

TYRE-CHANGER JANKA/ JANKA K/ JANKA KK OPERATING MANUAL



Manufacturer and Service:

„UNI-TROL” Sp. z o.o.

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Serial number:

Production year:

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1. TECHNICAL DATA.

tyre diameter range	10" – 26"
max tyre width	15"
wheel clamping	pneumatic
air supply	0,8 - 1,0 MPa
power supply	3 x 380V / 50Hz (+10%, -15%)
power input	0,8 kVA
motor	0,75 kW
bead-breaker cylinder force	2800 kg
required floor space	800 x 900 mm
machine height	1450 mm
machine weight	200/250/300 kg

2. INSTALLATION.

- 1) Place the machine on a hard, flat base.
- 2) Connect supply cable to 3x380V/50Hz socket.

NOTE:

The machine is delivered with four-core supply cable. Green-yellow wire is a protective wire connected to machine housing. Other three wires are phase wires.

NOTE:

The plug is not included. The user should provide a plug, suitable to the mains socket installed in his workshop.

After connecting to the power supply check the motor rotation direction depressing table rotation pedal (item 19 fig. 4) the table should rotate clockwise. If the table rotates anticlockwise interchange two phase wires in the plug.

- 3) Connect compressed air hose to supply coupling (item 1 fig 1). Use pneumatic hose of min. 1 MPa working pressure, 8 mm inside diameter. Check whether oiler 5 is filled with oil.

NOTE:

Top-up compressed air lubricator with oil periodically (item 5 fig 1). In lubricator lid two screws can be seen; the smaller one is used for adjusting lubrication rate the larger one closes oil filler, through which oil may be injected with a syringe. The transparent reservoir may also be carefully unscrewed from the lubricator body and filled directly with oil. Use mineral oils, free of water and acids, 2 to 4 Engler viscosity (at 50 °). HL 32 hydraulic oil is recommended. Air filter-water separator is maintenance-free and self-cleaning.

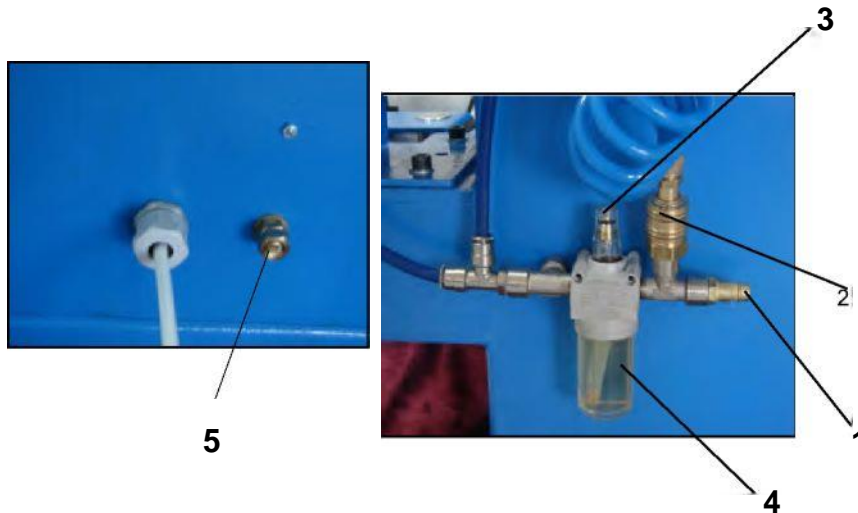


Fig. 1. Connections.

1-supply coupling, 2-inflating coupling, 3-extra air outlet (to be used by the customer), 4-compressed air lubricator, 5-extra electric protective terminal.

3. MACHINE'S MAIN COMPONENTS.

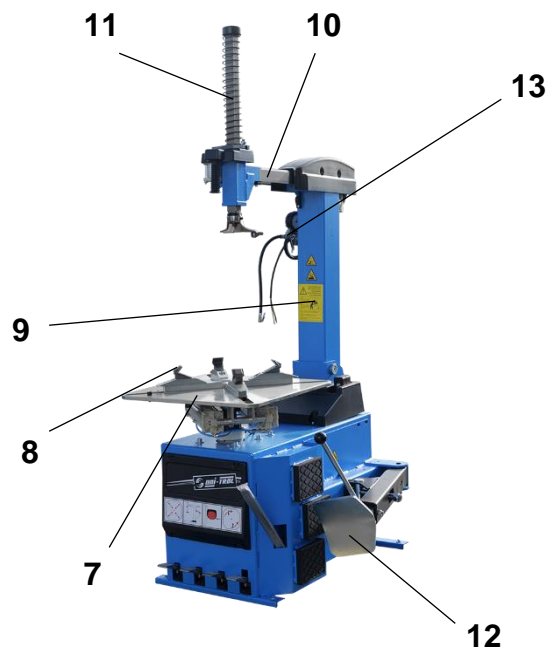


Fig 2. Machine's main components.

7-worktable, 8-jaws, 9-column, 10-slide, 11-arm, 12-bead-breakerr, 13-tyre inflation gun.



Fig. 3. View of the rear housing.

15- supply cable

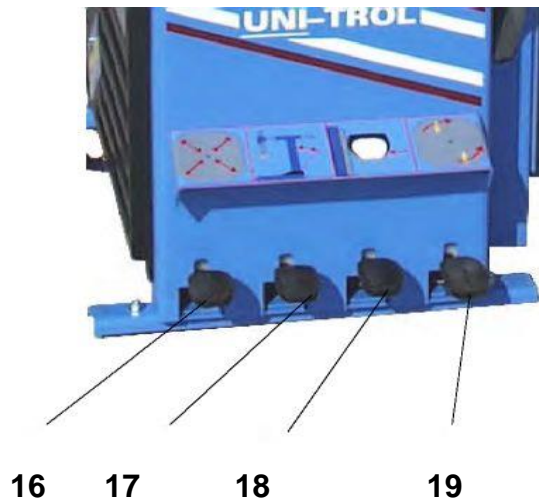


Fig. 4. Control pedals.

16 - Wheel clamping pedals controls onward and inward movement of jaws of the worktable. It has three working positions:

- 1 - top position - jaws closed (shifted towards table centre)
- 2 - middle position - shifting jaws outwards, to any distance.

How to operate pedal in mid position:

- press pedal gently until a click is heard,
- remove your foot to lock the pedal in mid position,
- subsequent pression of pedal will stop jaw movements. Press pedal gently to avoid its shifting to bottom position.

3 - lower position - full outward travel of jaws. Subsequent pression of pedal shifts it into top position.

17 - Column deflection pedal.

- 1 - top position - column in working position (vertical)
- 2- middle position - backward deflection of column to any distance .

How to operate the pedal in mid position:

- press pedal gently until click is heard
- remove your foot to lock pedal in mid position
- subsequent pression of pedal will move the column back. Release of the pedal will stop the movement. Press pedal gently to avoid its shifting to lower position.

3- lower position - max backward move of column. Subsequent depression of pedal shifts it to top position (moves column to the vertical).

18 – Bead-breaker pedal.

Top position (initial position) – bead-breaker disengaged.

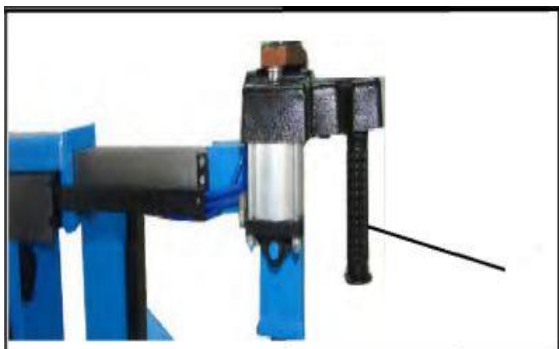
Depressing the pedal engages the bead-breaker, release of pedal disengages bead-breaker.

19- Worktable rotation pedal.

Middle position (initial) - table drive disengaged.

Pressing the pedal engages clockwise rotation of table (operating rotation). Release of pedal disengages rotation.

Lifting the pedal with your foot from mid position engages anticlockwise rotation of table (emergency rotation). Release of pedal disengages rotation.



20

Fig. 5. View of working head.

20 - Slide locking knob.

Turning the knob from its initial position to the right locks the slide and arm with working head in operating position. Turning the knob to the left unlocks the slide and throws the arm with working head upwards.

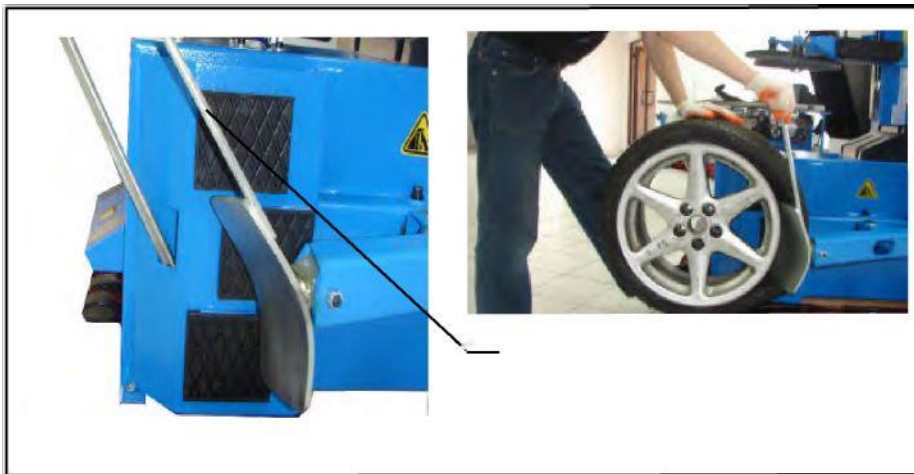
4. TYRE DISMOUNTUNG.

Switch machine and air supply on.

Pull bead-breaker lever back, insert wheel between bead-breaker arm and rubber pad on machine housing and move the arm to touch the tyre, close to rim edge.

BE CAREFUL, NOT TO REST THE ARM AGAINST WHEEL RIM

Holding bead-breaker arm in appropriate position, depress bread-breaker pedal 18 and hold it until the tyre is separated from rim. If necessary repeat the operation at several points of wheel. Then reverse wheel and repeat operation on the other side of the wheel.



21

Fig 6. Separating the tyre. 21–Bead-breaker lever.

Move column backwards with pedal 17. With pedal 16 open table jaws (pedal in middle and lower positions). Please the wheel on the table so that tyre rests on jaws and lift pedal 16 to top position. Check if jaws clamp wheel rim edge securely. Lift pedal 17 to top position, the column will revert to the vertical/ working position. Grip the top of lever 11 with your left hand and with your right hand the slide locking knob 20. Move the slide out to an appropriate distance and press the arm top. Make the working head rest on the rim edge, as in fig 9. Then turn knob 20 to the right. Arm and slide will be locked and the working head will automatically find itself in the working position taking into account the necessary clearance between the head and the rim. Press tyre edge, opposite to the working head, into rim recess. Rest tyre lever on the working head support 22 and pull tyre edge on bulb 23 - as in fig. 10.

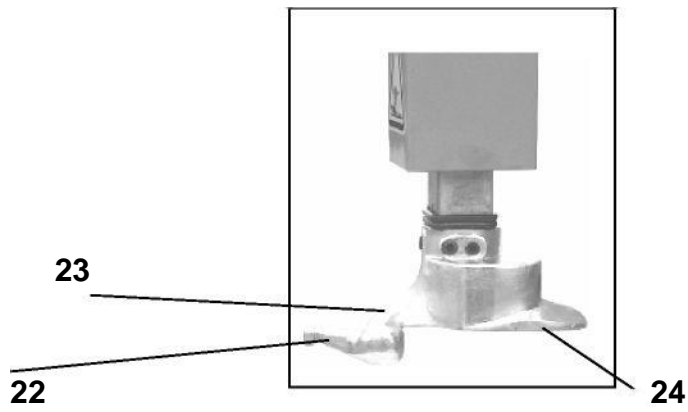


Fig. 7. Working head: 22-support, 23-bulb, 24-shoe.



Fig. 8. Setting working head.



Fig. 9. Working head in operating position.



Fig. 10. Pulling tyre edge onto shoe.

Bottom tyre edge is removed from the rim without changing wheel clamping or working head position. Remove only the tube, push tyre edge opposite the working head into rim recess from underneath and repeat tyre removal operation, as described above.

Unlock arm and slide with knob 20. Move column backwards with pedal 17.

Open jaws with pedal 16 and remove the rim from machine.

5. TYRE MOUNTING.

Move column backwards with pedal 17. With pedal 16 open jaws (pedal in middle or lower position). Place the wheel on the table and lift the pedal 16 to top position. Check whether jaws gripped rim edge securely. Lift pedal 17 to top position - the column will return to vertical/working position.

Grip with your left hand the top of lever 11 and with your right hand - the slide locking knob 20. By moving slide outwards to an appropriate distance and pressing the top of the arm, bring the working head to rest against rim edge, as shown in fig 9. Then turn knob 20 to the right - the arm and slide will lock and the working head will automatically find itself in operating position, taking into account the necessary clearance between the working head and the rim.

Place tyre on the rim. Push lower tyre edge, opposite the working head into wheel rim recess. Put opposite tyre edge on working head shoe 24 and push under bulb 23 - as shown in fig. 11.



Fig.11. Tyre mounting.

Depressing pedal 19 rotate the table clockwise until lower tyre edge is placed on the wheel rim. Should problems occur during fitting the tyre, e.g. jamming, release pedal and then lift it with your foot. Install tube.

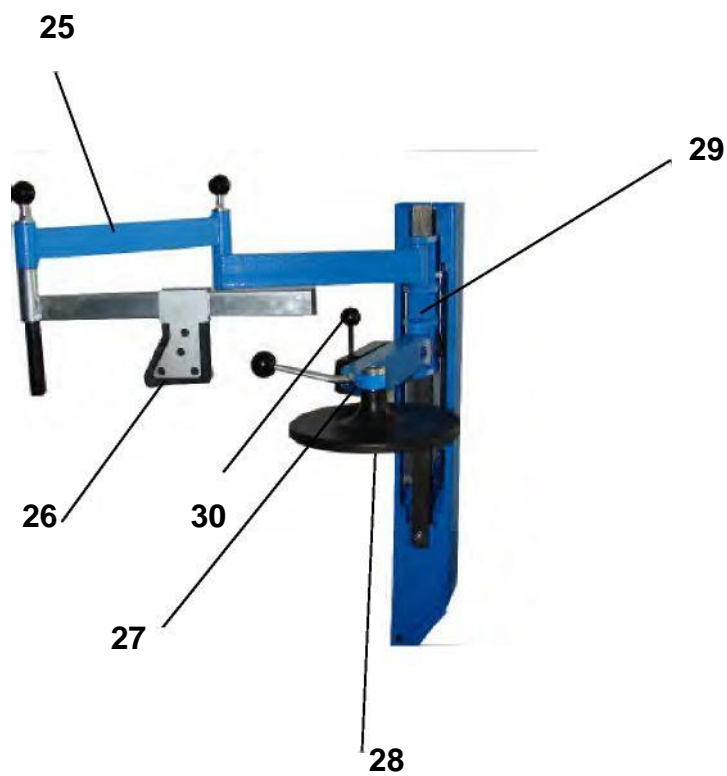
Push top tyre edge opposite the working head into rim recess and install top tyre edge on the rim proceeding in the same way as for the lower edge.

Inflate the tyre with air gun. Unload arm and slide with knob 20. Move column backwards with pedal 17. Open jaws with pedal 16 and remove wheel from machine.

6. ASSISTANT K/ KK.

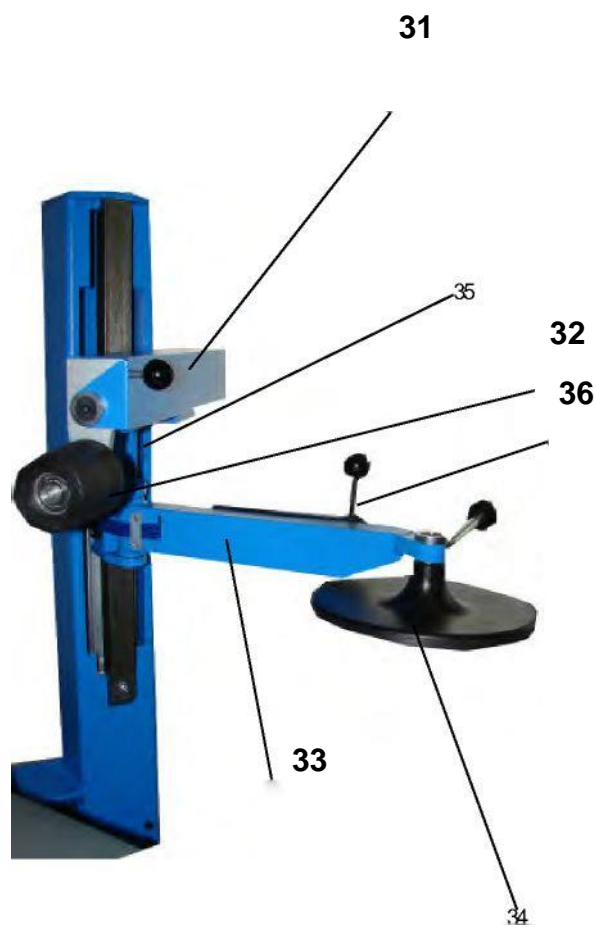
LEFT ASSISTANT 10.00.00

- 25. Presser unit - 04.00.00
- 26. Tyre bead presser - 05.00.00
- 27. Disc roller unit - 11.00.00
- 28. Disc roller - 02.03.00
- 29. Slider unit - 09.00.00
- 30. Distributor arm lever - 02.00.06



RIGHT ASSISTANT 03.00.00

- 31. Pressing roller unit - 06.00.00
- 32. Pressing roller - 06.00.01
- 33. Disc roller unit - 02.00.00
- 34. Disc roller - 02.03.00
- 35. Slider unit - 01.00.00
- 36. Distributor arm lever - 02.00.06



TYRE DISMOUNTING USING ASSISTANT (Fig. 12).

To facilitate the operation on hard or flattened tyres use the pressure 26. Place the presser in the center of the rim and press downwards enough to secure the rim securely in the jaws. Place the roller 32 approx. 1 cm from the edge of the rim. Press down on the tyre bead to facilitate lever insertion. Return roller 32 to its initial position. To make it easier to pull the tyre onto the bulb 23 of the working head place the disc roller 28 or 34 at the lower edge of the rim and start the lifting.



Fig. 12. Tyre dismounting using assistant.

TYRE MOUNTING USING ASSISTANT.

Install the first tire bead - see chapter 5. Place the press roller 32 and the presser 26 as shown in Fig.13. Start pressing so that the tyre bead remains in the recessed profile of the rim. During assembly the presser 26 should follow the rotation of the tire. After returning the presser and roller to initial position release the wheel fastening and start tyre inflation.



Fig. 13. Tyre mounting using assistant.

7. BASIC FAULTS AND REPAIRS.

- After pressing the table rotation pedal fuses are blown.

Short circuit of the motor power cable - Check the wiring.

Short circuit in the motor.

- The jog pedal does not return to the center position.

Broken pedal spring - Replace the spring.

- The bead-breaker pedal and table pedal do not return to initial position.

Pedal spring is broken - Replace the spring.

No oil in the grease gun - Fill the lubricator with HL 32 oil (hydraulic).

- Air escapes at the bead-breaker piston rod.

Air seal is worn - Replace the gasket.

Replace the bead-breaker cylinder.

- The table does not turn in either direction.

Damaged engine.

- Check motor power

- Replace the motor

Broken belt - Replace belt.

Damaged transmission - Replace the transmission.

- The wheel does not stay on the table.

Low air supply pressure – Check / Adjust the pressure of the supplied air.

Jaws are worn - Replace the jaws.

- Difficulties with table operation when dismounting/mounting tyres.

Insufficient belt tension - tighten or replace the belt.

- Wheel pressure gauge indicator does not return to 0.

Defective pressure gauge - Replace the pressure gauge.

8. OPERATING NOTES AND MAINTENANCE.

The table is driven by an electric motor through a worm gear lubricated with Shell OMALAA oil 680. After 4000 h operation (excluding breaks) clean the gear and change oil.

Before performing any adjustments or maintenance disconnect the machine from power supply and check that all moving parts are immobilized.

- Check daily whether the jaws move freely. The pollution accumulated during operation can significantly deteriorate jaw slip thus posing a hazard to the user.
- The top of the table should be cleaned once a week. For cleaning use only gasoline.
- Monthly control:
- Clean (with gasoline only) and grease the horizontal and vertical sliders in appropriate places.
- Check the oil level in the grease gun and, if necessary, add HL 32 (hydraulic) oil.

Keep the workplace clean.

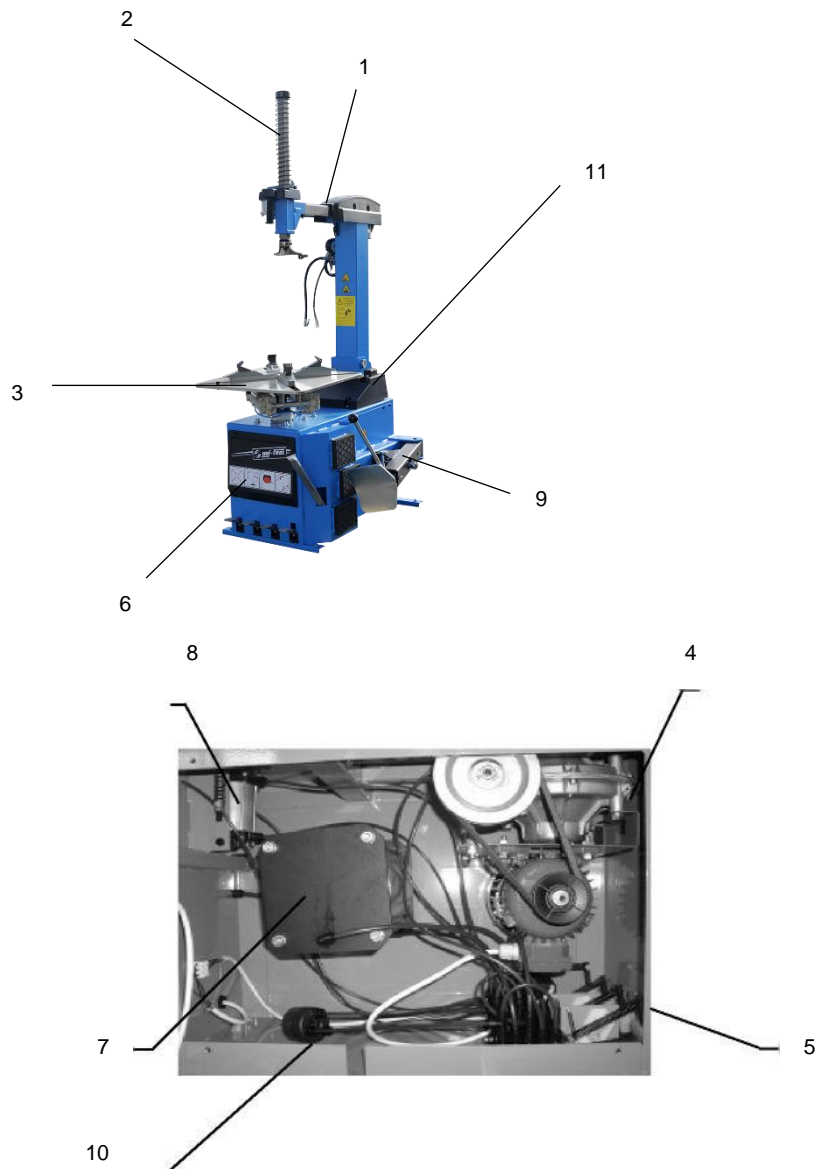
Do not clean the machine with compressed air or water under pressure.

When cleaning avoid as much dust as possible.

Periodically remove the oil from the inside of the housing box (exhalation of the lubricated air, as in all devices of this type, takes place inside the housing which causes oil on its internal surfaces and as a result its leakage).

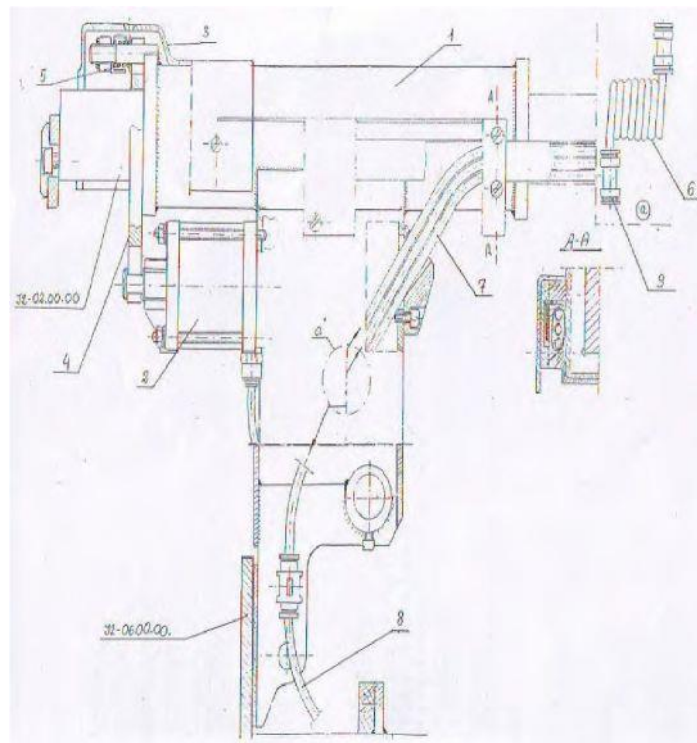
9. SPARE PARTS CATALOGUE.

1. Column unit J - 01.00.00
2. Slides unit J - 02.00.00
3. Table unit JO - TR03.00.00
4. Rotating unit JO - 04.00.00
5. Pedals unit J - 05.00.00
6. Housing unit J - 06.00.00
7. Main cylinder JO - 07.01.00
8. Column cylinder J - 01.04.00
9. Bead-breaker JO - 07.00.00
10. Silencer J - 10.00.00
11. Column housing J - 00.00.10



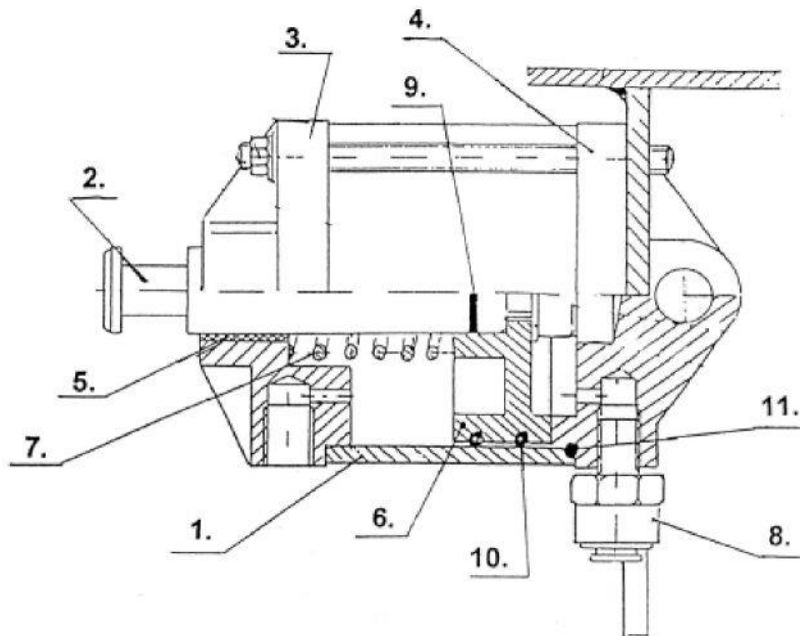
Column unit J-01.00.00

- | | | |
|----|----------------------------|------------|
| 1. | Column housing | J-01.01.00 |
| 2. | Horizontal slider cylinder | J-01.02.00 |
| 3. | Cylinder housing | J-01.00.03 |
| 4. | Horizontal clamp | J-01.00.08 |
| 5. | Locking spring | 06.01.080 |
| 6. | Pneumatic hose ϕ 6x4 | 07.05.013 |
| 7. | Pneumatic hose ϕ 6x4 | 07.05.012 |
| 8. | Pneumatic hose ϕ 6x4 | 07.05.003 |
| 9. | Connector ϕ 6 | 07.06.605 |



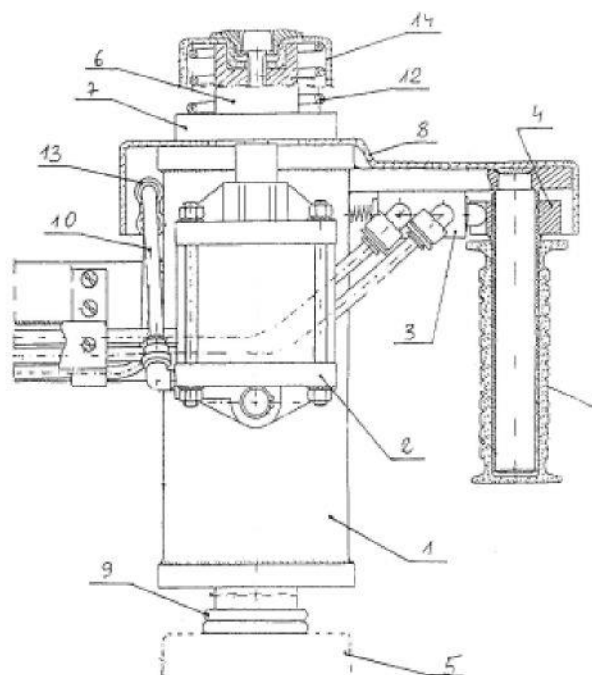
Horizontal slider cylinder J - 01.02.00

- | | | |
|-----|--------------------------------|------------|
| 1. | Cylinder | J-01.02.02 |
| 2. | Piston | J-01.02.03 |
| 3. | Front cover | 06.04.024 |
| 4. | Rear cover | 06.04.025 |
| 5. | Self-lubricating sleeve 1820BS | 03.08.901 |
| 6. | Piston | 06.05.004 |
| 7. | Spring S788 - 2,5 | 06.01.070 |
| 8. | Connector ϕ 6x1/8" | 07.06.502 |
| 9. | O-ring ϕ 14x2 | 03.07.109 |
| 10. | O-ring ϕ 57x3,5 | 03.07.156 |
| 11. | O-ring ϕ 60x2 | 03.07.161 |



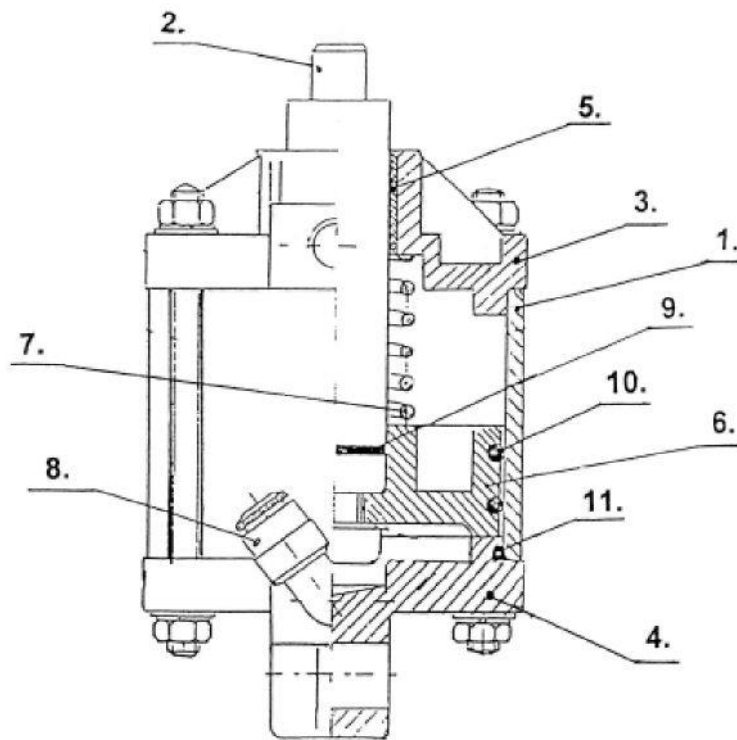
Sliders unit J-02.00.00

1.	Sliders housing	J-02.01.00
2.	Vertical slider cylinder	J-02.02.00
3.	Distributing valve	J-02.03.00
4.	Pawl unit	J-02.04.00
5.	Working head unit.	JO-02.05.00
6.	Vertical slider	JO-02.00.02
7.	Vertical clamp	J-02.00.06
8.	Control protection	J-02.00.07
9.	O-ring ϕ 32x5	03.07.132
10.	Pneumatic hose ϕ 6x4	07.05.003
11.	Sleders blocking handle	05.09.171
12.	Spring S 787-3,5	06.01.066
13.	Distributor ϕ 6	07.06.607
14.	Cap JO	02.00.04



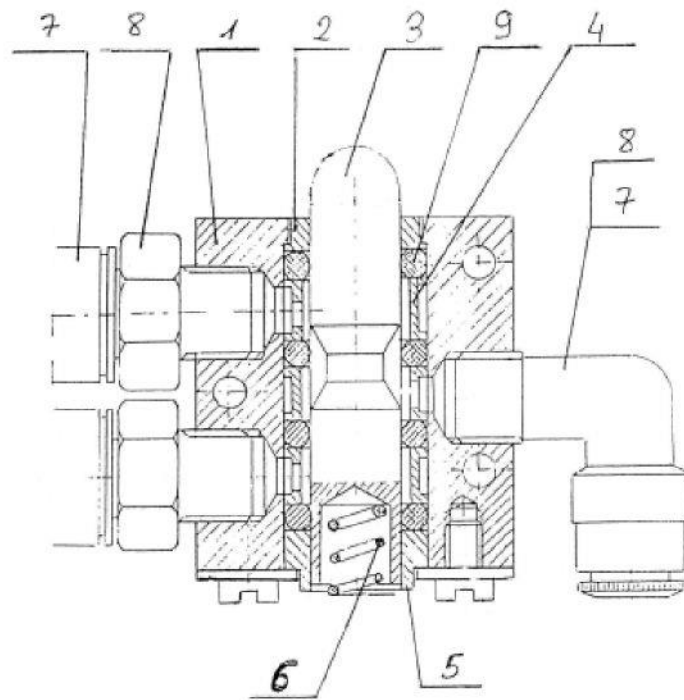
Vertical slider cylinder J-02.02.00

1.	Cylinder	J-02.02.03
2.	Piston	J-02.02.01
3.	Front cover	06.04.024
4.	Rear cover	06.04.025
5.	Self-lubricating sleeve 1820BS	03.08.901
6.	Piston	06.05.004
7.	Spring S788	06.01.070
8.	Connector ϕ 6 -1/8"	07.06.509
9.	O-ring ϕ 14x2	03.07.109
10.	O-ring ϕ 57x3,5	03.07.156
11.	O-ring ϕ 60x2	03.07.161



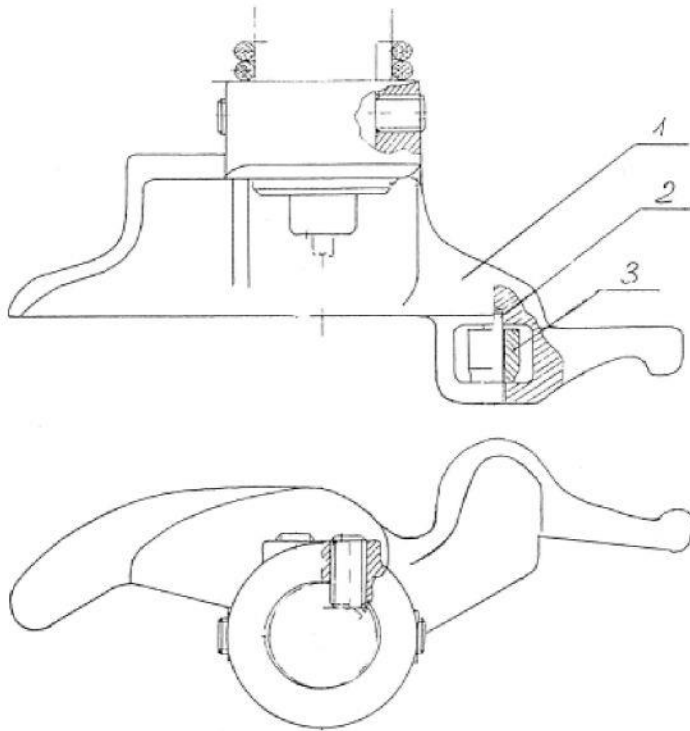
Distributing valve J -02.03.00

1. Distributor housing J-02.03.01
2. Slide sleeve J-02.03.02
3. Distributor pin J-02.03.03
4. Inside sleeve J-02.03.04
5. Rear sleeve J-02.03.06
6. Spring S913 06.01.012
7. Connector ϕ 6 07.07.021
8. O-ring ϕ 9,7x3,3 03.07.111



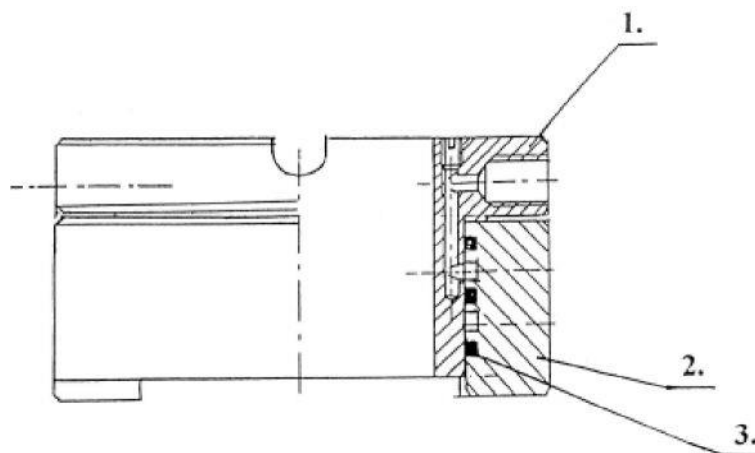
Working head JO - 02.05.00

- 1. Head 06.04.022
- 2. Roller axle JO-02.05.02
- 3. Head roller JO-02.05.03



Turntable JO-03.02.00

- 1. Movable sleeve JO-03.02.01
- 2. Immovable sleeve JO-03.02.02
- 3. O-ring ϕ 65x2 03.07.151



Complete table JO-03.00.00

1.	Table	JO-03.03.00
2.	Turntable	JO-03.02.00
3.	Spreader	JO-03.03.00
4.	Hanger	JO-03.04.00
5.	Table cylinder	JO-03.05.00
6.	Slider	JO03.00.15
7.	Clamping jaw	JO-06.04.027
8.	Connector MA-140618	07.06.509
9.	Connector 6400-6-1/8"	07.06.521
10.	Connector RA022 1/8"	07.06.513
11.	Connector ϕ 6 - 1/8"	07.06.502
12.	Connector ϕ 6	07.07.033
13.	Connector ϕ 6 - 1/8"	07.07.033
14.	Hose	07.05.003

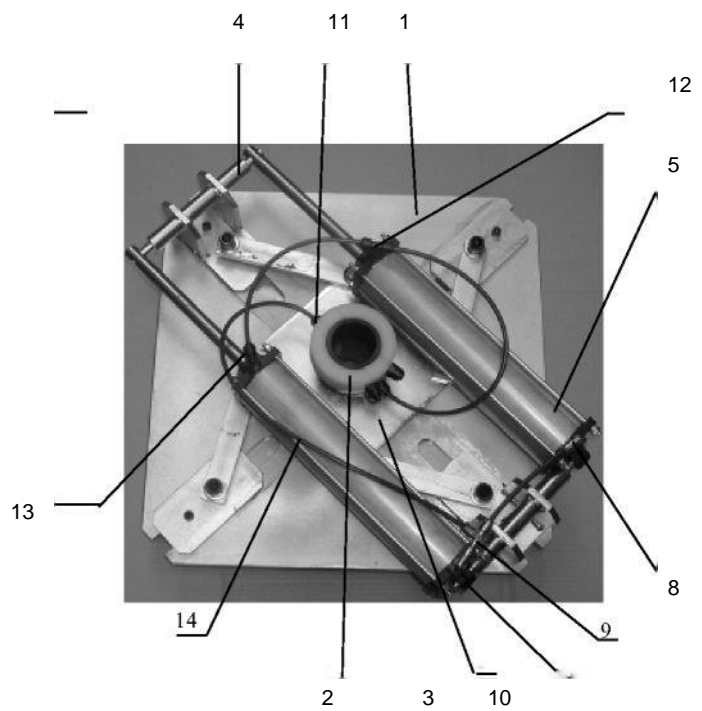
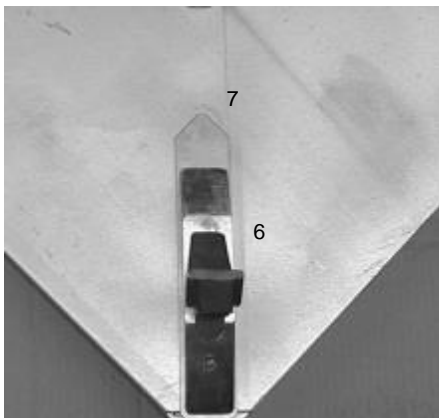
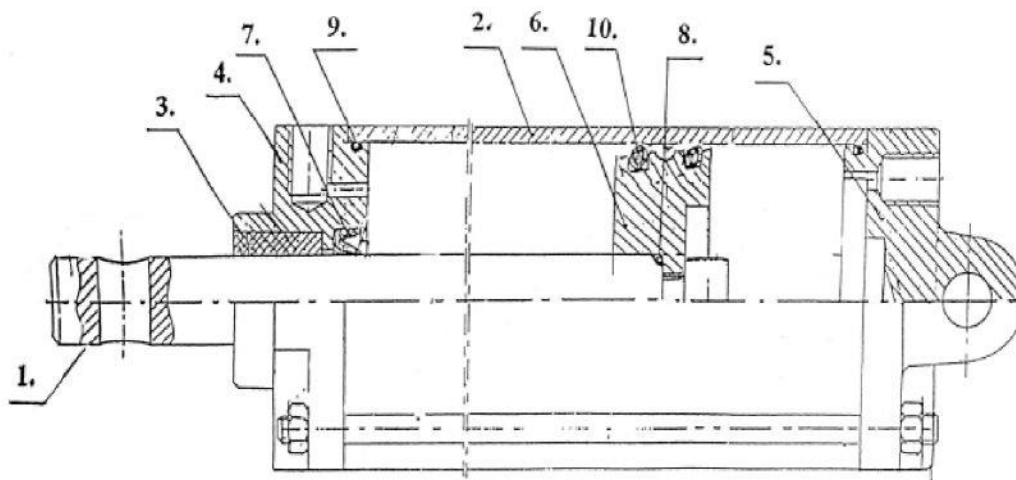


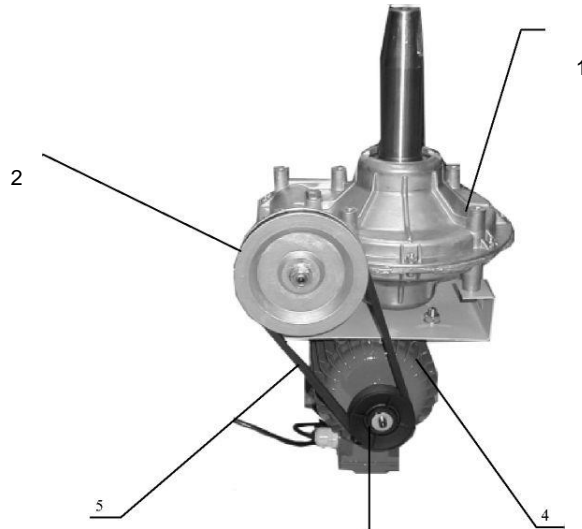
Table cylinder JO-03.05.00

1. Piston JO-03.04.03 TR
2. Cylinder JO-03.04.02 TR
3. Sleeve 1820 BS 03.08.901
4. Upper cover 06.04.024
5. Lower cover 06.04.025
6. Piston 06.04.023
7. Ring U2 18x30x8 03.07.602
8. O-ring ϕ 14x2 03.07.109
9. O-ring ϕ 60x2 03.07.161
10. O-ring ϕ 57x3,5 03.07.156



Rotating unit JO-04.00.00

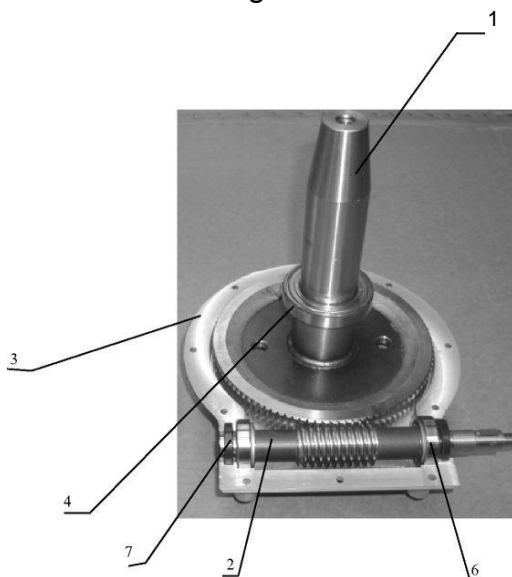
- | | | |
|----|------------------------|-------------|
| 1. | Reducer | JO-04.01.00 |
| 2. | Pulley | 06.04.020 |
| 3. | Motor pulley | 06.04.026 |
| 4. | Electric motor SH80-4B | 05.06.003 |
| 5. | V-belt HA-710 | 05.08.304 |



3

Reducer JO-04.01.00

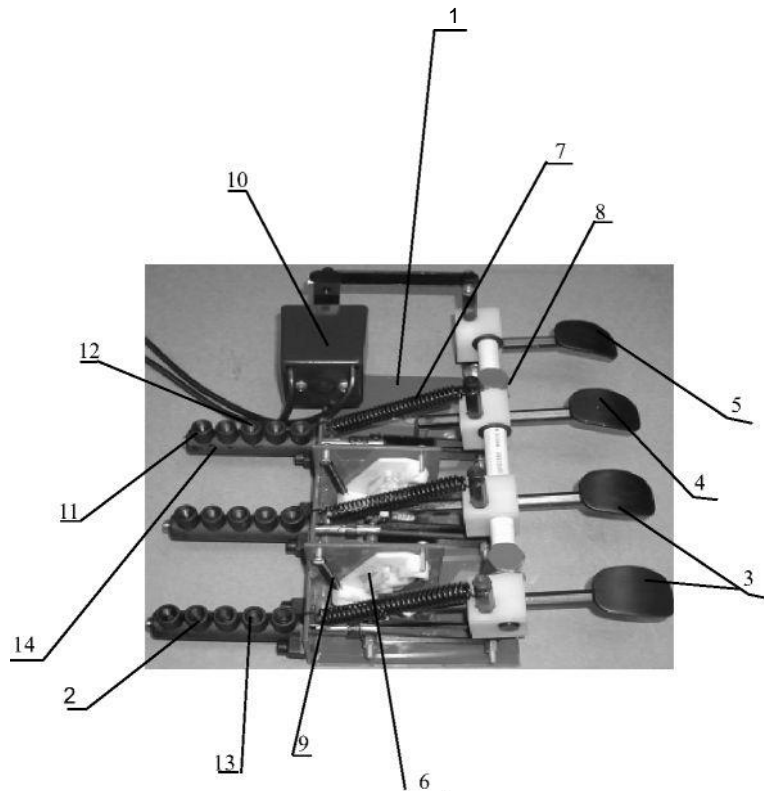
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|----|---------------------|-------------------------|
| 1. | Worm wheel | JO-04.01.00A |
| 2. | Worm screw | JO-04.01.01 |
| 3. | Reducer housing | JO-04.01.06 (06.04.021) |
| 4. | Bearing 6010 | 03.08.010 |
| 5. | Bearing 6208 | 03.08.208 |
| 6. | Bearing 30204 | 03.08.401 |
| 7. | Gasket ring 20x40x7 | 03.07.401 |



Bearing nr. 5 is invisible on the reducer spindle.

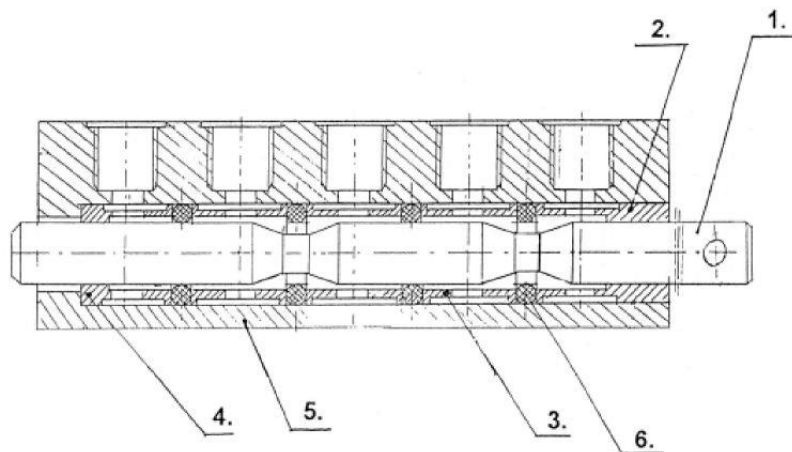
Pedals unit J-05.00.00

1.Basic unit	J-05.01.00
2.Distributor	JO-05.02.00
3.Pedal I	J-05.03.00
4.Pedal II	J-05.04.00
5.Pedal III	J-05.05.00
6.Pawl	06.05.001
7.Spring R253-1,7	06.01.063
8.Spring J145-4.0	06.01.064
9.Spring 13-5	06.01.065
10.Switch	05.05.003
11.Connector ϕ 6-1/8"	07.07.031
12.Connector ϕ 8 - 1/8"	07.07.032
13.Connector ϕ 6 - 1/8"	07.06.502
14. Connector ϕ 8 - 1/8"	07.06.503



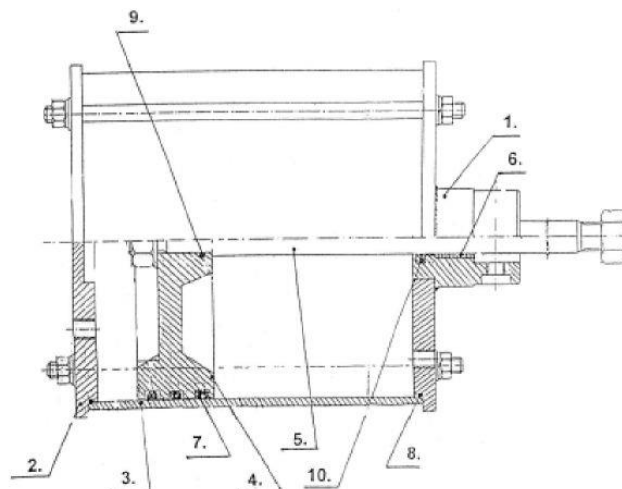
Distributor JO - 05.02.00

1.Slider	JO-05.02.01
2.Front sleeve	JO-05.02.02
3.Middle sleeve	JO- 05.02.03
4.Rear sleeve	JO-05.02.05
5.Housing	06.05.005
6.O-ring ϕ 9,7x 3,3	03.07.111



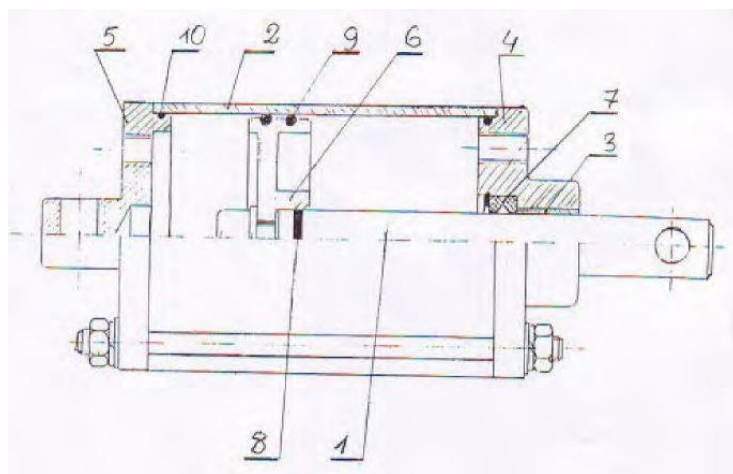
Main cylinder JO-07.01.00

1.	Front cover	JO-07.01.00/A
2.	Rear cover	JO-07.01.17
3.	Cylinder	JO-07.01.18
4.	Piston	JO-07.01.19
5.	Piston rod	JO-07.01.20
6.	Sleeve 2230BS	03.08.902
7.	O-ring ϕ 180x5	03.07.185
8.	O-ring ϕ 180x3	03.07.175
9.	O-ring ϕ 18x3	03.07.117
10.	Ring U1 22x5	03.07.603



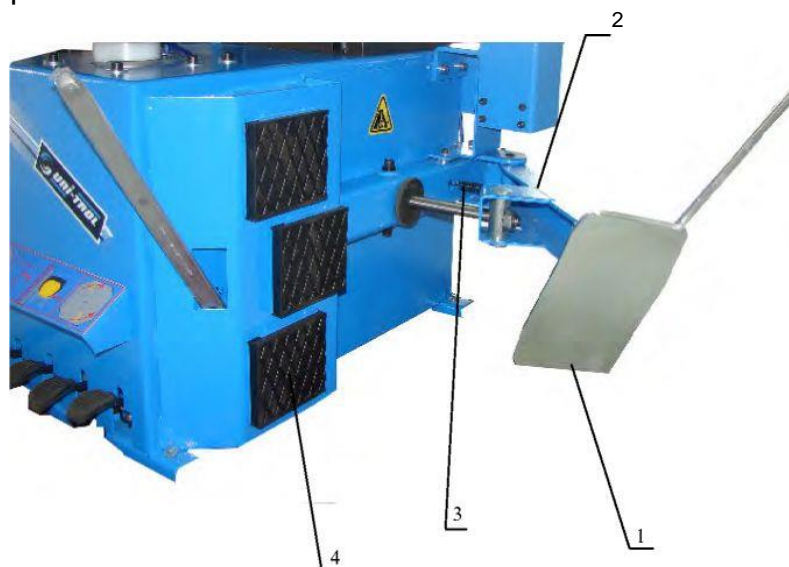
Column cylinder J-01.04.00

- | | | |
|-----|----------------------|------------|
| 1. | Piston rod | J-01.04.05 |
| 2. | Cylinder | J-01.04.02 |
| 3. | Sleeve 2230BS | 03.08.902 |
| 4. | Upper cover | 06.04.024 |
| 5. | Lower cover | 06.04.025 |
| 6. | Piston | 06.04.023 |
| 7. | Ring U2 18x30/8 | 03.07.602 |
| 8. | O-ring ϕ 14x2 | 03.07.109 |
| 9. | O-ring ϕ 57x3,5 | 03.07.156 |
| 10. | O-ring ϕ 60x2 | 03.07.161 |



Bead-breaker JO-07.00.00

- | | | |
|----|--------------------|-------------|
| 1. | Bead-breaker plate | JO-07.02.00 |
| 2. | Arm unit | JO-07.03.00 |
| 3. | Spring R252-2 | 06.01.031 |
| 4. | Rubber pad | 06.05.010 |



UNI - TROL®

MANUFACTURING PLANT & STORE

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WHEEL BALANCING MACHINES RIM STRAIGHTENING MACHINES TYRE CHANGERS EQUIPMENT FOR TYRESHOPS

Statistic no. : 008132994

EC VAT no. : PL5270205246

Register no. : KRS 0000111731

EORI no. : PL527020524600000

Account : for EURO : ALIOR BANK SA for EURO: no. PL 96 2490 0005 0000 4600 4784 6179 (swift code: ALBPPLPW)



EU Declaration of Conformity

in accordance with directives : 2006/42/EU, 2014/35/EU, 2014/30/EU and 2014/68/EU

We : **Uni-trol Co. Ltd.**
Ul. Estrady 56
01-932 Warsaw
Poland

declare, under our exclusive responsibility, that the product:

Tyre changer

Electro-mechanical-pneumatic device,

Type: JANKA, JANKA K, JANKA KK

Serial number

concerned by this declaration, complies with all relevant requirements of the Machinery Directive: - **directive 2006/42/EU (safety machines)**, applicable in the essential requirements and relevant conformity assessment procedures, as well as on the essential requirements of the following directives:

- **directive 2014/35/EU (the low voltage);**
- **directive 2014/30/EU (the electromagnetic compatibility);**
- **directive 2014/68/EU (pressure).**

In order to verification of compliance with the applicable legal regulations have been consulted harmonized standards and other normative documents:

PN-EN ISO 12100:2012P

Safety of machinery -- General principles for design – Risk assessment and risk reduction

PN-EN 61000-6-3:2008P

Electromagnetic compatibility (EMC) -- Part 6-3: General standards -- Emission standard for environments: residential, commercial and light industrial

PN-EN 61000-6-4:2008P

Electromagnetic compatibility (EMC) -- Part 6-4: General standards -- Emission standard for industrial environments

PN-EN ISO 13857:2010P

Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs

PN-EN 349+A1:2010P

Safety of machinery - Minimum gaps to avoid crushing of parts of the human body

PN-EN 60204-1:2018P

Safety of machinery -- Electrical equipment of machines -- Part 1: General requirements

PN-EN 61293:2000P
Marking of electrical equipment with ratings related to electrical supply -- Safety requirements
PN-EN ISO 4414:2011E
Pneumatic fluid power - General rules and safety requirements for systems and their components

PN-EN ISO 11201:2012P
Acoustics -- Noise emitted by machinery and equipment -- Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections
PN-EN ISO 11202:2012P
Acoustics -- Noise emitted by machinery and equipment -- Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections
PN-EN ISO 4871:2012P
Acoustics -- Declaration and verification of noise emission values of machinery and equipment
PN-EN 50419:2008P
Marking of electrical and electronic equipment in accordance with Article 11 (2) of Directive 2002/96/CE (WEEE)

The technical documentation of this device, referred to in point 1 of Annex VII A of the Machinery Directive, is located in the headquarters Uni-trol Ltd. (address as above) and will be made available to the competent national authorities for at least 10 years after the last piece.

The person responsible for the preparation of the technical documentation of the product and introducing changes in it, is MSc. Gregory Tworek.

This EC Declaration of Conformity will be kept by the manufacturer of the product for 10 years from the date of produce the last unit and will available for market supervisory authorities for verification.

MSc. Gregory Tworek.

Warsaw, 30.10.2019

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Signature