

JET[®]

WMH TOOL GROUP

Operating Instructions and Parts Manual Air/Hydraulic Bottle Jack

Models AHJ-12 and AHJ-20



WMH TOOL GROUP

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This manual has been prepared for the owner and operators of a JET AHJ-Series Bottle Jack. Its purpose, aside from tool operation, is to promote safety using accepted operating and maintenance procedures. To obtain maximum life and efficiency from your bottle jack and to aid in using it safely, please read this manual thoroughly and follow the instructions carefully.

Warranty and Service

WMH Tool Group warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Repair Stations located throughout the United States can provide quick service or information.

In most cases, a WMH Tool Group Repair Station can assist in authorizing repair work, obtaining parts, or perform routine or major maintenance repair on your JET product.

For the name of an Authorized Repair Station in your area, please call 1-800-274-6848, or visit our web site at www.wmhtoolgroup.com

More Information

Remember, WMH Tool Group is consistently adding new products to the line. For complete, up-to-date product information, check with your local WMH Tool Group distributor, or visit our web site at www.wmhtoolgroup.com

WMH Tool Group Warranty

WMH Tool Group makes every effort to assure that its products meet high quality and durability standards and warrants to the original retail consumer/purchaser of our products that each product be free from defects in materials and workmanship as follows: 1 YEAR LIMITED WARRANTY ON ALL PRODUCTS UNLESS SPECIFIED OTHERWISE. This Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, repair or alterations outside our facilities, or to a lack of maintenance.

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To take advantage of this warranty, the product or part must be returned for examination, postage prepaid, to an Authorized Repair Station designated by our office. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will either repair or replace the product at our discretion, or refund the purchase price if we cannot readily and quickly provide a repair or replacement. We will return the repaired product or replacement at WMH Tool Group's expense, but if it is determined there is no defect, or that the defect resulted from causes not within the scope of WMH Tool Group's warranty, then the user must bear the cost of storing and returning the product. This warranty gives you specific legal rights; you may also have other rights, which vary from state to state.

WMH Tool Group sells through distributors only. Members of the WMH Tool Group reserve the right to effect at any time, without prior notice, alterations to parts, fittings and accessory equipment, which they may deem necessary for any reason whatsoever.

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.

Specifications

Model Number	AHJ-12	AHJ-20
Stock Number.....	456612	456620
Rated 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, WMH Tool Group reserves the right to change specifications at any time and without prior notice, without incurring obligations.

(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).

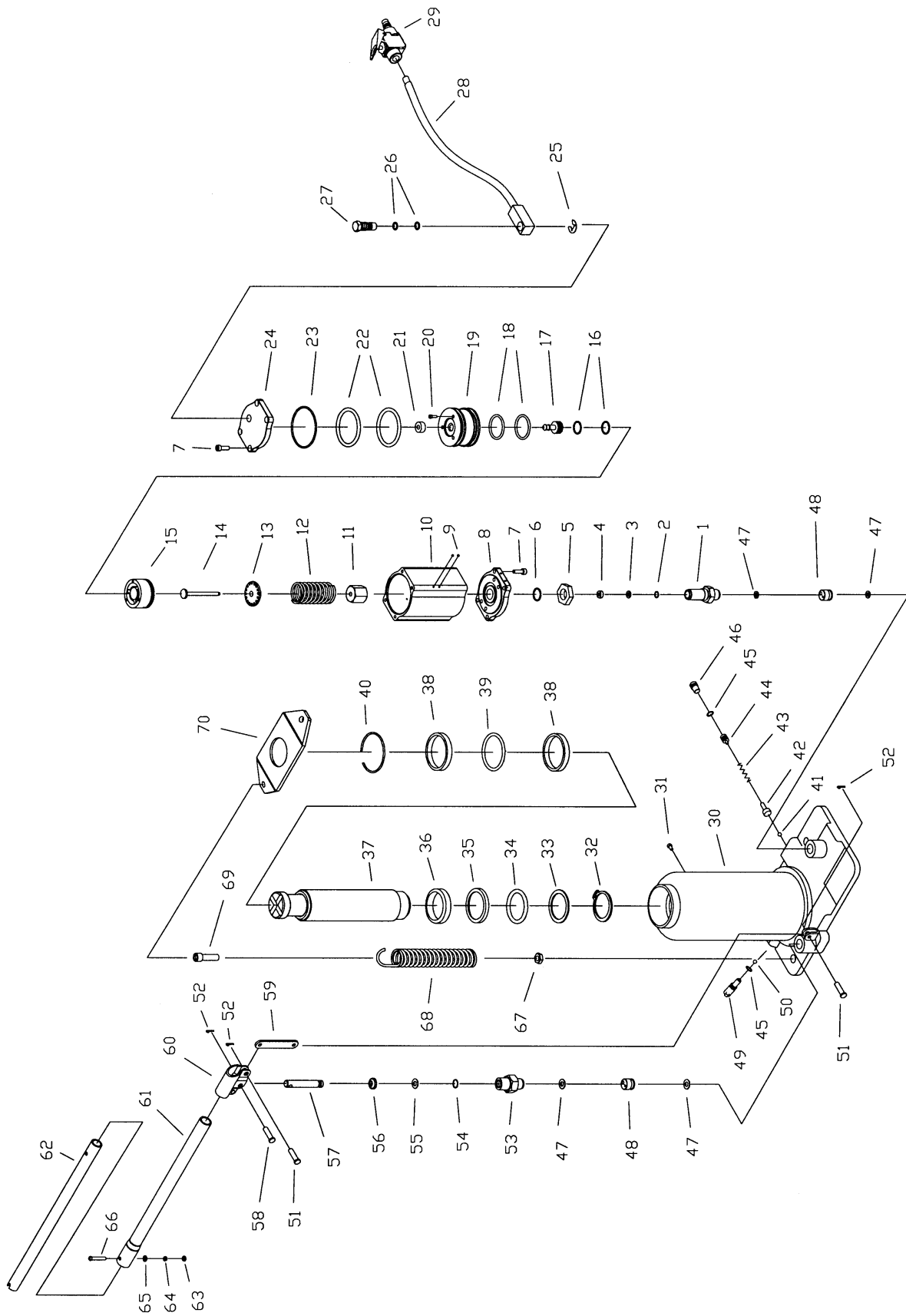
With the release valve (49) open, manually pump the handle six times. This will keep internal components lubricated.

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 between 7:30 a.m. and 6:00 p.m. (CST), Monday through Friday. Having the Model Number and Serial Number of your product 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
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-3	Steel Ball	Ø 3mm	4
10	AHJ12-10	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	43x3.55mm	2
19	AHJ12-19	Air Piston		1
20	TS-1502021	Socket Head Cap Screw	M5x10	3
21	AHJ12-21	Shuttle Valve Seal		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	AHJ12-30	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-4	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-6	Steel Ball	Ø 6mm	1

51	AHJ12-51	Link Pin		2
52	AHJ12-52	Pin		3
53	AHJ12-53	Pump Cylinder		1
54	AHJ12-54	O-Ring*	7x3mm	1
55	AHJ12-55	Nylon Gasket*	7x12x1.5mm	1
56	AHJ12-56	Dustproof Ring	12.5x18.5x6mm	1
57	AHJ12-57	Pump Plunger		1
58	AHJ12-58	Pump Plunger Pin		1
59	AHJ12-59	Link		1
60	AHJ12-60	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	Hex Nut (Thin)	M10	2
68	AHJ12-68	Return Spring		2
69	AHJ12-69	Screw		2
70	AHJ12-70	Spring Lid		1
	AHJ12-RK	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-3	Steel Ball	ø3mm	4
10	AHJ12-10	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	43x3.55mm	2
19	AHJ12-19	Air Piston		1
20	TS-1502021	Socket Head Cap Screw	M5x10	3
21	AHJ12-21	Shuttle Valve Seal		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	AHJ20-30	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-4	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-6	Steel Ball	ø6mm	1
51	AHJ12-51	Link Pin		2
52	AHJ12-52	Pin		3
53	AHJ12-53	Pump Cylinder		1
54	AHJ12-54	O-Ring*	7x3mm	1
55	AHJ12-55	Nylon Gasket*	7x12x1.5mm	1
56	AHJ12-56	Dustproof Ring	12.5x18.5x6mm	1
57	AHJ12-57	Pump Plunger		1
58	AHJ12-58	Pump Plunger Pin		1
59	AHJ12-59	Link		1
60	AHJ12-60	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	Hex Nut (Thin)	M10	2
68	AHJ20-68	Return Spring		2
69	AHJ20-69	Screw		2
70	AHJ20-70	Spring Lid		1
	AHJ20-RK	Repair Kit for AHJ-20 *		

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



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