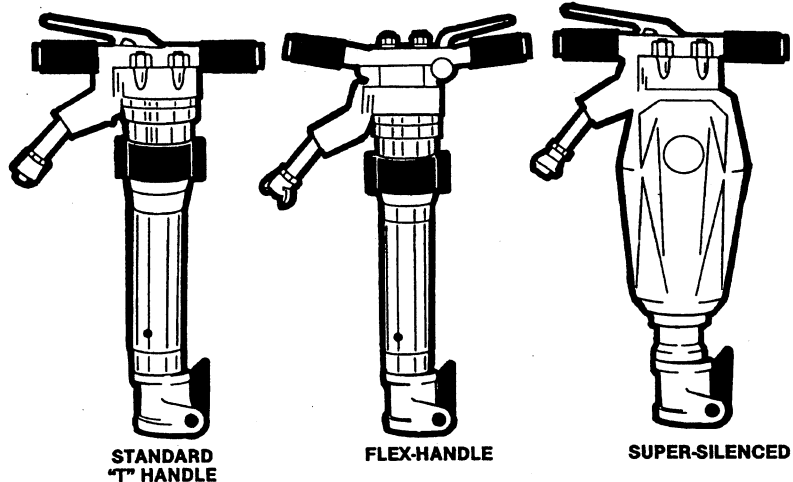


OPERATING INSTRUCTIONS AND PARTS LIST

MPB-60A AND 90B-90A

(Includes MPB-60 and MPB-90)

PAVING BREAKERS

STANDARD
"T" HANDLE

FLEX-HANDLE

SUPER-SILENCED

GENERAL INFORMATION



OPERATOR IS REQUIRED TO READ
ENTIRE INSTRUCTION MANUAL

⚠ WARNING

Always turn off and disconnect air supply from tool before replacing steel or removing steel retainer.

- **COMPRESSED AIR SUPPLY (CFM [L/S]) REQUIRED**

Use an air compressor with sufficient CFM (L/S) (Cubic Feet per Minute [Liters per Second]) delivery to operate the tool(s) at a pressure of 90 to 100 PSI (Pounds per Square inch) (6.2 bar to 6.9 bar) RE: Chart for CFM (L/S) requirements.

- **AIR PRESSURE (PSI [BAR])**

Air pressure should be 90-100 PSI (6.2 bar to 6.9 bar) at the tool during operation. Higher pressure will increase kick back to operator, decrease performance, and may cause damage to tool. Lower pressure will reduce tool performance.

It is important to realize that long lead hoses, manifolds and worn hose connections will cause a pressure drop. Use couplings and fittings of maximum I.D. size for the size hose being used. Reducers will restrict the air and result in less pressure at the tool.

- **AIR HOSE AND FITTINGS**

Inspect air hoses, fittings and gaskets for cuts and abrasions. Check that fittings, both in the tool and on the hose, are secure. Use safety wire or chain to secure the couplings at the tool to prevent hose whipping should the hose become detached while pressurized. Clear hoses of debris and excess water before attaching to tool. For hoses in excess of 1/2" (13mm) inside diameter install a proper flow limiting valve per government Health and Safety Requirements.

⚠ WARNING

When blowing through a hose or air line, ensure that the open end is held securely. A free end will whip and may cause injury.

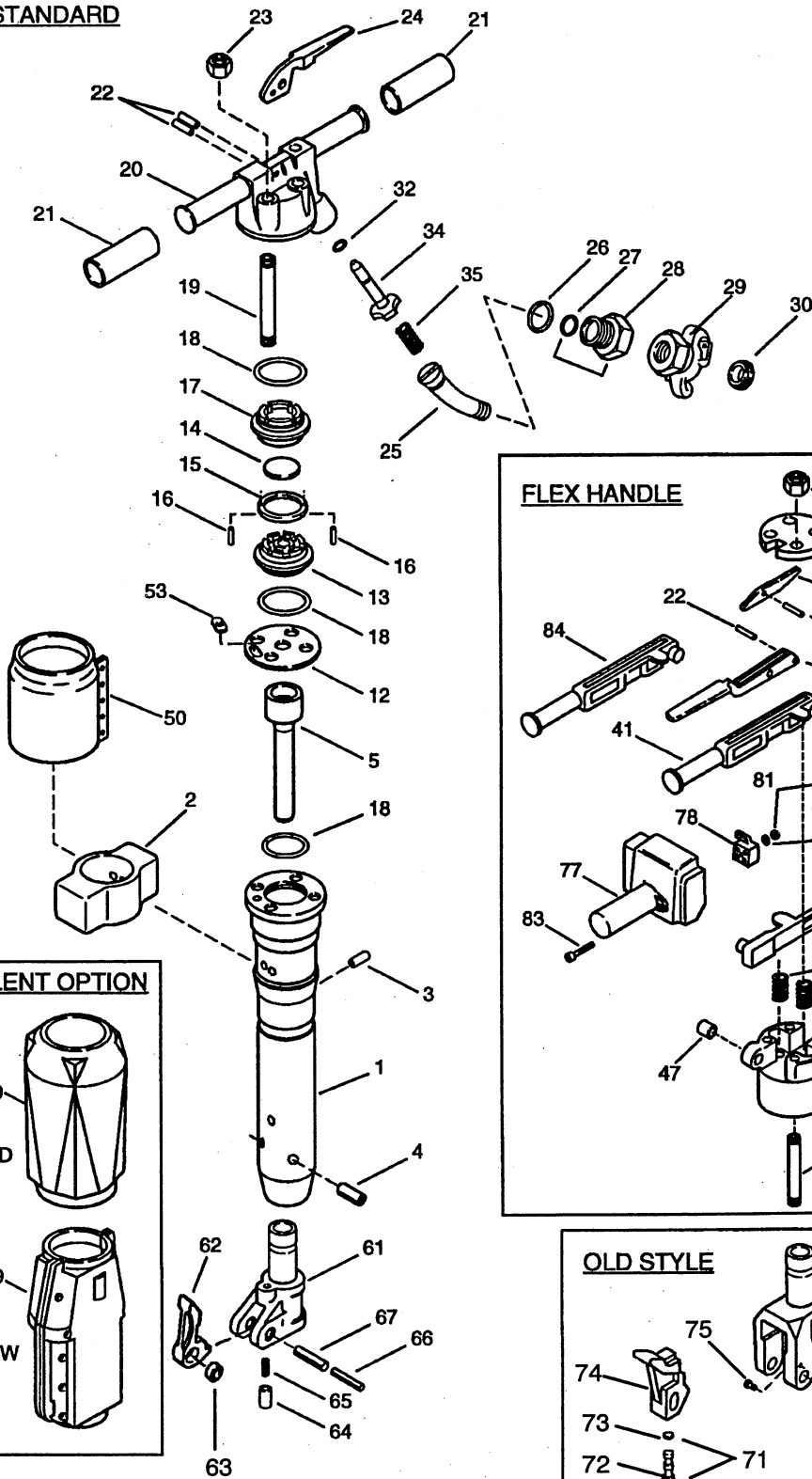
- **LUBRICATION**

The "M Series" Paving Breakers do not require special in-line lubrication under normal operating conditions. Oil carryover from the compressor, combined with moisture in the air, will most often provide sufficient lubrication. However, under unusual conditions (i.e., dry air being supplied from an after-cooled reciprocating compressor; long lengths of hose manifolded before the tool, etc.) a small amount of light weight non-detergent oil may have to be added to the air supply. A slight mist of moisture/oil should be present at the tool exhaust.

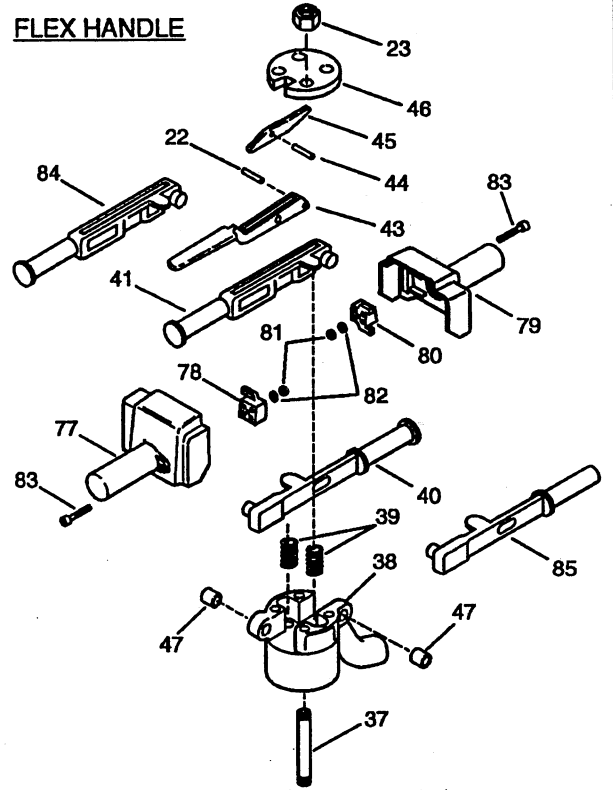
MILWAUKEE

MPB-60A AND MPB-90A ILLUSTRATION

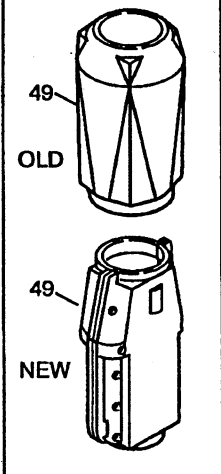
STANDARD



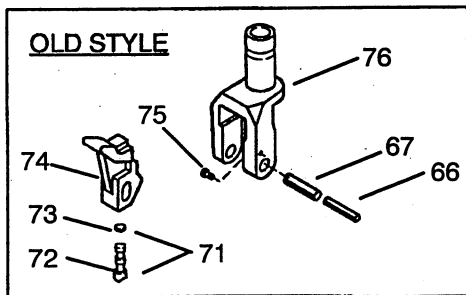
FLEX HANDLE



SILENT OPTION



OLD STYLE



PARTS LIST

INDEX NO.	PART NUMBER	QTY. REQ.	DESCRIPTION	INDEX NO.	PART NUMBER	QTY. REQ.	DESCRIPTION
MPB-60A & MPB 90A (COMMON PARTS)				OLD STYLE			
3	68524129	1	Pin, Exhaust Deflector	71	250029-797	1	Kit, Retainer Plunger (Incl. #72, #73)
4	68520676	1	Pin, Shank Alignment				
12	68722493	1	Plate, Cylinder End*	73	250029-796	1	Spacer, Retainer Plunger
13	68722574	1	Seat, Valve*	74	68722541	1	Retainer, Steel
14	68721008	1	Disc, Valve	75	68513757	1	Stop, Steel Retainer
15	N/A	1	Guide, Valve (Part of Item 17)	76	68780146	1	Obsolete, Use 61 thru 67
16	68VV8912	2	Dowel, Valve		68780147	1	Obsolete, Use 61 thru 67
17	68722730	1	Chest, Valve (Incl. Items 15 & 16)	MPB-90A (ONLY)			
18	68522101	3	O-ring, Valve Chest	1	N.A.	1	Cylinder, MPB-90A
19	68722027	4	Stud, Backhead T-Handle	2	68722455	1	Deflector, Exhaust MPB-90A
20	68723108	1	Handle, Bare (T)	5	68722301	1	Piston, MPB-90A
21	68723111	2	Grip, Rubber Handle	25	68722304	1	Swivel, Air Inlet MPB-90A
22	68723013	1	Pin, Throttle Lever	50	68722528	1	Muffler, MPB-90A (Optional)
23	68VE9016	4	Nut, Backhead Stud	MPB-60A (ONLY)			
24	68723110	1	Lever, Throttle, T-Handle	1	N.A.	1	Cylinder, MPB-60A
26	68CJ0825	2	O-ring, .984ID x .098W (70)	2	68722454	1	Deflector, Exhaust MPB-60A
27	68CJ0026	1	O-ring, 1.378ID x .138W (70)	5	68722306	1	Piston, MPB-60A
28	68722303	1	Nut, Air Inlet Swivel MPB-90/60	25	68722312	1	Swivel, Air Inlet MPB-60A
29	68524110	1	Coupling, Universal Hose, w/#30	50	68722529	1	Muffler, MPB-60A (Optional)
30	250015-228	1	Gasket, Hose Coupling Rubber	FLEX HANDLE OPTION			
32	68CJ0005	1	O-ring, .225ID x .075W (70)	37	68721705	4	Stud, Backhead Flex Handle
34	68722781	1	Valve, Throttle	38	N.A.	1	Backhead, Bare Flex Handle
35	68MR1600	1	Spring, Throttle Valve	39	68721710	2	Spring, Throttle Lever
53	68722536	1	Seal, Cylinder Port	40	68721701	1	Handle, Left Flex
61	68722581	1	Bushing 1 1/8" Hex (w/Fronthead)	41	68721700	1	Handle, Right Flex
	68722579	1	Bushing, 1 1/4" Hex (w/Fronthead)	42	6823013	1	Pin, Flex Handle Pivot
62	68722930	1	Retainer, Seal	43	68722053	1	Lever, Throttle Flex Handle
63	68722582	1	Bushing, Steel Retainer	44	68MA0625	1	Pin, Actuator Lever Pivot
64	68722586	1	Plunger, Steel Retainer	45	68721704	1	Actuator, Throttle Valve
65	68MR1301	1	Spring, Retainer Plunger	46	68721703	1	Plate, Flex Handle Cover
66	68524108	1	Pin, Roll Small Retainer	47	68721707	2	Bushing, Flex Handle Pivot
67	68520675	1	Pin, Roll Large Retainer	SUPER SILENCED OPTION			
FRONTHEAD ASSEMBLIES				48	N.A.	1	Cylinder, Silenced MPB-90A
	68780146	1	Fronthead Assy, 1 1/8" Hex (Includes Items 61 thru 67)		N.A.	1	Cylinder, Silenced MPB-60A
	68780147	1	Fronthead Assy, 1 1/4" Hex (Includes Items 61 thru 67)	49	68721443	1	Silencer, MPB-90A/60A
* Prior to Serial Number 89547A When Replacing: 68722493 Plate. Also Order 68722536 Seal 68722574 Valve Seat. Also Order 68522101 O-Ring				FLEX HANDLE GUARD OPTION			
				77	68722768	1	Guard, Left Handle
				78	68722770	1	Clamp, Left Guard
				79	68722769	1	Guard, Right Handle
				80	68722771	1	Clamp, Right Guard
				81	68549506	2	Nut, (metric)
				82	68548106	2	Washer, (metric)
				83	68524318	2	Screw, (metric)
				84	68722814	1	Handle, Left Flex Guard
				85	68722813	1	Handle, Right Flex Guard

REPAIR TOOLS FOR MPB-60 AND MPB-90

PART NUMBER	DESCRIPTION	APPLICATION
68M2882	Plate, Press Mounting	To hang cylinder from hydraulic press bed when removing chuck bushings.
68721301	Tool, Chuck Removal MPB-90	To press out chuck bushing.
68721304	Tool, Chuck Removal MPB-60	To press out chuck bushing.
68705291B	Tool, Chuck Inserting 1 1/8" Hex	To press in 1 1/8" hex bushing.
68705291C	Tool, Chuck Inserting 1 1/4" Hex	To press 1 1/4" hex bushing.
68M705695K	Tool, Bushing Removal-Flex Handle	To remove 250027-813 flex handle pivot bushing.
Local Purchase	Metric Wrenches	Disassembly and Assembly.

NOTE: All components are **Metric** except external air inlet swivel **Threads** which are NPT.

ON-THE-JOB TROUBLE SHOOTING (M-SERIES PAVING BREAKERS)

▲ WARNING

Never remove retainer or replace tool steel with air supply connected to the air tool.

PROBLEM	PROBABLE CAUSE	REMEDY
Tool Runs Sluggish	Low Air Pressure at Tool	Increase Pressure to 90–100 PSI (6.2 to 6.9 bar)
	Insufficient Air Flow (CFM [L/S])	Check Hoses, etc. for Leaks
	Automatic Valve Clogged	Flush Tool with Small Amount of Penetrating Oil
	Insufficient Lubrication	Add a Small Amount of Light-Weight Non-Detergent Oil into Hose.
Tool Runs Erratically	OSHA (Velocity Valve) Tripping	Inspect Valve for Proper Sizing
	Foreign Material in Tool Inlet	Remove Foreign Material
	Automatic Valve Sticking	Flush Tool With Small Amount of of Penetrating Oil. Reduce Amount of Oil/Moisture to Tool
Tool Will Not Run (Air Blows thru Exhaust)	Automatic Valve Stuck	Flush Tool with Small Amount of Penetrating Oil.
Tool Continues to Run	Throttle Valve Stuck	Flush Tool with Small Amount of Penetrating Oil.
Excessive Kick-Back	Air Pressure Too High at Tool	Reduce Pressure to 90–100 PSI (6.2 to 6.9 bar)
	Dull Cutting Edge on Steel	Replace with Sharp Steel
Difficulty Removing Steel from Work	Wedge Action of Point Negated	Break Closer to Open Edge
	Improper Cutting Edge Profile	Select Appropriate Edge
Slow Penetration	Improper Down Pressure	Apply Proper Down Pressure

If suggested remedies fail to correct problem, disassembly and inspection must be performed to determine cause.

UNPACKING YOUR NEW SULLAIR PAVING BREAKER

1. Visually inspect tool for any signs of damage during shipment.
2. Locate the air inlet swivel assembly and attach it to the Paving Breaker. Be sure that the swivel is assembled to the tool for which it was designed (the number MB-60 is stamped on the swivel stem for the Model MPB-60A and number MB-90 for the Model MPB-90A).
3. Compare the Serial Number that is stamped on the tool to the packing list or invoice located on the lower cylinder area.
4. Fill out and mail the warranty registration card.

BEFORE START-UP AND BEFORE EACH USE

▲ WARNING

Never remove retainer or replace tool steel with air supply connected to the air tool

1. Check all bolts, nuts and fittings for tightness.
2. Install Steel
 - Check shank for wear. The end should be flat (square). A worn shank or an uneven end may result in damage to the tool or steel breakage.
 - Check cutting edge of steel for sharpness. Inspect steel for nicks or cracks which could cause breakage. (Use only sharp, properly dressed steels).
 - Close retainer securely. With point on ground, lean the breaker on a 45° angle with the retainer facing you, and kick retainer shut with your heel.
3. Connect Air Hose
 - Use only air hose with a rated capacity equal to a minimum of 150% of the power source (air compressor) and with couplings secured by approved clamps or hose clips.
 - Clear hose(s) to remove any dirt and accumulation of excess water and oil.

▲ WARNING

When blowing through a hose or air line, ensure that the open end is held securely. A free end will whip and may cause injury.

- Check rubber gaskets or washers in hose couplings for wear or cracks.
- Join couplings together tightly and secure with approved safety clips.

STARTING AND OPERATING THE TOOL

1. **DO NOT** run the tool without a steel securely installed and the retainer locked in the closed position.
2. **DO NOT** run the tool without the cutting edge (point) firmly against the work surface.
3. Always apply sufficient down pressure to keep the tool from bouncing. The proper amount of down pressure will vary depending on the material being worked, the type of cutting edge, and the weight of the tool. This can only be learned through experience. **DO NOT** allow the tool to bounce on the steel as this may damage the tool and steel.

NOTE: Paving Breakers with flex handle option: apply only enough down pressure to keep the flex handles parallel with the work surface during operation. Spring tension in the handles will then provide the adequate down pressure to the work while reducing vibration to the operator.

RUNNING THE TOOL FOR EFFICIENT OPERATION / PRODUCTION

1. Use only steels with sharp cutting edges.
2. Select a cutting edge most suited for the material being worked.
3. Begin breaking near enough to the open end of the work surface so that the natural wedge effect of the blade or point will cause the material being worked to break or flake off. Working from the broken edge back to center will eliminate the need to pry with the tool and help prevent the steel from becoming stuck.
4. Use proper down pressure to keep the cutting edge working into the material.
5. Assure that the tool is receiving adequate air flow (CFM [L/S]) and the proper air pressure (PSIG [bar]). (RE: Chart).

AFTER USE

1. Disconnect air hose. **DO NOT** allow dirt or water to enter air inlet of tool.
2. Pour a little oil (approx. 1 ounce [28 grams]) into the air inlet and chuck end of the tool. Position tool to allow oil to flow inward.
3. Store in safe, dry place.
By following these steps, you will insure your Sullair Tool gives the type of service for which it was designed. Should you have any questions concerning this information, or if you would like additional information, please contact your Sullair Distributor.

CFM (L/S) AND PSI (BAR) REQUIREMENTS

Model MPB-90A Paving Breaker - 62 CFM (29 L/S) at 100 PSIG (6.9 bar).
Model MPB-60A Paving Breaker - 48 CFM (23 L/S) at 100 PSIG (6.9 bar).

CFM (L/S) x NUMBER OF TOOLS RATIO

For operation of several tools with one compressor use the following table (except for tools which require constant demand).

Number of Tools	1	2	3	4	5	6	7	8
Factor	1	1.8	2.7	3.4	4.1	4.8	5.4	6.0

Example: To operate three Model MPB-90A Paving Breakers, air for each is 62 CFM (29 L/S): Multiplier is 2.7 x 62 CFM (29 L/S) = 167.4 CFM (79 L/S). Consequently a 185 Portable would easily handle the three breakers.

READ SAFETY TIPS PRIOR TO OPERATING THE TOOL TO AVOID POSSIBLE INJURY

SAFETY

- Work gloves or vibration dampening gloves are recommended when operating pneumatic tools.
- Keep spectators at a safe distance from the work area.
- Wear proper clothing. Loose fitting clothes or jewelry can become caught in moving parts or on operating tools.
- Wear eye and face protection when operating tools.
- Wear safety shoes with steel toes when operating tools. **Never rest a tool on your foot for any reason.**
- Wear safety hats when operating tools or when working in immediate area.
- Wear ear protection when operating tools or when working in immediate area.
- Thoroughly inspect tool conditions before operating to:
 - Check all bolts for proper tightness.
 - Inspect retainer for wear which could cause the tool or steel to be propelled from the tool.
 - Inspect air hose fittings for cracks, worn threads or loose couplings that could permit detachment during operation.
 - Inspect tools and/or steels for proper sharpness and conditions (dull edge, nicks, cracks).
- Secure air hose to tool with a safety wire or chain to prevent whipping if it becomes detached from the tool.
- When using hose with internal dimension of 1/2" (13mm) or greater diameter install a proper flow limiting "OSHA valve" or "velocity fuse".
- DO NOT** lay an idle tool in dust or dirt unless all ports are covered with clean material.
- Disconnect tools from the air supply when not in use to prevent accidental actuation.

▲ WARNING

Never remove retainer or replace tool steel with air supply connected to the air tool.

- Operate the tool from a position that permits proper footing and balance.
- DO NOT** operate the tool without a steel or tool securely installed in the retainer.
- DO NOT** operate the tool without the steel or tool against the work surface.
- Operate the tool with firm and steady pressure. **DO NOT** force the tool.
- Limit air pressure at the tool not to exceed the tool's rated operating pressure.
- Inspect air hoses for cuts and abrasions prior to use.
- Never point a tool or an air hose at a person or indulge in horseplay with air tools and hose.
- Blow out all air lines and hoses prior to use.

▲ WARNING

When blowing through a hose or air line, ensure that the open end is held securely. A free end will whip and may cause injury.

- Keep hands off throttle until ready to start. Always keep both hands on the handle while operating.
- Follow OSHA standards and/or any applicable Federal, State, or Local codes, standards, and regulations where they apply.

▲ WARNING

Repetitive motions, uncomfortable positions and vibrations can cause injury to hands, fingers and wrists. Stop using any pneumatic tool if discomfort, tingling feeling or pain occurs. Consult a doctor before resuming use.



SULLAIR.

SULLAIR CORPORATION
3700 East Michigan Boulevard
Michigan City, IN 46360-9990
Phone: 1.800.SULLAIR Indiana: 219.879.5451
FAX: 219.861.0052

Manufactured in France