



VL SINGLE SCABBLING HAMMER



OPERATION & MAINTENANCE



TRELAWNYTM

SURFACE PREPARATION TECHNOLOGY

www.trelawnyspt.com

INFORMATION

General Information

Before operating Trelawny Vibro Lo Scabbling Hammer, this manual must be read and understood by the operator, if in any doubt, ask your supervisor before using this equipment. Local safety regulations must be followed at all times. Failure to follow these instructions could result in damage to the Scaler and/or personal injury.

Trelawny SPT Ltd disclaims all responsibility for damage to persons or objects arising as a consequence of incorrect handling of the tool, failure to inspect the tool for damage or other faults that may influence its operation prior to starting work, or failure to follow the safety regulations listed or applicable to the job site.

The Vibro Lo Scabbling tool is fitted with either bush or cruciform cutter heads and is primarily designed for concrete reduction and the removal of laitance from concrete, It can also be used for the removal of heavy rust and scale.

Note: Bush Hammer style headed pistons are best suited to concrete reduction and for laitance removal; these reduce the damage caused to the aggregate using the cruciform cutter head, ensuring that a strong bond is created with the next layer.

Cruciform headed pistons are best suited for the removal of heavy rust and scale and also in the reduction of concrete where a smoother finish is required; this type of piston will reduce the aggregate as well as the concrete surface.

Air Supply

The compressed air must be free from water and dirt. The installation of a filter/regulator/lubricator air preparation set (with moisture trap) adjacent to the tool is strongly recommended.

Always clear the air hose before connection to the tool. Ensure that no moisture (condensation) is present in the air hose.

Ensure that a minimum 10mm (3/8") bore air hose is used and that all couplings are secure, leak free and in good condition.

Limit the length of air hose to 10M (33ft). Where extra length is necessary, for each additional 15M (50ft) of air hose used, the pressure drop is approximately 0.16bar (3psi).

Correct operating pressure is 6.2bar (90 psi).

Do not let the operating pressure fall below 5.5bar (80p.s.i.) or rise above 6.9bar (100 psi).

The compressor must be able to supply a minimum of 9.44lps (20cfm), (Free air, not displaced as quoted by some compressor manufactures).

In particularly cold weather it is recommended that a proprietary anti-freeze lubricating oil is used.

Safety

Always, read instructions first before use.

Do wear Personal Protective Equipment including safety goggles, footwear, ear defenders and gloves. In some environments it will be necessary to wear facemasks or breathing apparatus.

Do be aware that this tool is not electrically insulated.

Do keep hands and clothing away from moving parts.

Do ensure that this tool is lubricated daily.

Do be aware that the tool can create dust and flying debris.

Do be aware of others working around you.

Do store this tool in a secure and dry environment.

Always observe safe-working practices at all times.

Do not allow the tool to run unattended.

Do not use this tool in potentially explosive environments.

Do not drag this tool by the air hose.

Do not use the Scaler as a lever.

Do not use petrol (gasoline), thinners or any other high flash point solvent to clean the tool.

Do not modify this tool in any way, as this will invalidate the warranty and could lead to serious injury.

Risk of Hand-arm Vibration injury

These tools may cause Hand-arm Vibration Syndrome injury if their use is not adequately managed. We advise you to carry out a risk assessment and to implement measures such as; limiting exposure time [i.e. actual trigger time, not total time at work], job rotation, ensuring the tools are used correctly, ensuring the tools are maintained according to our recommendations, and ensuring that the operators wear personal protective equipment [PPE] **particularly gloves and clothing** to keep them warm and dry.

Employers should consider setting up a programme of health surveillance to establish a benchmark for each operator and to detect any early symptoms of vibration injury.

We are not aware of any PPE that provides protection against vibration injury by attenuating vibration emissions.

See 'Specifications' section for vibration emission data.

Further advice is available from our Technical Department.

Recommended lubricants

Oil the tool daily before use. Put a few drops of one of the following zinc free air tool lubricants through the air inlet.

SHELL	S22 or R10
CASTROL	Hyspin ZZ32

Cleaning

At intervals of no more than 40 hours or if operation becomes unproductive and the piston shows signs of sticking, dismantle and clean with a highly refined paraffin.

Immediately after cleaning, thoroughly oil the tool with one of the recommended lubricants.

MAINTENANCE

Starting work

Prior to operating the tool check: -

That all fittings are secure, free from leaks and air hoses are in good condition.

That the air pressure is correct for this tool 6.2 bar (90p.s.i.). Put a few drops of recommended lubricant into the air inlet of the tool.

To operate the tool, which is dependant on the type of lever fitted, for those fitted with a safety lever, first push thumb button forwards and then for both styles of lever, pull the lever towards the handle grip to start the tool, then apply the cutter heads to the surface being prepared.

To switch off, simply release the throttle lever.

Care must be taken to avoid damaging or tripping over the air hose. Maintain contact with the work surface with sufficient pressure only to keep the tool from bouncing off. Excessive pressure can prevent the tool from working to its full capacity. Handled correctly the Scaler will work quickly and efficiently.

Excessive operator pressure will not improve the tool efficiency but will cause premature tool failure and operator fatigue.

Never allow the tool to run continuously whilst not in contact with the surface being prepared.

Maintenance

Maintenance must only be carried out by a competent person.

Disconnect the tool from the air supply before carrying out any of the following operations.

Clean all debris from the exterior of the tool.

One Piece Piston & Piston/ Cylinder Assembly removal

Hold the Body (14) using the flats provided, in a vice with the End Cap (21) uppermost.

Remove the Circlip (22).

Unscrew the End Cap using a 19mm open-ended spanner and remove, remove the and discard the O'Ring. Remove the Cylinder cap(19), from top of the Cylinder (16).

From the bottom of the Body, push up on the Cutter Head end of the piston (17) and remove both the Piston and Cylinder.

Inspect all parts for wear, particularly the Cylinder's bores.

Check the Piston's ground diameters, and the tungsten carbide tips for wear; replace any worn components as necessary.

Note: For most applications, the expected life of the tungsten carbide cutter is approximately 100hrs.

Valve body servicing

Clamp the assembly firmly in a soft face jawed vice, using the flats provided on the Valve Body (6), with the Throttle Lever (7) upper most.

Using a 3mm diameter pin punch, remove the Throttle Lever Roll Pin (8), and then remove the Throttle Lever (7).

Rotate the tool 180 degrees in the vice to access the valve.

Using a screwdriver, unscrew the Valve Cap (1), check the Valve Cap's O'Ring (2), remove the Spring (3), remove the Valve Stem (4) and the Valve seat 'O' Ring (5). Check the Valve Stem and O'Ring for wear.

Flexible Connector

If the Flexible Connector (12) requires replacement, return the tool to you local distributor who will arrange for a new connector to be fitted. These connectors are fitted with unique retaining clips (13) and a special machine is required to fit them. **Do not** replace with a similar hose or Jubilee type clips, this could be dangerous to the operator and will not produce the same vibration reduction characteristics.

Assembly

Before any assembly takes place, ensure all parts are clean and are coated in a thin film of recommended air tool lubricant. It is strongly recommended that the cylinder O'Ring (18) and any other worn parts be replaced before assembly.

Valve Body assembly

Clamp the assembly firmly in a soft face jawed vice, using the flats provided on the Valve Body (6), insert new Valve Stem O'Ring (5) into Valve Body, followed by the Valve Stem (4), Spring (3), then the Valve Cap (1) complete with its O'Ring (2), tighten the Valve Cap with a screwdriver.

Rotate assembly 180 degrees in vice. Using a 3mm diameter pin punch locate and align the Throttle Lever (7) in position, then drive in the Throttle Lever Roll Pin (8) into the Pin location.

Piston and Cylinder assembly

Hold the Body using the flats provided, in a vice with the large opening uppermost.

Lubricate the Piston and Cylinders bores, then insert the Piston into the Cylinder bore. Insert the Cylinder assembly into the Body. Fit the Cylinder Cap with the chamfer uppermost, fit a **new** O'Ring and screw down the End Cap and refit the Circlip securely into its groove.

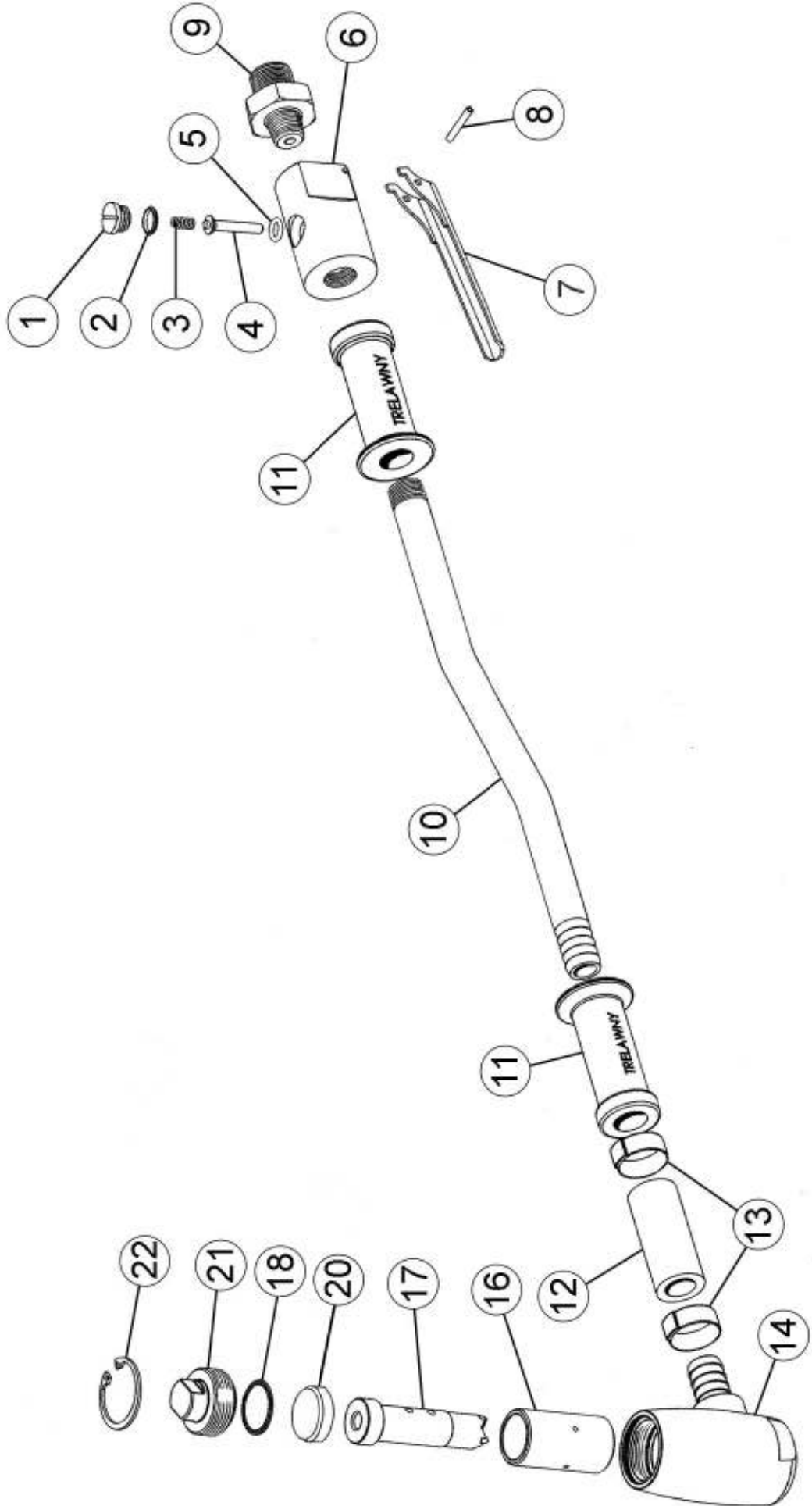
Disposal

When the tool and its accessories are taken out of service for disposal, it is recommended that: -

They are rendered unusable to prevent improper re-use.

They are dismantled into component form, segregated according to material composition and disposed of using waste recycling processes specified by local regulations.

EXPLODED DIAGRAM



EXPLODED DIAGRAM

PARTS LIST

Item	Part Number	Description
1	615.3021	Valve Cap
2	809.0139	O'Ring - Valve Cap
3	712.3022	Valve Spring
4	618.3022	Valve Stem
5	809.0089	O'Ring - Valve Seat
6	616.5321	Valve Body
	423.5321	*Valve Body Assembly (inc 1-8)
7	716.3000	Throttle Lever
	716.1000	*Throttle Lever Safety
8	813.0108	Roll Pin
9	427.5361	Adapter
10	624.5350	Tube Handle
11	717.5301	Rubber Grip
12	719.1380	Flexible Connector
13	821.2000	Hose Clamp
14	612.6070	Body
16	613.6000	Cylinder
17	612.6010	*Piston One Piece - TCT Bush Hammer (Fitted as standard)
	612.6000	Piston One Piece - TCT Cruciform
18	809.6000	Cylinder O'Ring
19	615.6010	Shim (fitted to early versions only)
20	615.6020	Cylinder Cap
21	615.6000	End Cap
22	814.6000	Circlip
		*Items not shown on exploded diagram

PARTS LIST

TECHNICAL SPECIFICATIONS

		VL SINGLE SCABBLER
Piston Diameter		27.5mm (1.08")
Piston Length		87.4mm (3.44")
Piston Stroke		39.8mm (1.57)
Blows Per Minute		2800
Air Consumption		5.6 lps (12cfm)
Air Pressure		6.2 bar (90 psi)
Length		520mm (20.5")
Height		130mm (5.0")
Weight		2.85 kg (6.28 lbs)
Noise Level	L _{pA} dB (A)	
	L _{wA} dB (A)	98.5 dB(A)
Vibration Level	(Trigger Hand) Primary	4.6m/s ² (K= +40% -0%)
	Secondary	16m/s ² (K= +40% -0%)

Declared vibration emission value are in accordance with BS EN 12096: 1997
 (K) Equals the factor of uncertainty, which allows for variations in measurement and production.
 Vibration data figures are tri-axial, which gives the total vibration emission.

Risk of Hand Arm Injury

Because of various factors, the range of vibration emission during intended use of these tools is expected to be between 4.6m/s² – 13.16m/s².
 The vibration is dependent on the tool model, task, the operators grip, and feed force employed etc.

Noise level measured in accordance with: EN ISO 15744: 1999
 Vibration measured in accordance with: BS EN ISO 8662 Parts 1 & 14 and BS EN ISO 5349-1: 2001, BS EN ISO 5349-2: 2002

Machinery Directive Information

This machine has been designed and produced in accordance with the following directives: **2006/42/EC Machinery Directive**

Trelawny tools are thoroughly tested under specified conditions in accordance with applicable internationally recognised standards.
 When a tool is used on site the conditions may not be the same as those used in our tests.

Trelawny Surface Preparation Technology operates a policy of continuous product development and refinement and therefore reserves the right to change technical specifications and product designs without giving prior notice.

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 Use only genuine Trelawny spares.

The use of non-Trelawny spare parts invalidates the warranty.



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