

## 1.4 Ersatzteilzeichnungen - Spare part drawings

### A Oberschlitten - Top slide

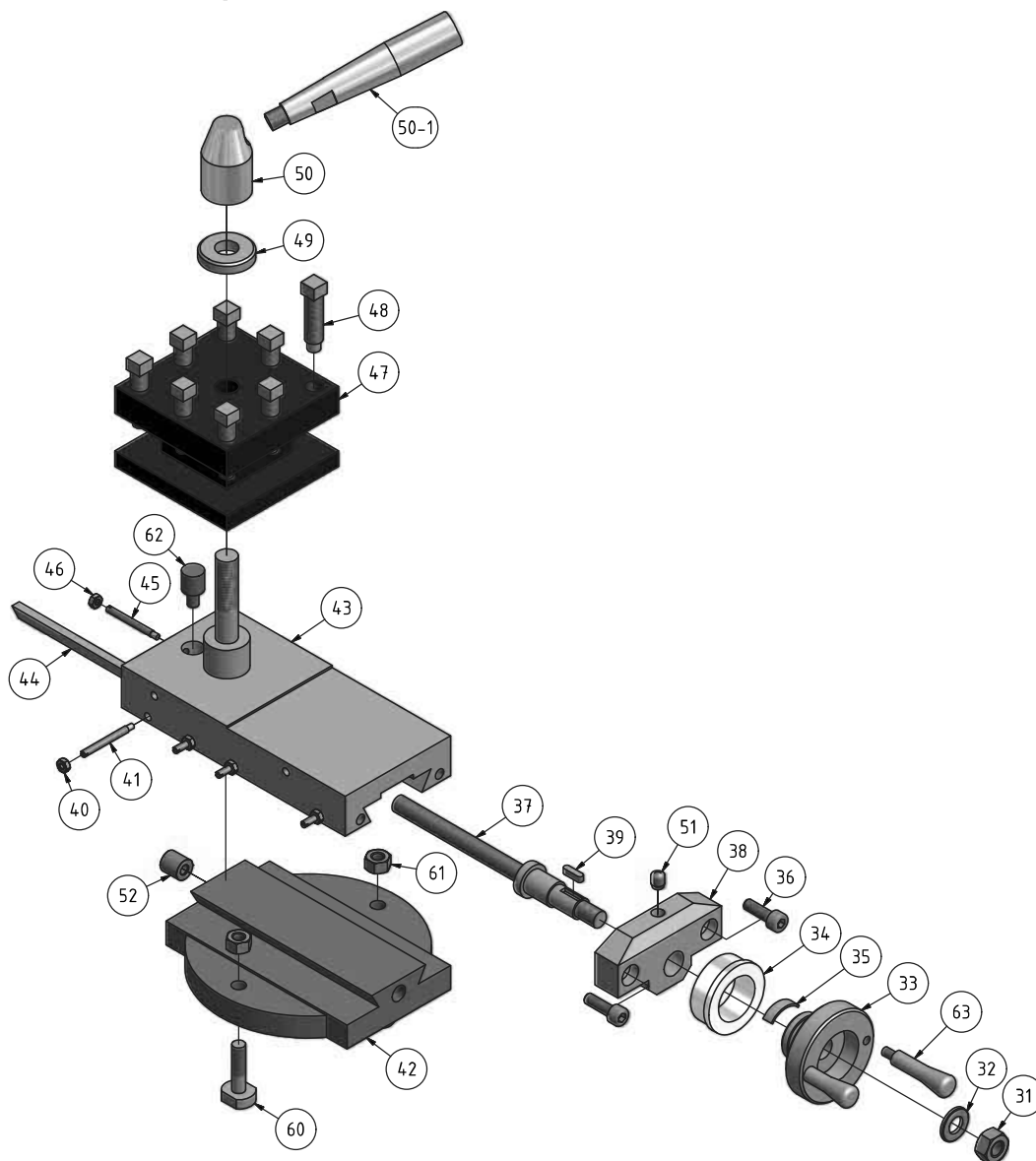


Abb. 1-1:

## B Planschlitten - Cross slide

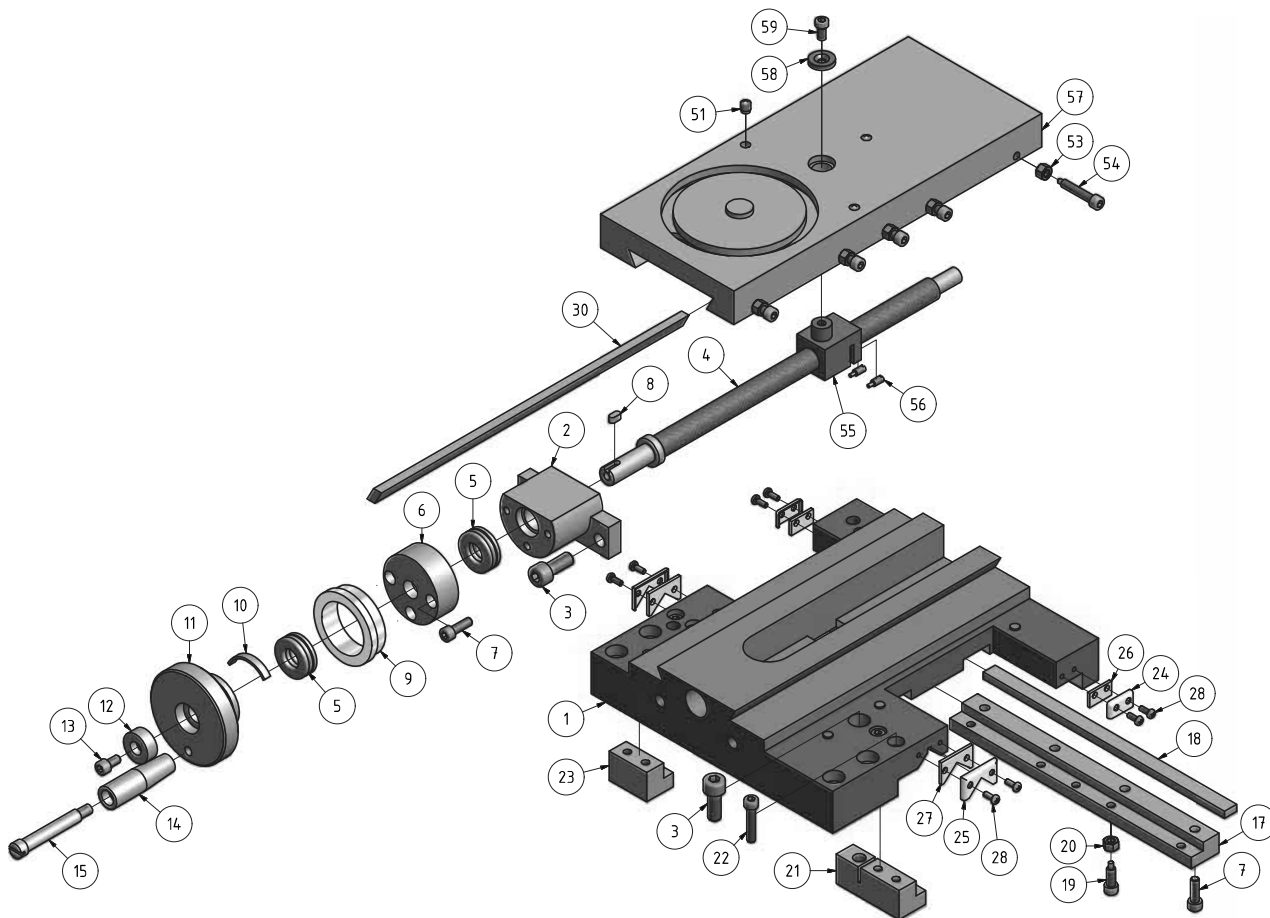


Abb. 1-2:

| Teilleiste Oberschlitten und Planschlitten - Parts list top and cross slide |                                           |                                   |            |                 |                        |
|-----------------------------------------------------------------------------|-------------------------------------------|-----------------------------------|------------|-----------------|------------------------|
| Pos.                                                                        | Bezeichnung                               | Designation                       | Menge Qty. | Größe Size      | Artikelnummer Item no. |
| 1                                                                           | Bettschlitten                             | lathe saddle                      | 1          |                 | 03420321501            |
| 2                                                                           | Führungslager Planschlitten               | Guide bearing cross slide         | 1          |                 | 03420321602            |
| 3                                                                           | Innensechskantschraube                    | Socket head screw                 | 3          | ISO 4762-M8x20  |                        |
| 4                                                                           | Spindel Planschlitten                     | Spindle cross slide               | 1          |                 | 03420321604            |
| 5                                                                           | Axial-Rillenkugellager                    | Deep groove ball thrust bearing   | 2          | 51101           | 04051101               |
| 6                                                                           | Abdeckung Lagerbock Planschlitten         | Cover clevis mounting cross slide | 1          |                 | 03420321606            |
| 7                                                                           | Innensechskantschraube                    | Socket head screw                 | 7          | ISO 4762-M5 x16 |                        |
| 8                                                                           | Paßfeder                                  | Key                               | 1          | 4x12            | 03420321608            |
| 9                                                                           | Skalenring Planschlitten                  | Scale ring cross slide            | 1          |                 | 03420321609            |
| 10                                                                          | Federblech                                | Spring plate                      | 1          |                 | 03420321610            |
| 11                                                                          | Handrad Planschlitten                     | Handwheel cross slide             | 1          |                 | 03420321611            |
| 12                                                                          | Unterlegscheibe für Handrad Planschlitten | Washer for handwheel cross slide  | 1          |                 | 03420321612            |
| 13                                                                          | Innensechskantschraube                    | Socket head screw                 | 1          | ISO4762-M5x10   |                        |
| 14                                                                          | Handgriff                                 | Handle                            | 1          |                 | 03420321614            |
| 15                                                                          | Schraube für Handgriff                    | Screw for handle                  | 1          |                 | 03420321615            |
| 17                                                                          | Führungsschiene lang                      | Guide rail long                   | 1          |                 | 03420321517            |
| 18                                                                          | Keilleiste Bettschlitten                  | Taper gib lathe saddle            | 1          |                 | 03420321518            |
| 19                                                                          | Einstellschraube                          | Adjusting screw                   | 5          |                 | 03420321519            |
| 20                                                                          | Sechskantmutter                           | Hexagon nut                       | 5          | ISO 4033 - M5   |                        |
| 21                                                                          | Führungsschiene mittel                    | Guide rail means                  | 1          |                 | 03420321521            |

TU2304\_TU2406\_parts.fm

Teilleiste Oberschlitten und Planschlitten - Parts list top and cross slide

| Pos. | Bezeichnung                                    | Designation                                   | Menge<br>Qty. | Größe<br>Size       | Artikelnummer<br>Item no. |
|------|------------------------------------------------|-----------------------------------------------|---------------|---------------------|---------------------------|
| 22   | Innensechskantschraube                         | Socket head screw                             | 4             | ISO 4762 - M5x25    |                           |
| 23   | Führungsschiene kurz                           | Guide rail briefly                            | 1             |                     | 03420321523               |
| 24   | Metallverstärkung Abstreifer                   | Metal reinforcement stripper                  | 2             |                     | 03420321524               |
| 25   | Metallverstärkung Abstreifer                   | Metal reinforcement stripper                  | 2             |                     | 03420321525               |
| 26   | Filz Abstreifer                                | Felt stripper                                 | 2             |                     | 03420321526               |
| 27   | Filz Abstreifer                                | Felt stripper                                 | 2             |                     | 03420321527               |
| 28   | Flachkopfschraube mit Kreuzschlitz             | Cheese head screw                             | 8             | ISO 7075 - M3x8 - H |                           |
| 30   | Keilleiste Planschlitten                       | Taper gib cross slide                         | 1             |                     | 03420321630               |
| 31   | Sechskantmutter                                | Hexagon nut                                   | 1             | ISO 4032 - M8       |                           |
| 32   | Unterlegscheibe                                | Washer                                        | 1             | B8.4                |                           |
| 33   | Handrad für Oberschlitten                      | Handwheel for top slide                       | 1             |                     | 03420321733               |
| 34   | Skalenring für Oberschlitten                   | Scale for top slide                           | 1             |                     | 03420321734               |
| 35   | Federblech                                     | Spring plate                                  | 1             |                     | 03420321735               |
| 36   | Innensechskantschraube                         | Socket head screw                             | 2             | ISO 4762 - M5x16    |                           |
| 37   | Spindel Oberschlitten                          | Spindle top slide                             | 1             |                     | 03420321737               |
| 38   | Lagerbock für Oberschlitten                    | Clevis mounting for top slides                | 1             |                     | 03420321738               |
| 39   | Passfeder                                      | Key                                           | 1             | 3x10                | 03420321739               |
| 40   | Sechskantmutter                                | Hexagon nut                                   | 4             | ISO 4032 - M3       |                           |
| 41   | Einstellschraube für Druckleiste Oberschlitten | Adjusting screw for pressure border top slide | 4             |                     | 03420321641               |
| 42   | Unterteil Oberschlitten                        | Lower part top slide                          | 1             |                     | 03420321742               |
| 43   | Oberteil Oberschlitten                         | Upper section top slide                       | 1             |                     | 03420321743               |
| 44   | Druckleiste Oberschlitten                      | Pressure border top slide                     | 1             |                     | 03420321744               |
| 45   | Fixierschraube                                 | Fixing screw                                  | 1             |                     | 03420321745               |
| 46   | Sechskantmutter                                | Hexagon nut                                   | 1             | ISO 4033 - M3       |                           |
| 47   | Vierfachstahlhalter                            | Quadruple tool holder                         | 1             |                     | 03420321747               |
| 48   | Vierkantschraube                               | Square headed bolt                            | 8             |                     | 03420321748               |
| 49   | Unterlegscheibe                                | Washer                                        | 1             |                     | 03420321749               |
| 50   | Klemmstück                                     | Shim                                          | 1             |                     | 03420321750               |
| 50-1 | Griff                                          | Handle                                        | 1             |                     | 034203217501              |
| 51   | Schmiernippel 6mm                              | Oiler 6mm                                     | 10            |                     | 0340105                   |
| 52   | Schmiernippel 10mm                             | Oiler 10mm                                    | 1             |                     | 0340113                   |
| 53   | Sechskantmutter                                | Hexagon nut                                   | 5             | ISO 4032- M5        |                           |
| 54   | Einstellschraube Planschlitten                 | Adjusting screw cross slide                   | 5             |                     | 03420321654               |
| 55   | Spindelmutter Planschlitten                    | spindle nut cross slide                       | 1             |                     | 03420321655               |
| 56   | Verstellschraube                               | Adjusting bolt                                | 2             |                     | 03420321656               |
| 57   | Planschlitten                                  | Cross slide                                   | 1             |                     | 03420321657               |
| 58   | Unterlegscheibe                                | Washer                                        | 1             |                     | 03420321658               |
| 59   | Innensechskantschraube                         | Socket head screw                             | 1             | ISO 4762 - M5x10    |                           |
| 60   | Befestigungsschraube für Oberschlitten         | Fixing bolt for top slide                     | 2             |                     | 03420321760               |
| 61   | Sechskantmutter                                | Hexagon nut                                   | 2             | ISO 4032 - M6       |                           |
| 62   | Fixierstück für Vierfachhalter                 | Fixing piece for quadruple tool holder        | 1             |                     | 03420321762               |
| 63   | Griff für Oberschlitten                        | Handle for top slide                          | 2             |                     | 03420321763               |
|      | Oberschlitten kplt.                            | Top slide cplt.                               | 1             | D210                | 03420321743CPL            |
|      | Oberschlitten kplt.                            | Top slide cplt.                               | 1             | D250                | 03420400743CPL            |
|      | Bettschlitten kplt.                            | Bed slide cplt.                               | 1             | D250                | 03420400501CPL            |
|      | Bettschlitten kplt.                            | Bed slide cplt.                               | 1             | D210                | 03420321501CPL            |
|      | Planschlitten kplt.                            | Cross slide cplt.                             | 1             | D250                | 03420400657CPL            |
|      | Planschlitten kplt.                            | Cross slide cplt.                             | 1             | D210                | 03420321657CPL            |

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## C Wechselradschere - Change gear train

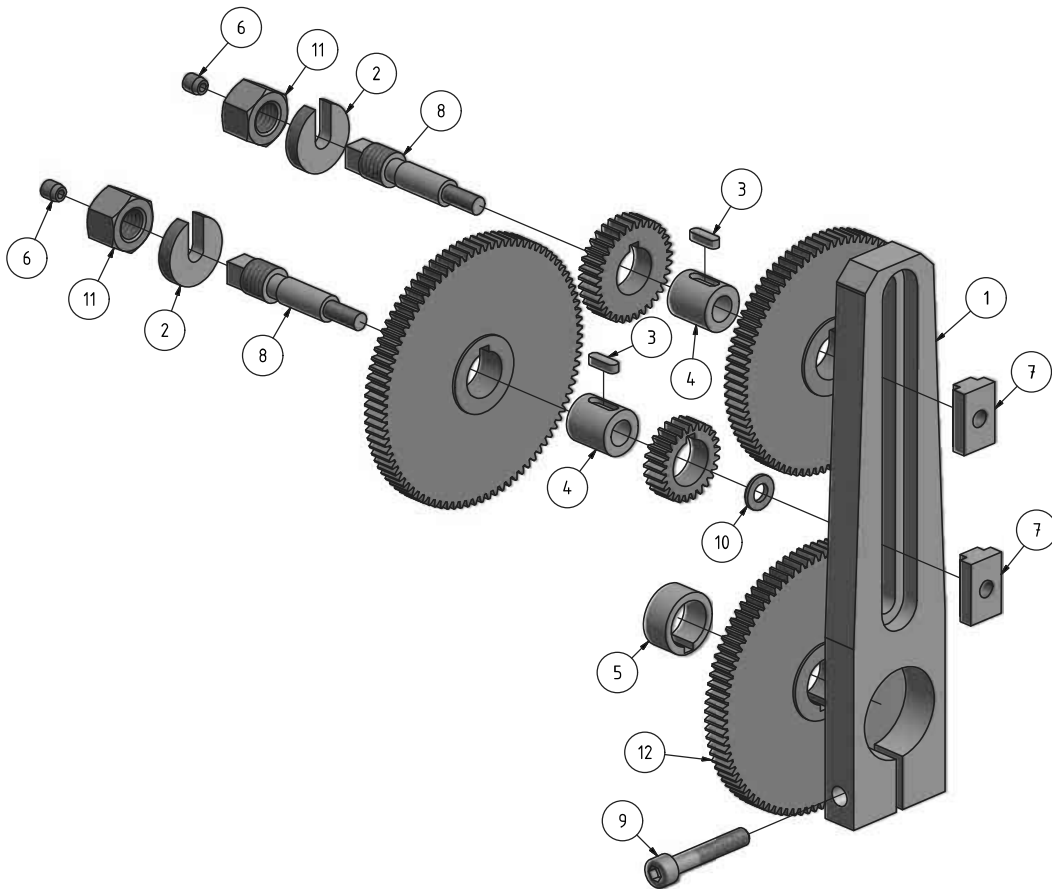


Abb. 1-3:

| Teilleiste Wechselradschere - Parts list change gear train |                        |                   |            |                  |                        |
|------------------------------------------------------------|------------------------|-------------------|------------|------------------|------------------------|
| Pos.                                                       | Bezeichnung            | Designation       | Menge Qty. | Größe Size       | Artikelnummer Item no. |
| 1                                                          | Radschere              | Change gear train | 1          |                  | 03420321201            |
| 2                                                          | Scheibe                | Washer            | 2          |                  | 03420321202            |
| 3                                                          | Passfeder              | Key               | 2          |                  | 03420321203            |
| 4                                                          | Gleitlager             | Sliding bearing   | 2          |                  | 03420321204            |
| 5                                                          | Hülse                  | Case              | 1          |                  | 03420321205            |
| 6                                                          | Schmiernippel 6mm      | Oiler 6mm         | 2          |                  | 0340105                |
| 7                                                          | Nutenstein             | Nutenstein        | 2          |                  | 03420321207            |
| 8                                                          | Scherbolzen            | Shear pin         | 2          |                  | 03420321208            |
| 9                                                          | Innensechskantschraube | Socket head screw | 1          | ISO 4762 - M6x35 |                        |
| 10                                                         | Unterlegscheibe        | Washer            | 2          | B 6.4            | 03420321210            |
| 11                                                         | Sechskantmutter        | Hexagon nut       | 2          | ISO 4033 - M12   |                        |
| 12                                                         | Wechselrad Z=80        | Change gear Z=80  | 2          |                  | 034203211280           |
|                                                            | Wechselrad Z=52        | Change gear Z=52  | 1          |                  | 034203211252           |
|                                                            | Wechselrad Z=50        | Change gear Z=50  | 1          |                  | 034203211250           |
|                                                            | Wechselrad Z=42        | Change gear Z=42  | 1          |                  | 034203211242           |
|                                                            | Wechselrad Z=40        | Change gear Z=40  | 1          |                  | 034203211240           |
|                                                            | Wechselrad Z=33        | Change gear Z=33  | 1          |                  | 034203211233           |
|                                                            | Wechselrad Z=60        | Change gear Z=60  | 1          |                  | 034203211260           |
|                                                            | Wechselrad Z=25        | Change gear Z=25  | 1          |                  | 034203211225           |
|                                                            | Wechselrad Z=75        | Change gear Z=75  | 1          |                  | 034203211275           |
|                                                            | Wechselrad Z=66        | Change gear Z=66  | 1          |                  | 034203211266           |

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| Teilleiste Wechselradschere - Parts list change gear train |                  |                  |               |               |                           |
|------------------------------------------------------------|------------------|------------------|---------------|---------------|---------------------------|
| Pos.                                                       | Bezeichnung      | Designation      | Menge<br>Qty. | Größe<br>Size | Artikelnummer<br>Item no. |
|                                                            | Wechselrad Z=30  | Change gear Z=30 | 1             |               | 034203211230              |
|                                                            | Wechselrad Z=90  | Change gear Z=90 | 2             |               | 034203211290              |
|                                                            | Wechselrad Z=70  | Change gear Z=70 | 1             |               | 034203211270              |
|                                                            | Wechselrädersatz | Change gear set  |               |               | 0342032112                |

## D Bettschlitten - Bed slide

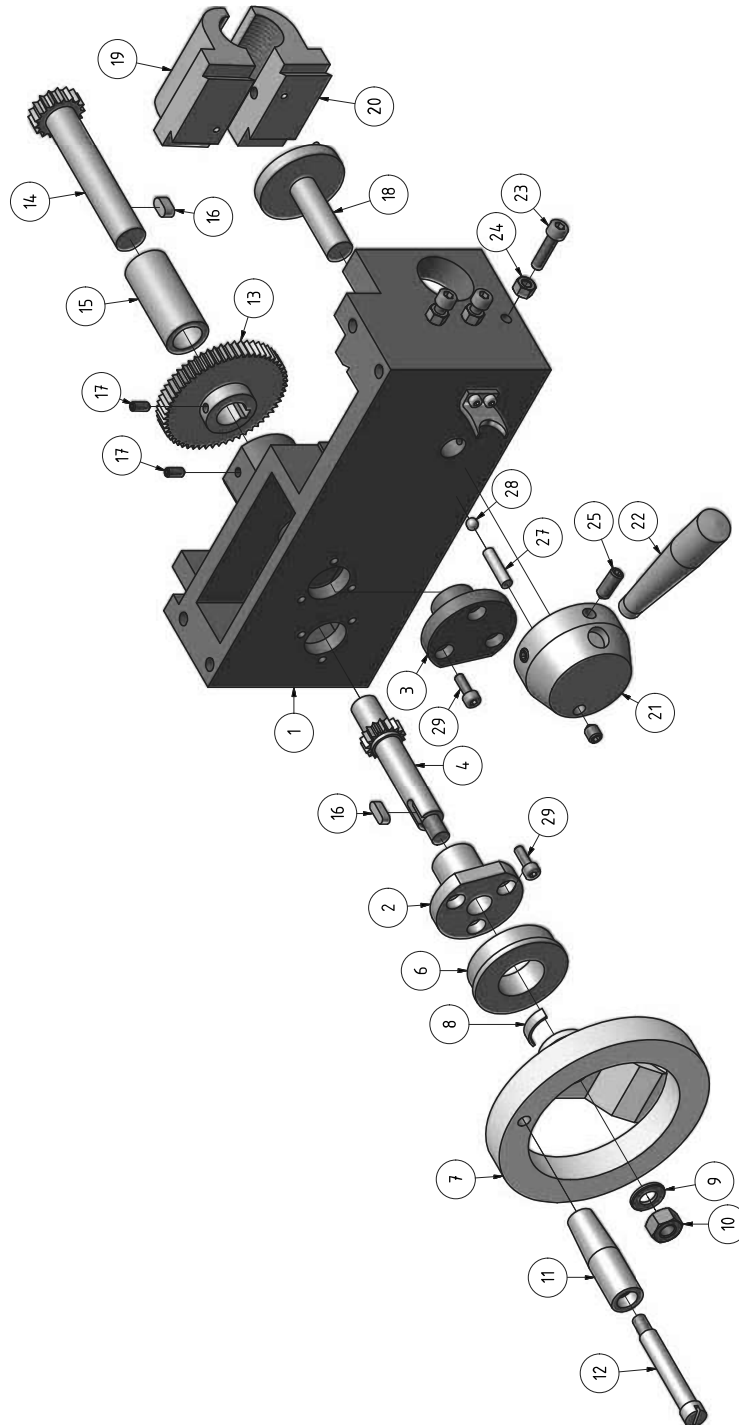


Abb. 1-4:

| Teileliste Bettschlitten - Parts list bed slide |                              |                                  |       |                  |                |
|-------------------------------------------------|------------------------------|----------------------------------|-------|------------------|----------------|
| Pos.                                            | Bezeichnung                  | Designation                      | Menge | Größe            | Artikelnummer  |
|                                                 |                              |                                  | Qty.  | Size             | Item no.       |
| 1                                               | Schloßkasten                 | Apron                            | 1     |                  | 03420321401    |
| 2                                               | Flanschlagerbock Handrad     | Flange bearing support handwheel | 1     |                  | 03420321402    |
| 3                                               | Flanschlagerbock             | Flange bearing support           | 1     |                  | 03420321403    |
| 4                                               | Verzahnte Welle              | Toothed shaft                    | 1     |                  | 03420321404    |
| 5                                               | Passfeder                    | Key                              | 1     | 5x10             | 03420321405    |
| 6                                               | Skalenring Handrad           | Scale handwheel                  | 1     |                  | 03420321406    |
| 7                                               | Handrad                      | Handwheel                        | 1     |                  | 03420321407    |
| 8                                               | Federblech                   | Spring plate                     | 1     |                  | 03420321408    |
| 9                                               | Unterlegscheibe              | Washer                           | 1     | B 8.4            | 03420321409    |
| 10                                              | Sechskantmutter              | Hexagon nut                      | 1     | ISO 4033 - M8    |                |
| 11                                              | Handgriff                    | Handle                           | 1     |                  | 03420321411    |
| 12                                              | Schraube                     | Screw                            | 1     |                  | 03420321412    |
| 13                                              | Zahnrad                      | Gear                             | 1     |                  | 03420321413    |
| 14                                              | Verzahnte Welle              | Toothed shaft                    | 1     |                  | 03420321414    |
| 15                                              | Buchse                       | Socket                           | 1     |                  | 03420321415    |
| 16                                              | Paßfeder                     | Key                              | 1     |                  | 03420321416    |
| 17                                              | Fixierschraube               | Fixing screw                     | 1     | DIN 914 - M4 x10 |                |
| 18                                              | Exzenter                     | Eccentric cam                    | 1     |                  | 03420321418    |
| 19+20                                           | Schloßmutter kplt.           | Lock nut cplt.                   | 1     |                  | 03420321420    |
| 21                                              | Schalt-nabe                  | Switching hub                    | 1     |                  | 03420321421    |
| 22                                              | Griff                        | Handle                           | 1     |                  | 03420321422    |
| 23                                              | Verstell-schraube            | Adjusting bolt                   | 3     |                  | 03420321423    |
| 24                                              | Sechskantmutter              | Hexagon nut                      | 3     | ISO 4033 - M5    |                |
| 25                                              | Innensechskantschraube       | Socket head screw                | 1     | DIN 914 - M6x8   |                |
| 26                                              | Druckleiste für Schloßmutter | Pressure border for lock nut     | 1     |                  | 03420321426    |
| 27                                              | Feder                        | Spring                           | 1     |                  | 03420321427    |
| 28                                              | Stahlkugel                   | Steel Ball                       | 1     |                  | 03420321428    |
| 29                                              | Innensechskantschraube       | Socket head screw                | 6     | GB70-85/4x12     |                |
|                                                 | Schloßkasten kplt.           | Apron cplt.                      |       |                  | 03420321401CPL |

## E Reitstock - Tailstock

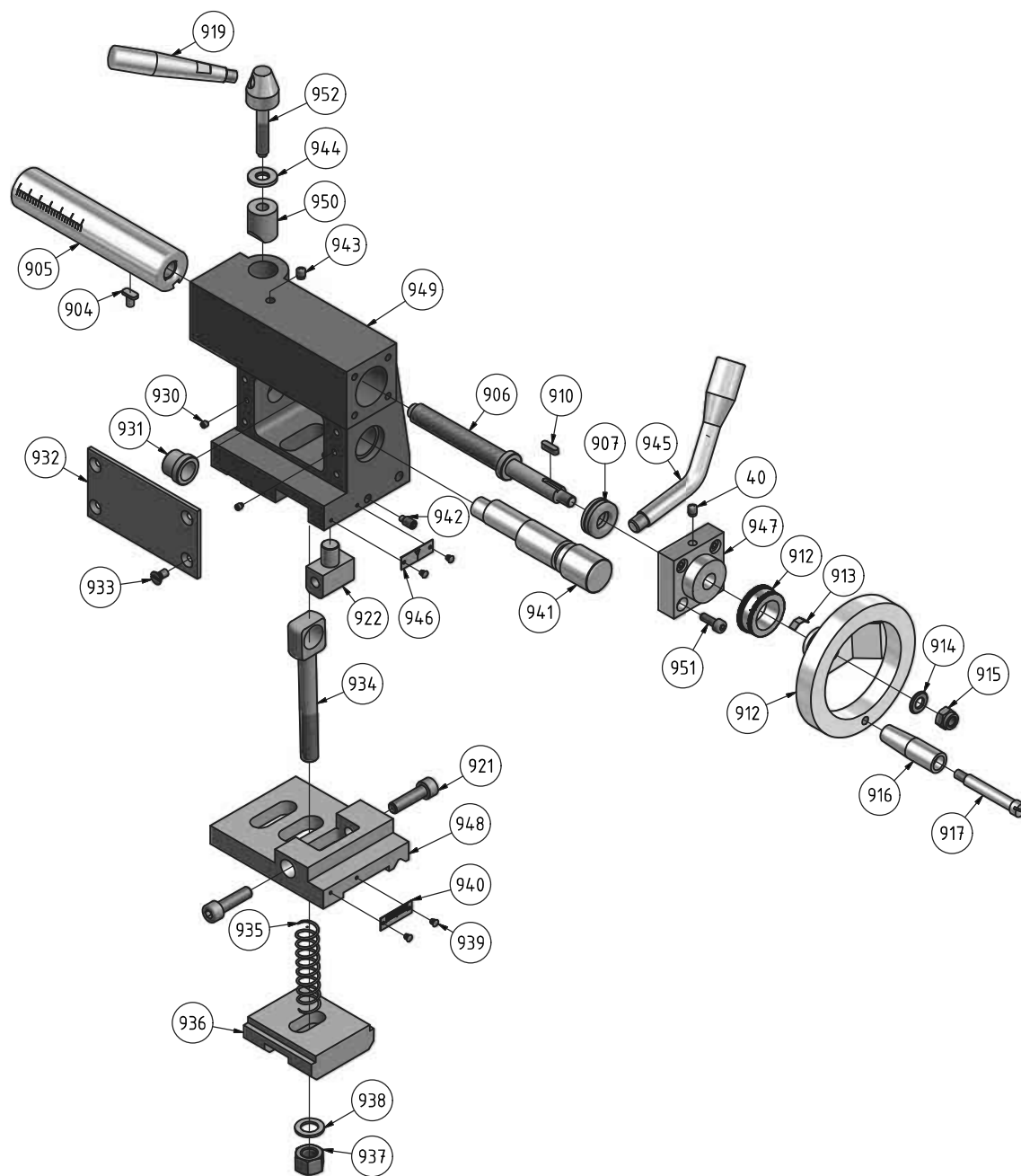


Abb. 1-5:

| Teileliste Reitstock - Parts list tailstock |                        |                                      |               |                         |                           |
|---------------------------------------------|------------------------|--------------------------------------|---------------|-------------------------|---------------------------|
| Pos.                                        | Bezeichnung            | Designation                          | Menge<br>Qty. | Größe<br>Size           | Artikelnummer<br>Item no. |
| 40                                          | Öler                   | Oiler                                | 1             | 6 mm                    | 0342500140                |
| 904                                         | Zentrierstück Pinole   | Piece of centering of spindle sleeve | 1             |                         | 03425001904               |
| 905                                         | Pinole                 | Spindle sleeve                       | 1             |                         | 03425001905               |
| 906                                         | Spindel                | Spindle                              | 1             |                         | 03425001906               |
| 907                                         | Axial Rillenkugellager | Axially grooved ball bearing         | 1             | 51101                   | 04051101                  |
| 910                                         | Paßfeder               | Key                                  | 1             | DIN 6885 - A 4 x 4 x 14 |                           |
| 911                                         | Skalenring             | Scales ring                          | 1             |                         | 03425001911               |
| 912                                         | Handrad                | Hand wheel                           | 1             |                         | 03425001912               |
| 913                                         | Federblech             | Spring plate                         | 1             |                         | 03425001913               |
| 914                                         | Scheibe                | Washer                               | 1             | ISO 7090 - 8 - 140 HV   |                           |
| 915                                         | Sechskantmutter        | Hexagon nut                          | 1             | DIN 6924 - M8           |                           |
| 916                                         | Hülse Griff            | Case for handle                      | 1             |                         | 03425001916               |
| 917                                         | Schraube Griff         | Fixing bolt for case                 | 1             |                         | 03425001917               |
| 919                                         | Klemmhebel             | Clamping lever                       | 1             |                         | 03425001919               |
| 921                                         | Innensechskantschraube | Socket head screw                    | 2             | GB 70-85 - M8 x 30      |                           |
| 922                                         | Zentrierstück Pinole   | Piece of centering of spindle sleeve | 1             |                         | 03425001922               |
| 930                                         | Gewindestift           | Threaded pin                         | 1             | ISO 4028 - M4 x 5       |                           |
| 931                                         | Führungsbuchse         | Guide bush                           | 1             |                         | 03425001931               |
| 932                                         | Deckel                 | Cover                                | 1             |                         | 03425001932               |
| 933                                         | Senkschraube           | Countersunk screw                    | 4             | ISO 2009 - M5 x 10      |                           |
| 934                                         | Spannschraube          | Tightening screw                     | 1             |                         | 03425001934               |
| 935                                         | Feder                  | Spring                               | 1             |                         | 03425001935               |
| 936                                         | Klemmplatte            | Clamping plate                       | 1             |                         | 03425001936               |
| 937                                         | Sechskantmutter        | Hexagon nut                          | 1             | ISO 4035 - M12          |                           |
| 938                                         | Scheibe                | Washer                               | 1             |                         | 03425001938               |
| 939                                         | Niet                   | Rivet                                | 4             |                         | 03425001939               |
| 940                                         | Skala                  | Scale                                | 1             |                         | 03425001940               |
| 941                                         | Exzenter               | Eccentric cam                        | 1             |                         | 03425001941               |
| 942                                         | Gewindestift           | Threaded pin                         | 1             | ISO 4028 - M6 x 12      |                           |
| 944                                         | Scheibe                | Washer                               | 1             |                         | 03425001944               |
| 945                                         | Spannhebel             | Clamping lever                       | 1             |                         | 03425001945               |
| 946                                         | Skala                  | Scale                                | 1             |                         | 03425001946               |
| 947                                         | Lagerbock              | Saddle                               | 1             |                         | 03425001947               |
| 948                                         | Grundplatte Reitstock  | Base plate tailstock                 | 1             |                         | 03425001948               |
| 949                                         | Reitstock Oberteil     | Tailstock upper section              | 1             |                         | 03425001949               |
| 950                                         | Klemmteil Pinole       | Clamping part collar                 | 1             |                         | 03425001950               |
| 951                                         | Innensechskantschraube | Socket head screw                    | 4             | GB 70-85 - M5 x 14      |                           |
| 952                                         | Kopf Spannhebel        | Head clamping lever                  | 1             |                         | 03425001952               |

## F Verkleidung Spindelstock - Headstock housing

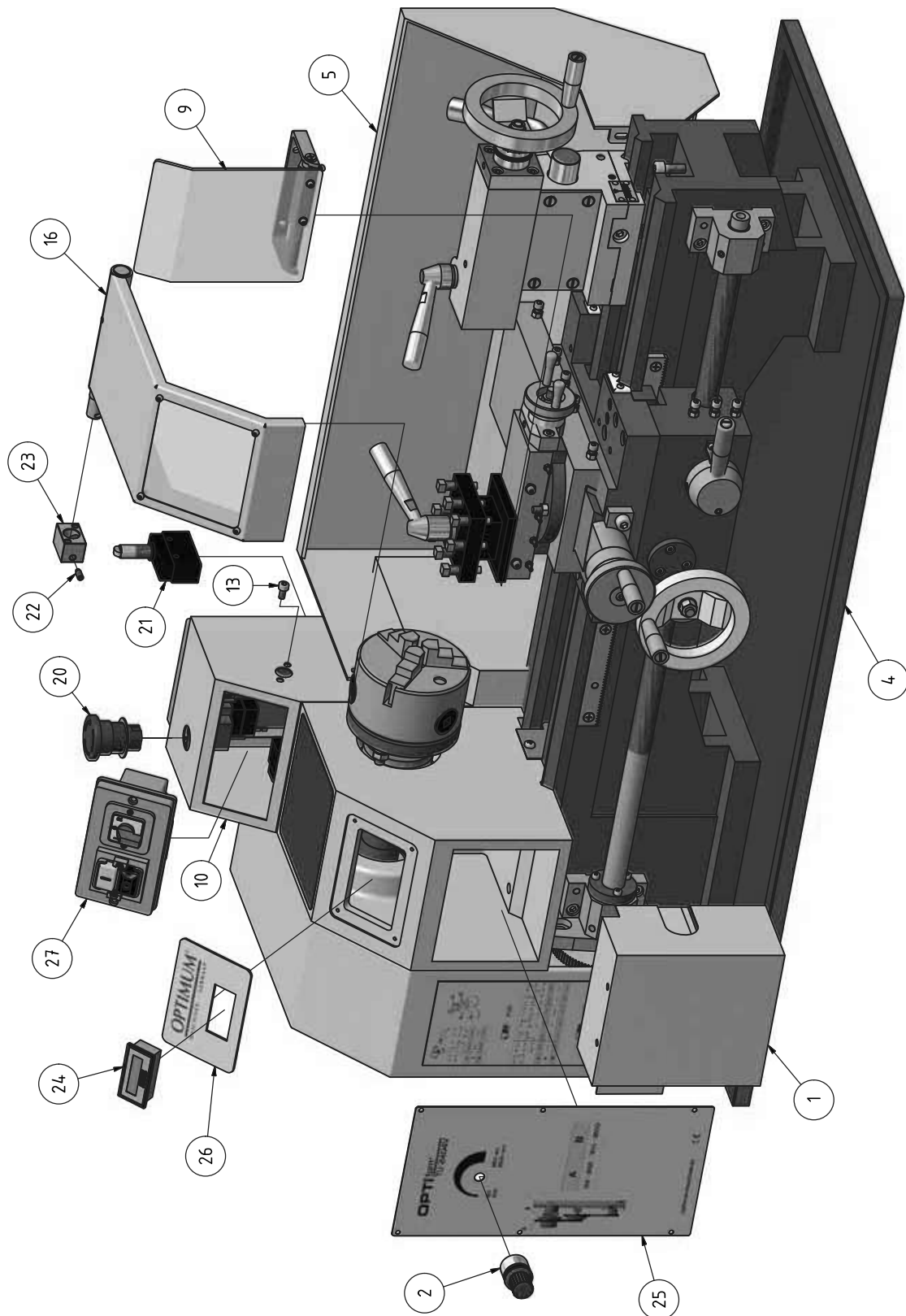


Abb.1-6:

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| Teileliste Verkleidung Spindelstock - Parts list headstock housing |                                    |                                           |               |                  |                           |
|--------------------------------------------------------------------|------------------------------------|-------------------------------------------|---------------|------------------|---------------------------|
| Pos.                                                               | Bezeichnung                        | Designation                               | Menge<br>Qty. | Größe<br>Size    | Artikelnummer<br>Item no. |
| 1                                                                  | Gehäuse für Z-Spindel              | Housing for z-spindle                     | 1             |                  | 03420321801               |
| 2                                                                  | Potentiometer, nur Vario           | Potentiometer, only Vario                 | 1             |                  | 03338120R1.5              |
| 4                                                                  | Spänewanne                         | Chip pan                                  | 1             |                  | 03420321804               |
| 5                                                                  | Spritzwand                         | Splash wall                               | 1             |                  | 03420321805               |
| 9                                                                  | Späneschutz komplett               | Splinter protection completely            | 1             |                  |                           |
| 10                                                                 | Stromkasten                        | Current box                               | 1             |                  | 03420321810               |
| 13                                                                 | Innensechskantschraube             | Socket head screw                         | 2             | ISO 4762 - M6x10 |                           |
| 16                                                                 | Deckel für Futterschutz (komplett) | Cover for jaw chuck protection (complete) | 1             |                  | 03420321817               |
| 20                                                                 | NOT-HALT Schalter                  | Emergency Stop button                     | 1             |                  | 03420321820               |
| 21                                                                 | Positionsschalter Drehfutterschutz | Position switch jaw chuck protection      | 1             |                  | 03420321821               |
| 22                                                                 | Stiftschraube                      | Threaded pin                              | 1             | DIN 915 M5 x 12  |                           |
| 23                                                                 | Halter Drehfutterschutz            | Fixing part jaw chuck protection          | 1             |                  | 03420321823               |
| 24                                                                 | Drehzahlanzeige, nur Vario         | Rotation speed indicator, only Vario      | 1             |                  | 03420324824               |
| 25                                                                 | Frontplatte                        | Front plate                               | 1             | TU2404-230V      | 03420330825               |
|                                                                    |                                    |                                           |               | TU2404-400V      | 03420333825               |
|                                                                    |                                    |                                           |               | TU2404V          | 03420335825               |
| 26                                                                 | Platte                             | Plate                                     | 1             | TU2404-230V      | 03420330828               |
|                                                                    |                                    |                                           |               | TU2404-400V      | 03420333828               |
|                                                                    |                                    |                                           |               | TU2404V          | 03420335828               |
| 27                                                                 | Schalterkombination 230V           | Switch combination 230V                   | 1             | TU2404-230V      | 03420330829               |
|                                                                    | Schalterkombination 400V           | Switch combination 400V                   | 1             | TU2404-400V      | 03420333829               |

## G Spindelstock - Headstock

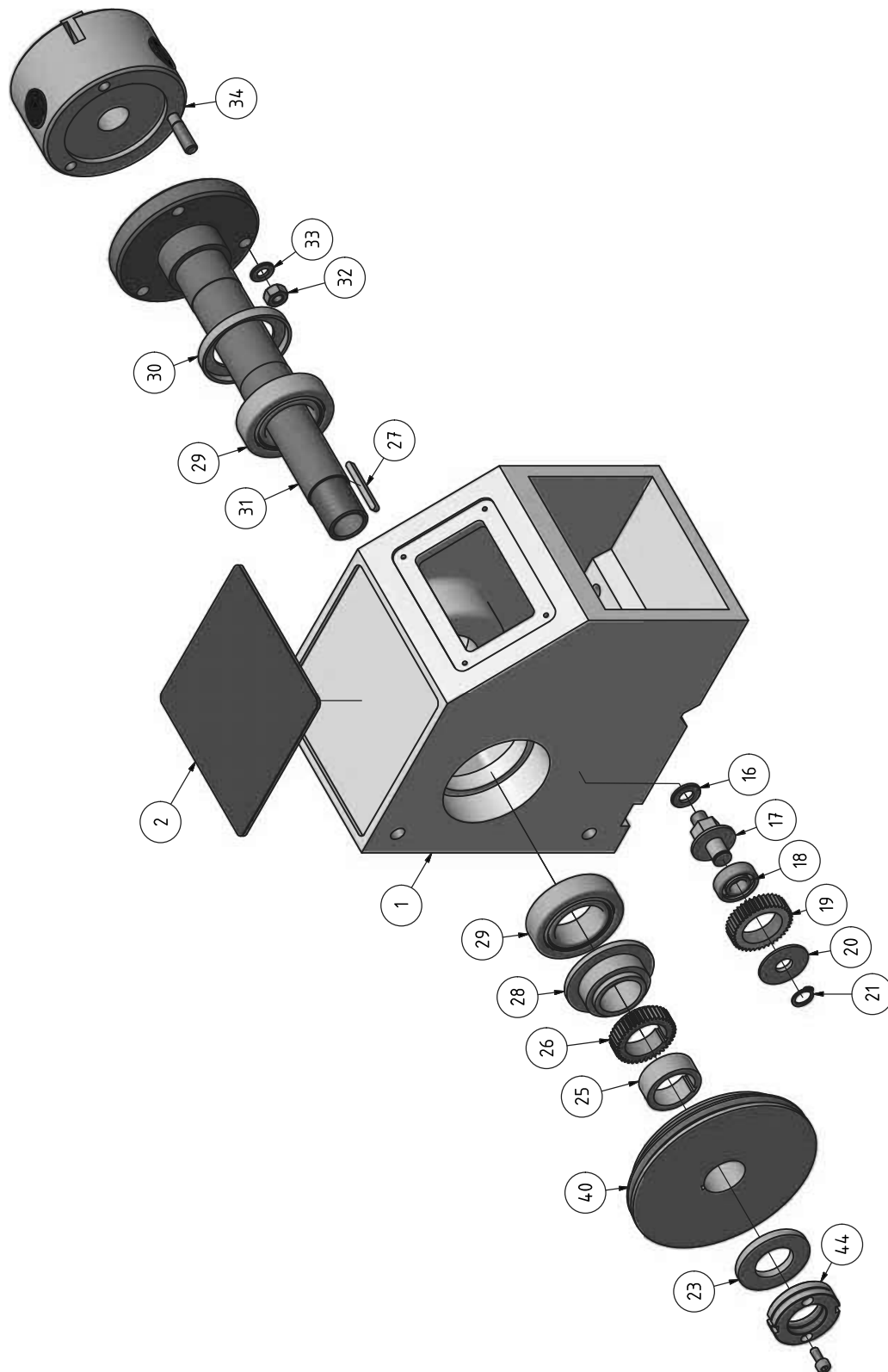


Abb. 1-7:

## H Maschinenbett - Lathe bed

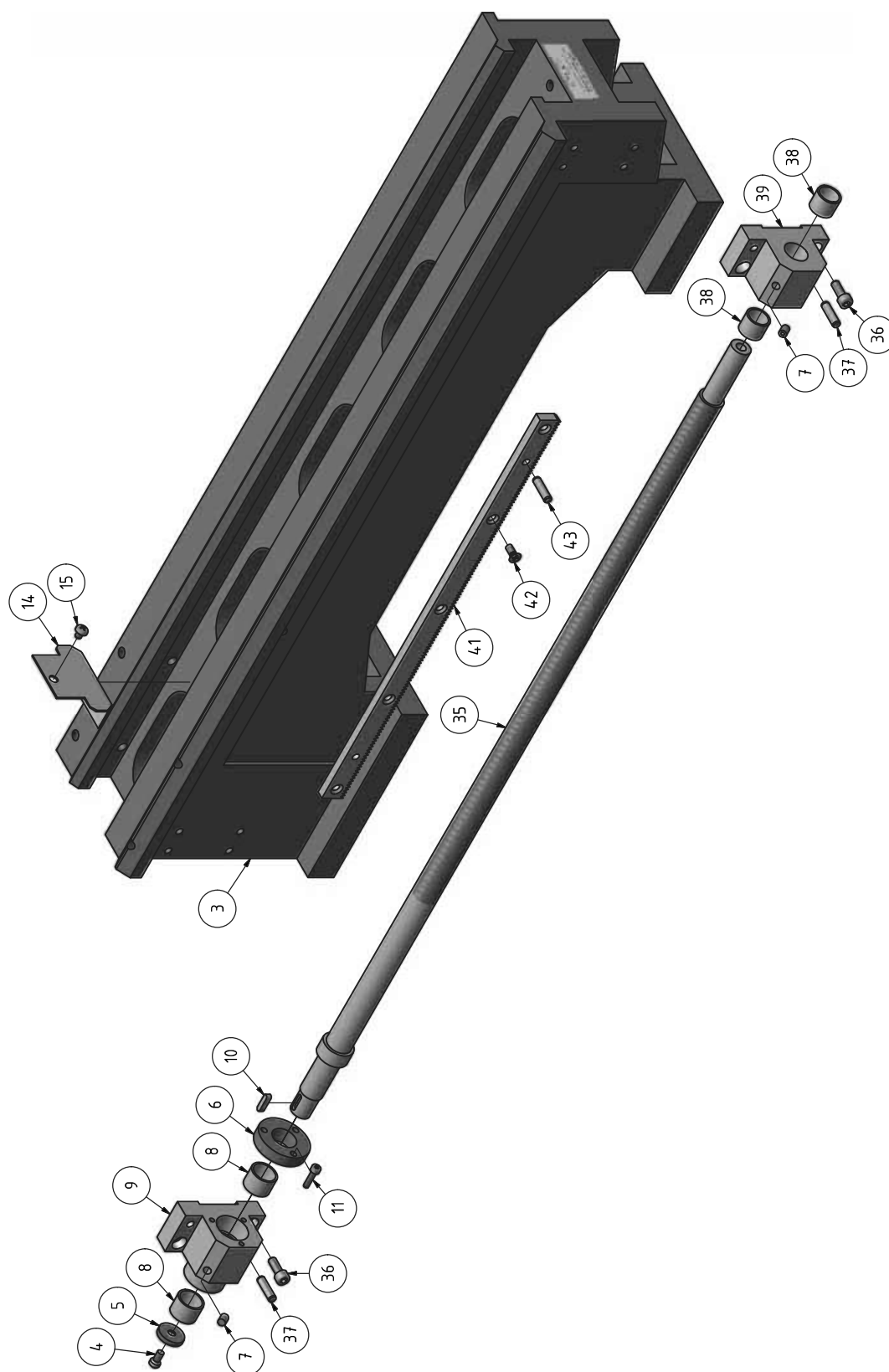


Abb. 1-8:

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| Teileliste Spindelstock und Maschinenbett - Parts headstock and lathe bed |                        |                      |               |                    |                           |
|---------------------------------------------------------------------------|------------------------|----------------------|---------------|--------------------|---------------------------|
| Pos.                                                                      | Name                   | Designation          | Menge<br>Qty. | Größe<br>Size      | Artikelnummer<br>Item no. |
| 1                                                                         | Spindelstock           | Headstock            | 1             |                    | 03420330101               |
| 2                                                                         | Auflagegummi           | Edition rubber       | 1             |                    | 03420321102               |
| 3                                                                         | Drehmaschinenbett      | Lathe bed            | 1             |                    | 03420330103               |
| 4                                                                         | Innensechskantschraube | Socket head screw    | 1             |                    | 03420321804               |
| 5                                                                         | Unterlegscheibe        | Washer               | 1             |                    |                           |
| 6                                                                         | Einstellflansch        | Adjusting flange     | 1             |                    | 03420321806               |
| 7                                                                         | Schmiernippel 6mm      | Oiler 6mm            | 2             |                    | 0340105                   |
| 8                                                                         | Gleitlager             | Sliding bearing      | 2             |                    | 03420321808               |
| 9                                                                         | Lagerbock              | Bearing block        | 1             |                    | 03420321809               |
| 10                                                                        | Paßfeder               | Key                  | 1             |                    | 03420321810               |
| 11                                                                        | Innensechskantschraube | Socket head screw    | 3             | ISO 4762 - M4x16   |                           |
| 14                                                                        | Abdeckung              | Cover                | 1             |                    | 03420321814               |
| 15                                                                        | Flachkopfschraube      | Cheese head screw    | 1             | ISO 7045- M5x6     |                           |
| 16                                                                        | Unterlegscheibe        | Washer               | 1             | B10.5              |                           |
| 17                                                                        | Welle                  | Shaft                | 1             |                    | 03420321117               |
| 18                                                                        | Rillenkugellager       | Grooved ball bearing | 1             | 6001               | 0406001.2R                |
| 19                                                                        | Zahnrad                | Gear                 | 1             |                    | 03420321119               |
| 20                                                                        | Abdeckscheibe          | Cover plate          | 1             |                    | 03420321120               |
| 21                                                                        | Sicherungsring         | Circlip              | 1             | 12                 | 03420321121               |
| 22                                                                        | Mutter                 | Nut                  | 2             | M27x1.5            | 03420321122               |
| 23                                                                        | Unterlegscheibe        | Washer               | 1             |                    | 03420321123               |
| 25                                                                        | Zwischenhülse          | Bushing              | 1             |                    | 03420321125               |
| 26                                                                        | Zahnrad                | Gear                 | 1             |                    | 03420321126               |
| 27                                                                        | Passfeder              | Key                  | 1             | 4x40               | 03420321127               |
| 28                                                                        | Druckplatte            | Pressure plate       | 1             |                    | 03420321128               |
| 29                                                                        | Kegelrollenlager       | Taper roller bearing | 2             | 32007              | 04032007                  |
| 30                                                                        | Abdeckung              | Cover                | 1             |                    | 03420321130               |
| 31                                                                        | Hauptspindel           | Main spindle         | 1             |                    | 03420321131               |
| 32                                                                        | Sechskantmutter        | Hexagon nut          | 3             | ISO 4032 - M8      |                           |
| 33                                                                        | Unterlegscheibe        | Washer               | 3             | B8                 |                           |
| 35                                                                        | Leitspindel            | Lead screw           | 1             | D210               | 03420321835               |
| 36                                                                        | Innensechskantschraube | Socket head screw    | 4             | ISO 4762 - M6x16   |                           |
| 37                                                                        | Zylinderstift          | Cylindrical pin      | 4             | 6 h8x22            |                           |
| 38                                                                        | Gleitlager             | Sliding bearing      | 2             |                    | 03420321838               |
| 39                                                                        | Lagerbock              | Bearing block        | 1             |                    | 03420321839               |
| 40                                                                        | Riemenscheibe Spindel  | Spindle pulley       | 1             |                    | 03420321840               |
| 41                                                                        | Zahnstange             | Rack                 | 1             |                    | 03420321841               |
| 42                                                                        | Senkschraube           | Countersunk screw    | 5             | ISO 7046 - M5x12-H |                           |
| 43                                                                        | Zylinderstift          | Cylindrical pin      | 2             | ISO 2338 - 6h8 x22 |                           |
| 44                                                                        | Nutmutter              | Groove nut           | 1             |                    | 03420321844               |
|                                                                           | Leitspindel            | Lead screw           | 1             |                    | 03420330145               |

## I Vario Antrieb - Vario drive

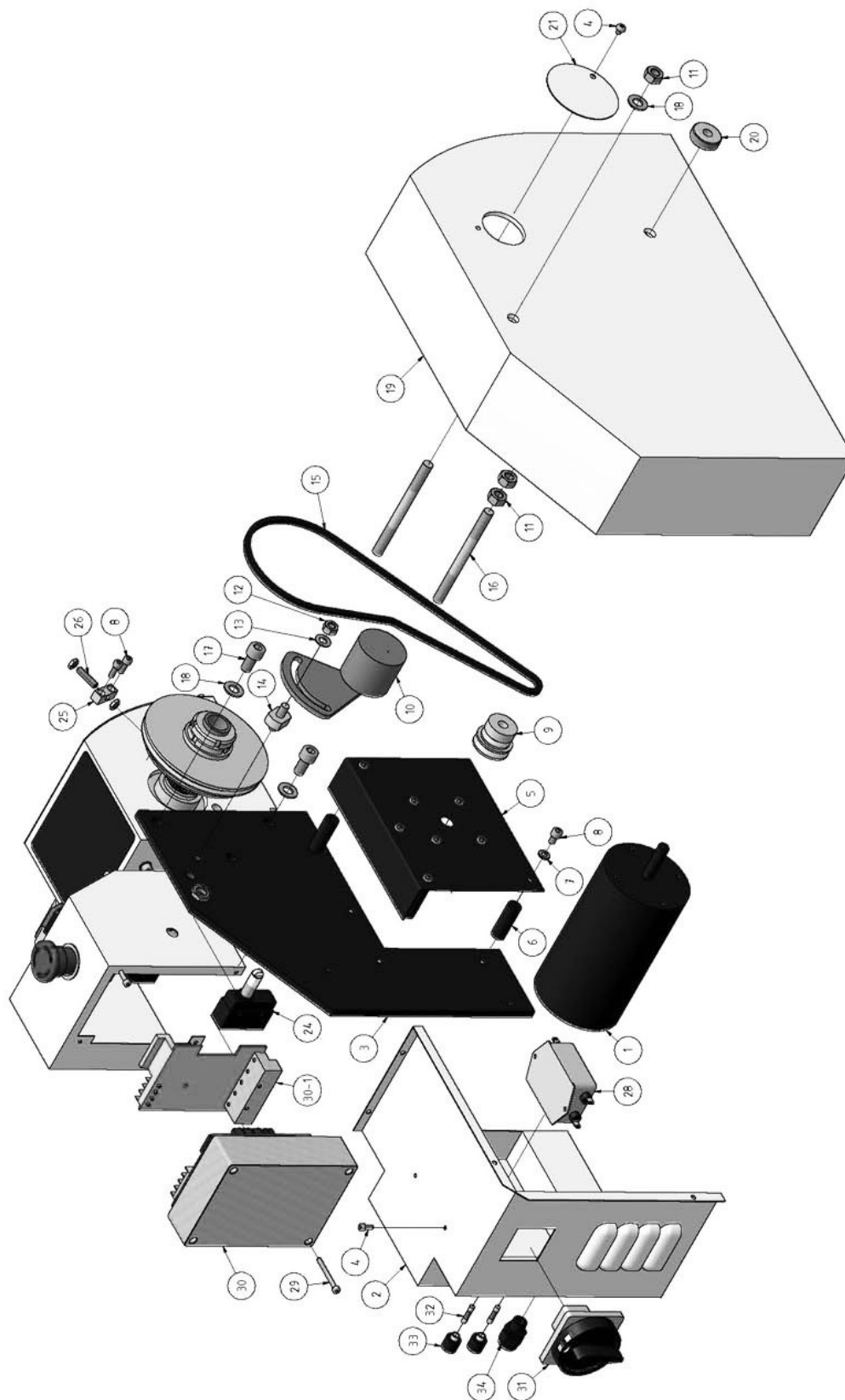


Abb. 1-9:

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| Teileliste Vario Antrieb - Parts list Vario drive |                                            |                                         |               |                  |                           |
|---------------------------------------------------|--------------------------------------------|-----------------------------------------|---------------|------------------|---------------------------|
| Pos.                                              | Bezeichnung                                | Designation                             | Menge<br>Qty. | Größe<br>Size    | Artikelnummer<br>Item no. |
| 1                                                 | Motor                                      | Motor                                   | 1             |                  | 03420324101               |
| 2                                                 | Motorabdeckung                             | Motor cover                             | 1             |                  | 03420324102               |
| 3                                                 | Motorträgerplatte                          | Motor fixing plate                      | 1             |                  | 03420324103               |
| 4                                                 | Schraube                                   | Screw                                   | 2             | ISO 7045 - M5x6  |                           |
| 5                                                 | Winkelblech für Motor                      | Bracket plate for motor                 | 1             |                  | 03420324105               |
| 6                                                 | Abstandshülse                              | Spacer                                  | 4             |                  | 03420324106               |
| 7                                                 | Unterlegscheibe                            | Washer                                  | 4             | B 6.4            |                           |
| 8                                                 | Innensechskantschraube                     | Socket head screw                       | 4             | ISO 4762 M6x10   |                           |
| 9                                                 | Riemenscheibe Motor                        | Pulley motor                            | 1             |                  | 03420324109               |
| 10                                                | Spannrolle Riemen                          | Idler belt                              | 1             |                  | 03420324110               |
| 11                                                | Sechskantmutter                            | Hexagon nut                             | 7             | EN 24032 - M10   |                           |
| 12                                                | Sechskantmutter                            | Hexagon nut                             | 1             | EN 24032 - M8    |                           |
| 13                                                | Unterlegscheibe                            | Washer                                  | 1             | B8.4             |                           |
| 14                                                | Fixierstift                                | Fixing pin                              | 1             |                  | 03420324114               |
| 15                                                | Antriebsriemen                             | V-belt                                  | 1             | 7M710            | 0390210                   |
| 16                                                | Stehbolzen                                 | Thread bolt                             | 2             |                  | 03420324116               |
| 17                                                | Innensechskantschraube                     | Socket head screw                       | 2             | ISO 4762 -M10x20 |                           |
| 18                                                | Unterlegscheibe                            | Washer                                  | 3             | B 10.5           |                           |
| 19                                                | Abdeckung D210 "rund"                      | Cover D210 "round"                      | 1             |                  | 03420321119-1             |
| 19                                                | Abdeckung D210 "eckig"                     | CoverD210 "angularly"                   | 1             |                  |                           |
| 19                                                | Abdeckung D250 "eckig"                     | Cover D250 "angularly"                  | 1             |                  |                           |
| 19                                                | Abdeckung D250 "rund"                      | Cover D250 "round"                      | 1             |                  | 034204001119              |
| 20                                                | Rändelmutter                               | Knurled nut                             | 1             |                  | 03420321110               |
| 21                                                | Falldeckel                                 | Cover Spindle tube                      | 1             |                  | 03420321111               |
| 22                                                | Riemenscheibe Spindel                      | Spindle pulley                          | 1             |                  | 03420324122               |
| 23                                                | Trafo                                      | Transformer                             | 1             |                  | 03420324123               |
| 24                                                | Positionsschalter<br>Spindelstockabdeckung | Position switch headstock<br>protection | 1             |                  | 03420321124               |
| 25                                                | Halter                                     | Holder, only Vario                      | 1             |                  | 03420324125               |
| 26                                                | Drehzahlsensor                             | Rotation speed sensor, only<br>Vario    | 1             |                  | 03420324126               |
| 27                                                | Netzteil, nur Vario                        | Power pack, only Vario                  | 1             |                  | 03420324127               |
| 28                                                | Netzfilter                                 | Line filter                             | 1             |                  | 03420324128               |
| 29                                                | Innensechskantschraube                     | Socket head screw                       | 4             | GB70-85/M4x35    |                           |
| 30                                                | Steuerplatine                              | Control board                           | 1             |                  | 03338120Q1.6              |
| 30-1                                              | Steuerplatine                              | Control board                           | 1             |                  | 03338120Q1.7              |
| 31                                                | Hauptschalter                              | Main switch                             | 1             |                  | 03338120S1.1              |
| 32                                                | Sicherung                                  | Fuse                                    | 1             |                  | 03420321632               |
| 33                                                | Verschraubung                              | Fitting                                 | 1             |                  | 03420321633               |
| 34                                                | Zugentlastung                              | Cord grip                               | 1             |                  | 03420321634               |
|                                                   | Motorschalterschütz                        | Exchanges contact device                | 1             |                  | 03420324KM                |
|                                                   | Steuerplatine                              | Electronic board                        | 1             |                  | 0320297                   |
|                                                   | Kohlebürste                                | Carbon brush                            | 1             | Vario            | 034203241-1               |

## J Antrieb 1 von 2 - Drive 1 of 2

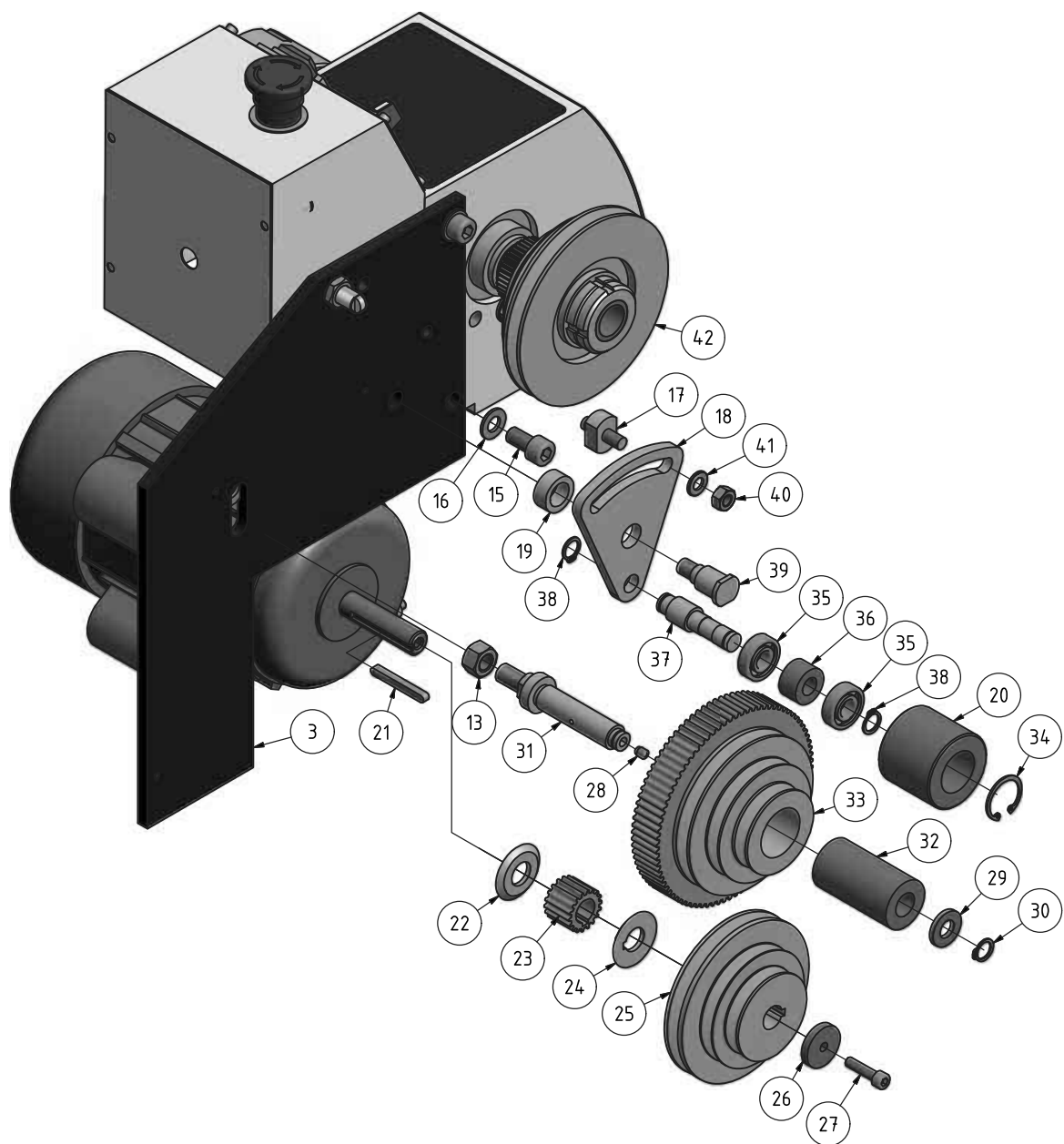


Abb. 1-10:

K      Antrieb 2 von 2 - Drive 2 of 2

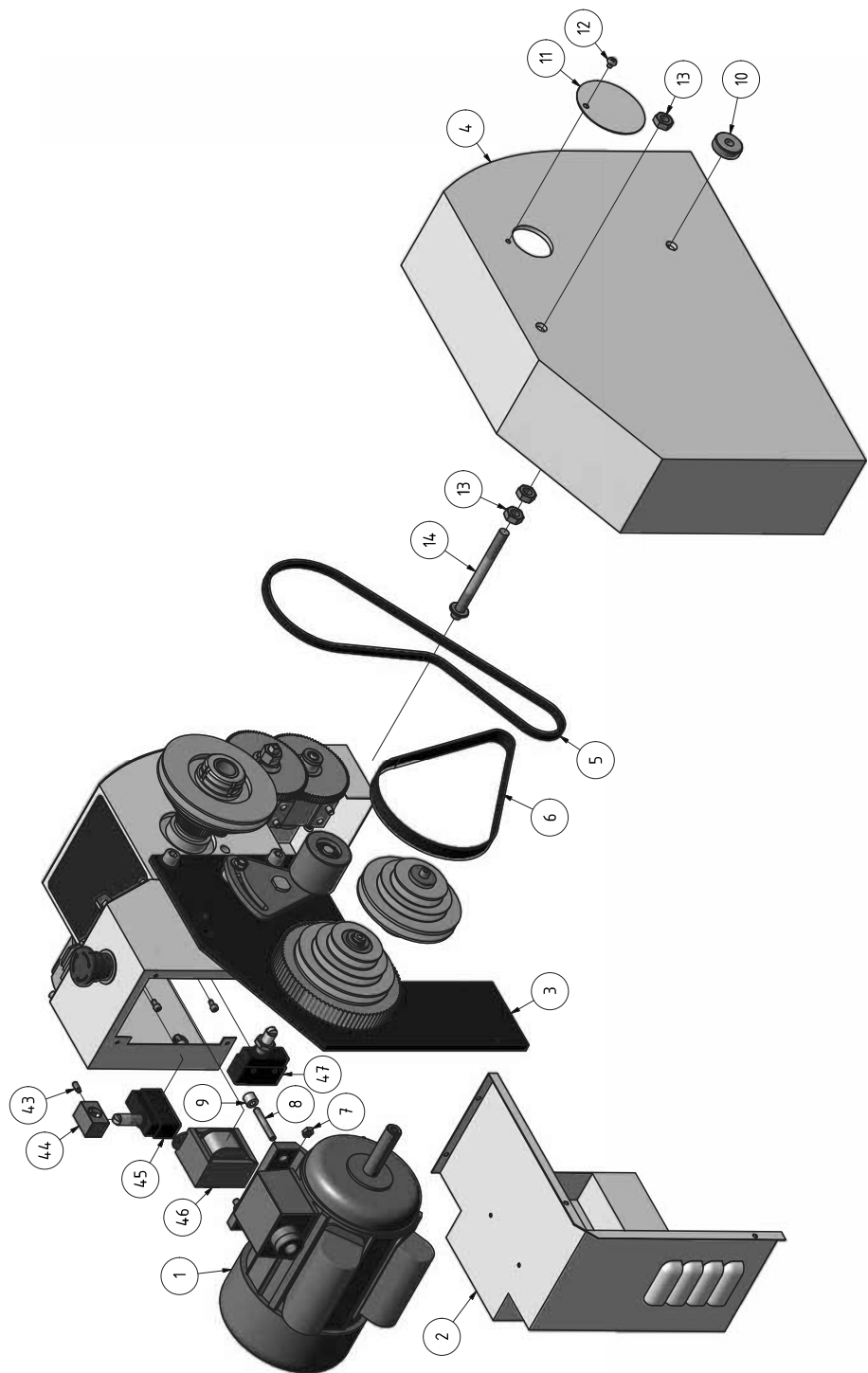


Abb.1-11: Antrieb - Drive

| Teileliste Antrieb - Parts list drive |                 |             |            |            |                        |
|---------------------------------------|-----------------|-------------|------------|------------|------------------------|
| Pos.                                  | Bezeichnung     | Designation | Menge Qty. | Größe Size | Artikelnummer Item no. |
| 1                                     | Motor           | Motor       | 1          | 230V       | 03420321101M           |
|                                       | Motor           | Motor       |            | 400V       | 03420403101            |
|                                       | Motor D250      | Motor D250  |            | Vario      |                        |
| 2                                     | Abdeckung Motor | Cover Motor | 1          |            | 03420321102-1          |
| 3                                     | Motorplatte     | Motor plate | 1          |            | 03420321103            |

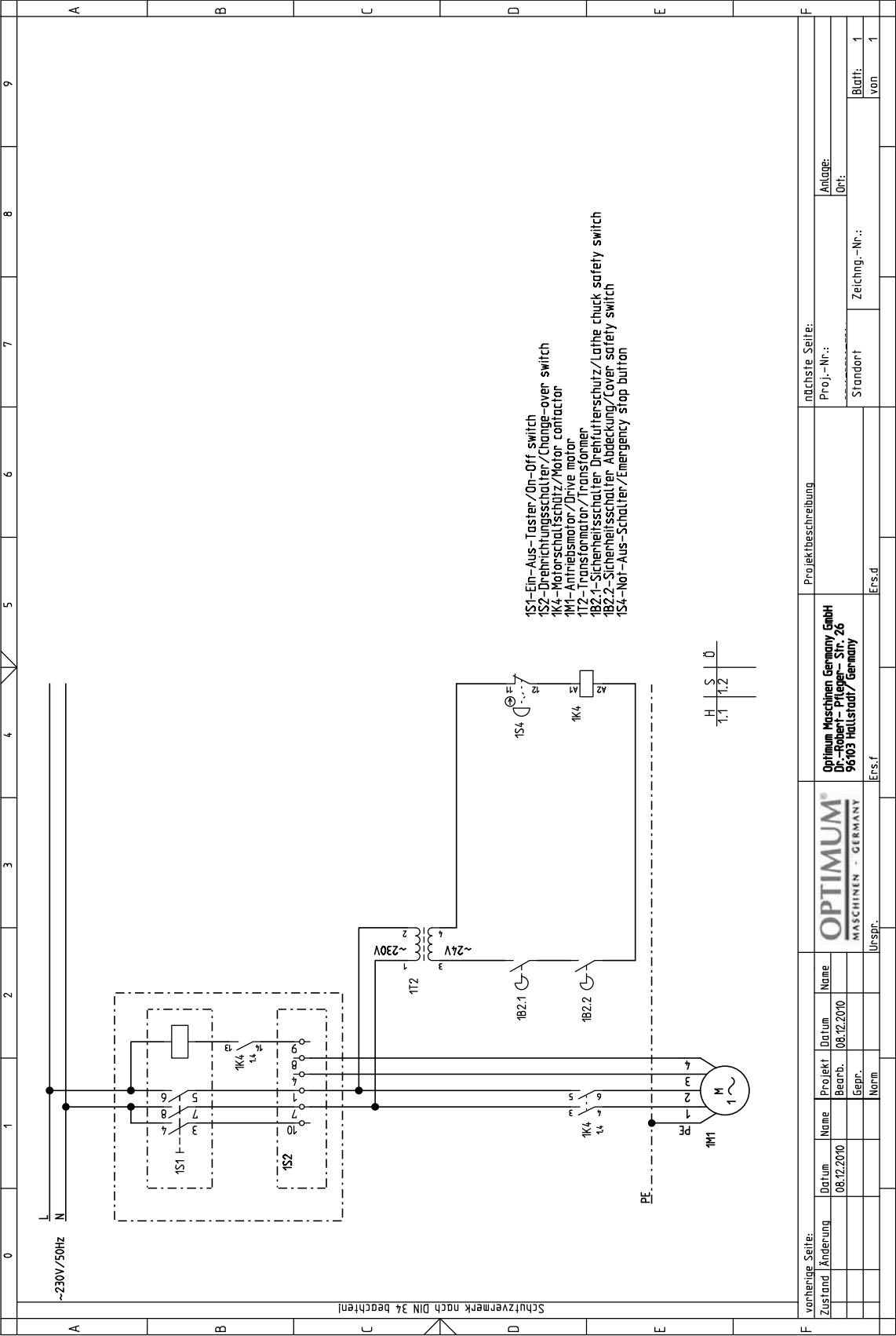
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| Teilleiste Antrieb - Parts list drive |                                         |                                      |       |                   |               |
|---------------------------------------|-----------------------------------------|--------------------------------------|-------|-------------------|---------------|
| Pos.                                  | Bezeichnung                             | Designation                          | Menge | Größe             | Artikelnummer |
|                                       |                                         |                                      | Qty.  | Size              | Item no.      |
| 5                                     | Antriebsriemen                          | Drive belt                           | 1     |                   | 0391290       |
| 6                                     | Zahnriemen                              | Toothed belt                         | 1     |                   | 0395350       |
| 7                                     | Sechskantmutter                         | Hexagon nut                          | 4     | EN 24032 - M6     |               |
| 8                                     | Stehbolzen                              | Thread bolt                          | 4     | M6                |               |
| 9                                     | Distanzstück                            | Spacer piece                         | 4     |                   | 03420321109   |
| 10                                    | Rändelmutter                            | Knurled nut                          | 1     |                   | 03420321110   |
| 11                                    | Spindelabdeckung                        | Spindle cover                        | 1     |                   | 03420321111   |
| 12                                    | Schraube                                | Screw                                | 5     | ISO 7045 - M5x6   |               |
| 13                                    | Sechskantmutter                         | Hexagon bolt                         | 7     | EN 24032 - M10    |               |
| 14                                    | Stehbolzen                              | Thread bolt                          | 2     |                   | 03420321114   |
| 15                                    | Innensechskantschraube                  | Socket head screw                    | 2     | ISO 4762 - M10x20 |               |
| 16                                    | Unterlegscheibe                         | Washer                               | 2     | B 10.5            |               |
| 17                                    | Fixierstift                             | Fixing pin                           | 1     |                   | 03420321217   |
| 18                                    | Trägerplatte für Spannrolle             | Support for idler                    | 1     |                   | 03420321118   |
| 19                                    | Distanzring Trägerplatte                | Spacer ring support plate            | 1     |                   | 03420321119-2 |
| 20                                    | Rolle für Spannrolle                    | Role for idler                       | 1     |                   | 03420321120-1 |
| 21                                    | Passfeder für Motor                     | Key for motor                        | 1     | 5x40              | 03420321221   |
| 22                                    | Bundscheibe innen                       | Flanged washer inside                | 1     |                   | 03420321122-1 |
| 23                                    | Zahnriemenscheibe                       | Toothed belt disk                    | 1     | 18 Zähne (teeths) | 03420321223   |
| 24                                    | Bundscheibe außen                       | Flanged washer outside               | 1     |                   | 03420321124-1 |
| 25                                    | Riemenscheibe Motor                     | V-belt motor                         | 1     |                   | 03420321125-1 |
| 26                                    | Unterlegscheibe Motor                   | Distance washer motor                | 1     |                   | 03420321126-1 |
| 27                                    | Innensechskantschraube                  | Socket head screw                    | 1     | DIN 4762 - M6x25  |               |
| 28                                    | Schmiernippel 6mm                       | Oiler 6mm                            | 1     |                   | 0340105       |
| 29                                    | Deckscheibe                             | Cover disk                           | 1     |                   | 03420321129   |
| 30                                    | Sicherungsring                          | Circlip                              | 1     | 12mm              |               |
| 31                                    | Welle für Zwischenscheibe               | Shaft for intermediate washer        | 1     |                   | 03420321131-1 |
| 32                                    | Führungshülse                           | Guidance case                        | 1     |                   | 03420321132   |
| 33                                    | Zahnriemenscheibe                       | Toothed belt disk                    | 1     | 84 Zähne (teeths) | 03420321133   |
| 34                                    | Sicherungsring                          | Circlip                              | 1     | 26mm              |               |
| 35                                    | Rillenkugellager                        | Grooved ball bearing                 | 2     | 6001              | 0406001.2R    |
| 36                                    | Distanzstück                            | Spacer piece                         | 1     |                   | 03420321136   |
| 37                                    | Welle für Spannrolle                    | Shaft for idler                      | 1     |                   | 03420321137   |
| 38                                    | Sicherungsring für Spannrolle           | Circlip for idler                    | 2     |                   | 03420321138   |
| 39                                    | Führungsbolzen                          | Guide pin                            | 1     |                   | 03420321139   |
| 40                                    | Sechskantmutter                         | Hexagon nut                          | 1     | EN 24032 - M8     |               |
| 41                                    | Unterlegscheibe                         | Washer                               | 1     | B 8.4             |               |
| 42                                    | Riemenscheibe Spindel                   | Pulley spindle                       | 1     |                   | 03420321142   |
| 43                                    | Stiftschraube                           | Threaded pin                         | 1     | DIN 915 M5 x 12   |               |
| 44                                    | Halter Drehfutterschutz                 | Fixing part jaw ckuck protection     | 1     | 23                | 03420321823   |
| 45                                    | Positionsschalter Drehfutterschutz      | Position switch jaw chuck protection | 1     |                   | 03420321821   |
| 46                                    | Trafo                                   | Transformer                          | 1     |                   | 03420321146   |
| 47                                    | Positionsschalter Spindelstockabdeckung | Position switch headstock protection | 1     |                   | 03420321124   |
|                                       | Kondensator 25 microF                   | Condenser 25 microF                  | 1     |                   | 03420321101-1 |
|                                       | Kondensator 150 microF                  | Condenser 150 microF                 | 1     |                   | 03420321101-2 |

## 1.5 Sonstiges Zubehör (ohne Abbildung) - Other accessories (without illustration)

| Pos. | Bezeichnung          | Designation             | Menge | Grösse   | Artikelnummer |
|------|----------------------|-------------------------|-------|----------|---------------|
|      |                      |                         | Qty.  | Size     | Item no.      |
|      | Werkzeugbox komplett | Tool box complete       | 1     |          | 0342032100    |
|      | Feste Spitze MK 2    | Fixed center            | 1     | MK2      | 0340134       |
|      | Feste Spitze MK 3    | Fixed center            | 1     | MK3      | 0340135       |
|      | Zwischenblech vorne  | Sheet metal plate front | 1     | D250x400 | 03420400842   |
|      | Zwischenblech hinten | Sheet metal plate rear  | 1     | D250x400 | 03420400843   |
|      | Leitspindelabdeckung | Leadscrew cover         | 1     | D250x400 | 03420400844   |
|      | Zwischenblech vorne  | Sheet metal plate front | 1     | D250x550 | 03420550842   |
|      | Zwischenblech hinten | Sheet metal plate rear  | 1     | D250x550 | 03420550843   |
|      | Leitspindelabdeckung | Leadscrew cover         | 1     | D210     | 03420321844   |
|      | Leitspindelabdeckung | Leadscrew cover         | 1     | D250x550 | 03420550844   |
|      | Zwischenblech vorne  | Sheet metal plate front | 1     | D210     | 03420321842   |
|      | Zwischenblech hinten | Sheet metal plate rear  | 1     | D210     | 03420321843   |

1.6 Schaltplan - Wiring diagram - TU2304 - TU2406 - 230 V



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## 1.7 Schaltplan - Wiring diagram - TU2406 - 400 V

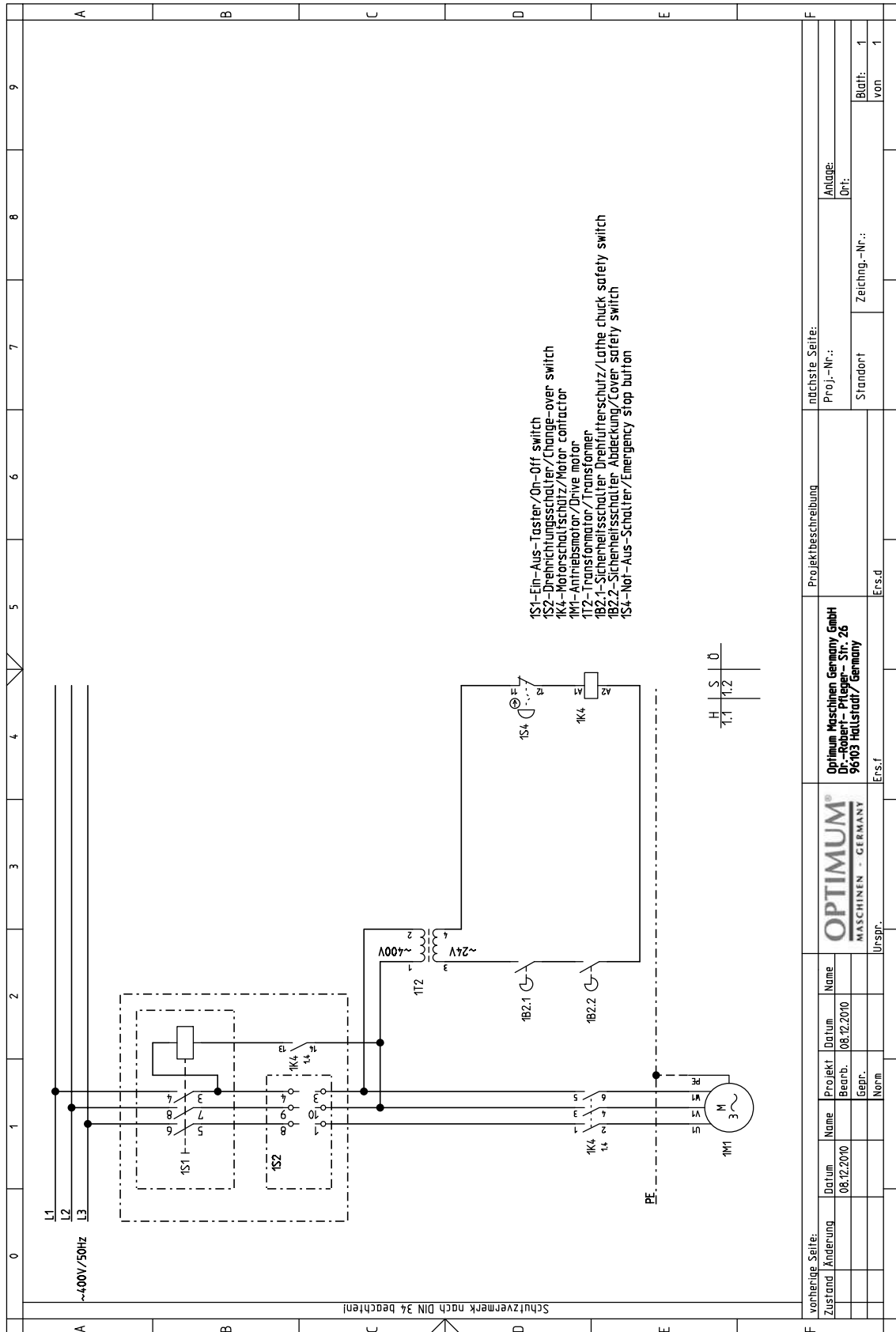


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1.8 Schaltplan - Wiring diagram - TU2406V

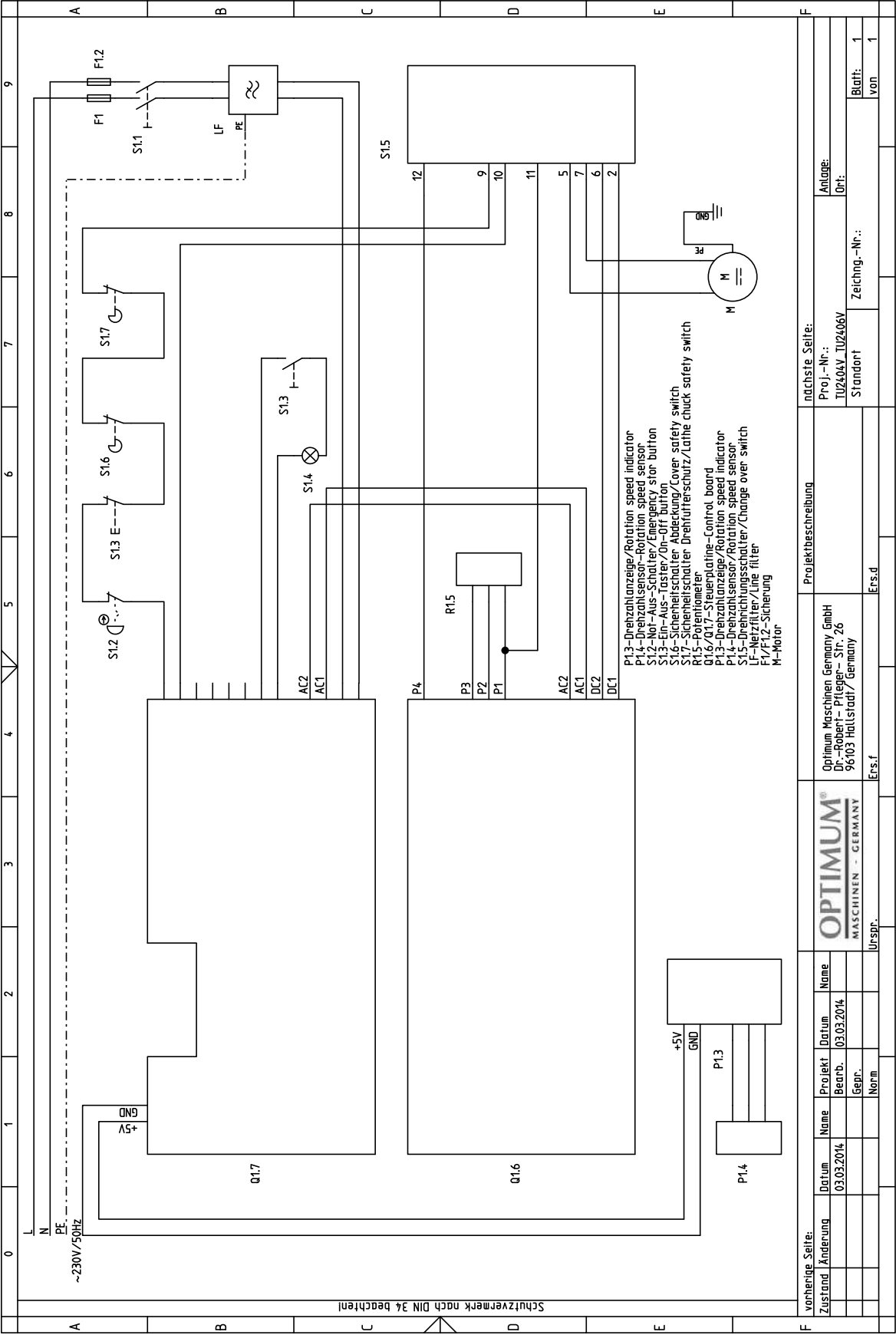


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