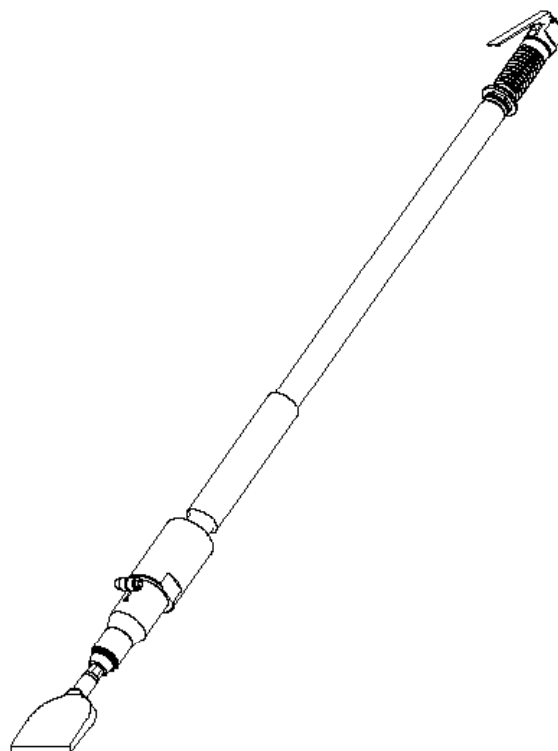




Operation and Maintenance Guide



Long Reach Scalers

Models	Descriptions	IMPA Code
LR076	Long Reach Scalers 2ft	59 04 51
LR116	Long Reach Scalers 4ft	59 04 52
LR146	Long Reach Scalers 5ft	59 04 53
LR176	Long Reach Scalers 6ft	59 04 54

Read this manual carefully before installing, operating or servicing this equipment. It's the responsibility of the employer to ensure this manual is read by the operator. Please preserve this manual.

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Introduction

Teryair Long Reach Scalers are powerful pneumatic tools for the removal of saltwater corrosion and marine growth on and off deck and chipping/scaling in hard to reach areas. Supplied with chisel or scraper – the customer can choose from the selection listed. Fast interchangeability between chisels/scrapers/needle attachments.

Technical Data

Models	IMPA Number equivalent	Maximum operating pressure	Air Consumption (No Load)		Length (mm)	Blows per min	Sound Power Level (Load)	Vibration Level	Mass (Weight)
			CFM	m ³ / min		(BPM)	LwA b(A)	m/s ²	Kg
LR076	59 04 51	6kg/cm ² (90 psi)	4.5	0.13	740	2200	84	5.4	5.8
LR116	59 04 52		4.5	0.13	1100	2200	84	9.5	6.2
LR146	59 04 53		4.5	0.13	1400	2200	86	10.1	6.6
LR176	59 04 54		4.5	0.13	1710	2200	116	9.8	8.1

Intended Use

- Pneumatic Scaler are intended to use for removing layers of paint, corrosion, chemical coating etc from metal & nonmetal surfaces & for general purpose chipping & scaling. Many different chisels options are available.
- Pneumatic Scaler are intended use for descaling of rust & corrosion from metal surfaces like sea going vessels & offshore platforms.
- Pneumatic Scaler are intended used for cleaning residues, roofing material, paints, floor tiles, plasters, and chemical spillages.
- Pneumatic Scaler are specifically designed to reduce the risk of back injury and to extend their use into previously inaccessible areas. These tools are ideal for a variety of uses from construction and marine to general factory maintenance and flooring services. It can be use for stippling of plain concrete for keying & decorative finish.

Warning

This manual must be read and the operating instructions carefully followed.

Warning

Safety and protective clothing, eyewear, head-gear, ear protection, gloves and footwear to be worn during operation of this Pneumatic Scaler. Please see Table A at end of this section.

Warning

Operators under 18 not allowed to operate this Pneumatic Scaler. Operators must be made familiar with the instructions in this manual before attempting to operate the Pneumatic Scaler. Ensure that job site is clear of bystanders

Caution

Use only genuine Teryair or Teryair approved accessories.

Safety Instructions

Following symbols are used through out this manual.

Warning

This manual must be read and the operating instructions carefully followed.

Warning

This Pneumatic Scaler is not designed for use in an explosive environment.

**Caution**

Completely turn off the Pneumatic Scaler and disconnect air supply line before attempting any service. Read Assembly and Disassembly instructions.

**Warning**

Take care not to exceed the maximum 6 bar (90 psi) supply air pressure. Use a filter and regulator and lubricator as close to the Pneumatic Scaler inlet as operation will allow ensuring a clean and regulated and lubricated air flow.

**Caution**

Do not exert excessive pressure against the work surface. Keep hoses in good condition. Check hoses for signs of wear, cracks & bulges and ensure that they are secure. Accidental disconnection while hose is pressurized makes the hose whip and can be a safety hazard.

**Caution**

- Please check the hose connection prior to starting Pneumatic Scaler.
- Be aware that these Pneumatic Scaler can create dust & flying debris.
- Keep hands & clothing away from moving parts.
- Store these Pneumatic Scaler in secure & dry environment.
- Do not allow the Pneumatic Scaler to run unattended.
- Do not modify this Pneumatic Scaler in any way as this will invalidate the warranty and could lead to serious injury.
- Do not allow the Pneumatic Scaler to run continuously whilst not in contact with the surface being prepared.
- Do not hold the exposed needles whilst the Pneumatic Scaler is in use this could cause vibration damage to the hands.
- Do not drag this Pneumatic Scaler by air hose.

**Warning**

Do not use the Pneumatic Scaler in potentially explosive environments.

**Warning**

- Eye and face and ear protection must be worn at all times during operation of the Pneumatic Scaler. There is a chance of flying debris from the jobsite and the quality of wear should be such to protect against such flying debris such as flakes of the removed layer.
- Suitable gloves must be worn at all times during operation.
- Safety Shoes with toe cap protection are a must during operation.

Operating Instructions

Pneumatic Scaler is a rugged dependable tool designed to give years of satisfactory service. Follow the instructions mentioned here to enhance the life and performance of your scaler.

Daily Before Operating

Disconnect and pour in 1 to 2 ounces of recommended oil into the tool and reconnect hose blowing out any accumulated dirt in the hose line before connecting.

Lubrication Requirements

Always install a line lubricator on the air line as close to the tool as possible. A filter regulator lubricator unit (FRL) is strongly recommended. Keep the lubricator bowl topped up with oil and check that the oil is reaching the tool. Running the tool without lubrication is likely to cause damage the components causing premature replacement.

Air Supply

Tool should not be operated at air pressure below 5.5 Bar (80psi) and above 6.9 bar (100psi). The correct operating pressure is 6.2 bar (90 psi). Ensure that only 3/8" (10 mm) bore airline is used and all couplings are tight, leakproof and in good condition. The air should be clean, dry and lubricated. Install a FRL unit as close as operation will permit.

To Change Chisel

Rotate Ring(24) in such a way,so that hole on the ring(24) exactly match with the steel ball(26) when chisel (29) is pulled out,the steel ball(26) will be lifted up and chisel(29) will come out. To replace it again. Push the chisel in the chisel holder(23) till the recess has crossed the steel ball(26) Again rotate the ring (24) so that steel ball(26) is completely pressed in.

Suggested Lubricants

Brand	Above 27°C / 80°F	5°C to 27°C / 41°F to 80°F	Below 5°C / 80°F
Shell	Toona R 72	Toona R 41	Toona R 27
Mobil	Almo 529	Almo 527	Almo 525
Esso	--	Arox EP.65	Arox EP.45
Caltex	Rando Oil 100	Rando Oil 100	Rando Oil 46
Cp	--	--	Airolene Tool Oil
Texaco	Regal Oil F (R&O)	Regal Oil PE(P&E)	Regal Oil PE(R&O)
Daltron	Silkolene 881	Silkolene 548/T	Silkolene 733
Burmah Castrol	Castrol RD Oil 3	Castrol RD Oil Light	Megna SPX
Duckham	Garnet 7	Garnet 6	Zero Fio 5
Sternol	Merlin 87	Merlin 71	Merlin 54
Petrolina	Purifoc 53	Purifoc 46	Purifoc 32
Chevron	Vistac Oil 18X	Vistac Oil 19X	Vistac Oil 9X
Indoil	Servo Spyn -22	--	--

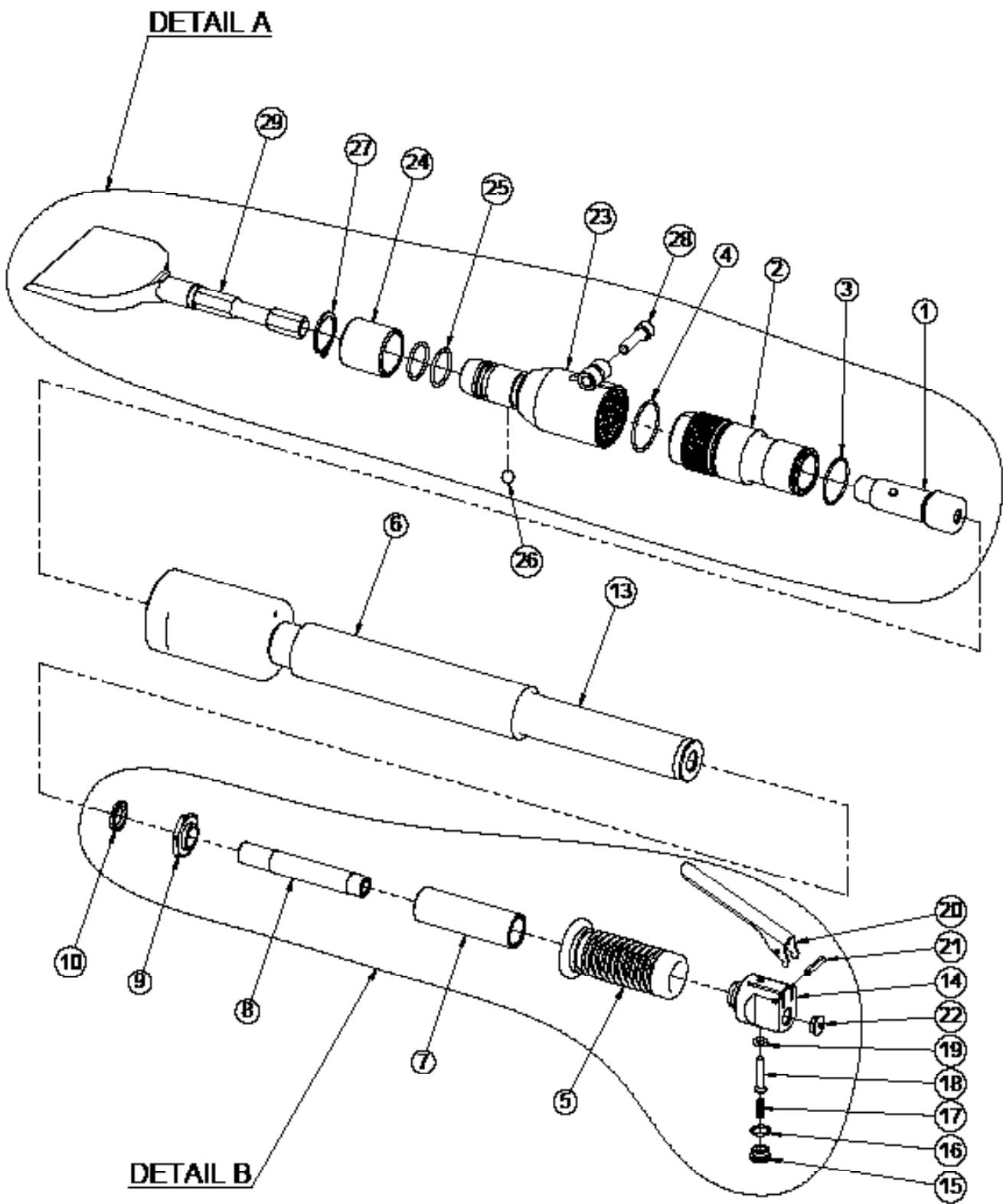
Diassembly and Re-assembly for Long Reach Scalers

- a. Shut off air supply and allow residual Pressure to bleed off.
- b. Hold Chisel Holder (23) and rotate Ring (24) until the hole on Ring (24) exactly matches Ball (26) & remove Chisel Scraper (29) from Chisel Holder (23) to replace it with new ones. (If found damaged/worn-out)
- c. Unscrew Allen Bolt (28) from Chisel Holder (23) and unscrew Chisel Holder (23) from Cylinder (2).
- d. Remove External Circlip (27) from Chisel Holder (23) using circlip plier & remove Ring (24), O-rings (25) and Ball (26) to replace it with new ones.
- e. Unscrew Cylinder (2) from Sleeve Housing (12) & remove Piston (1), O-ring (4) and O-ring (3) to replace it with new ones. (If found damaged/worn-out)
- f. Unscrew Valve Body (14) from Centre Tube (8)
- g. Unscrew Valve Cap (15) with O-ring (16) from Valve Body (14) & remove Valve Spring (17), Valve Stem (18) and O-ring (19) to replace with new ones. (If found damaged/worn-out)
- h. Remove O-ring (16) from Valve Cap (15) and replace with new one.
- i. Remove Roll Pin (21) from Valve body (14) & remove Throttle Lever (20) to replace with new ones. (If found damaged/worn-out).
- j. Remove Rubber handle Grip (5) & Handle Tube (7) from Centre Tube (8)
- k. Unscrew Centre Tube (8) from Sleeve Housing (12) & unscrew Lock Nut (9) with Sealing Washer (10) from Centre Tube (8) to replace with new ones. (If found damaged/worn-out)
- l. Coat parts with the recommended light oil before re-assembling. Now follow the above steps in reverse manner to reassemble the Needle Scaler.

Bill of Materials for Long Reach Scaler LR076

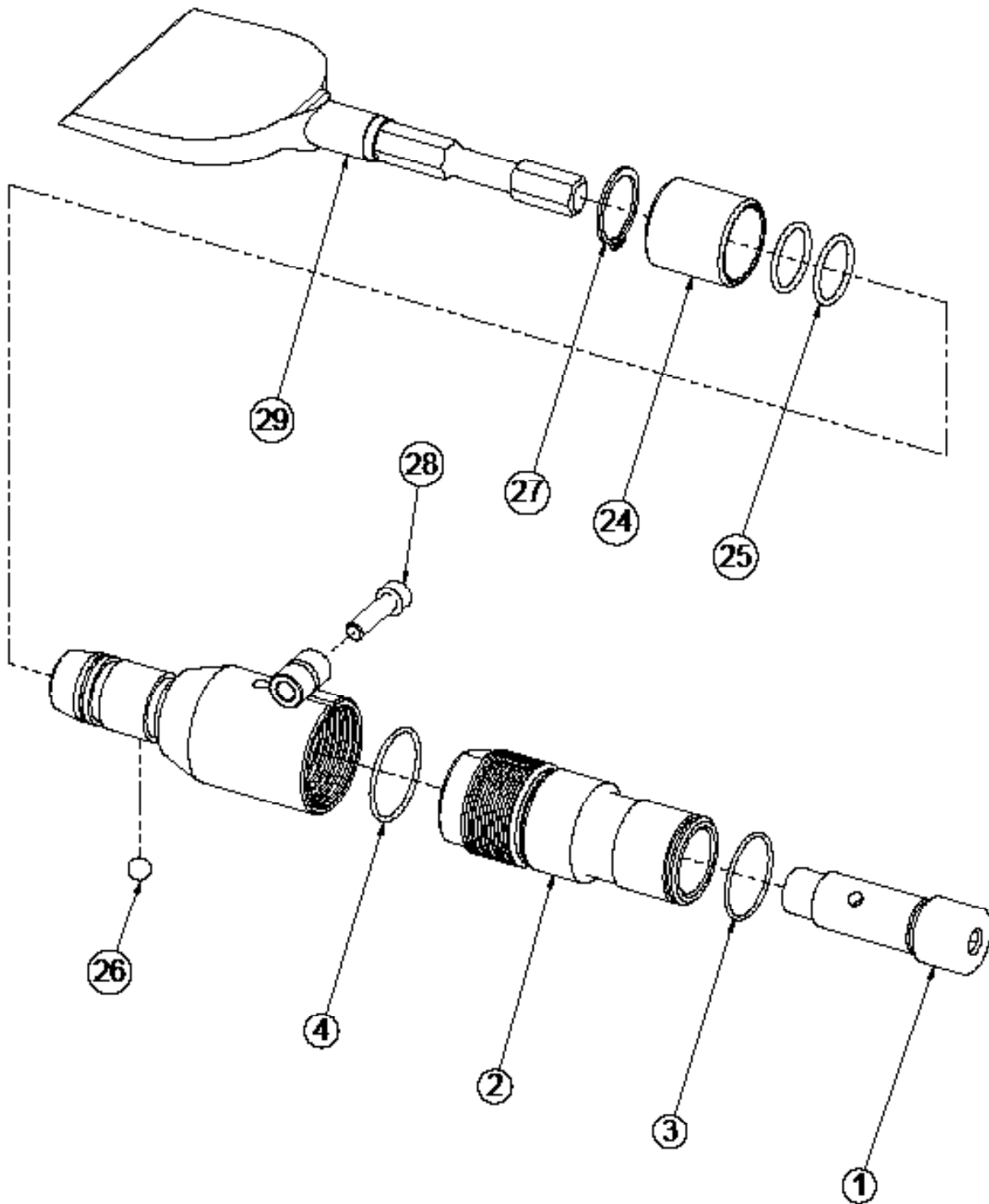
Illustration Number	Part Number	Description	LR076	LR116	LR146	LR176
1	100 21 03	PISTON	1	1	1	1
2	100 21 02	CYLINDER	1	1	1	1
3	100 40 12	O'RING FOR CYLINDER	1	1	1	1
4	100 40 13	O'RING FOR CYLINDER	1	1	1	1
5	102 40 04	RUBBER HANDLE GRIP	1	1	1	1
6	102 40 05	COVER GRIP	1	1	1	1
7	102 24 06	HANDLE TUBE FOR HANDLE GRIP	1	1	1	1
8	102 24 09	CENTRE TUBE	1	1	1	1
9	102 21 10	LOCK NUT	1	1	1	1
10	102 40 11	SEALING WASHER	1	1	1	1
13	102 24 12/APC	SLEEVE HSG. ASMLY (LR76)	1	-	-	-
-	102 24 13/APC	SLEEVE HSG. ASMLY (LR116)	-	1	-	-
-	102 24 03/APC	SLEEVE HSG. ASMLY (LR146)	-	-	1	-
-	102 24 14/APC	SLEEVE HSG. ASMLY (LR176)	-	-	-	1
14	100 21 07	VALVE BODY ¼" NPT	1	1	1	1
15	100 21 06	VALVE CAP	1	1	1	1
16	100 40 15	O'RING - VALVE CAP	1	1	1	1
17	100 51 14	VALVE SPRING	1	1	1	1
18	100 25 11	VALVE STEM	1	1	1	1
19	100 40 16	O'RING VALVE STEM	1	1	1	1
20	100 30 12	THROTTLE LEVER	1	1	1	1
21	100 50 19	ROLL PIN	1	1	1	1
22	100 40 18	PLASTIC PULG	1	1	1	1
23	102 21 01	CHISEL HOLDER	1	1	1	1
24	102 21 02	RING FOR CHISEL HOLDER	1	1	1	1
25	060 40 04	O'RING FOR CHISEL HOLDER	2	2	2	2
26	060 50 05	BALL	1	1	1	1
27	060 90 06	EXTERNAL CIRCLIP	1	1	1	1
28	200 90 68	ALLEN BOLT	1	1	1	1
29	JB0222FC4	CHISEL SCRAPER (5/8" HEX - 4" WIDE)	1	1	1	1

Exploded View for Long Reach Scalers



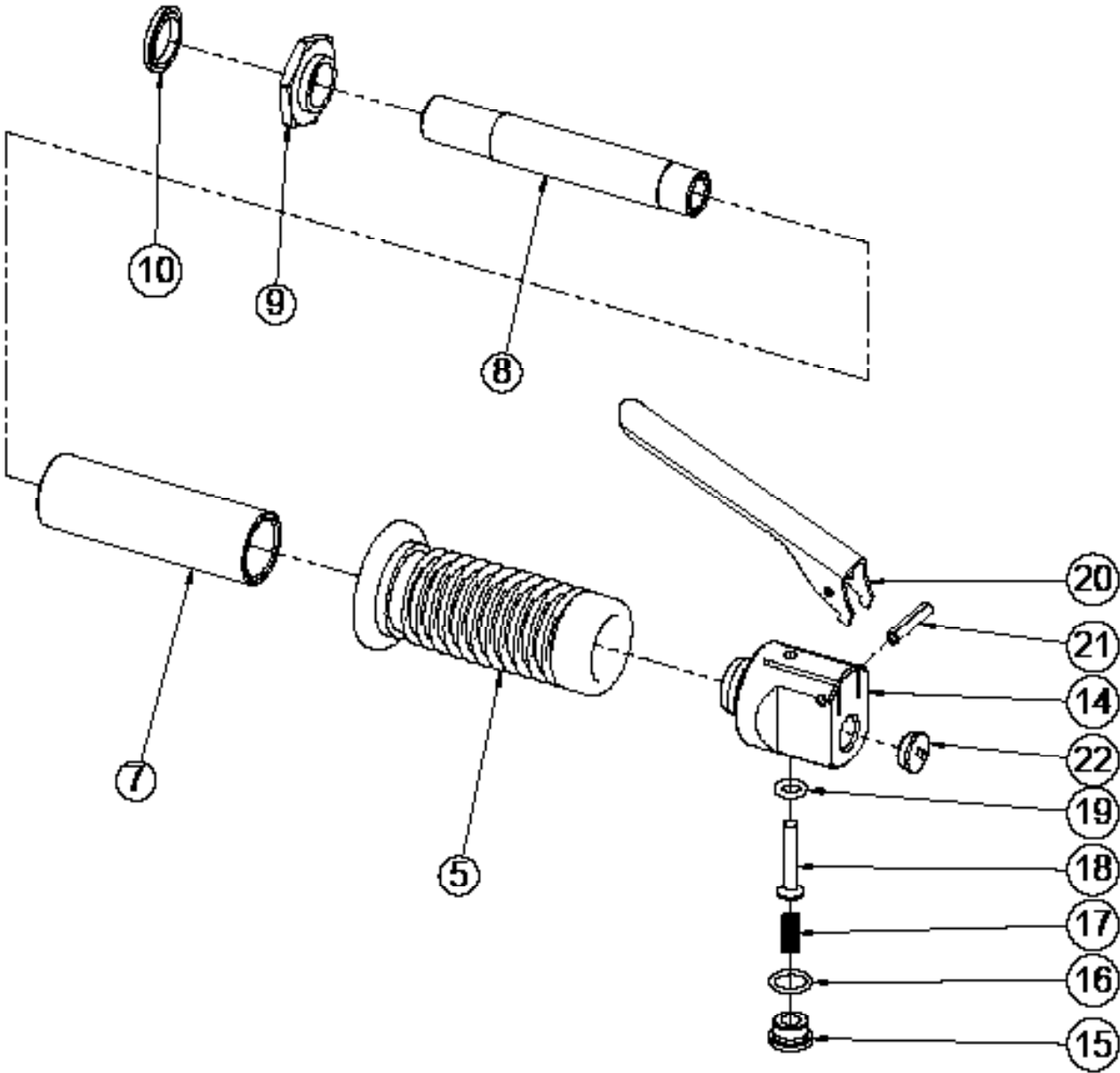
Exploded View Detail-A for Long Reach Scalers

DETAIL A



Exploded View Detail-B for Long Reach Scalers

DETAIL B



EU DECLARATION OF CONFORMITY

We hereby certify that the Listed Product stipulated below comply with all relevant provisions of the machinery directive (2006/42/EC) and the national laws and regulations adopting this directive.

Description : Long Reach Scalers

Model Number : LR Series

Is in conformity with the provisions of the following European Directives: (2006/42/EC) Machinery Safety and Harmonized standards

ISO 12100-1: 2010: Safety of Machinery –general Principles for Design –Risk Assessment and Risk Reduction.

Registered Office : TERYAIR EQUIPMENT PVT. LTD.
A-1, Tirupati Udyog Nagar, Sativali Road,
Vasai(E), Palghar – 401 208. Maharashtra, India

Web site : www.teryair.com

Works : A-1, Tirupati Udyog Nagar, Sativali Road, Vasai East,
Palghar – 401208, Maharashtra, India.

CE certification registration no – C E 16831

Issued by – BMQR Certifications Pvt Ltd.
www.cemarking-india.com

Valid Till – 03/11/2025

Signed for and on behalf of

TERYAIR EQUIPMENT PVT. LTD.

Place of Issue : Vasai



Warranty Certificate

Every product manufactured by Teryair
is built to meet the highest standards of quality.

Teryair warrants that the Products, accessories and parts manufactured or supplied by the company be free from defects in material and workmanship for a period of six months from date of Teryair authorized dealer invoice to customer, or one year from date of Teryair invoice to dealer, whichever is earlier. Failure due to normal wear, misapplication, or abuse is, of course, excluded from this warranty.

Since the use of Teryair products and parts is beyond our control, Teryair cannot guarantee the suitability of any product or part for a particular application and Teryair shall not be liable for any consequential damage or expense arising from the use or misuse of its products on any application. Teryair does not warranty bought out products or components such as electric motors and hardware but will assist in directing warranty queries to the dealer/manufacturer responsible. Teryair responsibility is limited solely to replacement or repair of defective Teryair products or components.

Dealer/End User shall have no right or remedy and Teryair shall have no liability or obligation under the warranty, if: (i) a Product is altered, changed, modified or tampered with in any way; (ii) a Product is damaged after deposit with the transporter for shipment; (iii) a Product is not properly preserved, packaged, stored, processed or handled after receipt; (iv) a Product is not used and maintained in accordance with Teryair's recommended operating and maintenance manuals, instructions and procedures, if any; (v) a Product is not properly incorporated or installed in, or not properly combined with, an Other Product; (vi) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, a failure, substandard performance or other issue with another product, material, component or part not supplied by Teryair; (vii) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, compliance with any design, specification or other specific requirement of Dealer/End User; (viii) a Product is used in a manner, with a substance or for a purpose other than the normal manner, substance and purpose for which it is intended or is otherwise subjected to abnormal use or service; (ix) a Product is subjected to a power surge, brown out or other similar occurrence; (x) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, normal wear and tear of such Product (including, without limitation, things such as worn seals, diaphragms, balls, O rings, gaskets, chisels, cutters, hoses and other such wearing components; (xi) the issue with a Product is directly or indirectly.

Model Number : LR Series

M Yadav, Q.A. Manager
(Company Seal)

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