⚠ Never direct air at yourself or anyone else.
- ⚠ Whipping hoses can cause serious injury. Always check for damaged or loose hoses and fittings.
- ⚠ Do not use quick disconnect couplings at tool. See instructions for correct setup.
- ⚠ Whenever universal twist couplings are used, lock pins must be installed.
- ⚠ Do not exceed maximum air pressure of 90 psi/6.2 bar or as stated on tool nameplate.

**Wheel Guard Usage**

- ⚠ Always use the recommended wheel guard to prevent injury from broken grinding wheel parts.
- ⚠ If a guard has withstood a wheel breakage do not continue to use it. It may be damaged.
- ⚠ Position the guard between the grinding wheel and the operator.
- ⚠ Use barriers to protect others from wheel fragments and grinding sparks.

**Projectile Hazards**

- ⚠ Always wear impact-resistant eye and face protection when involved with or near the operation, repair or maintenance of the tool or changing accessories on the tool.
- ⚠ Be sure all others in the area are wearing impact-resistant eye and face protection.
- ⚠ Even small projectiles can injure eyes and cause blindness.
- ⚠ A grinding wheel that bursts can cause very serious injury.
- ⚠ Daily measure the air grinder speed with a tachometer to make sure it is not greater than the RPM marked on the grinding wheel.

SAFETY INSTRUCTIONS

- ⚠ Never use a grinding wheel marked with a speed lower than the air grinder speed.

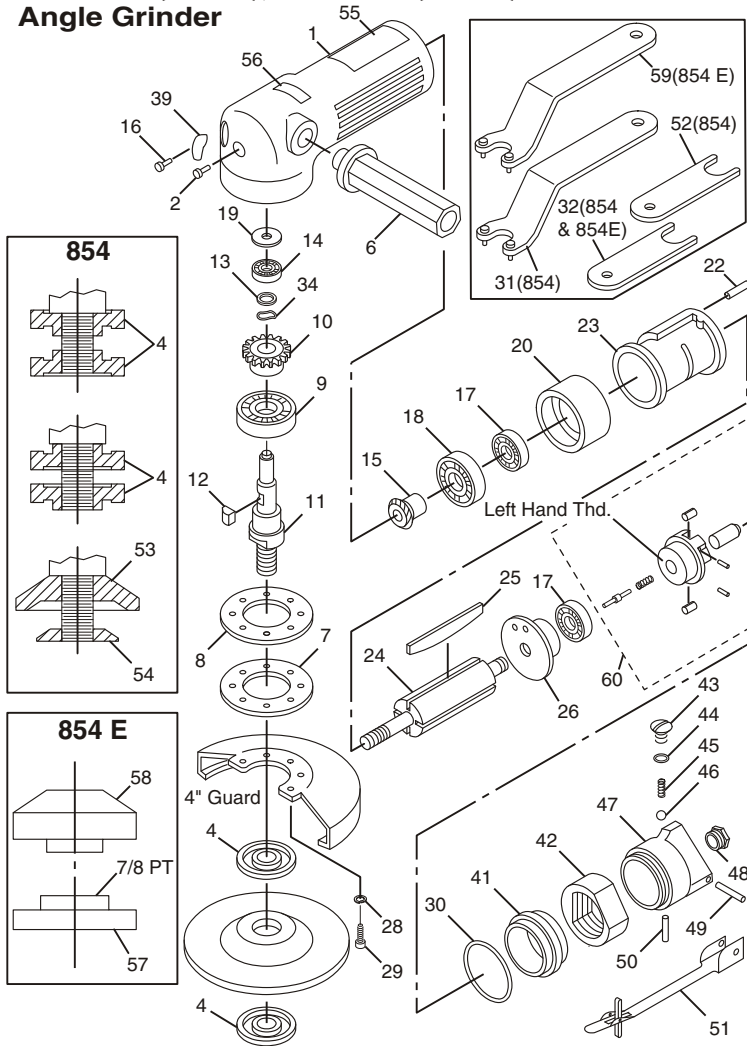
**Grinding Wheel Mounting Hazards**

- ⚠ Correct grinding wheel mounting is necessary to prevent injury from broken wheels.
- ⚠ Do not use chipped or cracked grinding wheels.
- ⚠ Grinding wheels should be a free fit on the spindle to prevent stress at the hole.
- ⚠ Use only wheel collars that come with the grinder for mounting the grinding wheel.
- ⚠ Flat washers or other adapters may over stress the wheel. Always use heavy paper blotter discs between the wheel collars and the grinding wheel.
- ⚠ Tighten the wheel on the spindle to prevent spin off when the air grinder is turned off.
- ⚠ Before grinding, test grinding wheel by briefly running tool at full throttle. Be sure to use a barrier (such as under a heavy work table) to stop any possible broken wheel parts.

**Workplace Hazards**

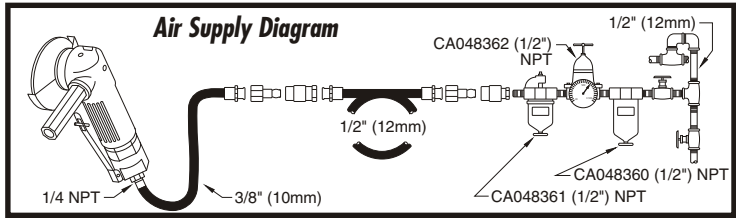
- ⚠ Slip/Trip/Fall is a major cause of serious injury or death. Be aware of excess hose left on the walking or work surface.
  - ⚠ High sound levels can cause permanent hearing loss. Use hearing protection as recommended by your employer or OSHA regulation (see 29 CFR part 1910).
  - ⚠ Maintain a balanced body position and secure footing.
  - ⚠ Repetitive work motions, awkward positions and exposure to vibration can be harmful to hands and arms. If numbness, tingling, pain or whitening of the skin occurs, stop using tool and consult a physician.
  - ⚠ Avoid inhaling dust or handling debris from the work process which can be harmful to your health. Use dust extraction and wear respiratory protective equipment when working with materials which produce airborne particles.
  - ⚠ Operators and maintenance personnel must be physically able to handle the bulk, weight and power of this tool.
  - ⚠ This tool is not intended for use in explosive atmospheres and is not insulated for contact with electric power sources.
  - ⚠ Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:
    - Lead from lead based paints
    - Crystalline silica bricks and cement and other masonry products
    - And Arsenic and chromium from chemically-treated rubber
- 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.
- ⚠ For professional use only.

# CP854 (4"Ø)/854 E (5"Ø) Angle Grinder



Index No.	Part No.	Description	No. Req'd.
1	C136896	Housing-Motor	1
2	C136897	Screw-Motor Housing	1
3	C136898	Guard-4 in. (100 mm)Wheel	1
	KF141860	Guard-(125 mm 5") (854 E)	1
4	C138512	Nut-Wheel Retaining	2
	C136899	Nut-Wheel Retaining 16mm	1
6	C136901	Handle-Dead	1
7	C136902	Retainer	1
8	C136903	Gasket	1
9	S021071	Bearing-Ball	1
10	C136905	Gear-Bevel	1
11	C141028	Shaft-Gear (854)(3/8"-24 Thd.)	1
	C136906	Shaft-Gear (854 E)(M10x1.5 Thd.)	1
12	KF125161	Key	1
13	C136908	Ring-Retaining	1
14	S025101	Bearing-Ball	1
15	C136910	Pinion	1
16	C136911	Screw-Deflector	1
17	S013107	Bearing-Ball	2
18	G072185	Bearing Ball	1
19	C136914	Spacer	1
20	C136915	Plate-Front End	1
22	KF124281	Dowel	1
23	KF125248	Liner	1
24	C136919	Rotor	1
25	KF138242	Blade Set-Rotor (4)	1
26	KF125250	Plate-Upper End	1
28	CA127043	Lockwasher	4
29	KF125206	Screw	4
30	C136925	O-Ring	1
31	C136926	Wrench-Wheel Spanner (854)	1
32	C136927	Wrench-Stop Spanner (854/854E)	1
34	C136929	Washer-Wavy	1
39	C136934	Deflector-Exhaust	1
41	C136936	Ring-Lock	1
42	C136937	Nut-Coupling	1
43	C136938	Nut-Valve	1
44	C136939	O-Ring-Valve Nut	1
45	C136940	Spring-Valve	1
46	C136941	Ball-Valve	1
47	C136942	Housing-Valve	1
48	P002525	Reducing Busing-Inlet	1
49	C136944	Pin-Valve Housing	1
50	C136945	Pin-Stop Valve	1
51	C136946	Lever-Throttle	1
52	C139702	Wrench-5/8" Open End (854)	1
53	C128495	Adaptor-Wheel (854)	1
54	C050588	Nut-Wheel Ret (854)	1
55	CA144007	Warning Decal	1
57	KF141861	Collar-Wheel .87ID (854E)	1
58	KF142108	Adaptor-Wheel M10Thd. (854E)	1
59	KF141865	Wrench-Spanner 28 mm (854E)	1
56	CA157797	Decal-Guard Warning	1
60	8940162659	Governor Assembly	1

**Tune-Up Kit**  
C138089 (Incl: Index Nos. 8, 9, 10, 14, 15, 17, 18 & 25)



**WARNING**

To reduce risk of injury, everyone using, installing, repairing, maintaining, changing accessories on, or working near this tool must read and understand these instructions before performing any such task.

# SAFETY INSTRUCTIONS

## • DO NOT DISCARD - GIVE TO USER

- Our goal is to produce tools that help you work safely and efficiently. The most important safety device for this or any tool is YOU. Your care and good judgement are the best protection against injury. All possible hazards cannot be covered here, but we have tried to highlight some of the important ones.
- Only qualified and trained operators should install, adjust or use this power tool.
- This tool and its accessories must not be modified in any way.
- Do not use this tool if it has been damaged.
- If the rated speed, operating pressure or hazard warning signs on the tool cease to be legible or become detached, replace without delay.
- Always wear impact-resistant eye and face protection when involved with or near the operation, repair or maintenance of the tool or changing accessories on the tool.
- Be sure all others in the area are wearing impact-resistant eye and face protection.
- Even small projectiles can injure eyes and cause blindness.
- A grinding wheel that bursts can cause very serious injury or death.
- Daily measure the air grinder speed with a tachometer to make sure that it is not greater than the RPM marked on the grinding wheel.
- Never use a grinding wheel marked with a speed lower than the air grinder speed.

### **▲ Air supply and connection hazards**

- Air under pressure can cause severe injury.
- 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.
- Never direct air at yourself or anyone else.
- Whipping hoses can cause severe injury. Always check for damaged or loose hoses and fittings.
- Do not use quick disconnect couplings at tool. See instructions for correct set up.
- Whenever universal twist couplings are used, lock pins must be installed.
- Do not exceed maximum air pressure of 6.3 bar / 90 psig, or as stated on tool nameplate.

### **▲ Wheel guard usage**

- Always use the recommended wheel guard to reduce the risk of injury from broken grinding wheel parts.
- If a guard has withstood a wheel breakage do not continue to use it. It may be damaged.
- Position the guard between the grinding wheel and the operator.
- Use barriers to protect others from wheel fragments and grinding sparks.

### **▲ Entanglement hazards**

- Keep away from rotating drive spindle and abrasive. Rotation may continue for several seconds after the throttle has been released. Do not lay the tool down until rotation has stopped.
- Choking, scalping and / or lacerations can occur if loose clothing, gloves, jewellery, neck ware and hair are not kept away from tool and accessories.

### **▲ Projectile hazards**

- Failure of the accessory or abrasive, or of the workpiece, can generate high-velocity projectiles. Even small projectiles can injure eyes and cause blindness.

- Ensure that the abrasive is securely clamped to the grinder using the tools provided.
- Flanges must be free from burrs and cracks and have flat clamping surfaces. Spindles and spindle threads must not be damaged or worn.
- Ensure that the workpiece is securely fixed.

### **▲ Accessory hazards**

- Always shut off air supply, relieve hose of air pressure and disconnect tool from air supply when changing accessories.
- Use only recommended sizes and types of abrasives.
- Do not use chipped or cracked wheels, or wheels which may have been dropped.
- Correct grinding wheel mounting is necessary to prevent injury from broken wheels.
- Avoid mismatch between UNC and metric threads.
- Grinding wheels should be a free fit on the spindle to prevent stress at the hole. Do not use reducing bushes to fit large hole grinding wheels.
- Use only wheel collars that come with the grinder for mounting the grinding wheel. Flat washers or other adapters may over stress the wheel. Always use heavy paper blotter discs between the wheel collars and the grinding wheel.
- If several flanges are supplied to fit different sizes and types of abrasive, always fit the correct flange(s) for the abrasive being used.
- When mounting cups, cones or plugs with threaded holes, the spindle end must not contact the bottom of the hole as it will stress the abrasive.
- Tighten the wheel on the spindle to prevent spin off when the air grinder is turned off.
- Before grinding, test grinding wheel by briefly running tool at full throttle. Be sure to use a barrier (such as under a heavy work table) to stop any possible broken wheel parts. Stop immediately if vibration is excessive.

### **▲ Operating hazards**

- Operators and maintenance personnel must be physically able to handle the bulk, weight and power of the tool.
- Hold the tool correctly: be ready to counteract normal or sudden movements – have both hands available.
- You can be cut or burned if you come into contact with the accessory, grinding sparks or the work surface. Avoid contact and wear protective equipment such as gloves, apron and helmet.
- Avoid wheel jamming when cutting-off. Support the workpiece on both sides of the cut line to prevent the wheel becoming trapped. If jamming occurs, release the throttle and ease the wheel free. Check the wheel is undamaged and properly secured before continuing.
- Never use cutting-off wheels for side grinding.
- Grinding sparks can ignite clothing and cause severe burns. Ensure sparks do not land on clothing. Wear fire-retardant clothing and have a bucket of water nearby.

- There is a risk of electrostatic discharge if used on plastic and other non-conductive materials.

### **⚠ Repetitive motion hazards**

- When using a power tool to perform work-related activities, the operator might experience discomfort in the hands, arms, shoulders, neck, or other parts of the body.
- Adopt a comfortable posture whilst maintaining secure footing and avoiding awkward or off-balance postures. Changing posture during extended tasks can help avoid discomfort and fatigue.
- Do not ignore symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensation, or stiffness. Stop using the tool, tell your employer and consult a physician.

### **⚠ Noise and vibration hazards**

- High sound levels can cause permanent hearing loss and other problems such as tinnitus. Use hearing protection as recommended by your employer or occupational health and safety regulations.
- Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms. Wear warm clothing and keep your hands warm and dry. If numbness, tingling, pain or whitening of the skin occurs, stop using tool, tell your employer and consult a physician.
- Hold the tool in a light but safe grip because the risk from vibration is generally greater when the grip force is higher. Where possible support the weight of the tool with a balancer.
- To prevent unnecessary increases in noise and vibration levels:
  - Operate and maintain the tool, and select, maintain and replace the accessories and consumables, in accordance with this instruction manual;
  - Use damping materials to prevent workpieces from "ringing".

### **⚠ Workplace hazards**

- Slip/Trip/Fall is a major cause of serious injury or death. Be aware of excess hose left on the walking or work surface.
- High sound levels can cause permanent hearing loss. Use hearing protection as recommended by your employer or occupational health and safety regulations.
- Repetitive work motions, awkward positions and exposure to vibration can be harmful to hands and arms. If numbness, tingling, pain or whitening of the skin occurs, stop using tool and consult a physician.
- Avoid inhaling dust or handling debris from the work process which can be harmful to your health. Use dust extraction and wear respiratory protective equipment when working with materials which produce airborne particles.
- Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:
  - Lead from lead based paints
  - Crystalline silica bricks and cement and other masonry products
  - Arsenic and chromium from chemically-treated rubber.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.
- Proceed with care in unfamiliar surroundings. Hidden hazards may exist, such as electricity or other utility lines.
- Potentially explosive atmospheres can be caused by dust and fumes resulting from sanding or grinding. Always use dust extraction or suppression systems which are suitable for the material being processed.
- This tool is not intended for use in potentially explosive atmospheres and is not insulated from coming into contact with electric power.