Triple Scabbling Hammer



Operation and Maintenance Manual

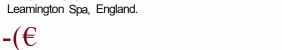




DECLARATION OF CONFORMITY

We,	
Trelawny SPT Limited of Trelawny House, 13 Highd 1XT, United Kingdom,	own Road, Sydenham Industrial Estate, Leamington Spa, Warwickshire, CV31
Declare that under our sole	e responsibility for supply/manufacture of the product
Name of product	<u> </u>
Model, Serial Number	·
Year of production	
to which this document rel Documents and their relev	ates is in conformity with the provisions of the following Directive(s), Normative ant Standards:
2006/42/EC	MACHINERY DIRECTIVE
2006/95/EC	LOW VOLTAGE DIRECTIVE (Applicable only to products using electric power)
EN ISO 11148-4:2012	HAND HELD NON-ELECTRIC (Non-Rotary Percussive Tools)

Date and place of issue, 24th June 2016 Leamington Spa, England.



Rob Chapman, Managing Director.

Registered Office: Trelawny SPT Ltd, Trelawny House, 13 Highdown Road, Sydenham Industrial Estate, Leamington Spa, Warwickshire, CV3t tXT, United Kingdom



DOCUMENT No. Q:57/7

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ΙΤ	TOJAZICO NICTIVA SUL BASSO VOLTAGGIO (applicabile esclusivamente per i prodotti che utilizzano energia elettrica)		TO SOLICITE IN TOTAL INVESTOR (Tallyyz elektrikie galypan ululiletue gegetilüli)

INFORMATION

General Information

Before operating Trelawny Triple 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 Scabbler 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 it's operation prior to starting work, or failure to follow the safety regulations listed or applicable to the iob site.

The Triple 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 14.2lps (30cfm), (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.

Piston removal

Hold the Pistons (avoid clamping on the ground surfaces) in a soft fibre jaw vice, with the Backhandle uppermost and the main Handle away from you.

Remove the four Allen headed screws securing the overhead handle or weight.

Remove the three O'Rings (18) and Cylinder Nylon Pads (17) from top of the cylinders.

(Discard the O'Rings and replace with new).

Remove tool from the vice. From the bottom of the body, push up on the cutter head end of the Piston (16). Inspect all parts for wear, particularly the Cylinder Sleeve (15) bores.

Check the Pistons ground diameters, and tungsten carbide tips for wear.

Check the ground surfaces on both the Cylinder Sleeves and Pistons for wear, and for score marks caused by grit or other foreign bodies.

Replace any worn components or any showing signs of scoring as necessary.

Note: For most applications, the expected life of the tungsten carbide cutters 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.

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 Nylon pad O'Rings (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 Seat '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), and 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 Sleeve assembly

Press or lightly tap the new sleeves into place using a soft faced hammer and a suitable drift or use an old piston reversed.

Lubricate the piston (16) and Cylinder Sleeve (15) bores, then insert the Piston into the bore.

Hold the Pistons (avoid clamping on the ground surfaces) in a soft fibre jaw vice, with the Backhandle (19) uppermost and the main handle (3) away from you.

Fit the cylinder Nylon Pads (17) on top of the pistons cylinder bore with its stepped section uppermost, then fit <u>new</u> O'Rings (18) on top of the cylinder Nylon Pads.

Screw down the Backhandle (19) evenly, use a medium strength thread locking adhesive on the first few threads of each of the 4 x M8 cap head screws (20) such as Loctite 243, tighten using a 6mm Allen key.

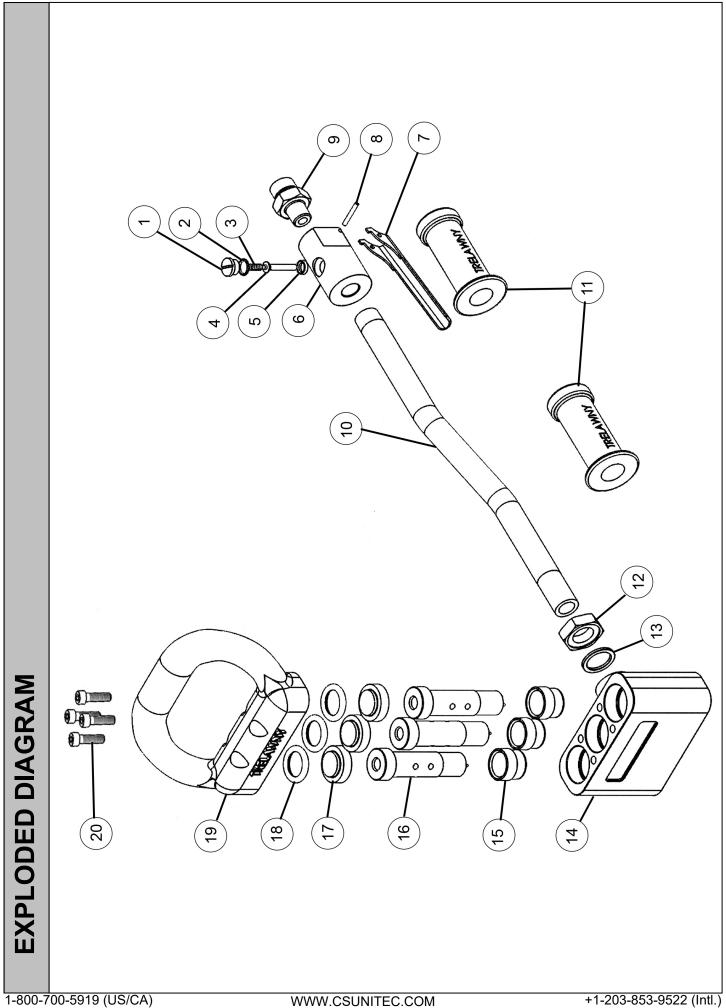
Disposal

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



PARTS LIST

Item	Part Number		Description		
1	615.3021	Valv	ve Cap		
2	809.0139	O'R	ling - Valve Cap		
3	712.3022	Valv	ve Spring		
4	618.3022	Valv	ve Stem		
5	809.0139	Squ	ıare O'Ring - Valve Seat		
6	423.5321	*Va	lve Body Assembly (includes items 1-8)		
7	716.3000	Throttle Lever			
	716.1000	*Th	rottle Lever Safety		
8	813.0108	Roll	Pin		
9	711.5301	Airli	ne Adapter		
10	624.5301	Tub	e Handle		
11	717.3060	Rub	ober Grip (2 x required)		
12	625.5301	Loc	knut		
13	810.9000	Sea	iling Washer		
14	411.6220	Sta	ndard Body (Includes item 15)		
15	613.5370	Slee	eve (3 x required)		
16	612.6010	Pist	on One Piece - TCT Bush Hammer (Fitted as s	standard) (3 x required)	
	612.6000	*Pis	ston One Piece - TCT Cruciform (3 x required)		
17	615.6005	Nylo	on pad (3 x required)		
18	809.6229	Cylinder O'Ring (3 x required)			
19	611.6040	Bac	khandle		
20	806.0830	M8	3 x 30 cap head Screw (4 x required)		
	*Items not shown on exploded diagram		ms not shown on exploded diagram		
	719.1000	*2/0	" Para Hasa (10 matra)		
	719.1000		3/8" Bore Hose (10 metre)		
	719.3000	3/0	" Bore Hose (30 metre)		
TROUB	LE SHOOTI	NG			
	ormance or lack	of	Low air pressure.	Ensure that the air pressure is correct at 90psi, max 100psi.	
power			If tool has been left for some time without use, the oil may dry out slightly causing a sticky residue.	Strip tool down and re-oil.	
			Tool worn out, can you feel side ways movement between the piston and cylinder bore.	Replace the piston and cylinder, along with a new bush seal.	
Tool continues to run with trigger released		1	Valve seal may have become dislodged through the tool being disconnected with the trigger in the open position.	Ensure that the trigger has not been taped or wired in the open position. Do not use quick release couplings to switch tool off.	

TECHNICAL SPECIFICATIONS

Piston Diameter	27.5mm (1.08")
Piston Length	87.4mm (3.44")
Piston Stroke	39.8mm (1.57)
Blows Per Minute	2800
Air Consumption	7.5 lps (16cfm)
Air Pressure	6.2 bar (90 psi)
Length	460mm (18.0")
Height	220mm (8.6")
Weight	4.8 kg (10.4 lbs)
Noise Level L _{pA} dB (A)	
L _{wA} dB (A)	98.5
TRIPLE SCABBLER BACK HANDLE	
Vibration Level Bush Piston (Trigger Hand) Primary	15.53 m/s² (K= 4.14m/s²)
Secondary	48.49 m/s² (K= 5.43m/s²)
Vibration Level Cruciform Piston (Trigger Hand) Primary	13.31 m/s ² (K= 2.37m/s ²)
Secondary	46.55 m/s² (K= 7.38m/s²)

Declared vibration emission value are in accordance with BS EN ISO 28927 and BS 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.

Risk of Hand Arm Injury

Because of various factors, the range of vibration emission during intended use of the back handle tool is expected to be between 48.5m/s² - 67.9m/s².

Because of various factors, the range of vibration emission during intended use of the vibration reduced tool is expected to be between 20.07m/s² - 28.1m/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: EN ISO 28927 and EN ISO 20643

Machinery Directive Information

This machine 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

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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info@csunitec.com