PROFESSIONAL AIR TOOLS

⚠ 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.

⚠ ADVERTENCIA

Se sabe que el polvo generado por el lijado, la aserradura, el esmerilado, la perforación mecánica y por otras actividades de construcción contiene químicos que producen cáncer, malformaciones congénitas u otros daños relacionados con la reproducción. Algunos ejemplos de estos químicos son:

- Plomo de pintura a base de plomo,
- Sílice cristalina de ladrillos y cementos y otros productos de mampostería, y
- Arsénico y cromo de maderas tratadas químicamente.

El riesgo ante estas exposiciones varía, dependiendo de cuan frecuente usted haga este tipo de trabajo. Para reducir la exposición a estos químicos: trabaje en espacios bien ventilados, y trabaje con equipos de seguridad aprobados, tales como las mascarillas contra el polvo diseñadas específicamente para detener partículas microscópicas.

THIS INSTRUCTION MANUAL CONTAINS IMPORTANT SAFETY INFORMATION

READ CAREFULLY AND UNDERSTAND ALL INFORMATION BEFORE OPERATING THIS TOOL!

SAVE THIS MANUAL FOR FUTURE REFERENCE.

LAS INSTRUCCIONES EN ESPAÑOL COMIENZAN EN LA PÁGINA # 8.

ESTE MANUAL DE INSTRUCCIONES CONTIENE IMPORTANTES INFORMACIONES DE SEGURIDAD

¡LEA CUIDADOSAMENTE Y ASEGÚRESE DE COMPRENDER TODAS ESTAS INFORMACIONES, ANTES DE PROCEDER CON EL FUNCIONAMIENTO DE ESTA HERRAMIENTA!

CONSERVE ESTE MANUAL PARA TENER UNA REFERENCIA EVENTUAL.

1/2" DRIVE HEAVY DUTY

IMPACT WRENCH

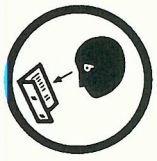
Llave de impacto con agujero de torsión de 13 mm para uso pesado

6-746

⚠WARNING

FAILURE TO OBSERVE THESE WARNINGS COULD RESULT IN INJURY.

THIS INSTRUCTION MANUAL CONTAINS IMPORTANT SAFETY INFORMATION.



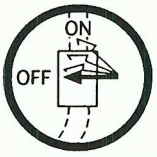
READ THIS INSTRUCTION MANUAL CAREFULLY AND UNDERSTAND ALL INFORMATION <u>BEFORE</u> OPERATING THIS TOOL.

- 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.
- 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. 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.

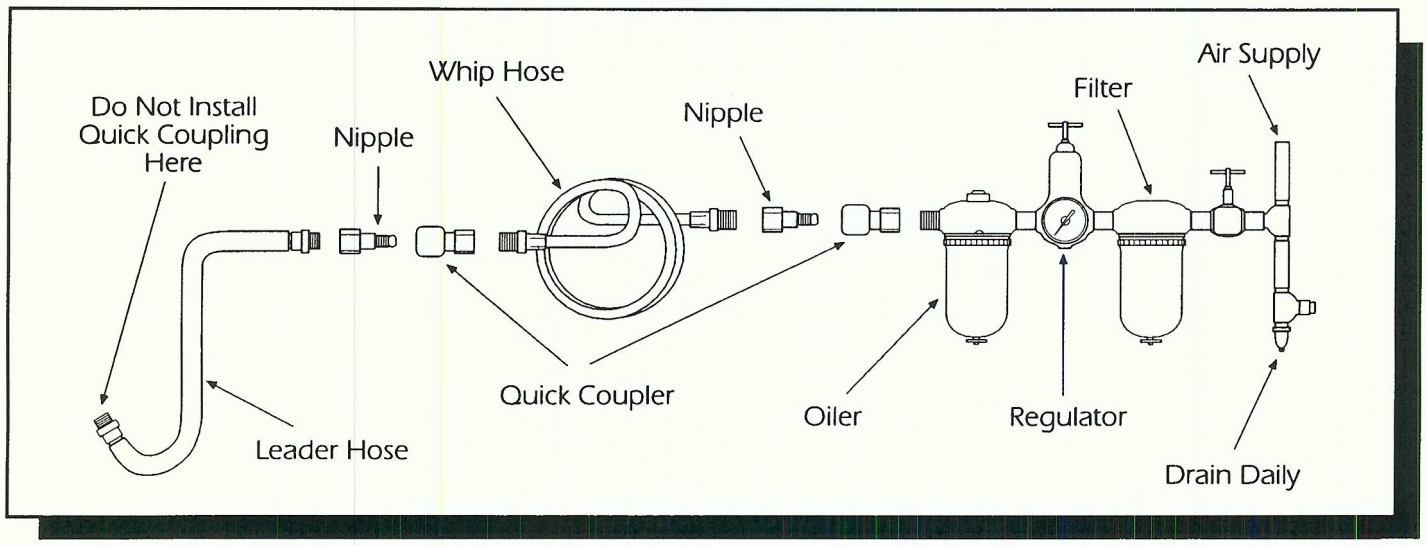
- Place the tool on the work before starting the tool. Do not point or indulge in any horseplay with this tool.
- Slipping, tripping and/or falling while operating air tools can be a major cause of serious injury or death. Be aware of excess hose left on the walking or work surface.

- 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.

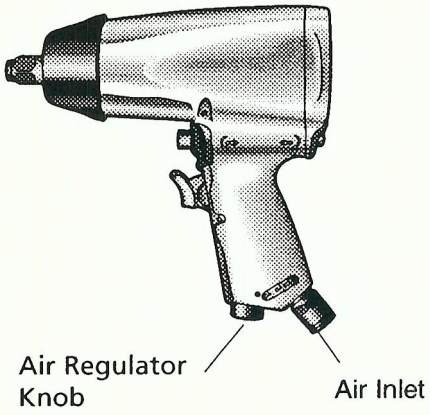
- Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel.
- Impact wrenches are not torque control devices. Fasteners with specific torque requirements must be checked with suitable torque measuring devices after installation with an impact wrench.
- Use only impact wrench sockets and accessories on this tool. Do not use hand sockets and accessories.
- Don't force tool beyond its rated capacity.
- Do not remove any labels. Replace any damaged labels.
- Use accessories recommended by NAPA Professional Air Tools.

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; 6/2 bar) 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

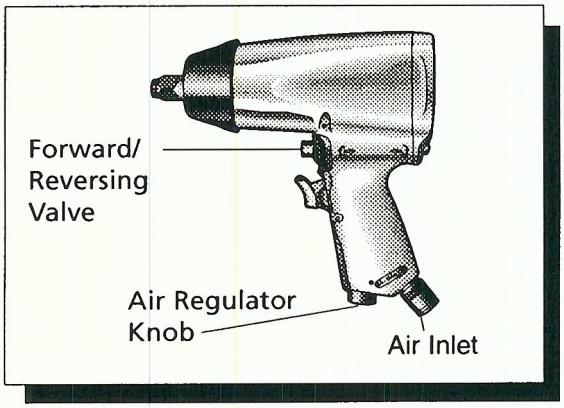
Lubricate the air motor daily with NAPA air tool oil. If no air line oiler is used, run a teaspoon of oil through the tool. The oil can be squirted into the tool air inlet or into the hose at the nearest connection to the air supply, then run the tool. The oil plug is ONLY for adding standard SAE 10 or 20 grade oil after repair or maintenance of the impact mechanism. The amount of oil to be used is 1 ounce. Overfilling will cause a reduction in the power of the tool.

OPERATION

The air regulator knob can be used as an air throttle, if there are no other means of regulating air. Turn the air regulator knob all the way to position 4 for maximum power.

The air regulator can be used to adjust torque to the approximate tightness of a known fastener.

To set the tool to desired torque, select a nut or screw of known tightness of the same size, thread pitch and thread condition as those on the job. Turn air regulator to low position, apply wrench to nut and gradually increase power (turn regulator to admit more air) until nut moves slightly in the direction it was originally set. The tool is now set to duplicate that tightness - note regulator setting for future use. When tightening nuts not requiring critical torque values, run nut up flush and then tighten an additional one-quarter to one-half turn (slight additional turning is necessary if gaskets are being clamped). For additional power needed on disassembly work, turn regulator to its fully open position. This impact wrench is rated at 1/2" USS bolt size. Rating must be down graded for spring U bolts, tie bolts, long cap screws, double depth nuts, badly rusted conditions and spring fasteners as they absorb much of the impact power. When possible, clamp or wedge the bolt to prevent springback.



Soak rusted nuts in penetrating oil and break rust seal before removing with impact wrench. If nut does not start to move in three to five seconds use a larger size impact wrench. Do not use impact wrench beyond rated capacity as this will drastically reduce tool life.

The reversing valve is used to change the rotation of the tool. When the valve is out, the tool is in a forward or right hand rotation. When the valve is pushed in, the rotation is reverse or left hand. (The illustration of the tool shows the tool in the reverse position.)

NOTE: Actual torque on a fastener is directly related to joint hardness, tool speed, condition of socket and the time the tool is allowed to impact.

Use the simplest possible tool-to-socket hook up. Every connection absorbs energy and reduces power.

WARRANTY POLICY: NAPA PROFESSIONAL AIR TOOLS are warranted against defects in material and workmanship for a period of one (1) year from the date of the original 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 one year period. All NAPA PROFESSIONAL AIR TOOLS must be repaired only by authorized NAPA PROFESSIONAL AIR TOOL Service Centers. This warranty does not cover damage to tools rising from alteration, abuse, misuse and does not cover any repairs made by anyone other than an authorized NAPA PROFESSIONAL AIR TOOL Warranty Center. Tools sent to a Warranty Center in a dissembled condition will not be covered as a warranty repair.

Return tools to Service Centers transportation prepaid. Be certain to include your name, address and phone number along with proof of purchase information, with each tool.

SPECIFICATIONS

Free Speed	7,500 RPM
Max. Torque	420 ft. lbs.
Torque Range	50-350 ft. lbs.
Weight	5.9 LBS.
Length	7.75"
Air Inlet	1/4" NPT
Avg. Air Cons.	4.5 CFM
Recom. Air Pressure	90 PSIG

PLEASE REVIEW ALL WARNING INSTRUCTIONS PRIOR TO OPERATION. SAVE THIS MANUAL FOR FUTURE REFERENCE.

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 advance 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.

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

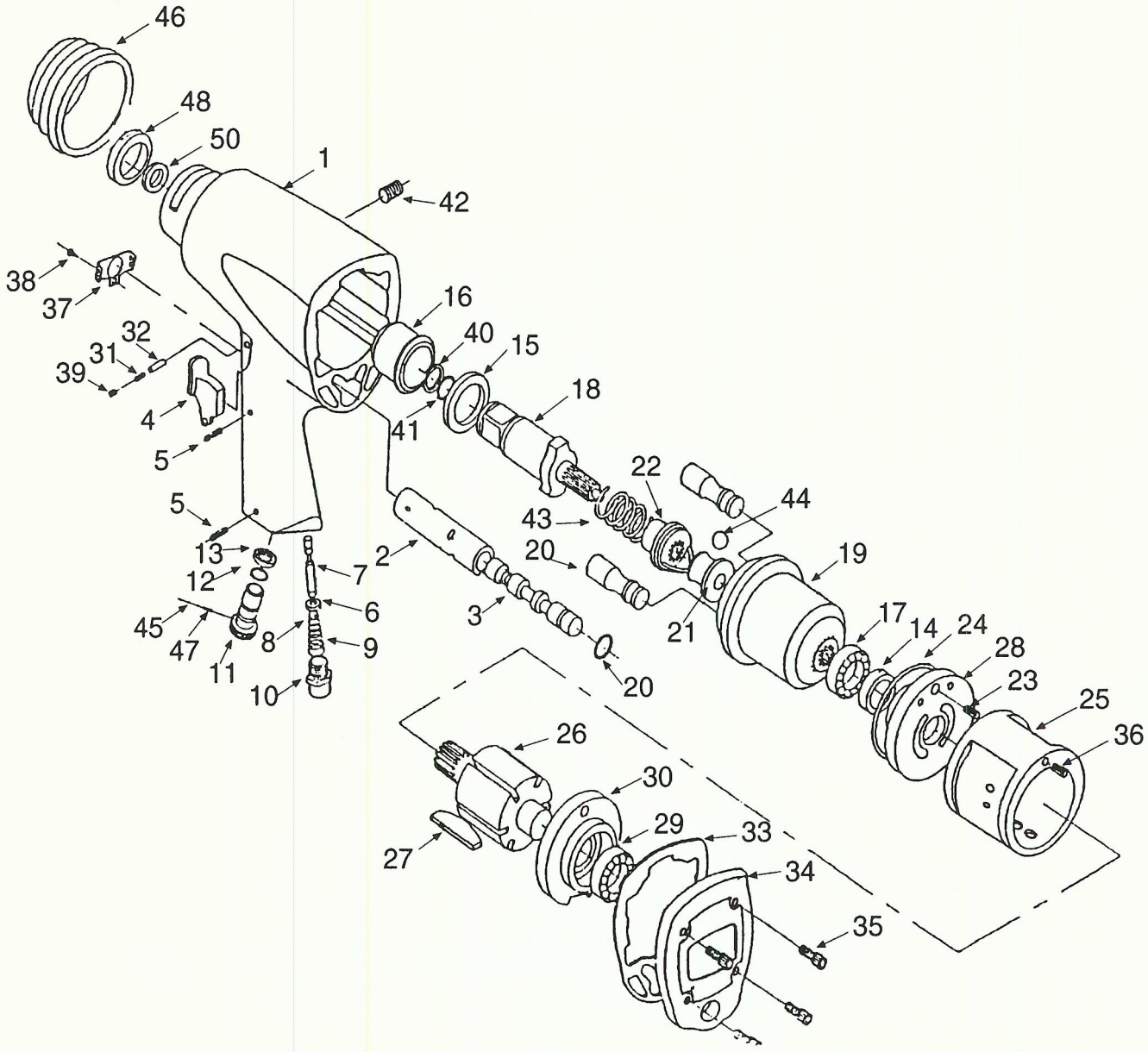
TOOL WILL NOT RUN — This is probably caused by: cycling valve or throttle valve clogged with dirt or sludge.

YOU SHOULD: Pour a generous amount of air tool oil into air inlet; check for dirt. Operate trigger in short burst (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 being disformed.

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

6-746


46
48
50
1
42
38
37
16
40
15
32
31
39
18
4
41
5
22
44
5
43
20
19
13
2
7
12
3
17
14
24
28
6
45
47
8
9
21
23
25
11
20
36
10
26
30
27
29
33
34
35

PARTS LIST

6-746

REF. NO.	PART NO.	DESCRIPTION	QTY.
1	95101A	Housing	1
2		Valve Sleeve (Inc. in 95101A)	1
3	95103	Reverse Valve	1
4	95104	Trigger (Metal)	1
5	95105	Throttle Spring Pin	2
6	95106	Bushing	1
7	95107	Pin Throttle	1
8	95108	Steel Ball	1
9	95109	Spring	1
10	95110	Hose Adaptor	1
11	95111	Air Regulator	1
12	95112	O-Ring	1
13	95113	Locating Ring	1
14	95114	Seal	1
15	95115	Spacer	1
16	95116	Anvil Bushing	1
17	729478	Ball Bearing	1
18	95118	Anvil (1")	1
19	95119	Hammer Cage	1
20	95120	Hammer Bar	2
21	95121	Drive Cam Foundation	1
22	95122	Drive Cam	1
23	95123	Pin Cylinder	1
24	95124	O-Ring	1
25	95125	Cylinder	1
26	95126	Rotor	1
27	95127	Rotor Blade	6
28	95128	Front End Plate	1
29	227B25	Ball Bearing	1
30	95130	Rear End Plate	1
31	95131	Spring	1
32	95132	Pin	1
33	95133A	Rear Gasket	1
34	95134A	Rear Cover	1
35	95135	Screw	4
36	95136	Pin	1
37	95137	Exhaust Deflector	1
38	95138	Screw	1
39	95139	Grub Screw	1
40	~~95140~~	Anvil Collar RS504W41	1
41	~~95141~~	O-Ring RS504W42	1
42	95142	Screw	1
43	95143	Spring	1
44	95144	Steel Ball	1
45	95145	Steel Ball	1
46	95146	Protecting Rubber	1
47	95147	Spring	1
48	95148	Oil Seal	1
50	95150	Spacer	1
	95151	Anvil (2") (Optional)	1