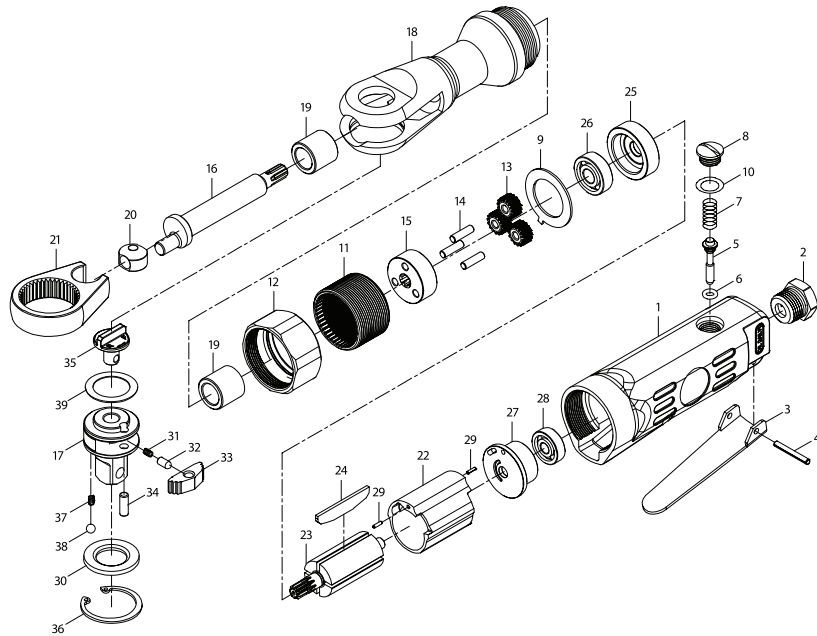


## PARTS LIST



INDEX	DESCRIPTION	QTY	INDEX	DESCRIPTION	QTY
1	Housing	1	21	Ratchet yoke	2
2	Housing Adaptor	1	22	Cylinder	1
3	Trigger	1	23	Rotor	1
4	Trigger pin	1	24	Rotor blade	4
5	Pin	1	25	Front plate	1
6	O-ring	1	26	Front bearing	1
7	Sprin	1	27	Read plate	1
8	Copper head	1	28	Read bearing	1
9	Washer	1	29	Cylinder pin	2
10	O-ring	1	30	Thrust washer	1
11	Gear ring	1	31	Spring	1
12	Clamp nut	4	32	Pin	1
13	Gear	3	33	Ratchet pawl	1
14	Gear pin	3	34	Ratchet pin	2
15	Idler gear plate	1	35	Reverse button	1
16	Crank shaft	1	36	O-ring	1
17	Ratchet anvil	1	37	Spring	2
18	Ratchet housing	1	38	Steel ball	2
19	Anvil bushing	2	39	Washer	1
20	Drive bushing	1			

# 1/2" Dr. Air Ratchet

Stock Number M561

## OWNER'S MANUAL

### SPECIFICATIONS:

Square Drive (IN.)	1/2
Working torque (FT./LBS)	10-50
Air pressure (P.S.I.)	90
Average air consumption (C.F.M.)	4
Free speed (R.P.M.)	150
Bolt capacity (IN.)	1/2
Air inlet (N.P.T.)	1/4
Hose size (I.D.)	3/8 in.
Weight (LBS)	2.65

Specifications are subject to change without notice.



### WARNING!

READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS AND WARNINGS BEFORE OPERATING THIS TOOL. FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE AND WILL VOID WARRANTY.

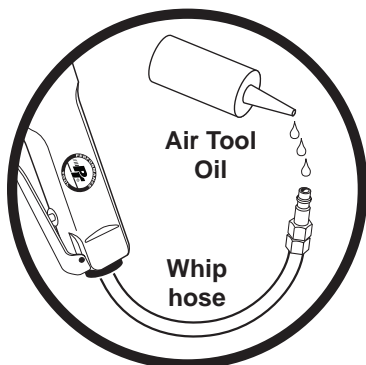
## IMPORTANT SAFETY INFORMATION

1. This air ratchet is designed to speed productivity, not for high torque applications such as head bolts, lug nuts, etc. **DO NOT USE THIS RATCHET UNDER POWER TO BREAK FASTENERS LOOSE.** Loosen fasteners by hand without depressing throttle. Once loose, depress throttle to speed fasteners in or out. Always perform final torque tightening by hand.
2. Use only impact sockets designed for impact wrenches.
3. This ratchet is rated to 1/2" USS bolt size. Rating will decrease for U-Bolts, Long Cap Screws, Spring Fasteners and rusted or corroded fasteners. All of these factors absorb power and reduce torque capability.
4. Always use approved eye and ear protection when using air powered tools. If raising dust/debris, wear a suitable mask. Do not wear loose clothing or jewelry.
5. Always operate tool a safe distance from yourself and others in the work area. Keep footing and balance at all times.
6. Make sure work piece is secure to allow safe operation of the tool with both hands. Do not hold the work piece in your hand, lap or against any part of your body.
7. Make sure trigger is in the "off" position before connecting or disconnecting the tool from air source. Disconnect tool from air source before changing accessories, performing service and when not in use.
8. Follow air source manufacturer's directions for connection of regulators, filters and other accessories to air source. Do not install quick couplers directly at tool air inlet. This causes inlet failure due to excess weight and vibration. Use a whip hose between tool and quick couplers.
9. DO NOT OVERLOAD! Do not force tool. Match tool capacity to work load requirement. Use tool within its rated capacity and only for its designated purpose. **Overloading air tools will cause premature wear and/or permanent damage of internal and external drive parts and will void warranty.**
10. Inspect hoses and fittings for wear and damage prior to using tool. Do not carry or drag tool by the air hose. Keep air hose free from obstruction, twisting and binding.

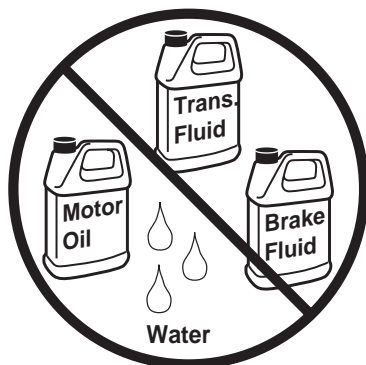
## LUBRICATION & MAINTENANCE

**Oil tool before each use.** 4 to 5 drops of a good grade Air Tool Oil placed in the air inlet is sufficient. Use proper air pressure and CFM rating listed for this tool.

**Drain water from hoses and compressor tank.** Water in the air supply line will cause gumming and loss of power. Clean the air filter on the supply line and flush the tool with gum solvent or a 50/50 mix of air tool oil and kerosene. It may be necessary to disassemble the tool to properly clean and re-lubricate.



Yes



No

## AIR SOURCE

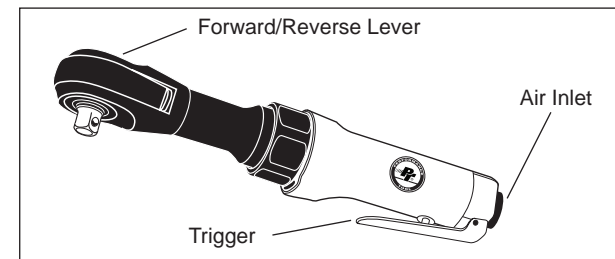
Clean air of correct air pressure is recommended for the power supply for this tool. A maximum of 90 PSI at the tool is recommended for most air tools of this class. Check specifications section for recommended pressure. (Depending on length of air hose and other circumstances, air pressure at compressor may need to be increased to 100 PSI to ensure 90 PSI at the tool.)

Water in the air hose and compressor tank contributes to reduced performance and damage of the air tool. Drain the air tank and filters before each use and as necessary to keep the air supply dry.

Hose length over 25' causes loss in line pressure. Increase hose I.D. or increase compressor pressure to compensate for the pressure loss. Use an in-line pressure regulator with gauge if air inlet pressure is critical.

## OPERATION

1. This air ratchet is designed to speed productivity, not for high torque applications such as head bolts, lug nuts, etc. **DO NOT USE THIS RATCHET UNDER POWER TO BREAK FASTENERS LOOSE.** Loosen fasteners by hand without depressing throttle. Once loose, depress throttle to speed fasteners in or out. Always perform final torque tightening by hand.
2. This ratchet is rated to 1/2" USS bolt size. Rating will decrease for U-Bolts, Long Cap Screws, Spring Fasteners and rusted or corroded fasteners. All of these factors absorb power and reduce torque capability.
3. Use the simplest socket to wrench hook-up. Any additional extensions, u-joints or adaptors will absorb power and reduce torque capability.
4. Forward/Reverse Lever. Select "F" for Forward (Clockwise) or "R" for Reverse (Counter-clockwise) operation. Do not attempt to change direction while tool is running.
5. If fastener bogs, slows or binds the tool, use a larger size ratchet tool with a higher torque rating. Overloading this tool will cause premature wear and/or permanent damage to internal and external drive parts and will void warranty.



## TROUBLESHOOTING

### INSUFFICIENT POWER:

Probable Cause	Solution
Dirty or clogged air passages.....	Flush and lubricate tool, drain air tank and supply line
Insufficient air supply.....	Increase line pressure, Make sure compressor matches tool's air pressure and consumption needs
Air leakage.....	Use PTFE tape at all fittings and joints. Check tool for worn or damaged O-rings & seals.
Worn/damaged wear & tear parts...	Replace as necessary.
Tool matching .....	Be sure you are using a tool suited for the torque requirements of the job at hand.