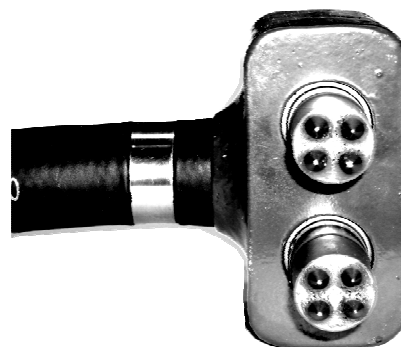




## VL SINGLE AND DUAL SCABBLERS



## OPERATION & MAINTENANCE



**TRELAWNY**<sup>TM</sup>

SURFACE PREPARATION TECHNOLOGY

СНБЕУСЕ ПРБЕДВВТІОН ТЕСННОЛОСХ

[www.trelawnyspt.com](http://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) absolute maximum.

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.

### Single Scale /Scabblers

#### Piston removal

Hold the Body (21) using the flats provided, in a vice with the Screw Cap (22) uppermost.

Unscrew the Screw Cap using a 30mm adjustable spanner and remove, remove the and discard the O'Ring (23). Remove the large section O'Ring (8),

From the bottom of the Body, push up on the Cutter Head end of the piston (6) and remove both the Piston and the Nylon pad (5).

Inspect all parts for wear, particularly the Cylinder bore and Scabblers Sleeve (4). Should the Sleeve need replacing it must be pressed out.

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.

### Dual Scaler / Scabblers

#### Piston removal

Undo the 4 x M6 Socket screws (3) and remove the Cylinder head (2). Follow instructions as above.

#### Valve body servicing

Clamp the assembly firmly in a soft face jawed vice, using the flats provided on the Valve Body (10), with the Throttle Lever (17) upper most.

Using a 3mm diameter pin punch, remove the Throttle Lever Roll Pin (12), and then remove the Throttle Lever (17).

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

Using a screwdriver, unscrew the Valve Cap (15), check the Valve Cap's 'O'Ring (14), remove the Spring (16), remove the Valve Stem (13) and the Valve seat 'O' Ring (18). Check the Valve Stem and 'O'Ring for wear.

#### Flexible Connector

If the Flexible Connector (20) 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 (19) 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.

### Valve Body assembly

Clamp the assembly firmly in a soft face jawed vice, using the flats provided on the Valve Body (10), insert new Valve Stem 'O'Ring (18) into Valve Body, followed by the Valve Stem (13), Spring (13), then the Valve Cap (15) complete with its O'Ring (14), 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 (17) in position, then drive in the Throttle Lever Roll Pin (12) into the Pin location.

### Reassembly

Should the sleeve (4) need replacing press out old sleeve using a press and a suitable mandrel.

Slide a new sleeve on to a piston (6) and use it as a guide to align the sleeve in the bore. Ensure both parts are lubricated, then with a suitable mandrel press both to the bottom of the bore.

Check that the piston is free after the pressing op by moving it in the bore. Replace the Nylon pad (5) ensure the small step is upper most, then the large section O'Ring (8). Fit large diameter O'Ring (23) on to the Screwed cap (22), then screw the cap securely into the body (21).

The Dual Scaler/Scabblers Is not fitted with O'Ring (23). The reassembly is as above. Secure the Cylinder head (2) with the 4 x M6 socket screws (3).

## 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.



# PARTS LIST

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Item	Part Number	Description
1	611.6120	Dual Scabbler Body
2	611.6128	Cylinder Head
3	806.0620	Socket cap Head Screw M6 x 1.0 x 20 Long x 4
4	613.5370	Scabbler Sleeve
5	615.6005	Nylon Pad
6	612.6010	Piston One Piece - TCT Bush Hammer (Fitted as Standard)
	612.6000	*Piston One Piece - TCT Cruciform
8	809.6229	O Ring
9	624.5350	Low Vibration Handle
10	423.5321	*Valve Body (incl 12 - 18)
11	717.5301	Rubber Grip
12	813.0108	Roll Pin
13	618.3022	Valve Stem
14	809.0139	O'Ring
15	615.3021	Valve Cap
16	712.3022	Valve Spring
18	809.0089	O'Ring Valve Seat
19	821.2000	Hose Clamp x 2
20	719.1380	Flexible Connector
21	611.5225	Body Single Scabbler
22	615.5370	Scabbler Screw Cap
23	809.5179	O Ring
24	711.5301	Adaptor
		*Items not shown on exploded diagram

# TECHNICAL SPECIFICATIONS

	VL SINGLE SCABBLER	VL DUAL SCABBLER
Piston Diameter	27.5mm (1.08")	27.5mm (1.08")
Piston Length	89mm (3.5")	89mm (3.5")
Piston Stroke	39.8mm (1.57")	39.8mm (1.57")
Blows Per Minute	2800	2800
Air Consumption	3.7 lps (8cfm)	5.6 lps (12 cfm)
Air Pressure	6.2 bar (90 psi)	6.2 bar (90 psi)
Length	500mm (19.7")	490mm (19.3")
Height	150mm (5.9")	145mm (5.7")
Weight	2.75 kg	3.9 kg
Noise level LpA dB (A)		
LwA dB (A)	95.6	96.6
Vibration Levels		
Using Bush Head Pistons (Standard) Primary Hand Position (Trigger Position)	On Concrete Only 10.02 m/s <sup>2</sup> (K=+40%-0%)	On Concrete Only 12.57 m/s <sup>2</sup> (K=+40%-0%)
Using Bush Head Pistons (Standard) Secondary Hand Position (Grip Nearest Head)	On Concrete Only 11.24 m/s <sup>2</sup> (K=+40%-0%)	On Concrete Only 17.33 m/s <sup>2</sup> (K=+40%-0%)
Using Cruciform Pistons Primary Hand Position (Trigger Position)	On Concrete 2.88 m/s <sup>2</sup> (K=+40%-0%) On Steel 2.52 m/s <sup>2</sup> (K=+40%-0%)	On Concrete 8.38 m/s <sup>2</sup> (K=+40%-0%) On Steel 5.49 m/s <sup>2</sup> (K=+40%-0%)
Using Cruciform Pistons Secondary Hand Position (Grip Nearest Head)	On Concrete 12.67 m/s <sup>2</sup> (K=+40%-0%) On Steel 6.22 m/s <sup>2</sup> (K=+40%-0%)	On Concrete 14.2 m/s <sup>2</sup> (K=+40%-0%) On Steel 10 m/s <sup>2</sup> (K=+40%-0%)

**Noise Levels** Noise level measured in accordance with: EN ISO 15744: 1999

**Vibration Levels** Vibration measured in accordance with: EN ISO 28927 and EN ISO 20643. (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. Because of various factors, the range of vibration from these tools may vary between -0% +40%. The vibration is dependent on the task, the operators grip and feed force employed etc.

**NOTE:** The above vibration levels were obtained from tri-axial measurements to comply with the requirements of "The Control of Vibration at Work Regulations 2005" and the revisions to the (8662) now EN ISO 28927 and EN ISO 20643 series of standards. These values are at least 1.4 times larger than the values obtained from single axis measurements.

\*Based on European Union Council Directive 2002/44/EC (Physical Agents (Vibration) Directive)).

#### Risk of Hand Arm Injury

Because of various factors, the vibration from this range of tools may be between 2.52 m/s<sup>2</sup> – 14m/s<sup>2</sup>  
The vibration is dependent on the task, the operators grip, and feed force employed.

#### Machinery Directive Information:

This tool has been designed and produced in accordance with the following directives: 2006/42/EC Machinery Directive  
and applicable harmonised standard: EN ISO 1 1148-4:2010

If your company has any problem with our products or would like to discuss the possibility of an improvement being made to them, then please do not hesitate to contact us. Your comments are both important and appreciated.

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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