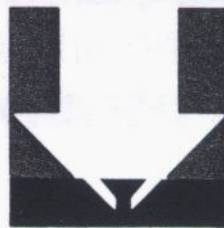


OPERATING INSTRUCTIONS

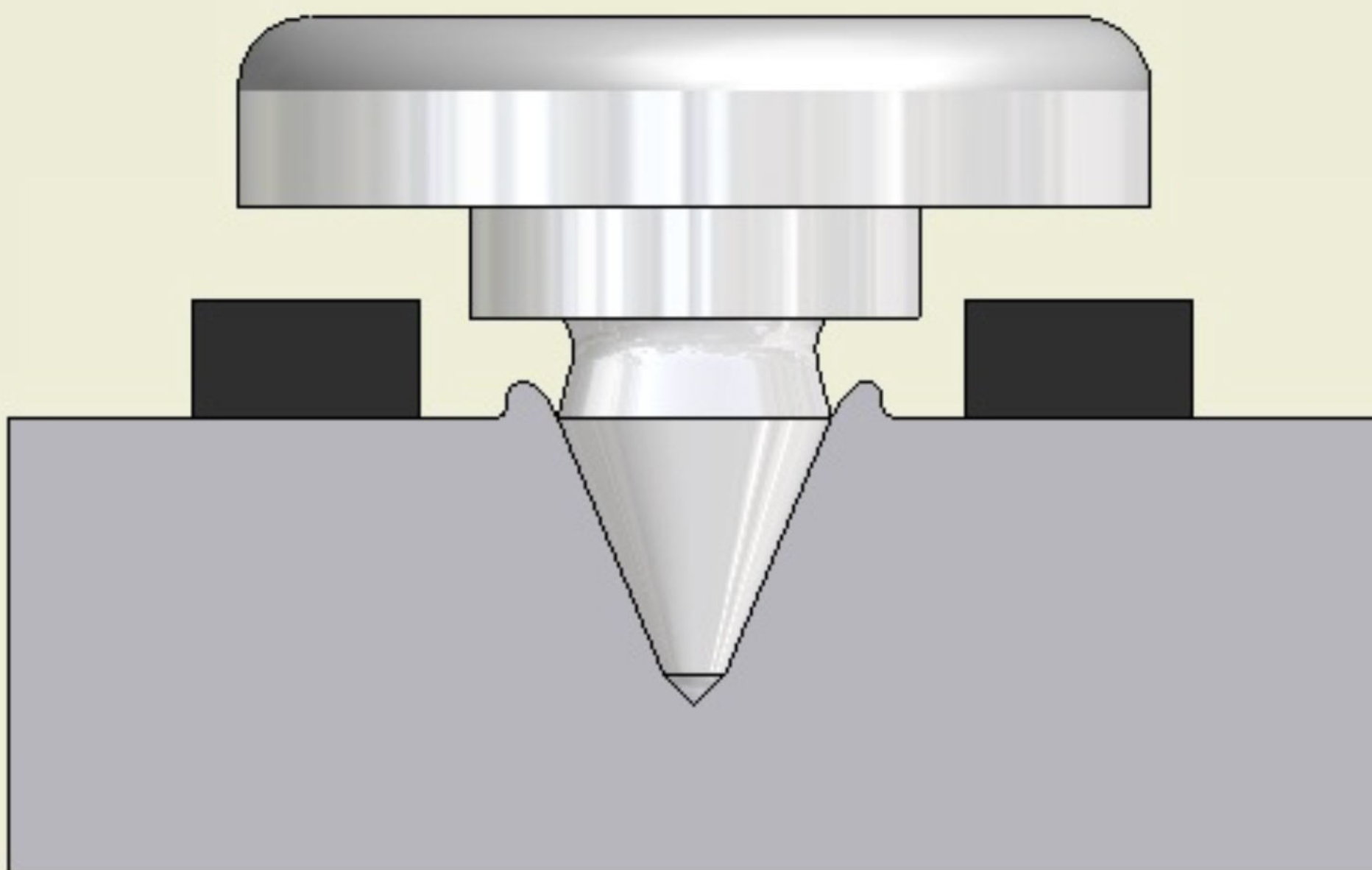
AIR HAMMERS

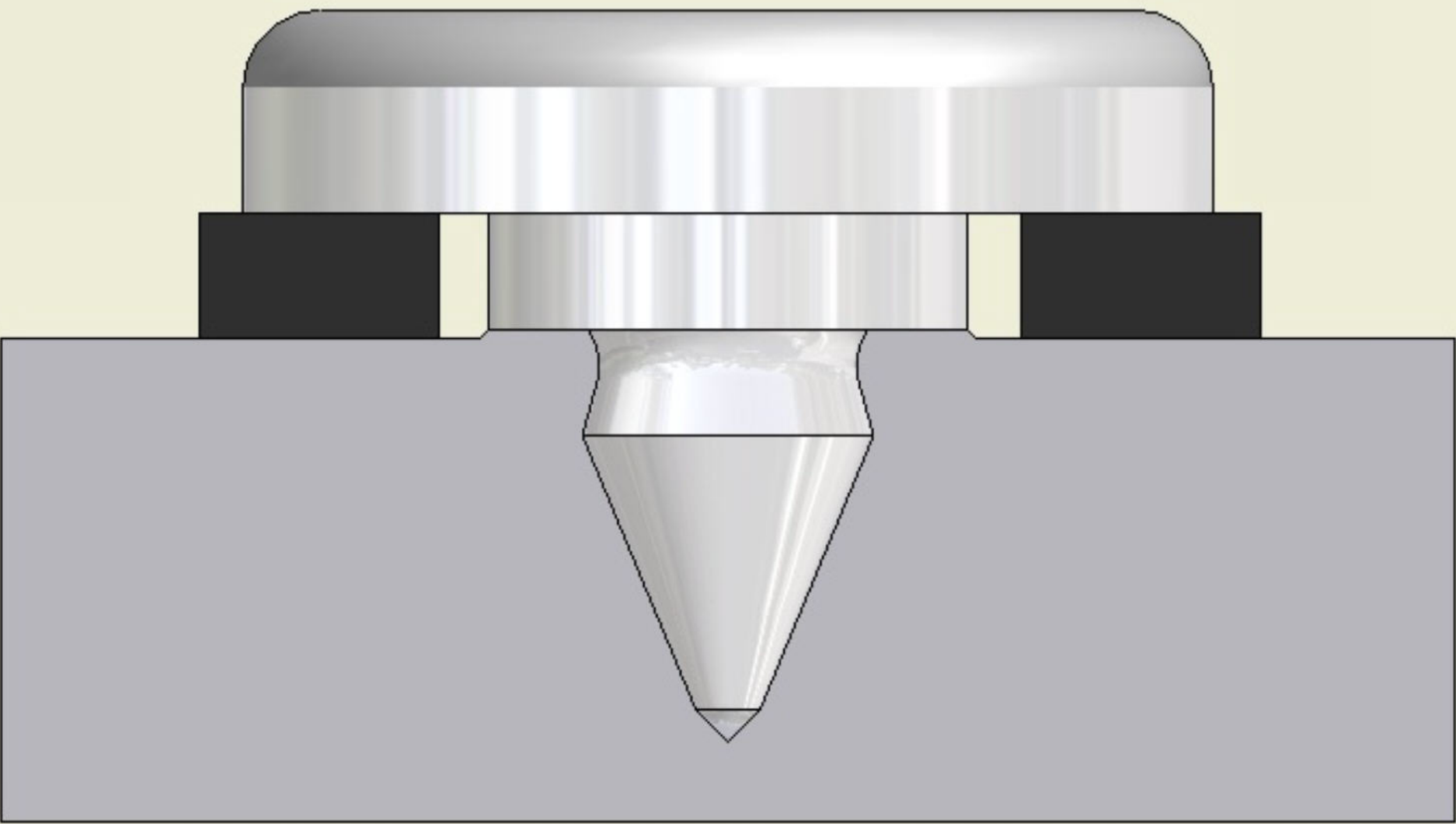


AMTAK
FASTENERS



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SAFETY INSTRUCTIONS

To ensure safe and trouble-free operation of your air hammer, read all instructions before assembly. Also, follow instructions in the order they appear in this manual.

WARNING: OPERATORS MUST WEAR SAFETY GLASSES OR GOGGLES WHEN OPERATING THIS TOOL.

Operating pressure must not exceed 100 PSI (7 kg/cm²).

Always disconnect the air supply before servicing, when removing the driver or when the tool is not in use.

Check regularly to be certain the driver moves freely and does not stick or bind in the extended or cocked position during operation (See Step II).

Do not connect a female quick coupler to the tool; attach a male free flow nipple to the tool and a female quick coupler to the supply hose. An improper connection will cause the tool to remain charged after it is disconnected, allowing it to be fired if the trigger is activated.

Do not, under any circumstances, fire the tool with the driver in the cocked position without driving a fastener.

Keep hands and face away from the area being fastened.

Do not use oxygen or combustible gases as a power source for this tool.

FAILURE TO OBSERVE ANY OF THESE WARNINGS MAY RESULT IN INJURY.

I. AIR SUPPLY AND CONNECTIONS

Air tools require clean, dry, lubricated air for best performance and long service. A filter-regulator-lubricator unit is essential and should be installed within 20 feet of the tool. The lubricator should be filled with S.A.E. #10 non-detergent oil, set to provide 1 or 2 drops per minute during normal operation and checked regularly along with the filter and regulator.

The air supply should be capable of maintaining an air pressure of 60 to 100 PSI (4.2 to 7 kg/cm²) depending upon the operating pressure required to do the work and the speed of the operator. Generally 1 to 2 CFM per tool at 80 PSI is adequate.

All air line connections should be tight and quick connectors used properly. (See Safety Instructions.)

Until proper impact adjustment is made (See Step IV.), set air hammer regulator at 60 PSI.

II. TO CHECK FOR DRIVER BINDING

Connect the air supply and slowly push the driver against a hard surface so that the driver moves from the extended to the cocked position. Then, without pulling the trigger, lift the tool and see if the driver returns to its normal position without difficulty. If the driver sticks or binds, oil the driver and retainer lightly. If the problem continues, the driver retainer must be replaced.

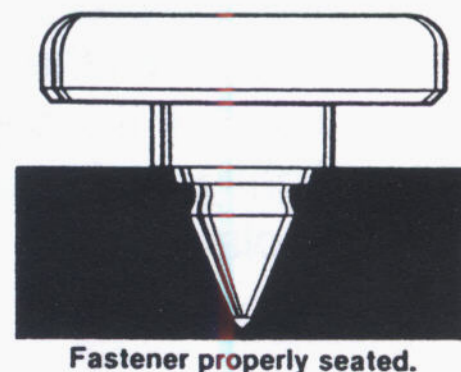
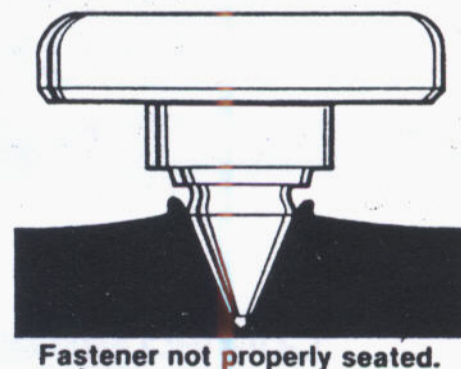
TOOL OPERATION

1. Connect the air supply.
2. Place Metal-Tack on the end of magnetic driver.
3. Press the point of the Metal-Tack against the work to be fastened without depressing the driver.
4. After aligning the work, use both hands (one on the handle and the other on the top of the tool) to push the tool toward the work surface.
5. While holding the tool firmly with the driver fully depressed and perpendicular to the work surface, pull the trigger.
6. Adjust the impact if necessary. (See Step IV.)

IMPACT ADJUSTMENT

1. Set air pressure to 60 PSI(4.2 kg/cm²).
2. Test apply a Metal-Tack in sample material.
3. If the Metal-Tack is not seated properly, adjust the regulator to increase or decrease pressure as required.
4. Repeat steps 2 and 3 until the fastener is properly seated.

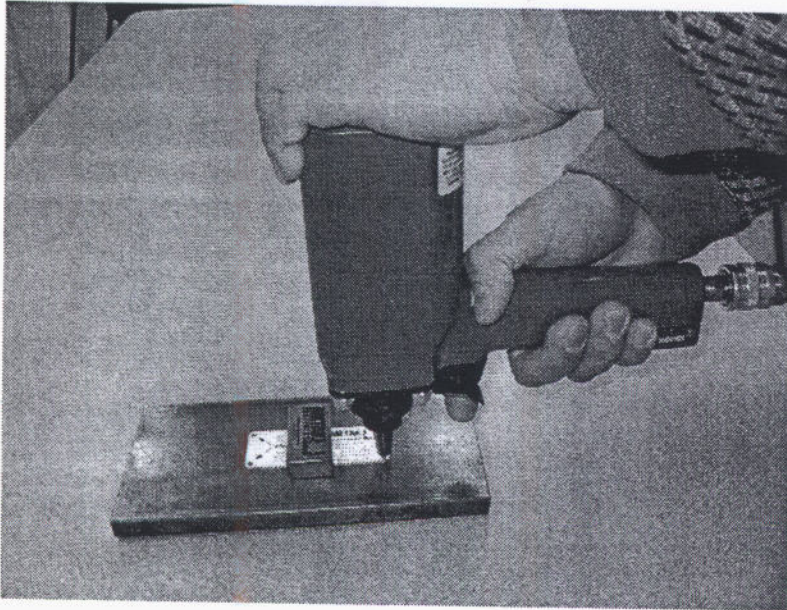
DO NOT USE MORE PRESSURE THAN REQUIRED TO PROPERLY APPLY THE FASTENERS! Excess pressure will cause premature wear and breakage of the driver/fasteners.



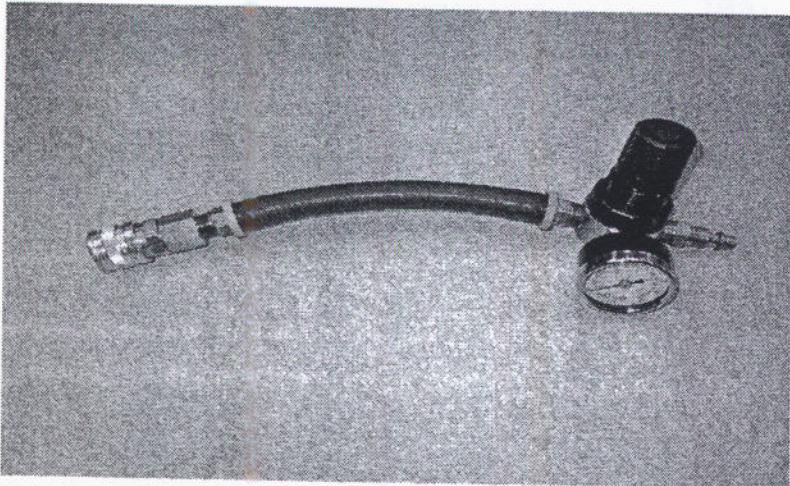
IMPORTANT!

INFORMATION ON USING YOUR #221 AIR HAMMER

PROPER TECHNIQUE



Use both hands. After positioning the tack, place one hand on the top of the tool. Use only enough pressure to depress the driver. Squeeze the trigger and let the tool recoil straight up.

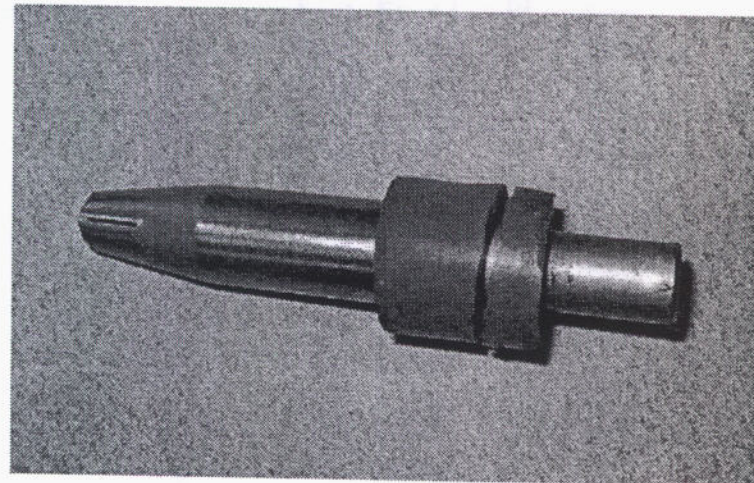


Use the regulator assembly (part #20207) that is supplied with the air tool. See the instructions in section IV of the manual on how to adjust the air pressure for your application. **Never** use full line pressure.

INPROPER TECHNIQUE



Don't lean on the handle of the air tool. Your body weight at a 45 degree angle will make the tool skip forward when it recoils.



Check the driver retainer (part #30331) every month. If the retainer is either broken (see above) or swollen, it needs to be replaced. Dry firing usually causes this. Lubricate with light grease.

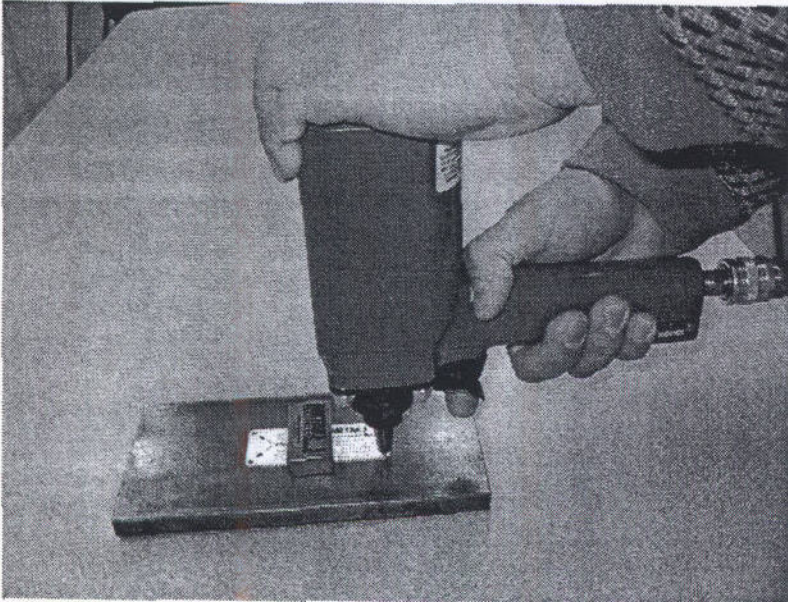
Check the manual for lubrication recommendations. A video on how to use the air tool along with trouble shooting is available from the factory.

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IMPORTANT!

INFORMATION ON USING YOUR #221 AIR HAMMER

PROPER TECHNIQUE



Use both hands. After positioning the tack, place one hand on the top of the tool. Use only enough pressure to depress the driver. Squeeze the trigger and let the tool recoil straight up.

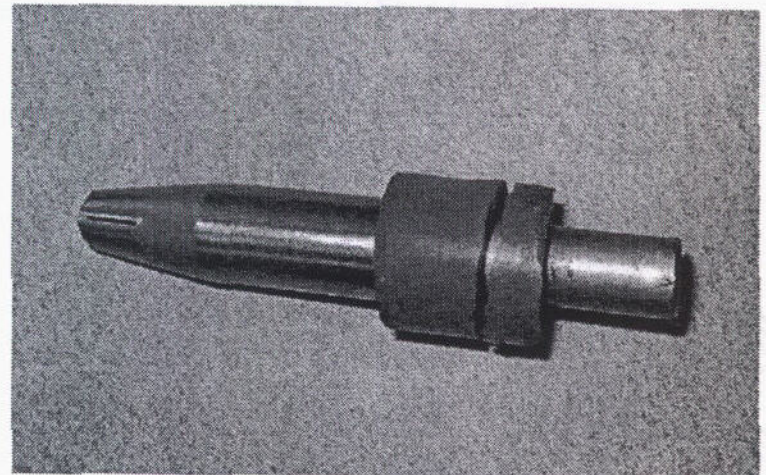


Use the regulator assembly (part #20207) that is supplied with the air tool. See the instructions in section IV of the manual on how to adjust the air pressure for your application. **Never** use full line pressure.

INPROPER TECHNIQUE

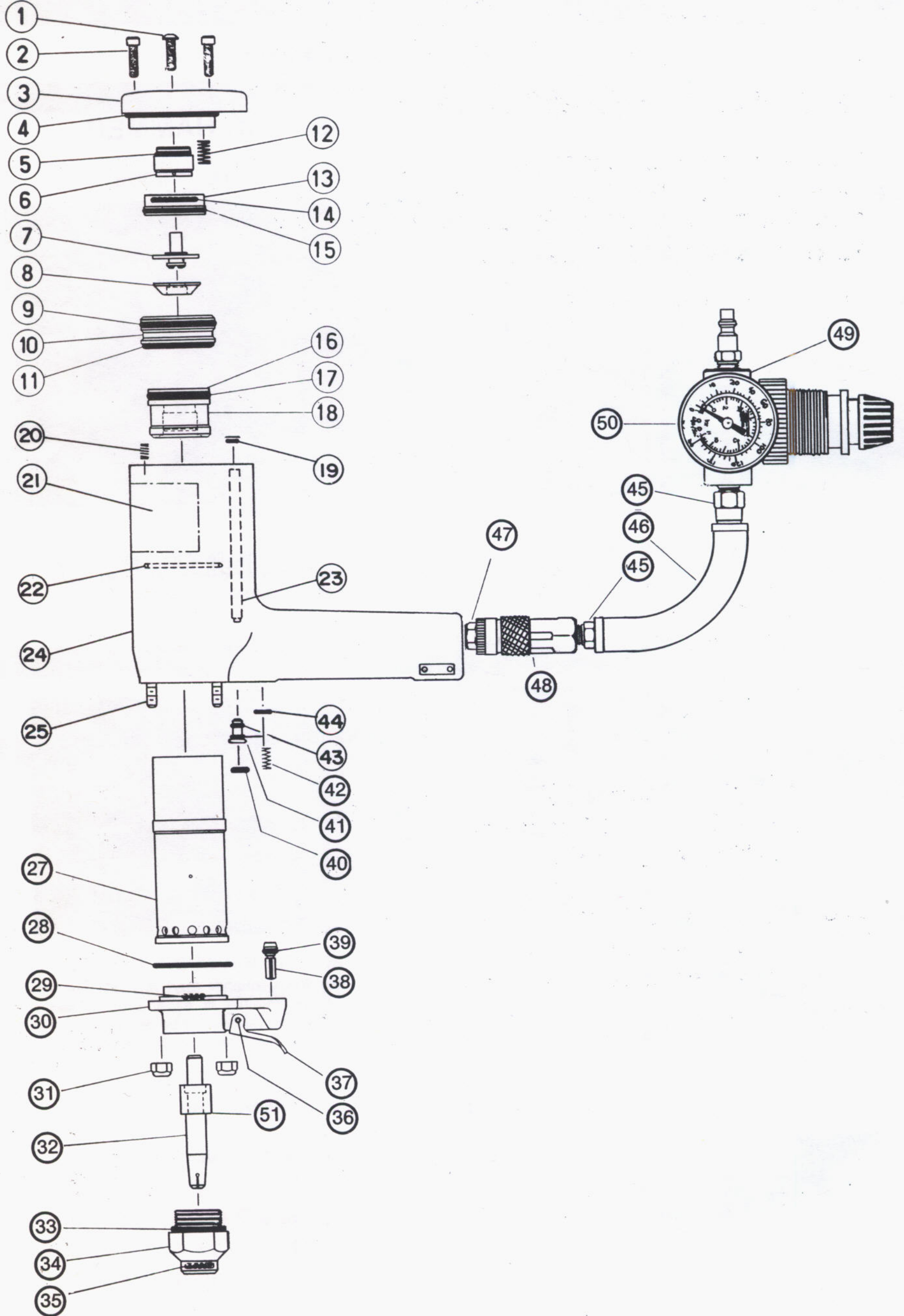


Don't lean on the handle of the air tool. Your body weight at a 45 degree angle will make the tool skip forward when it recoils.



Check the driver retainer (part #30331) every month. If the retainer is either broken (see above) or swollen, it needs to be replaced. Dry firing usually causes this. Lubricate with light grease.

Check the manual for lubrication recommendations. A video on how to use the air tool along with trouble shooting is available from the factory.



PARTS LIST — AIR HAMMERS

ITEM	PART NO	NAME	QTY	221	224
1	60304	#10-32X ³ / ₄ button head screw	1	X	X
2	60128	#10-32X ³ / ₄ socket cap screw	4	X	X
3	30317	cap	1	X	X
4	42216	o-ring (033)	1	X	X
5	42227	o-ring (017)	1	X	X
6	30323	valve stem	1	X	X
7	30321	valve retainer	1	X	X
8	30322	exhaust seal	1	X	X
9	42220	o-ring (130)	1	X	X
10	30324	valve body	1	X	X
11	42223	o-ring (90 duro.) (221)	1	X	X
12	64408	compression spring	3	X	X
13	30325	valve insert	1	X	X
14	42219	o-ring (119)	1	X	X
15	42215	o-ring (028)	1	X	X
16	30327	piston	1	X	X
17	42222	o-ring (218)	1	X	X
18	30314	piston bumper	1	X	X
19	42123	o-ring (009)	1	X	X
20	42214	threaded insert	4	X	X
21	65305	warning label	1	X	X
22	42221	o-ring (132)	1	X	X
23	30329	pilot tube	1	X	X
24	30316	frame	1	X	X
25	30330	stud	4	X	X
27	30315	cylinder sleeve	1	X	X
28	42233	o-ring (031)	1	X	X
29	42224	o-ring (110)	1	X	X
30	30326	nose	1	X	X
31	62005	1/4"-28 elastic stop nut	4	X	X
32		see magnetic driver selection (last page)	1	X	
33	42226	o-ring (120)	1	X	
34	30328	nose tip	1	X	
35	42225	o-ring (112)	1	X	
36	64204	1/8" dia. x 3/4" roll pin	1	X	X
37	30319	trigger	1	X	X
38	30318	pilot valve stem	1	X	X
39	42217	o-ring (104)	1	X	X
40	42218	o-ring (108)	1	X	X
41	30320	shuttle valve	1	X	X
42	64407	compression spring	1	X	X
43	42193	o-ring (006)	2	X	X
44	42198	o-ring (013)	1	X	X
45	46002	male hose connector	2	X	X
46	48012	hose	1	X	X
47	46142	male disconnect	1	X	X
48	46141	female disconnect	1	X	X
49	44116	regulator	1	X	X
50	44117	gage	1	X	X
51	30331	driver retainer	1	X	X
52	30608	vacuum nose	1	X	
53	30607	valve sleeve	1		X
54		see vacuum driver selection (last page)	1		X
56	42226	"O" ring (120)	1		X
57	42225	"O" ring (112)	2		X
58	60217	dog point set screw	1		X
59	60212	10-32x ³ / ₁₆ socket set screw	2		X
60	30606	pump sleeve	1		X
61	30605	pump nozzle	1		X
62	30604	spring retainer	1		X
63	64416	compression spring	1		X
64	42299	1/8 steel ball	1		X
65	42300	"O" ring	2		X

PARTS LIST — AIR HAMMERS

ITEM	PART NO	NAME	QTY	221	224
1	60304	#10-32X $\frac{3}{4}$ button head screw	1	X	X
2	60128	#10-32X $\frac{3}{4}$ socket cap screw	4	X	X
3	30317	cap	1	X	X
4	42216	o-ring (033)	1	X	X
5	42227	o-ring (017)	1	X	X
6	30323	valve stem	1	X	X
7	30321	valve retainer	1	X	X
8	30322	exhaust seal	1	X	X
9	42220	o-ring (130)	1	X	X
10	30324	valve body	1	X	X
11	42223	o-ring (90 duro.) (221)	1	X	X
12	64408	compression spring	3	X	X
13	30325	valve insert	1	X	X
14	42219	o-ring (119)	1	X	X
15	42215	o-ring (028)	1	X	X
16	30327	piston	1	X	X
17	42222	o-ring (218)	1	X	X
18	30314	piston bumper	1	X	X
19	42123	o-ring (009)	1	X	X
20	42214	threaded insert	4	X	X
21	65305	warning label	1	X	X
22	42221	o-ring (132)	1	X	X
23	30329	pilot tube	1	X	X
24	30316	frame	1	X	X
25	30330	stud	4	X	X
27	30315	cylinder sleeve	1	X	X
28	42233	o-ring (031)	1	X	X
29	42224	o-ring (110)	1	X	X
30	30326	nose	1	X	X
31	62005	$\frac{1}{4}$ "-28 elastic stop nut	4	X	X
32		see magnetic driver selection (last page)	1	X	
33	42226	o-ring (120)	1	X	
34	30328	nose tip	1	X	
35	42225	o-ring (112)	1	X	
36	64204	$\frac{1}{8}$ " dia. x $\frac{3}{4}$ " roll pin	1	X	X
37	30319	trigger	1	X	X
38	30318	pilot valve stem	1	X	X
39	42217	o-ring (104)	1	X	X
40	42218	o-ring (108)	1	X	X
41	30320	shuttle valve	1	X	X
42	64407	compression spring	1	X	X
43	42193	o-ring (006)	2	X	X
44	42198	o-ring (013)	1	X	X
45	46002	male hose connector	2	X	X
46	48012	hose	1	X	X
47	46142	male disconnect	1	X	X
48	46141	female disconnect	1	X	X
49	44116	regulator	1	X	X
50	44117	gage	1	X	X
51	30331	driver retainer	1	X	
52	30608	vacuum nose	1		X
53	30607	valve sleeve	1		X
54		see vacuum driver selection (last page)	1		X
56	42226	"O" ring (120)	1		X
57	42225	"O" ring (112)	2		X
58	60217	dog point set screw	1		X
59	60212	10-32x $\frac{3}{16}$ socket set screw	2		X
60	30606	pump sleeve	1		X
61	30605	pump nozzle	1		X
62	30604	spring retainer	1		X
63	64416	compression spring	1		X
64	42299	$\frac{1}{8}$ steel ball	1		X
65	42300	"O" ring	2		X

Air Hammers

Product	Description	Driver Type Used
#221	Standard Air Hammer	Magnetic
#223	High Impact Air Hammer	Magnetic
#224	Vacuum Air Hammer	Vacuum

NOTE: ALL DRIVERS INCLUDE RETAINER PN# 30331.

Vacuum Drivers

Product	Description	Designed for Fastener Series
#427	For use with all 3/16" Metal Tacks on Air Hammer #224.	#31 and #33
#429	For use with all 1/4" Metal Tacks on Air Hammer #224.	#41 and #43
#432	For use with all 5/32" Metal Tacks on Air Hammer #224.	#51
#493	For use with all Punch Pin fasteners.	#151

Magnetic Drivers

Product	Description	Designed for Fastener Series
#226	Universal Metal Tack driver, flat surfaced driving head.	All Metal Tack Series
#227	For chamfered head fasteners with 3/16" diam. head. Has recessed driving surface with taper.	#3161 only
#228	For flat head fasteners with 3/16" diam. head, has recessed driving surface.	#31 and #33
#229	For flat head fasteners with 1/4" diam. head, has recessed driving surface.	#41 and #43
#230	For all Gripnail Fasteners.	All Gripnails
#260	For flat head fasteners with 5/32" diam. head, has recessed driving surface.	#51
#262	For chamfered head fasteners with 5/32" diam. head. Has recessed driving surface with taper.	#5161 only

Air Hammers

Product	Description	Driver Type Used
#221	Standard Air Hammer	Magnetic

Magnetic Drivers

Product	Description	Designed for Fastener Series
#226	Universal Metal Tack driver, flat surfaced driving head.	All Metal Tack Series
#227	For chamfered head fasteners with 3/16" diam. head. Has recessed driving surface with taper.	#3161 only
#228	For flat head fasteners with 3/16" diam. head, has recessed driving surface.	#31, #33 AND #34
#229	For flat head fasteners with 1/4" diam. head, has recessed driving surface.	#41 and #43
#230	For all Gripnail Fasteners.	All Gripnails
#260	For flat head fasteners with 5/32" diam. head, has recessed driving surface.	#51
#326	Universal Twin Magnet	All Metal Tacks