

Instruction manual & spare parts list

SH-PRO 1



SH-PRO 3

SH-PRO SERIES AIR DRIVEN SCALING HAMMERS

1. General Safety and Operation Instruction

1. Unpacking

When unpacking this product, carefully inspect for any damage that may have occurred during transit. Make sure any loose fittings, bolts, etc, are tightened before putting this product into service.

2. This product is a part of a high pressure system and the following safety precautions must be followed at all times along with any other existing safety rules.
3. Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
4. Only persons well acquainted with these rules of safe operation should be allowed to use the air tool.

Do not exceed maximum operation pressure of the air tool (6.2BAR/90 PSI).

The air tool could explode and result in death or serious personal injury.

5. Do not exceed any pressure rating of any component in the system.
6. Disconnect the air tool from air supply before changing tools or attachments, servicing and during non-operation.
7. Always wear safety glasses during operation.
8. Do not wear loose fitting clothing, scarves, or neck ties. Loose clothing may become caught in moving parts and result serious personal injury.
9. Do not wear jewelry when operation any tool. Jewelry may become caught in moving parts and result in serious personal injury.
10. Do not depress trigger when connecting the air supply hose.
11. Always use attachments designed for use with air powered tools.
Do not use damaged or worn attachments.
12. Never trigger the tool when not applied to a work object. Attachments must be securely attached. Loose attachments can cause serious injury.
13. Protect air lines from damage or puncture.
14. Never point an air tool at oneself or any other person. Serious injury could occur.
15. Check air hoses for weak or worn condition before each use. Make sure all connections are secured.

Release all pressure from the system before attempting to install, service, relocate or performs any maintenance.

16. Keep all nuts, bolts and screws tight and ensure equipment is in safe working condition.

17. Do not put hands near or under moving parts.

18. Air Hose

It is not recommended to install a quick coupler between the hammer and leader (whip) hose. Using fittings or air hoses which are too small can create a pressure drop and reduce the power of the tool. For most of the hammers, using 9.525 mm (3/8") I.D. fittings with 6.35 mm (1/4") NPT threads are recommended. For the others hammer, using 12.7 mm (1/2") I.D. with 9.525 mm (3/8") NPT threads are recommended. Most compressors are shipped with a short, 6.35 mm (1/4") I.D. hose. For proper performance and more convenience, use a 9.525 mm (3/8") I.D. hose. Hoses longer than 15.24 m (50 feet) should have a 12.7 mm (1/2") I.D.

Never carry a tool by the hose or pull the hose to move the tool or a compressor. Keep hoses away from heat, oil and sharp edges. Replace any hose that is damaged, weak or worn.

19. Storage

The scaling hammer must be lubricated before storing. Follow the air cylinder lubrication instructions with an exception to step 4. Only run the scaling hammer for 2 to 3 seconds instead of 20 to 30 seconds because more oil needs to remain in the scaling hammer when storing.

2. Particular Safety Instruction

1. Information of Noise Level

(1)The noise level at the operator's position is about:

Model No.:	A-weighted sound pressure level (L _{pf})	A-weighted sound power level (L _w)	Uncertainty K _{WA}
SH-PRO 1	98.1(dB)	108.3(dB)	3(dB)
SH-PRO 3	91.5(dB)	101.7(dB)	3(dB)

(2)Reference standard :ISO 15744.

(3)Always wear ear protectors during operation.

2. Information of Vibration Level

Model No.:	Vibration Level (m/s ²)	Uncertainty K (m/s ²)
SH-PRO 1	25.3	0.20
SH-PRO 3	13.3	0.16

(2)Reference standard: EN 28927-9.




3. Warnings

- (1)The power tools are not generally insulated for coming into contact with electric power sources.
- (2)The power tools shall not be used in explosive atmospheres unless specially designed for that purpose.
- (3) Special precautions shall be taken when working in explosive atmospheres.
- (4) Working with a percussive tool can generate dust which, depending on the material being worked on, could be harmful to the operator.
- (5)The inserted tool on heavy types of percussive non-rotary power tools, e.g. breakers, is exposed to heavy strains and can after a long period of use break due to fatigue.
- (6) The unexpected tool movement or breakage of inserted tool may cause injuries to the lower limbs, in particular the feet.
- (7) The unsuitable postures may not allow counteracting of normal or unexpected movement of the power tool. A working position shall be adopted which remains stable in the event of a break up of the inserted tool.
- (8) Holding the inserted tool by the free hand can be a source of vibration damage.
- (9) The power tools shall be isolated from the energy source before changing the inserted tool.
- (10) Pay attention to the risk of a whipping compressed air hose.
- (11) Rest after continuous operation.

5. Instructions

- (1) On suitable postures to counteract the effects of a sudden break of the inserted tool.
- (2) Release the start and stop device in the case of an interruption of the energy supply.
- (3) Only lubricants recommended by the manufacturer by manufacturer shall be used.

6. Explanation s of warning Signs Used For This Tool

		
The operator's instruction must be read before work starts	Hearing protection must be worn	Eye protection must be used or safety glasses worn

7. Application

Power tool, which delivers a series of percussive blows, without rotary action.

8. The weight of this tool is about : 1.9 ~ 3.9 Kgs.

Notelf the weight of this tool exceeds 15Kgs, the following attention shall be paid to :

- (1) Be sure that you can afford the weight.
- (2) Be sure to wear foot protection, to prevent the risk of impact due to the drop of tool.

3. Maintenance Instruction

1. Lubrication

Proper lubrication is the owner's responsibility. Failure to lubricate the air tool. Properly will dramatically shorten the life of the tool and will void the warranty.

This scaler requires lubrication before the initial use and before and after each additional use.

2. Scaler requires lubrication throughout the life of the tool and must be lubricated in two separate areas the air motor and the scaling mechanism. Follow the outlined procedures.

3. Air Motor Lubrication

The motor must be lubricated daily. An air motor cannot be oiled too often.

Disconnect the hammer from the air supply before lubricating.

1. Disconnect the scaler from the air supply.
2. Turn the hammer upside down.
3. Simultaneously (at the same time), pull the trigger and pour a teaspoon of oil in the air inlet.
Then, push the forward and reverse button in both directions.

After an air tool has been lubricated, oil will discharge through the exhaust port during the first few seconds of operation. Thus, the exhaust port must be covered with a towel before applying air pressure. Failure to cover the exhaust port can result in serious injury.

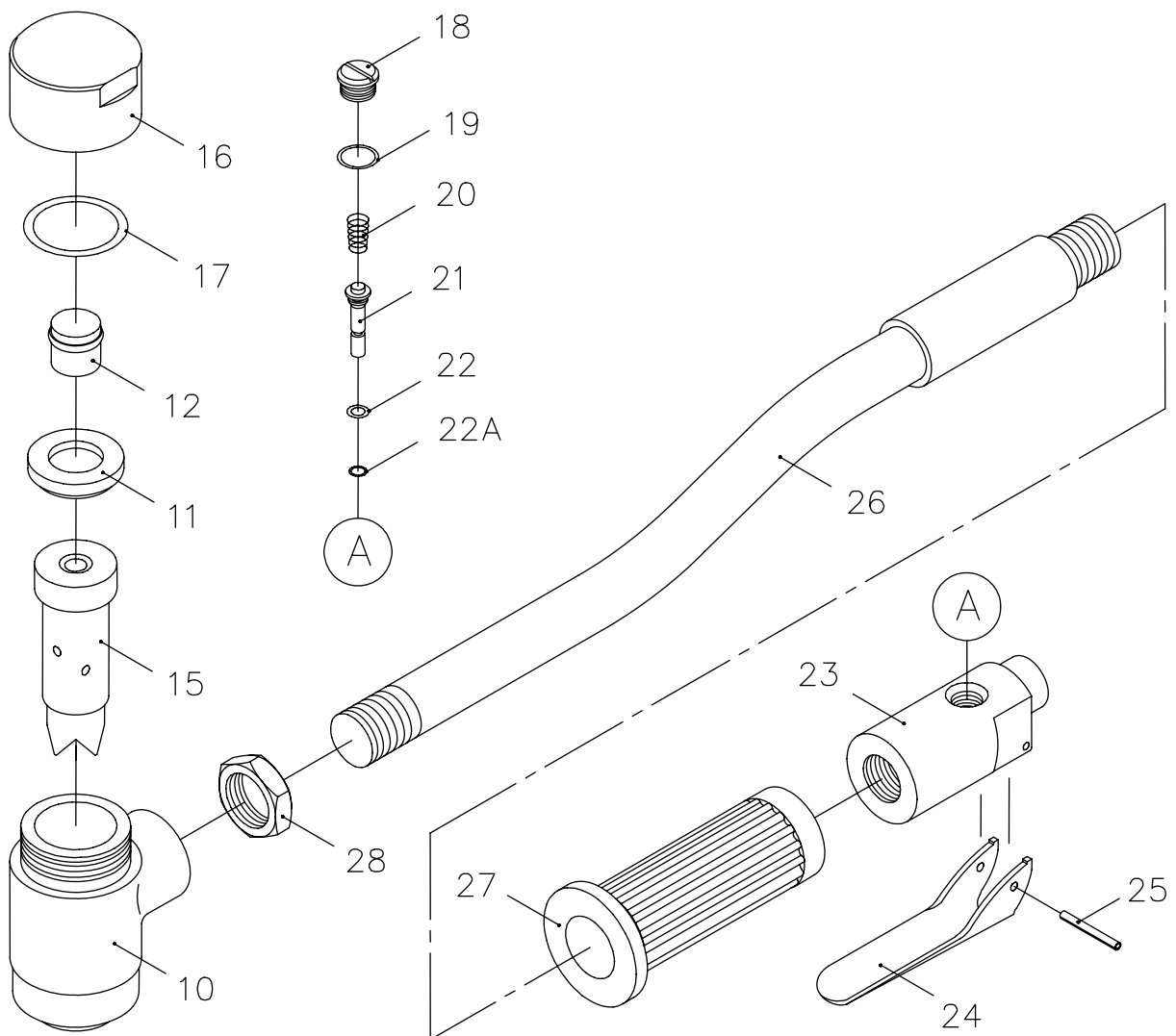
4. Connect the hammer to the air supply and cover the exhaust port with a towel.
Run the scaler, and oil will discharge from the exhaust port when air pressure is applied.
5. Scaling mechanism lubrication
The scaler should be lubricated monthly.

5.

General Troubleshooting Guide

Symptom	Possible Cause(s)	Corrective Action
Tool runs slowly or will not operate	<ol style="list-style-type: none"> 1.Grit or gum in tool. 2.No oil in tool. 3.Low air pressure. 4.Air hose leaks. 5.Pressure drops. 	<ol style="list-style-type: none"> 1.Flush the tool with air tool oil, gum solvent, or an equal mixture of SAE # 10 motor oil and kerosene. Lubricate the tool after cleaning. 2.Lubricate the tool according to the lubrication instructions in this manual. 3.Adjust the compressor regulator to tool maximum while the tool is running free. 4.Tighten and seal hose fittings if leaks are found. 5-1.Be sure the hose is the proper size. Long hoses or tools using large volumes of air may require a hose with an I.D. of 12.7 mm (1/2") or larger depending on the total length of the hose. 5-2.Do not use a multiple number of hoses connected together with quick connect fittings. This causes additional pressure drops and reduces the tool power. Directly connect the hoses together.
Moisture blowing out of tool	<ol style="list-style-type: none"> 1.Water in tank. 2.Water in the air lines/hoses. 	<ol style="list-style-type: none"> 1.Drain tank. (See air compressor manual). Oil tool and run until no water is evident. Oil tool again and run 1-2 seconds. 2-1.Install a water separator/filter. Note : Separators only work properly when the air passing through the separator is cool. Locate the separator/filter as far as possible from the compressor. 2-2.Install an air dryer.

UNITOR SH-PRO 1



SPECIFICATIONS :

* OVERALL LENGTH ----- 480 mm
 * WEIGHT ----- 1.9 kg
 * AIR PRESSURE ----- 90 PSI
 * AIR INLET ----- 3/8" PT(NPT)

* PISTON ----- 30x24x75 mm
 * BLOW PER MIN ----- 8000 BPM
 * HOSE SIZE ----- 3/8" ID

REF NO.	PARTS NO.	DESCRIPTION	Q'TY	REF NO.	PARTS NO.	DESCRIPTION	Q'TY
10	753017	CYLINDER	1	21	753026	VALVE STEM❶	1
11	753018	VALVE CAP❷	1	22	753027	O-RING (d4.8xW1.9)❶	1
12	753019	BUFFER❷	1	22A	753028	O-RING (d2.0xW1.5)❶	1
15	753020	PISTON ❷	1	23	753029	VALVE BODY	1
16	753021	CYLINDER HEAD	1	24	753030	THROTTLE LEVER	1
17	753022	O-RING (d31.7xW3.5)❷	1	25	753031	ROLL PIN (Ø3x24.5)	1
18	753023	VALVE SCREEN❶	1	26	753032	PIPE	1
19	753024	O-RING (d7.8xW2.5)❶	1	27	753033	RUBBER HANDLE GRIP	1
20	753025	VALVE SPRING❶	1	28	753034	LOCK NUT	1

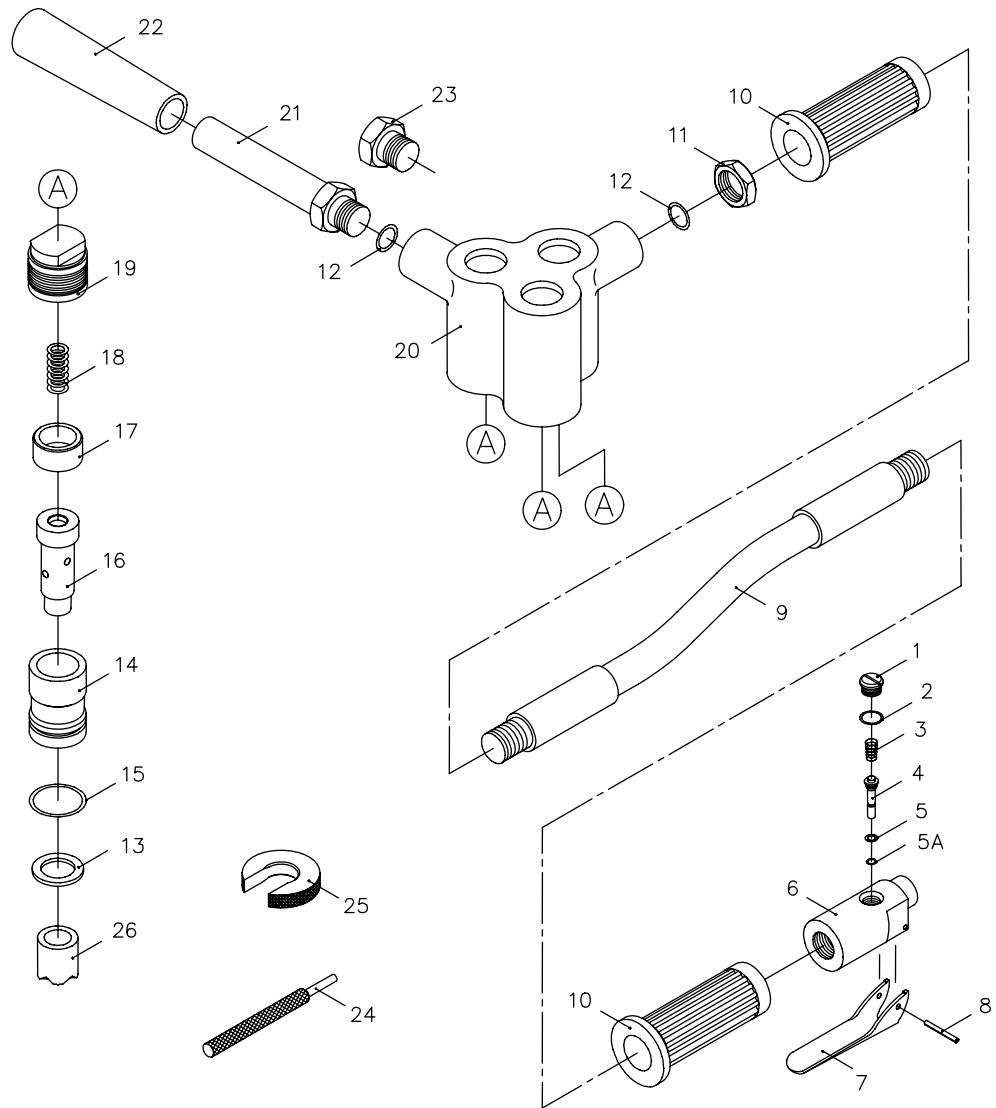
Optional Parts

400 722157

To get maximum performance and life of your tool, replace the whole set of parts included in the Spare part kits:

- ❶ Throttle valve overhaul kit 722751
- ❷ Piston overhaul kit 722769

UNITOR SH-PRO 3



SPECIFICATIONS :

* BLOW PER MIN ----- 2800 BPM
 * LENGTH ----- 496 mm
 * AIR PRESSURE ----- 90 PSI
 * AIR INLET ----- 3/8" PT(NPT)

* PISTON SIZE ----- 27x21x69 mm
 * WEIGHT ----- 3.9 kg
 * HOSE SIZE ----- 3/8" ID

REF NO.	PARTS NO.	DESCRIPTION	Q'TY	REF NO.	PARTS NO.	DESCRIPTION	Q'TY
1	752990	VALVE CAP❶	1	14	753004	CYLINDER	3
2	752991	O-RING (d7.8xW2.5)❶	1	15	753005	O-RING (d31.42xW2.62)❷	3
3	752992	VALVE SPRING❶	1	16	753006	PISTON❷	3
4	752993	VALVE STEM❶	1	17	753007	SPRING CAP	3
5	752994	O-RING (d4.8xW1.9)❶	1	18	753008	SPRING❷	3
5A	752995	O-RING (d2.0xW1.5)❶	1	19	753009	PLUNGER CAP	3
6	752996	VALVE BODY	1	20	753010	BODY	1
7	752997	THROTTLE LEVER	1	21	753011	SIDE HANDLE	1
8	752998	SPRING PIN (Ø3x24.5L)	1	22	753012	SECONDARY RUBBER GRIP	1
9	752999	HANDLE	1	23	753013	PLUG	1
10	753000	RUBBER HANDLE GRIP	2	24	753014	BAR	1
11	753001	LOCK NUT	1	25	753015	WASHER	1
12	753002	O-RING (d13.8xW2.4)	2	26	753016	HEAD❷	3
13	753003	BRUSH SEAL❷	3				

Optional Parts

400 722165

To get maximum performance and life of your tool, replace the whole set of parts included in the Spare part kits:

❶ Throttle valve overhaul kit 722454

❷ Piston overhaul kit 722462

Instruction manual & spare parts list

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