



Operating Manual

In Cooperation with Weber-Hydraulik GmbH

E Puller



Contents

1	Introduction	4
1.1	Product name und Type	4
1.2	Manufacturer information	4
1.3	Target audience	4
1.4	Machine lifecycles	4
2	Safety	5
2.1	Intended use	5
2.2	Foreseeable misuse	5
2.3	Symbols and notices	5
2.4	Safety instructions	5
2.5	Warning signs on the machine	5
2.6	Personnel protective equipment.....	5
2.7	Safety devices	6
2.8	Special safety instructions	6
2.8.1	Transportation and Operation	6
2.8.2	Cleaning, maintenance, Repair	6
2.8.3	Decommissioning, Disassembly	6
2.9	Emergency response	6
2.10	Operator care	6
2.11	Deadlines for recurring inspections.....	7
3	Production description	8
3.1	General function of the machine.....	8
3.2	Components	8
3.3	Adjustment parts and their functions	8
3.4	Type plate	8
3.4.1	Type plate	8
3.4.2	Dimension and weight	8
3.4.3	Electric and energy.....	9
3.4.4	Mechanik.....	9
3.4.5	Hydraulic	9
3.5	Operating and storage limits	9
4	Transport and packaging	10
4.1	Transport	10
4.2	Lifting the E Puller.....	10
4.3	Packaging.....	10

4.3.1	Removal	10
4.3.2	Disposal	10
5	Operation	11
5.1	Requirement for the operating personnel	11
5.2	Guidelines for safe Operation	11
5.3	Working environment	11
5.4	Controls	11
5.4.1	On/Off Button	11
5.4.2	Control rocker	11
5.5	Module Units an additional modules	12
6	Maintenance and repair	13
6.1	Requirement for the performing personnel.....	13
7	Plans and technical drawing	14
	Compilation E Puller without module	14
8	Protocol and certificates.....	15

1 Introduction

1.1 Product name und Type

Product name:	E Puller
Type designation:	Battery-powered Puller E-Force3 1099117

1.2 Manufacturer information

Name:	Langesee GmbH
Address:	Stöcklergasse 3b, 6280 Zell am Ziller, AUSTRIA
E-Mail:	info@langesee.at
Phone:	+43 5282/2245

1.3 Target group

This operating manual is intended for following personnel:

- Service technician.
- Maintenance personnel
- Machine operator

1.4 Machine lifecycles

The machine goes through the following lifecycles:

- Assembly
- Operation
- Maintenance
- Disassembly
- Disposal

2 Safety

2.1 Intended use

The machine is designed to pull or press bushes.

2.2 Foreseeable misuse

The E Puller must not be used for purposes other than intended. The following foreseeable misuses are not permitted:

- Overloading of parts not intended for the machine
- Independent modification or repair measures
- Failure to follow all safety instructions and operating instructions in this manual
- Never exceed the limits regarding pressure, temperature, etc., as the stated in the datasheet/documentation

2.3 Symbols and notices

The manual uses symbols, signal words and notices to warn of hazards and ensure safe operation. The symbols are depicted and explained below.



WARNING/CAUTION

This Signal word indicates an immediately threatening danger. Failure to observe may result in serious/minor injuries.



NOTICE

This symbol indicates an immediately threatening danger. Failure to observe may result in property damage

2.4 Safety instructions

Read and follow the instructions in this operating manual to operate the device safely. Do not perform independent modifications or repairs on the device.

2.5 Warning signs on the machine

The following warning signs are attached on the device:



Caution risk of jamming

Keep finger/hand on knurled sleeve.

2.6 Personnel protective equipment



Protective Helmet

Wear a protective helmet



Protective Gloves
Wear protectives gloves



Safety shoes
Wear safety shoes.



Safety Glasses
Wear safety Glasses.

2.7 Safety devices

The E Puller switches off after a half minute of non- use.

2.8 Special safety instructions

2.8.1 Transportation and Operation

The device has a lithium-ion battery, which must be checked for integrity and proper function during transport and commissioning.

2.8.2 Cleaning, maintenance, Repair

Clean after use. Annual inspection for defects. Earliest maintenance after 3 years and return to the manufacturer.

2.8.3 Decommissioning, Disassembly

Afte the end of the service life, the device must be disposed of properly. Individual parts can certainly be reused. For more details, please contact your supplier.

2.9 Emergency response

Immediately switch off the device; provide first aid; remove the person from the danger area and call the emergency number 112.

2.10 Operator care

For a safe operation, the operator must observe the following:

- Proper operation
- Regular maintenance and care

- Read and follow the operating manual
- Keep the workplace clean
- Wear necessary protective equipment
- Check the device for leaks
- Check all screwable and couplable parts for functionality.

2.11 Deadlines for recurring inspections

Part to be inspected	Interval	To be inspected
Visual inspection	Before use	Operator
Basic device safety inspection	Every 3 years	Manufacturer
Basic device oil change	Every 10 years	Manufacturer
Module clutch	annually	Operator

3 Production description

3.1 General function of the machine

The device is designed for pulling and pressing slide bushings in various designs. The bushes can be made of steel, brass, bronze, composite material, plastic, etc.

The field of application extends throughout the steel and machinery construction: cable car technology, construction machinery, agricultural machinery technology, ship technology, etc.

3.2 Components

The machine has the following main components::

- Base device with hydraulic cylinder and knurled sleeve, coupling bolt.
- LED lights
- Modules(configured as required)

3.3 Adjustment parts and their functions

The machine has the following adjustment parts:

- On/Off button
- Rocker switch for extending and retracting

3.4 Type plate

3.4.1 Type plate

The type plate is on the bottom of the device.

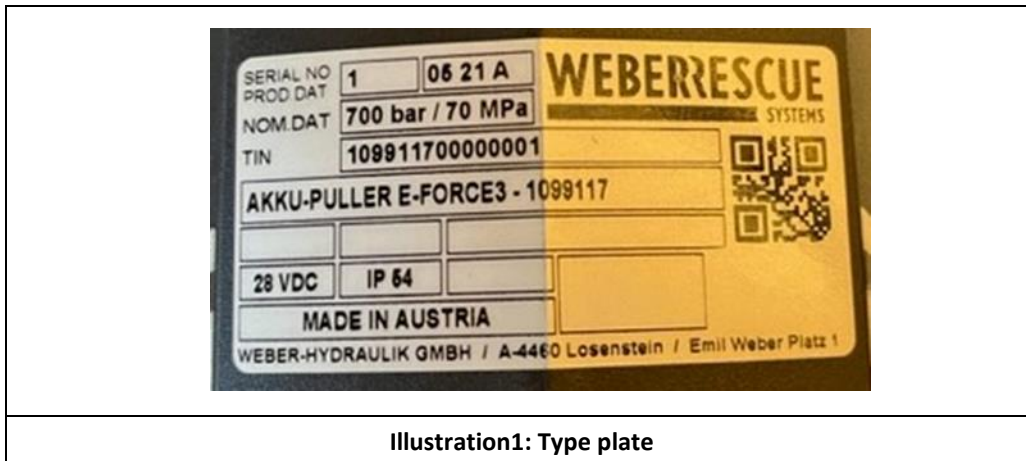


Illustration1: Type plate

3.4.2 Dimension and weight

Cor size	Unit	Value
Length	[mm]	585
Width	[mm]	132
Height	[mm]	241
Weight	[kg]	9,30

3.4.3 Electric and energy

Core size	Unit	Value
Voltage	[V]	28 Li-Ionen battery
Nominal capacity	[Ah]	5,0
Charging time	[h]	1

3.4.4 Mechanik

Core size	Unit	Value
Hub	[mm]	122
Ø Piston rod	[mm]	22

3.4.5 Hydraulic

Core size	Unit	Value
Pression	[bar]	700
Tensil force	[kN]	40
Pressure force	[kN]	62

3.5 Operating and storage limits

Battery charging 0°C – 65°C

Operating range -25°C-50°C

Storage approximately 5°C - 35°C <75% rel. humidity.

4 Transport and packaging

4.1 Transport

The E Puller should preferably be transported in a case, box or cardboard to avoid damage to the device, battery or modules. For further transportation, please observe regulation UN 3481 for the transport of Lithium batteries.

4.2 Lifting the E Puller

The E Puller should be used with both hands depending on usage, or supported by a weight-neutral suspension(balancer) for stationary work.

4.3 Packaging

The device is delivered in a cardboard box. Upon request, a sturdy case can be provided.

4.3.1 Removal

When opening the box, be caution and check the device for damage. The battery must be fully charged before use.

4.3.2 Disposal

Dispose of the packaging properly.

5 Operation

5.1 Requirement for the operating personnel

Before commissioning, read the operating manual. In general, training by our knowledgeable personnel is also recommended.

5.2 Guidelines for safe Operation

The following must be observed for a safe operation:

- Visual inspection of the device for leaks or defects (use prohibited)
- Charge battery
- All screwable parts tightened hand-tight
- Correct connection of module with coupling bolt
- Testing of the extending and retracting direction
- Unusual noises from the hydraulic (use prohibited)

5.3 Working environment

Max. humidity	100% Klasse IP54
Max. Temperature	55°C
Min. Temperature	-20°C

5.4 Controls

5.4.1 On/Off Button

This button is located at the front of the handle. After turning on, a white ring lights up. The motor runs idle. If the control lever is not operated, the device switches off after 30 sec and must be turned on again.

5.4.2 Control rocker

This lever controls the extending and retracting of the cylinder. The speed of movement can be precisely controlled by pressing the control lever more or less strongly.

The maximum cutting, spreading, or compressive force is only achieved when the lever is fully depressed. When the lever is released, it turns to the neutral position, and the cylinder stops. Even under load.

Arrows->/<-means cylinder retracts

Arrow <-/-> means cylinder extends.



Steuerungseinheit E-FORCE



Beispiel Schneidgerät:
links schließen, rechts öffnen

5.5 Module Units and additional modules

The necessary modules (module part + module ring) for the respective diameters are attached via a coupling plug-in system. Locking is done via the red push button or a sliding sleeve on the module units (see photo 01,02). When coupling between the module part and the coupling bolt, it must be ensured that the red push button or the sliding sleeve produces in its entire length, otherwise there is no form-fitting connection (risk of detachment). A "click" sound follows. Additionally, for pressing, a press ring can be applied to the segments of the module (see photo 03) if the position of the bushes needs to be exact or for a save pressing. Additionally, extensions (see photo 04) are required for pressing, which are placed between.



Foto01



Foto 02: Module unit with sliding sleeve



Foto 03: Press-in ring

6 Maintenance and repair

6.1 Requirement for the performing personnel

Maintenance and repair may only be carried out by trained personnel of Langesee GmbH. Troubleshooting must be carried out exclusively by us in case of device malfunction.



Foto 04: Reneval (125/100/75/45mm)

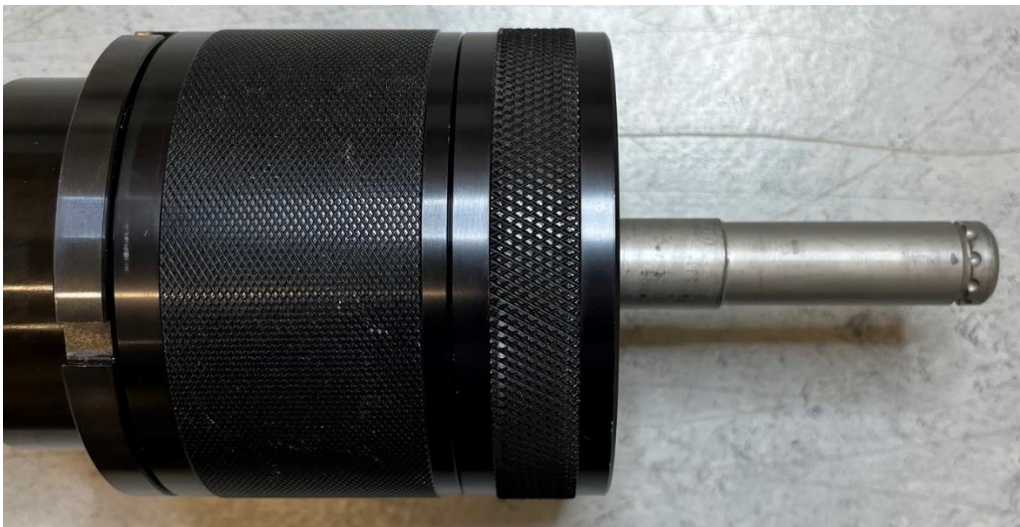


Foto 05: knurled sleeve, module ring, coupling bolt (f. left t. right)

7 Plans and technical drawing

Schnittansicht E-E

Schnittansicht C-C

Schnittansicht K-K

Hilfsansicht P

Hilfsansicht D
Hilfsstab: 1:2

Hilfsansicht F

HYDRAULIKSCHEMA

NUMMER	BESCHREIBUNG	STUFENLEISTUNG
000011	STANDARD ZAHN-ANWEL	
000012	100% VERSTÄRKUNG ANWEL	
000013	STANDARD ZAHN-ANWEL, ZWISCHEN	
000014	STANDARD ZAHN-ANWEL, ZWISCHEN	

TECHNISCHE DATEN:
 TYPE: DZ 35/22-122 E-FORCE3 - 1099117
 KUNDE: LANGESEE
 Nenndruck pN 70 MPa

HYDRAULIKSCHEMA

1000 MPa
 70 MPa
 70 MPa

HYDRAULIKSCHEMA

1000 MPa
 70 MPa
 70 MPa

HYDRAULIKSCHEMA

1000 MPa
 70 MPa
 70 MPa

Compilation E Puller without module

8 Protocol and certificates


WEBERRESCUE
SYSTEMS

12 EG-Konformitätserklärung


WEBER-HYDRAULIK GMBH
Emil Weber Platz 1, A-4460 Losenstein, Austria
**KONFORMITÄTSERKLÄRUNG**

entsprechend der EG-Richtlinie 2006/42/EG

Hiermit erklären wir, dass die "Hydraulischen Rettungsgeräte"

SPREIZER	SP 35 (AS) E-FORCE2, SP 40 C E-FORCE(2/3), SP 44 AS E-FORCE(2/3), SP 50 BS E-FORCE3, SP 54 AS E-FORCE3, SP 53 BS E-FORCE2, SP 64 BS E-FORCE3, SP 84 BS E-FORCE3
SCHERE/VARIO	RSX 160-50 E-FORCE(2/3), RSX 165-65 E-FORCE(2/3), RSU 180 (PLUS) E-FORCE(2/3), RSX 185 E-FORCE(2/3), RSU 210 (PLUS) E-FORCE(2/3), RSC 170 (PLUS) E-FORCE3, RSC 190 (PLUS) E-FORCE3, RSC 200 (PLUS) E-FORCE3, RSC F7 E-FORCE3, RIT- TOOL E-FORCE(2/3), SPS 270 (MK2) E-FORCE(2/3), SPS 360 (L) E-FORCE2, SPS 360 MK2 E-FORCE3, SPS 370 E-FORCE2, SPS 370 MK2 E-FORCE3, SPS 400 E-FORCE2, SPS 400 MK2 E-FORCE3. SPS 480 MK2 E-FORCE3
RETTUNGSZYLINDER	RZ 1-910 E-FORCE(2/3), RZ 1-1095 E-FORCE(2/3), RZT 2-1205 E-FORCE(2/3), RZT 2-1170 E-FORCE(2/3), RZT 2-1360 E-FORCE(2/3), RZT 2-1500 E-FORCE(2/3)
ENERGIEVERSORGUNG	Akku 3,0 Ah, Akku 5,0 Ah Ladegeräte (Eigenständiges CE Zertifikat)
SONDERGERÄTE	BC 250 E-FORCE2, SPK 250 E-FORCE2, DO 140 (MK2) E-FORCE(2/3), C 100 E-FORCE2, S 25-20 E-FORCE2
ZUBEHÖR	und Zubehör zu allen Geräten

die folgende einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen erfüllen
EC-MACHINE DIRECTIVE 2006/42/EC **EC-LOW VOLTAGE DIRECTIVE 2014/35/EC**
EC-ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2014/30/EU **EC-DIRECTIVE RoHS 2011/65/EU**

Zur sachgerechten Umsetzung der in der EG-Richtlinie genannten Sicherheits- und Gesundheitsanforderungen wurden folgende Normen und/oder technische Spezifikationen herangezogen:

EN 13204 : 2016	EN 61000-6-1: 2019	EN ISO 13857 : 2019
NFPA 1936 : 2020	EN 61000-6-2: 2019	EN ISO 12100 : 2010
DIN 14751-4 : 2011-04	EN 61000-6-3: 2006 + A1:2010	EN ISO 13849-1 : 2008
EN 61000-6-4: 2019	EN60529 : 1991 + A1:2000 + A2:2014	

Baumusterprüfung entsprechend EN 13204 und NFPA 1936 wurde vom TÜV-Süd und SGS durchgeführt.
 Bevollmächtigter für die Zusammenstellung der technischen Unterlagen: Josef Eder – Entwicklungsleiter

i.A. Hannes Buchner
(Productmanager)

Losenstein, 24.11.2021
WEBER-HYDRAULIK GMBH
 A-4460 Losenstein - Emil Weber Platz 1

i. V. Josef Eder
(Entwicklungsleiter)