



Construction 1150.600 DGS

Operating instructions

**Before transporting and using the machine,
please read the instructions thoroughly!**

Service and information

Your BOMAR dealer:

Direct BOMAR contact:

BOMAR spol. s r.o.
Těžební 1236/1
62700 Brno
Czech Republic, EU

telefon: +420 – 533 426 100
fax: +420 – 533 426 109
e-mail: info@bomar.cz
www: <http://www.bomar.cz>

We are available:

Mondays to Fridays

7⁰⁰ – 16⁰⁰

Version:

1.00 / Mar. 2011
rev. 1

BOMAR, spol. s r.o. © – Subject to modifications and amendments.

Content

1. SAFETY NOTES7

1.1. Machine determination.....	9
1.2. Protective suit and personal safety.....	9
1.3. Safety notes for machine operator.....	10
1.4. Safety notes for the servicing and repairs.....	10
1.4.1. Safety notes for the servicing and repairs on hydraulic unit.....	11
1.5. Safety machine accessories.....	11
1.5.1. Total Stop.....	11
1.5.2. Arm covers.....	11
1.5.3. Saw band stretching and rupture inspection.....	11
1.5.4. Band saw cover.....	12
1.6. Safety notes for the cooling.....	12
1.6.1. Instructions for first help.....	12
1.7. Umístění štítku stroje / Maschinenschild position / Position of machine label.....	13
1.8. Umístění bezpečnostních značek / Verteilung der Sicherheitszeichen / Position of safety symbols.....	14

2. MACHINE DOCUMENTATION15

2.1. Technická data / Technische Daten / Technical data.....	17
2.2. Rozměrové schéma / Aufstellzeichnung / Installation diagram.....	18
2.3. Rozměrové schéma / Aufstellzeichnung / Installation diagram – 2.....	19
2.4. Transportation and stocking.....	20
2.4.1. Conditions for transportation and stocking.....	20
2.4.2. Transport and stocking preparations.....	20
2.4.3. Transport and stocking.....	20
2.4.4. Transportní schéma / Transport schema / Transport scheme.....	21
2.5. Activation.....	22
2.5.1. Machine working conditions.....	22
2.6. Band saw unpacking and assembling.....	22
2.6.1. Machine installing and levelling.....	23
2.6.2. Machine disposal after lifetime.....	23
2.6.3. First run of the power pack.....	23
2.6.4. Filling the reservoir with hydraulic oil.....	23
2.6.5. Kotevní plan / Verankerungsplan / Grounding plan.....	25
2.7. Electrical connection.....	26
2.7.1. Check the direction of the saw band.....	26
2.7.2. Check machine connection into electrical network.....	27
2.8. Filling of the cooling system.....	27
2.9. Check machine function.....	27
2.10. Saw band.....	27
2.10.1. Saw band size.....	27
2.10.2. Selection of the saw band tooth system.....	27
2.10.3. Saw band running-in.....	28
2.10.4. Tables for teeth selection.....	29

3. MACHINE CONTROL31

3.1. Starting the band saw.....	33
3.2. Control panel.....	34
3.3. Machine control.....	35
3.3.1. Referencing machine.....	35
3.3.2. Manual mode.....	35
3.3.3. Working cycle.....	36
3.4. Machine setup.....	37
3.4.1. SERVIS.....	37
3.4.2. SETUP.....	37
3.5. Machine error messages.....	38
3.5.1. Cycle breaking.....	39
3.6. Band saw adjusting.....	39
3.6.1. Setting of the top clamping.....	39
3.6.2. Setting of the clamping pressure of the vice.....	40
3.6.3. Cutting speed adjusting.....	41
3.6.4. Adjustment of pressure to the cut.....	41
3.6.5. Speed adjustment of the arm lowering.....	41
3.6.6. Saw frame lift stop setting.....	41
3.6.7. Brush adjustment.....	41
3.7. Material insertion.....	42
3.7.1. Handling agent selection.....	42
3.7.2. Insertion.....	42
3.7.3. Bundle material cutting.....	42

4. MACHINE SERVICE45

4.1. Saw band dismantling.....	47
4.2. Saw band installation.....	48

4.3. Saw band stretching and inspection	48
4.3.1. Saw band stretching	48
4.3.2. Saw band inspection	49
4.3.3. Saw band run setting.....	49
4.3.4. Adjusting of the limit switch of the saw band stretching.....	49
4.4. Cooling agents and chips disposal.....	50
4.4.1. Coolant device inspection.....	50
4.4.2. Chips disposal.....	51
4.5. Hydraulic, Greases and oils	51
4.5.1. Gearbox oils.....	51
4.5.2. Lubricant greases	51
4.5.3. Lubrication	52
4.5.4. Hydraulic oils	53
4.5.5. Hydraulic unit service.....	53
4.6. Machine cleaning.....	54
4.7. Worn pieces replacement	54
4.7.1. Pushing bearing replacement.....	54
4.7.2. Saw band guiding pulleys replacement.....	56
4.7.3. Hard metal guides replacement.....	58
4.7.4. Brush replacement	59

5. ZÁVADY / TROUBLESHOOTING61

5.1. Mechanical problems.....	63
5.2. Electric problems.....	65
5.3. Hydraulic problems.....	66

6. SCHÉMATA / SCHEMAS / SCHEMATICS67

6.1. Elektrické schéma / Elektroschema / Wiring diagrams – 3×400 V, TN-C-S	68
6.2. Hydraulické schéma / Hydraulikschema / Hydraulic diagram	82

7. VÝKRESY SESTAV PRO OBJEDNÁNÍ NÁHRADNÍCH DÍLŮ / ZEICHNUNGEN FÜR BESTELLUNG DER ERSATZTEILE / DRAWING ASSEMBLIES FOR SPARE PARTS ORDER85

7.1. Construction 1150.600 DGS.....	86
7.2. Kusovník / Stückliste / Piece list – Construction 1150.600 DGS	87
7.3. Rameno / Sägerahmen / Saw arm.....	88
7.4. Kusovník / Stückliste / Piece list – Rameno / Sägerahmen / Saw arm	89
7.5. Pohon / Antrieb / Drive.....	90
7.6. Kusovník / Stückliste / Piece list – Pohon / Antrieb / Drive	91
7.7. Snímac / Sensor / Sensor.....	92
7.8. Kusovník / Stückliste / Piece list – Snímac / Sensor / Sensor.....	93
7.9. Napínání / Spannung / Tensioning.....	94
7.10. Kusovník / Stückliste / Piece list – Napínání / Spannung / Tensioning.....	95
7.11. Válec napínací / Spannzyylinder / Tensioning cylinder.....	96
7.12. Válec pomocný / Hilfszylinder / Aux. cylinder.....	97
7.13. Vedení pásu / Sägebandführung / Belt guide	98
7.14. Kusovník / Stückliste / Piece list – Vedení pásu / Sägebandführung / Belt guide	99
7.15. Vedení pásu / Sägebandführung / Belt guide	100
7.16. Kusovník / Stückliste / Piece list – Vedení pásu / Sägebandführung / Belt guide	101
7.17. Vodící kostka / Führungsklotz / Guiding cube – 1	102
7.18. Kusovník / Stückliste / Piece list – Vodící kostka / Führungsklotz / Guiding cube – 1	103
7.19. Vodící kostka / Führungsklotz / Guiding cube – 2	104
7.20. Kusovník / Stückliste / Piece list – Vodící kostka / Führungsklotz / Guiding cube – 2.....	105
7.21. Konzola otočná / Drehkonsole / Turnable console.....	106
7.22. Kusovník / Stückliste / Piece list – Konzola otočná / Drehkonsole / Turnable console	107
7.23. Konzola otočná / Drehkonsole / Turnable console.....	108
7.24. Kusovník / Stückliste / Piece list – Konzola otočná / Drehkonsole / Turnable console	109
7.25. Pohon / Antrieb / Drive – 2	110
7.26. Kusovník / Stückliste / Piece list – Pohon / Antrieb / Drive – 2.....	111
7.27. Podstavec / Untersatz / Base.....	112
7.28. Kusovník / Stückliste / Piece list – Podstavec / Untersatz / Base	113
7.29. Podstavec / Untersatz / Base.....	114
7.30. Kusovník / Stückliste / Piece list – Podstavec / Untersatz / Base	115
7.31. Svěrák / Schraubstock / Vice.....	116
7.32. Kusovník / Stückliste / Piece list – Svěrák / Schraubstock / Vice	117
7.33. Válec svěráku / Schraubstockzylinder / Vice Cylinder.....	118
7.34. Kusovník / Stückliste / Piece list – Válec svěráku / Schraubstockzylinder / Vice Cylinder	119
7.35. Válec zvedací / Hebezyylinder / Lifting cylinder	120
7.36. Kusovník / Stückliste / Piece list – Válec zvedací / Hebezyylinder / Lifting cylinder.....	121
7.37. Ovládání / Steuerung / Controls.....	122
7.38. Kusovník / Stückliste / Piece list – Ovládání / Steuerung / Controls	123
7.39. Kartáč / Bürste / Brush.....	124
7.40. Kusovník / Stückliste / Piece list – Kartáč / Bürste / Brush.....	125
7.41. Brzda / Bremse / Brake.....	126
7.42. Kostka regulace / Regulationklotz / Regulation cube.....	127

1. **Safety notes**

The operating instructions must be read by the person, who keeps in touch with the machine before transportation, installation, using, servicing, reparation, stocking or removal!

The operating instructions include relevant information. The operator must familiarise himself with the install and operation, safety notes and machine servicing, because reliability and service life must be reached. The operating instructions must avoid risks, which are linked to work on the machine. Before transporting and using of the machine, please read the instructions thoroughly!

Attention!

*The operating instructions must be available at the machine!
Keep the operating instructions in good condition!*

1.1. Machine determination

The band saw **Construction 1150.600 DGS** is determined for cutting and shortening of rolled bars and drawn bars and profiles from steels, stainless steels, non-ferrous metals and plastics **with cutting angle** from -60° to 60°.

Combustible materials are excepted for cutting! Any other usage and operation outside this range are unauthorized and the manufacturer/supplier does not accept any responsibility for any damages resulting from such misuse. **The operator has full responsibility!**

The machine is equipped with safety and protective guarding for operator and machine protection. Nevertheless, this safety and protective guarding cannot prevent injury. Service personnel must read this chapter and comprehend it, before he starts to work on the machine. **Always keep instructions about work safety!** Service personnel must take into account other aspects of the risk, which refer to the ambient conditions and the material.

Attention!

Consider the safety signs on the machine. Do not remove or damage them!

1.2. Protective suit and personal safety

Wear tight fitting overalls! Loose fitting clothes may be caught with machine parts and cause serious injury.

Wear protective gloves! Material cuts and saw band have sharp edges and may cause serious injuries.

Attention!

*Gloves you can use only at working material replacement (saw band)! The machine and accessories must be inactive!
If the machine is running, you must not wear gloves! It is dangerous, because some parts of the machine can catch gloves!*

Wear protective shoes with non-skid soles! The unsuitable shoes may cause balance loss and following injury. Falling work pieces may cause serious injuries too.

Wear protective goggles! Chips and cooling liquid may damage your eyes.

Always wear ear protections! Most of the machines emit up to 80 dB and may damage your hearing.

Do not wear jewellery and always tie back long hair! Moving machine parts can catch jewellery or loose hair and may cause serious injuries.

Operate the machine only when you are fit enough to work. Illnesses or injuries diminish concentration. Avoid machine work, which may compromise the safety of you and your colleagues!

1.3. Safety notes for machine operator

Attention!

*Machine can be operated by person older than 18 years!
Machine can be operated only person physically and mentally fit for this activity*

Machine can be operated only by one person. Machine operator is responsible for presence of other persons by the machine.

Keep instructions and orders about work safety!

Read the operating instructions, before you start to work on the machine! Keep the operating instructions in good condition!

Close covers before the machine starting and check, if the covers are not damaged. Damaged covers must be repaired or changed. Do not start the machine, if the cover is removed! Check, if the electric cables are not damaged.

Attention!

Do not connect the machine to electricity if the covers are removed. Do not touch the electrical equipment.

- Do not hold the material for clamping to the vice and for cutting!
- Do not operate with the buttons and the switches on the control panel, when you have gloves!
- For machine starting take care, that there is nobody in the working area of the machine (it means in the working area of the vice, the saw band, the saw arm etc.).
- In no circumstances touch the rotating elements.
- Work on the machine only when the machine is in good condition!
- Check at least once in a shift, if the machine is not damaged. If the machine is damaged, you must bring the machine in order and you must inform your superior!
- Keep your working area clean! Ensure sufficient lighting in the working area.
- Take off the spilt water or the oil from the floor and dry it. Do not touch the cooling liquid with bare hands! Do not set the nozzle of the cooling liquid, when the machine is started on
- Do not remove the chips from the working area of the machine, when the machine is started on!
- Do not use the compressed air for the machine cleaning or for the chips removing!
- Use the protective instruments for chips removal!

1.4. Safety notes for the servicing and repairs

Attention!

Only a qualified professional can carry out the servicing and repairs of the electric equipment! Take special care during the work with electrical equipment. High voltage shock can have fatal consequences! Always keep notes about work safety! Otherwise, there is possibility of heavy injury!

Switch off the main switch and lock it, before you start service work! Otherwise, there is possibility of hazardous machine starting.

Only qualified person can do the servicing and repairs. For parts changing, use only parts, which are identical with the originals. Otherwise, there is possibility of health hazard. Use only recommended type of the hydraulic oils and oils and lubricants!

Do not remove or do not lock the limit switches or safety equipments! Any use of the saw, accessories or machine parts other than that intended by the BOMAR, spol. s r.o. company is not permitted. The guarantee on this product will be afterward lost and BOMAR, spol. s r.o. takes no responsibility for caused damages.

1.4.1. Safety notes for the servicing and repairs on hydraulic unit

Compliance with the the principles of cleanliness is basic requirement for trouble-free operation of hydraulic equipment. Hydraulic components are products made with high accuracy, and any contamination leads to a reduction lifetime or even malfunction. The consequences are very difficult to remove and expensive.

Always use clean tools. Parts and fasteners, which are part of a hydraulic circuit, never put away the dirty surface. The best cleaning agent is crepe paper, because the fibers of the cleaning cloths can also cause malfunction.

Protective cap from the threaded chamber remove just before the assembly of the unit.

Hoses and pipes before mounting flush with gasoline or other cleaning agent and blow compressed air.

All fittings must be properly tightened. However, do not raw power.

1.5. Safety machine accessories

The machine is equipped with safety accessories. It protects the operator from injuries and the machine before damage. The safety accessories are blocking accessories, emergency switches and covers. Check once in a week the function of the safety accessories. If the safety accessories are functionless, you must stop work and repair or change the safety accessories.

Enhanced risk!

Do not come into or intervene in the cutting area. Otherwise, there is possibility of heavy injury.

1.5.1. Total Stop

TOTAL STOP button is used for emergency switching – off the machine in case defect or health hazard. By pressing **TOTAL STOP** button is interrupted the supply of the electrical power.

If any damages or fault appears, immediately press TOTAL STOP button! Release the pressing button is possible by twisting of the upper part of the button.

1.5.2. Arm covers

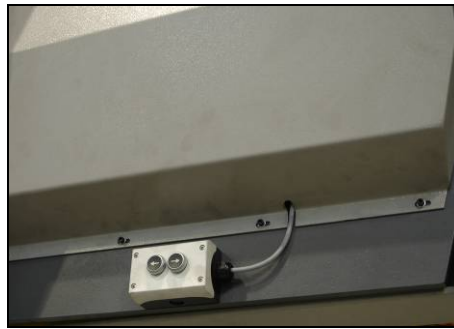
If the cover is opened during operation, the limit switch is opened and the band saw is stopped. The band saw is not possible to start in set mode.



The band saw is stated to the operation, when the covers is closed!

1.5.3. Saw band stretching and rupture inspection

This device checks the saw band stretching and causes immediate machine shut – down in the event the band ruptures.



The device contains limit switch. Check the stretching carefully and periodically – eventually adjust.

1.5.4. Band saw cover

It covers the visible area of the saw band from left guiding cube to the frame.



Never switch on the saw band driver if this cover is not mounted!

1.6. Safety notes for the cooling

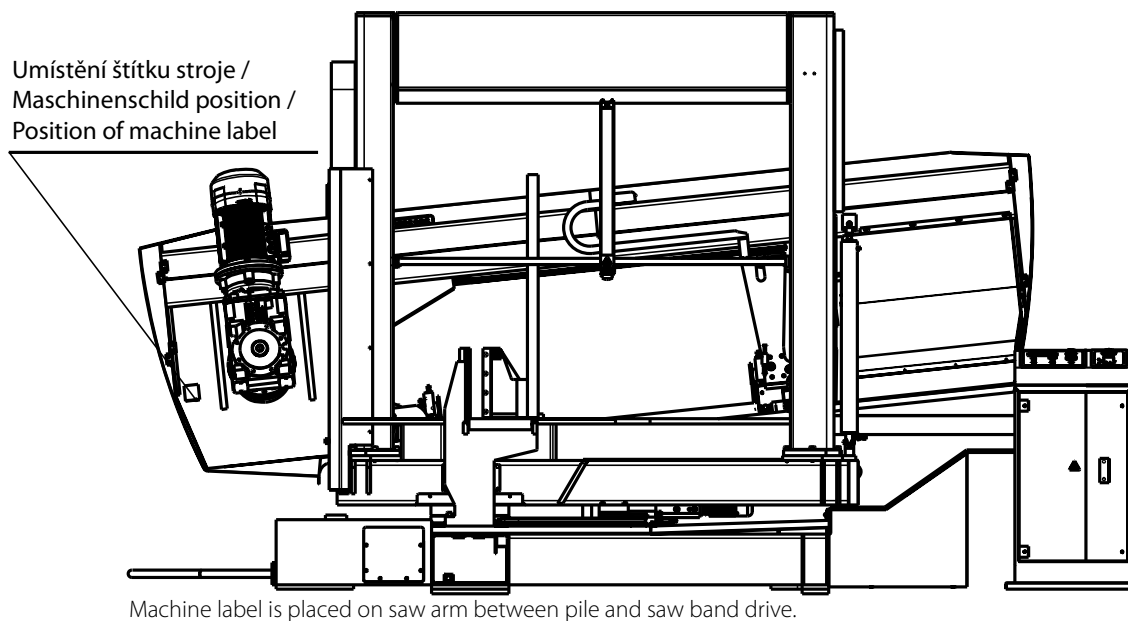
Attention!

- *When handling cooling agents always wear hazardous fluid-proof gloves!*
- *Wear protective goggles!*
- *Cooling liquid can get in contact with your eyes and may cause permanent severe injuries*

1.6.1. Instructions for first help

1. Pull off and safely remove polluted, soaked clothing.
2. For breathing, go out in the fresh air or look for first aid treatment.
3. Wash with water or use crèmes for contact with the skin.
4. Flush with water for eyes and look for first aid treatment.
5. For swallowing, drink a lot of water and induce vomiting. Look for medical help.

1.7. Umístění štítku stroje / Maschinenschild position / Position of machine label



1.8. Umístění bezpečnostních značek / Verteilung der Sicherheitszeichen / Position of safety symbols

PO:

Noste pevnou pracovní obuv •
Tragen Sie Sicherheitsschuhe •
Wear fixed protective shoes



CZ:

Přečíst návod k použití •
Bedienungsanleitung lesen •
Read the operating instructions



OBS:

Noste ochranné brýle a sluchátka •
Tragen Sie eine Schutzbrille und
Gehörschutz •
Wear protective goggles •
and headphones



NN

Nebezpečí nárazu
Stoßgefahr
Danger of stroke



NE

Nebezpečí úrazu •
elektrickým proudem
Verletzungsgefahr vom •
elektrischen Strom
Electrical hazard



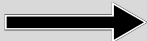
NS

Nebezpečí stlačení
Pressungsgefahr
Crushing hazard



SP:

Směr pohybu
Bewegungsrichtung
Direction of motion



Štítek stroje
Maschinenschild
Machine label

NR:

Nebezpečí zachycení
Erfassungsgefahr
Tramping hazard



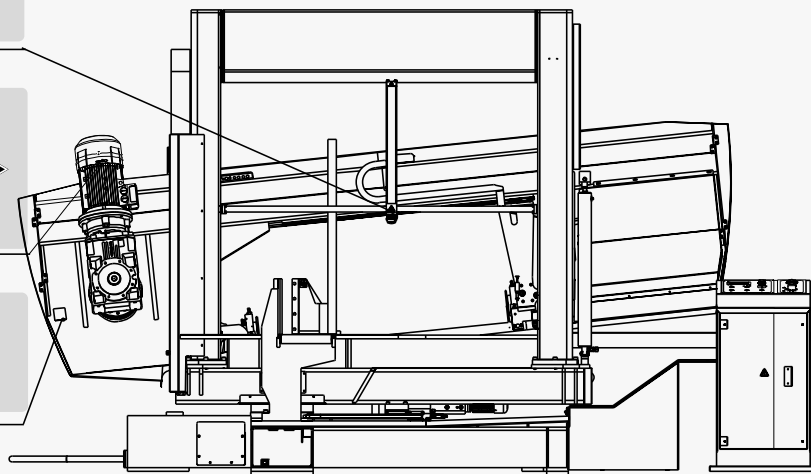
NSS

Nebezpečí stlačení svěrákem
Pressungsgefahr
Crushing hazard by vice



HV

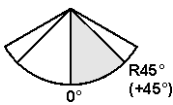
Hlavní vypínač
Hauptschalter
Main switch



2. **Machine documentation**

2.1. Technická data / Technische Daten / Technical data

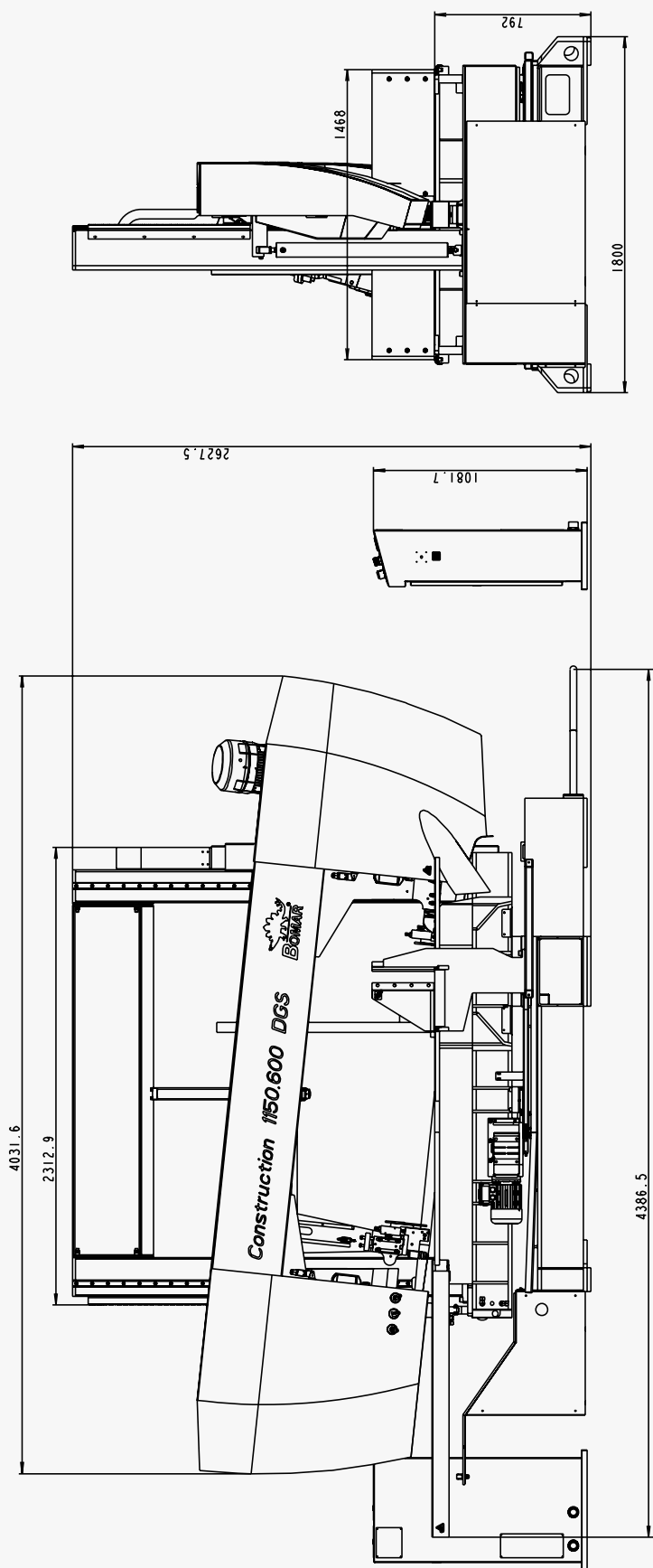
Hmotnost stroje / Maschinengewicht / Machine weight:	
• Hmotnost / Gewicht / Weight	5500 kg
Rozměry stroje / Maschinengröße / Machine size :	
• Délka / Länge / Length	4400 mm
• Šířka / Breite / Width	1800 mm
• Výška / Höhe / Height	2600 mm
Elektrické vybavení / Elektrische Ausrüstung / Electrical equipment:	
• Napájení / Versorgungsspannung / Supply voltage	~3 x 400 V (230 V), 50Hz, TN-C-S/TN-C
• Příkon / Gesamtschlusswert / Total Input	12 kW
• Max.jištění / Max. Vorschaltssicherung / Max. Fuse	32 A
• Krytí / Schutzart / Protection	IP 54
Akustický tlak / Schalldruckpegel / Acoustic pressure:	
• Construction 1150.600 DGS	$L_{Aeqv} = 76,3$ dB
Pohon / Antrieb / Drive:	
• Typ / Typ / Type	BN112M4
• Napájení / Versorgungsspannung / Supply voltage	~3 x 400V, 50Hz
• Výkon / Leistung / Output	5,5 kW
• Jmenovité otáčky / Motorenndrehzahl / Nominal speed	1440 min ⁻¹
Hydraulické zařízení / Kühlmiteleinrichtung / Hydraulic equipment:	
• Typ / Typ / Type	SMA03-79
• Výkon / Leistung / Output	3 kW/10 MPa
Chladicí zařízení / Kühlmiteleinrichtung / Cooling equipment:	
• Typ / Typ / Type	3COA 4 – 14 HP1
• Obsah nádrže / Volumen vom Kühlmittel / Capacity	150 l
Rozměr pásu / Sägebandedimension / Band size:	
8370×54×1,6 mm	
Řezná rychlost / Schnittgeschwindigkeit / Cutting speed:	
15–90 m/min.	
Řezné rozsahy / Schnittbereiche / Cutting size:	

				
0°	Ø600	1150×600	1150×600	600×600
15° L	600	1110×580	1110×580	580×580
15° R	600	1110×580	1110×580	580×580
30° L	600	990×560	990×560	560×560
30° R	600	990×580	990×580	580×580
45° L	600	790×530	790×530	530×530
45° R	600	790×580	790×580	580×580
60° L	530	530×480	530×480	480×480
60° R	530	530×580	530×580	530×530

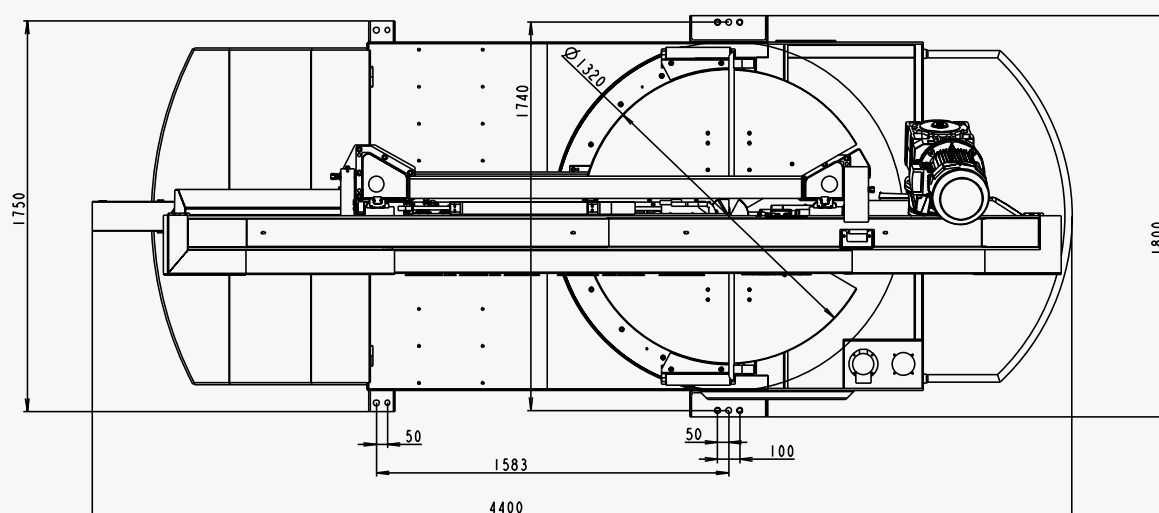
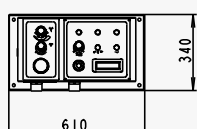
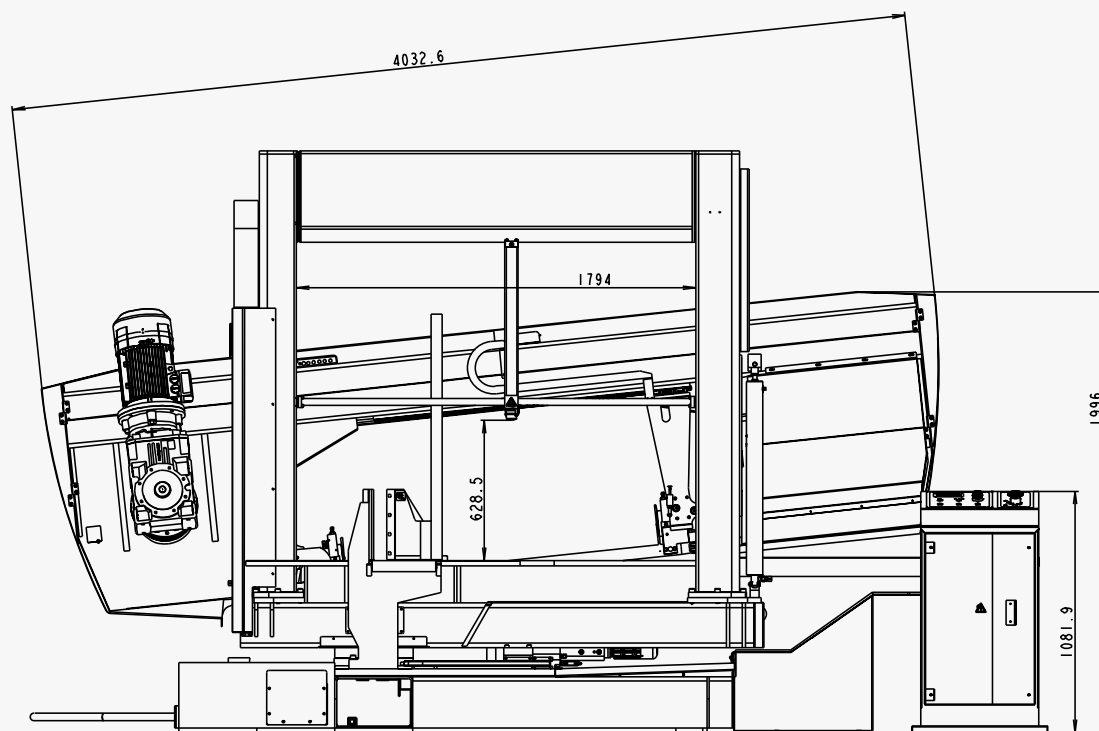
Hladina akustického tlaku:

Ekvivalentní hladina akustického tlaku A (hluku) je v místě obsluhy $L_{Aeqv} = 76,3$ dB. Uvedené hodnoty jsou hladiny emise a nemusí představovat bezpečné pracovní hladiny. Faktory, které ovlivňují skutečnou hladinu expozice pracovníků, jsou vlastnosti pracovní místnosti, zpracovávaný materiál a použité pilové pásy, které mohou expozici významně ovlivnit.

2.2. Rozměrové schéma / Aufstellzeichnung / Installation diagram



2.3. Rozměrové schéma / Aufstellzeichnung / Installation diagram – 2



2.4. Transportation and stocking

2.4.1. Conditions for transportation and stocking

Keep recommendations for the manufacturers for transportation and stocking! If the recommendations are not kept, damage can occur to the machine.

- Don't use a forklift truck for handling the machine, if you do not have license for it!
- Don't move under suspended loads! Fault in lifting device may cause serious injury.
- Keep a safe distance from the machine during the transport.
- Temperature of the air from -25°C to 55°C, for a *short term* (max. 24 hours) temperature of the air until 70°C
- Do not expose the machine to radiation (for example microwave radiation, ultraviolet radiation, laser radiation, x-ray radiation). Radiation can cause problems with the machine function and deteriorating condition of the isolation.
- Take measures, to prevent damage by dampness, by vibrations and by shakes.

2.4.2. Transport and stocking preparations

Close the vice and thoroughly oil all blank surfaces.

Lower the saw frame to the lowest position.

Make sure to empty the machine of all traces of the cooling agent.

Fasten all loose parts securely to the machine.

Pack and wrap the control desk securely to avoid damage during transport.

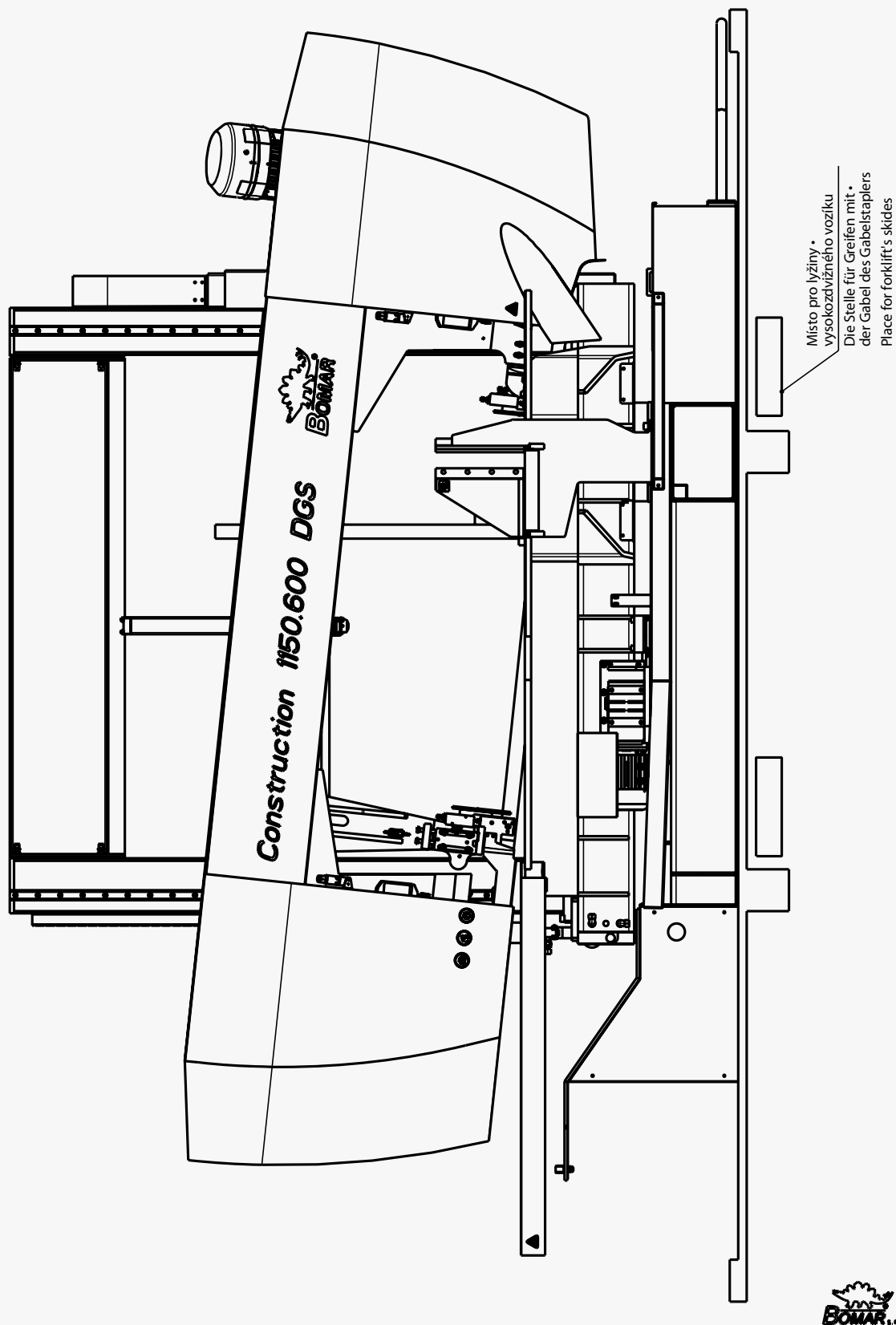
Fix the stickers stating the minimum approximate machine weight to at least five well visible places.

2.4.3. Transport and stocking

The machine must be secured during transportation. Screw on the palette to the floor of the van or the trailer. Be careful that the machine is not damaged during transportation. Store the machine only under conditions mentioned in the manual, to avoid damage of the machine.

It is forbidden to handle the machine any other way, than it is written in this operating instructions, the machine can be damaged.

2.4.4. Transportní schéma /
Transport schema /
Transport scheme



2.5. Activation

2.5.1. Machine working conditions

Keep the conditions of the manufacturer for machine operating! If recommendations are not kept, damage can occur to the machine.

The manufacturer warrants the correct function of the machine for these conditions:

- At temperature air from **5°C to 40°C**, the temperature average during 24 hours must **not exceed over 35°C**.
- At relative dampness of the air in the interval from 30% to 95% (not concentrate). Altitude must be lower than 1000 metres.
- Do not expose the machine to the radiation (for example microwave radiation, ultra-violet radiation, laser radiation, x-ray radiation). Radiation can cause problems with the machine function and deteriorating condition of the isolation.

Attention!

If the ambient temperature drops below 15 ° C is required before operating the machine to have switch on hydraulic unit around 10 minutes and then made several motion few times (for example, in manual mode) by all hydraulic cylinders. The reason is to heat hydraulic oil to the operating temperature for proper function of the pressure switches (and choke).

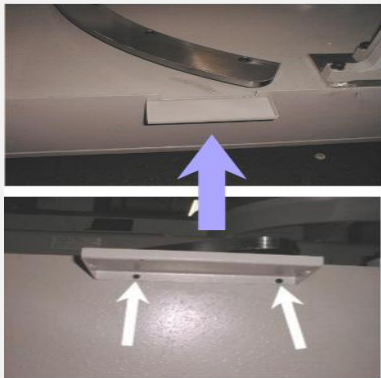
2.6. Band saw unpacking and assembling

Remove the packing from the machine and unpack all parts.

Attention!

Switch off the main switch and lock it, before you start assembly! Otherwise, there is possibility of hazardous machine starting.

If the hydraulic unit is outside the machine (the machine only connected hoses and cables), it needs to be placed and mounted on a solid basis (floors, etc.). The mounting holes are used on the bottom (bases) of the tank.

Picture	How to
	Saw frame blocking Dismantle the saw frame blocking from the machine before band saw operation. Note: Store the holder and screws! Install the saw frame blocking on the machine for band saw displacement! You can avoid the saw frame damage
	Drainage metal plate installing Screw the drainage metal plates on the machine (on both sides). Note: Dismantle the drainage metal plates from the machine for band saw displacement! You can avoid their damage.

2.6.1. Machine installing and levelling

Check the floor supporting capacity before machine installing. If the floor capacity does not agree with requirements, you must prepare the necessary base for the machine.

Minimal requirement:

machine weight – Construction 1150.600 DGS – 5500 kg

+ weight of accessories

+ maximum weight of material

- The machine must be levelled at the horizontal position. All feet of the machine must touch with the floor after levelling
- The machine must be levelled by means of the calibrated spirit level. Spirit level is put on the vice area. Set the roller conveyors according to the spirit level.
- For machine levelling, take care that there is sufficient available space for operation, repair work, servicing of the machine and handling the material..
- The machine including appended parts and accessories must be visible from the place of operation.

2.6.2. Machine disposal after lifetime

Blown out all service fluids (cooling liquid, hydraulic oil) into designated reservoir. Dismantle machine into separate parts and dispose them in accordance with valid directives.

2.6.3. First run of the power pack

Before the first run check:

- The direction of the Pump, while run the power pack for max. 2seconds.
- The cooling fan of the motor has to rotate in the same direction as the arrow on the top of the motor cowling indicates.
- In case of wrong rotational direction, the electrical phase in the connection box is to be changed. This check is required after every disconnection from the power source
- Wiring matches with electrical and hydraulic diagrams
- the electric motors (pump and cooler) are properly connected and have the prescribed rotation
- the hydraulic accumulator with nitrogen gas to the specified value
- aux. elements work right (thermometer, level gauge, heater)

First run (Attention – working pressure on securing valve is set by producer in accoring the hydraulic diagram):

- In the short intervals activate an electric pump
- check for leaks and noise
- Bleed the hydraulic circuit
- if possible, test the circuit function with minimum load
- test the electrical equipment
- during operation monitor measuring equipment, noise, height and temperature of oil in the tank
- During this time a careful bleeding off for the whole hydraulic system is necessary. In case there is no bleeder port, the power pack will bleed itself after a while via the air breather on the tank or the return line filter.
- After multiple start-up.

2.6.4. Filling the reservoir with hydraulic oil

Oil regulations and recommendations of the manufacturer in the technical documentation (appendix) are to be carefully observed. For standard power packs we recommend the oiltype OH-HM32 (DIN 51524) of all known oil manufacturers.

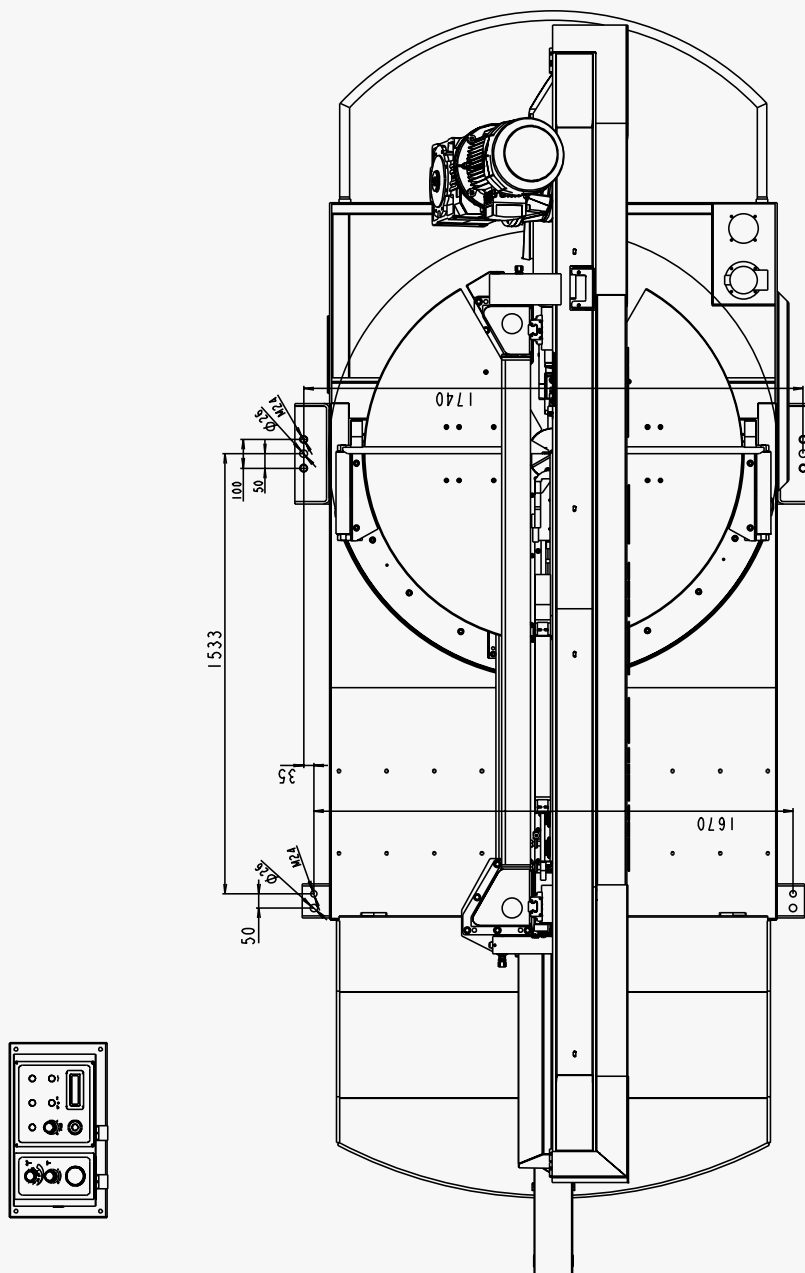
Power packs have to be filled up with clean, pre-filtered oil! The purity of the hydraulic fluid must correspond to the class 10 NAS 1638 (reachable with filter $\beta = 75$)!

Filling from container, such as barrels, buckets, etc. is not recommended or permitted!

The maximum oil level will be shown on the upper marking at the dipstick or the sight level glass. Overfilling has to be prevented. The maximum filling rate of 15 l/min shouldn't be exceed.

Oil type	Kinematic viscosity ν in mm^2/s in relationship to the fluid temperatur					Freezing point
	0°C	20°C	40°C	60°C	80°C	°C
OH-HM 32	220	100	32	15	7	-40
OH-HM 46	400	170	46	18	11	-30
OH-HM 68	700	170	68	26	14	-28
OH-HV 32	180	67	32	17	11	-40
OH-HV 46	350	110	46	25	14	-36

2.6.5. Kotevní plan / Verankerungsplan / Grounding plan



Kotvící materiál / Verankerungsmaterial / Grounding material

- 6x Hmoždina / Dübel / Plug – $\varnothing 26$ mm
- Vrtáno do hloubky / In die Tiefe gebohrt / Drilled to – 180 mm
- Šrouby / Schraube / Screws – 6x M24x70

- Šrouby podložit deskami o min. rozměrech P10x100-100
- Die Schrauben mit Platten mit Minimaldimensionen P10x100-100 unterlegen
- Screw must be bolted with plates (min. dimensions P10x100-100)

Požadavky na rovinnost podlahy / Anforderungen an die Bodenebenheit / Requirements for floor flatness

± 10 mm / 1 m

2.7. Electrical connection

Attention!

Only a qualified professional must carry out the servicing and repairs of the electric equipment! Take special care during work with electrical equipment. High voltage shock can have fatal consequences! Always keep notes about work safety.

Electrical parameters of the machine:

- Service voltage: $\sim 3 \times 400 \text{ V}$, 50 Hz, TN-C-S
- Total input / Max. fuse: 12 kW / 32 A

Before connecting switch off the main switch of the power supply circuit for the machine and ensure dry place when doing connecting works!

Service voltage must agree with the line voltage! Crosscut of the supply line must respond with rated current for max. machine load.

Note:

The values of the crosscut of the conductor and the rated current are in the norms.

Note:

The socket with the fork can be used only at the machines with the rated current less than 16 A and total input less than 3 kW.

In case the machine is connected with a direct connection, an extra main switch must be added which can be locked in zero position.

Attention!

In this case the extra main switch becomes primary and the main switch on the machine has only secondary function.

2.7.1. Check the direction of the saw band



After the machine has been successfully connected, briefly switch on the machine and put the driving engine of the band in the running position. The direction must be in accordance with the arrow direction on the saw band cover. In case the direction of the saw band does not match, two phases at the terminal strip must be switched.

2.7.2. Check machine connection into electrical network



Attention!
 When you connect the machine to the electrical network observe correct connection of all phases!
ENGINE IN IN HYDRAULIC AGGREGATE CANNOT BE OPERATED WITH REVERSE TURNING MORE THEN 10 SECONDS!!!



2.8. Filling of the cooling system

Prepare the mixture of the water and the cooling liquid. Keep the concentration specified by manufacturer. Shift away the cover from the drainage hole. Fill the mixture of the water and the cooling liquid to the tank of the cooling system. Area of the tank for the cooling liquid is discovered from the chapter *Technical data*.

Let the drainage hole opened and with the sieve during operation, because it secures the right work of the cooling system. Filling the tank with the cooling liquid, take care that the liquid does not drip out of the tank and the tank does not overflowed.

Note

If the machine is equipped with Micronising unit, fill the Microniser container with prescribed cooling agent. Microniser is ready for operation.

2.9. Check machine function

Check, if the machine or some parts of the machine were not damaged during transport.

Check, if covers are installed and functional. Check by means of the Tenzomat if the saw band is correctly stretched. If it is necessary, you can stretch the saw band according to chapter *Selection and replacement of the saw band*. Values of the saw band stretching are on the Tenzomat. Switch on the main switch and check the motors and systems (saw band drive, hydraulic pump, cooling pump, chips conveyor).

Open and close the main vice. Turn the saw frame of the band saw from one outer position to other outer position. Raise the saw frame to the top position and drop the saw frame to the lowest position.

Start the machine with the cooling pump and let it run without load until the cooling system will be filled with cooling liquid. As soon as the cooling liquid starts to escape from the nozzles of the cooling system, the cooling system is ready for the operation. Carry one cycle of cutting without material. Check, if the machine runs with no irregularities. If all machine functions are right, the machine is ready for operation..

2.10. Saw band

Refit the saw band cover only after you have installed and tightened the saw band.

2.10.1. Saw band size

8370×54×1,6 mm



2.10.2. Selection of the saw band tooth system

The manufacturers provide the saw bands with constant and variable tooth system. The important factor for selection of the tooth system is length of the cutting canal with respect to the size of the product

1. *Constant tooth system* – the saw band has parallel tooth pitch all over length. This way is suitable for cutting of solid material.

BOMAR recommended Variable tooth system for band saw.

2. *Variable tooth system* – tooth pitch is variable. Variable tooth system is used for profiled materials and bundle cutting. Variable tooth pitch lowers vibration of the saw band, increases service life of the saw band and quality of the cutting area.

In tables, there are advised type of the tooth system depending on sizes and form of the cutting material.

Footnotes:

Z_pZ – teeth number on one inch S – tooth with zero angle of the teeth K – tooth with positive angle of the teeth

Examples of the tooth system marking:

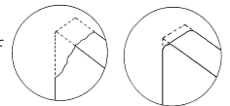
32 S – number „32“ means 32 teeth on one inch (that means constant tooth system), letter „S“ marks teeth with zero angle of the tooth.

4–6 K – number „4–6“ means 4 till 6 teeth on one inch (that means variable tooth system); letter „K“ marks teeth with positive angle of the teeth.

2.10.3. Saw band running-in

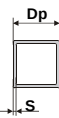
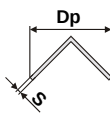
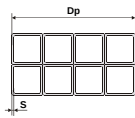
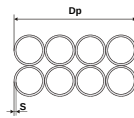
Running-in: Cut the material with the frame lowering reduced to 50% only. When vibrations occur increase or decrease the band speed.

When cutting small pieces run the band until approximately 300 cm² of material has been cut. When cutting large pieces run the band for 15 minutes approximately. When the band has been run, increase the lowering-speed to normal speed. The running in of the saw band avoids micro-breaks on the cutting edges of new saw band ensuing from first excessive stress. This would decrease service life substantially. The optimal running in of the saw band produces ideal rounded cutting edges and therefore the conditions for an optimal service life.

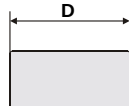
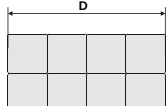
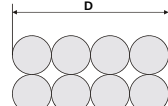


Note: Run regrinding saw bands too.

2.10.4. Tables for teeth selection

SHAPED MATERIAL ($D_p, S = \text{mm}$)						
						
Note: Table shows tooth system selection for cutting one piece of the profile. For cutting of more pieces of the profiles (bundle), you must think of the size of the wall as double size of the wall of one profile (that means, size „S“ equates to 2xS). In table, there are tooth systems constant and variable.						
Size of the wall S [mm]	Tooth system (Z_pZ) Outer diameter of the profile D_p [mm]					
	20	40	60	80	100	120
2	32 S	24 S	18 S	18 S	14 S	14 S
3	24 S	18 S	14 S	14 S	10–14 S	10–14 S
4	24 S	14 S	10–14 S	10–14 S	8–12 S	8–12 S
5	18 S	10–14 S	10–14 S	8–12 S	6–10 S	6–10 S
6	18 S	10–14 S	8–12 S	8–12 S	6–10 S	6–10 S
8	14 S	8–12 S	6–10 S	6–10 S	5–8 S	5–8 S
10	-	6–10 S	6–10 S	5–8 S	5–8 S	5–8 S
12	-	6–10 S	5–8 S	5–8 S	4–6 K	4–6 K
15	-	5–8 S	5–8 S	4–6 K	4–6 K	4–6 K
20	-	-	4–6 K	4–6 K	4–6 K	3–4 K
30	-	-	-	3–4 K	3–4 K	3–4 K
50	-	-	-	-	-	3–4 K

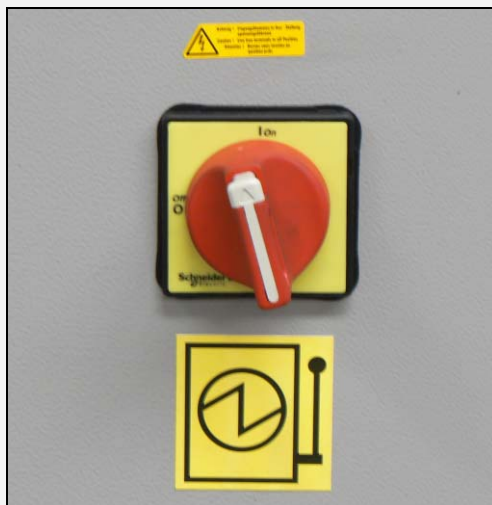
Size of the wall S [mm]	Tooth system (Z_pZ) Outer diameter of the profile D_p [mm]					
	150	200	300	500	750	1000
2	10–14 S	10–14 S	8–12 S	6–10 S	5–8 S	5–8 S
3	8–12 S	8–12 S	6–10 S	5–8 S	4–6 K	4–6 K
4	6–10 S	6–10 S	5–8 S	4–6 K	4–6 K	4–6 K
5	6–10 S	5–8 S	4–6 K	4–6 K	4–6 K	3–4 K
6	5–8 S	5–8 S	4–6 K	4–6 K	3–4 K	3–4 K
8	5–8 S	4–6 K	4–6 K	3–4 K	3–4 K	3–4 K
10	4–6 K	4–6 K	4–6 K	3–4 K	3–4 K	2–3 K
12	4–6 K	4–6 K	3–4 K	3–4 K	2–3 K	2–3 K
15	4–6 K	3–4 K	3–4 K	2–3 K	2–3 K	2–3 K
20	3–4 K	3–4 K	2–3 K	2–3 K	2–3 K	2–3 K
30	3–4 K	2–3 K	2–3 K	2–3 K	1,4–2 K	1,4–2 K
50	2–3 K	2–3 K	2–3 K	1,4–2 K	1,4–2 K	1,4–2 K
75	-	2–3 K	1,4–2 K	1,4–2 K	1,4–2 K	0,75–1,25 K
100	-	-	1,4–2 K	0,75–1,25 K	0,75–1,25 K	0,75–1,25 K
150	-	-	-	0,75–1,25 K	0,75–1,25 K	0,75–1,25 K
200	-	-	-	0,75–1,25 K	0,75–1,25 K	0,75–1,25 K

SOLID MATERIAL ($D = \text{mm}$)				
				
Constant tooth system		Variable tooth system		
length of the cut D	tooth system (Z_pZ)	length of the cut D	tooth system (Z_pZ)	
to 3 mm	32	to 30 mm	10–14	
to 6 mm	24	20–50 mm	8–12	
to 10 mm	18	25–60 mm	6–10	
to 15 mm	14	35–80 mm	5–8	
15–30 mm	10	50–100 mm	4–6	
30–50 mm	8	70–120 mm	4–5	
50–80 mm	6	80–150 mm	3–4	
80–120 mm	4	120–350 mm	2–3	
120–200 mm	3	250–600 mm	1,4–2	
200–400 mm	2	500–3000 mm	0,75–1,25	
300–800 mm	1,25			
700–3000 mm	0,75			

3. **Machine control**

3.1. Starting the band saw

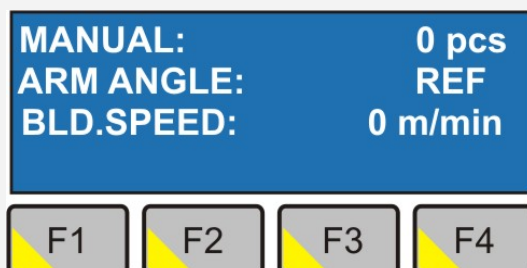
- » 1. Switch on the main switch of the band saw. The main switch is situated on the side of the switchboard.



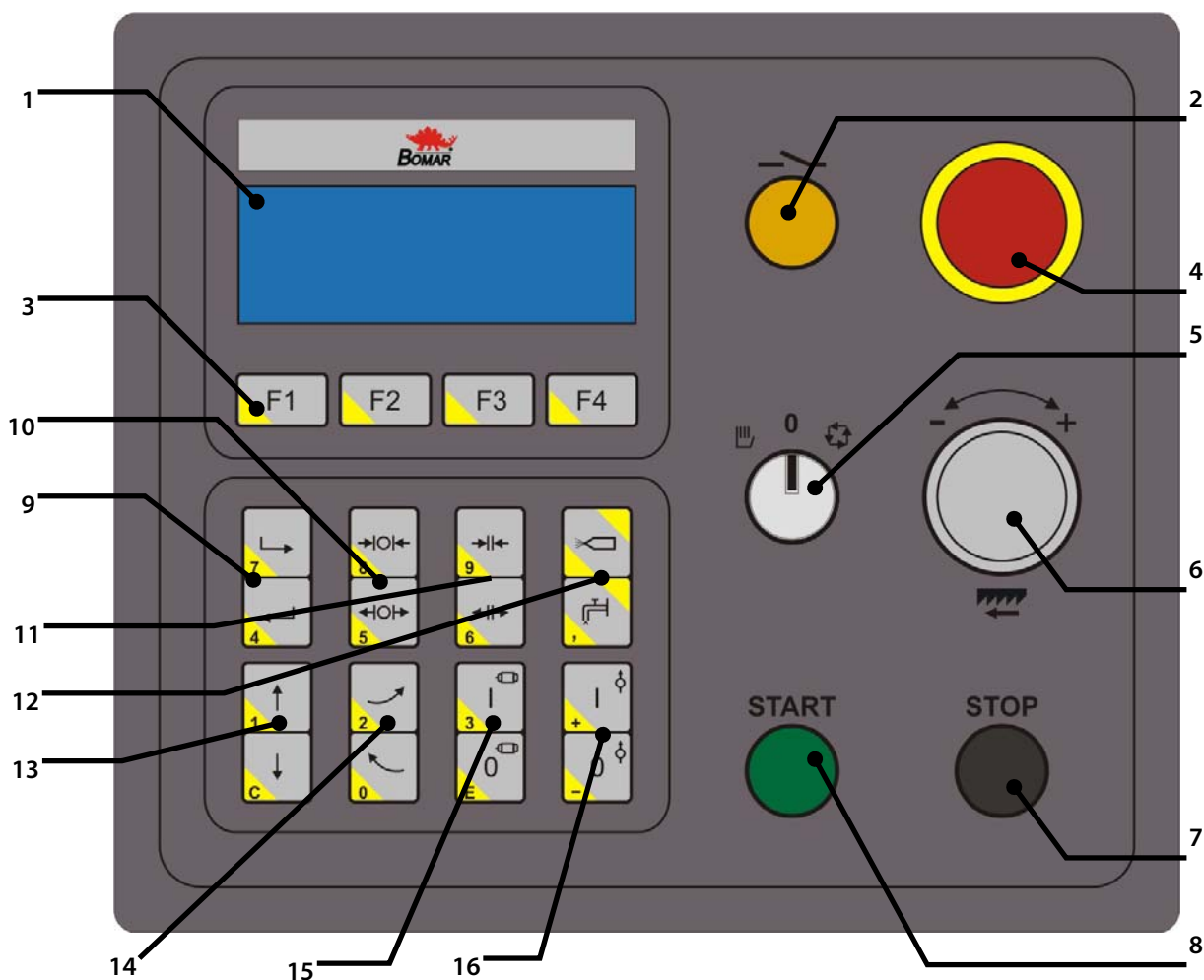
2. Switch on the safety circuit of the band saw (button **2** – control panel of the band saw).



3. When is saw switched into manual mode and the machine is not referenced on LCD is displayed this:



3.2. Control panel



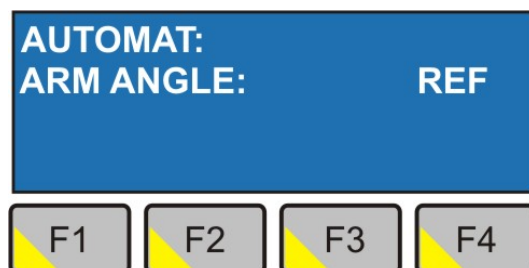
1	Display Onto display are described all processes.
2	Safety circuit switching on Switch on the safety circuit by pressing button.
3	Context keys F1, F2, F3 and F4
4	TOTAL – STOP button In emergency causes the machine must be immediately switched off.
5	Saw's operating mode Switch to the left selects manual mode, switch to the right selects In the middle position "0" can be preformed machine maintenance tasks.
6	Frequency convertor Turn to change the speed of the saw band.
7	STOP - Switch off the engine of the band saw
8	START - Switch on the working cycle
9	Moving with vice left or right In manual mode must be vice moved aside in other case there is risk of collision saw arm with vice. In automatic mode vice is moved automatically.

10	Open / close vice Vice is opened or close after pressing this button
11	Without function
12	Cooling system selection You can select from three possibilities:  Cooling with Microniser Cooling with water
13	Move up/down the saw arm
14	Rotate with saw arm
15	Turn drive of saw blade ON/OFF
16	Turn hydraulic ON/OFF

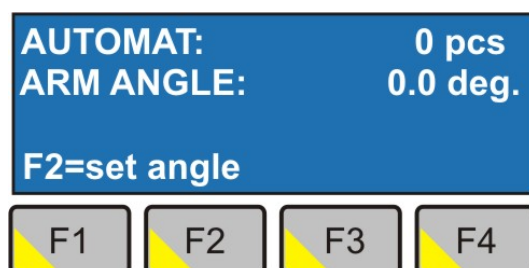
3.3. Machine control

3.3.1. Referencing machine

Automatic mode works only if machine is properly referenced. Referencing process begin when is **"Saw's operating mode"** switcher first turned into automatic mode.



1. When is first time chosen automatic mode, on LCD is not shown angle but text REF and Start button is blinking.
2. Push Start button, referencing movement begin – saw arm is lifted to the upper pos., vice is fully opened and moved into right position, saw arm is turned into max. right position and then into 0° position.



3. Referencing process is done and saw is referenced until is not switched off.

3.3.2. Manual mode

If is machine properly referenced on LCD is displayed simile informations.

MANUAL: 0 pcs
ARM ANGLE: 14.5 deg.
BLD.SPEED: 0 m/min



In manual mode operator can control all saw devices and movement on control panel.

3.3.3. Working cycle

» **Nastavení úhlu:**

- After switch machine into  operator can saw ar mangle by **F2** button.

AUTOMAT: 0 pcs
ARM ANGLE: 0.0 deg.
<+/-> 0.0 deg. <OK>



- Angle value is entered by numerical keyboard
- F1** change angle direction – + is turning into right (CCV) / - is turning into left (CV)
- F4** enter angle value into control system.

AUTOMAT: 0 pcs
ARM ANGLE: 60.5 deg.
<ESC> Press START



- By F1 you can change angle again
- Start button now blinking. By pushing Start button arm is rotated to the desired angle.
- Start button must be pushed during rotation or rotation will be interrupted.

AUTOMAT: 0 pcs
ARM ANGLE: 60.5 deg.
F2=set angle



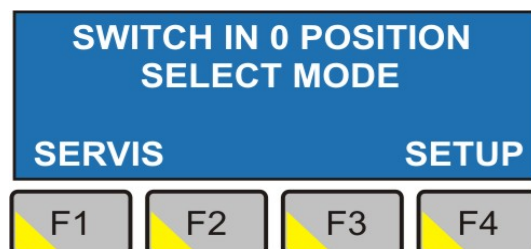
- When rotation finished, similar screen is displayed and cutting process can begin. By F2 operator can make angle correction.

Cutting process:

1. Switch into manual mode.
2. Insert material (Insert into vice, clam material, lower saw arm above material, ...)
3. Switch machine into automatic mode.
4. Push START button for begin working cycle

3.4. Machine setup

Machine setup mode is activated by switch on control panel. Switch must be in "0" position.



After switching into position "0" is displayed on LCD this screen.

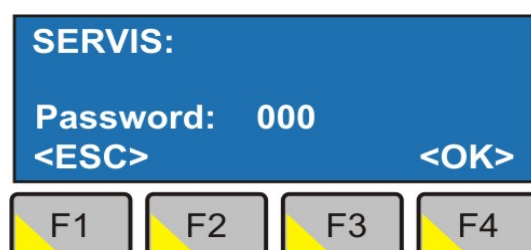
Service parameters are password protected. Setup parameters are common saw parameters and are not password protected.

Password:	947
-----------	-----

3.4.1. SERVIS

On LCD	Description
Switch off motor: * Up. position Down position <ESC> > F1 F2 F3 F4	Turn off motor after cut: - Up position – saw arm move up after cut and then turn off drive of saw blade. - Down position – drive of saw band turn off immediately after cut. F1 go back, F4 next menu screen
Switch off hydraulic: * 5 min 30 min < don't switch off > F1 F2 F3 F4	Switch off hydraulic: - Choose time when will be hydraulic on saw turned off F1 go back, F4 next menu screen
Language HMI: * Cesky Deutsch < English > F1 F2 F3 F4	Language: - Choose menu language F1 go back, F4 next menu screen

3.4.2. SETUP



After choose Service parameters is displayed this ask for password. If the entered password is correct next screens are displayed.

On LCD	Description
SERVIS: DEVIATION OF REFER. 58.5 <ESC> <OK> > F1 F2 F3 F4	Deviation references given angle (in this case 58.5 degrees) as the difference between the zero angle and the angle of the reference switch. This switch is located near the right end position of the arm. F1 go back, F4 next menu screen, F2 enter value
SERVIS: Pulse/degree: 404 <ESC> <OK> > F1 F2 F3 F4	Pulse/degree – the number of pulses per step, gives a linear resolution sensors used for measuring the angle of arm, in this case the 404th Both these parameters are crucial to the accuracy Impact of saw arm angle. F1 go back, F4 next menu screen

3.5. Machine error messages

Error	Information
SAFETY BUTTON is OFF F1 F2 F3 F4	Safety button (pos. 2 on kontrol panel) is not ON. Press F4 to confirm error.
TOTALSTOP pressed F1 F2 F3 F4	Total Stop button is active. Turn button TOTAL STOP according to the arrows. Press F4 to confirm error.
Blade tension faulty F1 F2 F3 F4	Saw blade in properly tensioned. Press F4 to confirm error.
Faulty motor protec. F1 F2 F3 F4	Engine temperature protection is active. Do not overload saw! Press F4 to confirm error.

3.5.1. Cycle breaking

»

- **STOP button**

Semi-automatic cycle is interrupted by pressing button **STOP** of the semi-automatic cycle).

The arm is lifted to the top position and the saw band drive is stopped.

By pressing button **START of the semi-automatic cycle**, you can start the cycle.

- **TOTAL STOP button**

In case of the risk, press button **TOTAL STOP**

After pressing **TOTAL STOP** button, saw band drive is immediately broken and the arm sinking is stopped.

- **Reactivation**

1. Turn button **TOTAL STOP** according to the arrows (on the button).
2. Switch on the safety circuit by button „2“.
3. By pressing button **START**, you can start the cycle. The arm is lifted to the top position and the saw band starts the cycle.

3.6. Band saw adjusting

3.6.1. Setting of the top clamping

Top clamping is used for material clamping from above. Piston rod of the top clamping is possible to stop in top position and the material is possible to clamp only with vice jaws..

Setting of the top clamping

Top clamping is necessary to shift according cut angle, the piston rod of the top clamping must to clamp the material in middle its width.

Note! By wrong setting of the top clamping may occur to the contact of the piston rod of the top clamping and fixed jaw of the vice, piston rod may be damaged.

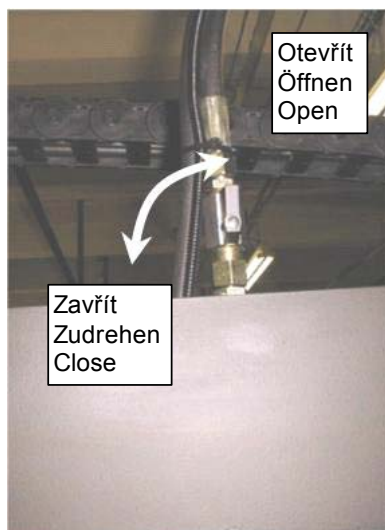
1. Switch on the machine and turn the mode switch to the position „“.
2. Open the vice and top clamping.
3. Turn the saw frame to the desired angle.
4. Insert the material to the vice.



5. Shift top clamping. It must be in the middle width of the material.
6. Clamp the material to the vice. Piston rod must to clamp the material in middle its width.
7. Setting of the top clamping is ready.

Piston rod stopping of the top clamping

8. Switch on the machine and turn the mode switch to the position .
9. Open the vice and top clamping. Piston rod of the top clamping must be inserted to the cylinder



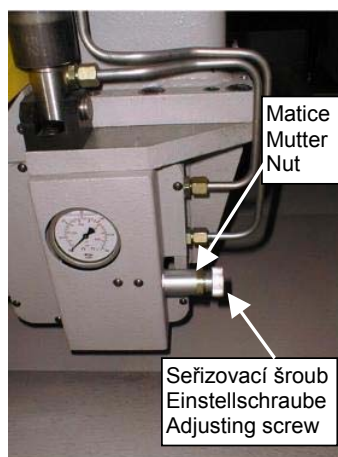
10. Close the tap on the supply line of the top clamping.
11. Top clamping is secured in top position and the material will be clamped only with vice jaws.

3.6.2. Setting of the clamping pressure of the vice

The band saw Construction 1150.600 DGS is equipped with the vice with adjustable clamping pressure. It makes possible to change the clamping pressure of the vice according to the type and sizes of the cutting material. Recommended value of the clamping pressure is **20 – 30 bar** (see barometer).

Note! Setting of the lower clamping pressure may cause insufficient material clamping and problems during cutting. Setting of the high clamping pressure may cause damage the clamping material.

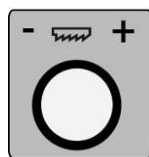
Setting of the vice clamping pressure



1. Switch on the machine and turn the mode switch to the position .
2. Close the vice and top clamping.
3. Release the securing nut of the adjusting screw.

4. Set the desired pressure by adjusting screw. Setting pressure shows the barometer.
5. Tighten the adjusting nut of the adjusting screw. The pressure is set.

3.6.3. Cutting speed adjusting



Speed of the saw band is possible change from **15–90 m/min.** You can effect to adjusting speed of the saw band following.

Use the frequency convertor to adjust requested speed of the saw band. You can see the speed on display.

Attention!

At least once a week set the saw band speed from the lowest up to the highest speed.

3.6.4. Adjustment of pressure to the cut

The band saw **Construction 1150.600 DGS** is equipped with cutting pressure regulation on the control.

- **Lower pressure to the cut** – turn the screw clockwise.
- **Higher pressure to the cut** – turn the screw contra-clockwise.

3.6.5. Speed adjustment of the arm lowering

Set the speed of the arm lowering to the cut by control valve on the control panel.

Set the lower speed of the arm lowering to the cut by turning the switch clockwise.

Set the higher speed of the arm lowering to the cut by turning the switch anti-clockwise.

Notice:

If you keep closing the throttle valve too tightly, the valve seat may wear off which causes its leakage. Therefore, close the valve always gently.

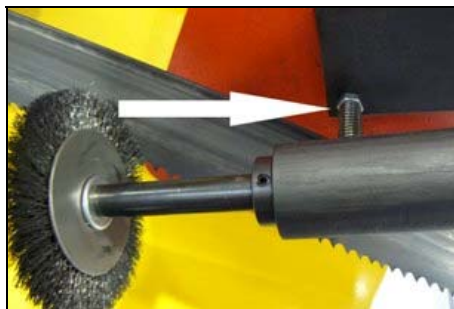
3.6.6. Saw frame lift stop setting

If you want to shorten the time of operations in automatic cycle, you have to adjust the height of the saw arm according to the height of the cutting material.

1. Lift the saw arm to the upper position.
2. Insert a material into the vice. Carefully lower the saw arm near the material.
3. Stop the saw arm 10mm above the material.
4. The lift stop setting is sensed by the limit switch.

3.6.7. Brush adjustment

The brush for chip removal from the saw band influences cutting durability, saw band lifetime and wheels lifetime, hard metal guides and finally the cut accuracy. Brush adjustment must be checked every shift.



1. Release the fixative screw of the brush. It is possible to move with the brush.
2. Set the brush to the saw band according to the picture.

Attention!

*The brush **must not** touch the bottom of the saw teeth!*

3. Tighten the fixative screw.
4. In case, that the brush is not turned right (driving wheel slips on the driving wheels of the saw band), push by means of the screw (see arrow) driving wheel of the brush to the driving wheel of the saw band.

Attention!

The screw must not be tightened with heavy force, because driving wheel of the brush can be damaged or the lifetime of the bearings of the driving wheel of the band can be lowered!

3.7. Material insertion

- Never walk under a suspended load!
- Never climb onto the gravity-roller conveyor!
- Do not hold the material for clamping material to the vice! The vice can cause injury!

3.7.1. Handling agent selection

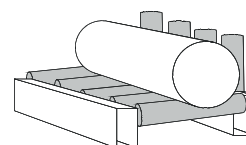
- Use the strong handling agents to lift and transfer the material!
- Handle with the material only with the lift truck or use the suspension strands and the crane!
- Do not use the lift truck or crane in case that you do not have the license to handle with it!

3.7.2. Insertion

Insert material to the vice and ensure that the material cannot move in the vice or fall from the vice after the clamping. If you cut long pieces of the material (for example rod, tube), you must use the roller conveyors for material shifting to the band saw. Contact Bomar for more information about roller conveyors

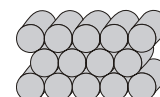
Make sure the conveyor is long enough and the material cannot tip off the conveyor.

Be especially careful with round materials that it always stays on two vertical rollers and that it cannot fall off the conveyor!



3.7.3. Bundle material cutting

If you want to cut the material in the bundle, there are suggestions for the positioning of bundles

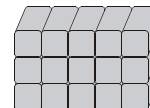
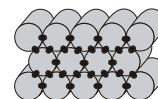


Round material bundle: Take care especially with round material that the bars are put according to the picture. If the bars are put differently, you may have problems with movement.

Always weld the material at the rear end of the bundle to secure it from moving.

Before welding always, switch the machine off at the main switch! The magnetic fields, which often occur during welding, may damage the controls!

Square material bundle:



Attention:

Not all material shapes are suitable for bundle cuts. Keep the recommendation of your supplier of the saw bands for material insertion to the bundle.

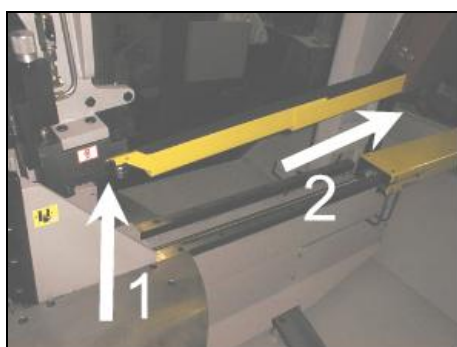
4. Machine service

4.1. Saw band dismantling

1. Lift the saw frame into top position.



2. Turn mode switch into pos. 0.
3. Push F2 button. Now operator can use buttons on saw frame. Blade tensioning can also be controlled from the control panel by pressing F1 and F4



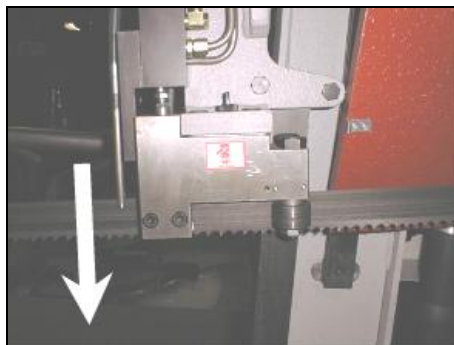
4. Unscrew the screw on the cover of the yellow blade (arrow 1).
5. Open saw frame covers.



6. Loosen the bolt securing the position of the brush and turn the brush.
7. Loosen saw blade by buttons on saw frame or F1/F4 buttons on control panel.



8. Remove saw blade from both wheels.



9. Remove saw blade from guiding cubes.

4.2. Saw band installation

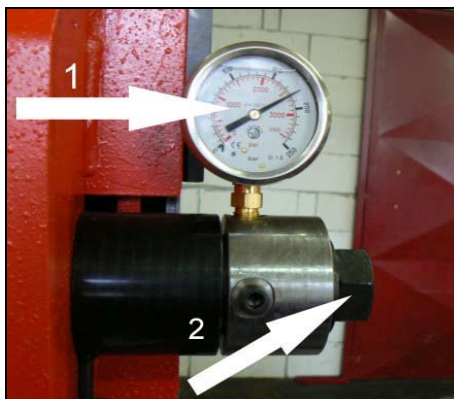
1. Prior to installation, clean all track wheels, guide cubes and inner side of the arm thoroughly of all traces of chips and dirt. *Keep in mind the teeth direction when installing the saw band.*
2. Turn mode switch into pos. 0.
3. Push F2 button. Now operator can use buttons on saw frame. Blade tensioning can also be controlled from the control panel by pressing F1 and F4
4. Insert new saw band in the guide cubes. Make sure the saw band runs between both guide rollers and it is pushed all the way to the top.
5. Put the saw band on both guide wheels. Make sure that the saw band ridge fits tightly to the wheel rim. Then push the saw band as far back as possible.
6. Stretch the saw band by buttons on saw frame or F1/F4 buttons on control panel.
7. Install yellow protective cover of the band.
8. Move the brush to the saw band. Tighten the securing screw.
9. Close the covers of both driving wheels.
10. Saw band installation is finished.

4.3. Saw band stretching and inspection

Right saw band stretching is one of the most important criteria's, which influences accuracy and saw band service life. Stretch the saw bands according to the selected saw band and the band saw. Keep the recommendation of your manufacturer.

4.3.1. Saw band stretching

- Switch on the hydraulic aggregate after the saw band installation check the saw band stretching on the manometer (arrow 1).



- Use the buttons on saw frame or F1/F4 buttons on control panel to stretch the saw band until it is stretched to the recommended value.

4.3.2. Saw band inspection

Check the saw band in the guiding cubes and on the wheels

1. Check, if the saw band is right in the guiding cubes..
2. Switch on the saw band drive and then after 10 seconds switch off saw band drive. If the saw band drive is not possible to switch on, set the limit switch of the saw band stretching.
3. Switch off the main switch.
4. Open cover(s) of the wheels and check position of the saw band on the both wheels.
 - If the distance between backside of the saw band and the offset wheel is **1 mm**, setting is right..
 - If the distance is bigger than **1 mm**, or the saw band is on the offset of the wheel, set the saw band.
5. Close cover of the saw band.

4.3.3. Saw band run setting



Saw band run is set with screw (arrow) in the stretching cube on the saw arm. Right distance rear part of the saw band from wheel rim is **1 – 3 mm**.

- Turn with the screw to the right, the saw band is closer to the stretching wheel rim.
- Turn with the screw to the left, the saw band is far from the stretching wheel rim

Check saw band run adjustment again.

4.3.4. Adjusting of the limit switch of the saw band stretching

After the saw band is replaced, the saw band stretching must be checked. If the limit switch is not adjusted correctly, the band is stretched too little or too much.



- Tighten the saw band by means of the TENZOMAT on the optimal value (table is on the Tenzomat).



- If the drive engine is switched on, but it is not running, turn with the screw clockwise, until the engine begins run..
- If the drive engine is possible switched on, turn with the screw anticlockwise, until the engine is stopped and then turn with the screw clockwise, until the engine begins run.

4.4. Cooling agents and chips disposal

The quality of the cooling agent will deteriorate due to:	If the solution is too weak:	If the solution is too strong:
• use of contaminated water • impurity • outside oil contamination (hydraulics, gears) • high operating temperatures • lack of air circulation • wrong concentration	• corrosion protection is diminished • lubrication decreases • microbial attack is more likely	• the cooling ability is decreased • foam behaviour increases • emulsions stability deteriorates • sticky residue develops

4.4.1. Coolant device inspection

The state of the cooling agent has significant influence on the cutting quality and on the operational life of the machine. Lifetime of the cooling liquid is 1 year, after this time we recommend change the cooling liquid. This time is dependent on the degree of pollution cooling liquid (especially with oils) and on the other factors.

Check level of the cooling liquid and function of the pump periodically!

Note:

If the state of the cooling liquid is not satisfactory, the cooling liquid must be changed.

Check the state of the cooling agent according to the following table:

Testing	Interval	Method	Condition	Precaution
Liquid level	daily	visually	too low	after concentration check, refill with water or emulsion
Concentration	daily	refractometer densimeter	too high too low	refill water refill base emulsion
Smell	daily	by sense of smell	unpleasant smell	good ventilation, add biocides or renew coolant
Contamination	daily	by sense of smell	visible oil leaks, sludge fungi	surface cleaning, fix leaks, add biocides or fungicides, or coolant renewal after added system cleanser*
Corrosion-protection	when necessary	visually chip test Herbert-test	insufficient corrosion protection	test stability, if necessary – increase concentration or pH value
Stability	when necessary	refractometer	oiling	add concentrate, enquiries to supplier
Foam reaction	when necessary	shaking test	too much foam, foam disperses too slowly	avoid aeration, increase water hardness, ix with defoamer

* According to manufacturers' instructions

4.4.2. Chips disposal

Chips resulting from cutting operations must be disposed of in accordance with the relevant regulations.

- Let the chips drip excess fluid!
- Fill a watertight container with the chips! Be careful that the container does not leak, because even after a long dripping time, they still contain coolant residue.
- *Place the container into the care of a disposal company equipped for the disposal of chips contaminated with cooling liquid.* In case the machine is equipped with micro-spray installation, the chips must also be handed over to a disposal company.

4.5. Hydraulic, Greases and oils

4.5.1. Gearbox oils

In gearboxes, oil is used for the whole lifetime of the gearbox. We recommend replacing of the filling oil in case of repair.

Use oils with specification DIN 51517 in the gearboxes. Select the viscosity grade ISO VG according to the original oil fill.

Attention:

When replacing, use oils recommended by BOMAR or oils, which has comparable parameters from the other manufacturers. Do not forget, that mineral and synthetic oils must not be mixed!

Recommended oils and quantity according to the type of the band saw

Band saw	Gearbox oil	Capacity
Construction 1150,600 DGS	Shell Tivela S 320	10,5 l
Swarf conveyor	Shell Tivela S 320	0,075 l

Comparative table of the gearbox oils

Manufacturer	Viscosity grade		
	ISO VG 100	ISO VG 220	ISO VG 320
BP	Energol GR-XP 100	Energol GR-XP 220	Energol GR-XP 320
Castrol	Alpha SP 100 Alpha MW 100	Alpha SP 220 Alpha MW 220	
Elf	Reductelf SP 100	Reductelf SP 220 Reductelf Synthese 220	Reductelf SP 320
Esso	Spartan EP 100	Spartan EP 220	Spartan EP 320
Mobil	Mobilgear 627	Mobilgear SHC 220 Mobilgear 630	Mobilgear 632
ÖMV		PG 220	
Paramo	PP 7	Paramo CLP 220	Paramo CLP 320
Shell	Shell Omala 100	Shell Omala 220 Shell Tivela S 220	Shell Omala 320 Shell Tivela S 320
Total	Carter EP 100	Carter EP 220	Carter EP 320

4.5.2. Lubricant greases

We recommend using lithium based saponified grease, class NGLI-2 for lubrication. Different greases are mixable, if their oil bases and consistence type are identical.

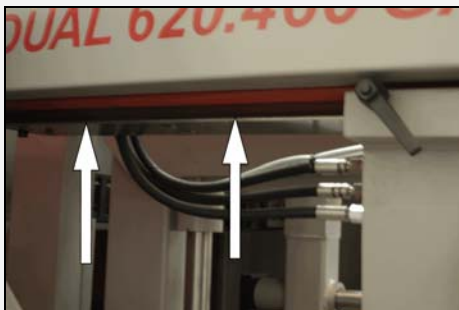
Comparative table of the lubricant greases:

Manufacturer	Type of the lubricant grease
BP	Energ grease LS - EP
DEA	Paragon EP1

Manufacturer	Type of the lubricant grease
Esso	FETT EGL 3144
	Beacon EP 1
	Beacon EP 2
FINA	FINA LICAL M12
Klüber	Microlube GB0
	Staburags NBU8EP
	Isoflex Spezial
Optimol	Optimol Longtime PD 0, PD1, PD2
Shell Aseol AG	ASEOL Litea EP 806-077
Texaco	Multifak EP1

4.5.3. Lubrication

There are several places on the machine, which are necessary to grease periodically. It secures the right function of the machine.

Lubrication place	Lubrication
	The guiding cubes leading – grease with oil from both sides once a week.
	The linear guiding of the saw arm – lubricate with grease once a three months (see chapter Lubricant greases). Use 3-5g grease on the every carriage of the linear guiding. Use the grease gun to the lubrication. Drive 3-5 times whole line of the linear guiding during lubrication.



Nicht schmieren! Die Leiste der Rotation des Sägearms ist weder mit Ölen noch Fetten zu schmieren.

4.5.4. Hydraulic oils

Replace the hydraulic oil once in 2 years, because the oil can deteriorate its properties and cause problems the hydraulic equipment. If the hydraulic system is equipped with filter (2SF 56/48-0,063), replace the filter too.

Use oils with specification DIN 51524-HLP, ISO 6743-4 and viscosity grade ISO VG 46 in hydraulic aggregates. Hydraulic oils quantity – see chapter **Hydraulic oil level check**.

Note:

When replacing, use oils recommended by BOMAR or oils, which has comparable parameters from the other manufacturers. Do not forget, that mineral and synthetic oils may not be mixed!

Comparative table of the hydraulic oils

Manufacturer	Type	Manufacturer	Type
Agip	Oso 46	Ina	Hidraol 46 HD
Aral	Vitam GF 46	Klüber	Lamora HLP 46
Avia	Avilub RSL 46	Hungary	Hidrokomol P 46
Benzina	OH-HM 46	Mobil	Mobil DTE 25
BP	Energol HLP 46	ÖMV	HLP 46
Bulgaria	MX-M/46	Poland	Hydrol 30
Castrol	Hyspin AWS 46	Rumania	H 46 EP
Čepro	Mogul HM 46	Russia	IGP 30
DEA	Astron HLP 4hy6	Shell	Tellus Oil 46
Elf	Elfolna 46	Sun	Sunvis 846 WR
Esso	Nuto H 46	Texaco	Rando HD B 46
Fam	HD 5040	Valvoline	Ultramax AW 46
Fina	Hydran 46		

4.5.5. Hydraulic unit service

After 50 hours working time, or the latest 3 month after the first run, the first service should be carried out. This includes:



- checking off all screws and connections, fixing points, tubes and hoses for leakage
- Check hydraulic oil level
- During time of duty the oil temperature shouldn't exceed 60-70°C
- check function of signaling components (thermometer, level gauge, dirty filter indicator)
- Check the adjustment of working pressure

To realise a high reliability of the power pack, the manufacturer lays down following inspection intervals

Interval	daily	weekly	monthly	three monthly	six monthly	annually
Hydraulic fluid						
Level	-	•	-	-	-	-
Temperature	-	•	-	-	-	-
Condition	-	-	•	-	-	-
Change interval	-	-	-	-	-	•
Filter						
Change interval	-	-	-	-	-	-
Other checks						
External Leakages	•	-	-	-	-	-
Contamination	•	-	-	-	-	-
Damages	•	•	-	-	-	-
Noise-(level)	•	-	-	-	-	-
Gauges	-	-	•	-	-	-

4.6. Machine cleaning

Clean the machine from the cooling liquid and impurities after every shift stopping. Conserve the guiding surfaces, mainly.

- Clamping jaws guiding of the vice.
- The guiding of the feeder.
- Loading surface of the vice.

4.7. Worn pieces replacement

4.7.1. Pushing bearing replacement

If it is impossible to adjust the bundle gripping assembly and the pushing bearing is worn, it needs to be replaced.

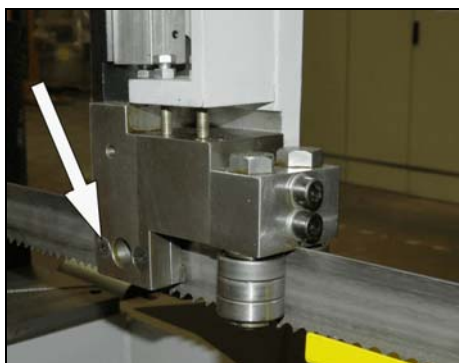


The bearing condition is possible discover, on the cube from the bottom side, for a better inspection is possible to put out the holder of the bearing from the cube.

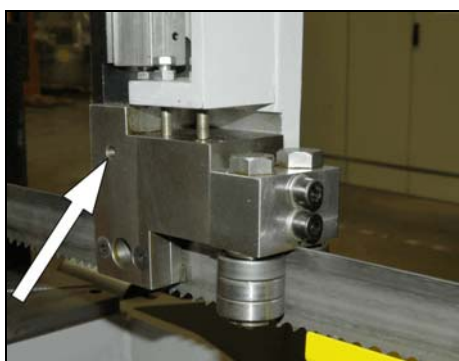
If the bearing is worn, there is a visible channel on it.

Bearing replacement:

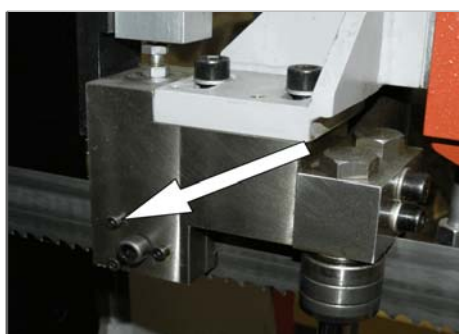
1. Dismantle the saw band.



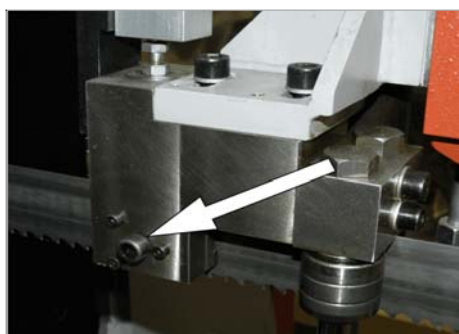
2. Release 2 Screws from hardmetal plate.



3. Release fixing screw with IMBUS (see arrow).



4. Release all 3 screws (see arrow).



5. Release center M10 screw after remove retaining ring. Remove hardmetal holder and bearing from bottom



Attention:

The vice has aluminium jaws, eventually, there has to be an aluminium agent to protect the pivot from damage.

6. Insert the pivot to the vice.
7. Remove the bearing pivot from the bearing holder by means of the swager.



8. Remove the worn bearing.
9. Fasten the holder to the vice.

Attention:

The vice has aluminium jaws, eventually, there has to be an aluminium agent to protect the pivot from damage.

10. Insert the bearing and washers and return the pivot to its original place.
11. The pivot may not extend past the holder; otherwise, the bundle gripping assembly regulator gets worse.

4.7.2. Saw band guiding pulleys replacement

If the saw band is not sufficiently guided by guiding pulleys or if the pulleys are obviously worn, the pulleys should be replaced.

Attention:

Guiding pulleys must be replaced together on both guiding cubes!



1. Release rear holder with 2 screws (see arrow). Dismantle the guiding cube of the saw band.



2. Tighten the guiding cube to the vice and dismantle both eccentrics with bearings following way.

Attention:

*Mark both eccentrics placing and components on the eccentric!
Eccentrics must not be replaced with each other!*

3. Screw off nuts from eccentrics.
4. Remove eccentrics from bearings by means of the swager.



5. Change all bearings and other worn parts.
6. Install eccentrics to the cubes. Install components on both eccentrics in given order. Put bearings by means of the preparation on eccentrics.

Attention:

Do not replace the eccentrics placing in the cube.



7. Screw on nuts on both eccentrics and tighten them.



8. Insert the saw band to the guiding cube (cca 15 – 20 cm). Secure the movable hard metal guide with scotch so, that the saw band is pressed with guides and it is possible to move with saw band.
9. Set the eccentrics by means of the wrenches, the saw band must run in the centre. Guide pulleys must not press too much on the band, but must spin freely during the band run.

Optimal distance between the band and the pulley is 0,05 mm.

10. Tighten nuts on both eccentrics.
11. Remove the testing piece of saw band from the cube lead. Install the guiding cube on the machine.

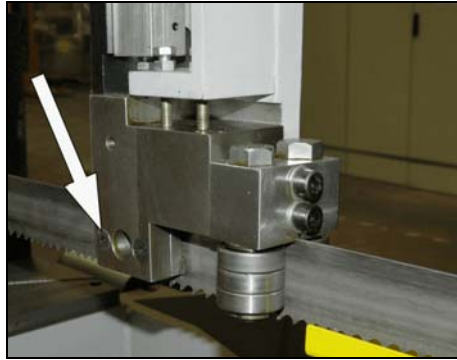
4.7.3. Hard metal guides replacement

If the hard metal guides cannot be adjusted, they have to be replaced.

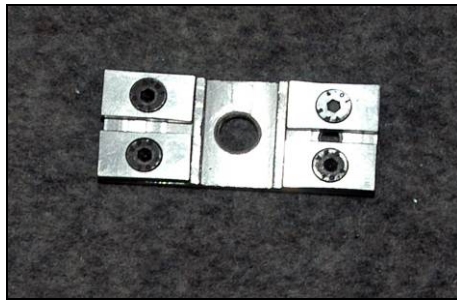
Attention:

Hard metal guides must be replaced together on both guiding cubes!

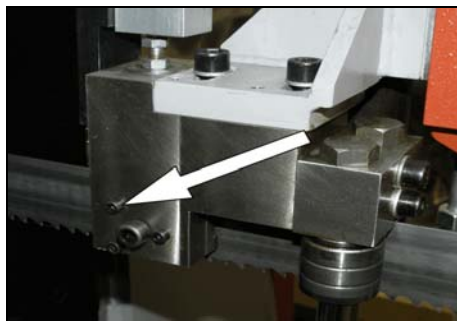
1. Disconnect the hose from the cooling agent.



2. Release 2 screws.



3. Remove fix hardmetal guidepost.



4. Release all 3 screws (see arrow).
5. Release center M10 screw after remove retaining ring.



6. Remove moveable hardmetal guide.
7. From both hardmetal guides screw out worn hardmetals and change them with new ones.
8. Both hardmetals guides incl. press springs mount back. With 3 screws and aux. saw band setup optimal play between guides.

4.7.4. Brush replacement

If the chip removing brush is not able to fulfil its function, it has to be replaced.

1. Hold shaft of the brush by wrench.



2. Release the nut on the brush, replace worn brush on the new brush, screw on the nut.
3. Set the brush to the saw band.

5. **Závady / Troubleshooting**

5.1. Mechanical problems

Problem	Possible causes	Repair
4. Slanting cut	- Wrongly adjusted hard metal guides.	Set according to the chapter „Servicing and adjustment“
	- Worn hard metal guides.	Replace to the chapter „Worn pieces replacement“
	- Wrongly adjusted cubes of the saw band guiding.	Set according to the chapter „Servicing and adjustment“
	- Worn bearings of the saw band guiding.	Replace according to the chapter „Worn pieces replacement“
	- Wrongly adjusted swarf brush.	Set according to the chapter „Servicing and adjustment“
	- Worn swarf brush.	Replace according to the chapter „Worn pieces replacement“
	- Insufficient saw band stretching.	Rise the saw band stretching and set the limit switch.
	- Wrongly chosen tooth system of the saw band.	Replace the saw band and keep the instructions of manufacturer on new saw band choice.
	- Worn saw band.	Replace the saw band.
	- Wrongly balanced roller conveyor.	Set the roller conveyor.
	- Dirty feeding board.	Cleanse the feeding board from debris, chip and residue material.
	- Guiding arm and guiding cube are loosened.	Clamp the guiding arm.
	- Guiding arm and cube are too far from the material.	Set the guiding cube to the material.
	- Too fast cutting rate.	Lower the material feeding speed.
5. The cut is not cut upon desired angle	- Unexpected oscillation in material quality.	Set the cut and feeding speed to the relevant material.
	- Securing lever is loosened.	Check the securing lever efficiency and carry out its adjustment according to chapter „Servicing and adjustment“.
	- Set angle does not match the cut angle.	Check the angle adjustment with a protractor and possibly set it according to chapter „Servicing and adjustment“.
	- Insufficient saw band stretching.	Stretch the saw band and set the limit switch according to chapter „Servicing and adjustment“.
	- Guiding arm and guiding cube are loosened.	Fasten the guiding arm and the cube.
6. Short lifetime of the saw band	- Dirt between material and clamping jaw.	Cleanse the material and mating jaw.
	- Insufficient saw band stretching.	Raise the tightening of the saw band set the scanner of saw band tightening according to chapter „Servicing and adjustment“.
	- Worn swarf brush.	Check the swarf brush condition and replace it in case of excessive use as described in chapter „Worn pieces replacement“
	- Wrongly adjusted swarf brush.	Check swarf brush adjustment, set it according to chapter „Servicing and adjustment“
	- Over stretched saw band	Lower stretching of the saw band and set the limit switch of the saw band stretching according to chapter „Servicing and adjustment“
	- Wrongly adjusted hard metal guides.	Check the adjustment of the hard metal guides and carry out adjustment as described in chapter „Servicing and adjustment“
	- Worn hard metal guides of the saw band.	Check the condition of the hard metal guide and if it is too worn, replace hard metal guides according to chapter „Worn pieces replacement“

Problem	Possible causes	Repair
	- Worn saw band guide bearings.	Check guiding bearings and if you notice some sort of excessive damage, replace them according to chapter „Worn pieces replacement“
	- Wrongly adjusted guiding cubes of the saw band.	Set guiding cube according to chapter „Servicing and adjustment“
	- Wrongly adjusted down feed and saw band speed.	Adjust the feeding and speed of a saw band according to values published by saw band manufacturer.
	- Different material quality.	Adjust feeding and speed of a saw band according to desired material (try cut-test).
	- Low-class saw band	Replace the saw band (contact your local accessory supplier for more information)
	- Wrongly chosen saw band tooth system.	Replace the saw band and keep instructions of the manufacturer on the choice.
	- Wrongly adjusted tracking.	Check the space between top of a saw band and driving wheel. Perhaps adjust the tracking as described in chapter „Servicing and adjustment“
7. Insufficient cut output.	- Worn saw band.	Replace the saw band and keep instructions of the manufacturer on the choice.
	- Wrong saw band tooth system.	Replace the saw band and keep instructions of the manufacturer on the choice.
	- Wrongly set down feed and speed of a saw band.	Set feed and speed of a saw band according to values published by saw band manufacturer.
8. The cut is not finished.	- Wrongly adjusted lower stop point of the saw frame.	Check lower limit switch and screw.
	- Stop point surface is messed-up.	Cleanse stop point surface of the limit switch from debris and residue material.
9. By choke is not possible turn	- Metal clamps between valve and panel.	Clamps must be removed and put on the shaft O-Ring about 10x2 mm.
	- Metal clams are in body of valve.	Valve must be cleared or changed.
10. Saw band drive cannot be started.	- Pressure switch is adjusted wrong.	Set the pressure switch according to chapter „Servicing and adjustment“
	- Pressure switch is defective.	Replace defective parts of the pressure switch.
11. The saw bands are cracked.	- In stretching wheel is wrong adjusting geometry.	Adjust distance band from recess wheel c.2 mm according to operating instructions.
	- Hard metal plates of circuit saw band are not adjusting.	Hard metal plates of circuit saw band must be adjusting according to operating instructions.
	- Guiding cubes are not adjusting (bearings + hard metal circuit)	Guiding cubes must be adjusting (bearings + hard metal circuit) according to operating instructions.
	- Bearings of guiding cubes are used (rolling elements are damaged or outside ring of bearing has conical form).	Bearings of guiding cubes must be replaced. Bearings must be adjusting according to operating instructions.
12. Damage tooth system of the saw band	- In gripping the lifting cylinder is backlash.	
	- Squeezed pin upper or downer holder of the lifting cylinder.	Exchange complete upper or downer holder of lifting cylinder.
13. The saw is cut downing.	- Geometry of hardmetal guiding cubes is wrong adjusted.	Hardmetal guiding cubes must be adjusted.
	- Bearings of guiding cubes are used.	Bearings of guiding cubes must be replaced.
14. Cleansing of the saw band is not functional.	- Elastic wheel of the brush drive is worn-down.	Elastic wheel of the brush must be changed.
	- Knurling of the driving wheel is worn-down.	Driving wheel must be changed.
	- The shaft of the brush drive is rusted.	The shaft of the brush must be cleaned and oiled.

Problem	Possible causes	Repair
	- The brush position and the brush cover is adjusted wrong – with the brush cannot be turned.	The brush cover must be posed, in order to the brush can be turned.
15. The saw arm periodically rise and fall during the cut; this cause short lifetime of the saw band.	- Backlash in driving wheel lodgement on the shaft.	Change the driving shaft for a long one, new bearings, distance ring, new driving wheel, spring, two covers on the forehead of the shaft + screws.
	- Worn channel for spring.	

5.2. Electric problems

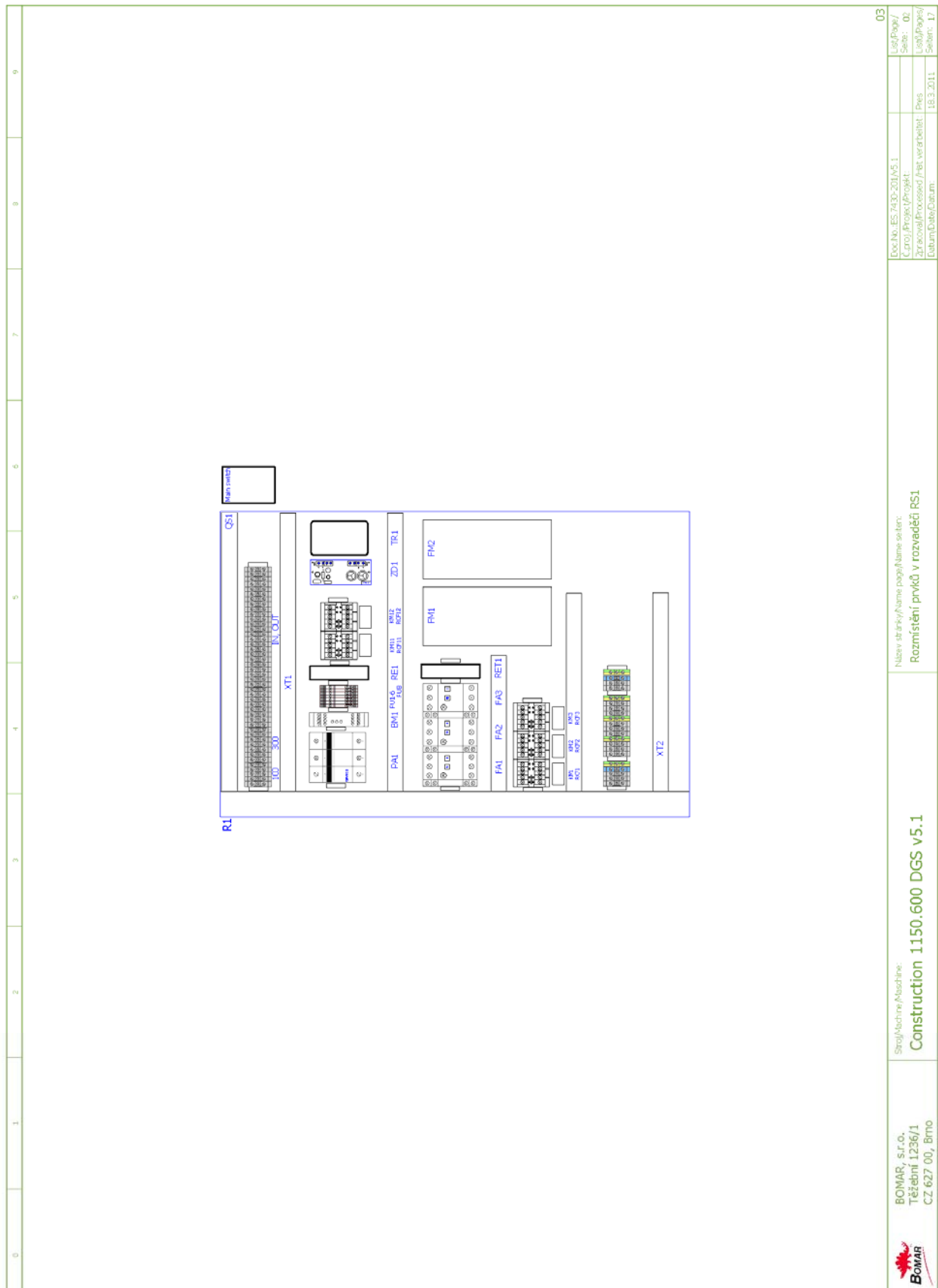
Problem	Possible causes	Repair
16. Machine is not possible start.	- In socket is not voltage	Line voltage must be checked.
	- Transfer relay is closed (thermal protector)	Each FA relay must be checked.
	- Limit switch of saw band stretching, cover of frame or cover of saw band is not started.	Check of saw band stretching and covers closing.
17. When cut is finished, the frame is not raising.	- Bottom limit switch is adjusted wrong.	Bottom limit switch must be adjusted according to chapter ADJUSTING.
	- In hydraulic (pneumatic) ring is error. HYTOS (BOSCH) is not acting to frame uplift.	Function of magnetic valve must be checked, valve must be closed, voltage of clamps and inductor must be checked.
18. Electric motor and pump are without voltage. Between contactor and thermal protector is not voltage.	- Wrong contactor.	Replace contactor of engine.
19. The indicator of speed saw band is not functional.	- Sensor of speed is not adjusted.	Sensor of speed must be adjusted.
	- Defective display	The display must be changed.
	- Wrong sensor – diode of indicator speed is not light.	Sensor must be changed and adjusted.
20. Protector is switched off from engine hydraulic aggregate MA3 sometimes.	- Into hydraulic system is high working pressure.	Service engineer must reduce the pressure in hydraulic system.
21. The hydraulic aggregate cannot be started	Auxiliary contact on thermo-relay FA1 is defective.	Replace the defective contact on motor starter FA1.
22. Hydraulic aggregate is switched on but the saw arm or the main vice is not functional	- Wrong connection of electrical supply. The electrical phases are connected conversely.	The phases must be switched. Only service engineer can do this.
23. Cooling is not active	Lack of cooling agent.	Fill the tank with cooling agent.
	- Thermal relay is defective	Change the thermal relay
	- Input hosepipe is broken or obstructed.	Check the cooling circuit and perhaps cleanse cooling system.
	- Cooling pump protection is defective	Check the protection of cooling pump if need change it.
	- Cooling pump is defective.	Replace the cooling pump.

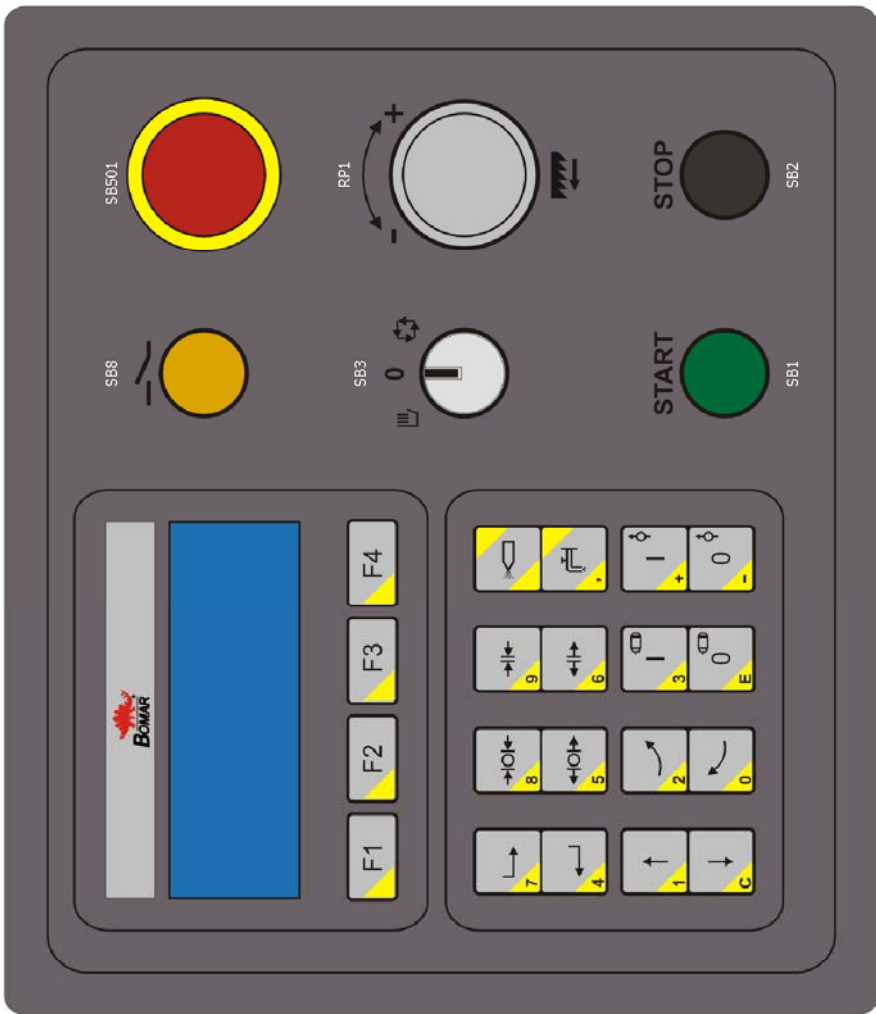
5.3. Hydraulic problems

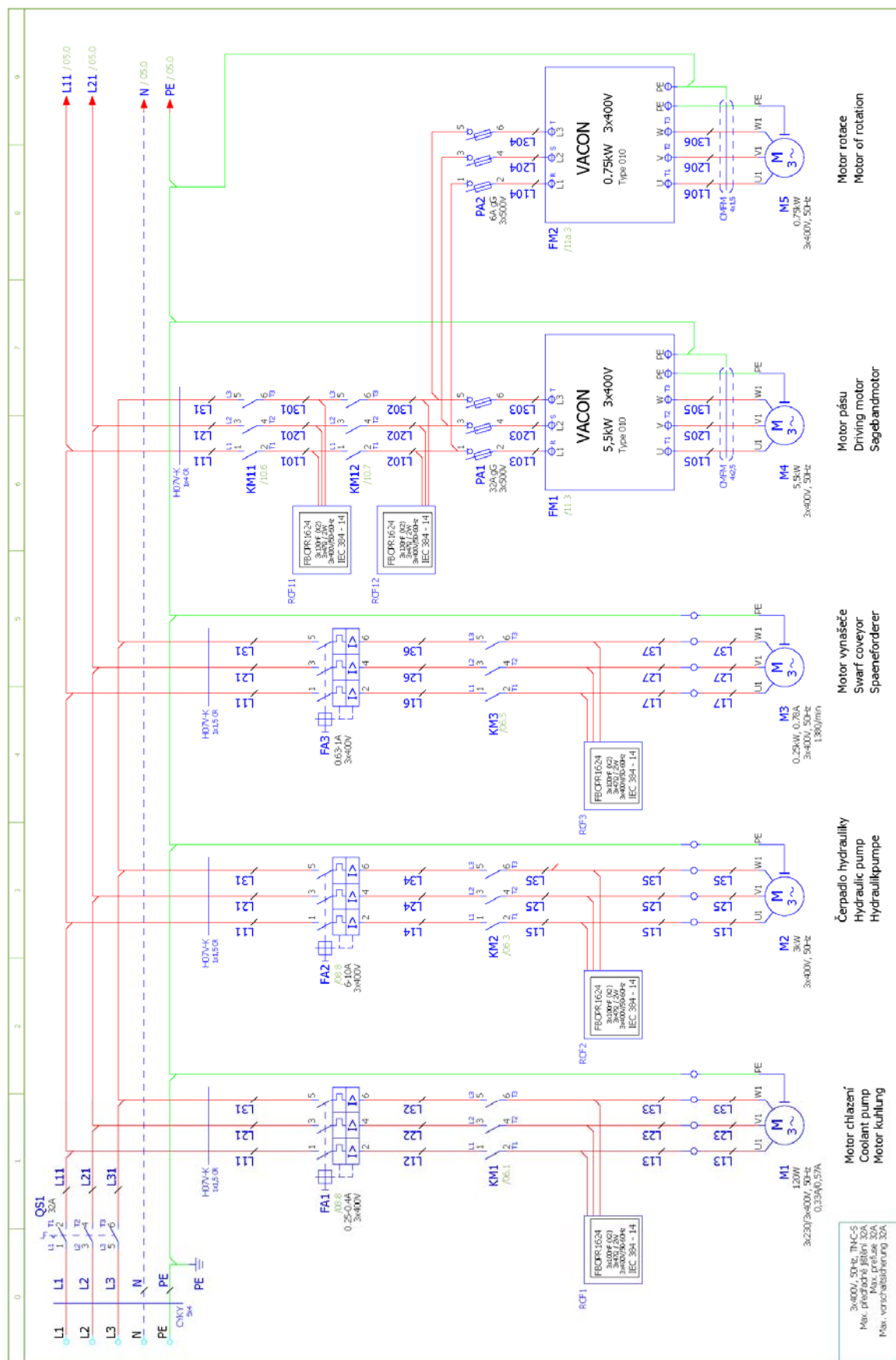
Problem	Possible causes	Repair
24. Hydrogenerator not supplying oil	• reverse rotation	Check the connections of each phase. Reconnect properly connection of the electrical phases.
	• shortage of oil in the tank	Add hydraulic oil
	• Oil viscosity does not correspond prescribed viscosity value	Change hydraulic oil.
	• Hydrogenerator malfunction	Call service
	• Wrong power supply connection.	Check the connections of each phase. Reconnect properly connection of the electrical phases.
25. Hydraulic oil contains bubbles	• Hydraulic circuit is not adequately deaerated	Make deaeration of hydraulic circuit.
	• Low oil level	Add hydraulic oil
	• the pump shaft seals damaged	Call service
26. Increased mechanical noise	• damaged joint drive	Call service
	• damaged or destroyed motor bearings	Call service
	• air intake	Check for leaks.
27. Low pressure, pump supplies oil	• problem in the safety valve	Wrong settings. Check the settings and adjust the safety valve.
	• pump wear	Call service
	• external or internal leakage	Call service
28. Hydrogenerator is seized	• damage by solid particles in oil	Make oil filtration, or call the service.
	• non-prescribed oil	Change hydraulic oil.
	• wrong type of oil	Change hydraulic oil.
	• exceeding the life of the pump	Call service
29. Overheating oil	• cooler malfunction	Check the cooler function or call service.
	• wear the pump, the energy is converted into heat	Call service
30. Hydraulic valve can not be readjusted	• electromagnet has no signal (voltage) - interrupted supply lines	Check again.
	• Electromagnet coil burnt	Replace coil – Call service.
	• spool valve sticking	Replace valve – Call service

6. **Schémata / Schemas / Schematics**

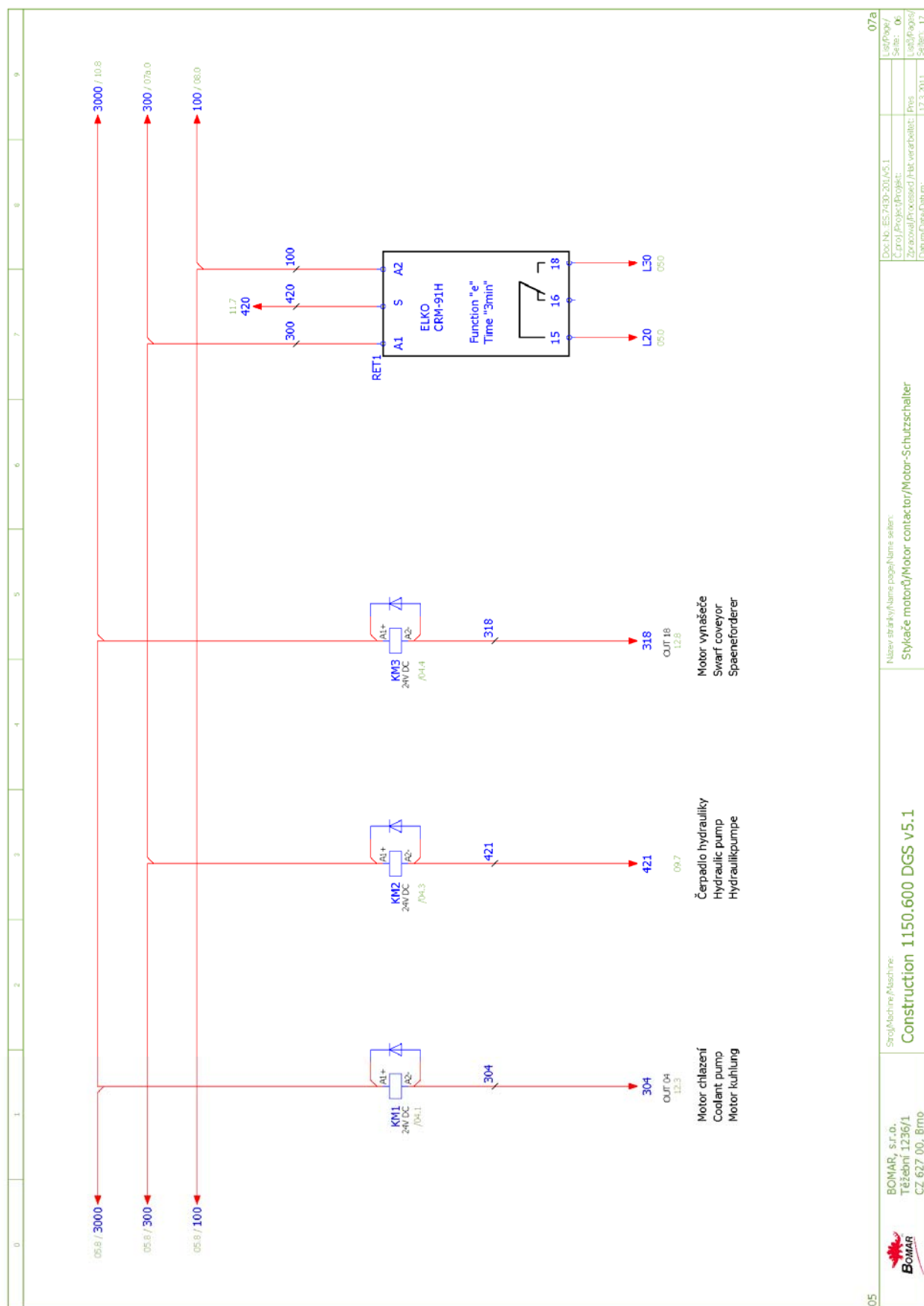
6.1. Elektrické schema / Elektroschema / Wiring diagrams – 3×400 V, TN-C-S

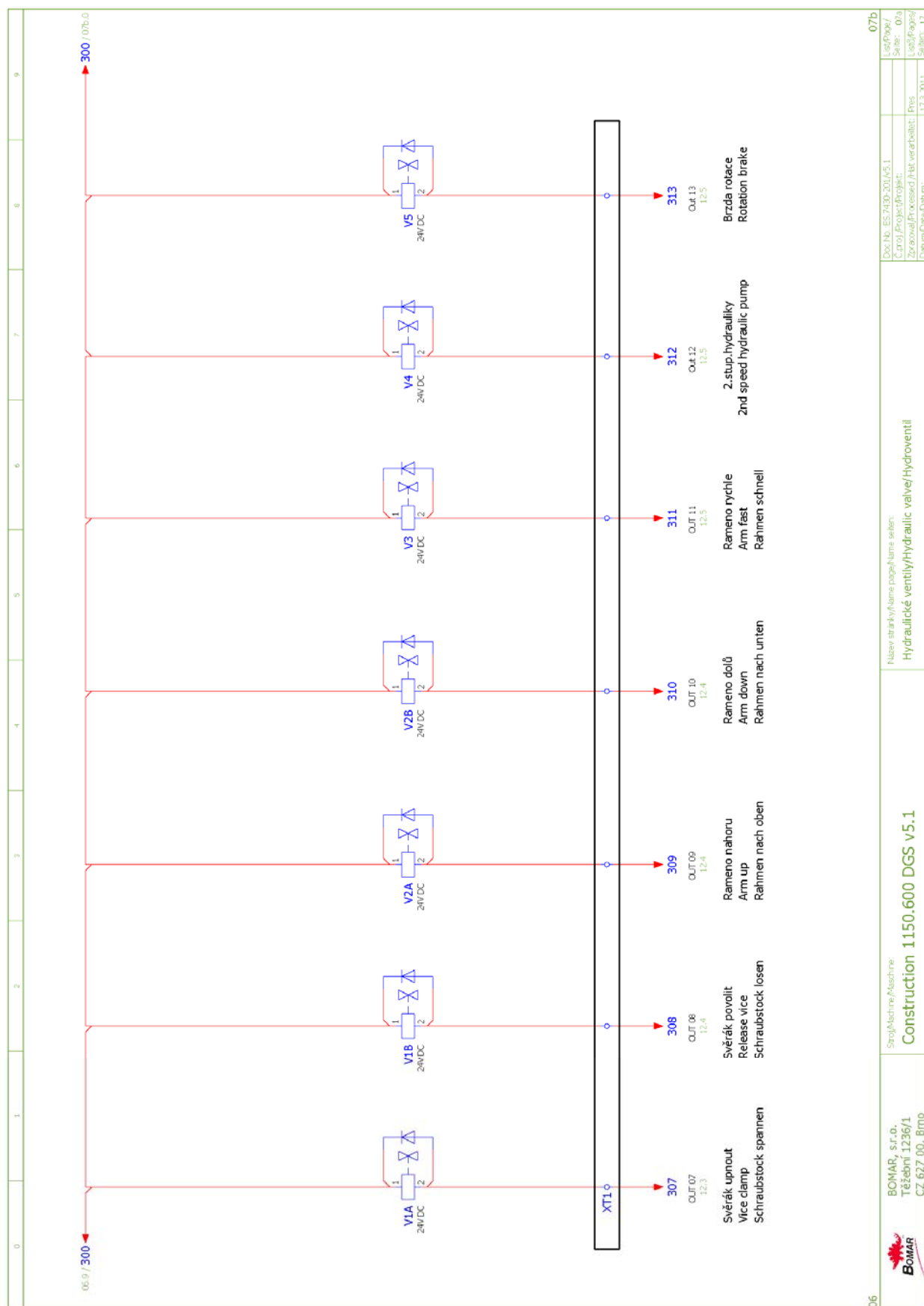


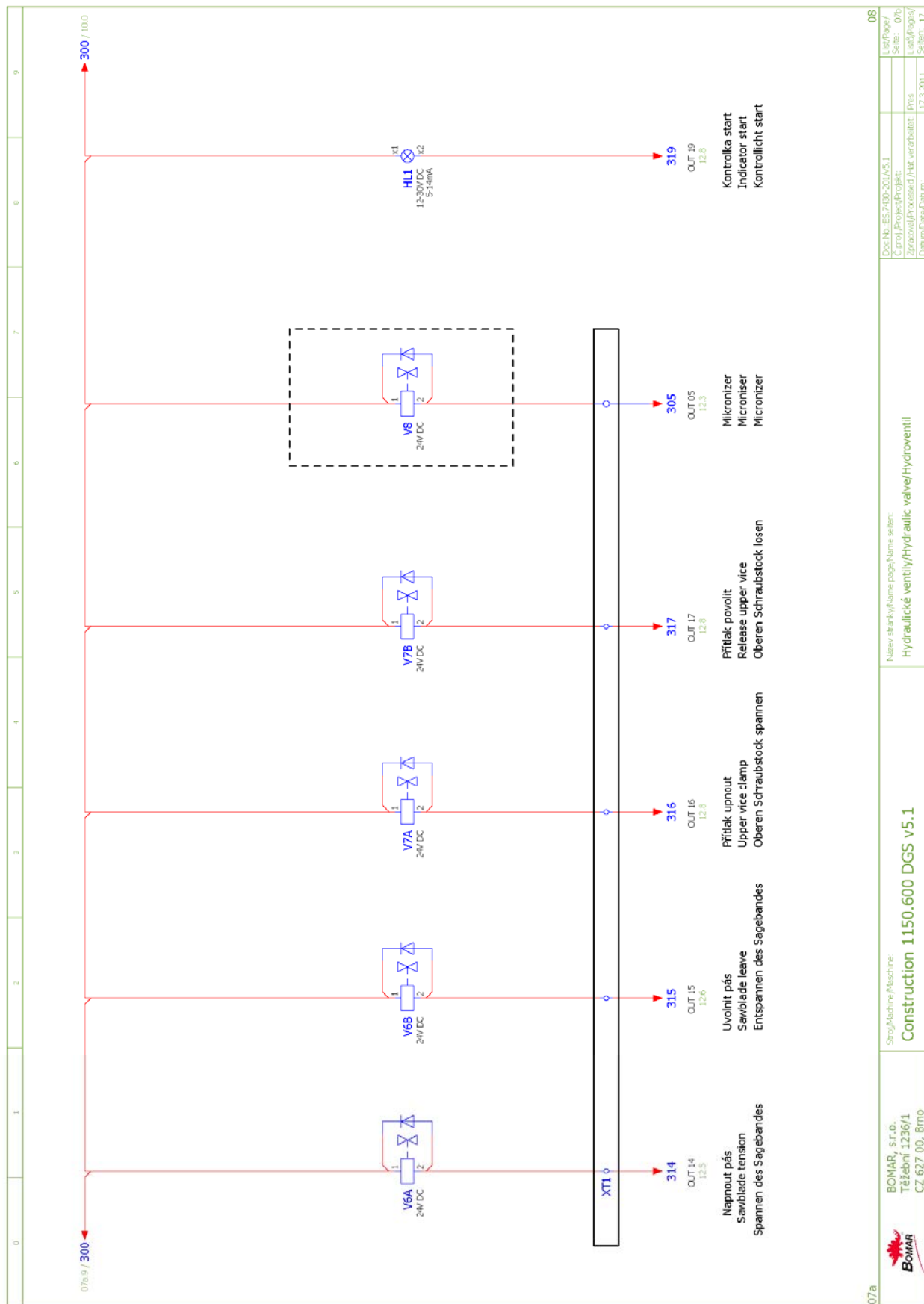
0	1	2	3	4	5	6	7	8	9
									
BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno			Stroj/Machine/Machine: Construction 1150.600 DGS v5.1			Název stránky/Name page/Name screen: Ovládací panel na rozvaděči/Control panel/Bedienpult			04
									Leaf/Page/ Sheet: 03 Leaf/Page/ Sheet: 17 Technical Processed/Has been edited: Rev: Drawn/Drawn/Drawn: 7.12.2010

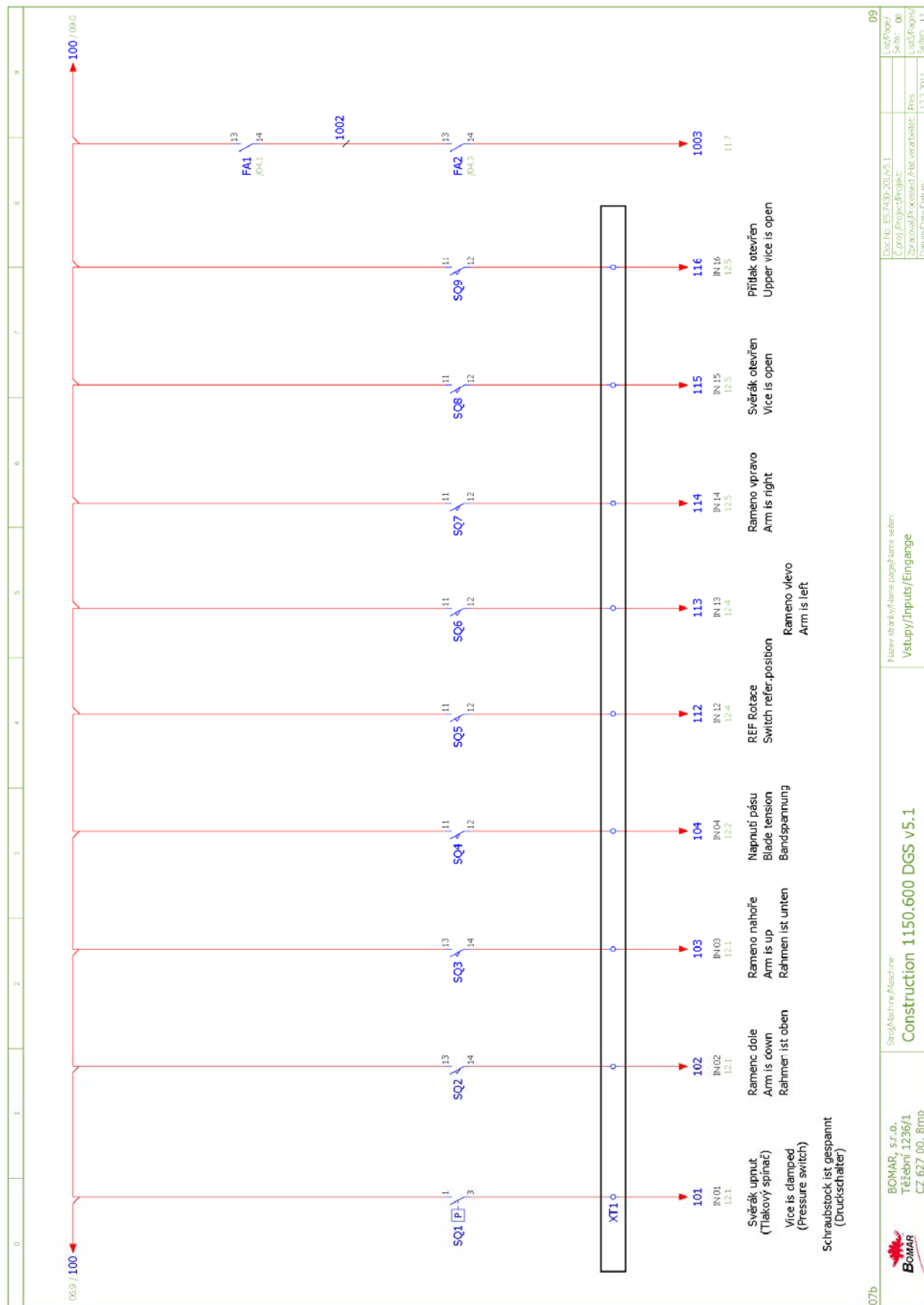




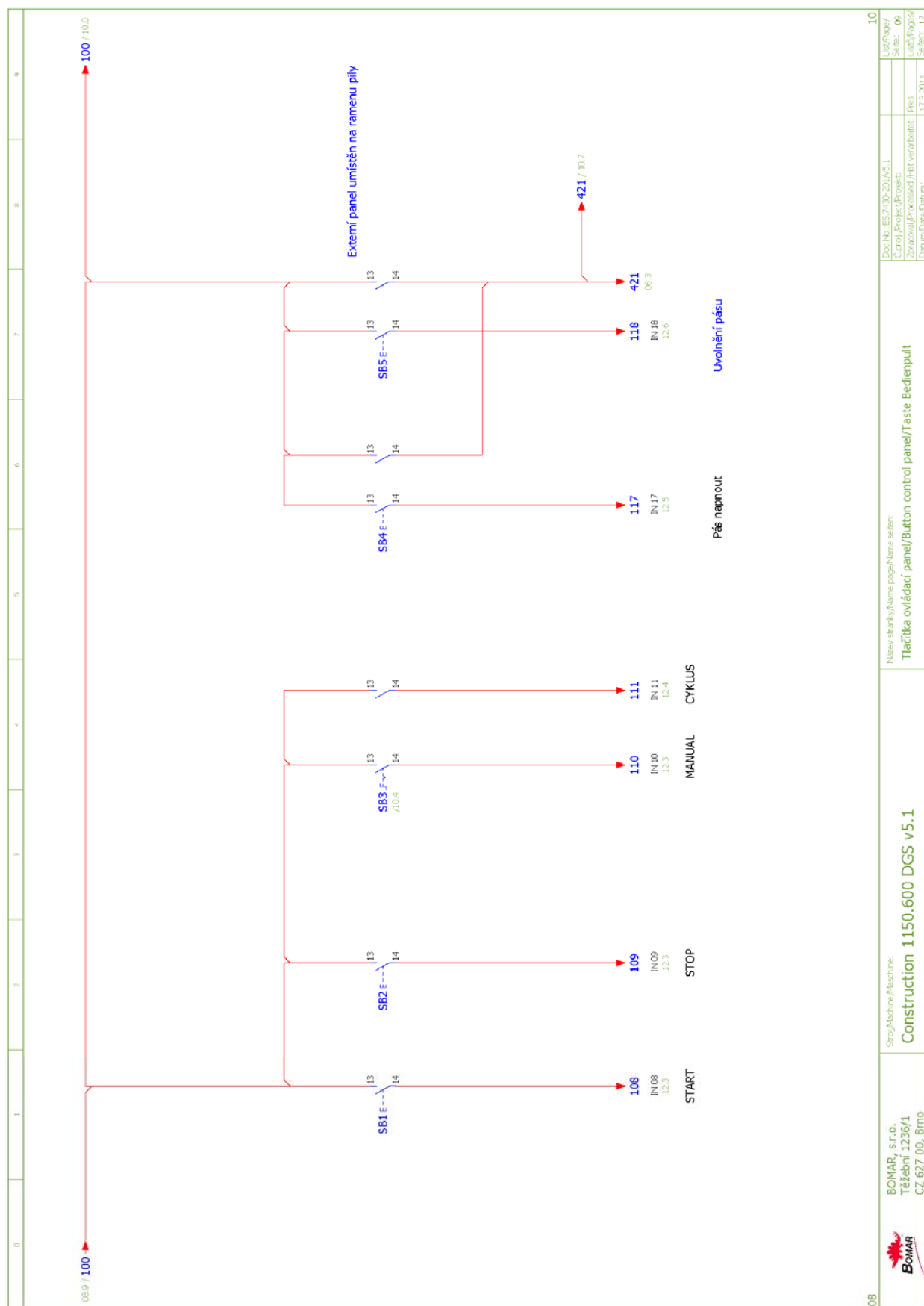


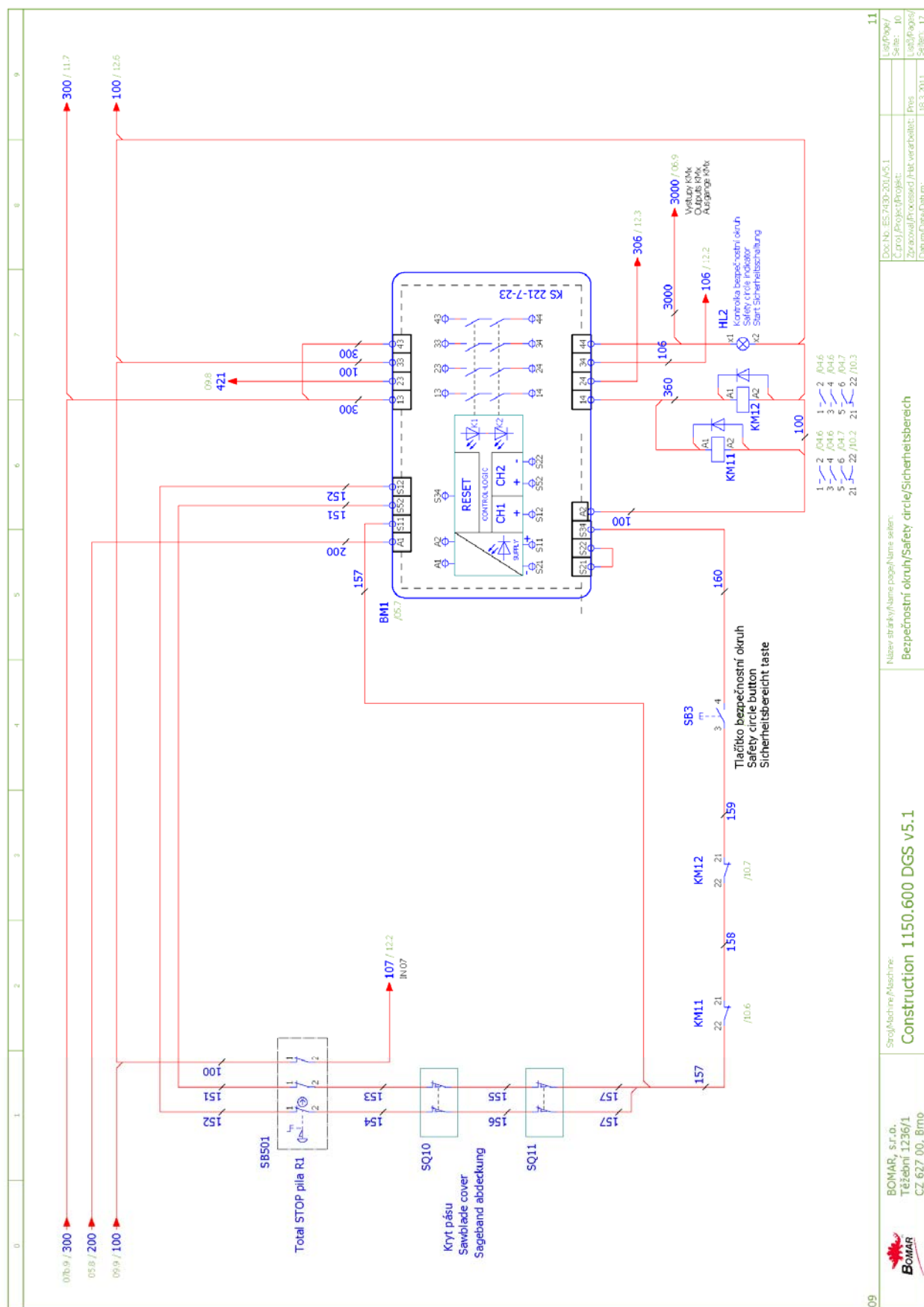


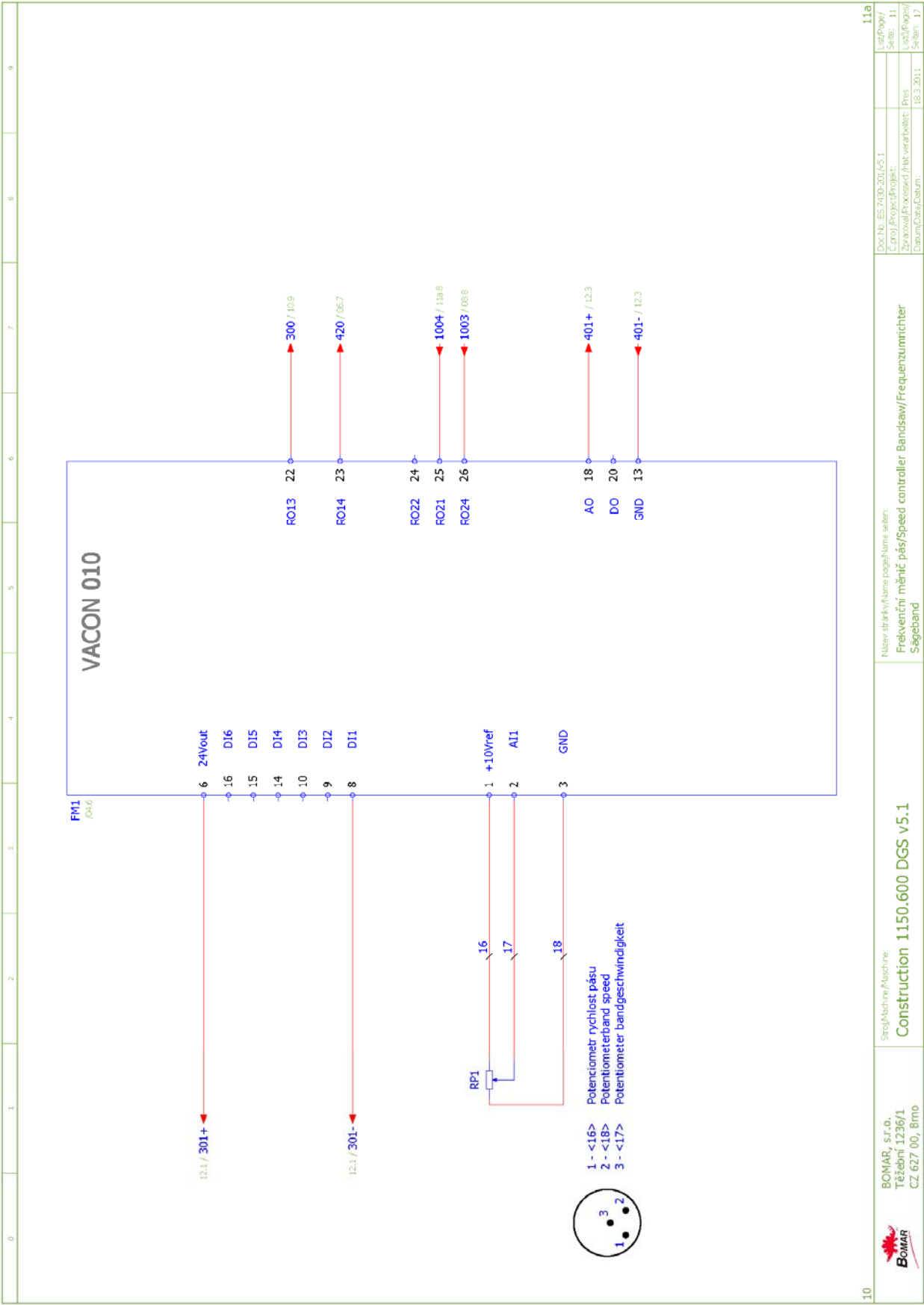


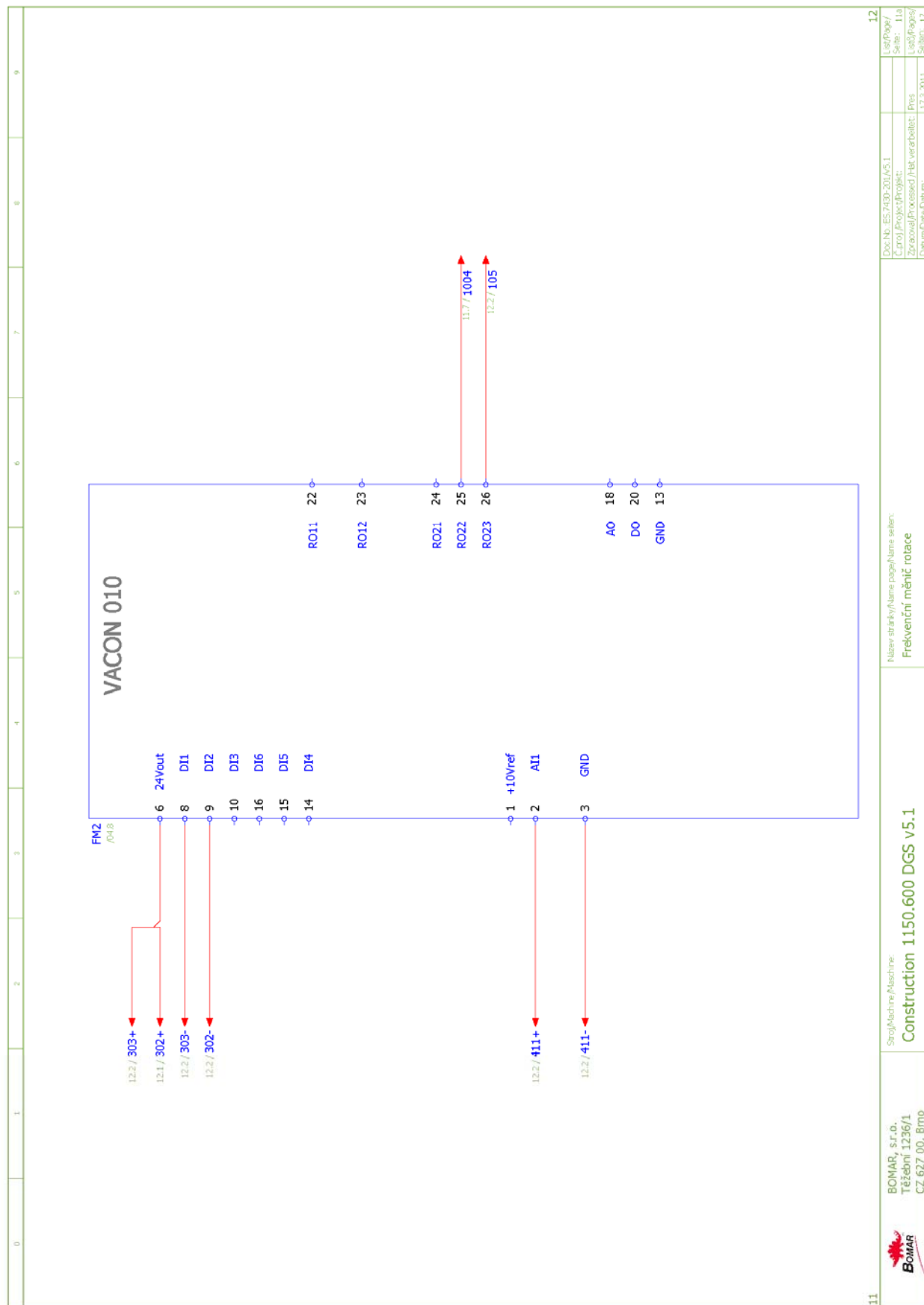


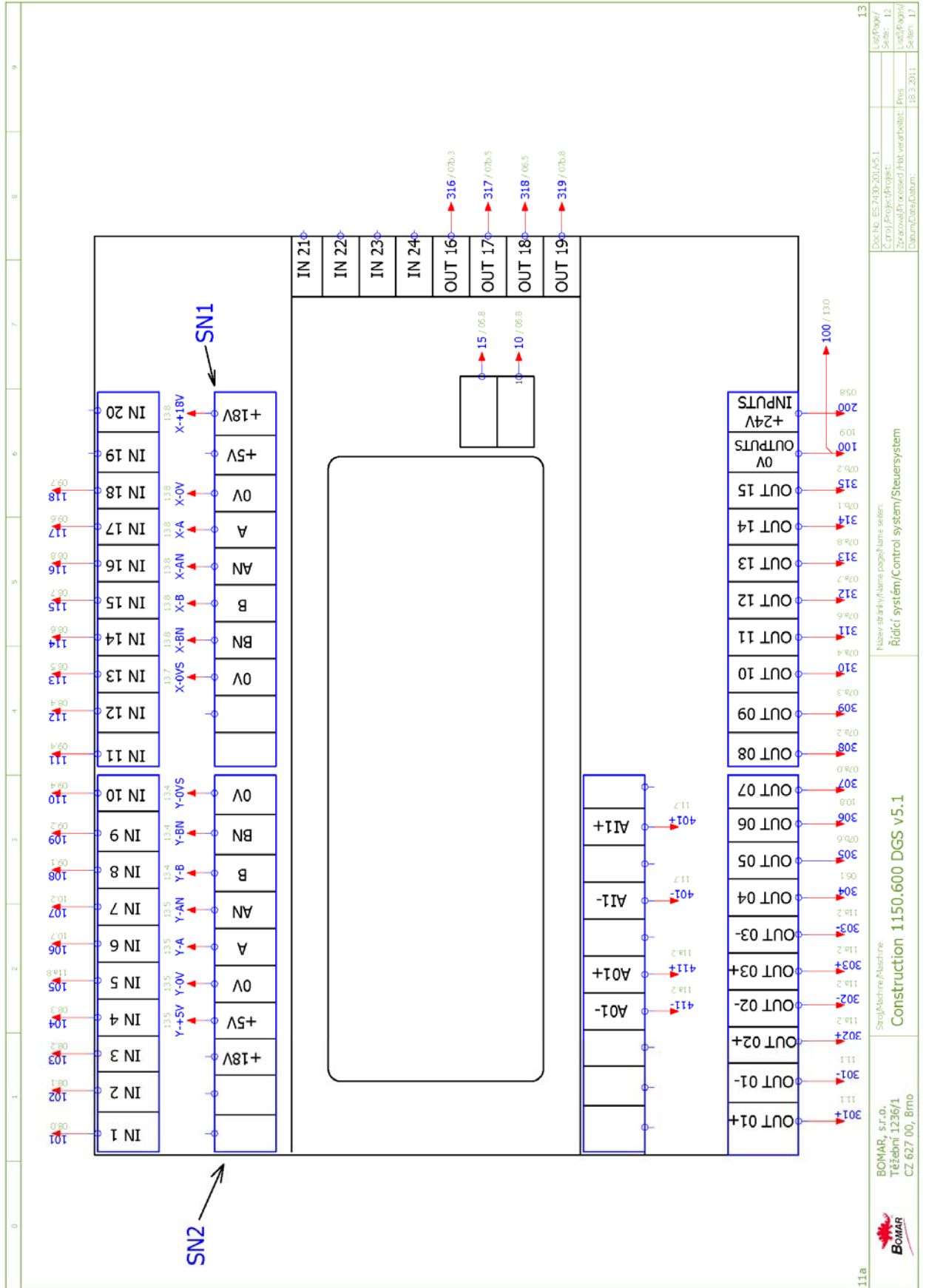
Schemata Schemas Schematics

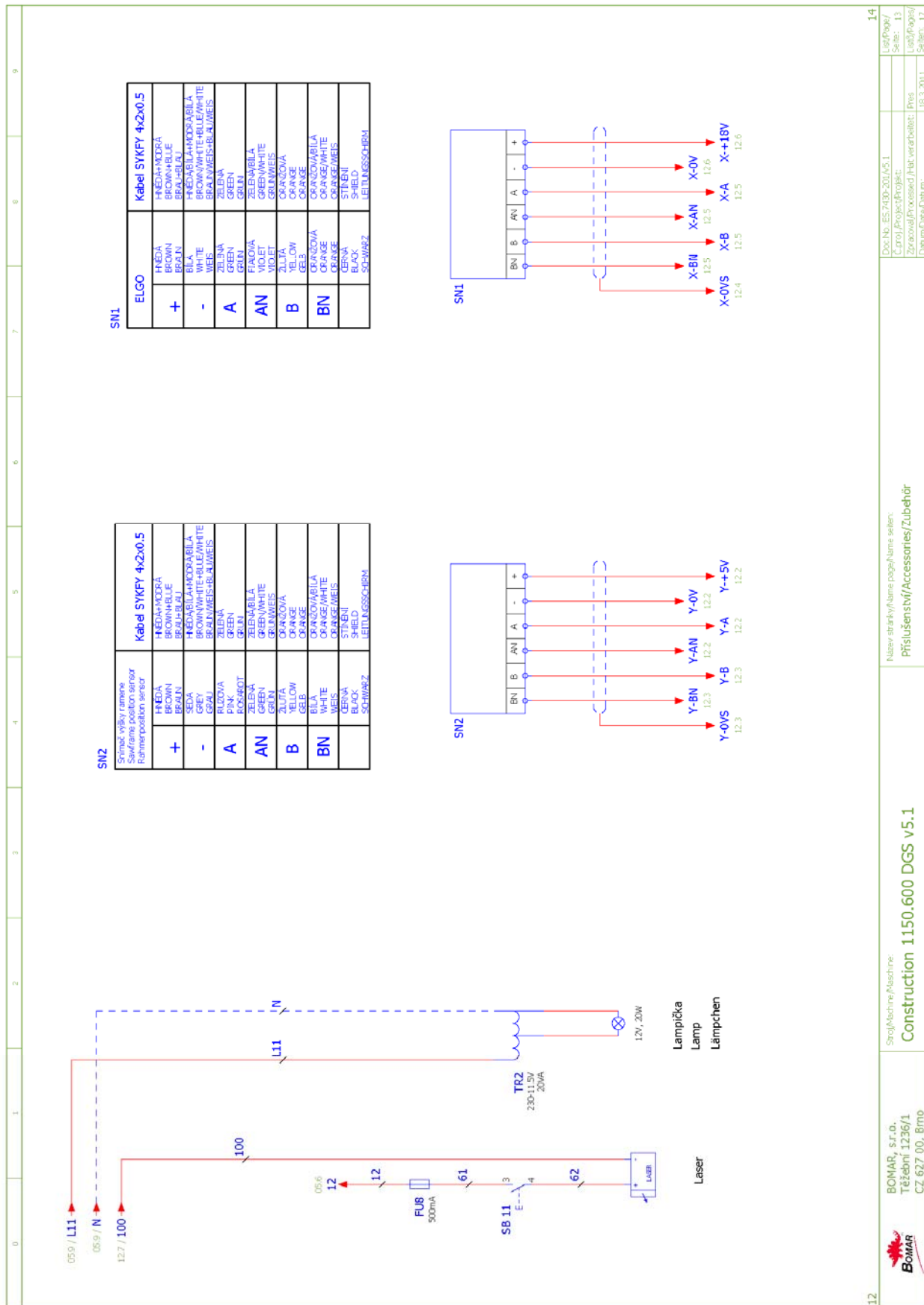






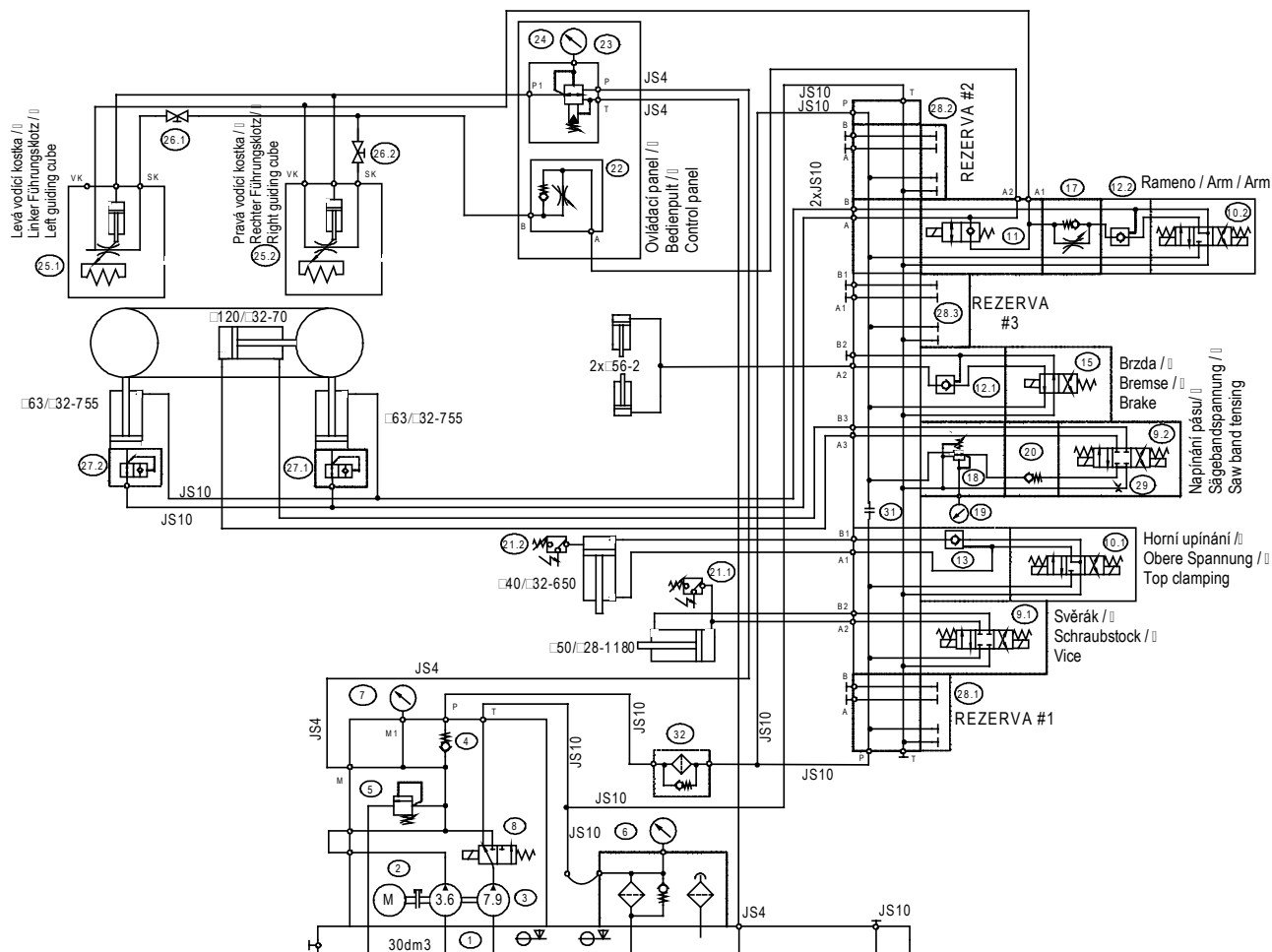






Schemata Schemas Schematics

6.2. Hydraulické schéma / Hydraulikschema / Hydraulic diagram



Základní technické parametry Technische Spezifikation Technical specification

Typ / Type / Type	Construction 1150.600
Hydraulický agregát / Hydroaggregat	SMA03-79,36/18.0-SDPO-v30M.0
Hydro aggregat	
Neuvedené světlosti / Unerwähnt Lichtbreite	JS6
Unlisted inside diameters	
Výstupní šroubení / Ausgangsschraubung	G1/4"
Output screwing	
p_{max}	10 Mpa
Q	10,2+4,7 dm ³ /min
n	1425 ot./min
P	3 kW

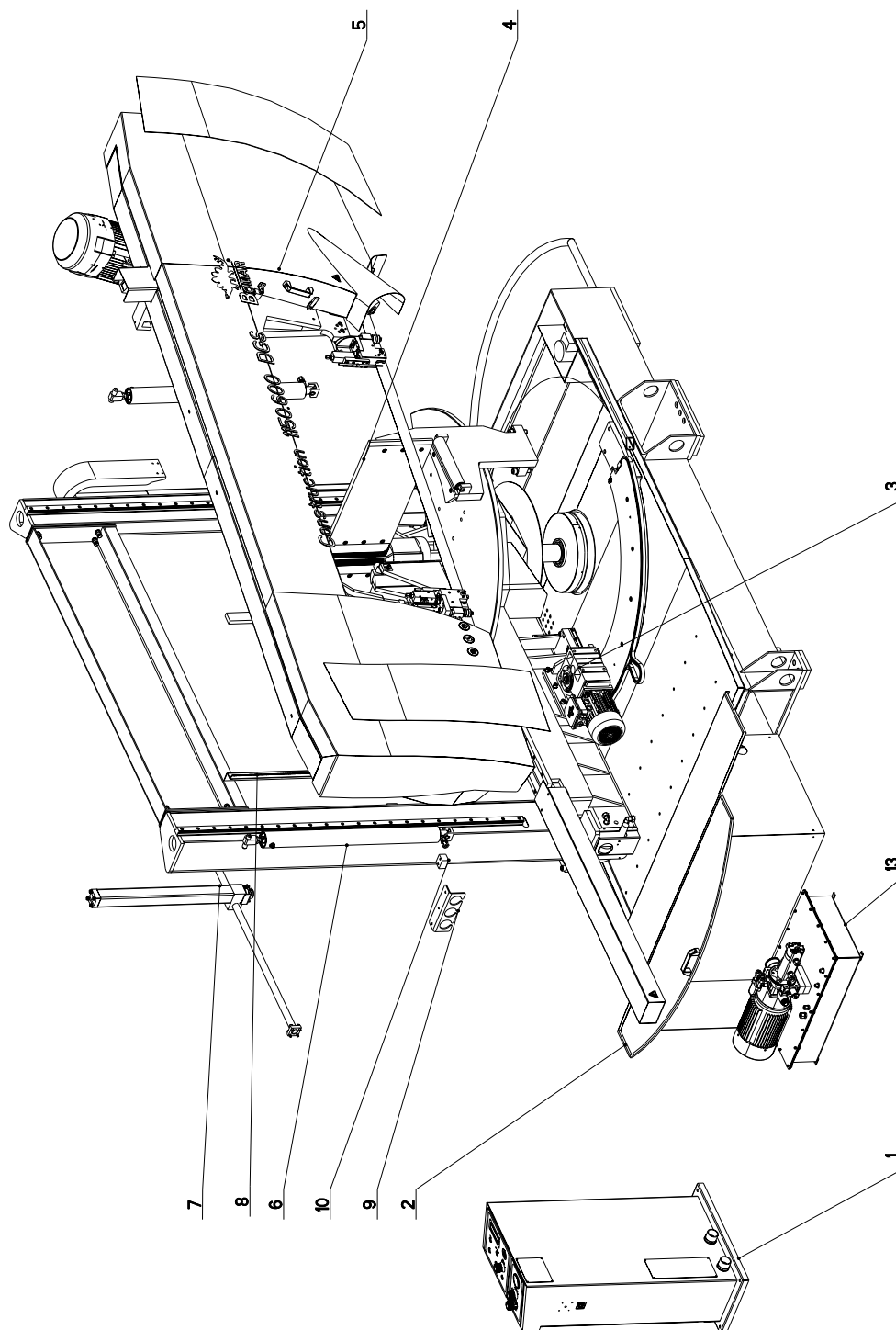
CONSTRUCTION 1150
205.7416-050 14.3.2011

Poz.	Název položky		ks
Pos.	Bezeichnung		Menge
Pos.	Item		Pcs.
1	Nádrž / Behälter / Tank	N30-BO	1
2	Elektromotor / Elektromotor / Electromotor	MA-AL100L 400/230V 50 Hz	1
3	Hydrogenerátor / Hydraulikgenerator / Hydrogenerator	P23-7,9/3,6 L65334	1
4	Jednosměrný ventil / Einwegventil / One-way valve	VJ01-06/SG-1	1
5	Přepouštěcí ventil / Bypašventil / By pass valve	VPP2-04/S-10S	1
6	Zpětný filtr / Filter / Filter	FR 043-166/0 10um	1
7	Manometr / Manometer / Manometer	Ø68 0-10 MPa	3(2)
8	Rozváděč / Schaltschrank / Switchboard	SD2E-A3/H2D21	1
9	Tlakový spínač / Druckschalter / Pressure switch 92.201.001	166411031043	1
10	Rozváděč / Schaltschrank / Switchboard	RPE3- 043Z11/02400E1K1	1
11	Blok rychloposuvu / Eilgangsblok / Speed shift block	729-0084	1
12	Hydraulický zámek / Hydraulisches Schloß / Hydraulic lock	VJR1-04/MA	1
13	Rozváděč / Schaltschrank / Switchboard	RPE3- 043Y11/02400E1K1	1
14	Škrticí ventil / Drosselventil / Throttle-valve	VS01-04/R2,5	1
15	Redukční ventil / Reduktionventil /	VRN2-06/S-6R	1
16	Redukční ventil / Reduktionventil /	VRN2-06/S-6R	1(0)
17	Kostka regulace / Regulationklotz /		2
18	Kulový ventil / Kugelventil / Globe valve		3(2)
19	Krycí deska / Schutzplatte / Cover platte	DK 1-04/32-2	1
20	Pojistný ventil / Sicherungventil / Safety valve	VPNH 1/4	2
21	Tlakový filtr / Druckfilter / Pressure filter	D 420153+V3,0510-03	1

7. Výkresy sestav pro objednání náhradních dílů / Zeichnungen für Bestellung der Ersatzteile / Drawing assemblies for spare parts order

- Při objednávání náhradních dílů vždy uvádějte: typ stroje (např. practix Construction 1150.600 DGS) , výrobní číslo (např. 125) a rok výroby (např. 1999).
- In die Bestellung der Ersatzteile führen Sie immer an: Maschinentyp (z. B. Construction 1150.600 DGS), Serien Nr. (z. B. 125) und Baujahr (z. B. 1999).
- For spare parts order, you must always to allege: type of machine (for example Construction 1150.600 DGS), serial number (for example 125, see cover page) and year of construction (for example 1999).

7.1. Construction 1150.600 DGS



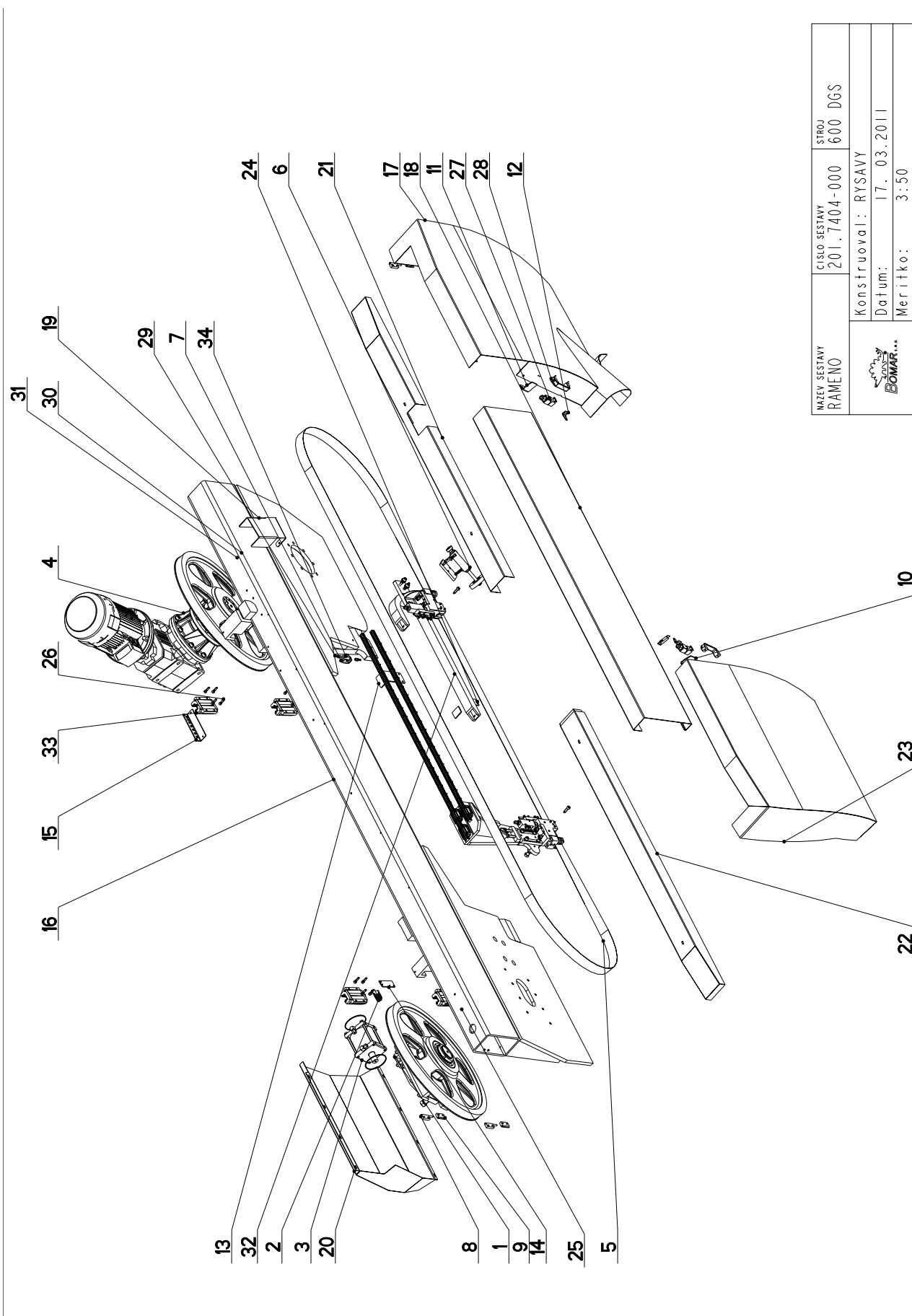
NAZEV SESTAVY	CÍSLO SESTAVY	STROJ
PILA PASOVA	201.7400-000	600 DGS
Konstruoval: RYŠAVÝ		
Datum: 17. 03. 2011		
Meritko: 2:25		

7.2. Kusovník / Stückliste / Piece list – Construction 1150.600 DGS

Císlo Sestavy 201.7400-000	Ver. 0	Název sestavy PILA PASOVA/BAND SAW/BANDSÄGE			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6230-100	3	ROZVADEC / DISTRIBUTOR / VERTEILER		1
2	201.7401-000	0	PODSTAVEC / BASE / UNTERSATZ		1
3	201.7402-000	0	KONZOLA OTOCNA / TURNABLE CONSOL / DREHKONSOLE		1
4	201.7403-000	0	SVERAK / VICE / SCHRAUBSTOCK		1
5	201.7404-000	0	RAMENO / SAW ARM / SÄGERAHMEN		1
6	201.7407-000	0	VALEC ZVEDACI / LIFTING CYLINDER / HEBEZYLINDER		2
7	201.7414-000	0	UPINANI HORNÍ / TOP CLAM / SPANNVORRICHTUNG OBEN		1
8	30.6201-010	0	HREBEN / /	P 3x107x820	1
9	30.6414-020	0	DRZAK / HOLDER / HALTER	P5x130	1
10	30.7407-006	0	KOSTKA / CUBE / WÜRFEL	HR 50x40	1
11	30.7499-002	0	STITEK TYPOVÝ / MACHINE LABEL / MASCHINE SCHILD	P 0.5x65	1
12	31.0599-005	0	SAMOLEPKA / STICKER / AUFKLEBER		2
13	92.001.066	0	AGREGAT HYDRAULICKÝ / HYDRAULIC GENERATOR / HYDRAULIKAGGREGAT	27771800	1
14	99.900.039	0	SAMOLEPKA / STICKER / AUFKLEBER	NEBEZP. STLACENÍ	1
15	99.900.041	0	SAMOLEPKA / STICKER / AUFKLEBER		2
16	99.900.043	0	SAMOLEPKA / STICKER / AUFKLEBER		1
17	99.900.045	0	SAMOLEPKA / STICKER / AUFKLEBER		2
18	99.900.046	0	SAMOLEPKA / STICKER / AUFKLEBER		1
19	99.900.047	0	SAMOLEPKA / STICKER / AUFKLEBER		1
20	99.900.048	0	SAMOLEPKA / STICKER / AUFKLEBER		1
21	99.900.049	0	SAMOLEPKA / STICKER / AUFKLEBER		1
22	99.900.050	0	SAMOLEPKA / STICKER / AUFKLEBER		2
23	99.900.052	0	SAMOLEPKA / /		1
24	99.900.053	0	SAMOLEPKA / STICKER / AUFKLEBER		1
25	99.901.043	0	SAMOLEPKA / STICKER / AUFKLEBER		1

Císlo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz./)Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.3. Rameno / Sägerahmen / Saw arm



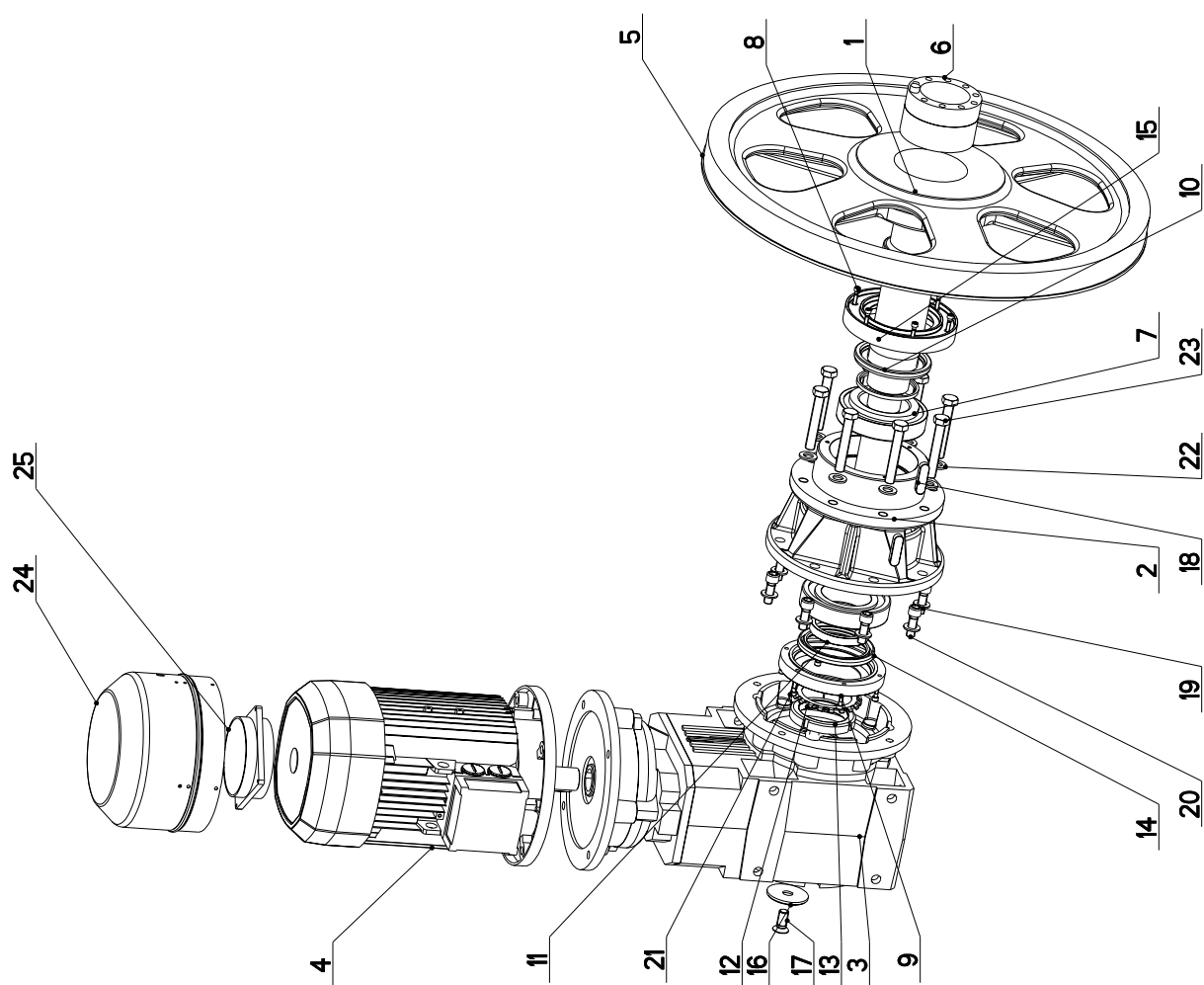
NAZEV SESTAVY RAMENO	CÍSLO SESTAVY 201.7404-000	STROJ 600 DGS
Konstruoval: RYŠAVÝ		
Datum: 17. 03. 2011		
Meritko: 3:50		

7.4. Kusovník / Stückliste / Piece list – Rameno / Sägerahmen / Saw arm

Císlo Sestavy 201.7404-000		Ver. 0	Název sestavy RAMENO/SAW ARM/SÄGERAHMEN		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6208-100	1	NAPINANI / TENSIONING / SPANNUNG		1
2	201.6702-200	2	SNIMAC / SENSOR / SENSOR		1
3	201.6707-400	2	VALEC NAPINACÍ / TENSIONING CYLINDER / SPANNZYLINDER		1
4	201.7405-000	0	POHON / DRIVE / ANTRIEB		1
5	201.7410-000	0	VEDENÍ PASU / BELT GUIDE / SÄGEBANDFÜHRUNG		1
6	201.Y504-020	0	KARTAC / BRUSH / BÜRSTE		1
7	30.1814-011	0	DRŽAK / HOLDER / HALTER	P 3- 76	1
8	30.6014-109	1	PANT / HINGE / TÜRBAND		4
9	30.6014-110	1	PANT / HINGE / TÜRBAND		4
10	30.6114-123	0	DRŽAK / HOLDER / HALTER	HR 30x12	4
11	30.6114-124	1	DRŽAK / HOLDER / HALTER	P 4 - 55	1
12	30.6114-147	0	DRŽAK / HOLDER / HALTER	P 3x30x60	2
13	30.6114-158	0	DRŽAK / HOLDER / HALTER	P 4x70x190	1
14	30.7204-202	0	DRŽAK / HOLDER / HALTER	HR 40x5	1
15	30.7214-221	2	UCHYTKA / CLIP / HALTER	P3 - 79	1
16	30.7404-001	0	RAMENO / SAW ARM / SÄGERAHMEN		1
17	30.7404-005	0	DVERE / DOOR / TÜR		1
18	30.7404-006	0	KRYT PASU / BELT COVER / BANDABDECKUNG		1
19	30.7404-007	0	DRŽAK / HOLDER / HALTER	P 3-289	1
20	30.7404-008	0	KRYT / COVER / ABDECKUNG		1
21	30.7404-009	0	KRYT / COVER / ABDECKUNG	P2 - 278	1
22	30.7404-010	0	KRYT / COVER / ABDECKUNG		1
23	30.7404-011	0	DVERE / DOOR / TÜR		1
24	30.7404-012	0	DRŽAK / HOLDER / HALTER		1
25	90.001.25.047	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x25	4
26	90.001.55.083	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x30	16
27	91.173.012	0	SPINAC KONCOVÝ / END SWITCH / ENDSCHALTER	OKS8-2xNC	2
28	94.012.001	0	RUKOJET / HANDLE / GRIFF		2
29	94.202.002	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	REDUKCE 6/R1/4"	2
30	99.100.003	0	ZAMEK / LOCK / SCHLOSS		2
31	99.100.004	0	ZAMEK / LOCK / SCHLOSS	D13-00	2
32	99.170.015	0	RETEZ ENERGIÍ / ENERGY BELT / ENERGIEKETTE	MP 3002R95	1
33	99.201.002	0	VOZÍK LINEÁRNÍHO VEDENÍ / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN	HGV	4
34	99.260.003	0	VENTIL / VALVE / VENTIL	1/4"	1

Císlo sestavy/Number of assembly/Numer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.5. Pohon / Antrieb / Drive



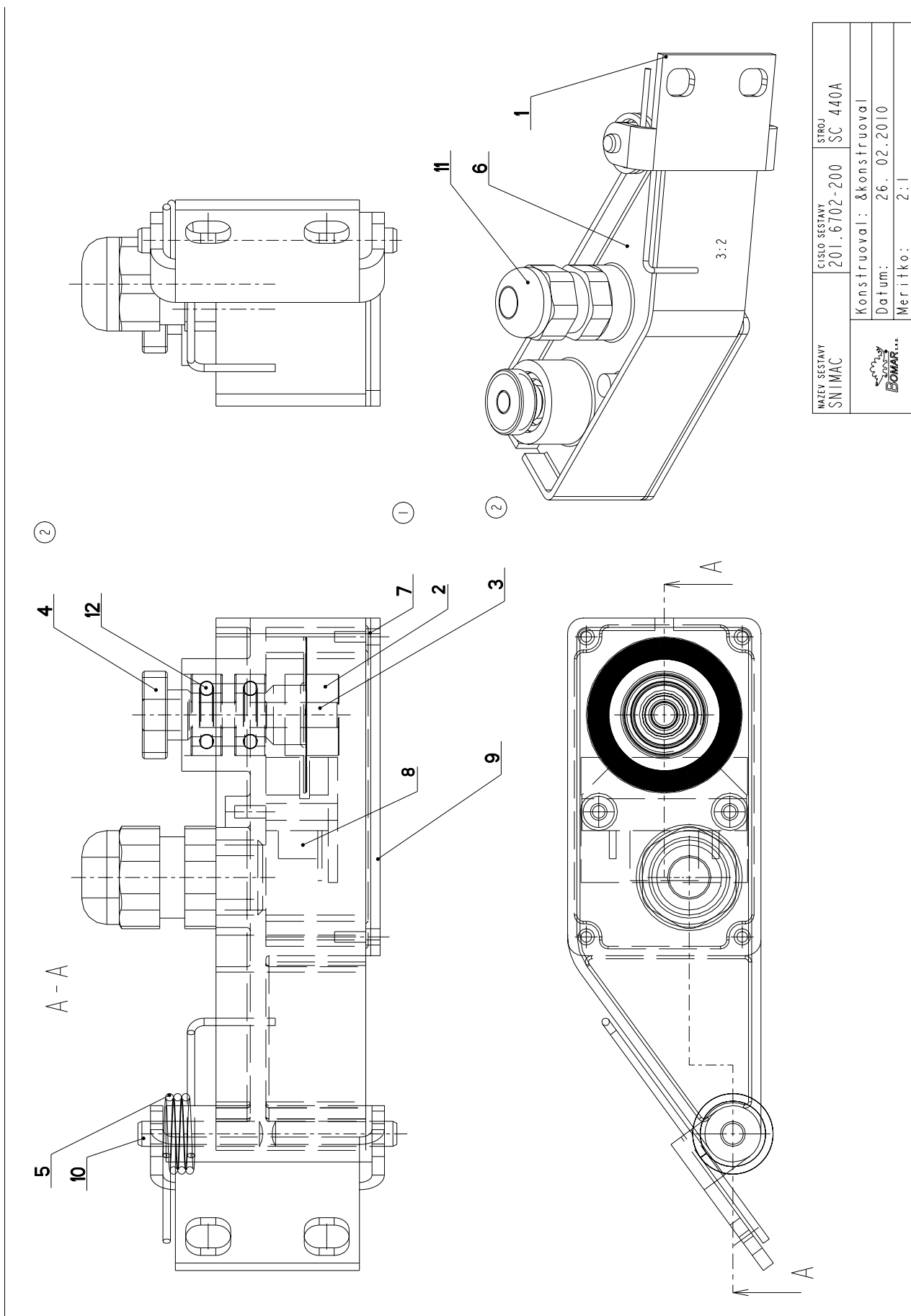
NAZEV SESTAVY POHON	CISLO SESTAVY 201.7405-000	STROJ 600 DGS
Konstruoval: RYSAVY		
Datum: 09. 05. 2011		
Meritko: 7:50		

7.6. Kusovník / Stückliste / Piece list – Pohon / Antrieb / Drive

Císlo sestavy 201.7405-000		Ver. 0	Název sestavy POHON/DRIVE /ANTRIEB		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.7405-001	3	HRDEL / SHAFT / WELLE	D 110	1
2	30.6205-102	2	PŘÍRUBA / FLANGE / FLANSCH		1
3	99.003.013	0	PREVODOVKA / TRANSMISSION / GETRIEBE	A503 UH55 F1A 56,8 P132 B3	1
4	91.001.060	0	ELEKTROMOTOR / ELECTRIC MOTOR / ELEKTROMOTOR	5,5 kW 4P P132	1
5	30.7504-007	2	KOLO HNACÍ / DRIVE WHEEL / ANTRIEBSRAD	KOLO	1
6	99.710.013	0	SPOJKA / JOINT / KUPPLUNG	85x125	1
7	95.300.018	0	LOŽISKO KUZELIK / BEARING / LAGER	32217A	2
8	30.6205-107	2	VÍKO / COVER / DECKEL	VYPÁLEK	1
9	30.6205-105	1	VÍKO / COVER / DECKEL	VYPÁLEK	1
10	30.6205-103	1	KROUZEK / RING / RING	TR 114x12.5	1
11	30.6205-106	1	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	TR 102x10	1
12	95.855.011	0	POJISTNÁ PODLOŽKA / WASHER / UNTERLEGSCHIEBE	M817	1
13	95.850.012	0	MATICE KM / KM NUT / KM-MUTTER	MATICE KM17	1
14	95.830.037	0	GUFERO / GIT SEAL / DICHTUNG	GUFERO 100X130X12	1
15	95.830.039	0	GUFERO / GIT SEAL / DICHTUNG	GUFERO 105X130X12	1
16	30.1804-005	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	d 70	1
17	90.011.27.040	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M16X35	1
18	95.810.XXX	0	PERO TĚSNÉ / TIGHT SPRING / PASSFEDER	PERO 16X10X56	2
19	90.150.50.008	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 15	8
20	90.001.25.XXX	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M14X40	8
21	90.001.25.019	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X25	12
22	90.150.50.009	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 17	8
23	90.005.55.XXX	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M16X100	8
24	30.6704-018	2	VENTILATOR / VENTILATOR / VENTILATOR		1
	91.015.100	0	VENTILATOR / VENTILATOR / VENTILATOR		1

Císlo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.7. Snimac / Sensor / Sensor



7.8. Kusovník / Stückliste / Piece list – Snimac / Sensor / Sensor

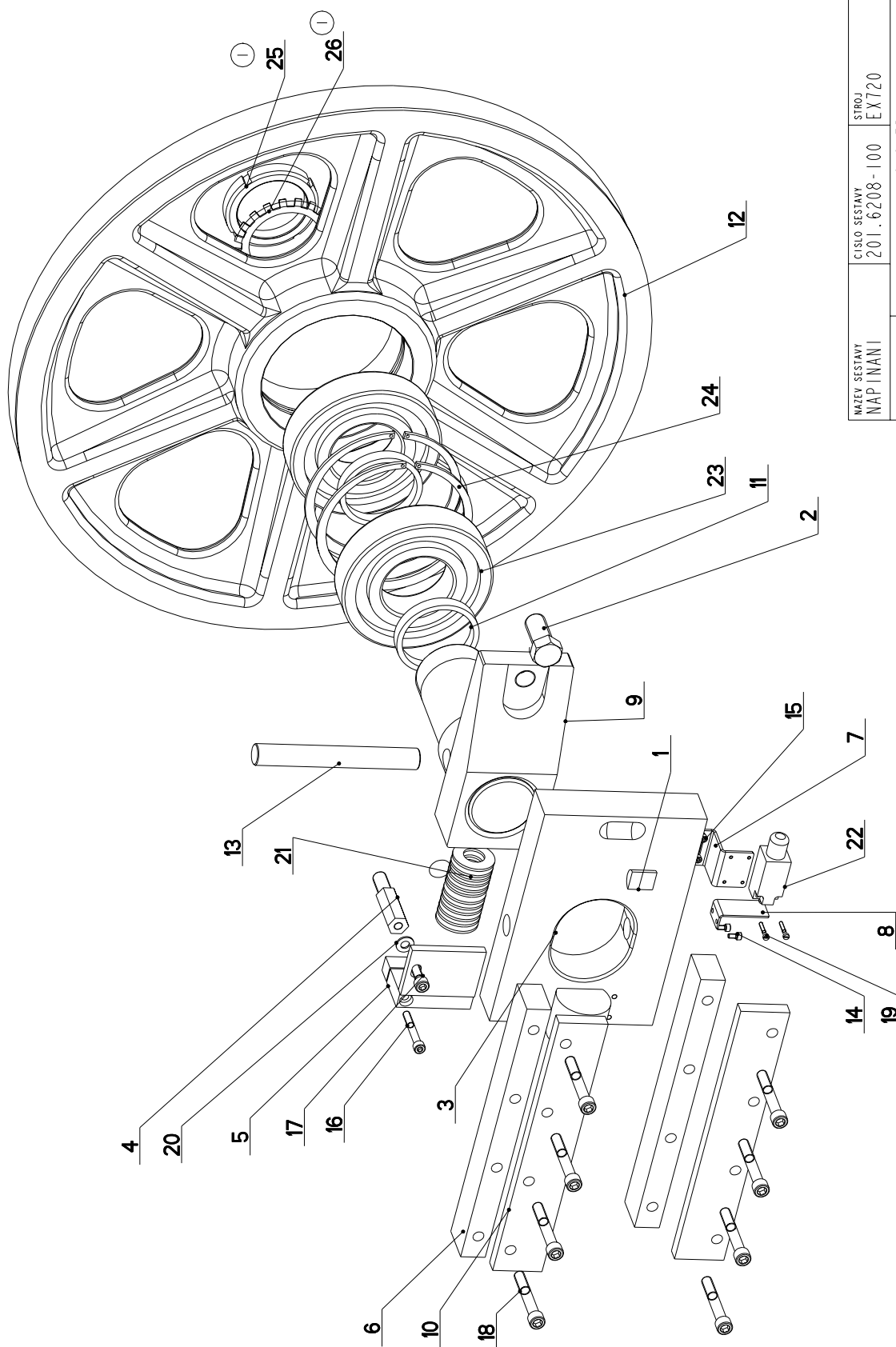
Cislo Sestavy 201.6702-200		Ver. 2	Nazev sestavy SNIMAC/SENSOR/SENSOR		
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.2902-205	1	KONZOLA / CONSOLE / KONSOLE	P2 - 25.5	1
2	30.2902-209	0	CLONA / CURTAIN / SCHÜRZE		1
3	30.6702-212	0	HRIDEL / SHAFT / WELLE	KOLIK 5x32	1
4	30.6702-214	0	PASTOREK / PINION / RITZEL	z=12	1
5	31.2902-113	0	PRUŽINA / SPRING / FEDER	d 1.2	1
6	31.2902-201	0	RAMENO / SHOULDER / SÄGERAHMEN	VYLISEK-PLAST	1
7	31.2902-204	0	TESNENÍ / SEALING / DICHTUNG	TL.1 - 32.3	1
8	31.2930-001	0	SNIMAC / SENSOR / SENSOR	DAS 330GA	1
9	81.2902-203	0	KRYT / COVER / ABDECKUNG	P 1.5 - 31.8	1
10	90.300.02.XXX	0	KOLIK VALCOVÝ KALENÝ / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHÄRTET	KOLIK 4X20	2
11	91.070.010	0	PRUCHODKA / LEADTHROUGH / DURCHFÜHRUNG	M12x1.5 ČERNA	1
12	95.001.002	0	LOŽISKO / BEARING / LAGER	624 2RS	2

② POZ. 30.6702-202 NAHRAZENA 30.6702-212, POZ.30.6702-204 NAHRAZENA 30.6702-214 22.3.05 STASTNA

① TESNENÍ 31.2902-206 NAHRAZENO TESNENÍM 31.2902-204 2.9.2003 ROZKOSNY

Cislo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.9. Napínání / Spannung / Tensioning



NAZEV SESTAVY NAPÍNÁNÍ	ČÍSLO SESTAVY 201.6208-100	STROJ EX720
Konstruoval: HOLCNER		
Datum: 11. 01. 2010		
Meritko: 1:4		

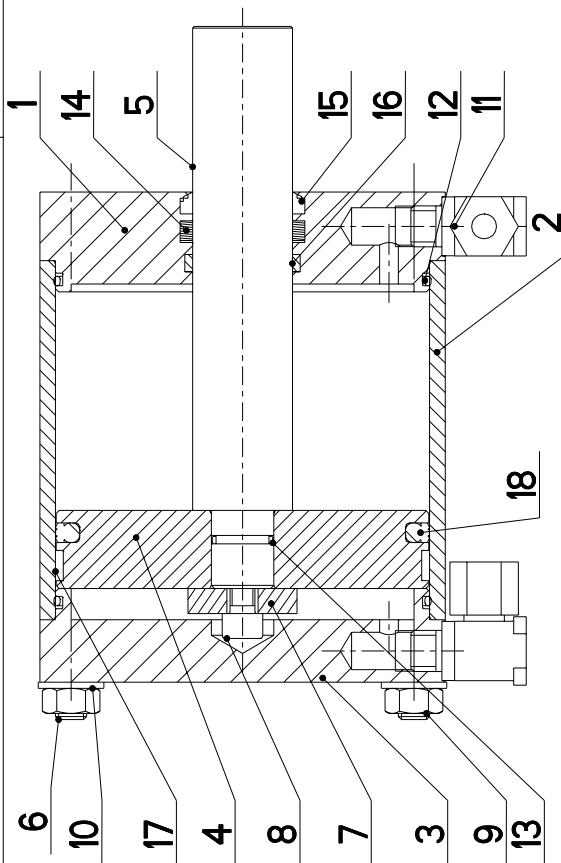
7.10. Kusovník / Stückliste / Piece list – Napínání / Spannung / Tensioning

Číslo Sestavy 201.6208-100		Ver. 1	Název sestavy NAPINANI / TENSIONING / SPANNUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.6208-003	0	CEP / LUG / BOLZEN	d 25	1
2	30.6208-004	0	SROUB / BOLT / SCHRAUBE	TYC 32	1
3	30.6208-102	0	KOSTKA NAPINANI / TENSIONING CUBE / BANDSPANNUNGSWÜRFEL		1
4	30.6208-103	1	DORAZ / STOP PIECE / ANSCHLAG	TYC 6HR 22	1
5	30.6208-104	1	TRMEN / BINDER / BÜGEL		1
6	30.6208-105	2	LISTA / TRIM / LEISTE	TYC 50x30	2
7	30.6708-303	1	DRŽAK / HOLDER / HALTER	P3x50	1
8	30.6708-304	0	DORAZ / STOP PIECE / ANSCHLAG	P 2x20x76	1
9	30.7508-001	2	CEP NAPINANI / TENSIONING LUG / SPANNUNGSBOLZEN		1
10	30.7508-004	2	LISTA / TRIM / LEISTE	TYC 60x15	2
11	30.7508-005	3	KROUZEK / RING / RING	TR 102x10	2
12	30.7508-006	1	KOLO NAPINACI / TENSIONING WHEEL / UMLENKRAD	KOLO	1
13	30.7508-007	0	CEP / LUG / BOLZEN	TYC 25J6	1
14	90.001.25.007	0	SROUB IMBUS ČERNÝ / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x10	2
15	90.001.25.009	0	SROUB IMBUS ČERNÝ / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x16	2
16	90.001.25.040	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x60	1
17	90.001.25.048	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x30	1
18	90.001.25.065	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x80	8
19	90.012.50.006	0	SROUB / BOLT / SCHRAUBE	SROUB M4x25	2
20	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHNITT	PODLOŽKA 10,5	1
21	90.350.07.004	0	TAL. PRUŽINA DIN 2093 A / DISC SPRING / TELLERFEDER	50x25.4x3	12
22	91.173.007	0	SPINAC KONCOVÝ / END SWITCH / ENDSCHALTER	-RIWK	1
23	95.001.053	0	LOŽISKO / BEARING / LAGER	6317A	2
24	95.801.033	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 180	2
25	95.850.012	1	MATICE KM / KM NUT / KM-MUTTER	MATICE KM17	1
26	95.855.011	1	POJISTNA PODLOŽKA / WASHER / UNTERLEGSCHNITT	MB17	1

1 ZRUSENA POLOZKA 90.011.27.016 - 6x, 30.7508-011 - 1x; NOVA POLOZKA - 95.850.012 - 1x, 95.855.011, - 1x
ZM 286-2007 23.6.2007 RYSAVY

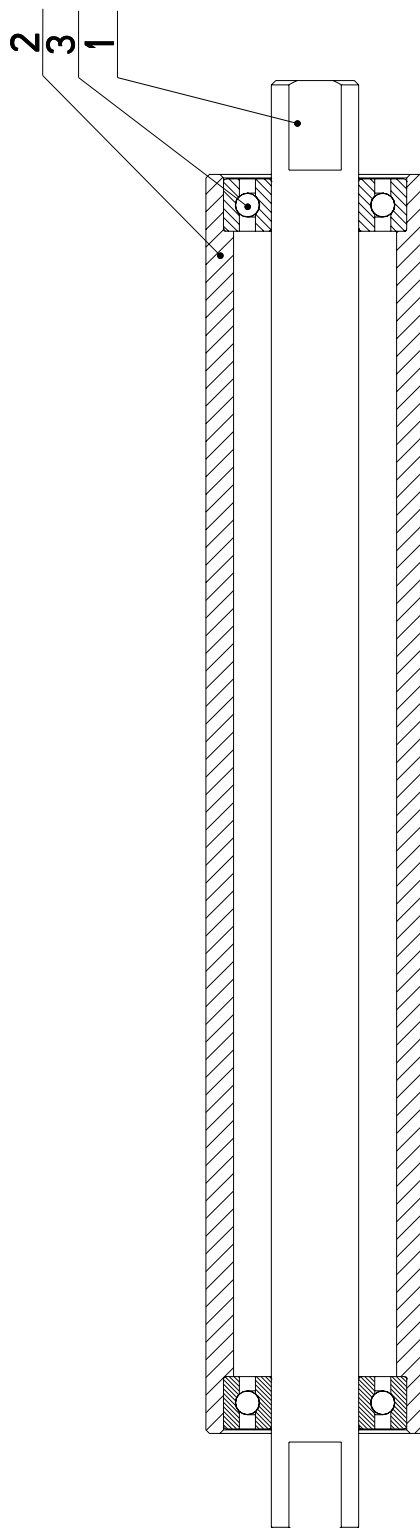
7.11. Válec napínací / Spannzyylinder / Tensioning cylinder

Cislo Sestavy 201.6707-400		Ver. 2	Název sestavy VALEC NAPÍNACÍ / TENSIONING CYLINDER / SPANNZYLINDER		Rozměr	Ks
Poz.	Objednací číslo	Ver.	Název položky			
1	30.6707-401	1	VIKO / COVER / DECKEL		HR 130x40	1
2	30.6707-402	0	VALEC / ROLLER / ZYLINDER		TRUBKA 130/120	1
3	30.6707-403	1	VIKO / COVER / DECKEL		HR 130x30	1
4	30.6707-404	1	PIST / PISTON / KOLBEN		Ø 125	1
5	30.6707-405	1	PISTNICE / PISTON ROD / KOLBENSTANGE		TYC 32	1
6	30.6707-406	0	TYC ZAVITOVÁ / THREADED POLE / GEWINDESTANGE		TYC M10	4
7	30.6707-005	1	PODLOŽKA / WASHER / UNTERLEGSCHEIBE		TYC 35	1
8	90.001.25.031	0	SROUB IMBUS CERNÝ / ALLEN HEAD BOLT / IMBUSSCHRAUBE		8x16	1
9	90.100.55.006	0	MATICE / NUT / MUTTER		MATICE - M10	4
10	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE		PODLOŽKA 10,5	4
11	92.003.001	0	SROUBENÍ UHLOVÉ / ANGLE BOLTING / WINKELVERSCHRAUBUNG		P-RSWS-08LR	2
12	96.001.031	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH		114X3	2
13	96.002.007	0	O-KROUZEK DYNAMIC / DYNAMIC O RING / O-RING DYNAMISCH		16X2	1
14	96.042.007	0	TESNĚNÍ / SEALING / DICHTUNG		32x40x6.3	1
15	96.060.009	0	KROUZEK STÍRAČÍ / SCRAPER RING / ABSTREIFRING		32x40x5x6	1
16	96.084.003	0	KROUZEK VODICÍ / LEAD RING / FÜHRUNGSRING		GR 6500320	1
17	96.084.014	0	KROUZEK VODICÍ / LEAD RING / FÜHRUNGSRING		Páska	1
18	96.900.028	0	TESNĚNÍ KOMBINOVANÉ / COMBINATION SEALING / KOMBIDICHTUNG			1



7.12. Válec pomocný / Hilfzylinder / Aux. cylinder

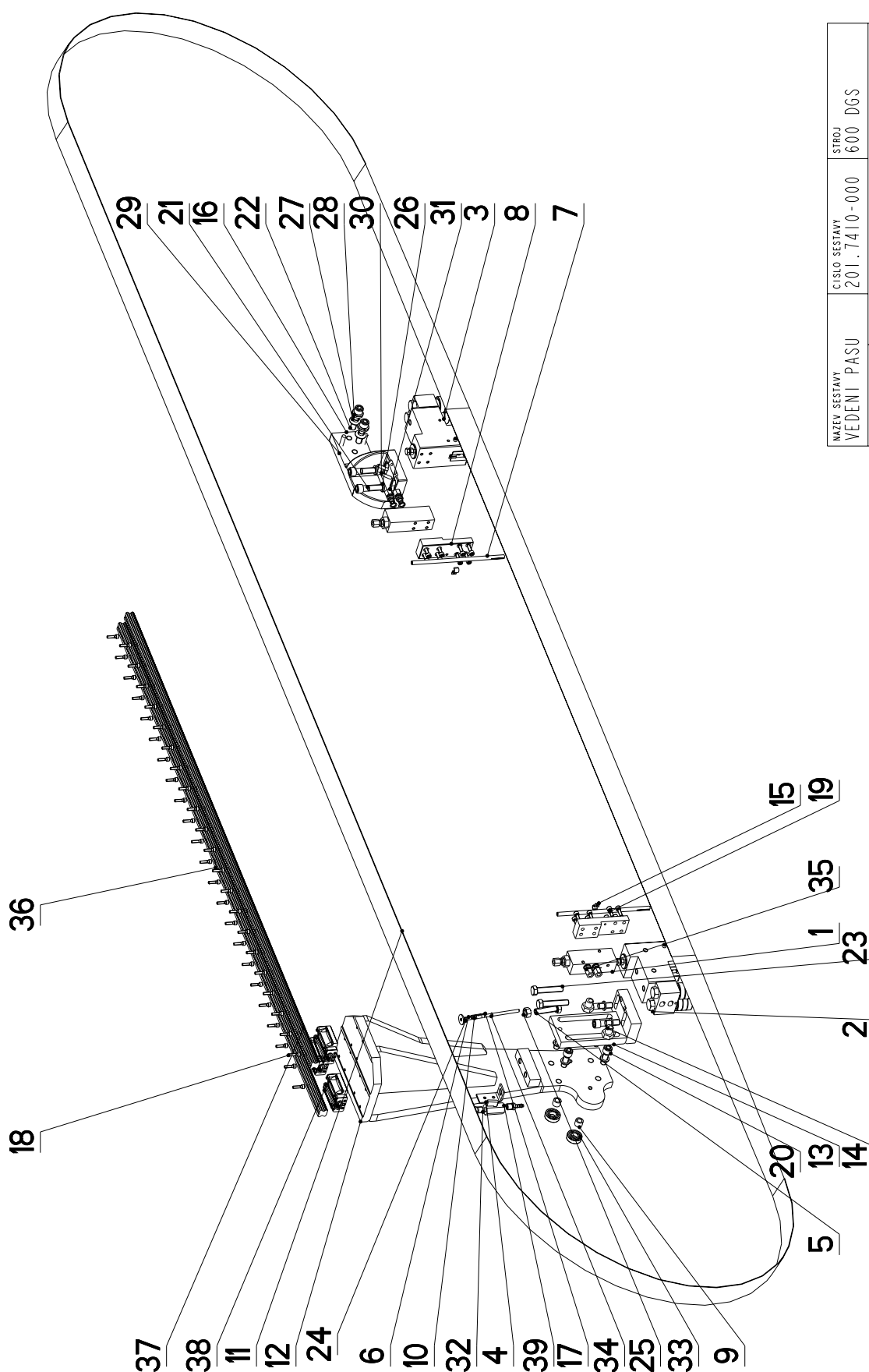
Cislo Sestavy 201.7203-210		Ver. 0	Název sestavy VALEC POMOCNY/AUXILIARY CYLINDER/HILFSZYLINDER	
Poz.	Objednací číslo	Ver.	Název položky	Rozměr
1	30.7203-015	1	OSA / AXLE / Achse	d 20
2	30.7203-016	0	VALEC POMOCNY / AUXILIARY CYLINDER / HILFSZYLINDER	TR 51x6.3
3	95.001.007	0	LOŽISKO / BEARING / LAGER	6004 2RSA
				Ks
				1
				1
				2



B - B

Cislo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.13. Vedení pásu / Sägebandführung / Belt guide



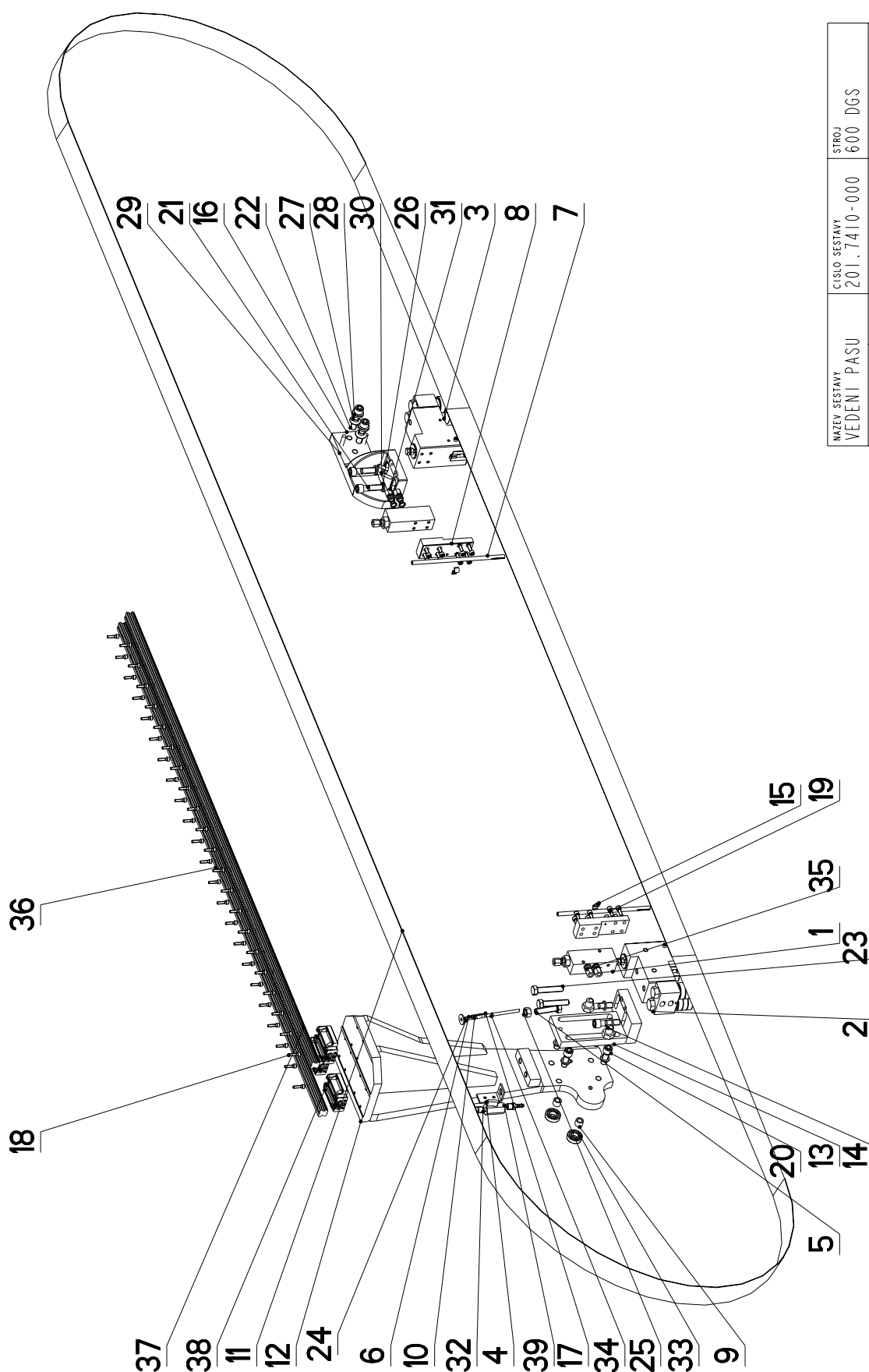
NAZEV SESTAVY VEDENÍ PASU	CÍSLO SESTAVY 201.7410-000	STROJ 600 DGS
Konstruoval: RYŠAVÝ		
Datum: 17. 03. 2011		
Meritko: 7:50		

7.14. Kusovník / Stückliste / Piece list – Vedení pásu / Sägebandführung / Belt guide

Císlo Sestavy 201.7410-000	Ver. 0	Název sestavy VEDENÍ PASU/BELT GUIDE / SÄGEBANDFÜHRUNG			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6816-100	0	KOSTKA REGULACE / REGULATION CUBE / REGELUNGSWÜRFEL		2
2	201.7610-100	0	KOSTKA VODIČI / LEAD CUBE / FÜHRUNGSKLOTZ		1
3	201.7610-200	0	KOSTKA VODIČI / LEAD CUBE / FÜHRUNGSKLOTZ		1
4	30.1814-011	0	DRŽÁK / HOLDER / HALTER	P 3- 76	1
5	30.6010-004	1	SROUB / BOLT / SCHRAUBE	SROUB M12x50	1
6	30.6010-005	0	TAHLO / GUY ROD / ZUGSTANGE	d 6	1
7	30.6010-315	0	TRUBKA / TUBE / ROHR	TR 8x 1	2
8	30.6016-002	0	DESKA / BOARD / PLATTE	HR 40x20	2
9	30.7110-005	0	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	TR 16x3	2
10	30.7210-005	0	SROUB / BOLT / SCHRAUBE		1
11	30.7404-099	0	PAS PÍLOVÝ / SAW BELT / SÄGEBAND	54x1.6	1
12	30.7410-001	0	KONZOLA / CONSOLE / KONSOLE		1
13	30.7410-002	0	DRŽÁK / HOLDER / HALTER		1
14	30.7410-032	0	EXCENTR / CAM / EXZENTER	TYC 6HR 22	2
15	30.9010-003	0	DRŽÁK / HOLDER / HALTER	PI.5x10	2
16	30.9510-005	0	DRŽÁK / HOLDER / HALTER	-	1
17	31.6010-006	0	PRUŽINA / SPRING / FEDER	d 8	1
18	90.001.25.010	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x20	44
19	90.001.25.018	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x20	16
20	90.001.25.059	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x35	4
21	90.001.25.061	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x45	4
22	90.001.25.062	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x50	2
23	90.005.55.055	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M12x60	2
24	90.100.55.002	0	MATICE / NUT / MUTTER	MATICE – M4	1
25	90.100.55.007	0	MATICE / NUT / MUTTER	MATICE M12	1

Císlo sestavy/Number of assembly/Numer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.15. Vedení pásu / Sägebandführung / Belt guide

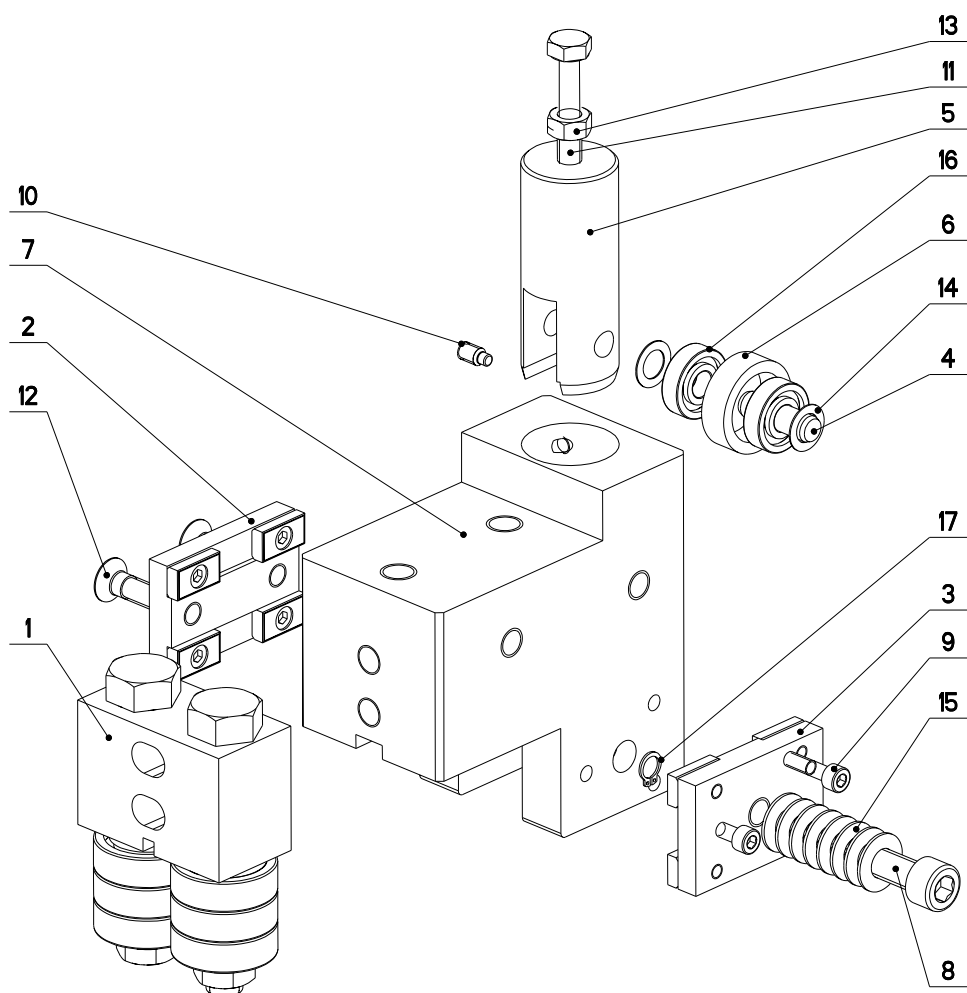


NAZEV SESTAVY	CÍSLO SESTAVY	STROJ
VEDENÍ PÁSU	201.7410-000	600 DGS
Konstruoval: RYŠAVÝ		
Datum: 17. 03. 2011		
Meritko: 7:50		

[illegible]

Cislo	Sestavy/Number of assembly	Nummer der Baugruppe	Verze (Ver.)	Version/Version	Nazev sestavy/Assembly title	Name der Baugruppe	Pozice (Poz.)	Position/Position
Objednaci cislo/Purchase order number	Bestellnummer	Nazev polozky/Volume title	Name der Position	Rozmer/Stock size	Abmessung			

7.17. Vodící kostka / Führungsklotz / Guiding cube – 1



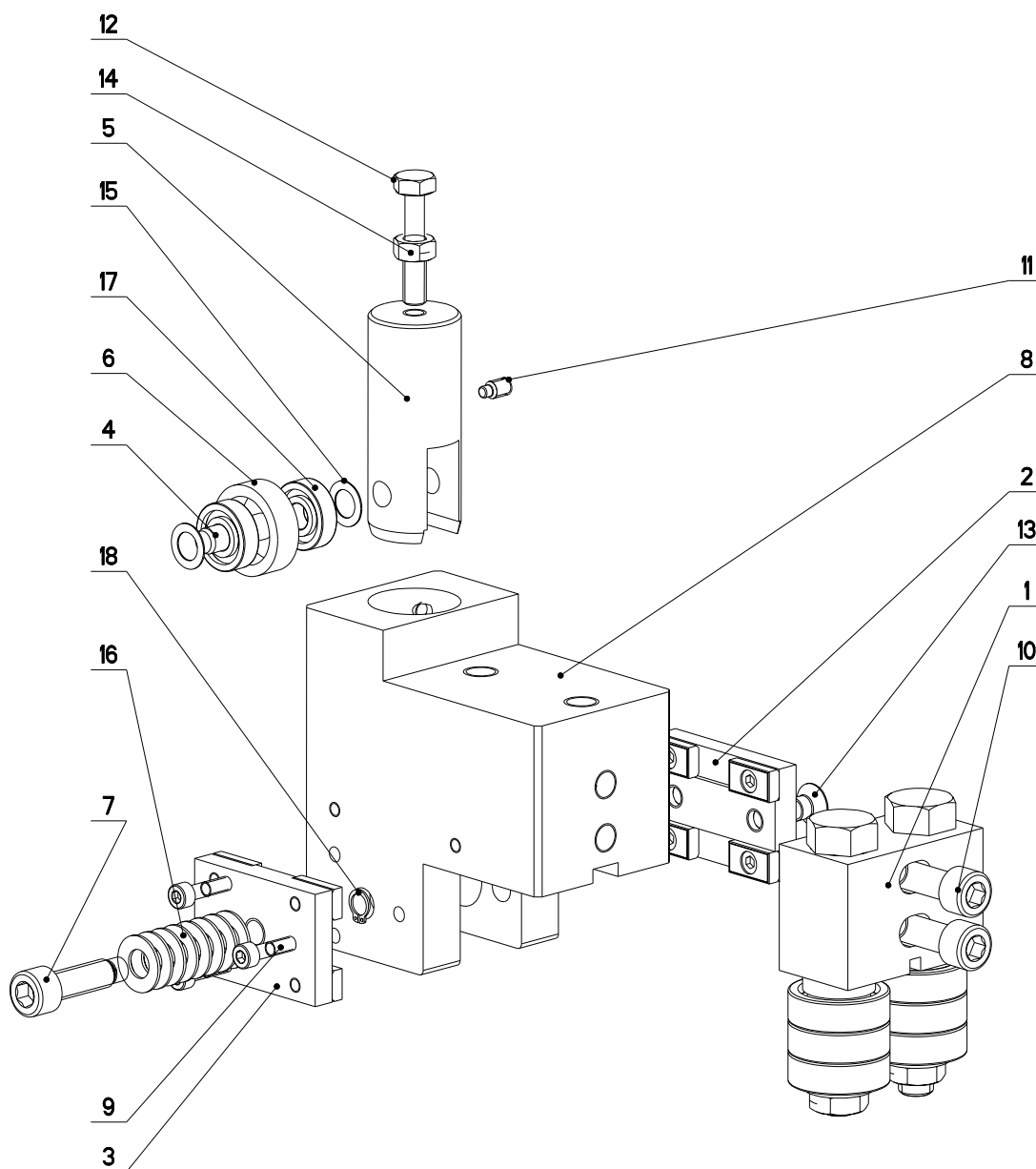
NAZEV SESTAVY KOSTKA VODICI	CISLO SESTAVY 201.Y610-100	STROJ IN15/6
	Konstruoval: MUSIL	
	Datum: 03. 03.2010	
	Meritko: 1:2	

7.18. Kusovník / Stückliste / Piece list – Vodící kostka / Führungsklotz / Guiding cube – 1

Císlo Sestavy 201.Y610-100		Ver. 0	Název sestavy KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.C410-510	0	VEDENÍ / GUIDE / BACKENFÜHRUNG		1
2	201.Y610-110	0	DRŽÁK TVRDOKOVU / POA HOLDER / HW-HALTER		1
3	201.Y610-120	0	DRŽÁK TVRDOKOVU / POA HOLDER / HW-HALTER		1
4	30.6710-108	1	KOLÍK / PIN / BOLZEN	TYC 10	1
5	30.6710-109	0	PIST / PISTON / KOLBEN	d 32	1
6	30.6710-110	1	KROUZEK / RING / RING	LH 2403210	1
7	30.Y610-101	1	KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ	HR 120x80	1
8	30.Y610-106	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x30	1
9	90.001.25.011	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x25	3
10	90.004.20.002	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M6x12	1
11	90.005.55.019	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M8x40	1
12	90.011.27.016	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M8x25	2
13	90.100.55.005	0	MATICE / NUT / MUTTER	MATICE _ M8	1
14	90.154.50.003	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	10x16x0.50	2
15	90.350.07.005	0	PRUŽINA TALIROVA / DISC SPRING / TELLERFEDER	20X10.2X1.1	8
16	95.001.044	0	LOŽISKO / BEARING / LAGER	609 2RS	2
17	95.800.002	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 8	1

Císlo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.19. Vodící kostka / Führungsklotz / Guiding cube – 2



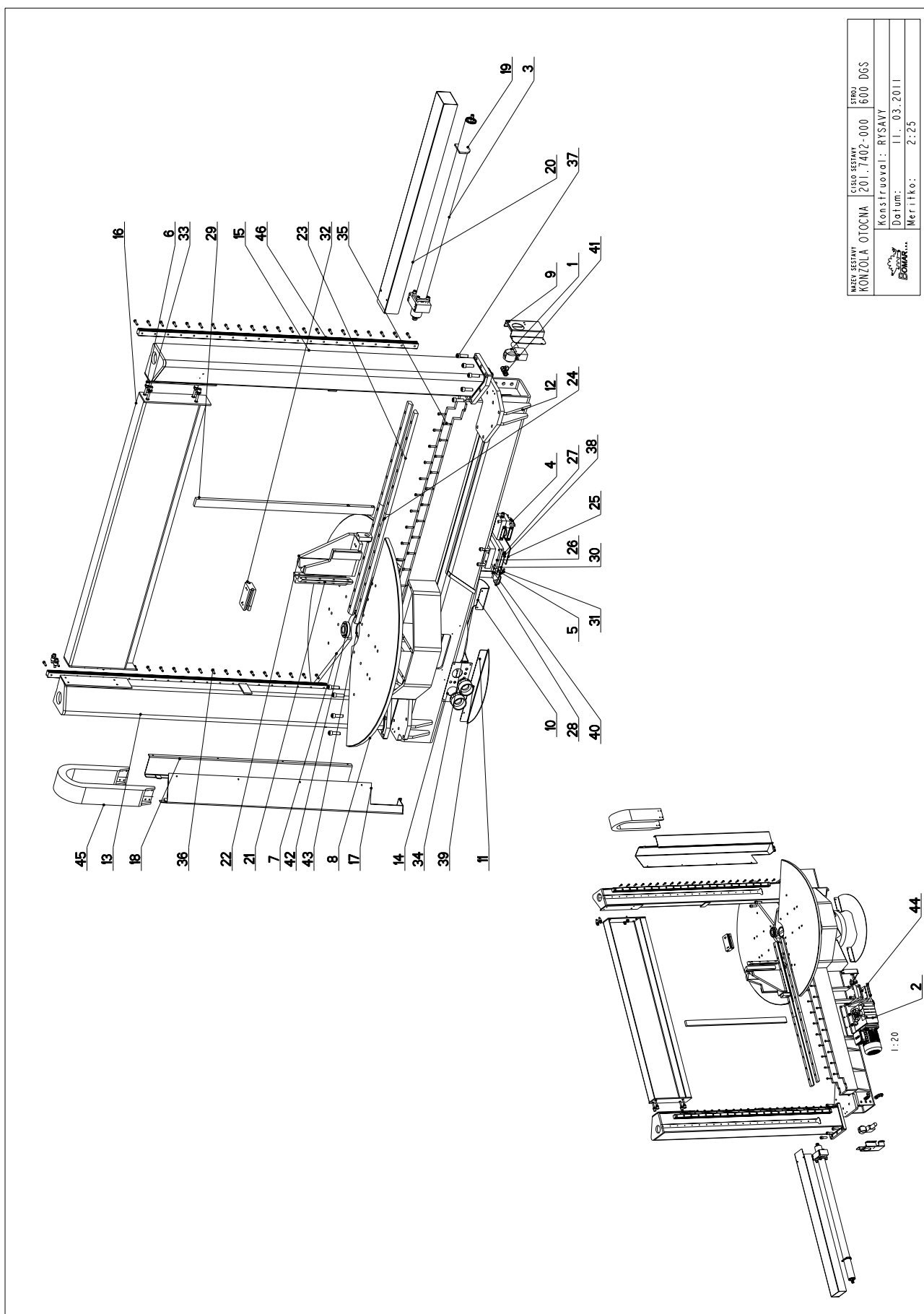
NAZEV SESTAVY KOSTKA VODICI	CISLO SESTAVY 201.Y610-200	STROJ IN5/6
	Konstruoval: MUSIL	
	Datum: 03. 03.2010	
	Meritko: 1:2	

7.20. Kusovník / Stückliste / Piece list – Vodící kostka / Führungsklotz / Guiding cube – 2

Císlo Sestavy 201.Y610-200		Ver. 0	Název sestavy KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.C410-510	0	VEDENÍ / GUIDE / BACKENFÜHRUNG		1
2	201.Y610-110	0	DRŽÁK TVRDOKOVU / POA HOLDER / HW-HALTER		1
3	201.Y610-120	0	DRŽÁK TVRDOKOVU / POA HOLDER / HW-HALTER		1
4	30.6710-108	1	KOLÍK / PIN / BOLZEN	TYC 10	1
5	30.6710-109	0	PIST / PISTON / KOLBEN	d 32	1
6	30.6710-110	1	KROUZEK / RING / RING	LH 2403210	1
7	30.Y610-106	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x30	1
8	30.Y610-201	1	KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ	HR 120x80	1
9	90.001.25.011	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x25	3
10	90.001.25.053	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x55	2
11	90.004.20.002	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M6x12	1
12	90.005.55.019	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M8x40	1
13	90.011.27.016	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M8x25	2
14	90.100.55.005	0	MATICE / NUT / MUTTER	MATICE _ M8	1
15	90.154.50.003	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	10x16x0.50	2
16	90.350.07.005	0	PRUŽINA TALIROVA / DISC SPRING / TELLERFEDER	20X10.2X1.1	8
17	95.001.044	0	LOŽISKO / BEARING / LAGER	609 2RS	2
18	95.800.002	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 8	1

Císlo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.21. Konzola otočná / Drehkonsole / Turnable console

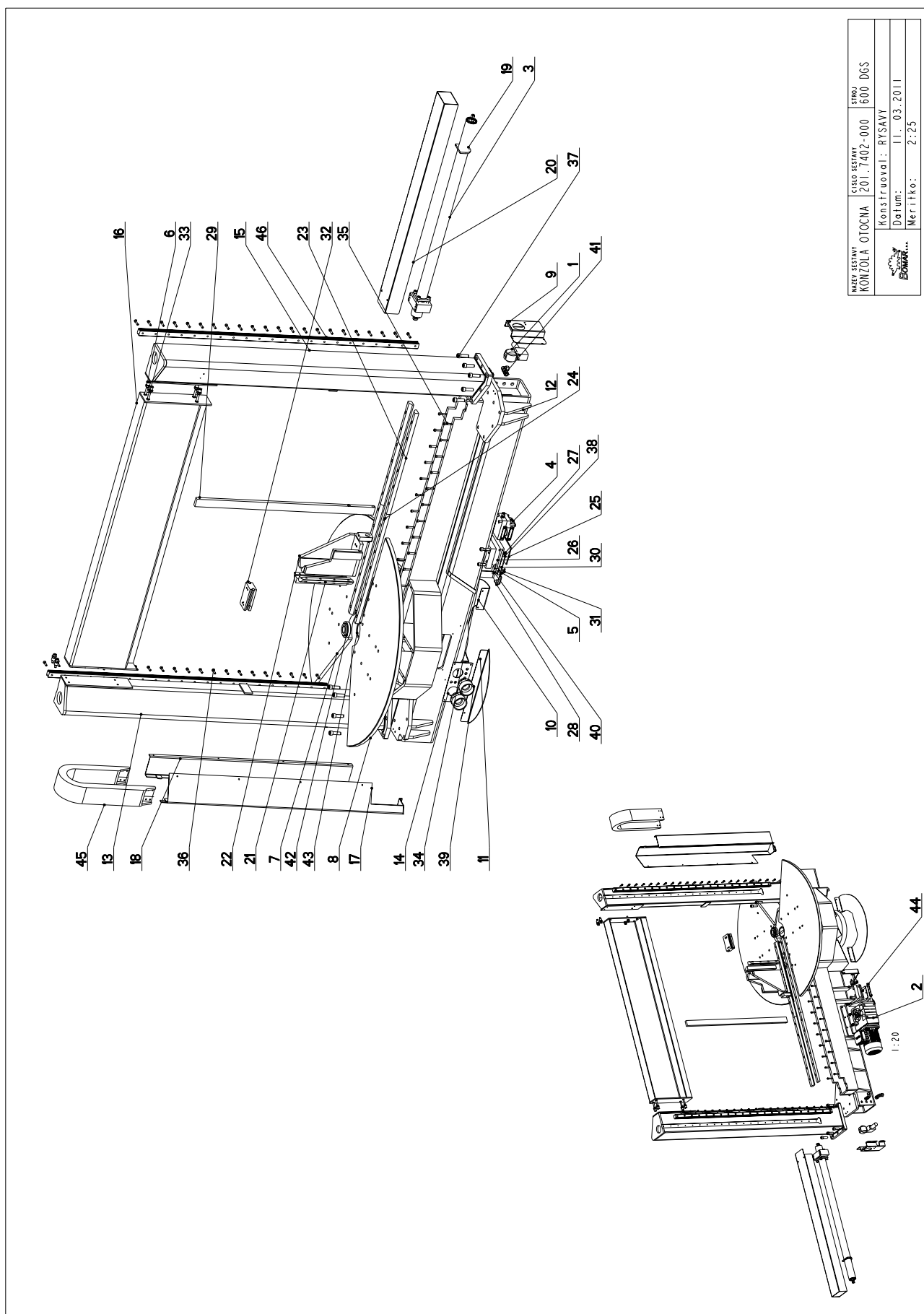


7.22. Kusovník / Stückliste / Piece list – Konzola otočná / Drehkonsole / Turnable console

Císlo Sestavy 201.7402-000	Ver. 0	Nazev sestavy KONZOLA OTOCNA/TURNABLE CONSOL/DREHKONSOLE			
Poz.	Objednací číslo	Ver.	Nazev položky	Rozmer	Ks
1	252.022	0	REGULACE PRITLAKU / PRESSURE REGULATION / SCHNITTDRUCKREGULATION		1
2	201.7405-100	0	POHON / DRIVE / ANTRIEB		1
3	201.7407-200	0	VALEC SVERAKU / VICE CYLINDER / SCHRAUBSTOCKZYLINDER		1
4	201.7416-000	0	BRZDA / BRAKE / BREMSE		1
5	30.1504-017	0	STERAC / WIPER / ABSTREIFER	P 0.3 x10	2
6	30.6401-009	0	SROUB / BOLT / SCHRAUBE	6HR-22	8
7	30.7203-003	1	DESKA / BOARD / PLATTE	P 25 - 610	1
8	30.7203-004	1	DESKA / BOARD / PLATTE	P 25 - 610	1
9	30.7214-139	0	KRYT / COVER / ABDECKUNG		1
10	30.7214-215	1	PLECH / PLATE / BLECH	P3-367.5	1
11	30.7214-216	1	PLECH / PLATE / BLECH	P 3x168x498	1
12	30.7402-001	0	KONZOLA / CONSOLE / KONSOLE		1
13	30.7402-004	0	SLOUP / POLE / SÄULE		1
14	30.7402-006	0	DRZAK / HOLDER / HALTER	P 3x120x260	1
15	30.7402-007	0	SLOUP / POLE / SÄULE		1
16	30.7402-008	0	VZPERA / PROP / STREBE		1
17	30.7402-009	0	KRYT / COVER / ABDECKUNG		1
18	30.7402-010	0	KRYT / COVER / ABDECKUNG		1
19	30.7402-014	0	OBJIMKA / CLAMP / KLAMMERSTÜCK	P 8x90x75	1
20	30.7402-015	0	KRYT VALCE / ROLLER COVER / ZYLINDERABDECKUNG		1
21	30.7402-016	0	CELIST / JAW / BACKE	HR 60x40	2
22	30.7402-017	0	CELIST / JAW / BACKE		1
23	30.7402-023	0	LISTA VODICI / LEAD TRIM / FÜHRUNGSLEISTE	HR 40x25	2
24	30.7402-024	0	LISTA VODICI / LEAD TRIM / FÜHRUNGSLEISTE	HR 40x25	2
25	30.7402-026	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	HR 300x110	1
26	30.7402-027	0	KOSTKA / CUBE / WÜRFEL	HR 130x25	1
27	30.7402-028	0	STERAC / WIPER / ABSTREIFER	BA18	2
28	30.7402-029	0	DRZAK / HOLDER / HALTER	P5 x 62	1
29	30.7402-038		LISTA / TRIM / LEISTE	HR 50x20	1
30	30.V302-131	0	DRZAK / HOLDER / HALTER	HR 25x35	1
31	30.V302-133	0	PERO / SPRING / FEDER	HR 10x6	1
32	30.Y303-206		KLUZAK / GLIDER / GLEITER	HR 80x50	1
33	90.001.25.051	0	SROUB IMBUS CERNENY / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X45	8

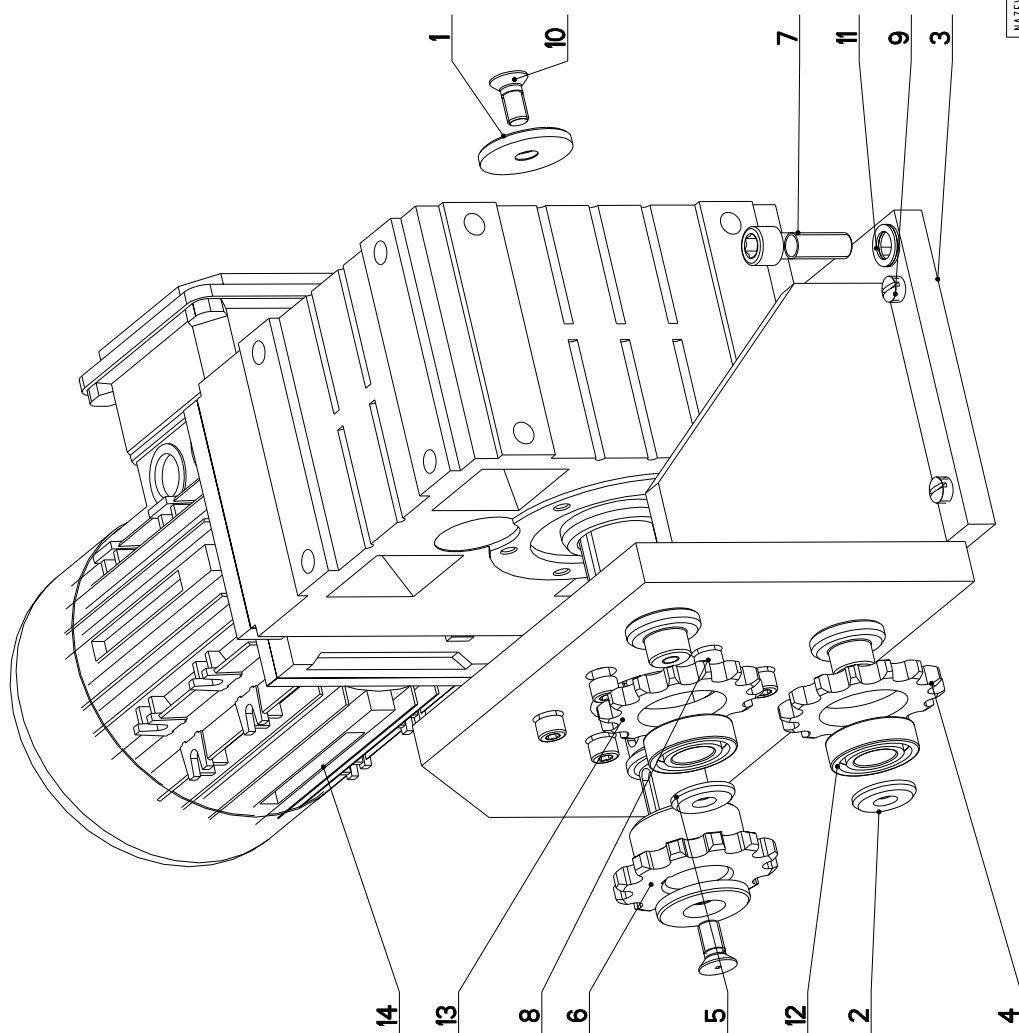
Cislo Sestavy/Number of assembly/Numer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.23. Konzola otočná / Drehkonsole / Turnable console



Cislo	Sestavy/Number of assembly	Verze (Ver.)	Version/Version	Nazev sestavy/Assembly title	Name der Baugruppe	Pozice (Poz.)	Position/Position
Objednaci cislo/Purchase order number	BestelInnummer	Nazev polozky/Volume title	Name der Position	Rozmer/Stock size	Abmessung		

7.25. Pohon / Antrieb / Drive – 2



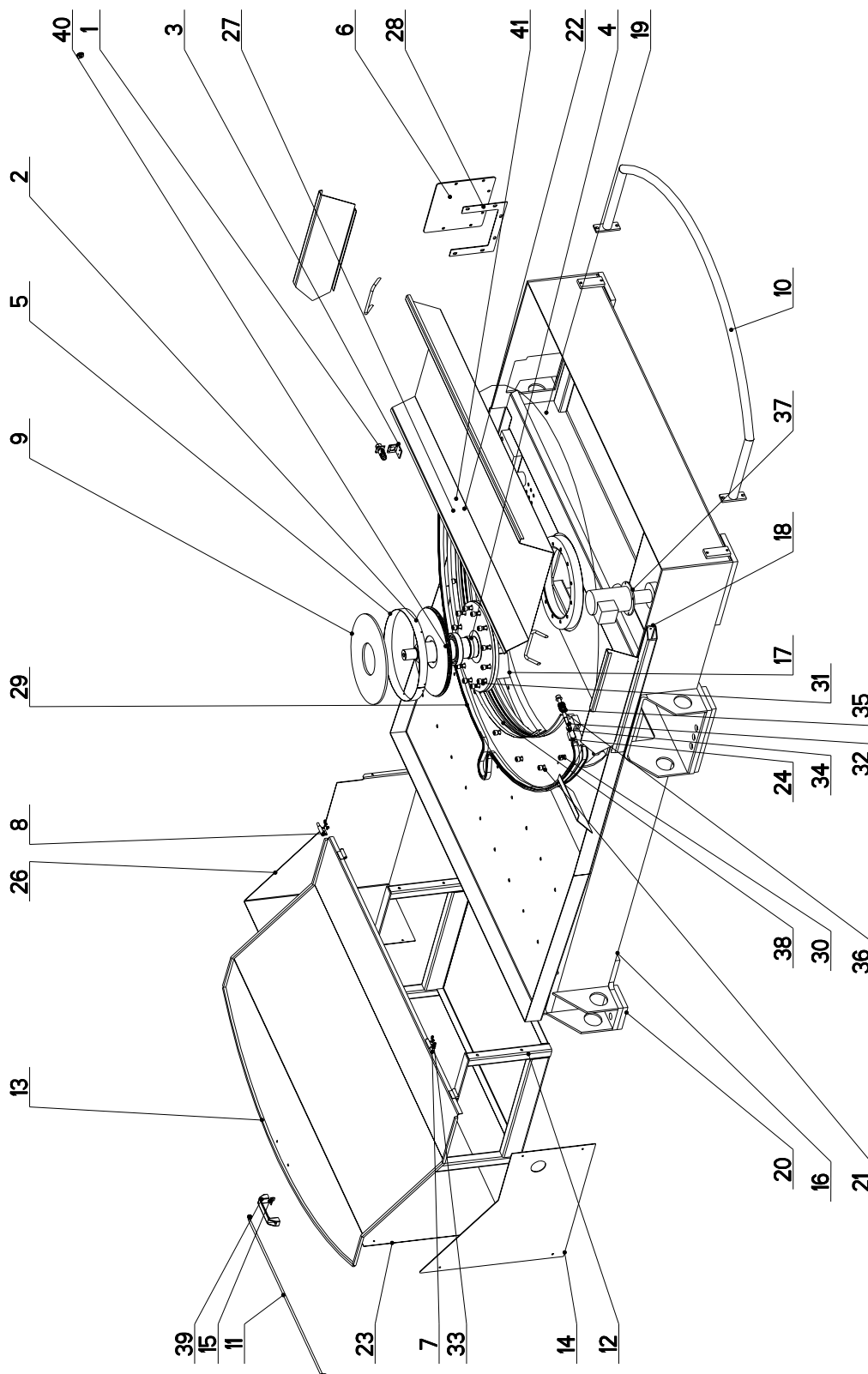
NAZEV SESTAVY POHON	CISLO SESTAVY 201.7405-100	STROJ 600 DGS
Konstnuoval: RYSAVY		
Datum: 11. 03. 2011		
Meritko: 1:2		

7.26. Kusovník / Stückliste / Piece list – Pohon / Antrieb / Drive – 2

Cislo sestavy 201.7405-100		Ver. 0	Název sestavy POHON/DRIVE / ANTRIEB			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks	
1	30.1502-465	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	d 45	2	
2	30.1514-503	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	d 30	2	
3	30.7405-101	0	KONZOLA / CONSOLE / KONSOLE		1	
4	30.7405-103	0	KOLO RETEZOVÉ / CHAIN WHEEL / KETTENRAD	RETEZKA z=14	2	
5	30.7405-105	0	HRDEL / SHAFT / WELLE	d 40	1	
6	30.7405-106	0	KOLO RETEZOVÉ / CHAIN WHEEL / KETTENRAD	108-B 12z NABOJ	1	
7	90.001.25.060	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X40	5	
8	90.001.55.083	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X30	6	
9	90.002.20.XXX	0	SROUB STAVEC / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M12X22	3	
10	90.011.27.XXX	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHEIBE	SROUB M10X22	2	
11	90.163.00.003	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	NORD-LOCK 13	5	
12	95.001.007	0	LOŽISKO / BEARING / LAGER	6004 2RSA	2	
13	95.810.007	0	PERO TESNE / TIGHT SPRING / PASSFEDER	PERO 8X7X25	1	
14	99.001.145	0	PREVODOVKA / TRANSMISSION / GETRIEBE	GKS05 3M HAR	1	

Cislo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.27. Podstavec / Untersatz / Base



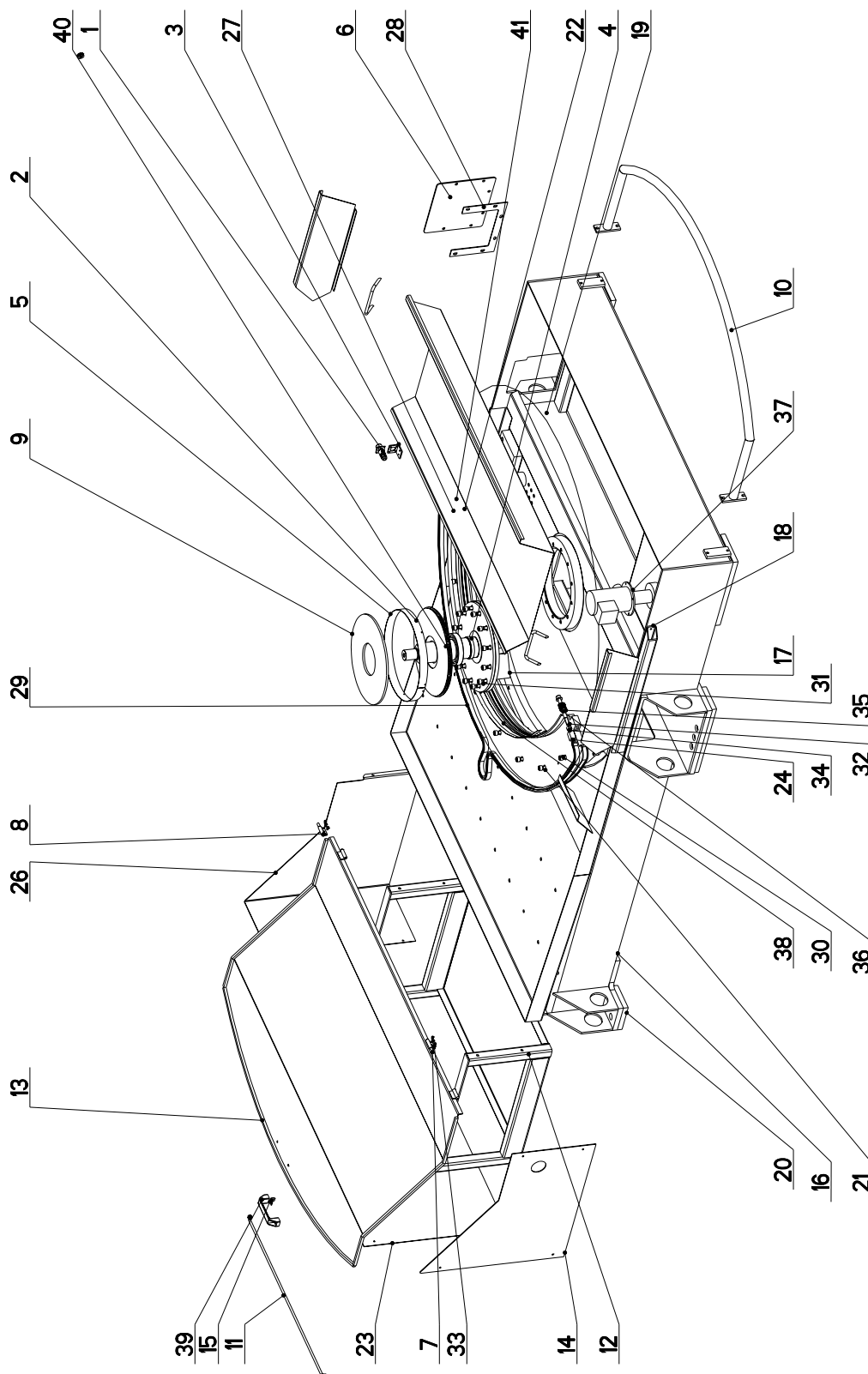
NAZEV SESTAVY PODSTAVEC	ČÍSLO SESTAVY 201.7401-000	STROJ 600 DGS
Konstruoval: RYSAVY		
Datum: 18. 03. 2011		
Meritko: 7:100		

7.28. Kusovník / Stückliste / Piece list – Podstavec / Untersatz / Base

Cislo Sestavy 201.7401-000		Ver. 0	Nazev sestavy PODSTAVEC/BASE/UNTERSATZ		
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	262.007	0	KONEKTOR / CONNECTOR / STECKVERBINDER		1
2	201.7402-002	0	LOZISKO / BEARING / LAGER		1
3	30.6101-111	0	DRZAK / HOLDER / HALTER	PROFIL 40x40x4	1
4	30.7102-007	1	KROUZEK DISTANCI / DISTANCE RING / DISTANZRING	TR 89x8	1
5	30.7102-124	1	KRYT / COVER / ABDECKUNG	P 0.8x33x1120	1
6	30.7201-103	1	KRYT / COVER / ABDECKUNG	P 4x235x270	1
7	30.7201-106	0	PANT / HINGE / TÜRBAND	40x40	1
8	30.7201-107	0	PANT / HINGE / TÜRBAND	40x40	1
9	30.7202-008	0	PRIUBA / FLANGE / FLANSCH	P 8-352	1
10	30.7214-114	0	PLOT / FENCE / ZAUN		1
11	30.7214-181	0	HACEK / HOOK / HÄKCHEN		1
12	30.7214-190	4	DRZAK / HOLDER / HALTER		1
13	30.7214-191	1	SKLUZ / SLIDE / RUTSCH		1
14	30.7214-197	1	DRZAK / HOLDER / HALTER	P 2,5 -605	1
15	30.7214-199	1	DRZAK / HOLDER / HALTER	P 2 - 20	1
16	30.7401-001	0	PODSTAVEC / BASE / UNTERSATZ		1
17	30.7401-005	0	CEP / LUG / BOLZEN		1
18	30.7401-006	0	JACKL / STEEL BAR / FORMROHR	J 40x40x3	1
19	30.7401-007	0	NOHA / LEG / STÄNDER	TYC 120x20	2
20	30.7401-008	0	NOHA / LEG / STÄNDER	TYC 120x20	2
21	30.7401-023	0	SEGMENT / SEGMENT / SEGMENT	P 25 - 670	1
22	30.7401-024	0	LISTA / TRIM / LEISTE	17x6	1
23	30.7401-025	0	KRYT / COVER / ABDECKUNG	P 2x600	1
24	30.7401-026	0	KOSTKA NAPIVANI / TENSIONING CUBE / BANDSPANNUNGSWÜRFEL	HR 20x20	1
25	30.7401-160	0	VANA / TANK / WANNE		1
26	30.7414-026	0	DRZAK / HOLDER / HALTER	P 2x605	1
27	30.V301-202	0	PLECH / PLATE / BLECH	P 0,3 - 15	1
28	31.7217-032	0	TESNENI / SEALING / DICHTUNG	TL4	1
29	49.200.002		RETEZ PONOVOVY / DRIVE BELT / ANTRIEBSKETTE	108-1	1
30	90.001.25.058	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X30	8
31	90.001.25.060	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X40	12

Císlo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.29. Podstavec / Untersatz / Base



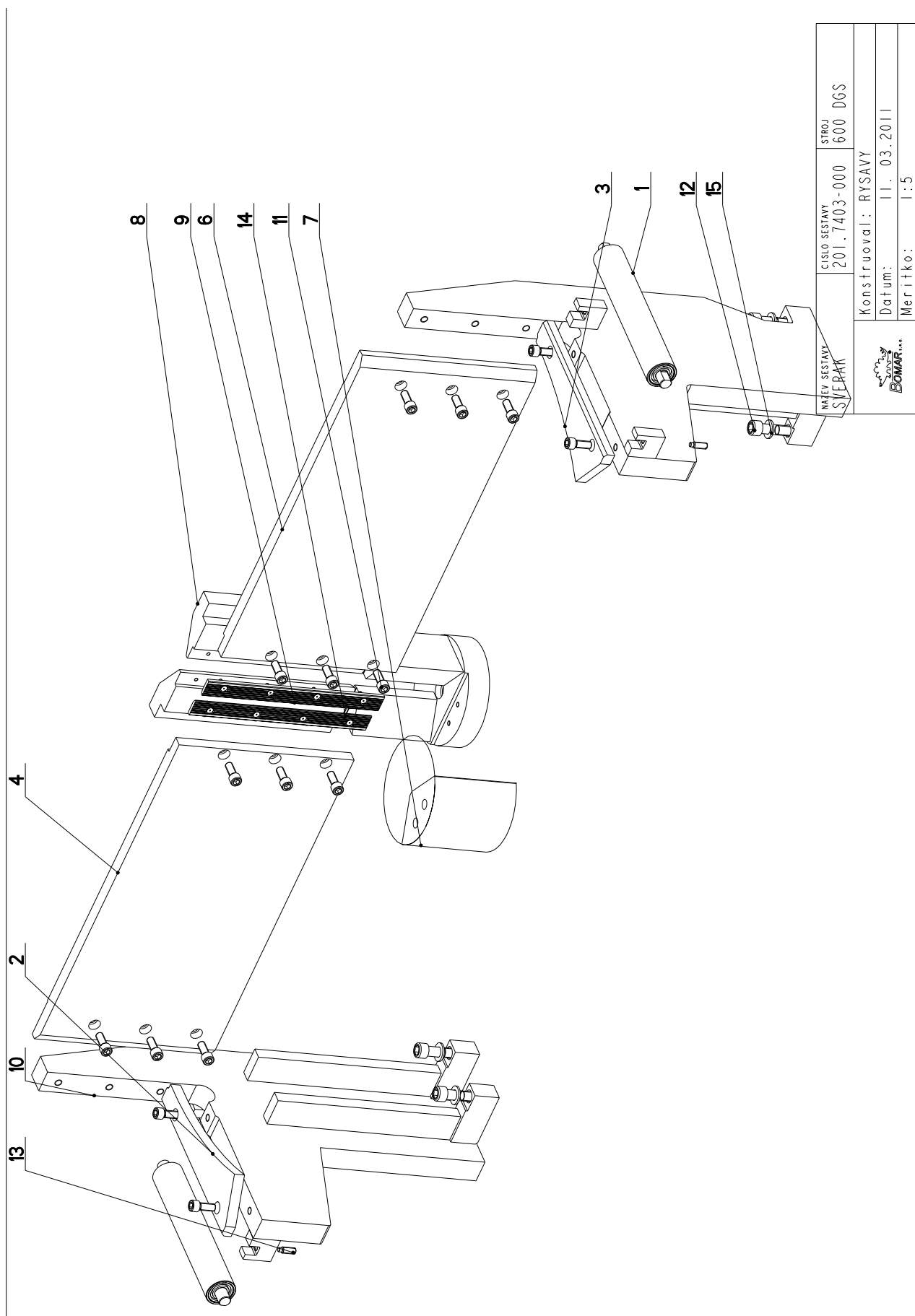
NAZEV SESTAVY PODSTAVEC	ČÍSLO SESTAVY 201.7401-000	STROJ 600 DGS
Konstruoval: RYŠAVÝ		
Datum: 18. 03. 2011		
Meritko: 7:100		

7.30. Kusovník / Stückliste / Piece list – Podstavec / Untersatz / Base

Cislo Sestavy 201.7401-000		Ver. 0	Nazev sestavy PODSTAVEC/BASE/UNTERSATZ		
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	262.007	0	KONEKTOR / CONNECTOR / STECKVERBINDER		1
2	201.7402-002	0	LOZISKO / BEARING / LAGER		1
3	30.6101-111	0	DRZAK / HOLDER / HALTER	PROFIL 40x40x4	1
4	30.7102-007	1	KROUZEK DISTANCI / DISTANCE RING / DISTANZRING	TR 89x8	1
5	30.7102-124	1	KRYT / COVER / ABDECKUNG	P 0.8x33x1120	1
6	30.7201-103	1	KRYT / COVER / ABDECKUNG	P 4x235x270	1
7	30.7201-106	0	PANT / HINGE / TÜRBAND	40x40	1
8	30.7201-107	0	PANT / HINGE / TÜRBAND	40x40	1
9	30.7202-008	0	PRIRUBA / FLANGE / FLANSCH	P 8-352	1
10	30.7214-114	0	PLOT / FENCE / ZAUN		1
11	30.7214-181	0	HACEK / HOOK / HÄKCHEN		1
12	30.7214-190	4	DRZAK / HOLDER / HALTER		1
13	30.7214-191	1	SKLUZ / SLIDE / RUTSCH		1
14	30.7214-197	1	DRZAK / HOLDER / HALTER	P 2,5 -605	1
15	30.7214-199	1	DRZAK / HOLDER / HALTER	P 2 - 20	1
16	30.7401-001	0	PODSTAVEC / BASE / UNTERSATZ		1
17	30.7401-005	0	CEP / LUG / BOLZEN		1
18	30.7401-006	0	JACKL / STEEL BAR / FORMROHR	J 40x40x3	1
19	30.7401-007	0	NOHA / LEG / STÄNDER	TYC 120x20	2
20	30.7401-008	0	NOHA / LEG / STÄNDER	TYC 120x20	2
21	30.7401-023	0	SEGMENT / SEGMENT / SEGMENT	P 25 - 670	1
22	30.7401-024	0	LISTA / TRIM / LEISTE	17x6	1
23	30.7401-025	0	KRYT / COVER / ABDECKUNG	P 2x600	1
24	30.7401-026	0	KOSTKA NAPIVANI / TENSIONING CUBE / BANDSPANNUNGSWÜRFEL	HR 20x20	1
25	30.7401-160	0	VANA / TANK / WANNE		1
26	30.7414-026	0	DRZAK / HOLDER / HALTER	P 2x605	1
27	30.V301-202	0	PLECH / PLATE / BLECH	P 0,3 - 15	1
28	31.7217-032	0	TESNENI / SEALING / DICHTUNG	TL4	1
29	49.200.002		RETEZ PONOVOVY / DRIVE BELT / ANTRIEBSKETTE	10B-1	1
30	90.001.25.058	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X30	8
31	90.001.25.060	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X40	12

Císlo Sestavy/Number of assembly/Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.31. Svěrák / Schraubstock / Vice

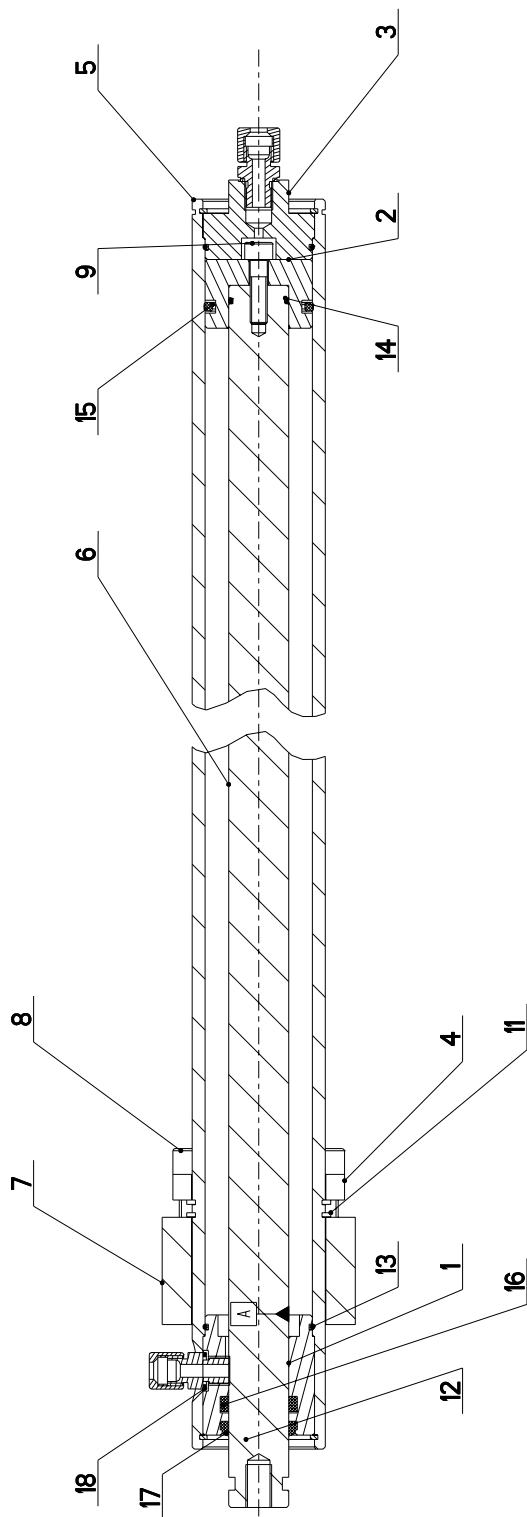


7.32. Kusovník / Stückliste / Piece list – Svěrák / Schraubstock / Vice

Cislo Sestavy 201.7403-000		Ver. 0	Nazev sestavy SVERAK/VICE/SCHRAUBSTOCK		
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	201.7203-210	0	VALEC POMOCNY / AUXILIARY CYLINDER / HILFSZYLINDER		2
2	30.7203-010	2	DESKA / BOARD / PLATTE	P 20 - 95	1
3	30.7203-011	2	DESKA / BOARD / PLATTE	P 20 - 95	1
4	30.7403-001	0	CELIST PEVNA / SOLID JAW / FESTE BACKE	P 25x 320x640	1
5	30.7403-004	0	KONZOLA / CONSOLE / KONSOLE		1
6	30.7403-005	0	CELIST PEVNA / SOLID JAW / FESTE BACKE	P 25x320x640	1
7	30.7403-006	0	SEGMENT / SEGMENT / SEGMENT	d 180	1
8	30.7403-010	0	CELIST PEVNA / SOLID JAW / FESTE BACKE		1
9	30.7403-012	0	LISTA SVERAKU / VICE TRIM / SCHRAUBSTOCKLEISTE	HR 30x10	2
10	30.7403-015	0	KONZOLA / CONSOLE / KONSOLE		1
11	90.001.25.058	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X30	16
12	90.001.25.093	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X70	6
13	90.004.20.012	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M10X30	4
14	90.011.27.006	0	SROUB ZAPUSTNY / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M6X20	8
15	90.150.50.009	0	PODLOZKA / WASHER / UNTERLEGSCHLEIBE	PODLOZKA 17	6

Císlo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.33. Válec svěráku / Schraubstockzylinder / Vice Cylinder

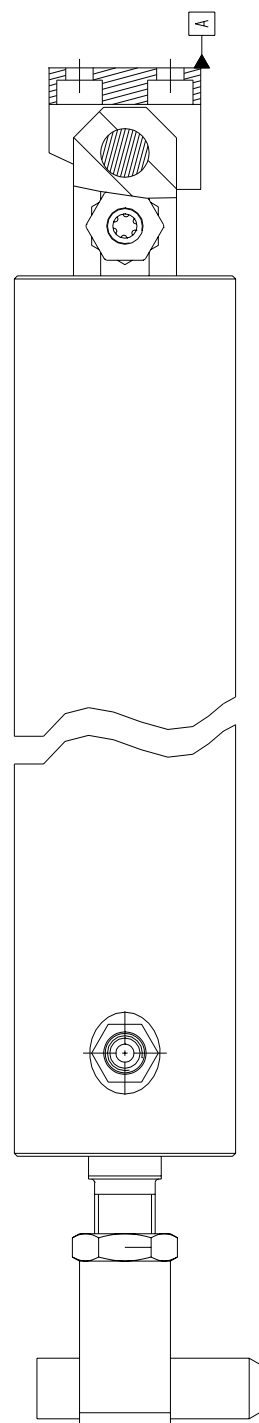
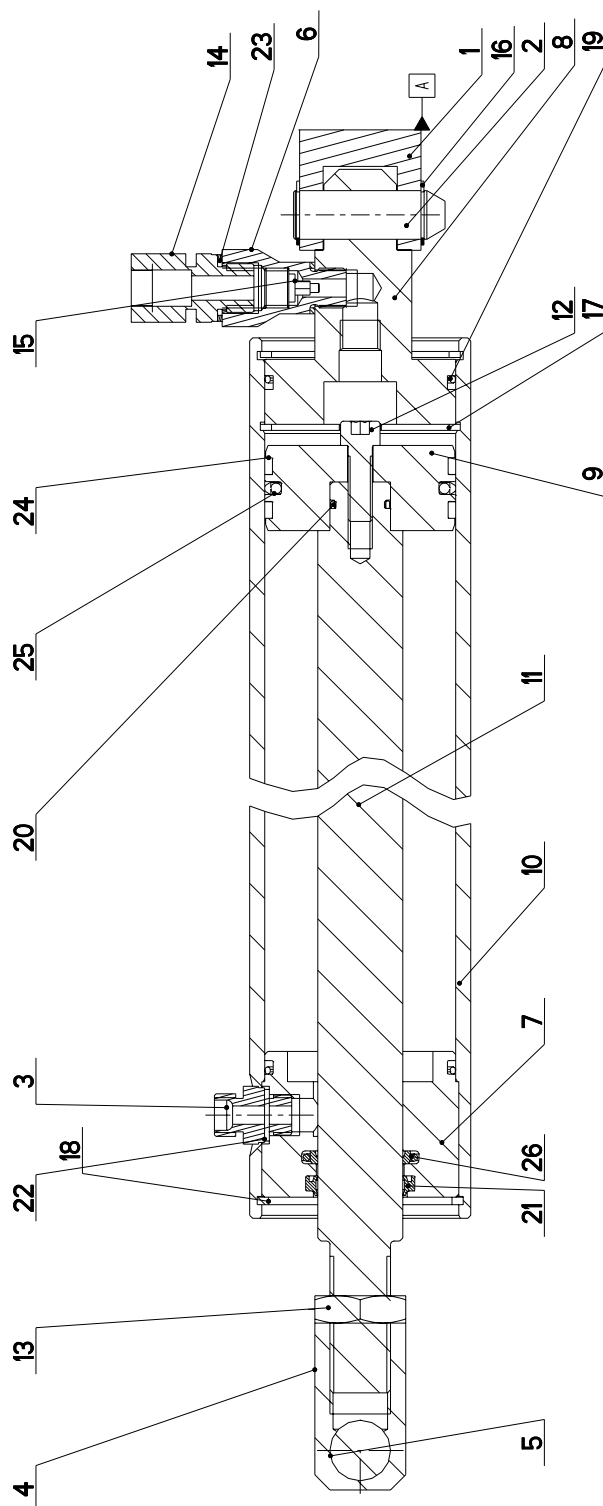


NÁZEV SOUSTAVY VALEC SVĚRAKU	ČÍSLO SOUSTAVY 201.7407-200	STROJ 600 DGS
Konstruoval: RYŠAVÝ		
Datum: 11. 03. 2011		
Meritko: 1:2		

7.34. Kusovník / Stückliste / Piece list – Válec svěráku / Schraubstockzylinder / Vice Cylinder

Císlo Sestavy 201.7407-200		Ver. 0	Název sestavy VALEC SVĚRAKU/VICE CYLINDER/SCHRAUBSTOCKZYLINDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1807-104	2	VIKO / COVER / DECKEL	TYC 55	1
2	30.2007-302	0	PIST / PISTON / KOLBEN	ø 55	1
3	30.2007-304	0	VIKO / COVER / DECKEL	ø 55	1
4	30.6007-107	0	PRÍLOŽKA / STRAP / LASCHE	HR 80x12	1
5	30.7407-201	0	VALEC SVĚRAKU / VICE CYLINDER / SCHRAUBSTOCKZYLINDER	TRUBKA 62/50	1
6	30.7407-202	0	PISTNICE / PISTON ROD / KOLBENSTANGE	ø 28	1
7	30.7407-203		KOSTKA / CUBE / WÜRFEL	HR 100x50	1
8	90.001.25.058	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X30	4
9	90.001.55.083	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X30	1
10	92.002.101	0	SROUBENÍ PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG		2
11	95.800.021		SEGR HRÍDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN		
12	95.801.009	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 62	2
13	96.001.013	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH	POJISTNY KROUZEK 52	2
14	96.002.011	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	45X2	2
15	96.020.005	0	KROUZEK TESNICI / SEAL RING / DICHTUNGSRING	24X2	1
16	96.041.003		TESNENÍ / SEALING / DICHTUNG	39.2X5.33	1
17	96.060.003	0	KROUZEK STÍRACÍ / SCRAPER RING / ABSTREIFRING	601-28x36x7.1	1
18	96.082.002	0	TESNENÍ / SEALING / DICHTUNG	KROUZEK STÍRACÍ 28	1
				KROUZEK CU 13/17	2

7.35. Válec zvedací / Hebezyylinder / Lifting cylinder

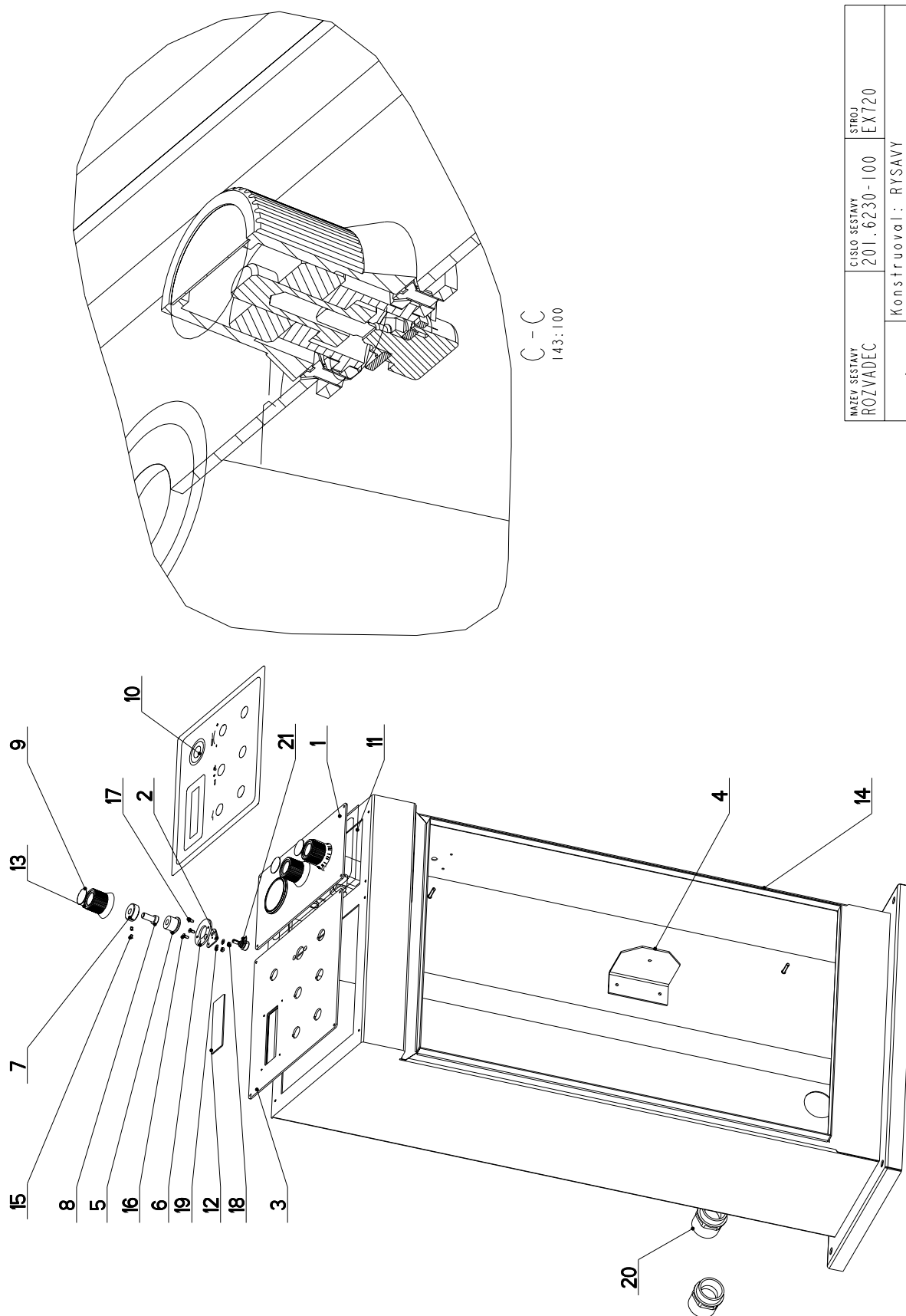


NAZEV SESTAVY VALEC ZVEDACI	CISLO SESTAVY 201.7407-000	STROJ 600 DGS
Konstruoval: RYSAVY		
Datum: 11. 03. 2011		
Meritko: 7:10		

7.36. Kusovník / Stückliste / Piece list – Válec zvedací / Hebezyylinder / Lifting cylinder

Cislo Sestavy 201.7407-000		Ver. 0	Nazev sestavy VALEC ZVEDACI/LIFTING CYLINDER/HEBEZYLINDER		
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.0807-008	1	DRZAK / HOLDER / HALTER	HR 40x40	1
2	30.0807-009	1	CEP / LUG / BOLZEN	d 16h9	1
3	30.2807-109	0	SROUBENI PRIME / DIRECT BOLTING / GERADE VERSCHRAUBUNG		1
4	30.4707-206	0	DRZAK / HOLDER / HALTER	HR 30x30	1
5	30.6107-505	0	CEP / LUG / BOLZEN	d 20	1
6	30.6107-510	1	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	6HR 22	1
7	30.6207-502	1	VIKO / COVER / DECKEL	TYC 70	1
8	30.6207-503	1	VIKO / COVER / DECKEL	TYC 65	1
9	30.6207-504	0	PIST / PISTON / KOLBEN	TYC 65 TAZENA	1
10	30.7407-001	0	VALEC / ROLLER / ZYLINDER	TRUBKA 73/63	1
11	30.7407-002	0	PISTNICE / PISTON ROD / KOLBENSTANGE	TYC 28	1
12	90.001.25.033	0	SROUB IMBUS CERNENY / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x25	1
13	90.101.55.007	0	MATICE / NUT / MUTTER	MATICE M20X1,5	1
14	92.002.114	0	SROUBENI PRIME / DIRECT BOLTING / GERADE VERSCHRAUBUNG	G 3/8	1
15	92.151.001	0	VENTIL POJISTNY / SAFETY VALVE / SICHERUNGSVENTIL	VPN-H 1/4"	1
16	95.800.007	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNY KROUZEK 16	2
17	95.801.011	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 63	2
18	95.801.012	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 65	1
19	96.001.015	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH	56X3,55	2
20	96.002.007	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	16x2	1
21	96.061.009	0	KROUZEK STIRACI / SCRAPER RING / ABSTREIFRING	WD2200280	1
22	96.082.002	0	TESNENI / SEALING / DICHTUNG	KROUZEK CU 13/17	2
23	96.082.012	0	KROUZEK / RING / RING		1
24	96.084.002	0	KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GP6500630-Z61	2
25	96.900.016	0	TESNENI KOMBINOVA NE / COMBINATION SEALING / KOMBIDICHTUNG	PT0200630	1
26	96.900.021	0	TESNENI KOMBINOVA NE / COMBINATION SEALING / KOMBIDICHTUNG	RSK200280	1

7.37. Ovládání / Steuerung / Controls

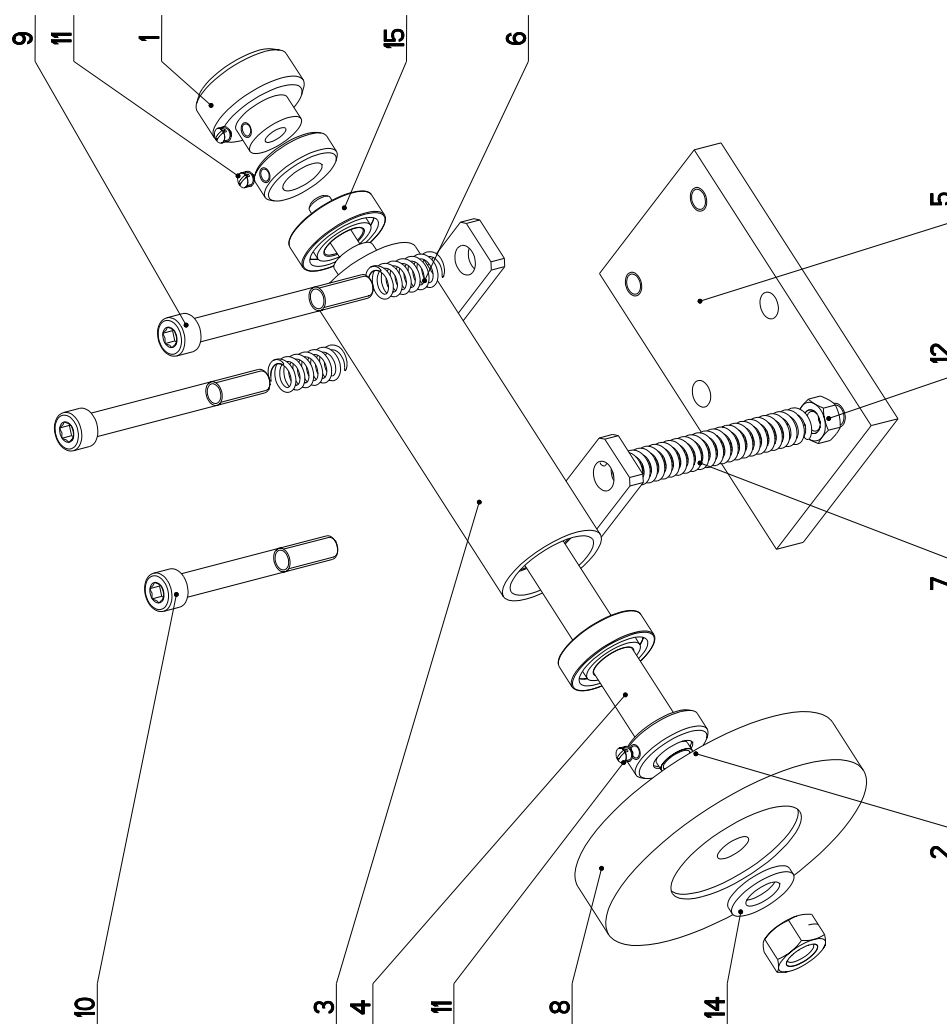


NAZEV SESTAVY ROZVADEC	CÍSLO SESTAVY 201.6230-100	STROJ EX720
Konstruoval: RYSAVY		
Datum: 11. 01. 2010		
Meritko: 17:100		

7.38. Kusovník / Stückliste / Piece list – Ovládání / Steuerung / Controls

Číslo Sestavy 201.6230-100		Ver. 3	Název sestavy ROZVADEC/DISTRIBUTOR/VERTEILER		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6030-420	1	OVLADACÍ PANEL / CONTROL PANEL / BEDIENPULT		1
2	30.5002-003	0	DRŽÁK / HOLDER / HALTER		1
3	30.6030-406	3	PANEL ELEKTRO / ELECTRO PANEL / PANEL	P 3x297x285	1
4	30.6030-413	1	DRŽÁK / HOLDER / HALTER	P3x110x140	1
5	30.6130-007	0	ULOŽENÍ / MOUNTING / LAGERUNG	d 30	1
6	30.6130-009	0	PRÍLOŽKA / STRAP / LASCHE	P 3 - 50	1
7	30.6130-010	0	VLOŽKA / INSERT / EINLAGE	d 30	1
8	30.6130-011	0	VEDENÍ / GUIDE / BACKENFÜHRUNG	d 16	1
9	30.6130-012	0	VÍKO / COVER / DECKEL	P 0.5x 30x30	3
10	31.6030-409	0	PANEL / PANEL / PANEL		1
11	31.6030-410	0	PANEL / PANEL / PANEL		1
12	31.6030-414	0	SKLO ORGANICKE / PLEXIGLASS / PLEXIGLAS	3x30x150	1
13	31.6130-008	0	HLAVICE / HEAD / KOPF		1
14	31.6230-101	1	ELEKTROSKRIN / ELECTRIC BOX / ANSCHLUSSKASTEN		1
15	90.002.20.001	0	STAVECÍ S KUZEL / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M4x6	2
16	90.008.50.003	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHEAUBE	SROUB M4x10	2
17	90.011.27.001	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHEAUBE	SROUB M4x8	2
18	90.100.55.002	0	MATICE / NUT / MUTTER	MATICE _ M4	2
19	90.150.50.002	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 4,3	2
20	91.071.005	0	VÝVODKA / BUSHING / TÜLLE		2
21	91.283.001	0	POTENCIOMETR / POTENTIOMETER / POTENTIOMETER		1

7.39. Kartáč / Bürste / Brush



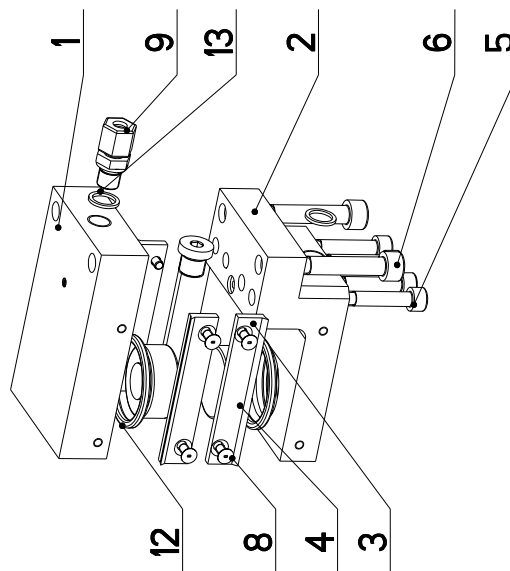
NAZEV SESTAVY KARTÁČ	CÍSLO SESTAVY 201.Y504-020	STROJ IN540
Konstruoval: PROCHÁZKA		
Datum: 11. 02. 2010		
Meritko: 7:10		

7.40. Kusovník / Stückliste / Piece list – Kartáč / Bürste / Brush

Číslo Sestavy 201.Y504-020		Ver. 0	Název sestavy KARTAC/BRUSH/BÜRSTE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.0814-204	0	KOLEČKO / WHEEL / ROLLE	SESTAVA	1
2	30.6114-119	1	KROUZEK / RING / RING	d 28	2
3	30.Y504-021	0	DRŽÁK / HOLDER / HALTER		1
4	30.Y504-022	0	HRDEL / SHAFT / WELLE	D 15	1
5	30.Y504-023	0	DESKA / BOARD / PLATTE	HR 70x12	1
6	31.1506-115	0	PRUŽINA / SPRING / FEDER	1.6x12x25x7.5	2
7	31.2107-206	0	PRUŽINA / SPRING / FEDER		1
8	49.250.017	0	KARTAC / BRUSH / BÜRSTE	SPB 100x12	1
9	90.001.25.067	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x80	2
10	90.001.25.095	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x70	1
11	90.003.20.001	0	SROUB STAVEC / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M5x6	3
12	90.100.55.005	0	MATICE / NUT / MUTTER	MATICE _ M8	1
13	90.100.55.007	0	MATICE / NUT / MUTTER	MATICE _ M12	1
14	90.150.50.007	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 13	1
15	95.001.006	0	LOŽISKO / BEARING / LAGER	6002 2RS	2

7.41. Brzda / Bremse / Brake

Cislo Sestavy 201.7416-000		Ver. 0	Nazev sestavy BRZDA/BRAKE/BREMSE		
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.7416-001	0	DESKA / BOARD / PLATTE	HR 80x30	1
2	30.7416-002	0	CELIST POHYBLIVA / MOVING JAW / BEWEGLICHE BACKE	HR 80x60	1
3	30.7416-005	0	STERAC / WIPER / ABSTREIFER	BA18	4
4	30.V307-253	0	PIST / PISTON / KOLBEN	d 40	2
5	90.001.25.039	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x55	4
6	90.001.25.055	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x70	2
7	90.002.20.003	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M5x6	1
8	90.011.27.003	0	SROUB ZAPUSTNY / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M5x10	8
9	92.002.101	0	SROUBENI PRIME / DIRECT BOLTING / GERADE VERSCHRAUBUNG		1
10	92.019.001	0	ZATKA / PLUG / STOPFEN	VS-R1/4-WD	1
11	96.002.003	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	6x2	1
12	96.020.005	0	KROUZEK TESNICI / SEAL RING / DICHTUNGSRING	39.2x5.33	2
13	96.082.002	0	TESNENI / SEALING / DICHTUNG	KROUZEK CU 13/17	2



Cislo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.42. Kostka regulace / Regulationklotz / Regulation cube

Číslo sestavy 201.6816-100		Ver. 0	Název sestavy KOSTKA REGULACE / REGULATION CUBE / REGELUNGSWÜRFEL			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks	
1	30.6816-101	1	KOSTKA REGULACE / REGULATION CUBE / REGELUNGSWÜRFEL	TYC 40x40	1	
2	30.6816-104	1	VIKO / COVER / DECKEL	TYC 16	1	
3	30.6816-103	0	PIST / PISTON / KOLBEN	TYC 12	1	
4	30.6816-108	0	JEHLA / NEEDLE / NADEL	TYC 8	1	
5	95.690.001	0	JEHLA / NEEDLE / NADEL	1.5x11.8	1	
6	30.6816-106	2	PIST / PISTON / KOLBEN	TYC 12	1	
7	30.6816-107	0	VIKO / COVER / DECKEL	TYC 22	1	
8	92.002.102	0	SROUBENÍ / BOLTING / VERSCHRAUBUNG	S-GEV-8LLR	1	
9	96.002.003	0	O-KROUZEK DYNAMIC / DYNAMIC O RING / O-RING DYNAMISCH	6X2	1	
10	96.002.041	0	O-KROUZEK DYNAMIC / DYNAMIC O RING / O-RING DYNAMISCH	10x1	1	
11	96.001.001	0	O-KROUZEK STATIC / STATIC O RING / O-RING STATISCH	4X1.8	2	
12	96.001.003	0	O-KROUZEK STATIC / STATIC O RING / O-RING STATISCH	8X2	1	

