

INSTRUCTION MANUAL & PARTS BREAKDOWN

775-0232

Rt. Angle Die Grinder



Specifications

Free Speed 18,000 RPM
Collet Size1/4"
Air Inlet1/4" NPT
Hose Size
Air Pressure
Air Consumption4 CFM
Sound Level 85 dBA
Length
Shipping Wt 1-3/5 Lbs

AWARNING

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.

AWARNING

- MAXIMUM RPM OF 18,000
- MAX AIR PRESSURE: 90 PSIG, 6.2 BAR
- RPM OF THE ACCESSORY MUST EXCEED TOOL RPM



ALWAYS READ INSTRUCTIONS BEFORE USING POWER TOOLS



ALWAYS WEAR SAFETY GOGGLES



WEAR HEARING PROTECTION



AVOID PROLONGED EXPOSURE TO VIBRATION

775-0232 1 Rev. 05/13/02

AWARNING!

FAILURE TO OBSERVE THESE WARNINGS COULD RESULT IN INJURY.

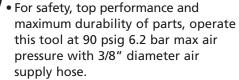


This Instruction Manual Contains Important Safety Information.

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



 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.





 Always wear impact-resistant eye and face protection when operating or performing maintenance on this tool. Always wear hearing protection when using this tool.



- 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.

 Air powered tools can vibrate in 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.

 Place the tool on the work before starting the tool. Do not point or indulge in any horseplay with this tool.



- 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.

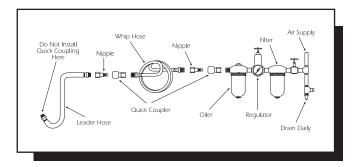


- Do not carry tool by the hose. Protect the hose from sharp objects and heat.
- Tool shaft may continue to rotate briefly after throttle is released. Avoid direct contact with accessories during and after use. Gloves will reduce the risk of cuts or burns.



- 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.
- 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.
- Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel.
- Don't force tool beyond its rated capacity.
- Do not remove any labels. Replace any damaged labels.
- Use accessories recommended by Napa Air Tools.

INSTRUCTION MANUAL & PARTS BREAKDOWN

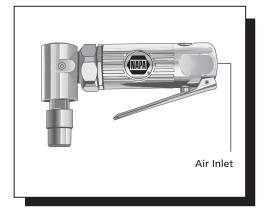


AIR SUPPLY

Tools of this class operate on a wide range of air pressures. It is recommended that air pressure of these tools measure 90 PSI at the tool while running free. Low pressure (under 90 psig; 6/2bar) reduces the speed of all air tools. Low air pressure not only wastes time, but also costs money. Higher pressure (over 90 psig; 6/2 bar) raises performance beyond the rated capacity of the tool which will shorten the tool's life because of faster wear 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 air tank daily. Clean the air inlet filter screen on at least a weekly schedule. The recommended hookup procedure can be viewed in the above figure.

The air inlet used for connecting air supply, has standard 1/4" NPT American Thread. 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.



LUBRICATION

Lubricate the air motor daily with NAPA air tool oil. If no air line oiler is used, run a teaspoon 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. The amount of oil to be used is 1 ounce. Overfilling will cause a reduction in the power of the tool.

OPERATING INSTRUCTIONS

When using the grinder be careful not to exert excessive force. Too much force could be hazardous if it caused the cutting tool spindle to bend or break.

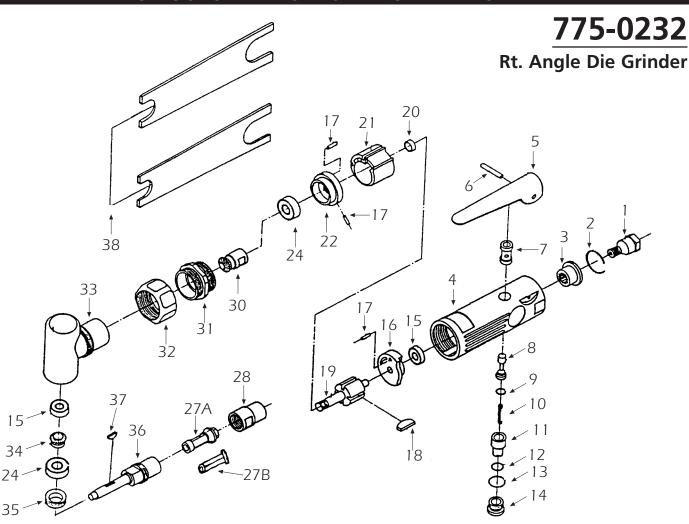
The burning of the work piece or excessive speed reduction indicates too much force being applied. Changing to a free cutting tool may be better for the desired rate of speed and stock removal.

Avoid hazardous condition by making sure there is sufficient gripping force on the spindle of the cutting tool by placing the spindle 7/16" or more inside the collet.

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 NAPA/EVERCRAFT authorized service center.

INSTRUCTION MANUAL & PARTS BREAKDOWN



Ref. #	Item #	DESCRIPTION	QTY	Ref#	Item#	DESCRIPTION	QTY
1	103501	Air Inlet	1	19	103519	Rotor	1
2	103502	Retaining Ring	1	20	103520	Rotor Collar	1
3	103503	Exhaust Sleeve	1	21	103521	Cylinder	1
4	103504	Housing	1	22	103522	Front End Plate	1
5	103505	Throttle Lever	1	24	21417	Ball Bearing	2
6	103506	Level Pin	1	27	103527A	1/4" Collet	1
7	103507	Throttle Valve	1		103527B	1/8" Collet (optional)	
8	103508	Valve Stem	1	28	103528	Collet Nut	1
9	103509	O-Ring	1	30	103630	Bevel Gear	1
10	103510	Spring	1	31	103631	Cap Lock	1
11	103511	Air Regulator	1	32	103632	Threaded Cap	1
12	103512	O-Ring	1	33	103633	Angle Housing	1
13	103513	O-Ring	1	34	103634	Bevel Gear	1
14	103514	Valve Screw	1	35	103635	Clamp Nut	1
15	106211	Ball Bearing	2	36	103636	Spindle	1
16	103516	Rear End Plate	1	37	103637	Key	1
17	103517	Pin	3	38	103638	Double Ended Spanner	2
18	103518	Rotor Blade	4				

TROUBLESHOOTING

IMPACT WRENCHES

- TOOL RUNS SLOWLY OR NOT AT ALL AND/OR AIR FLOWS ONLY SLIGHTLY FROM EXHAUST This is probably caused by: air flow blocked by dirt build-up; motor parts jammed with dirt; power regulator has vibrated to closed position.
- **YOU SHOULD:** Check air inlet strainer for blockage. Pour a generous amount of air tool oil into air inlet. Operate tool in short bursts, in both forward and reverse motion. Repeat if necessary. If tool performance is not improved, it should be serviced at an authorized service center.
- **TOOL WILL NOT RUN, EXHAUST AIR FLOWS FREELY**. This is probably caused by one or more motor vanes stuck due to accumulation of sludge or varnish; motor rusted.
- **YOU SHOULD:** Pour a generous amount of air tool oil into air inlet. Operate tool in short bursts, in both forward and reverse motion. Lightly tap motor housing with plastic mallet. Detach air supply. Try to free motor by turning drive shank manually, if possible. If tool remains jammed, it should be serviced at authorized service center.
- SOCKETS WILL NOT STAY ON. This is probably caused by: worn socket retainer ring or soft back-up ring.
- **YOU SHOULD:** Wear safety goggles. Detach air supply. Using external retaining ring pliers, remove old retaining ring. Holding square drive with appropriate open-end wrench, use small screwdriver to pry old retainer ring out of groove. Always pry off ring away from your body it can be propelled outward at high velocity. Replace back-up O-ring and retainer ring with correct new parts. (See breakdown). Place retaining ring on table, press tool anvil into ring in a rocking motion. Snap into groove by hand.
- PREMATURE ANVIL WEAR. This is probably caused by: use of chrome sockets or worn sockets.
- **YOU SHOULD:** Stop using chrome sockets. Chrome sockets have a hard surface and a soft core. Drive hole becomes rounded but will still be very hard. Besides the danger of splitting, wrench anvils will wear out prematurely when used with chrome sockets.
- **TOOL SLOWLY LOSES POWER BUT STILL RUNS AT FULL FREE SPEED.** This is probably caused by: worn clutch parts, due to inadequate lubrication; engaging cam of clutch worn or sticking due to inadequate lubrication.
- YOU SHOULD: FOR OIL LUBED WRENCHES check for presence of clutch oil (where oil is specified for clutch) and remove oil fill plug; tilt to drain all oil from clutch case; refill with 30 weight SAE oil or that recommended by manufacturer, in the specified amount. Also check for excess clutch oil. Clutch cases need only be filled 50%. Overfilling can cause drag on high speed clutch parts. A typical 1/2" oil-lubed wrench only requires 1/2 ounce of clutch oil. FOR GREASE LUBED WRENCHES Check for excess grease by rotating drive shank by hand. It should turn freely. Excess is usually expelled automatically.
- **TOOL WILL NOT SHUT OFF.** This is probably caused by: throttle valve O-ring broken or out of position or throttle valve stem bent or jammed with dirt particles.
- **YOU SHOULD:** Remove assembly and install new O-ring. Lubricate with air tool oil and operate trigger briskly. If operation cannot be restored, tool should be serviced at authorized service center.

AIR RATCHETS

- MOTOR RUNS. SPINDLE DOESN'T TURN, OR TURNS ERRATICALLY This is probably caused by: worn teeth on ratchet or pawl; weak or broken pawl pressure spring; weak drag springs fail to hold spindle while pawl advances for another bite.
- YOU SHOULD: have replacement parts installed by authorized service center.
- TOOL DOESN'T RUN, RATCHET HEAD INDEXES CRISPLY BY HAND— This is probably caused by: dirt or sludge build-up in motor parts.
- **YOU SHOULD:** Pour a generous amount of air tool oil into air inlet. Operate throttle in short bursts. With socket engaged on bolt, alternately tighten and loosen bolt by hand. If tool remains jammed, it should be serviced at authorized service center.

TROUBLESHOOTING

AIR DRILLS

- TOOL WILL NOT RUN, RUNS SLOWLY, AIR FLOWS SLIGHTLY FROM EXHAUST, SPINDLE TURNS FREELY This is probably caused by: air flow blocked by dirt build-up; motor parts jammed with dirt.
- **YOU SHOULD:** Check air inlet for blockage. Pour a generous amount of air tool oil into air inlet. Operate trigger in short bursts. Detach air supply; turn empty and closed drill chuck by hand. Reconnect air supply. If tool performance is not improved, it should be serviced at an authorized service center.
- **TOOL WILL NOT RUN. AIR FLOWS FREELY FROM EXHAUST. SPINDLE TURNS FREELY** This is probably caused by: Build up of dirt or varnish on rotor vanes.
- **YOU SHOULD:** Pour a generous amount of air tool oil into air inlet. Operate trigger in short bursts. Detach air supply; turn empty and closed drill chuck by hand. Reconnect air supply. If tool performance is not improved, it should be serviced at an authorized service center.
- **TOOL LOCKED UP, SPINDLE WILL NOT TURN** This is probably caused by: a broken motor vane; gears broken or jammed by foreign object.

YOU SHOULD: Send the tool to an authorized service center.

TOOL WILL NOT SHUT OFF — This is probably caused by: throttle valve O-ring blown off seat.

YOU SHOULD: See breakdown for part number and replace O-ring or send the tool to an authorized service center.

AIR HAMMERS

TOOL WILL NOT RUN — This is probably caused by: cycling valve or throttle valve clogged with dirt or sludge.

YOU SHOULD: Pour a generous amount of air tool oil into air inlet; check for dirt. Operate trigger in short bursts (chisel in place and against solid surface). If not free, detach air supply. Tap nose or barrel lightly with plastic mallet, reconnect air supply, and repeat above steps. If still not free, detach air supply, insert a 6" piece of 1/8" diameter rod in nozzle and lightly tap to loosen piston in rear direction. Reconnect air supply and repeat above steps.

CHISEL STUCK IN NOZZLE— This is probably caused by: the end of the shank is misshapen.

YOU SHOULD: Send the tool to an authorized service center.

NOTE

Disassembly of this tool by other than an authorized service center WILL VOID the warranty on this tool.

90 DAY LIMITED WARRANTY: NAPA/EVERCRAFT air tools are warranted to be free from defects in material and workmanship for 90 days from the date of purchase. We will repair or replace at our option any defective part or unit which proves to be defective in material or workmanship during this 90 day period. The foregoing obligation is NAPA/EVERCRAFT's sole liability under this or any implied warranty and under no circumstances shall we be liable for any incidental or consequential damages.

Naturally, repairs required by abuse, misuse, damage or repair attempts (by other than a NAPA/EVERCRAFT authorized service center) are not covered by this warranty.

Return tools or parts to NAPA/EVERCRAFT Service Center transportation prepaid. Be certain to include your name and address, evidence of the purchase date and description of the suspected defect.