

# ADJUSTABLE AIR PRESS

MODELS 12-A, 28-A, 50-A

INSTALLATION, OPERATING,  
and MAINTENANCE INSTRUCTIONS



Black & Webster

Assembly Equipment Division

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2009

Serial Number: \_\_\_\_\_

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This small adjustable air press does the work of big hydraulic presses at a lower cost. The press is designed for small assembly, riveting, punching marking staking, etc.

Our press' unique power return gives a lifting capacity nearly equal to the ram pressure. This feature permits use of heavy dies and provides positive stripping action. **PRECISION HONED CYLINDERS**, cushioned at both ends, assures smooth cycling. O-ring seals reduce maintenance to a minimum. **FULL HEAD ADJUSTMENT** affords easy and accurate die settings for proper stroke length.

It is our aim to give our customers the highest quality of materials and workmanship possible. Through many years of press building, we have constantly endeavored to improve our products and offer the latest design of air presses far in advance of any on the market. Our satisfied customers will bear this out as repeat orders over the years are our best recommendation.

## **WARRANTY**

Air-Hydraulics, Inc. warrants to the original user that all products manufactured will be free from defects in material and workmanship and will possess the characteristics represented in writing by us. Claim for breach of the above warranty must be made within a period of one year from date of delivery to the user. Upon satisfactory proof of claim, we will make any necessary repairs or corrections, or at our discretion, replace defective parts at the factory, transportation charges prepaid. Charges for correcting defects will not be allowed, nor can we accept goods returned for correction unless we are notified in writing and the return or correction is authorized by us in writing. **The foregoing is in lieu of all other warranties, expressed or implied, including any warranties that extend beyond the description of the product.** This paragraph set forth the extent of our liability for breach of any warranty in connection with the sale or use of our products. It is understood we will not be liable for consequential damages such as loss of profit, or expense, whether based on tort or contract. This warranty is void if the articles covered by the warranty have not been properly installed, maintained and used.

## **NOTE**

The Adjustable Air Press has been carefully and accurately built to give long, trouble-free service if properly installed and maintained. Follow carefully the instructions, making sure no dirt or foreign materials are allowed to get into the cylinder or other working parts. If you have any unusual problems regarding controls or tooling, notify AIR-HYDRAULICS, INC., JACKSON, MICHIGAN, at 1-800-837-4355 and our Engineering Department will be glad to assist you.

## **PRESS INSTALLATION**



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- 1) Turn on the air supply and insure there are no leaks.
- 2) Operate the press and adjust the nut on top of the lubricator until approximately (1) drop of oil per every 8-10 cycles, is passed into the air line, visible through the clear regulator globe. Mobil grade DTE-24 (or equivalent) lubricating oil.
- 3) If equipped with safety controls, i.e. non-tie down modules, light curtains, etc. test devices according to manufacturer's instructions prior to full operation.

**NOTE:** A **filtered, lubricated** and **regulated** air supply is required.

**NOTE:** Cycle time will be dependant on **volume** of air supplied to press.

**NOTE:** Operating pressure is between **40** and **110** P.S.I.

## **CONTROLS**

Press may be operated by electrical or pneumatic anti-tie-down controls with dual palm button activators. Also available at additional cost are special controls for automatic operation (pressure switch, limit switches, etc.).

## **PARTS ORDERING**

When ordering replacement parts for this press, specify MODEL NUMBER and SERIAL NUMBER. Air-Hydraulics cannot be held responsible for parts shipped in error if model and serial numbers are not provided.

## **RAM STROKE**

This may be adjusted up to two-inches shorter with the downstop nut and the downstop locknut (Part Numbers 25 and 26)

## **PRESS SAFETY**

Provisions for operator protection are the full responsibility of the purchaser.

## **MACHINE GUARDING**

Machine guarding is the responsibility of the user. Provisions must be made to protect the operator and other employees from injury as a result of contact with work in progress, moving parts, mechanical motions of the press, etc. AIR-HYDRAULICS, INC. cannot provide "standard" guards for its presses due to the variety of tooling used by press owners. However, AIR-HYDRAULICS, INC. will be happy to install guards and similar safety devices for operator protection. These safety devices must be produced at the request of, and with design approval of the purchaser.

## **PREVENTATIVE MAINTENANCE**

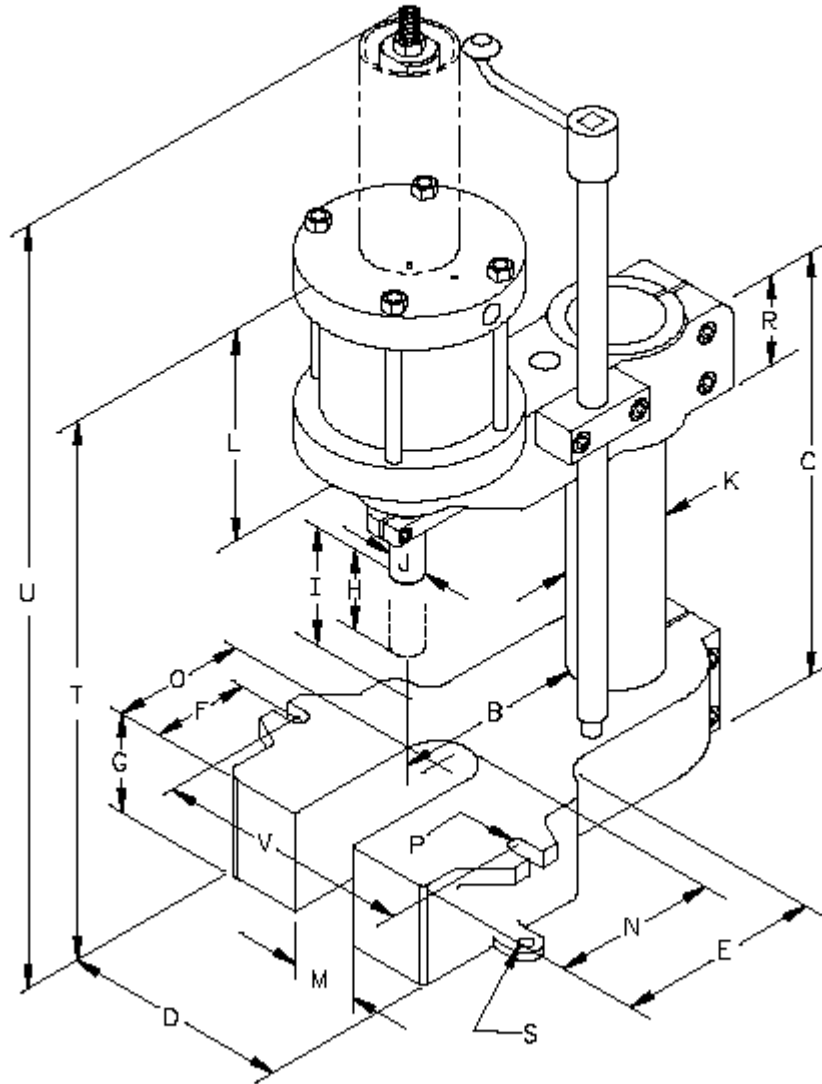


1. Before any preventative maintenance is performed, turn off air supplies to press and block up ram, following OSHA and local Lock out/Tag out procedures
2. Drain water from the air supply daily.
3. Change air filter every 3-6 months or when the filter gets dirty.
4. Insure that oil/lubricator is set until approximately one (1) drop of oil passes into the air line for every 10-15 machine cycles. Keep the oiler/lubricator filled with Mobil DTE grade 24 or equivalent.
5. Grease fittings every six (6) months.
6. Replace seals prior to the point of leaking or if diminished force occurs.
7. When changing tooling, use wrench flats on ram to prevent turning. Marring the surface of the ram will cause premature seal damage and can void warranty.

**STANDARD PRESS SPECIFICATIONS**

<b>MODEL NO.</b>	<b>12-A</b>	<b>28-A</b>	<b>50-A</b>
Ram pressure in lbs. w/100 P.S.I. air	1,200	2,800	5,000
Maximum Stroke	2.50"	3.00"	3.00"
Maximum Stroke per minute	60	60	60
Cylinder I.D.	4.000"	6.000"	8.000"
Ram Diameter	.75"	1.00"	1.00"
Cylinder Length (effective I.D.)	3.125"	3.750"	3.750"
Open Height Adjustment	0-7.50"	0-10.00"	0-10.00"
Throat Size	6.00"	6.00"	6.00"
Platen Area	7"x 6"	10" x 8.75"	10" x 8.75"
Minimum Air Line I.D. Size	3/8"	1/2"	3/4"
Double Acting Cylinder Cushioned Both Ends	Yes	Yes	Yes
Shipping Weight (lbs.)	85	200	250

RISER SCREW AND DOWN  
STOP OPTIONS SHOWN



**STANDARD PRESS DIMENSIONS**

DIM KEY	DESCRIPTION	12-A	28-A	50-A
A	Tonnage	½	1¼	2½
B	Ram Centerline to Column	6	6	6
C	Column Height	13 ½	19	19
D	Platen Left to Right	7	10	10
E	Platen Front to Back	6	8 ¾	8 ¾
F	Centerline of Slot to Front of Base	3	3 ¼	3 ¼
G	Base Height	3	4	4
H	Stroke	2 ½	3	3
I	Arm Adjustment Range	0-7½	0-10	0-10
J	Ram Diameter	¼	1	1
K	Column Diameter	2 ½	3 ½	3 ½
L	Cylinder Height	6 15/16	7 3/8	7 1/8
M	Slot Width	3	2	2
N	Slot Depth	4 ½	5 3/8	5 3/8
O	Centerline Rad. to Front of Base	3	4 3/8	4 3/8
P	Mounting Slot	½ x 7/8	5/8 x 5/8	5/8 x 5/8
R	Arm Thickness	2 ¾	3 ¾	3 ¾
S	Mounting Bolt Hole Diameter	13/32	17/32	17/32
T	Overall Height Without Down Stop	20.21	26.31	26.31
U	Overall Height With Downstop	20.21	26.31	26.31
V	Distance Between Mounting Holes	5.75	11.25	11.25
*	Approximate Shipping Weight in Pounds	85	200	250

**PARTS LIST 12-A AIR PRESS**

No.	Part No.	Part Name	Quantity
1	A12-01	Base	1
2	Ind. Mat'l	Base Clamping Screws	2
3	A12-03	Column	1
4	A12-04DS	Ram Guide	1
5		Arm Clamping Screws	2
6		Expansion Screw	1
7	A12-07	Top Arm	1
8		Ram Guide Nut	1
9	A12-09	Ram Guide Rod	1
10	A12-10	Cylinder Head Base Assy.	1
11	A12-16	Cylinder	1
12		Cylinder Tie-Rod Bolts	4
13	A12-14	Cylinder Top Head	1
14	A12-DS	D/S Cylinder Top Head	1
15		Ram Nut	1
16	A12-CS	Seal Kit	1
17	A12-CS/DS	Seal Kit With Down Stop	1
18	A12-19	Piston	1
19	A12-19DS	Piston With Down Stop	1
20		Set Screw	1
21		Bottom Cylinder Head Screw	3
22		Ram Guide Screw	1
23	A12-25	Ram	1
24	A12-25DS	Down Stop Ram	1
25		Downstop Jam Nut	1
26	C1-26	Downstop Nut	1
27	C2-23	Downstop Plate	1
28		Downstop Plate Mounting Screws	4
29	A28/50-32-26	Riser Screw with Downstop	1
30	A12-321	Riser Screw	1
31	A12	Column Key	1
32	JA50-2	Crank Handle	1
33	C2-34	Guard Tube	1
34	T158-41	Steel Ball	1
35		Key Screw	2
36		Key Screw Washer	2
37		Ram Nut W/Down Stop	1



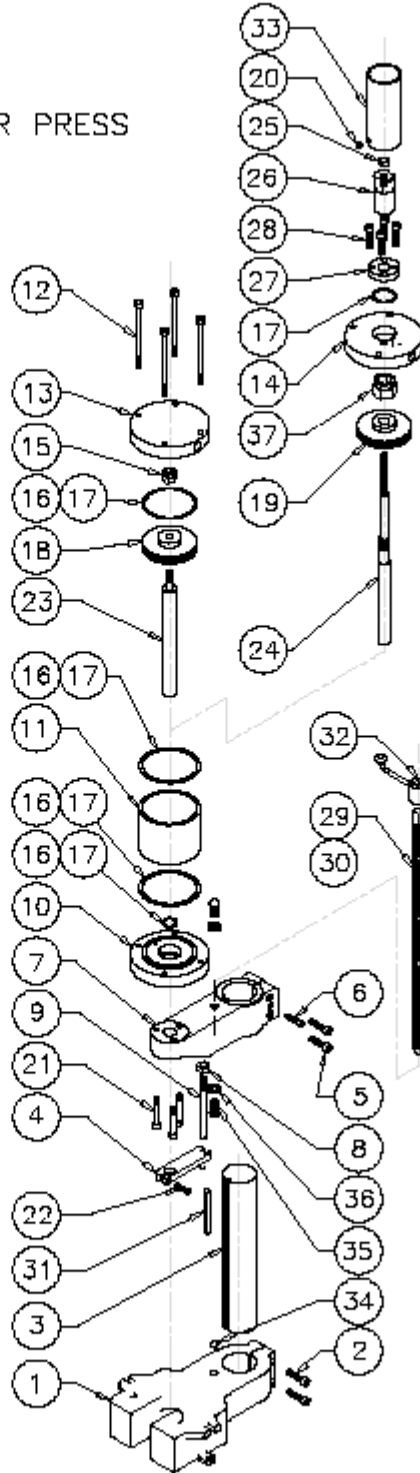
**PARTS LIST 28-A AIR PRESS**

No.	Part No.	Part Name	Quantity
1	A28/50-01	Base	1
2		Base Clamping Screws	2
3	A28/50-03	Column	1
4	A28/50-04	Ram Guide	1
5		Arm Clamping Screws	2
6		Expansion Screw	1
7	A28-07	Top Arm	1
8		Ram Guide Nut	1
9	A28/50-09	Ram Guide Rod	1
10	A28-10	Cylinder Head Base Assy.	1
11	A28-12	Cylinder	1
12		Cylinder Tie-Rod Bolts	4
13	A28-14	Cylinder Top Head	1
14	A28-14DS	D/S Cylinder Top Head	1
15		Ram Nut	1
16	A28-CS	Seal Kit	1
17	A28-CS/DS	Seal Kit With Down Stop	1
18	A28-19	Piston	1
19	A28-19DS	Piston With Down Stop	1
20		Set Screw	1
21		Bottom Cylinder Head Screw	3
22		Ram Guide Screw	1
23	A28/50-25	Ram	1
24	A28/50-25DS	Down Stop Ram	1
25		Downstop Jam Nut	1
26	C2/28A/50-28	Downstop Nut	1
27	C2-23	Downstop Plate	1
28		Downstop Plate Mounting Screws	4
29	A28/50-32-26	Riser Screw	1
30	A28/50-32-31	Riser Screw W/ Down Stop	1
31	A28/50-33R	Riser Block	1
32	A28/50/11	Column Key	1
33	JA50-2	Crank Handle	1
34		Riser Block Mounting Screw	2
35	C2-34	Guard Tube	1
36	T158-41	Steel Ball	1
37		Key Screw	2
38		Key Screw Washer	2
39		Ram Nut W/Down Stop	1

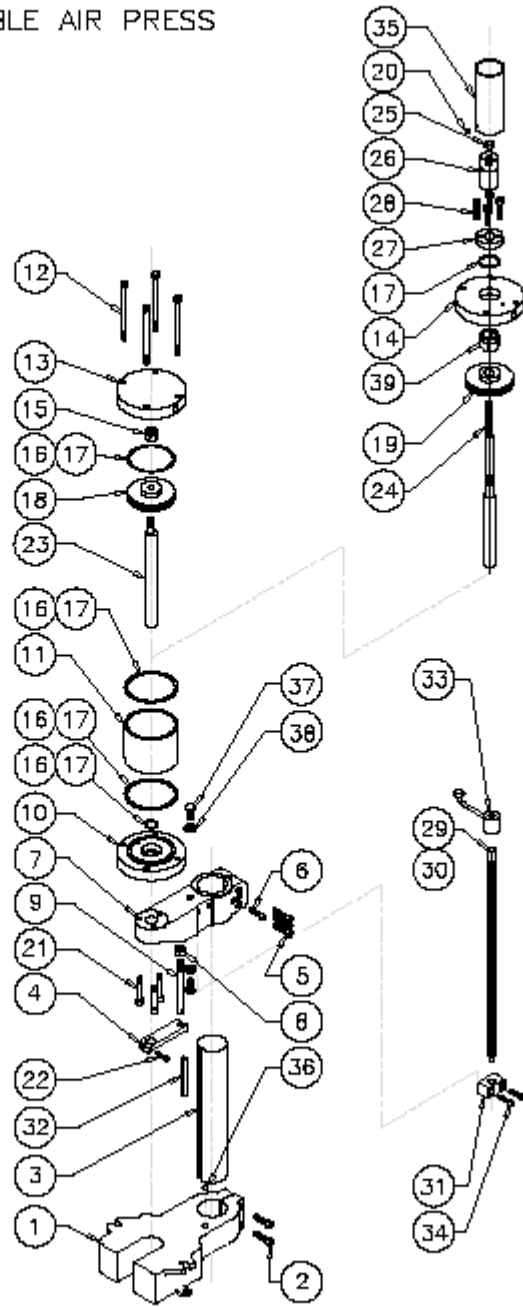
**PARTS LIST 50-A AIR PRESS**

No.	Part No.	Part Name	Quantity
1	A28/50-01	Base	1
2		Base Clamping Screws	2
3	A28/50-03	Column	1
4	A28/50-04	Ram Guide	1
5		Arm Clamping Screws	2
6		Expansion Screw	1
7	A28-07	Top Arm	1
8		Ram Guide Nut	1
9	A28/50-09	Ram Guide Rod	1
10	A50-10	Cylinder Head Base Assy.	1
11	A50-12	Cylinder	1
12		Cylinder Tie-Rod Bolts	4
13	A50-14	Cylinder Top Head	1
14	A50-14DS	D/S Cylinder Top Head	1
15		Ram Nut	1
16	A50-CS	Seal Kit	1
17	A50-CS/DS	Seal Kit With Down Stop	1
18	A50-19	Piston	1
19	A50-19DS	Piston With Down Stop	1
20		Set Screw	1
21		Bottom Cylinder Head Screw	3
22		Ram Guide Screw	1
23	A28/50-25	Ram	1
24	A28/50-25DS	Down Stop Ram	1
25		Downstop Jam Nut	1
26	C2/28A/50-28	Downstop Nut	1
27	C2-23	Downstop Plate	1
28		Downstop Plate Mounting Screws	4
29	A28/50-32-26	Riser Screw	1
30	A28/50-32-31	Riser Screw W/ Down Stop	1
31	A28/50-33R	Riser Block	1
32	A28/50-11	Column Key	1
33	JA50-2	Crank Handle	1
34		Riser Block Mounting Screw	2
35	C2-34	Guard Tube	1
36	T158-41	Steel Ball	1
37		Key Screw	2
38		Key Screw Washer	2
39	FN-7/8-14	Ram Nut W/Down Stop	1

12-A ADJUSTABLE AIR PRESS



28-A ADJUSTABLE AIR PRESS



50-A ADJUSTABLE AIR PRESS

