

## Instructions Pneumatic Sheet Metal Shears 1810, 1813 & 1820

To avoid failure, when using DRÄCO - Metal shears, please read these instructions

**For your safety:**



- 1** Safe operation of this machine is possible only when the operating instructions and the safety precautions are read completely and the instructions contained therein are strictly observed.
  - Apply the machine to the sheet metal only when switched on.
  - Always provide for secure footing when working.
  - Firmly clamp the workpiece if it does not remain stationary from its own weight.
  - The knife should not rub on the jaws: Possible danger of cutting tool breakage.
- 2** Use ear protectors and protective goggles.
  - Do not exceed the maximum allowable material thickness especially when cutting over doubles, folded joints or welded seams.
- 3** Wear protective gloves and sturdy footwear.
  - Before carrying out any work on the tool itself, during pauses in the work and when not in use, disconnect the air supply.

For further notes on safety refer to enclosed sheet

### Technical Data:

| DRÄCO Metal Shears            | type                         | 1810   | 1813   | 1820   |
|-------------------------------|------------------------------|--------|--------|--------|
| <b>max. cutting capacity</b>  | Art.no.:                     | 62030  | 62040  | 62050  |
| steel                         | 400 N/mm <sup>2</sup> mm/ga. | 1,0/19 | 1,3/18 | 2,0/14 |
| stainl. steel                 | 600 N/mm <sup>2</sup> mm/ga. | 0,7/21 | 1,0/19 | 1,5/17 |
| stainl. steel                 | 800 N/mm <sup>2</sup> mm/ga. | 0,4/24 | 0,7/21 | 1,3/18 |
| aluminium                     | 250 N/mm <sup>2</sup> mm/ga. | 1,5/18 | 2,0/14 | 3,0/10 |
| tightest radius               | mm/ "                        | 50/2   | 50/2   | 100/4  |
| working speed                 | m/min                        | 9      | 9      | 9      |
| strokes                       | min <sup>-1</sup>            | 3000   | 3000   | 3000   |
| air-consumption at 6 bar/min. | m <sup>3</sup> ±             | 0,18   | 0,18   | 0,18   |
| motor capacity                | watts                        | 200    | 200    | 200    |
| weight                        | kg                           | 1,3    | 1,3    | 1,3    |
| noise                         | dB(A)                        | 99     | 99     | 99     |

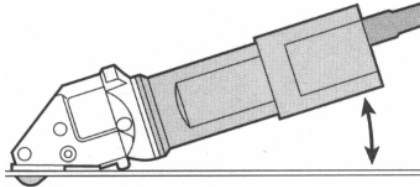
| Spare parts   | 1810    | 1813  | 1820   |
|---------------|---------|-------|--------|
| knife         | 01011   | 01001 | 010135 |
| set of jaws   | 13574/1 | 10600 | 13574  |
| knife-pin set | 12555   | 12555 | 12555  |

| Optional accessories     |              |       |
|--------------------------|--------------|-------|
| adjustable guide S/01    | up to 100 mm | 10059 |
| adjustable guide S/01    | up to 250 mm | 10060 |
| adjustable guide S/01    | up to 500 mm | 10061 |
| support roller (plastic) |              | 10076 |
| support roller (metal)   |              | 10077 |

# Instructions

The pos. number used are in connection with the opposite Service-tips

1. Before using the metalshears please check cutting capacity see technical data. For cutting spiral pipes through a seam. It is possible, when using model number 18/3514-2. (4 x 0,90 mm).
2. Always place the machine straight on the work piece. The jaws (pos. 10) must lay flat on the material. When cutting sheet metal etc. do not oil cutting surface.



3. When cutting a slot without drilling an end hole, pull shear backwards with motor running.
4. **Circular cuts:** Always cut counter clockwise from right to left, this enables a shorter inside curve.

5. For cutting out curved or square inside patterns a hole between 10 - 14 mm should be drilled to insert the cutting knife. For square cut outs drill a hole in each corner.
6. If after cutting, a small strip remains, this can be trimmed off to the exact marked line, without leaving a burr or any distortion of the material.
7. When producing the same parts several times a template can be used. The knife will follow the template on the side. A marked line can be easily followed due to the points on the jaws.
8. Both knife and jaws can be resharpened. After being resharpened or replaced, the knife should be adjusted at it's lowest point and should protrude the jaws by approximately 2.5 mm.
9. If following these instructions, you are able to work with the knife and jaws about 200 working hours depending on the hardness of the materials.

**ATTENTION : THE MATERIAL MUST ALWAYS BE FREE OF GREASE OR OIL.**

## Equipment protection

The maximum allowable operating pressure of 6.6 bar must not be exceeded; use a pressure reducer if necessary.

To avoid damage by contaminated pressurised air, a maintenance unit must be used in the air supply system.

The maintenance unit consists of three main components:

- Filter with water separator
- Pressure reducer with manometer

Mist oilier for lubricating the machine with SAE 20 or SAE 10 motor oil.

**Do not use petroleum or diesel oil.**

## Care and Maintenance

**Before carrying out any work on the tool itself, disconnect the air supply.**

Oil the knife pin 18 and knife 11 at regular intervals.

Should the tool fail in spite of careful manufacturing and testing procedures, the repair is to be performed by an authorised customer service location for pneumatic or electric tools.

## CE Declaration of conformity

We declare under our sole responsibility that this product is in conformity with the following standards or standardisation documents:

EN 792, PNEUROP PN8NTC1, ISO 3744, ISO 8662/1, according to the provisions of the regulations 89/392/EWG.

CE 95 Max Draenert



## Noise/vibration information

Measured values determined according to EN 792, PNEUROP PN8NTC1, ISO 3744, ISO 8662/1.

Typically the A-weighted noise levels of the tool are: Sound pressure level: 88,4 dB (A); Sound power level: 89,9 dB (A)  
Wear ear protection!

The typical hand-arm vibration is below 2,5 m/s<sup>2</sup>.

## Guarantee

Dräco tools carry a guarantee of 6 months from date of delivery.

Damage attributable to normal wear and tear, overload or improper handling will be excluded from the guarantee.

In case of complaint please send the machine, to your dealer or the Dräco Service Centre for electric power tools.

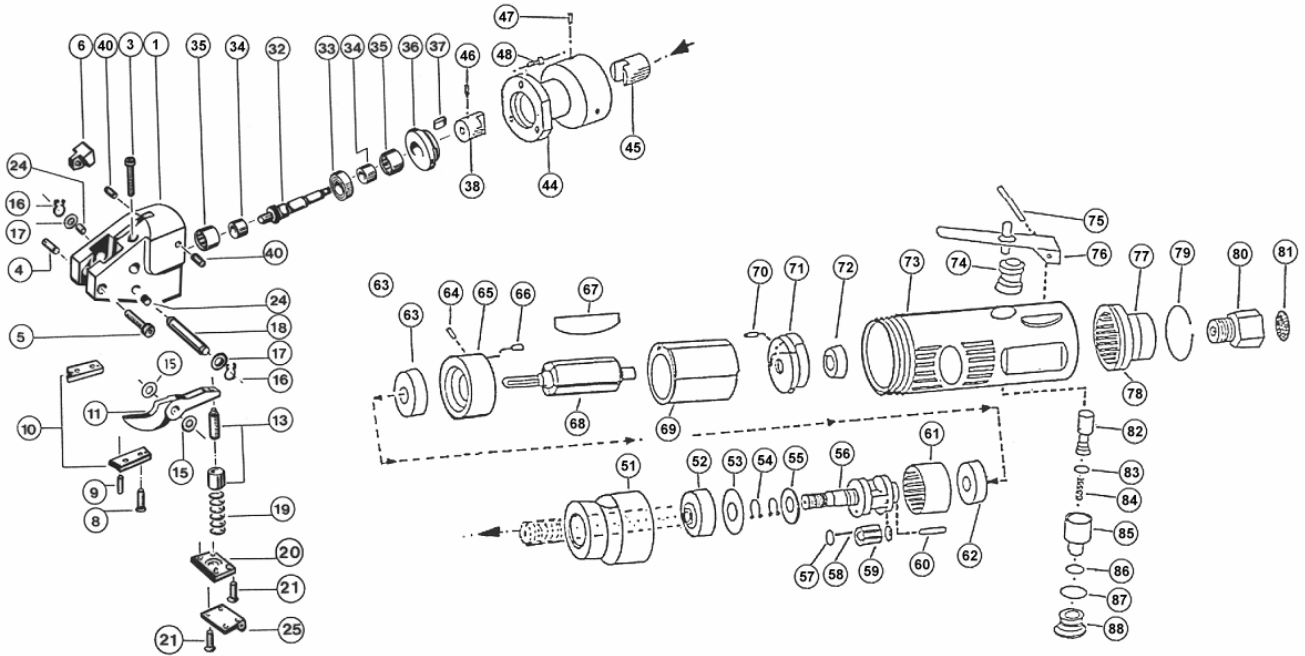
## Environmental protection



**Recycling raw materials instead of waste disposal**  
Machine, accessories and packaging should be sorted for environment-friendly recycling.

These instructions are printed on recycled paper manufactured with chlorine.

# Spare parts DRÄCO Pneumatic Metal Shears 1810, 1813, 1820



## SERVICE-TIPS (Dismantling/assembling Knife)

Before performing any work on machine itself, disconnect the air supply.

Clamp the machine in a vice on the clamping surfaces (SV) between aluminium protective jaws.

- Before replacing the knife, place a drop of oil on the right and left side between the housing (1) and the knife (11).
- Unscrew the screws (21) and remove the spring plate (20). Remove the spring (19).
- Remove the Circlip ring (16) and screw (17).
- Push the knife pin back (18).
- Lift the knife (11) and remove to the front.

- ⚠ Do not interchange the spacers (15): The jaws and knife could be ruined by the wrong spacing.**
- Insert a new knife with the spacers (15). Insert the knife pin (18). Mount the washer (17) and the Circlip ring (16).
- Insert the spring (19). Remount the spring plate (20).

### Replacing the Jaws

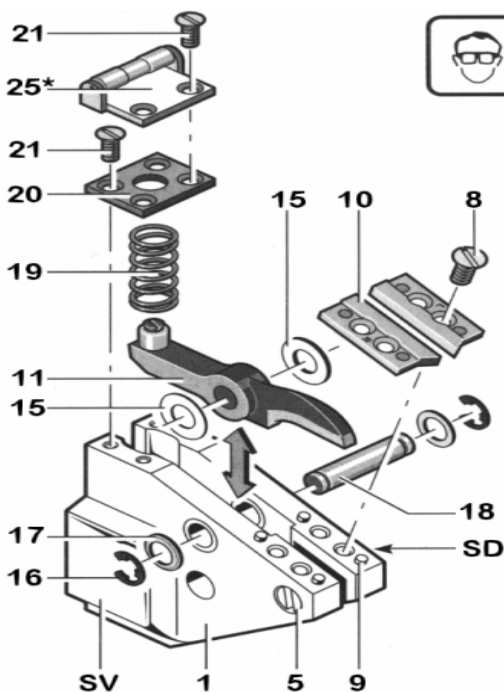
Loosen the screws (8) and remove the jaws (10). Press out the positioning pins (9). Mount new jaws and position pins again. Tighten the screws (8)

**⚠ The knife (11) must not rub against the jaws (10): Danger of breakage.**

**Note: If heavy burring is produced while cutting, repeat the adjustment.**

### Sharpening the Knife/Jaws

The knife and the jaws can be sharpened and must be adjusted after sharpening or replacing. This work should be performed by an authorised Dräco customer service location. Send in the complete machine for this purpose.



**No warranty on knives and jaws.**

*The pos. numbers used on the service tips are in connection with the first page.*

# Spare parts list DRÄCO Pneumatic Metal Shears 1810, 1813 & 1820

*The pos. numbers used, are in connection with the opposite spare parts list.*

| Pos. no. | Order no. | Description                             | Quantity per shear | Pos. no. | Order no. | Description                | Quantity per shear |
|----------|-----------|---|--------------------|----------|-----------|----------------------------|--------------------|
| 1        | 10500     | Head casting                            | 1                  | 44       | 10071     | Flange                     | 1                  |
| 3        | 81263     | Screw M 4 x 16                          | 1                  | 45       | 10072     | Coupling motor             | 1                  |
| 4        | 81089     | Tap screw M 5 x 10                      | 1                  | 46       | 81280     | Tap screw M 5 x 8          | 1                  |
| 5        | 81272     | Hex. socket screw M 4 x 22              | 1                  | 47       | 81278     | Tap screw M 5 x 6          | 3                  |
| 6        | 10002     | Spacing block                           | 1                  | 48       | 81263     | Hex. socket screw M 4 x 16 | 3                  |
| 8        | 11300     | Flat head screw M 4 x 8                 | 4                  | 51       | 18051     | Nut                        | 1                  |
| 9        | 81248     | Pin 3x7                                 | 4                  | 52       | 18052     | Ballbearing                | 1                  |
|          |           | <b>Knife for 1810 (width: 5 mm !)</b>   |                    | 53       | 18053     | Seal                       | 1                  |
| 11       | 01011     | Knife SD5 up 1 mm in thickness          | 1                  | 54       | 18054     | Circlip                    | 2                  |
| 10       | 13574/1   | Set of jaws SD5                         | 1                  | 55       | 18055     | Washer                     | 1                  |
|          |           | <b>Knife for 1813 (width: 4 mm)</b>     |                    | 56       | 18056     | Planet shaft               | 1                  |
| 11       | 01001     | Knife 1001 up to 1,3 mm in thickness    | 1                  | 57       | 18057     | Needle holder              | 4                  |
|          | 01001W    | Knife 1001 carbide tipped               | 1                  | 58       | 18058     | Needles                    | 18                 |
|          | 10111     | Knife for curves 1001/01 up to 0,75 mm  | 1                  | 59       | 18059     | Gear                       | 1                  |
|          | 10110     | Pattern Knife up to 0,5 mm in thickness | 1                  | 60       | 18060     | Pin                        | 1                  |
| 10       | 10600     | Set of jaws 1001                        | 1                  | 61       | 18061     | Gear housing               | 1                  |
|          | 10600W    | Set of jaws 1001 carbide tipped         | 1                  | 62       | 18062     | Ballbearing                | 1                  |
|          |           | <b>Knife for 1820 (width: 5 mm !)</b>   |                    | 63       | 18063     | Ballbearing                | 1                  |
| 11       | 010135    | Knife 10135 up to 2 mm in thickness     | 1                  | 64       | 18064     | Pin                        | 1                  |
| 10       | 13574     | Set of jaws 10135                       | 1                  | 65       | 18065     | Motor front cover          | 1                  |
| 13       | 12222     | Knife adjusting screw with lockring     | 1                  | 66       | 18066     | Pin                        | 1                  |
| 14       | 12100     | Lock ring M6                            | 1                  | 67       | 18067     | Vane                       | 4                  |
| 15       | 12400     | Spacing shims set                       | 1                  | 68       | 18068     | Rotor                      | 1                  |
| 16       | 81275     | Circlip                                 | 2                  | 69       | 18069     | Cylinder                   | 1                  |
| 17       | 81072     | Washer M 6                              | 2                  | 70       | 18070     | Pin                        | 1                  |
| 16-18    | 12500     | Knife pin 6 Ø                           | 1                  | 71       | 18071     | Motor end cover            | 1                  |
| 15-18    | 12555     | Knife pin set                           | 1                  | 72       | 18072     | Ballbearing                | 1                  |
| 19       | 12200     | Spring                                  | 1                  | 73       | 18073     | Motor housing              | 1                  |
| 20       | 12300     | Spring cover                            | 1                  | 74       | 18074     | Valve nut                  | 1                  |
| 21       | 81271     | Flat head screw M 3 x 8                 | 4                  | 75       | 18075     | Pin                        | 1                  |
| 24       | 17900     | Bushing Ø 10 mm                         | 2                  | 76       | 18076     | Lever                      | 1                  |
| (24)     | 17911     | Bushing Ø 11 mm                         | 2                  | 77       | 18077     | Air exhaust                | 1                  |
| 25       | 10076     | Support roller                          | 1                  | 78       | 18078     | O-ring                     | 1                  |
| 35       | 10300     | Needle bearing HK 1010                  | 1                  | 79       | 18079     | Spring ring                | 1                  |
| 29-39    | 10058     | Complete drive                          | 1                  | 80       | 18080     | Air connector              | 1                  |
| 29       | 10005     | Sleeve                                  | 1                  | 81       | 18081     | Filter                     | 1                  |
| 32       | 10004     | Eccentric drive shaft                   | 1                  | 82       | 18082     | Valve nut                  | 1                  |
| 33       | 10250     | Ballbearing                             | 1                  | 83       | 18083     | O-ring                     | 1                  |
| 34       | 10005     | Sleeve 7 x 10 12 JR                     | 1                  | 84       | 18084     | Valve spring               | 1                  |
| 35       | 10300     | Needlebearing HK 1010                   | 1                  | 85       | 18085     | Valve bushing              | 1                  |
| 36       | 10450     | Cap for needlebearing                   | 1                  | 86       | 18086     | O-ring                     | 1                  |
| 37       | 10006     | Key 12 x 3 x 2                          | 1                  | 87       | 18087     | O-ring                     | 1                  |
| 38       | 10070     | Coupling shear                          | 1                  | 88       | 18088     | Valve screw cover          | 1                  |
| 40       | 11700     | Tap screw M4x6                          | 2                  |          |           |                            |                    |

When ordering spare parts, please state position and order numbers.

## Max Draenert – Electric – Cordless – Pneumatic Tools – Machines Germany

Factory I: **Administration** D-73777 Deizisau P.O.Box 1120 Phone **+49-7153-8217-0**  
**Manufacturing Shears** D-73779 Deizisau Gutenbergstreet 15-17 Fax **+49-7153-8217-66**

Internet <http://www.dracotools.com>

E-mail: [draenert@dracotools.com](mailto:draenert@dracotools.com)