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MAINTENANCE & OPERATION MANUAL OF PNEUMATIC TOOLS

Trouble Shooting of Air Tools

Regularly examine air tool every six month to repair problems. This will help to maintain the performance and lifetime of air tool.





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.





WARNING

Risk of eye injury, wear approved eye protection in this area.





WARNING

Risk of ear injury. High noise area wear hearing protection.

Problem	Possible Reason	Solution
Motor not work	Unusual particles existing in the motor Breakage or burned out of bearing Rust or burned out of rotor Worn out of blades Not enough air pressure	Clean out the particles Change the bearing Change the rotor Change the blades Examine the air channel
Air Loss (Only exhaustion but no impacting or rotating)	Lack of grease Damage of impacting parts Worn out of front clutch housing	Replace with new grease Change parts for clutch Change clutch housing
Rotor rotation slows down	Low air pressure Wrong position of F/R or regulator Not enough lubrication oil Rust of rear cover or damage of blades Rust of screws	Re-adjust the air pressure Check the position of switches Add air tool oil Disassemble to repair Disassemble to fasten again
Not enough impact power	Worn out of impacting parts Lack of grease Worn out of front clutch housing	Change to new impact clutch parts Change to new grease Change front clutchhousing
Unstoppable rotation	Particles inside of air valve Damage of spring Deform of air valve	Clean out the particles Change to new spring Change to new air valve
Air Leakage	Leakage at air inlet Leakage at Regulator Leakage at trigger valve	Change new plug or use Tape Seal Change to new O-Ring Change to new O-Ring

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The source of using air tool power is by High Air Pressure, therefore it is important to understand and follow the safety instruction as stated in this manual. Careless or incorrect use of air tool may incur body injury or on the others.

Safety Instruction

1. Before use of air tool, read carefully this manual and understand every terms and contents. No work shall be operated with air tool after proceeding every step described in this manual.

Warning!

Do not exceed the maximum air pressure applied to the tool (90PSI / 6.3 bar). Significant loss of tool life will be occurred if it is operated over maximum pressure over long period of time.

2. Disconnect air tool from air supply before exchanging air tools or air accessories.
3. Always wear safety goggle, ear protection, and mask while operating the tool for personal safety.
4. Do not wear loose clothes, scarf, neck tie, or accessories during the use of air tool to avoid injury by tangling up with the tool.
5. When not in use, do not pressure trigger when air source is connected to the air tool.
6. Always make sure the parts inside air tool are correctly assembled to avoid severe damages.
7. Use only professionally appointed spare parts when replacing worn parts.
8. Be aware not to damage air hose or in collision with objects.
9. Do not point air tool at yourself or others.
10. Check for weak point or breakages on air hose before use. If found, replace with new ones immediately for safety.
11. Tightly fasten all screws and nuts, and make sure all equipments are its securely placed in designated position.



Warning!

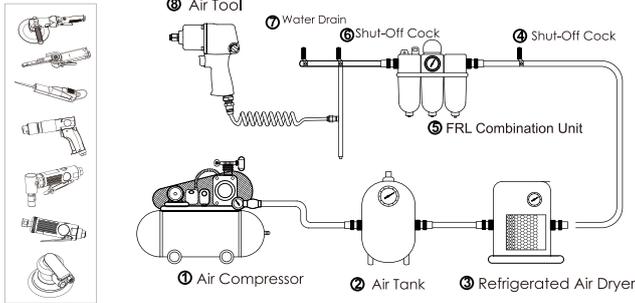
Disconnect air supply before setup, maintenance, and relocation of air equipments and systems.

12.Vibration occurs during use of air tool. Repetitive or improper gesture of working environment may create injury for operators. When such situation happens, stop work immediately.

Operation and Use

Disassembly: Check for loose parts or damages after disassemble the tool. Once problems found contact distributors or your agents for help.

Apply High Pressure Air Hose



Air supply and connection requirements:

- 1.The maximum recommended air pressure during operation must not exceed 90 psi (6.3bar). Higher air pressure may create unsafe operating conditions for the tool and the user.
- 2.The compressed air should be cooled and have a water filter installed at the outlet end of the compressor. Even with a water filter installed, some water may still condense in the piping or hose and will enter the tool mechanism causing premature damage to the tool. Therefore, it is recommended to install an air filter-lubricator device somewhere between the tool and the compressor.
- 3.Always use an air compressor of the proper capacity to operate each tool.
- 4.Clean the hose with a blast of compressed air before connecting the hose to the air tool. This will prevent both moisture and dust inside the hose from entering the tool and causing possible rust or malfunction.

!Caution!

Do not use Quick Change Coupler between tool and air supply hose. Using quick change coupler decreases output power of tool, and danger may occur if quick change coupler wears out.

!Warning!

Do not increase air pressure on tool or air compressor. Avoid air hose in contact with high temperature, grease, and sharp objects. If breakage is found, replace with new air hose immediately.

Lubrication

Proper lubrication is the responsibility of tool user. Water may be formed inside of pressurized air to cause rust in tool, and then decrease significantly life of air tool.

!Caution!

Lubricate air tool before and after use.

Lubrication of Air Motor

• Lubrication

An in-line filter-regulator-lubricator (fig 1) is recommended as it increases tool life and keeps the tool in sustained operation. The in-line lubricator should be regularly checked and filled with air tool oil. Proper adjustment of the in-line lubricator is performed by placing a sheet of paper next to the tools exhaust ports and holding the throttle open approximately 30 seconds. The lubricator is properly set when a light stain of oil collects on the paper. Excessive amounts of oil should be avoided.

In the event that it becomes necessary to store the tool for an extended period of time (overnight, weekend, etc.), it should receive a generous amount of lubrication through the air inlet (Figure 4). The tool should be run for approximately 30 seconds to ensure oil has been evenly distributed throughout the tool. The tool should be stored in a clean and dry environment.

• Recommended Lubricants

Use air tool oil or any other high grade turbine oil containing moisture absorbent, rust inhibitors, metal wetting agents and an EP (extreme pressure) additive.

• Impact clutch lubrication

The tool reservoir in the anvil housing is greased. No maintenance is required.(if applicable)

Impact Wrenches

- 1.Never use hand sockets. Use only impact sockets in good condition. Sockets in poor condition reduce impact power and could also shatter, resulting in personal injury.
- 2.When using a universal joint, never free run the tool, it may run too fast and cause the joint to be thrown from the tool.
- 3.Always use the simplest hook-up possible. Long springy extension bars and adapters absorb impact power and could break loose resulting in personal injury. Instead, use deep sockets whenever possible.
- 4.For tools using the pin and o-ring socket retainer, use the o-ring to securely retain the socket pin.

Abrasive Tools

- 1.Never mount a grinding wheel on a sander.
- 2.Never use a grinding wheel marked with a speed lower than the rated air grinder speed.
- 3.All grinding wheels and polishing/sanding accessories should be checked for cracks or other damage before mounting and use.
- 4.Always use the recommended wheel guard to prevent injury when performing grinding operations. If a guard has withstood wheel or disc breakage, it must be replaced.
- 5.Position a guard between the grinding wheel or disc and the operator. Use barriers to protect others from fragments and grinding sparks.
- 6.Make sure grinding wheels are mounted according to manufacturer's specifications; always use correct mounting flanges.
- 7.Before grinding, test grinding wheel or disc by briefly running tool at full throttle. Be sure to use a barrier (such as under a heavy work table) to protect yourself from possible broken wheel parts.
- 8.Never tamper with or remove a speed governor from a tool to make it run faster. Periodically check tool speed with a tachometer.

Assembly Tools

- 1.Serious injury can result from over-torqued or under-torqued fasteners, which can break, or loosen and separate.
- 2.Released assemblies can become projectiles. Assemblies requiring a specific torque must be checked using a torque meter.

Hammers

- 1.All chisels, rivet sets and other accessories should be checked for cracks, excessive wear, or other physical damage before each use. Accessories that show signs of damage should be replaced immediately.
- 2.Never use a tool without the proper accessory retainer.

Ratchets

- 1.Never use hand sockets. Use only power drive sockets per ANSI B107.2.
- 2.To reduce the risk of injury, always support the handle securely in the direction opposite of the spindle rotation to minimize torque reaction.

Specialty Tools

- 1.Specific instructions/warnings affecting this group of tools are contained in product-specific documents accompanying each product.

Riveters

1. Always mount rivet seat corresponding to selected rivets.
2. Ensure the use of correct chuck jaws according to rivet size.

Drills

- 1.Keep away from rotating bit and chuck. You can become cut or burned if you come in contact with the drill bit, chips or work surface.
- 2.Use intermittent drill pressure to avoid long shavedchips.
- 3.The drill bit can suddenly bind and cause the work piece or tool to rotate causing arm and shoulder injuries.
- 4.ANSI recommends use of a support handle on drills with a chuck larger than 3/8" (10 mm).