



Operating Instructions and Parts Manual

Air/Hydraulic Bottle Jack

Models AHJ-12 and AHJ-20



JET
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Part No. M-456612
Revision D1 05/2020
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Warranty and Service

JET warrants every product it sells against manufacturers' defects. If one of our tools needs service or repair, please contact Technical Service by calling 1-800-274-6846, 8AM to 5PM CST, Monday through Friday.

Warranty Period

The general warranty lasts for the time period specified in the literature included with your product or on the official JET branded website.

- JET products carry a limited warranty which varies in duration based upon the product. (See chart below)
- Accessories carry a limited warranty of one year from the date of receipt.
- Consumable items are defined as expendable parts or accessories expected to become inoperable within a reasonable amount of use and are covered by a 90 day limited warranty against manufacturer's defects.

Who is Covered

This warranty covers only the initial purchaser of the product from the date of delivery.

What is Covered

This warranty covers any defects in workmanship or materials subject to the limitations stated below. This warranty does not cover failures due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair, alterations or lack of maintenance. JET woodworking machinery is designed to be used with Wood. Use of these machines in the processing of metal, plastics, or other materials outside recommended guidelines may void the warranty. The exceptions are acrylics and other natural items that are made specifically for wood turning.

Warranty Limitations

Woodworking products with a Five Year Warranty that are used for commercial or industrial purposes default to a Two Year Warranty. Please contact Technical Service at 1-800-274-6846 for further clarification.

How to Get Technical Support

Please contact Technical Service by calling 1-800-274-6846. **Please note that you will be asked to provide proof of initial purchase when calling.** If a product requires further inspection, the Technical Service representative will explain and assist with any additional action needed. JET has Authorized Service Centers located throughout the United States. For the name of an Authorized Service Center in your area call 1-800-274-6846 or use the Service Center Locator on the JET website.

More Information

JET is constantly adding new products. For complete, up-to-date product information, check with your local distributor or visit the JET website.

How State Law Applies

This warranty gives you specific legal rights, subject to applicable state law.

Limitations on This Warranty

JET LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. JET SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

JET sells through distributors only. The specifications listed in JET printed materials and on official JET website are given as general information and are not binding. JET reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever. JET® branded products are not sold in Canada by JPW Industries, Inc.


Product Listing with Warranty Period

90 Days – Parts; Consumable items
1 Year – Motors; Machine Accessories
2 Year – Metalworking Machinery; Electric Hoists, Electric Hoist Accessories; Woodworking Machinery used for industrial or commercial purposes; Air Tools
5 Year – Woodworking Machinery
Limited Lifetime – JET Parallel clamps; VOLT Series Electric Hoists; Manual Hoists; Manual Hoist Accessories; Shop Tools; Warehouse & Dock products; Hand Tools

NOTE: JET is a division of JPW Industries, Inc. References in this document to JET also apply to JPW Industries, Inc., or any of its successors in interest to the JET brand.

Warnings

1. Read and understand all warnings and operating instructions before attempting to use this jack.
2. Do not exceed rated capacity. Overloading can cause damage to and/or failure of the jack.
3. If jack is damaged and/or operates abnormally, remove from service until repaired.
4. Support load by appropriate means after lifting.
5. Always center load on the jack.
6. Use this jack as a lifting device only.
7. Use only on a hard, level surface capable of sustaining the load. Using the bottle jack on other than hard, level surfaces can result in jack instability and possible loss of load.
8. Lift only on areas of the vehicle specified by the vehicle manufacturer.
9. Always replace damaged, missing or worn labels and use only genuine factory replacement parts when replacement is necessary.
10. Only use attachments and/or adapters supplied with, or sold specifically for, the jack.
11. No alterations shall be made to this product.
12. Failure to comply with all of these warnings may result in loss of load, damage to jack, and/or personal injury or property damage.

 **WARNING:** This product can expose you to chemicals including lead and cadmium which are known to the State of California to cause cancer and birth defects or other reproductive harm, and phthalates which are known to the State of California to cause birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.

Specifications

Model Number.....	AHJ-12	AHJ-20
Stock Number	456612	456620
Rated Load Capacity (ton)	12	20
Minimum Height (in.)	9.65	9.65
Maximum Height (in.)	18.70	18.70
Air Pressure Required (psi).....	90 to 145	90 to 145
Base Size (L x W)(in.)	8.27 x 6.30	8.66 x 6.89
Net Weight (lbs)	26.46	30.86
Shipping Weight (lbs).....	30.86	39.68

The above specifications were current at the time this manual was published, but because of our policy of continuous improvement, JET reserves the right to change specifications at any time and without prior notice, without incurring obligations.

JET AHJ Series Bottle Jacks comply with ANSI/ASME B30.1 and PALD-1 Standards.

(NOTE: Numbers in parentheses refer to item numbers on the breakdown, page 5.)

Inspection Before Use

Prior to each use, visually inspect for leaking hydraulic oil, damaged, loose or missing parts. If jack becomes worn or damaged in any way, or operates abnormally, remove it from service and contact your nearest service center for repair.

Purging the Hydraulic System

During transit, the jack's hydraulic system may become filled with air, causing a spongy ram action. The air should be purged from the system before operating.

1. To purge air from the hydraulic system, open the release valve (49) by turning it counterclockwise for 2 to 3 turns.
2. Turn the jack 90° to its horizontal position. Be sure that the air motor is underneath the ram assembly (37).

3. Connect the air valve (29) to an air supply, and press the lever on the air valve (29) for 20 seconds to operate the jack.
4. Close the release valve (49) by turning it clockwise while the jack remains at its horizontal position. If the ram assembly (37) doesn't extend, repeat steps 1 through 4.

Operation

Jack operation is controlled either manually or by external air pressure. To operate manually, insert the handle (61) into the handle socket (60). To operate by air pressure, connect the air valve (29) to an external air pressure source. Clean the air connections and lubricate air motor prior to assembly.

To raise the jack, turn the release valve (49) clockwise until it is tight, and either manually pump with the handle, or press the lever on the air valve (29) if connected to an air supply.

To lower the jack, turn the release valve (49) counterclockwise slightly and very slowly. Do not turn valve too quickly or more than twice.

⚠WARNING When lowering the jack, do not turn release valve too quickly or turn the valve more than twice. This can cause the load to descend too rapidly creating a dangerous situation.

Maintenance

Maintain oil at full level. To check the oil, proceed as follows:

1. With the jack in an upright position and the ram completely retracted, open the release valve (49) by turning it counterclockwise.
2. Unscrew and remove the filler plug (31). The oil level should be just up to the hole.
3. If necessary, fill with clean hydraulic jack oil.
4. Re-install the filler plug (31).

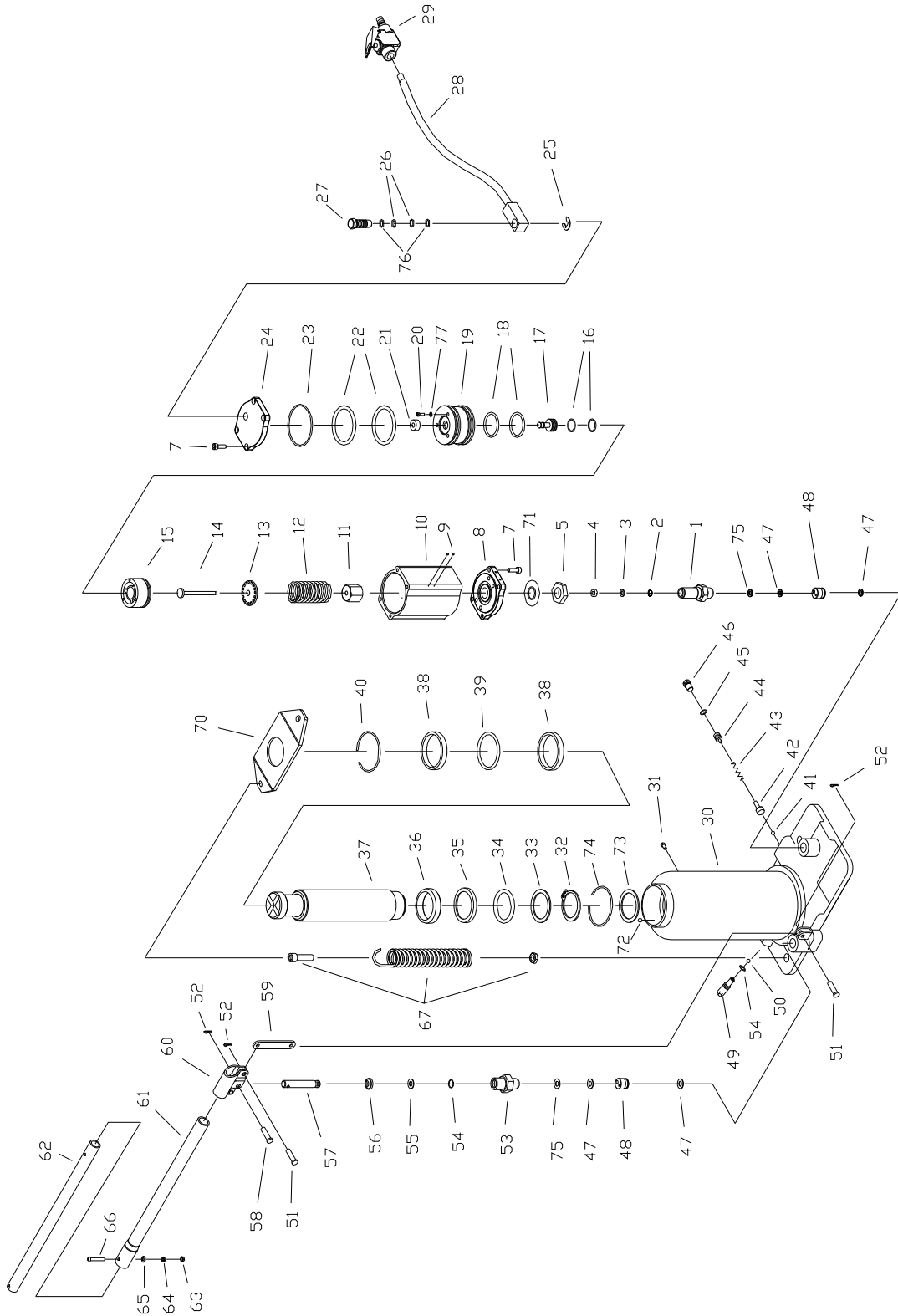
With the release valve (49) open, manually pump the handle six times. This will keep internal components lubricated.

To prevent corrosion, occasionally lubricate the handle socket pivot point (60), release valve screw thread (49), and air valve (29), with a light coat of oil.

Troubleshooting the AHJ Bottle Jack

Trouble	Probable Cause	Remedy
Erratic Action.	Air in hydraulic system.	Bleed air by opening release valve (49). Pump for 20 seconds.
	Viscosity of oil is too high.	Change to a lower viscosity oil.
	Internal leakage in ram (37).	Replace worn packing. Look for excessive contamination or wear.
Ram does not advance.	Release valve (49) is open.	Close release valve (49).
	Low or no oil in reservoir.	Fill reservoir with oil and bleed air from system.
	Air locked in system.	Bleed air by opening release valve (49). Pump for 20 seconds.
	Load is above capacity.	Use correct equipment rated for that load.
Ram does not extend or only partially.	Low oil level in reservoir.	Fill reservoir with oil and bleed air from system.
	Pump plunger (57) is binding.	Look for dirt, gummy deposits, leaks, misalignment, worn parts, or defective packing.
Ram advances slowly.	Low air pressure.	Adjust air pressure to 90 to 145 psi.
	Leaking seals.	Replace seals.
Ram advances but does not hold load.	Release valve (49) is open.	Close release valve (49).
	Ram seals are leaking.	Replace seals.
Ram will not retract, or retracts slowly.	Release valve (49) is closed.	Open release valve (49).
	Reservoir is too full.	Drain oil to correct level.
	Ram damaged internally.	Take jack to authorized service center for repair.

AHJ-12 and AHJ-20 Bottle Jacks



Replacement Parts

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m. CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

Parts List: AHJ-12 Bottle Jack

Index No.	Part No.	Description	Size	Qty
1	AHJ12-1	Pump Cylinder		1
2	AHJ12-2	Y-Seal*	5.8x12x5.2mm	1
3	AHJ12-3	Nylon Gasket*	5.8x12x1.25mm	1
4	AHJ12-4	Copper Washer		1
5	AHJ12-5	Nut		1
7	TS-1503051	Socket Head Cap Screw	M6x20	8
8	AHJ12-8	Base Cover		1
9	SB-3MM	Steel Ball	Ø 3mm	4
10	AHJ12-10G	Air Motor Housing		1
11	AHJ12-11	Nut		1
12	AHJ12-12	Spring		1
13	AHJ12-13	Washer		1
14	AHJ12-14	Air Pump Plunger		1
15	AHJ12-15	Air Piston Base		1
16	AHJ12-16	O-Ring	20.3x2.65mm	2
17	AHJ12-17	Air Shuttle Valve		1
18	AHJ12-18A	O-Ring	42.7x3.7mm	2
19	AHJ12-19	Air Piston Assembly (includes #20,21,77)		1
20		Socket Head Cap Screw (RE: AHJ12-19)	M5x10	3
21		Shuttle Valve Seal (RE: AHJ12-19)		1
22	AHJ12-22	O-Ring	57x5.3mm	2
23	AHJ12-23	O-Ring	67x2.4mm	1
24	AHJ12-24	Top Cover		1
25	AHJ12-25	Snap Ring	Ø 14mm	1
26	AHJ12-26	O-Ring	11.5x1.5mm	2
27	AHJ12-27	Coupler		1
28	AHJ12-28	Air Hose Assembly		1
29	AHJ12-29	Air Valve Assembly		1
30	AHJ12-30G	Oil Tank Assembly		1
31	AHJ12-31	Oil Filler Plug		1
32	AHJ12-32	Snap Ring	Ø 36mm	1
33	AHJ12-33	O-Ring Retainer		1
34	AHJ12-34	O-Ring*	36x4.6mm	1
35	AHJ12-35	Seal Washer*		1
36	AHJ12-36	Piston Ring		1
37	AHJ12-37	Ram Assembly		1
38	AHJ12-38	Bushing		2
39	AHJ12-39	O-Ring*	43x3.55mm	1
40	AHJ12-40	Snap Ring		1
41	SB-4MM	Steel Ball	Ø 4mm	1
42	AHJ12-42	Safety Valve Ball Seat		1
43	AHJ12-43	Safety Valve Spring		1
44	AHJ12-44	Safety Valve Adjusting Screw		1
45	AHJ12-45	O-Ring*	7.5x2.65mm	2
46	AHJ12-46	Screw		1
47	AHJ12-47	Copper Washer		4
48	AHJ12-48	Valve Block Assembly		2
49	AHJ12-49	Release Valve Assembly		1
50	SB-6MM	Steel Ball	Ø 6mm	1
51	AHJ12-51	Link Pin		2
52	AHJ12-52	Pin		3
53	AHJ12-53G	Pump Cylinder		1
54	AHJ12-54	O-Ring*	7x3mm	2
55	AHJ12-55	Nylon Gasket*	7x12x1.5mm	1
56	AHJ12-56	Dustproof Ring	12.5x18.5x6mm	1
57	AHJ12-57G	Pump Plunger		1
58	AHJ12-58	Pump Plunger Pin		1

59	AHJ12-59G	Link		1
60	AHJ12-60G	Handle Socket		1
61	AHJ12-61	Front Handle		1
62	AHJ12-62	Rear Handle		1
63	TS-1540031	Hex Nut	M5	1
64	TS-2361051	Lock Washer	M5	1
65	TS-1550031	Flat Washer	M5	1
66	TS-2285302	Phillips Pan Head Machine Screw	M5x30	1
67	AHJ12-67	Return Spring Assembly		2
70	AHJ12-70G	Spring Lid		1
71	AHJ12-71	Spring Washer		1
72	SB-4MM	Steel Ball	ø4mm	1
73	AHJ12-73	Retainer		1
74	AHJ12-74	Snap Ring		1
75	AHJ12-75	Nylon Gasket	14x18x1.25mm	2
76	AHJ12-76	Nylon Gasket	10x14x1.25mm	2
77		O-Ring (RE: AHJ12-19)	5x1.8mm	3
	LM000198	I.D. Label, AHJ-12 (not shown)		1
	AHJ12-RP	Repair Kit for AHJ-12 *		

Items marked with an asterisk (*) are included in the Repair Kit.

Parts List: AHJ-20 Bottle Jack

Index No.	Part No.	Description	Size	Qty
1	AHJ12-1	Pump Cylinder		1
2	AHJ12-2	Y-Seal*	5.8x12x5.2mm	1
3	AHJ12-3	Nylon Gasket*	5.8x12x1.25mm	1
4	AHJ12-4	Copper Washer		1
5	AHJ12-5	Nut		1
6	AHJ12-6	O-Ring	18x2.65mm	1
7	TS-1503051	Socket Head Cap Screw	M6x20	8
8	AHJ12-8	Base Cover		1
9	SB-3MM	Steel Ball	ø3mm	4
10	AHJ12-10G	Air Motor Housing		1
11	AHJ12-11	Nut		1
12	AHJ12-12	Spring		1
13	AHJ12-13	Washer		1
14	AHJ12-14	Air Pump Plunger		1
15	AHJ12-15	Air Piston Base		1
16	AHJ12-16	O-Ring	20.3x2.65mm	2
17	AHJ12-17	Air Shuttle Valve		1
18	AHJ12-18	O-Ring	42.7x3.7mm	2
19	AHJ12-19	Air Piston Assembly (includes #20,21,77)		1
20		Socket Head Cap Screw (RE: AHJ12-19)	M5x10	3
21		Shuttle Valve Seal (RE: AHJ12-19)		1
22	AHJ12-22	O-Ring	57x5.3mm	2
23	AHJ12-23	O-Ring	67x2.4mm	1
24	AHJ12-24	Top Cover		1
25	AHJ12-25	Snap Ring	ø14mm	1
26	AHJ12-26	O-Ring	11.5x1.5mm	2
27	AHJ12-27	Coupler		1
28	AHJ12-28	Air Hose Assembly		1
29	AHJ12-29	Air Valve Assembly		1
30	AHJ20-30G	Oil Tank Assembly		1
31	AHJ20-31	Oil Filler Plug		1
32	AHJ20-32	Snap Ring	ø40mm	1
33	AHJ20-33	O-Ring Retainer		1

34	AHJ20-34	O-Ring*	46.8x4.6mm	1
35	AHJ20-35	Seal Washer*		1
36	AHJ20-36	Piston Ring		1
37	AHJ20-37	Ram Assembly		1
38	AHJ20-38	Bushing		2
39	AHJ20-39	O-Ring*	53x4.6mm	1
40	AHJ20-40	Snap Ring		1
41	SB-4MM	Steel Ball	ø4mm	1
42	AHJ12-42	Safety Valve Ball Seat		1
43	AHJ12-43	Safety Valve Spring		1
44	AHJ12-44	Safety Valve Adjusting Screw		1
45	AHJ12-45	O-Ring*	7.5x2.65mm	2
46	AHJ12-46	Screw		1
47	AHJ12-47	Copper Washer		4
48	AHJ12-48	Valve Block Assembly		2
49	AHJ12-49	Release Assembly		1
50	SB-6MM	Steel Ball	ø6mm	1
51	AHJ12-51	Link Pin		2
52	AHJ12-52	Pin		3
53	AHJ12-53G	Pump Cylinder		1
54	AHJ12-54	O-Ring*	7x3mm	2
55	AHJ12-55	Nylon Gasket*	7x12x1.5mm	1
56	AHJ12-56	Dustproof Ring	12.5x18.5x6mm	1
57	AHJ12-57G	Pump Plunger		1
58	AHJ12-58	Pump Plunger Pin		1
59	AHJ12-59G	Link		1
60	AHJ12-60G	Handle Socket		1
61	AHJ12-61	Front Handle		1
62	AHJ12-62	Rear Handle		1
63	TS-1540031	Hex Nut	M5	1
64	TS-2361051	Lock Washer	M5	1
65	TS-1550031	Flat Washer	M5	1
66	TS-2285302	Phillips Pan Head Machine Screw	M5x30	1
67	AHJ20-67	Return Spring Assembly		2
70	AHJ20-70G	Spring Lid		1
71	AHJ12-71	Spring Washer		1
72	SB-4MM	Steel Ball	ø4mm	1
73	AHJ20-73	Retainer		1
74	AHJ20-74	Snap Ring		1
75	AHJ12-75	Nylon Gasket	14x18x1.25mm	2
76	AHJ12-76	Nylon Gasket	10x14x1.25mm	2
77		O-Ring (RE: AHJ12-19)	5x1.8mm	3
	LM000199	I.D. Label, AHJ-20 (not shown)		1
	AHJ20-RP	Repair Kit for AHJ-20 *		

Items marked with an asterisk (*) are included in the Repair Kit.



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