



OKU

Destudding Gun

PS-01

Operating instructions

(Id. No. 00035105)

00143037 PS-01

assembled:

Date: _____

Name: _____

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1 Preface and general information

1.1 General

The present operating instructions are used for safe operation of the Destudding Gun (in the following referred to as "gun"), type PS-01, (id.No. 00143037). The safety instructions included hereinafter must be observed.

The operating instructions must be available to every person who is working with the gun and the included indications must be carefully attended to.

The operating instructions must always be complete and perfectly readable.

1.2 Scope of supply

The delivery normally consists of a destudding gun and the operating instructions. The parts included in the delivery are stated in the accompanying papers.

These papers shall be checked for conformity immediately after receipt of the goods. OKU GmbH does not take on any guarantee and/or accept any liability for defects complained belatedly.

Therefore:

- contact the forwarder immediately to complain about visible transit damages,
- contact OKU GmbH immediately to complain about visible defects and/or incompleteness of delivery.

1.3 Intended use

The gun is exclusively destined for the removal of single and multi-flange studs from tires of passenger-cars and trucks.

Any other use shall be deemed to be inappropriate!

1.4 Liability

The information, data and notes of these operating instructions were up-to-date when being printed. The specifications, illustrations and descriptions included hereinafter do not apply to any previously supplied guns.

We do not accept liability for damages and operating troubles caused by:

- inappropriate use,
- unauthorized modification of the gun,
- improper operation of the gun,
- operating errors,
- disregard of the operating instructions.

1.5 Warranty

Conditions of warranty: see Standard Terms and Conditions of OKU GmbH.

Assert warranty claims against OKU GmbH immediately after detection of the defect or fault.

Warranty claims expire in each case where liability claims cannot be made.

2 Safety information

2.1 Personnel responsible for safety

2.1.1 Operator

Operator is called any natural or legal person who is using the gun or on behalf of whom the gun is used.

The operator and/or his safety officer must ensure that

- all essential regulations, instructions and laws will be observed,
- only qualified personnel will be working with the gun,
- the a.m. personnel will have the operating instructions available at any time,
- non-qualified personnel will be prohibited from working with the gun.

2.1.2 Qualified personnel

As qualified personnel are to be considered persons who have been authorized by the safety officer of the plant to perform the necessary activities and who are able to recognize and avoid potential hazards because of their education, experience, instructions and their knowledge of the corresponding standards and rules for the prevention of accidents as well as the operating conditions (see IEC 364, definition for qualified personnel).

2.2 General safety instructions

These safety instructions do not claim to be exhaustive. In case of any questions please contact OKU.

At the time of delivery the gun is state of the art and considered reliable.

The gun is a source of danger for persons, for the gun itself and for other material assets of the operator if

- it is operated by unqualified personnel,
- it is used inappropriately.

Operate the gun only when it is in perfect condition!

Any upgrade, modification or redesign of the gun is basically prohibited. In this case please confer with OKU.

2.3 Layout of the safety instructions

The safety instructions described hereinafter are arranged consistently.

Warning of personal injury

Pictogram	Meaning	Signal words	Notes
	Warning of dangerous electrical voltage	Danger!	Warns of imminent danger Consequences if disregarded: Death or very severe injuries
	Warning of a general danger	Warning!	Warns of a potential very dangerous situation Consequences if disregarded: Death or very severe injuries
	Warning of a general danger	Caution!	Warns of a potential dangerous situation Consequences if disregarded: Light or minor injuries

Warning of material damage

Pictogram	Meaning	Signal words	Notes
	Warning of material damage	Stop!	Warns of potential material damage Consequences if disregarded: Ambient damage or damage of the gun

Other information

Pictogram	Meaning	Signal words	Notes
	General note	Note!	Signalizes a general useful note. Observance thereof will facilitate the use of the gun.

3 Technical Data

3.1 Stud types

The gun is suited for the removal of single-flange and multi-flange studs from passenger-car and truck tires.

Head dia.	6,5 - 12 mm
Shank dia.	4 - 8 mm
Length	max. 18 mm

3.2 Dimensions and weight

The following values are valid for the gun without any accessories. They may differ according to the equipment of the gun.

Length	approx. 242 mm
Width	approx. 70 mm
Height	approx. 179 mm
Weight	approx. 1,8 kg

3.3 Noise emission

The sound pressure level at the work station of the operator can reach up to 83 dB(A). Provide suitable ear protection for the operator.

3.4 Ambient conditions

The gun shall be used in closed and dry rooms only.

The permissible ambient temperature during operation is from 10 °C to 40 °C.

4 Commissioning

Precautions to be taken before starting to work with the gun:

- check perfect condition of gun,
- never operate a damaged gun.

4.1 Pneumatic connection



Attention!

The pneumatic connection has to be exclusively made by qualified personnel with extensive knowledge in the handling of pneumatic systems.

Screw provided screw coupling (2) into the handle. Plug compressed air hose into the screw coupling. The gun requires compressed air with approx. 7-8 bar working pressure. The maximum operating pressure amounts to 10 bar.



5 Operation of the gun

5.1 Elimination of studs

Press the gun with the claws (36) into the tire rubber over a stud. Operate the trigger (7) and keep it pressed. The claws close and seize the stud. Then the gun is pushed off the tire with the push-off plate (25) and the stud is pulled out of the tire. Release the trigger as soon as the stud has been fully pulled out of the tire. The push-off plate returns, the claws open, the extracted stud is set free and can be disposed of.



Attention!

Do not hold the gun with the hand in the area of the push-off plate. There is danger of violent pressure!



Counsel!

When impressing the gun above the stud a certain counter pressure has to be put by hand to the tire rubber. With some practice and skill you will soon find out the correct pressure in order to obtain a steady working result.

6 Faults and trouble shooting

No.	Cause	Trouble shooting
6.1	Wear of the claws (36)	Take off O-Ring (37), remove spring dowel pin (34) and shafts (33). Take out claws (36), turn by 180° and reinsert with the unused side showing to the front. Take care that the balls (35) will be reinserted. If both sides of the claws are worn new claws will have to be installed.
6.2	The push-off movement of the push-off plate (25) is too much in advance of the closing movement of the claws (36).	Screw off gun head (28), remove piston disks (12, 19) with the expanding mandrel (17). Check possible damages of the grooved rings (16); if o.k. clean and grease. If the grooved rings are damaged or worn replace by new ones. Check if the pressure springs (24) are broken; replace broken pressure springs. Check function and tightness of leaf springs (13, 15), replace defective leaf springs.
6.3	Trigger (7) gets caught	Remove O-Ring (10) and dowel pin (11), take out trigger (7), clean and slightly lubricate with oil. Check if pressure spring (6) is broken, if so replace pressure spring.

7 Lubrication and maintenance

7.1 Lubrication



Stop!

Observe the effective directions for the use and safety of the applied lubricants!

7.1.1 Lubricating oil

Code letter as per DIN 51502	Designation	ISO Viscosity Class as per DIN 51519	Manufacturer (designation of manufacturer) e.g.
AN 22	Normal lubricating oil	ISO VG 22	AVIA (AVILUB RS 22) BP (BP Energol CS 22)

7.1.2 Lubricating grease

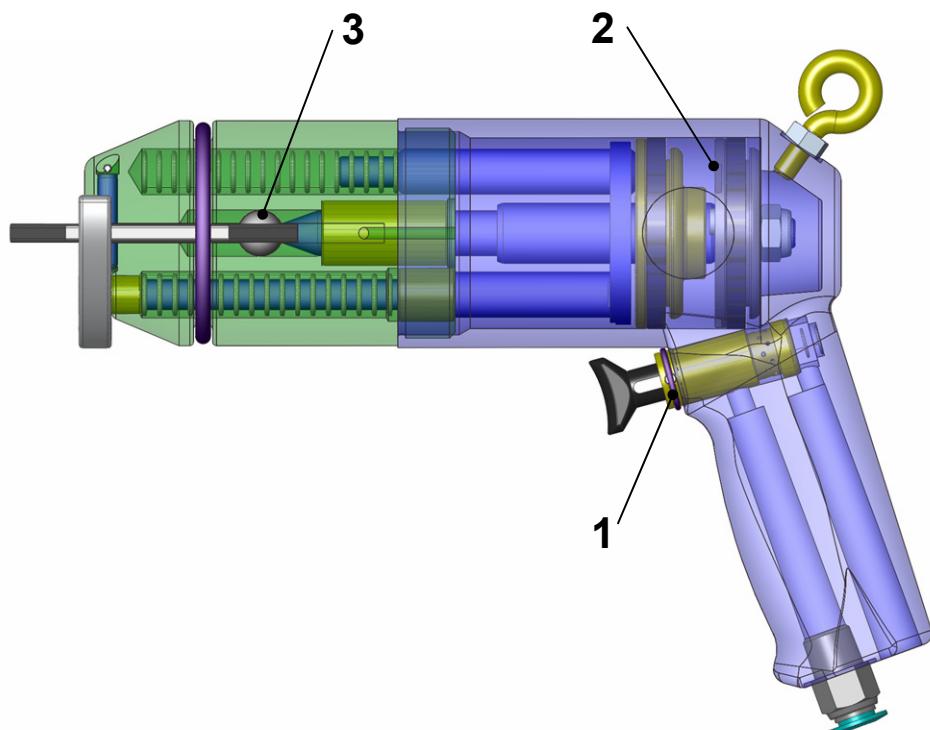
Designation acc. to DIN 51825	Designation	Consistency Index NLGI Class as per DIN 51818	Worked penetra- tion as per DIN ISO 2137	Manufacturer (designation of manufacturer) e.g.
KP2K-20	Lubricating grease for bearing	NLGI-2	265-295	AVIA (AVIALITH 2) BP (Energrease L2) ESSO (Beacon 2) KLÜBER (CENTOPLEX 2 EP) MOBIL (Mobilux 2) SHELL (Alvania R 2)

7.2 Greasing points

The following points of the gun need to be greased regularly. You will find a maintenance-set including grease and corrosion preventive-oil-spray in the spare parts list in chapter 9.5.

To grease the gun it must be partially dismounted (see hereto chapter 6 "Faults and trouble shooting"). At the exchange of wear parts, it is recommended to grease the gun at the same time.

No.	Designation	Service to be done	Operating material Measured values	Frequency	Notes
1	Trigger	Lubricate with oil	Lubricating oil DIN 51501-L-AN 22	quarterly	Oil trigger slightly
2	Piston disk Grooved ring	Lubricate with grease	Lubricating grease DIN 51825-KP2K-20	yearly	Grease piston surface slightly
3	Balls	Lubricate with grease	Lubricating grease DIN 51825-KP2K-20	quarterly	Grease balls slightly



7.3 Maintenance

Except for the lubrication at the intervals specified under 7.2 the gun is maintenance-free.

8 Placing out of operation and dismounting

OKU takes back your gun. We recommend you to have OKU professionally dismantle the gun and dispose of it.

Tip!

Contribute to environment protection by recycling valuable raw materials.

What?		Where?
Transport material	Pallets	Return to the manufacturer or forwarder
	Packing material	Cardboard boxes to waste paper Plastic to plastic recycling or waste material Wood-wool reuse or to waste material
Lubricants	Oil, grease	Dispose according to regulations in force
Components	Materials used: aluminium aluminium cast steel brass plastic	Dispose of different materials separately

9 Spear and wear parts

9.1 Requirements



Stop!

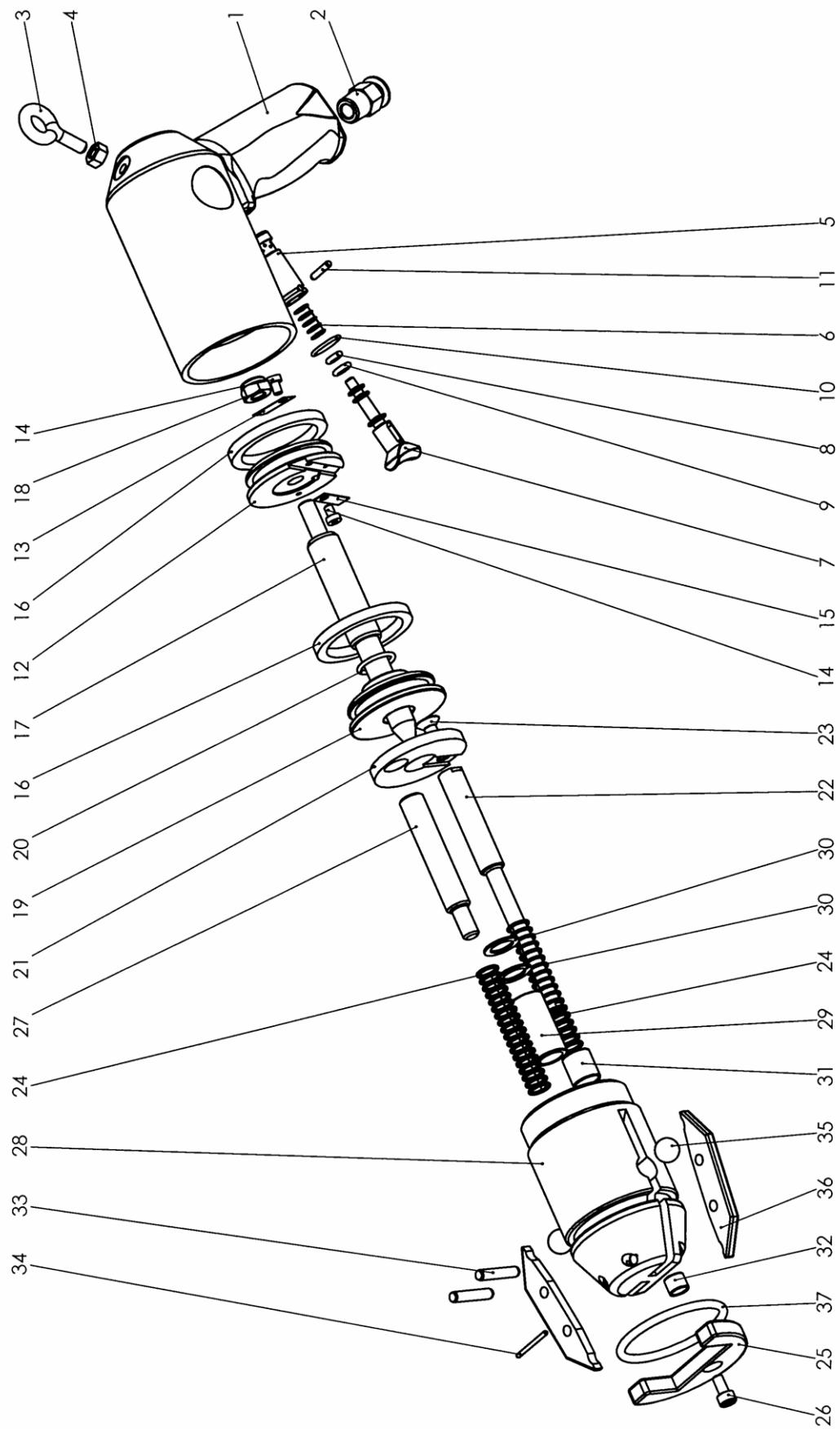
Spare and wear parts must be in accordance with the technical requirements stipulated by the manufacturer.

9.2 Handling of order

To ensure punctual handling of orders please always state in your orders the **OKU id.No.** of the spare part you need. You will find the **OKU id.No.** in the exploded drawings and the spare parts lists.

9.3 Explanation of the spare parts list

The numbering of the spare parts in the exploded drawing corresponds to the item numbers of the spare parts list.

9.4 Exploded drawing PS-01

9.5 Spare parts list PS-01

Item	OKU Id. No.	Qty	Designation
1	00487706	1	Handle
2	00031539	1	Screw coupling
3	00000613	1	Eyebolt
4	00000627	1	Hexagon nut
5	00350728	1	Sleeve
6	00350297	1	Pressure spring
7	00470092	1	Trigger
8	00003463	1	O-Ring
9	00003404	1	O-Ring
10	00003464	1	O-Ring
11	00000536	1	Dowel pin
12	00405849	1	Piston disk
13	00405851	1	Leaf spring
14	00024080	2	Cheese head screw
15	00405850	1	Leaf spring
16	00003507	2	Grooved ring
17	00405844	1	Expanding mandrel
18	00004082	1	Hexagon nut
19	00375188	1	Piston disk

Item	OKU Id. No.	Qty	Designation
20	00003416	1	O-Ring
21	00405845	1	Disk
22	00405324	1	Plunger
23	00000391	1	Countersunk screw
24	00004794	2	Pressure spring
25	00407163	1	Push-off plate
26	00000210	1	Cheese head screw
27	00404981	1	Bolt
28	00487707	1	Gun head
29	00375192	1	Bushing
30	00023422	2	Shim ring
31	00003817	1	Slide bearing
32	00003807	1	Slide bearing
33	00433900	2	Shaft
34	00023016	1	Spring dowel pin
35	00003308	2	Ball
36	00404908	2	Claw
37	00003468	1	O-Ring

00885027	1	corrosion preventive-oil, aerosol can 100 ml (single)
00885028	1	grease, tube 20 g (single)
20015510	1	1 aerosol can corrosion preventive-oil (100 ml) and 1 tube grease (20 g) as maintenance-set

10 Appendix

10.1 CE-Declaration of Conformity



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herewith declares that the machine

designation: **Destudding gun, model PS-01**

as delivered complies all the relevant regulations of the CE Machine Directive 2006/42/EC.

Harmonized standards applied:

EN ISO 12100-1/A1 Safety of machinery – Basic concepts, general principles for

design – Part 1: Basic terminology, methodology

EN ISO 12100-2/A1 Safety of machinery – Basic concepts, general principles for

design – Part 2: Technical principles

Authorized person to compile the relevant technical documentation:

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Winterbach, 01.01.2010

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10.2 Copyright

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10.3 Manufacturer and contact person



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11 Notes

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