

ZİRVE 14"30"

HEAVY SERVICE TYRE CHANGER

OPERATION MANUAL BOOK





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AT ANY RATE, WATCH CD THAT THE CORRECT USING AS VISUAL IS IN AFTER YOU READ THIS OPERATION MANUAL BOOK.



0.0 WARNING

Thank you for your choice ZIRVE 14"-30" Heavy Service Tyre Changer.

This operation manual book is a non-divide part of brand "ZIRVE 14"-30"(DOUBLE CYCLE) AND 14"-56" (DOUBLE CYCLE) HEAVY SERVICE TYRE CHANGER OF K-MAK MACHINERY CO. This operation manual book must be read very carefully because of including very important information about warnings and instructions. Please, keep this in a reachable place and in safe..

K-MAK has no responsibility of any damage which way occure from not following the instructions of this operation manual book.

This machine must be used only for the purpose that it has been desinged. Any of other usage should be known as wrong. The manufacturer is not responsible of damages that occure from wrong and unlogical usage.

1.0 INFORMING AND TRAINING OF MACHINE OPERATORS

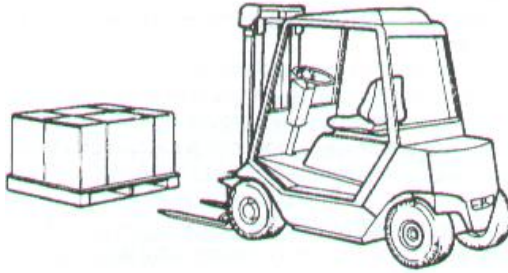
Machine must be used only by the special trained staff. Training and informing of the staff must be done by the constructions that suuplied by the manufacturer. So performance of machine will be kept at up level and safety usage will be provided.

2.0 TRANSPORTING AND PACKGING

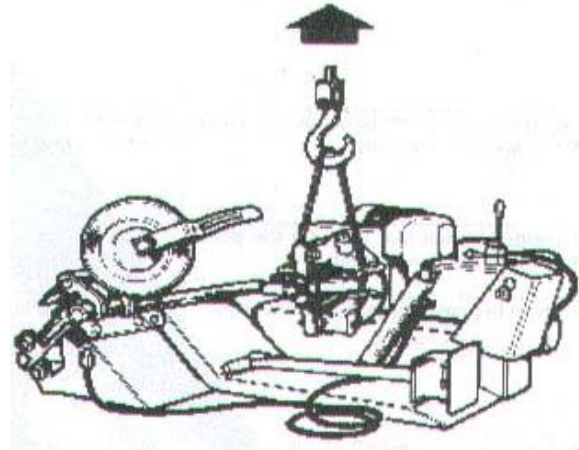
Read the written constructions on the package for transporting of machine. Transporting must be done only by Forklift. Please pay attention that the Forklift driver has a driving licence. After remove and the parts have no any damage. For the safety of your machine, you should move the machine like in picture 1. You can move machine in safe by tieing from holding apparatus with chain.

After removing package materials, please store and keep away from children and animals.

When you need to move your machine in operating area; cut your electirical connection. You can carry it by using 3 meters long rope. The device which you will use to move the machine must have 1 ton capacity. Lift the machine carefully as you see in picture 2.



Picture 1



Picture 2

3.0 ENVIRONMENT NECESSITIES FOR SETTING AND ASSEMBLING

Environment necessities for setting and assembling should have below specifications:

- Flat, strong preferably concrete or strong coated surface,
- Enough light (unchangeable, non-eye dazzle and non-bright light),
- Covered area which is kept off negative weather conditions,
- Lower noise leveled area from known declarations,
- A clean environment and work area.
- Working area must not be closed to dangerous movements of other machines,
- Explosive, rustable and poisonous materials should not be stored in the same working area.
- Operator has to see all around the machine during operation. Unauthorized people or objects must be kept away from working area.
- Main assembling that provides connection from energy sources must be done by professional staff.
- If you have any hesitation about setting and assembling please contact to K-MAK Co.or Authorized Service Offices.

4.0 SAFETY

The manufacturer has no responsibility from any damages that occur on the changes on the machine which is not approved before. It is prohibited to remove of safety materials or making changes due to Europe and Turkey regulations.

4.1 THE RULES THAT HAVE TO BE FOLLOWED BY THE OPERATOR

- Be careful that there are no dangerous conditions.
- If there is an irregular operation, machine should be stopped and get in touch with Authorized Customer Service Office.
- Make sure that there isn't any oil which might be dangerous for operator on the floor and check also there is no objects around the machine that might be dangerous in operation area.
- Operator must wear uniform, safety glasses and gloves to prevent from dust and other effects.
- Take out the accessories like bracelet, ring, watch during operation. Operator with long hair must tie up his hair and wear suitable shoes.



4.2 USING CAPACITY

To know using capacity which K-MAK MACHINERY CO. prefers for ZIRVE 14"-30" Heavy Service Tyre Changer is important to get the highest performance from your machine.

FEATURE	ZIRVE 14"-30" (DOUBLE CYCLE)
WHEEL DIAMETER (MAX.)	1500 mm
WHEEL WIDTH (MAX.)	700 mm
WHEEL WEIGHT (MAX.)	1200 kg

IT SHOULD BE READ ALL SECTIONS OF THIS MANUAL BOOK. THIS IS IMPORTANT TO WORK CORRECTLY, FOR YOUR EFFICIENCY AND FOR YOUR WORKING SECURITY.



4.3 TECHNICAL SERVICE, REPAIR AND REPLACING PARTS

- Extraordinary technical services and main operations must be done by the authorized professional staff.
- Main sources like electricity and air should be put off before any maintenance work.
- Do not use any spare parts which are not supplied by the manufacturer.
- The parts and accessories used in machine must be suitable to the safety regulations.
- In any hesitation of suitably, you must contact to K-MAK or Service Offices.

5.0 STORING

If you are going to store your machine for a long time in the storing area, cut off main connections (electricity, air, etc.) Empty oil box and cover the parts which can be damaged from dust. Oil the parts which can be damaged from dry air.

6.0 SCRAPING

If you are not going to use the machine, put it into non-work condition. Overpower the dangerous parts. Make as iron scrap and send it to a suitable scrap centers. If there is a valid special regulation, remove the parts and collect the similar parts.

7.0 TECHNICAL DATA

FEATURE	ZIRVE 14"-30"	ZIRVE14"-30" (DOUBLE CYCLE)
WEIGHT	650 kg	650 kg
ELECTRCITY DATA	14 rpm	14 rpm
BEAD BREAKER POWER	3900 kg (200 bar)	3900 kg (200 bar)
VOLTAGE	380 V Tr.phase	380 V Tr.phase
HANDLES RIM FROM-TO	14"-30"	14"-30"
PUMP MOTOR	1,1 kW	1,1 kW
GEARBOX MOTOR	1,5 kW	1,5 kW
WORKING PRESSURE	0-200 Bar	0-200 Bar
CONTROL PANEL	24 V	24 V
SOUND LEVEL	70 dBA	70 dBA
PACKING DIMENSIONS (Box on palet)	1700X1850X1000 mm	1700X1850X1000 mm

7.1 STANDARD VE NON-STANDARD ACCESSORIES

STANDARD:



Picture 4. Handle

NON-STANDARD:



Picture 5. Levier



Picture 6. Levier

8.0 GENERAL SAFETY DATA

- The machine is not convenient for business included washing car. Using of machine is inconvenient in very damp and humid atmosphere.
- Do not allow to be used the machine by unauthorized person.
- Do not allow to be used the machine except its intention.
- Be sure that motor is turning in the correct direction.
- Stop immediately Platform lift and call after sales service when it is working in trouble.
- Switch off the pneumatic system in urgent cases and/or maintenance working of machine.
- Do not make a change in safety equipment and apparatus.

8.1 WIRING

Check your electric network whether it is favorable or not. Otherwise, you can harm to your machine. Please, call an electric technician to work correctly your machine if you cannot establish correctly electric connection of machine. The machine is 380V. and three phase. Control all the cables before you do electrical connections of your machine. Pay attention that your electrical system is insured with a quick and efficient grounding system. Check whether there is an automatic circuit breaker that keeps electric power in 30 mA.

8.2 MOTOR DIRECTION OF ROTATION

The pump direction of rotation is the same as motor direction of rotation. Direction of rotation is showed on the pump. Check Motor direction of rotation. Do not forget that reverse rotation can be harmful to pump and machine. Turning of motor to reverse direction shows that there is no hydraulic pressure.

TO FOLLOW SUITABLE OPERATION METHODS, SAFETY RULES AND RIGHT OPERATION CONDITIONS ARE COMPULSORY TO PREVENT ACCIDENTS.



9.0 ASSEMBLING AND SETTING OF MACHINE

- Machine should be carried on wooden pallet with forklift and placed on to flat surface.
- Surface must be good prepared not to prevent operator movements during the operation.
- The first assembling of machine and electric connection should be done by a professional staff.
- Machine should not be placed that prevents operator's work. Machine should be right positioned for operator's front/back usage. Also placing should not prevent hand/arm movements of operator and it must be placed that away from other machines, wall, objects.

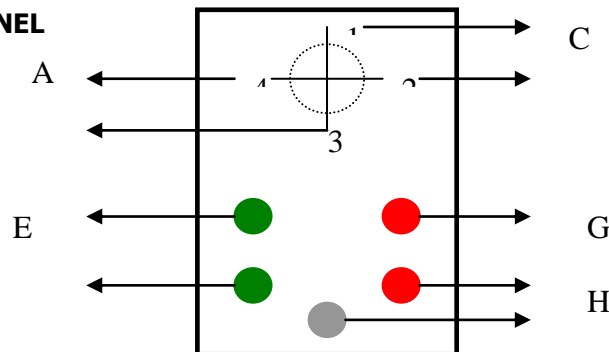
10.0 USING OF ZIRVE 14"-30" HEAVY SERVICE TYRE CHANGER

10.1 CONTROL OF MACHINE

All the control devices are assembled on a movable panel to help you when you are changing tyres with your machine. This panel is not fixed. You can determine your point of view during operations by moving easily where you want. On this way, you can do operations free from fault.

Provide to come power to machine by using the buttons on the electric panel. The pump motor will start to work.

10.2 OPERATING PANEL





Picture 8. Operating Panel

A: TOP SLIDING WAYS LEFT MOVING

This is the button to move left the part called shortly top sliding ways that makes available the parts like ramp, changer body, disc etc.

B: TOP BODY MOVE DOWN BUTTON (Picture 9)

This is the button to move down the part called top body that makes available automatic disc holder, holder arms and the parts of transmission mechanism.

C: TOP BODY MOVE UP BUTTON (Picture 9)

This is the button to move up the part called Top Body that makes available automatic disc holder, holder arms and the parts of transmission mechanism.

D: TOP SLIDING WAYS RIGHT MOVING

This is the button to move right the part called shortly Top Sliding Ways that makes available the parts like ramp, changer body, disc etc.

E: OPENING CLAMPING ARM (RIM FASTEN) BUTTON (Picture 10)

This is the button that opens clamping arms that fasten rim.

F: CLOSING CLAMPING ARMS (RIM DISPLACEMENT) BUTTON (Picture 10)

This is the button that closes clamping arms that fasten rim.

G: GEARBOX RIGHT MOVE BUTTON

This button moves rim fasten group clockwise circularly.

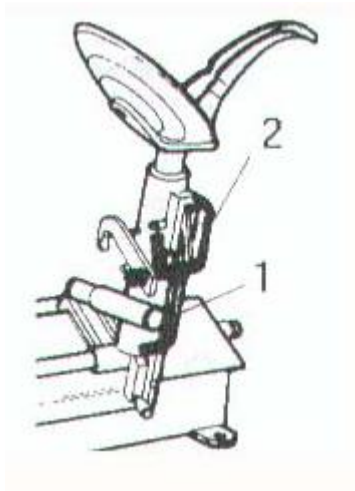
H: GEARBOX LEFT MOVE BUTTON

This button moves rim fasten group counterclockwise circularly.

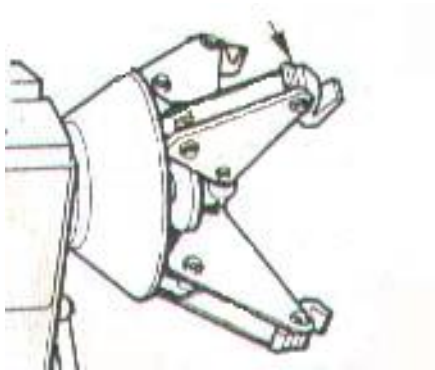
I : EMERGENCY STOP BUTTON

This button stops urgently working of machine completely.

Operating panel was designed such as an operator can move it easily. This panel is very beneficial for working efficiency.



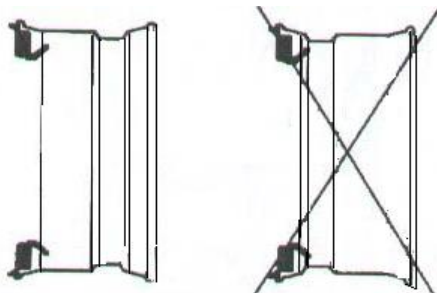
Picture 9



Picture 10

10.3 PLACING THE RIM TO CLAMPING ARMS

Check which side the tyre is looking at during placing to clamping arms. You should bring the rim axis and disc axis to the same plane to hang the rim up clamping arms. You can do that by moving the body with operating panel arm. Various samples are given below.

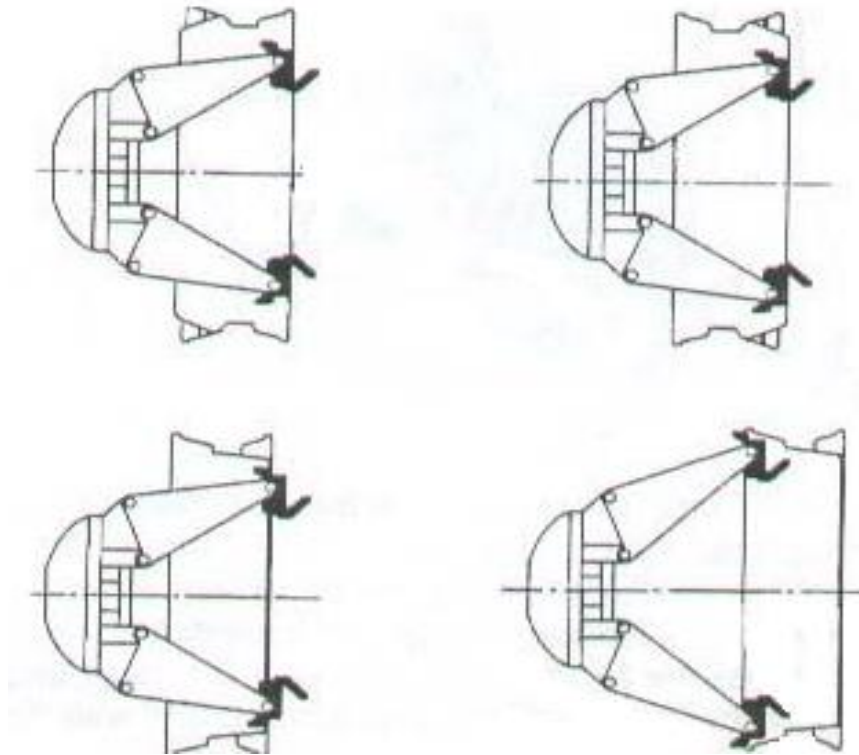


Picture 11

As you see in picture 9, there are two units apparatus that are working with operator's power in the cusp part of body; the other one is the lock of a system which is locking body to spliding ways completely. The arc under body helps you to take up body.



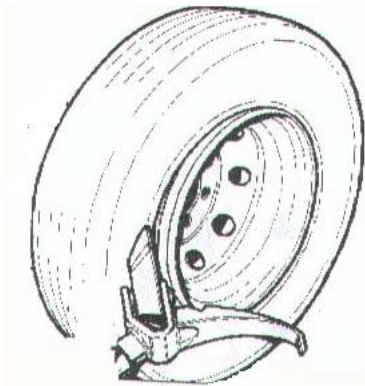
CHECK THE BODY IS LOCKED WITH APPARATUS BEFORE DOING OPERATIONS FOR TYRE CHANGING. THIS IS IMPORTANT FOR YOUR SECURITY!



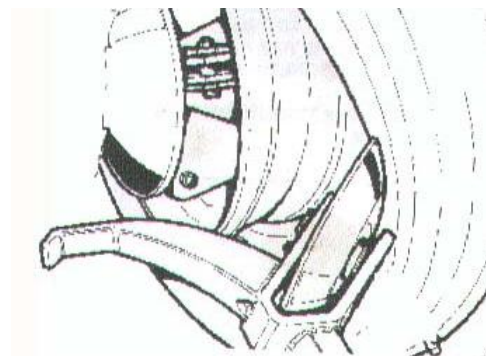
Picture 12

Sliding stuff should be smeared on surfaces where rim touches to tyre before you do any operations on tyre. This operation helps to do tyre changing operation unless damaging.

After you fixed the tyre to clamping arms, approximate the disc to rim by using operating panel of changing body to change tyre. Then, push tyre on the rim by disc step by step. **Keep the disc near rim as far as possible, but do the tyre pushing operation unless you make disc touch rim**(See Picture 13-14).



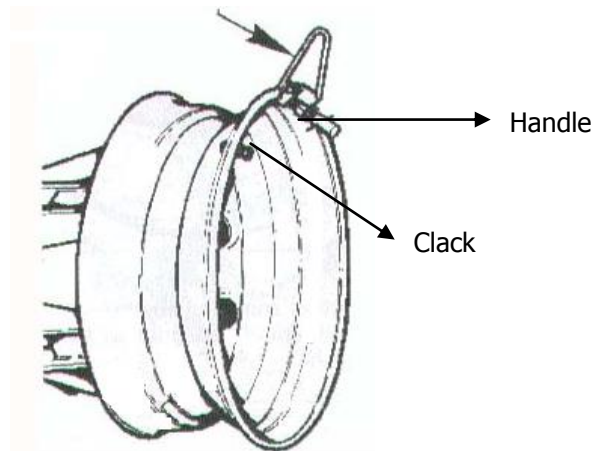
Picture 13



Picture 14

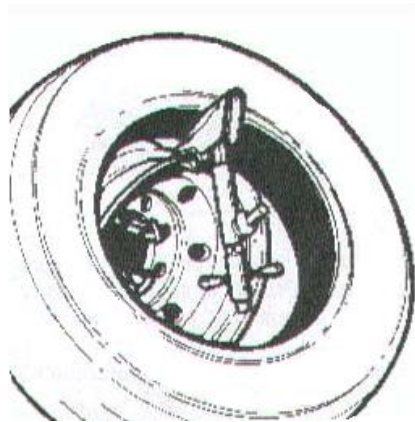
It is time to take tyre removing from rim, after you finished operations that was explained in previous sections. To complete tyre removing operation and during this operation, not to damage the tyre by dropping or by trundling, you should press top surface from front side of tyre with your hands. **You should stay back while you are doing this operation. Otherwise, tyre can come over you.**

10.4 TYRE FIXING OPERATION



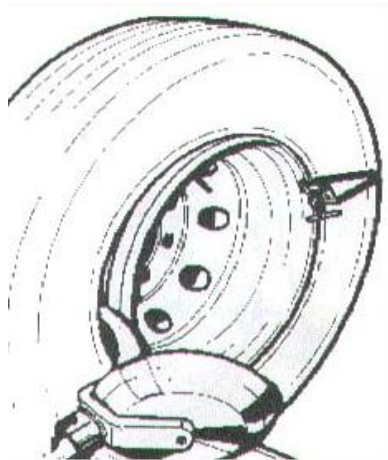
Picture 15

While you are doing this operation, you can use an apparatus called "handle" (Picture 4) from standard accessories or collateral apparatus as we show in picture 7 from optional accessories. Before you mount "handle" to rim, be sure that clock of clack is showing 11 and make handle stable to 12 position of clock. **Wear gloves to protect your hands, while you are doing this operation.**



Picture 16

By tyre changing operation, in some exception cases, standard handle is not enough to change special tyres. Compulsory liquidation, you should use collateral apparatus that is showed in section optional accessories. Using of this apparatus is expressed in picture 16 and 17. Operation can be done with normal handle like picture 4. Turn the tyre to use horn part of changing apparatus by using locking system, after you fixed the tyre on handle and fix one side of tyre over rim, other side on handle. Then, make tyre taut a little by horn and push it to rim. By the way, because the rotor is turning, tyre will fit well on rim.



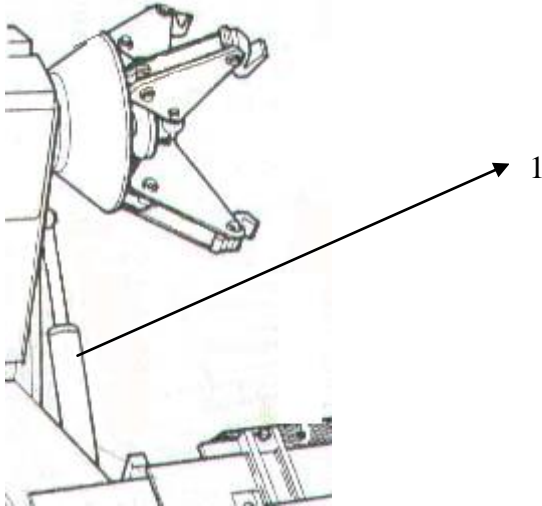
Picture 17

You should take care of your safety while you are doing this operation. Do not interfere with your hands between tyre and rim definitely. Take care of your working clothes not to be caught between tyre and rim or somewhere else on machine. By the way, you should be careful while you are using operating panel. You might be in a trouble with a small mistake.



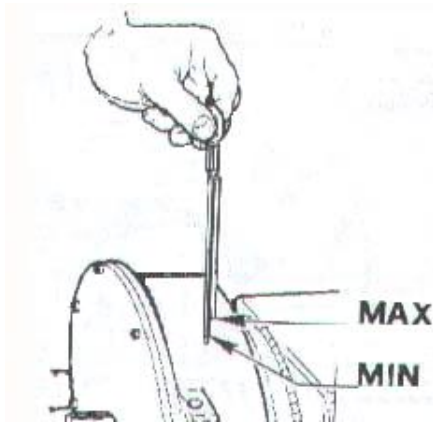
11.0 MAINTENANCE

Lubricate moving parts of your machine with grease oil once a month. Especially, moving parts of pistons (1) in picture 18 should be lubricated. This operations will extend lifetime of machine.



Picture 18

Check your oil level of your machine minimum once a week. Oil level should be between min. and max. in indicator. Oil level dipstick is near the gearbox. When the oil is deficient, it should be added with oil which the manufacturer advise.



Şekil 19

Change the oil in system of your machine once a year. Oil capacity of your machine is 1,5 lt. Ckeck the hydraulic oil level once a month. If it is deficient, add one of oil types below.

Oil types that are advised to use in machine:

ESSO : GEAR OIL GX W 90
SHELL : SPIRAX HP 85 W 90
TOTAL : SAE 85 W 90

ESSO : NUTO H 46
SHELL : TELLUS OIL 46
TOTAL : AZOLLA 46



Clean and lubricate piston that provide to move your locking system once a month with grease oil.

Clean the clamping arms with steel brush once a month.

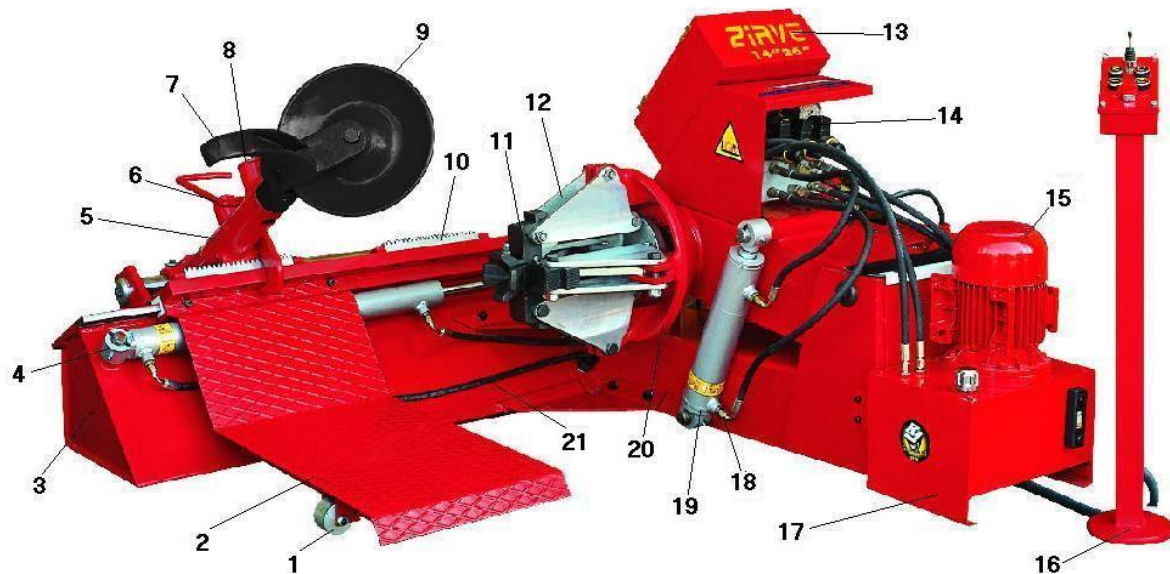
12.0 PUTTING THE MACHINE OUT OF USE

If you are not going to use your machine for a long time (16 months or longer);

- Close clamping arms completely.
- Retreat all of hydraulic pistons
- Take cover all piston hoses not to damage.

When you provide this conditions, you can move the machine by taking care of instructions in 2.0.

13.0 OVERSIGHT OF ZIRVE 14"-30" HEAVY SERVICE TYRE CHANGER



PICTURE 20. OVERSIGHT OF ZIRVE 14"-30" HEAVY SERVICE TYRE CHANGER

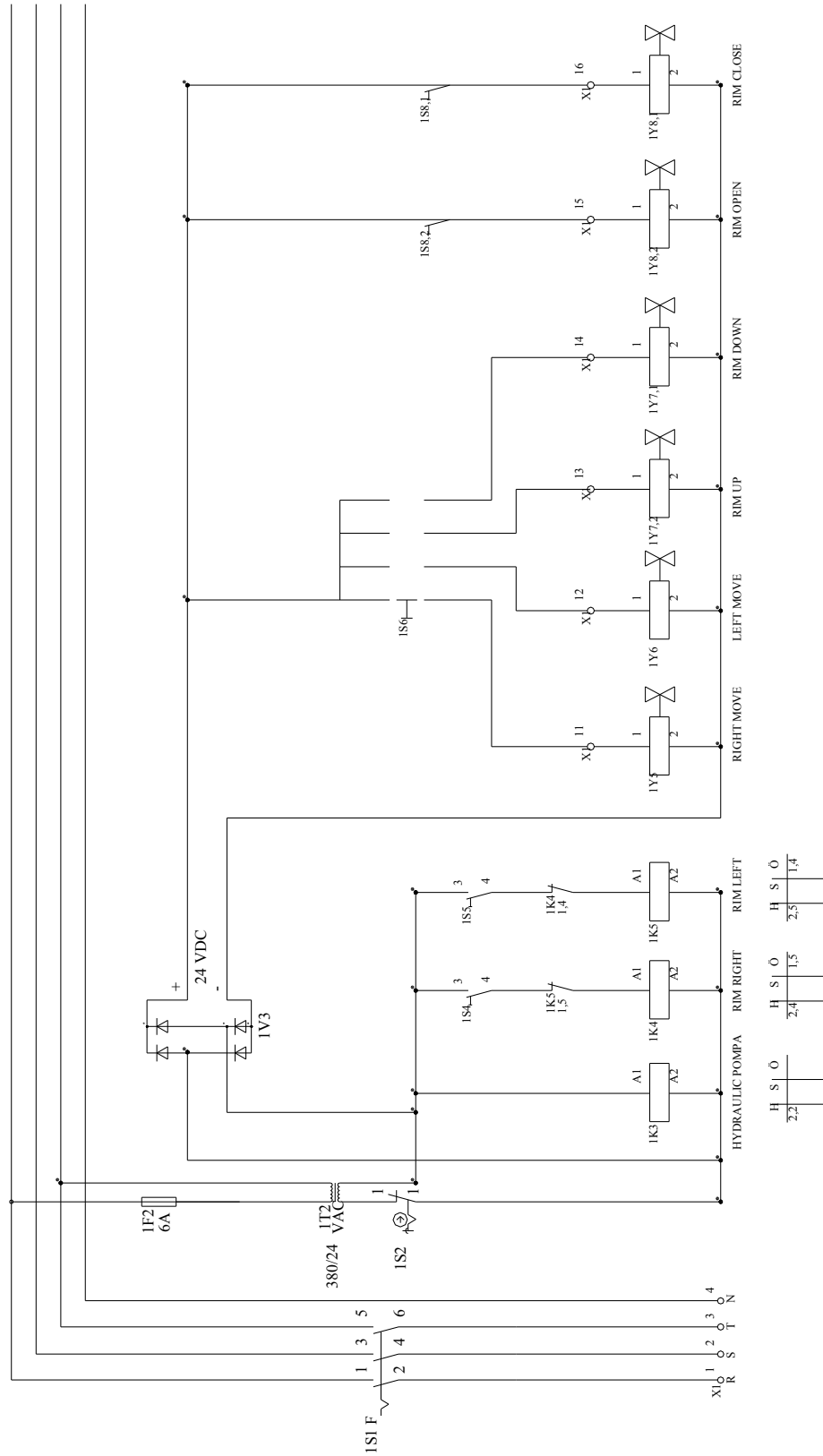


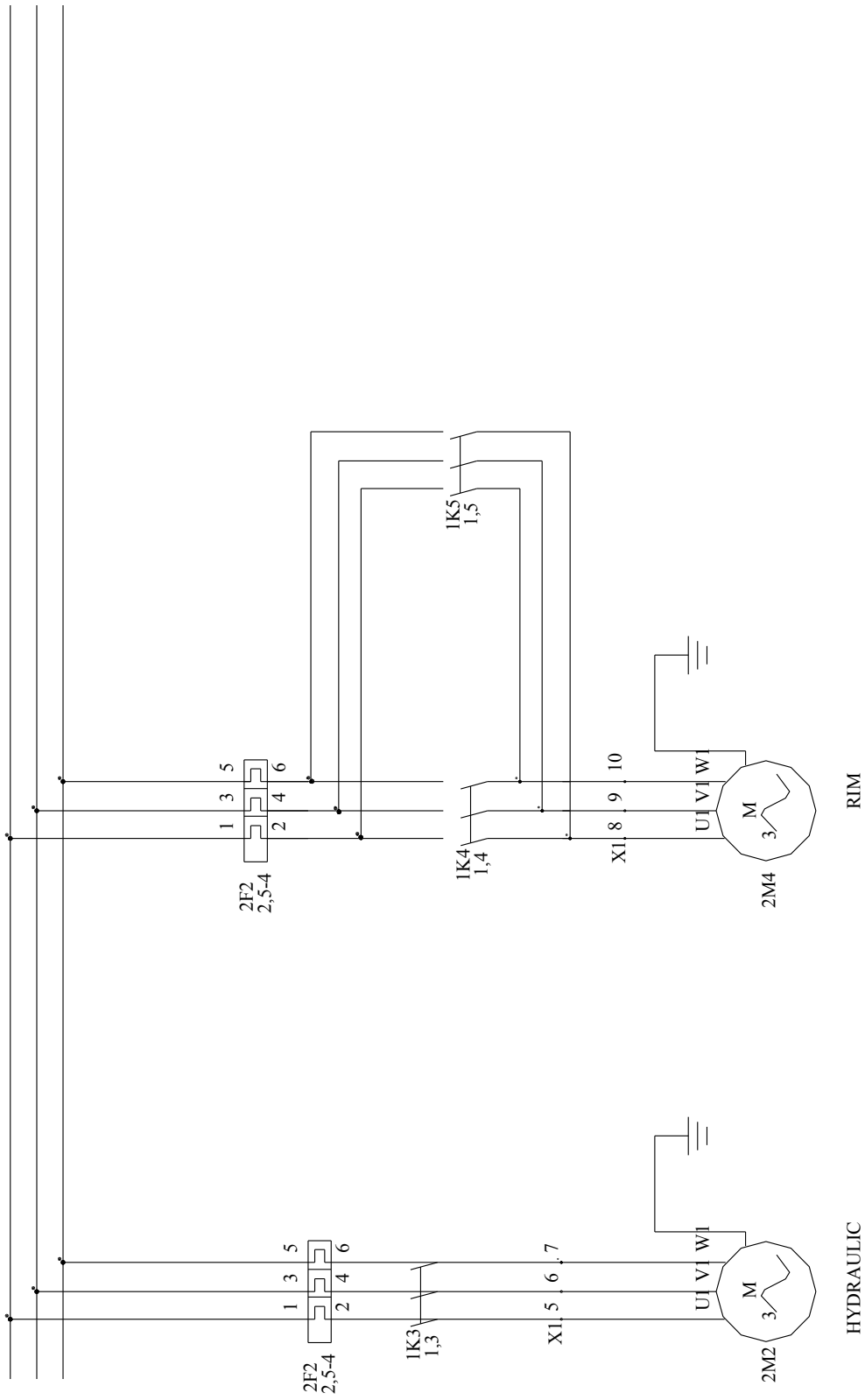
14.0 ZIRVE 14"-30" SPARE PARTS LIST

PARTS NO	ITEM CODE	PARTS NAME
1		Tire of moving vehicle
2		Moving Vehicle
3		Underside Body
4		Piston of moving vehicle
5		Locking tube
6		Hook
7		Lock
8		Horn
9		Bead Breaking Pot
10		Kremaier Gear
11		Clamping arms
12		Rim Clamping Feeder
13		Wiring Panel
14		Hydraulic Valve
15		Hydraulic Motor
16		Control Panel
17		Depot
18		Rakor
19		Piston of moving body
20		Pot
21		Hydraulic Hose

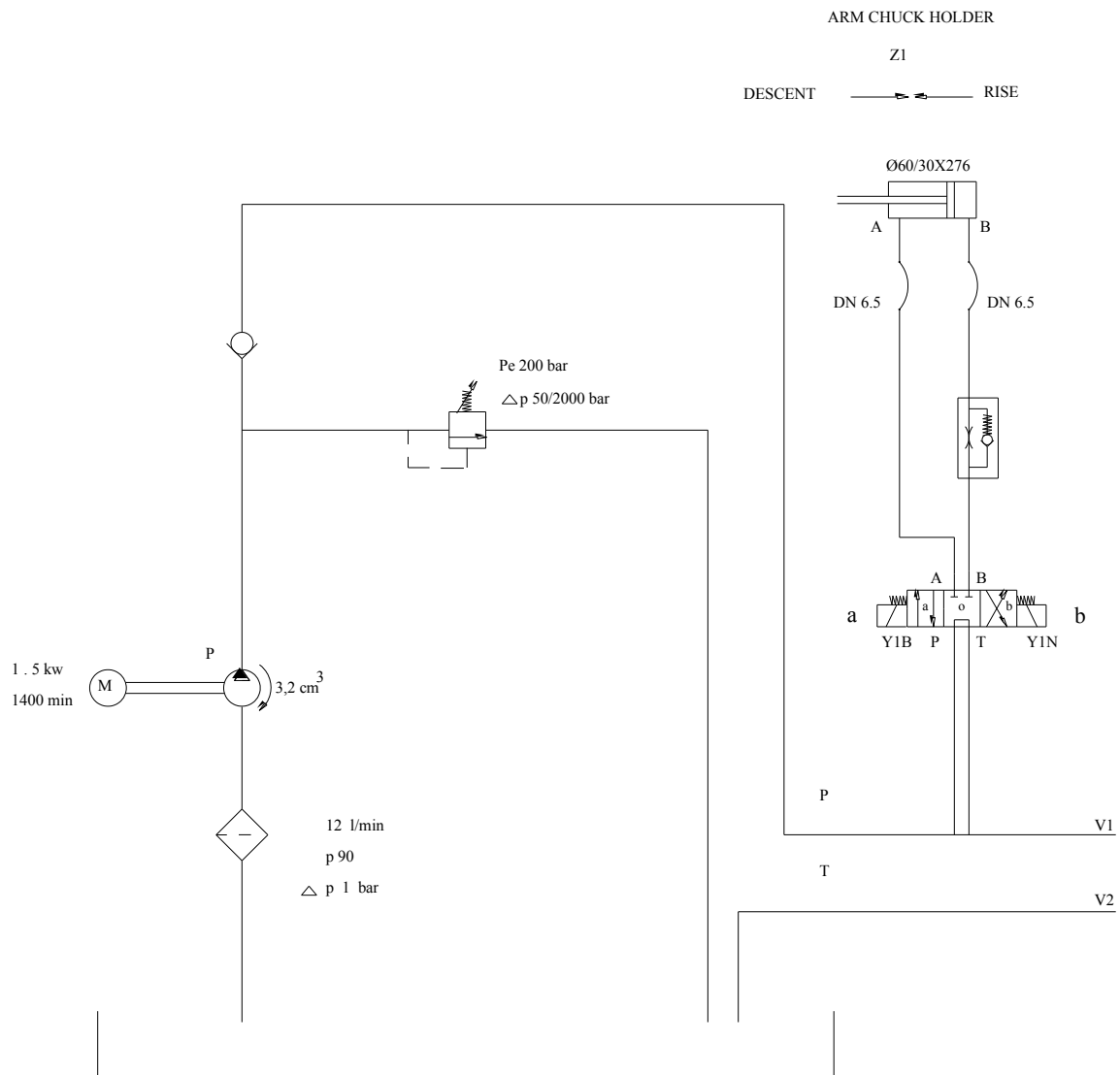


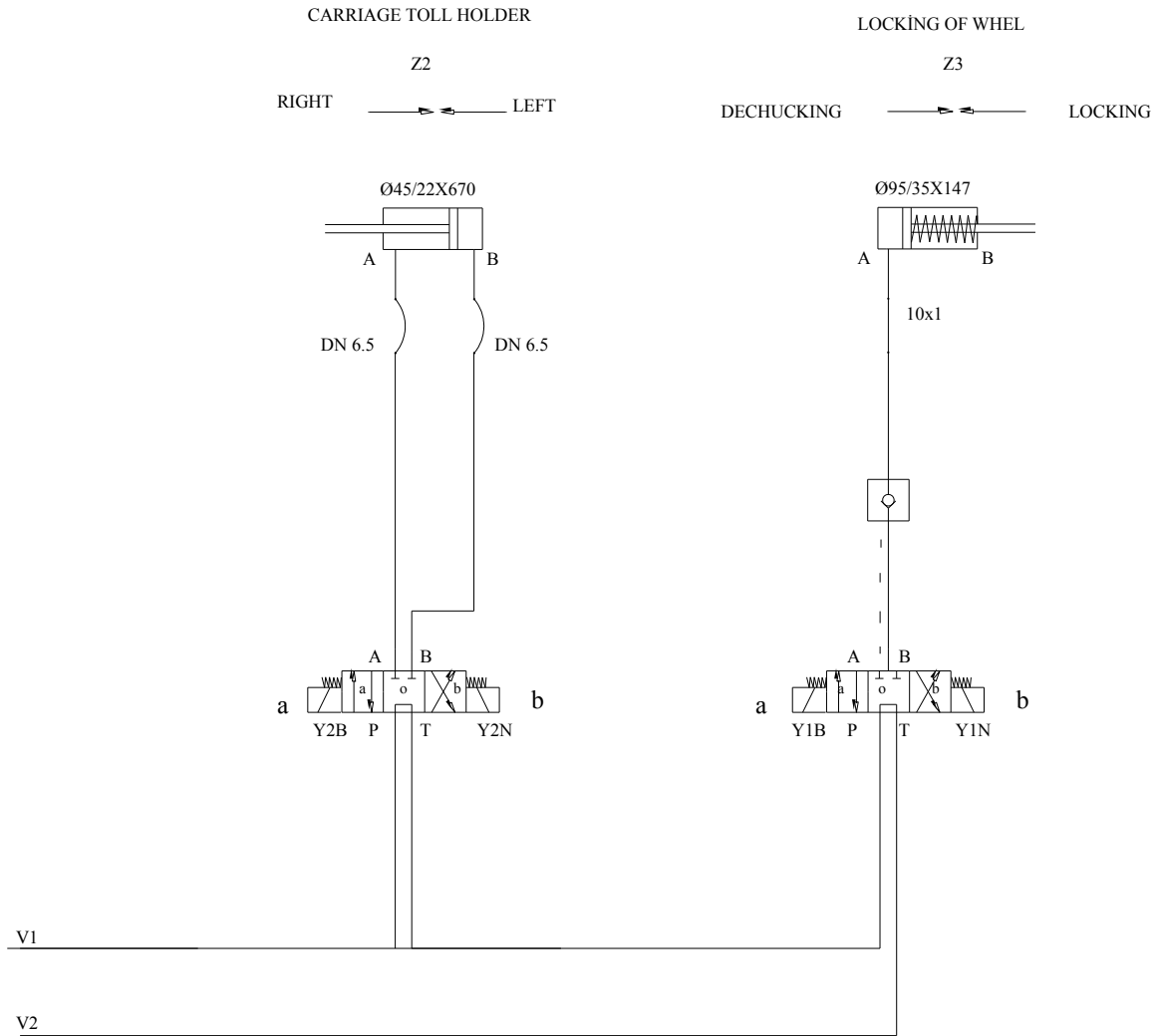
15.0 WIRING DIAGRAM





16.0 HYDRAULIC STRUCTURE OF ZIRVE 14"-30" HEAVY SERVICE TYRE HANGER





PICTURE 26. HYDRAULIC STRUCTURE OF ZIRVE 14"-30" HEAVY SERVICE TYRE CHANGER

**DECLARATION OF CONFIRMITY**

Manufacturer : KMAK MAKİNA SANAYİ VE TİCARET ANONİM ŞİRKETİ

Adres : Dört Yol Sanayi Çarşısı 13. Sk. No: 28 54580
ARİFİYE / SAKARYA/TÜRKİYE

Tel : +90.264.275 54 28 - +90.544. 338.33.39

Fax : +90.264.291 15 43

We, declare under our sole responsibility that the product:

Name : **ZİRVE TYRE CHANGER**

Type/Model : **ZİRVE 14"-30"**

Serial No :

To which this declaration relates is in conformity with the following standard(s) or other normative document(s):

EN 292-1,
EN 292-2,
EN 294,
EN 349,
EN 418,
EN 982,
EN 1037,
EN 1050.

(If applicable) following the provision of (89/392/EEC) EC Machinery and (73/23/EEC) EC Low Voltage Directive(s).

Date : 23/01/2022

CE MARKING RESPONSIBLE
ABDULHAMİD DAKES