



Operating Instructions and Parts Manual

Paving Breakers

Models JPB-60, JPB-90



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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.

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; Light-Duty Air Tools
1 Year – Motors; Machine Accessories; Heavy-Duty Air Tools; Pro-Duty Air Tools
2 Year – Metalworking Machinery; Electric Hoists, Electric Hoist Accessories
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.



WARNING

This paving breaker is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a paving breaker, do not use until proper training and knowledge have been obtained.

- Always wear approved impact resistant eye protection.
- Always wear approved ear protection.
- Always wear gloves and protective clothing.
- Always direct the tool exhaust away from yourself and others.
- Always disconnect the tool from the air supply when not in use.
- Always check that the cutting chisel is securely latched in the tool before depressing the throttle trigger.
- Always hold the cutting tool down firmly on the work before depressing the throttle trigger.
- 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 paint
 crystalline silica from bricks and cement and other masonry products, and
 arsenic and chromium from chemically-treated lumber.

Your risk from those 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 specifically designed to filter out microscopic particles

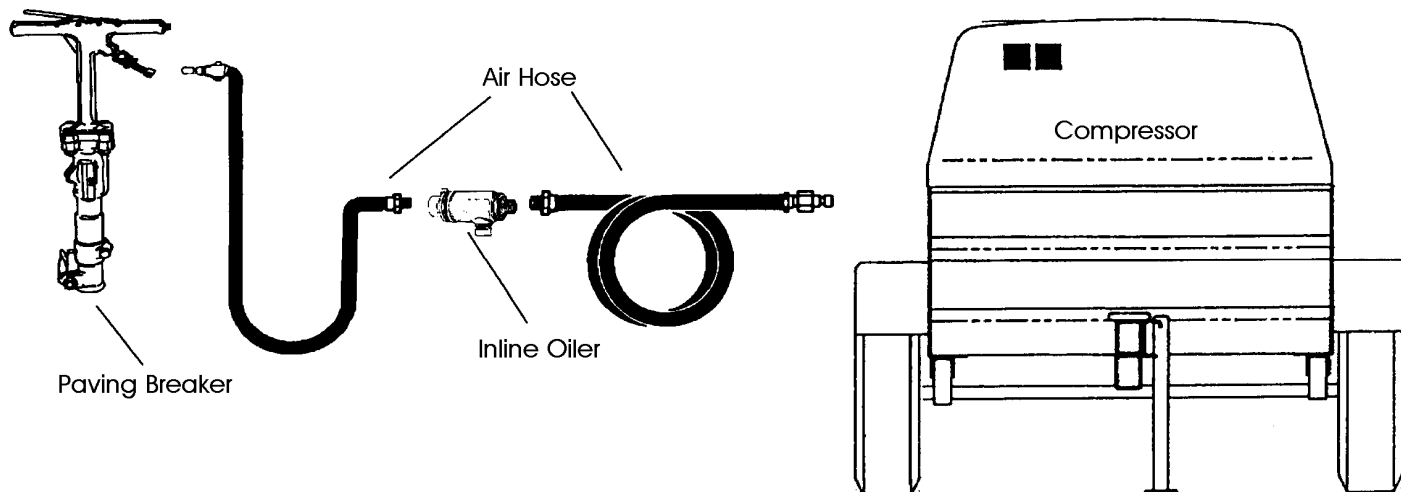
- Do not operate tool while under the influence of drugs, alcohol or any medication.

Specifications

Model	Stock No.	Handle Type	Shank Size	Piston Dia.	Piston Stroke	Blows per Minute	Ft/Lb. per Blow @ 90 PSI	Overall Length	CFM	Air Hose ID	Net lbs.	Ship lbs.
PB-60-1-1/8	550075	"T"	1-1/8"x6"	2-1/4"	5"	1,400	88.97	25-3/8"	58	3/4"	66	72
PB-60-1-1/4	550076	"T"	1-1/4"x6"	2-1/4"	5"	1,400	88.97	25-3/8"	58	3/4"	66	72
PB-90-1-1/8	550077	"T"	1-1/8"x6"	2-5/8"	6-1/2"	1,250	180.83	28-1/2"	77	3/4"	92-1/2	101
PB-90-1-1/4	550078	"T"	1-1/4"x6"	2-5/8"	6-1/2"	1,250	180.83	28-1/2"	77	3/4"	92-1/2	101

The specifications in this manual are given as general information and are not binding. JET reserves the right to effect, at any time and without prior notice, changes or alterations to parts, fittings, and accessory equipment deemed necessary for any reason whatsoever.

Air Hose and Connections



Daily Service

To maintain optimum tool performance, the following service is required on a daily basis:

CAUTION

Operating the tool without air lubrication, even for just a few minutes, can severely damage the valve parts, cylinder, and piston. Such damage is not covered by your tool warranty.

- Be sure the inline oiler has lubricant and is working properly.
- Drain the air system moisture trap.
- Be sure the air pressure is regulated to no more than 90 PSI.
- Pour several ounces of JET Marvel Air Tool Oil into the tool inlet before connecting to the air supply.
- Before storing the tool, pour a few ounces of JET Marvel Air Tool Oil into the air inlet and momentarily operate the tool.

Troubleshooting

Loss of power or erratic action:

- Compressor producing insufficient air pressure for tool.
- Compressor producing insufficient air volume for tool.
- Moisture, or debris in air hose.
- Air hose undersize, or in poor condition.
- Inadequate air system lubrication.
- Incorrect shank size.
- Excessively worn shank.
- Loose side, or back head bolts. Loose bolts can cause loss of power and tool damage. Checking bolt torque weekly when the tool is in regular use is recommended.
- Tool is badly worn or has internal damage.

Air leakage, low impact, low bpm, tool operates with throttle off, loose chisel, steel retainer latch does not catch:

- See *Repair Notes* for additional information.

Disassembly

1. Disconnect the air tool from the air system.
2. Loosen the back head bolt nuts, remove the lock washer, and back head bolt nuts.
3. Remove the back head from the cylinder and remove the throttle valve, throttle valve spring, plunger, and plunger spring.
4. Remove the valve guide, valve, valve chest, valve seat, valve chest dowel pin, and piston.
5. Remove the cylinder, tappet seat, and tappet.
6. Disassemble the front head:
 - Loosen the steel retainer bolt nut.
 - Remove the steel retainer bolts, the steel retainer, and the retainer bolt bushings.
 - Remove the steel retainer plunger and the retainer spring.
 - Remove the front head bushing from the front head by pressing it out from the backside using a 15-ton press.
7. Disassemble the back head:
 - Remove the two throttle lever pins and release the throttle lever.
 - Using a press and a 0.37" (9.4mm) pin, remove the throttle valve stem guide from the back head.
 - Remove the 5/8" oil control plug from the back head and take out the oil control felt.
8. Disassemble the air inlet:
 - Loosen the air inlet swivel nut and remove it from the cylinder.
 - Remove the air inlet swivel.
 - Remove the air inlet screen from the cylinder.
 - Remove the O-ring(s) from the air inlet swivel nut and air inlet swivel.

Repair Notes

Air Leakage:

- If air is leaking from the air inlet swivel nut or air inlet swivel, change the O-rings and check for loosening of the air inlet swivel nut.
- If air is leaking from the throttle valve area, check for wear of the throttle valve stem guide.
- If air is leaking from the back head and cylinder, check the plug carefully and change the O-ring on the throttle valve. Also check for foreign matter, which may have entered during assembly.

Low Impact or Loss of Blows per Minute:

- Check the clearance between the pistons and the cylinder. The maximum clearance should be 0.005 in. (.13 mm). Check that the piston moves freely and is not seized.
- Check for valve seizure.

Tool continues to operate after releasing throttle lever:

- Check the throttle valve seat surface for damage. Also check for foreign material in the valve area.

Chisel is loose:

- Change the front head bushing.

Steel retainer latch does not catch

- Check for excessive steel retainer wear.
- Check for excessive steel retainer plunger and spring wear.

Reassembly

Front Head Assembly

1. Using a 15-ton press, press the front head bushing into place. A hex flat must align with the front head steel retainer.
2. Assemble the steel retainer spring and steel retainer plunger into the front head.
3. Assemble the steel retainer bolt bushings on each side of the front head. Set the retainer into the retainer slot. To support the retainer, insert the retainer bolt through the bushings from the stopper side of the front head.
4. Place the 3/4" nut and washer on the bolt. See the torque specifications chart for the torque setting.

Back Head Assembly

1. Place the chamfered side of the throttle valve stem guide into the back head and tap into position.
2. Ream the guide with a 0.312" (7.93 mm) reamer tool.
3. Set the throttle valve lever into the back head.
4. Place a 0.312" (7.93 mm) steel rod into the hole and hammer the pin in.
5. Apply a light film of grease on the rubber handle and slide onto the handle.
6. Assemble the plugs on both sides of the back head. See the torque specifications chart for the torque setting.
7. Place the throttle valve o-ring in position where the cylinder will meet.
8. Insert the oil control felt onto the top portion of the back head and assemble the oil control plug.

Air Inlet Assembly

1. Place the #P91222 O-ring onto the air inlet swivel.
2. Place the #P91237 O-ring onto the air inlet swivel nut.
3. Assemble the air inlet swivel into the air inlet swivel nut and tighten the nut.

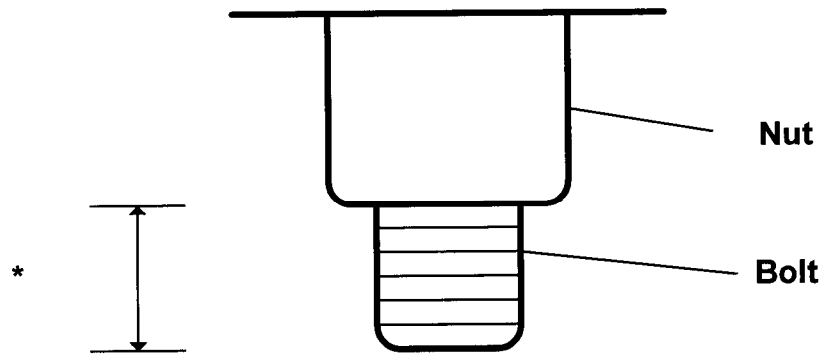
Complete Assembly

1. Stand the front head assembly in the vertical position.
2. Assemble the tappet seat and cylinder onto the front head, making sure the retainer nut and exhaust port on the cylinder are in line with each other.
3. Place the front head bolts into the holes.
4. Assemble the front head bolt springs, front head lock washer, and tighten the front head bolt nut. A minimum of three bolt threads should be visible.
5. Assemble the valve seat, valve, valve chest, and valve guide into the cylinder. **Note:** the valve chest and valve guide must align with the knock placement. The valve has no orientation.
6. Install the valve chest dowel pin.
7. Install the five cylinder plugs into the cylinder.
8. Set the air inlet screen into the exhaust portion of the cylinder.
9. Install the air inlet assembly. See torque specification chart.
10. Place the throttle valve spring onto the throttle valve and install into the cylinder.
11. Lightly grease the inner diameter of the plunger, insert the plunger spring, and place on top of the valve guide.
12. Place the back head on top of the cylinder and put the back head bolts from underneath into the four holes.
13. Assemble the lock washer and fasten the back head bolt nuts. See torque specification chart for bolt tightness.
14. Assemble the back head with the lever in line with the cylinder exhaust port.
15. Remove oil fill plug in the back head and refill the spindle oil tank.
16. Tighten oil tank plug. See torque specification chart.
17. Before operating a newly rebuilt tool, pour a few ounces of JET Marvel air tool oil into the air inlet.

Torque Specifications (ft./lb.):

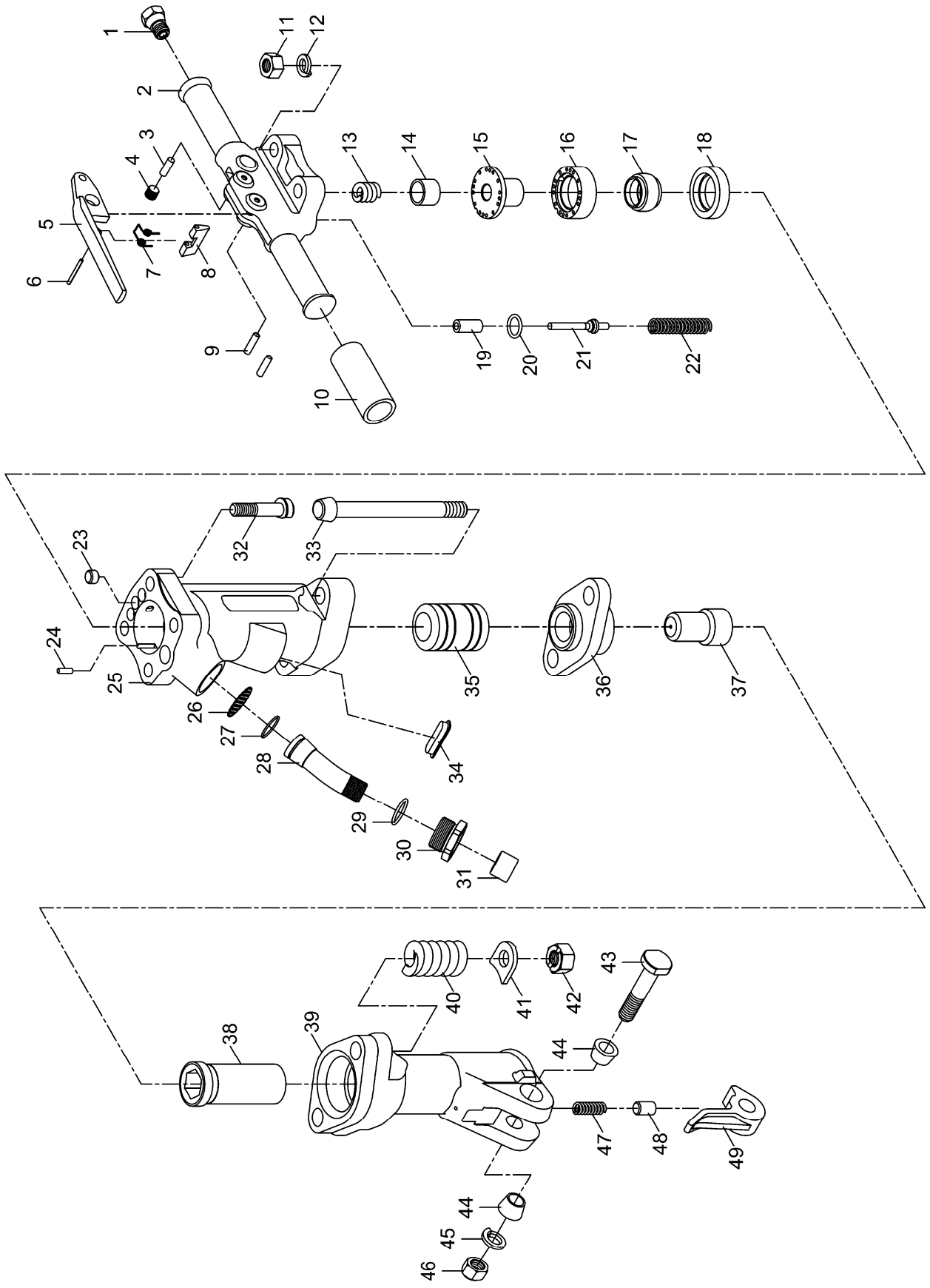
Refer to the chart below when assembling parts or tightening after a period of service:

	PB-60	PB-90
Front Head Bolt	2-2.5mm*	3mm*
Back Head Bolt	166.3-202.5	166.3-202.5
Front Retainer Bolt	43.4-57.8	43.4-57.8
Oil Tank Bolt	57.8	28.9-32.5
GD Plug	7.2-10.8	10.8-14.5
Air Inlet Assembly	202.58-216.9	202.5-216.9



* Torque setting for the front head bolt on the PB-60 and PB-90 is given as the measurement between the bottom of the nut and the end of the bolt.

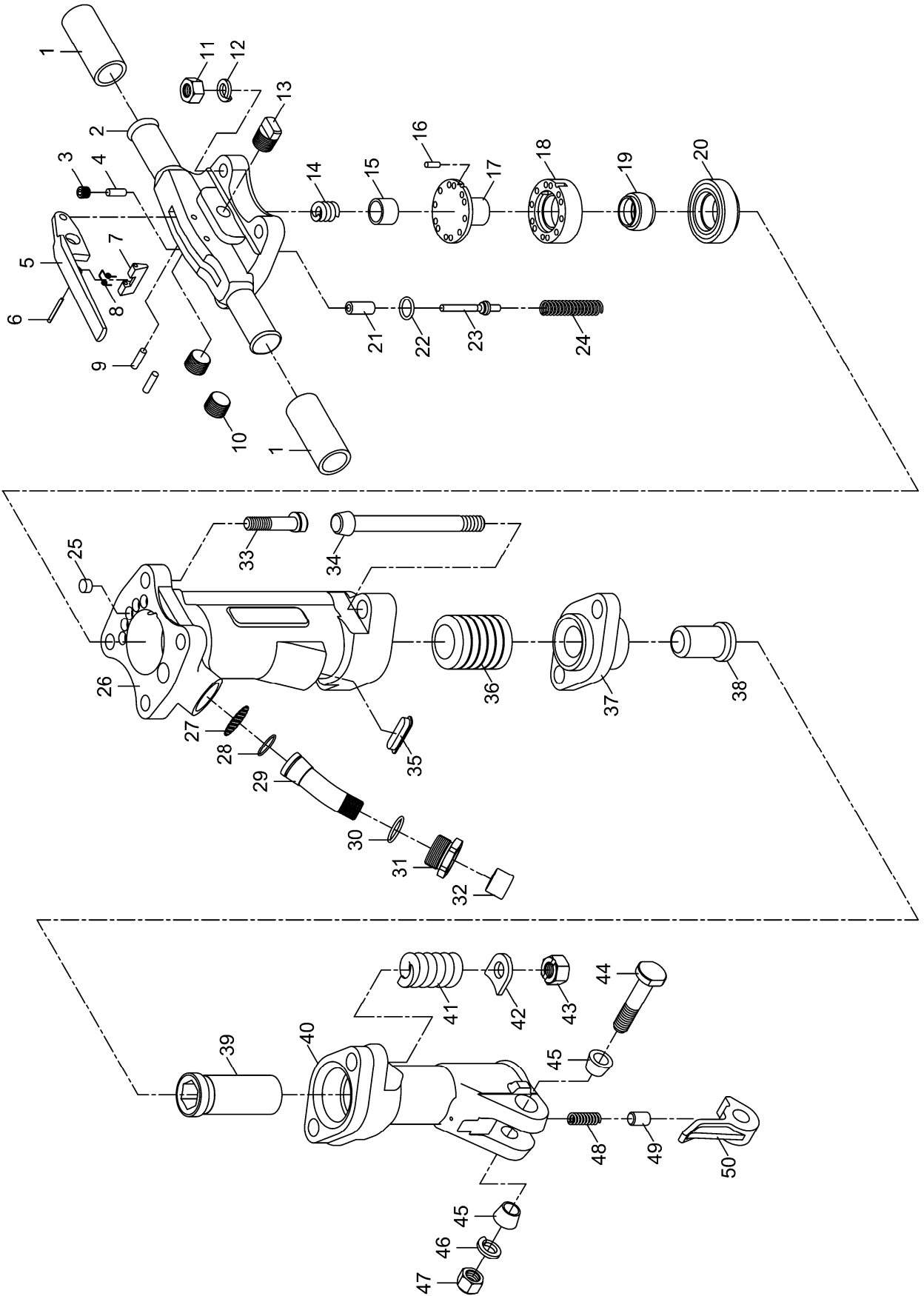
Parts Breakdown for JPB-60-1-1/8" and JPB-60-1-1/4"



Parts List for JPB-60-1-1/8" and JPB-60-1-1/4"

Index No.	Part No.	Description	Size	Qty.
1.....	P61119.....	Oil Plug.....		1
2.....	P61111.....	Back Head.....		1
3.....	P91245.....	Felt Oiler.....	8.5x25mm.....	1
4.....	P91220.....	Oil Control Plug.....	1/2".....	1
5.....	P91217.....	Throttle Lever.....		1
6.....	P91250.....	Spring Pin.....	4x40mm.....	1
7.....	P91252.....	Stop Lever Spring.....		1
8.....	P91251.....	Stop Lever.....		1
9.....	P91218.....	Throttle Lever Pin.....	8x30mm.....	2
10.....	P91213.....	Rubber Grip.....		2
11.....	P91225.....	Back Head Nut.....		4
12.....	P91224.....	Lock Washer.....	5/8".....	4
13.....	P91210.....	Plunger Spring.....		1
14.....	P91209.....	Plunger.....		1
15.....	P61107.....	Valve Guide.....		1
16.....	P61105.....	Valve Chest.....		1
17.....	P91204.....	Automatic Valve.....		1
18.....	P61106.....	Valve Seat.....		1
19.....	P91215.....	Throttle Valve Stem Guide.....		1
20.....	P91212.....	O-Ring.....	21.7x3.5mm.....	1
21.....	P91214.....	Throttle Valve.....		1
22.....	P91216.....	Throttle Valve Spring.....		1
23.....	P91202.....	Cylinder Plug.....		3
24.....	P91208.....	Dowel Pin.....	1/4"x3/4".....	1
25.....	P61101.....	Cylinder.....		1
26.....	P91238.....	Air Inlet Screen.....		1
27.....	P91222.....	Air Inlet Swivel O-Ring.....	28.5x2mm.....	1
28.....	P91235.....	Air Inlet Swivel.....		1
29.....	P91237.....	O-Ring.....	29.4x3.1mm.....	1
30.....	P91236.....	Air Inlet Swivel Nut.....		1
31.....	P91246.....	Plug.....		1
32.....	P61123.....	Back Head Bolt.....		4
33.....	P61139.....	Front Head Bolt.....		2
34.....	P91244.....	Rubber Plug.....		1
35.....	P61103.....	Piston Hammer.....		1
36.....	P61126.....	Tappet Seat.....		1
37.....	P61127.....	Tappet.....		1
38.....	P61143.....	Front Head Bushing.....	Used w/the JPB-60-1-1/8".....	1
.....	P91243.....	Front Head Bushing.....	Used w/the JPB-60-1-1/4".....	1
39.....	P61121.....	Front Head.....		1
40.....	P91242.....	Front Head Bolt Spring.....		2
41.....	P91241.....	Front Head Bolt Lock Washer.....		2
42.....	P91240.....	Front Head Bolt Nut.....		2
43.....	P91229.....	Steel Retainer Bolt.....		1
44.....	P91232.....	Steel Retainer Bolt Bushing.....		2
45.....	P91231.....	Lock Washer.....	3/4".....	1
46.....	P91230.....	Steel Retainer Bolt Nut.....	3/4"-16.....	1
47.....	P91234.....	Steel Retainer Spring.....		1
48.....	P91233.....	Steel Retainer Plunger.....		1
49.....	P91228.....	Steel Retainer.....		1

Parts Breakdown for JPB-90-1-1/8" and JPB-90-1-1/4"



Parts List for JPB-90-1-1/8" and JPB-90-1-1/4"

Index No.	Part No.	Description	Size	Qty.
1	P91213	Rubber Grip		2
2	P91211	Back Head		1
3	P91220	Oil Control Plug	1/8"	1
4	P91245	Felt Oiler	8.5x25mm	1
5	P91217	Throttle Lever		1
6	P91250	Spring Pin	4x40mm	1
7	P91251	Stop Lever		1
8	P91252	Stop Lever Spring		1
9	P91218	Throttle Lever Pin	8x30mm	2
10	P91248	Oil Tank Plug	1/2"	2
11	P91225	Back Head Nut		4
12	P91224	Lock Washer	5/8"	4
13	P91219	Oil Plug		1
14	P91210	Plunger Spring		1
15	P91209	Plunger		1
16	P91208	Dowel Pin	1/4"x3/4"	1
17	P91207	Valve Guide		1
18	P91205	Valve Chest		1
19	P91204	Automatic Valve		1
20	P91206	Valve Seat		1
21	P91215	Throttle Valve Stem Guide		1
22	P91212	O-Ring	21.7x3.5mm	1
23	P91214	Throttle Valve		1
24	P91216	Throttle Valve Spring		1
25	P91202	Cylinder Plug		5
26	P91201	Cylinder		1
27	P91238	Air Inlet Screen		1
28	P91222	Air Inlet Swivel O-Ring	28.5x2mm	1
29	P91235	Air Inlet Swivel		1
30	P91237	O-Ring	29.4x3.1mm	1
31	P91236	Air Inlet Swivel Nut		1
32	P91246	Plug		1
33	P91223	Back Head Bolt		4
34	P91239	Front Head Bolt		2
35	P91244	Rubber Plug		1
36	P91203	Piston Hammer		1
37	P91226	Tappet Seat		1
38	P91227	Tappet		1
39	P61143	Front Head Bushing	Used w/the JPB-90-1-1/8"	1
	P91243	Front Head Bushing	Used w/the JPB-90-1-1/4"	1
40	P91221	Front Head		1
41	P91242	Front Head Bolt Spring		2
42	P91241	Front Head Bolt Lock Washer		2
43	P91240	Front Head Nut		2
44	P91229	Steel Retainer Bolt		1
45	P91232	Steel Retainer Bolt Bushing		2
46	P91231	Lock Washer	3/4"	1
47	P91230	Steel Retainer Bolt Nut	3/4"-16	1
48	P91234	Steel Retainer Spring		1
49	P91233	Steel Retainer Plunger		1
50	P91228	Steel Retainer		1



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