PERMON
® Made in Czech Republic
Design, manufacture, sales & service
of pneumatic tools

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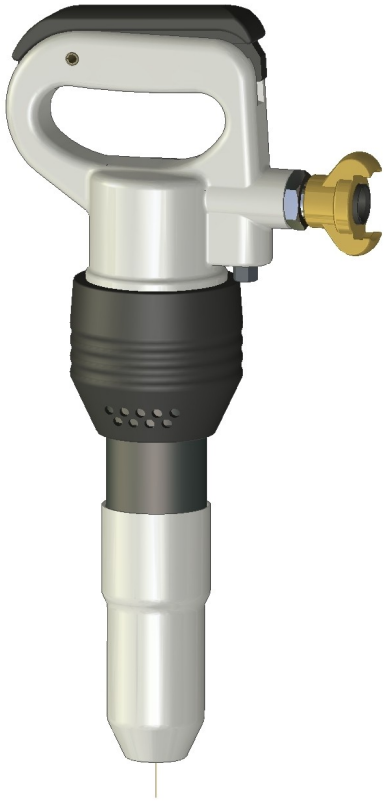
**SEIT 1826 - SINCE 1826**

# OPERATION AND MAINTENANCE MANUAL

## SK 9-5, SK 9-6, SK 9-6A, SK 13B, SK 13D, SK 13DZ



**IMPORTANT SAFETY INFORMATION ENCLOSED. READ THIS MANUAL BEFORE OPERATING TOOL.**
**IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PLACE THE INFORMATION IN THIS MANUAL INTO THE HANDS OF THE OPERATOR.**
**FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.**

SK 9-5, SK 9-6, SK 9-6A, SK 13B, SK 13D and SK 13DZ Pick Hammers are designed for the disintegration of low to medium strength materials (e.g. concrete, masonry bituminous asphalt etc).

Permon is not responsible for customer modifications of tools for applications on which Permon was not consulted.

**PLACING TOOL IN SERVICE**

• Always operate, inspect and maintain this tool in accordance with all regulations (local, state, federal and country), hat may apply to hand held/hand operated pneumatic tools.
• For safety, top performance, and maximum durability of parts, operate this tool at 6.0 bar/600 kPa maximum air pressure at the inlet with 3/4" (19 mm) inside diameter air supply hose.
• Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.
• Do not use damaged, frayed or deteriorated air hoses and fittings.
• Be sure all hoses and fittings are the correct size and are tightly secured.
• Always use clean, dry lubricated air at 6.0 bar/600 kPa maximum air pressure. Dust, corrosive fumes and/or excessive moisture can ruin the motor of an air tool.
• Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel.
• Do not remove any labels. Replace any damaged label.

**USING THE TOOL**

• Always wear eye protection when operating or performing maintenance on this tool.
• Always wear hearing protection when operating this tool.
• Keep hands, loose clothing and long hair away from rotating end of tool.
• Anticipate and be alert for sudden changes in motion during start up and operation of any power tool.
• Keep body stance balanced and firm. Do not overreach when operating this tool.
• Tool accessories may continue to impact briefly after throttle is released.
• Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
• Use accessories recommended by Permon.
• This tool is not designed for working in explosive atmospheres.
• This tool is not insulated against electric shock.

The use of other than genuine Permon replacement parts may result in safety hazards, decreased tool performance, and increased maintenance, and may invalidate all warranties.
Repairs should be made only by authorised trained personnel. Consult your nearest Permon authorised service center.

**WARNINGS**

• Always wear eye protection when operating or performing maintenance on this tool.
• Always wear hearing protection when operating this tool.
• Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.
• Do not use damaged, frayed or deterlorated air hoses and fittings.
• Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool is discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
• Do not carry the tool by the hose.
• Keep body stance balanced and firm. Do not overreach when operating this tool.
• Operate at 6.0 bar/600 kPa maximum air pressure)
• When wearing gloves and operating models with inside trigger, always be sure that the gloves will not prevent the trigger from being released.
• Wear safety shoes, hard hat, safety goggles, gloves, dustmask and any other appropriate protective clothing while operating the tool.
• Do not indulge in horseplay. Distraction can cause accidents.

• Keep hands and fingers away from the throttle lever until it is time to operate the tool.
• Never rest the tool or chisel on your foot.
• Never point the tool at anyone.
• Compressed air is dangerous. Never point an air hose at yourself or co–workers.
• Never blow clothes free of dust with compressed air.
• Be sure all hose connections are tight. A loose hose not only leaks but can come completely off the tool and while whipping under pressure, can injure the operator and others in the area. Attach safety cables to all hoses to prevent injury in case a hose is accidentally broken.
• Never disconnect a pressurised air hose. Always turn off the air supply and bleed the tool before disconnecting a hose.
• The operator must keep limbs and body clear of the chisel. If a chisel breaks, the tool with the broken chisel projecting from the tool will suddenly surge forward.
• Do not ride the tool with one leg over the handle. Injury can result if the chisel breaks while riding the tool.
• Know what is underneath the material being worked. Be alert for hidden water, gas, sewer, telephone or electric lines.
• Use only proper cleaning solvents to clean parts. Use only cleaning solvents, which meet current safety and health standards. Use cleaning solvents in a well-ventilated area.
• Do not flush the tool or clean any parts with diesel fuel. Diesel fuel residue will ignite in the tool when the tool is operated, causing damage to internal parts. When using models with outside triggers or throttle levers, take care when setting the tool down to prevent accidental operation.
• Do not operate the tool with broken or damaged parts.
• Never start the tool when it is lying on the ground.
• This tool is not designed for working in explosive atmospheres.
• This tool is not insulated against electric shock.

**OPERATION**

***Lubrication***
Always use an air line lubricator with these tools.
Recommended environmentally friendly oils:
SETUZA PRIMOL EKO PNEU
BP BIOHYD SE46
ÖMV BIOHYD M 32
TOTAL HYDROBIO 46
Attach the lubricator as close to the tool as practical. After each two or three hours of operation and at the beginning of each work shift, if an air line lubricator is not used, disconnect the air hose and pour about 3 cc of oil into the air inlet of the tool.
Before storing the tool or if the tool is to be idle for a period exceeding twenty-four hours, pour about 3 cc of oil into the air inlet and operate the tool for 5 seconds to coat the internal parts with oil.

***Air Supply and Connections***
Always use clean, dry lubricated air. Dust, corrosive fumes and/or excessive moisture can ruin the motor of an air tool. An air line filter can greatly increase the life of an air tool. The filter removes dust and moisture.
Make sure all hoses and fittings are the correct size and are tightly secured.
The tool is shipped from the factory with 3/4” G male inlet thread.

***Accessory Installation***
*Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool or before performing any maintenance on this tool. Failure to do so could result in injury.*
For Screwed retainer:
1. Screw out the retainer.
2. Check the rubber ring in the retainer and replace it if worn. Missing or worn ring could result in retainer breakage.

3. Insert chisel into the hammer.
4. Screw on firmly the retainer.
For Latch Type Retainer:
1. Operate the Latch until it is approximately 90 degrees to the body of the tool and clicks into position.
2. Insert the accessory into the tool until the collar of the accessory is past the Latch.
3. Operate the Latch until it is parallel to the tool and it clicks into position.

15 kg is the recommended amount of downforce to apply to the tool when working. The amount of downforce is correct when the tool hits rhythmically, is comfortable to hold and works efficiently.

• Do not repair the tool at the work site. Always take the tool to a repair shop. Never drag the tool on the ground. The air port and other openings will become clogged with dirt and debris.
• Compressed air is dangerous. When blowing the line clear of dirt, wear eye protection and keep the air line directed toward a safe, clear area.
• Always blow out the air line before using to clear the line of dirt.
• Do not operate the tool unless the chisel is against the work since this will cause premature wear of parts and reduce the vibration isolation properties of the tool.
• Always break material to the point of “give.” Cracking does not result in a complete break. Clear away rubble as it is broken since uncleared rubble blocks the point of “give.”
• Always take the right size “bite” with the tool. When working new material, experiment to find the right size “bite” required for breaking that material efficiently.
• If “bites” are too big, the operator will try to pry with the tool. This could break the chisel.
• The tool is designed for demolition, not prying. Always use a pick for prying. If “bites” are to small, the operator will be working too slowly.
• If the chisel or accessory should become stuck, do not use excessive force or mechanical means on the tool to pull out the chisel. Doing so will damage the vibration isolation unit. Break out the stuck chisel with a spare chisel or tool.

**DISASSEMBLING THE SK9 AND SK13 PICKHAMMERS**

***General instructions***

- Clean the Pickhammer outer surface.
- Do not disassemble the pickhammer any further than necessary to replace or repair damaged or worn parts.
- Whenever grasping a pickhammer or a part in a vice, always use leather or copper-covered vice jaws to protect the surface of the part and help prevent distortion. Take extra care with threaded parts and housings.
- Do not remove any part that is a press fit in or on a subassembly unless the removal of the part is necessary for repairs or replacement.
- **Do not disassemble the pickhammer unless a complete set of O-rings is available for replacement.**

***Disassembly of the Fronthead***

**Screw retainer models**

Unscrew retainer (12) off the cylinder (1) and remove chisel buffer (13) from inside retainer. Remove seal ring (8) from its groove in the cylinder.

**Latch retainer models**

Remove nut (17) and fronthead pinch bolt (16) from the fronthead (15). Lightly tap the fronthead (using a hide mallet if necessary) off the cylinder (1).

Press or drift out the two fronthead spring pins (18, 19) and remove the latch lever (20).

The plunger (22) and plunger spring (21) can be removed from the fronthead.

***Main Disassembly***
Grip handle body (24) firmly in a vice (use leather or copper covered vice jaws).
Remove muffler retaining clip (10) from its groove in the cylinder (SK9 models only).
Insert three or four pieces of thin sheet steel approximately 8 mm wide, beneath the retaining lip of the muffler moulding (9) (small diameter end). These will allow the rubber retaining lip of the muffler to slide along over the groove in the cylinder and ease removal of the muffler.
Slide off muffler (9) over the cylinder exposing the cylinder flats.
Remove locking pin (7) from its hole in cylinder, the pin is provided with an M4 internal thread to assist removal.
**Remove the handle from the vice, invert the pickhammer and grip the flats of the cylinder in the vice. Use a pipe about 1.5 Meters long positioned through the loop of the handle to first loosen and then completely unscrew the handle assembly from the cylinder and remove. – *Warning – once the handle is unscrewed from the cylinder the piston and valve parts will be free to fall and could cause injury.***

***Handle Disassembly***
Grip handle body (24) in leather or copper covered vice jaws and unscrew throttle valve plug (29) using a 13 mm spanner.
Withdraw throttle spring (28), throttle ball (27) and throttle pin (32).
Remove the trigger (25) by pressing or drifting out trigger pin (26).
Unscrew quick release coupling (31) from inlet bushing (30).
The inlet bushing (30) can be removed if required though it is assembled into the handle using a high strength retainer and disassembly is not normally necessary.

***Cylinder Disassembly***
Remove the spacing washer (6) and valve plate (5).
Slide off valve ring (4) from cylinder (1).
Allow piston (3) to slide out of the cylinder bore and be caught.
The nozzle (2) is pressed into the cylinder and retained with Loctite 601 – do not disassemble unless replacement is necessary.

**ASSEMBLY OF THE SK9 AND SK13 PICKHAMMERS**

***General Instructions***
- Before assembly of the pickhammer, clean all parts thoroughly and lubricate surfaces with a thin film of recommended oil – (see lubrication).
- Apply a thin film of O-ring lubricant to all O-rings before final assembly.
- It is recommended that the assembly of the nozzle (2) be carried out by the manufacturer or authorised distributor.
- The existence of a piston air cushion should be determined. Hold the cylinder vertically and allow the piston to drop down the bore small diameter first. An air cushion is present if the piston “bounces”, at the bottom of the cylinder and no metal to metal contact noise can be heard. If a cushion is not present contact your authorised Permon repair centre for advise.

***Cylinder assembly***
Grip the cylinder (1) vertically in a vice protected with leather or copper covered vice jaws.
Lubricate and insert the piston (3) small end first into the bore. Check for air cushion.
Lubricate and slide the valve ring (4) onto the cylinder and replace the valve plate (5).
Replace the spacing washer (6) on top of the valve plate.

***Handle assembly***

Position trigger (25) in its slot in the handle body and align the holes in each part.

Drift or press home the trigger pin (26). Check the throttle lever is free to move easily.

Grip the handle body (24) in a vice protected with leather or copper covered vice jaws.

Lubricate and insert throttle pin (32) into position reduced diameter out of the hole.

Replace the throttle ball (27) and throttle spring (28) and retain in place with throttle valve plug (29), apply Loctite 243 to the threads of the plug and screw home fully.

If the air inlet (30) has been removed, refit it into the handle body using Loctite 243 and screw home fully.

Replace the quick release coupling (31).

***Main assembly***

Firmly grip the cylinder assembly vertically across the flats, in a vice protected with leather or copper covered vice jaws.

Check for correct location of the valve ring (4) valve plate (5) and spacing washer (6).

Carefully lower the handle assembly (23) onto the cylinder and engage the threads. Tighten the handle down by hand.

Fully tighten the handle using the 1.5 meters long pipe until the lock pin (7) can be replaced in position – thread to the outside.

Slide the muffler (9) down the cylinder until the muffler retaining lip engages with the groove in the cylinder. Replace the retaining clip (10) in its groove in the cylinder (SK9 models only).

***Assembly of the fronthead – Screw retainer models***

Replace the sealing ring (8) in its groove in the cylinder.

Inspect the chisel buffer (13) for wear and replace if necessary, by sliding a new buffer into the retainer.

Screw the retainer onto the cylinder assembly.

***Assembly of the fronthead – Latch retainer models***

Grease the latch plunger (22) and plunger spring (21) and insert them into position in the fronthead (15).

Locate the latch lever (20) with the holes in the fronthead and press or drift into place the fronthead spring pins (18,19).

Check the operation of the latch.

Slide the fronthead (15) onto the end of the cylinder and align the bolt hole with the groove machined in the cylinder.

**Fit fronthead screw (16) and secure with fronthead nut (17) tighten to 90 Nm (66.4 lbs.ft) torque.**

***Assembly checks***

Following service or repair the pickhammer should be checked for correct operation before being sent back to the job site.

Fit the correct size accessory into the pickhammer and connect to an airline. Using low pressure 2 bar (30psi) check to ensure the pickhammer is free of air leaks around the inlet connection and also that the pickhammer does not automatically start to operate without the trigger being depressed.

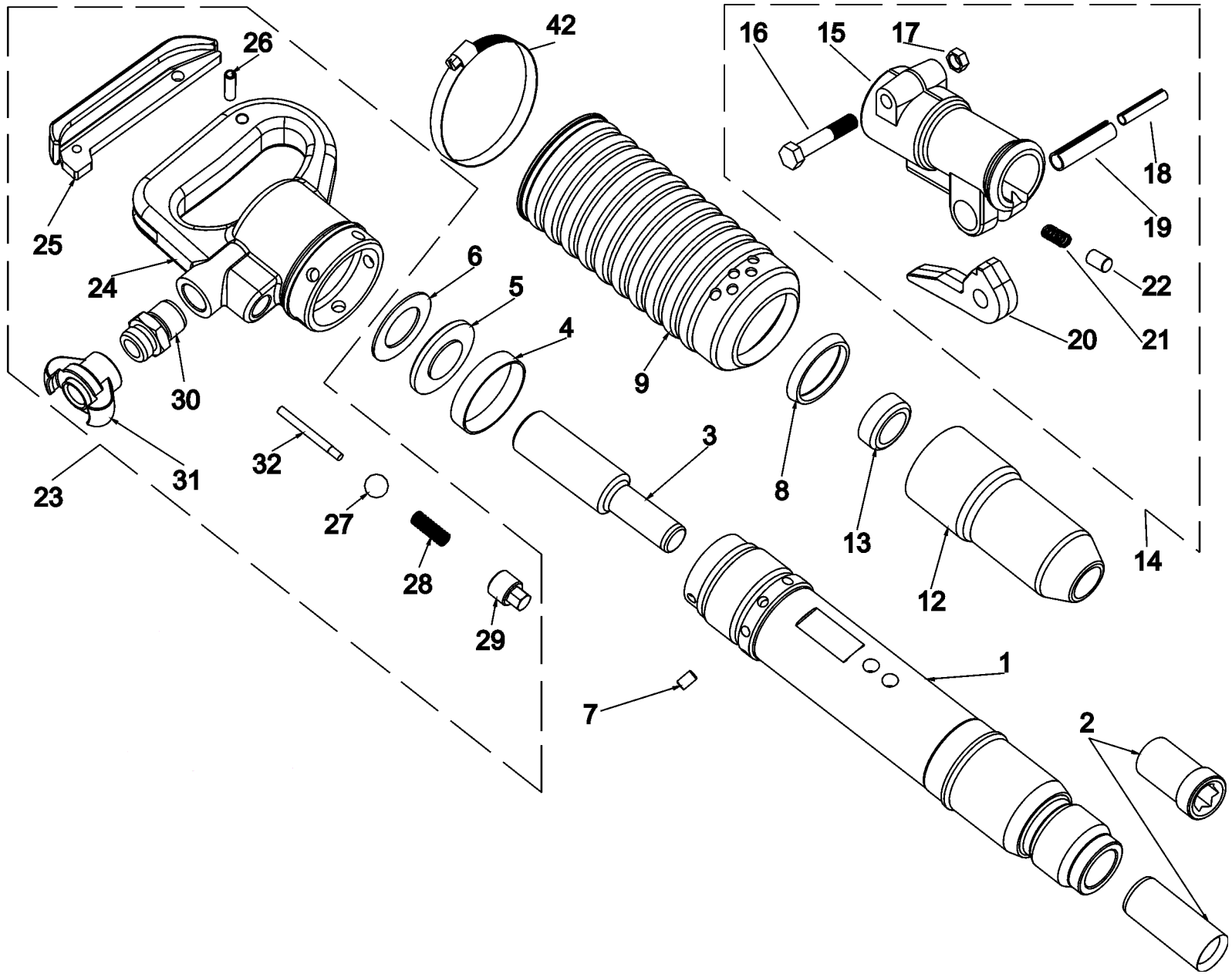
Increase the air pressure to 6 bar (90psi) and run the tool in short bursts to check the tools starts and stops cleanly and without hesitation.

Pickhammer operating frequency should be as given in the specification table at the end of this manual.

**SPECIFICATIONS**

| | | SK 9-5 | SK 9-6 | SK 9-6A |
|---|---|---|---|---|
| Weight | *kg* | 9 | 9 | 10 |
| Length | *mm* | 470 | 470 | 470 |
| Width | *mm* | 236 | 236 | 236 |
| Max. Working Pressure | *bar* | 4-7 | 4-7 | 4-7 |
| Air Consumption | $m^3/min$ | 0,9 | 0,9 | 0,9 |
| Impact Rate | *1/min* | 1620 | 1620 | 1620 |
| Chuck Size | *mm* | ϕ25x75 | 22 hex. x 82 | 22 hex. x 82 |
| Vibration Level | $m/s^2$ | 13,32 $m/s^2$ | 13,32 $m/s^2$ | 13,32 $m/s^2$ |
| Guarranteed Noise Level | $L_{WA}$ | 105 | 105 | 105 |

| | | SK 13B | SK 13D | SK 13DZ |
|---|---|---|---|---|
| Weight | *kg* | 12,5 | 12,5 | 13,5 |
| Length | *mm* | 612 | 612 | 612 |
| Width | *mm* | 236 | 236 | 236 |
| Max. Working Pressure | *bar* | 4-7 | 4-7 | 4-7 |
| Air Consumption | $m^3/min$ | 0,9 | 0,9 | 0,9 |
| Impact Rate | *1/min* | 1260 | 1260 | 1260 |
| Chuck Size | *mm* | ϕ25x75 | 22 hex. x 82 | 22 hex. x 82 |
| Vibration Level | $m/s^2$ | 9,10 $m/s^2$ | 9,10 $m/s^2$ | 9,10 $m/s^2$ |
| Guarranteed Noise Level | $L_{WA}$ | 105 | 105 | 105 |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## PARTS LIST

| Ref. | | Part No. | | | | | | Part Name | Qty. |
|---|---|---|---|---|---|---|---|---|---|
| | | **9410350** | | | | | | **Pickhammer SK 9-5** | |
| | | | **9410360** | | | | | **Pickhammer SK 9-6** | |
| | | | | **9410430** | | | | **Pickhammer SK 9-6A** | |
| | | | | | **9410490** | | | **Pickhammer SK 13-B** | |
| | | | | | | **9410500** | | **Pickhammer SK 13-D** | |
| | | | | | | | **9410510** | **Pickhammer SK 13-DZ** | |
| 1 | | 8323590 | | | 8323860 | | | Cylinder Assy. R25x75 | 1 |
| | 2 | 2005280 | | | 2001610 | | | Nozzle R25x75 | 1 |
| 1 | | | 8323600 | 8323920 | | 8323870 | 8323880 | Cylinder Assy. S22x82 | 1 |
| | 2 | | 2090220 | 2090610 | | 2090751 | 2090751 | Nozzle H22x80 | 1 |
| 3 | | 5003472 | 5003472 | 5003472 | 5003690 | 5003690 | 5003690 | Piston | 1 |
| 4 | | 3908060 | 3908060 | 3908060 | 3908140 | 3908140 | 3908140 | Ring | 1 |
| 5 | | 1511280 | 1511280 | 1511280 | 1511280 | 1511280 | 1511280 | Cover | 1 |
| 6 | | 315111 | 315111 | 315111 | 315111 | 315111 | 315111 | Belleville washer | 1 |
| 7 | | 3051011 | 3051011 | 3051011 | 3051011 | 3051011 | 3051011 | Pin | 1 |
| 8 | | 273123 | 273123 | | 273123 | 273123 | | Ring | 1 |
| 9 | | 273406 | 273406 | 273406 | 1730142 | 1730142 | 1730142 | Muffler | 1 |
| 10 | | 4771050 | 4771050 | 4771050 | | | | Lock Ring | 1 |
| 12 | | 8042291 | 8042291 | | 8042291 | 8042291 | | Retainer | 1 |
| 13 | | 273129 | 273129 | | 273129 | 273129 | | Ring | 1 |
| 14 | | | | 8330041 | | | 8330041 | Fronthead Assy. | 1 |
| | 15 | | | 5132230 | | | 5132230 | Fronthead | 1 |
| | 16 | | | 309331 | | | 309331 | Screw | 1 |
| | 17 | | | 311326 | | | 311326 | Nut | 1 |
| | 18 | | | 311408 | | | 311408 | Pin 12x50 | 1 |
| | 19 | | | 311406 | | | 311406 | Pin 20x50 | 1 |
| | 20 | | | 5256102 | | | 5256102 | Latch | 1 |
| | 21 | | | 315138 | | | 315138 | Spring | 1 |
| | 22 | | | 0900950 | | | 0900950 | Pin | 1 |
| 23 | | 8040140 | 8040140 | 8040140 | 8040140 | 8040140 | 8040140 | Handle Assy. | 1 |
| | 24 | 5259483 | 5259483 | 5259483 | 5259483 | 5259483 | 5259483 | Handle | 1 |
| | 25 | 1411172 | 1411172 | 1411172 | 1411172 | 1411172 | 1411172 | Trigger | 1 |
| | 26 | 311038 | 311038 | 311038 | 311038 | 311038 | 311038 | Spring Pin 8x28 | 1 |
| | 27 | 722094 | 722094 | 722094 | 722094 | 722094 | 722094 | Ball | 1 |
| | 28 | 315007 | 315007 | 315007 | 315007 | 315007 | 315007 | Spring | 1 |
| | 29 | 0047070 | 0047070 | 0047070 | 0047070 | 0047070 | 0047070 | Plug | 1 |
| | 30 | 4087330 | 4087330 | 4087330 | 4087330 | 4087330 | 4087330 | Socket 3/4"-3/4" | 1 |
| | 31 | 414259 | 414259 | 414259 | 414259 | 414259 | 414259 | Quick Coupling 3/4" | 1 |
| | 32 | 3081271 | 3081271 | 3081271 | 3081271 | 3081271 | 3081271 | Starting Pin | 1 |
| | 42 | | | | 548082 | 548082 | 548082 | Clamp | 1 |