



sahinler
METAL MAKİNE ENDÜSTRİ A.Ş.



USER'S MANUAL

MODEL AP 1020 – 1520 / 100 ton.

UNIVERSAL HYDRAULIC PRESSBRAKES



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CE DECLARATION

We as

ŞAHİNLER METAL MAKİNE END. A.Ş.
İzmir Yolu 22.km
Mümin Gençoğlu Caddesi
Bursa / TÜRKİYE

confirm that the machine

AP 1020 – 1520 / 100 ton.

Serial Number :
Production Year :

complies with

EC MACHINES DIRECTIVE 2006 / 42 / EU
replaced with EC-Directives 91 / 368 / EWG and
93 / 44 / EWG and
93 / 68 / CEE
EC-Low Voltage 73 / 23 / EWG
EC - Noise Level Directives 86 / 188 / EWG

and the machine also harmonized with the standards

DIN EN 60204 Part 1

Name : Mustafa PINARBAŞI
Position : Production Director

BURSA, on.....

LABELS



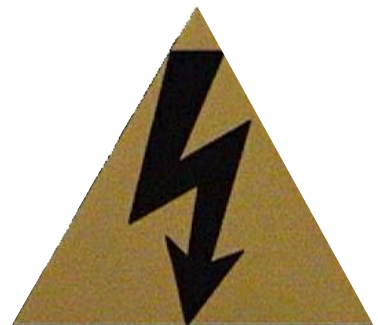
DANGER OF ELECTRIC



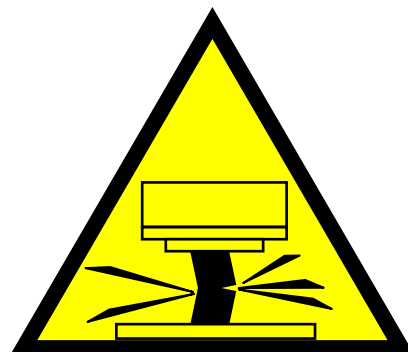
EMERGENCY STOP



GROUNDING SYSTEM



WORKING VOLTAGE

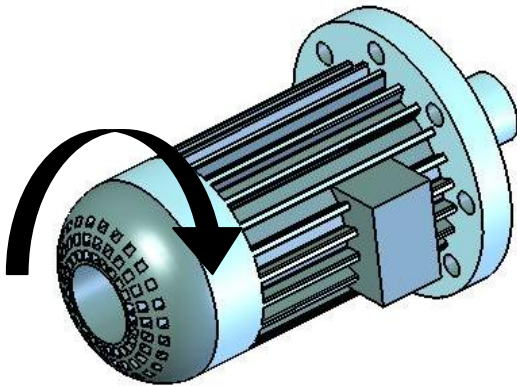
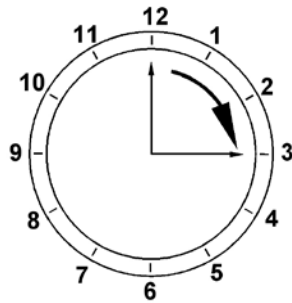


DANGER

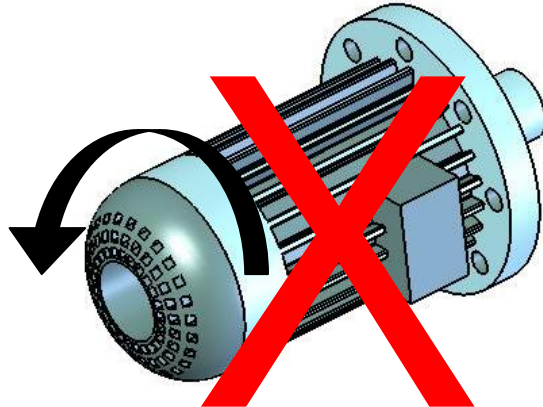
WARNING

Before operating machine;

You must follow these important steps



RIGHT



WRONG

- 1. Open the cover and check the direction of motor rotation***
- 2. If motor rotation direction is wrong, then change L1-L2 cables with themselves***

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GENERAL NOTES

1. Introduction

Thank you for choosing a Şahinler Sheet / Metal Working Machine. We are proud to have you in our long list of satisfied customers all over the world.

This User's Manual is absolutely for your safety and is essential for the machine to have a long production life. As long as you keep up with our Manual you will be able to run your machine smoothly and safely. Keep in mind that the machine is designed absolutely to perform maximum safety and for efficient working.

In this Manual you can find instructions and information about:

- Correct installations of the machine
- Description of the functional parts of the machine
- Set-up and start-up adjustments
- Correct standard and scheduled maintenance
- Simple safety regulations and accident prevention.

Therefore, as far as the user's safety is concerned, in this handbook the possible risks connected with machine operation are pointed out as follows:



Attention: Showing the risks of accident, if instructions are not followed.



Warning: Showing the probable damages to the machine or equipment, if the instructions are not strictly followed.



Note: It gives useful information.

It is certainly necessary that the operator should read and understand all the **Attention, Warning, Note** specified in this Manual before starting with operation of the machine and before any lubrication or maintenance intervention

On all steps of installation, operation and maintenance safety must be your first concern for the protection of yourself, other users and the service of the machine. In case of any failure please first refer to this Manual, and then if a solution cannot be found contact first of all the distributor where you purchased our product. Do not forget to refer to the drawings and the numbers for any spare part needed or to define any problem. Make sure you have the serial number and production year of the machine.

Our technical staff will make their best to help you in the most convenient way.

2. Transport

As soon as you receive the machine, check for any visible transport damages. Should there be any visible damages; report it straight away to the transporter company and of course Şahinler Metal Mak. End. A.Ş. or your supplier.



Remove any protective crates around the machine and read the instructions on related chapters of this Manual carefully to set up the machine. If the machine is damaged while transport, **immediately take some photographs for insurance claims.**

Take precautions while loading / unloading or moving the machine to avoid any injuries. Refer also to related chapter of this Manual for the best way of handling the machine.

3. Electrical Information

All necessary connection procedure can be found on this Manual. Do not try to connect the machine before reading these procedures and fully understanding the drawings. For any unclear matters get in touch with Şahinler Metal Mak. End. A.Ş. or any of the Şahinler distributors. Have the machine connected by a qualified electric technician. For, as we made clear in the "general conditions of guarantee", under no circumstances installing mistakes, including electrical connection mistake, can not be covered by guarantee agreement. Always turn off power before making any connections or disconnecting the machine.

4. Maintenance

Your machine is designed and produced to work efficiently and smoothly. To achieve this you should also take care while operating the machine. Regard Maintenance sections to have the longest life from your machine. Try and use original spare parts where necessary and most importantly do not overload the machine or do not make any unauthorized modifications.

5. Safety

Take all precautions possible to avoid any personal injury while using the machine. Keep in mind to protect the third party people around the machine. Refer to safety directives.



GENERAL WARRANTY TERMS

- Your machine is covered by manufacturer's guarantee for a period of **12 months** from the date of purchase against manufacture defects. The warranty period does not exceed 18 months from the date of delivery from the manufacturer's factory.
- Warranty covers only manufacture defective parts and / or components that are reported as "defective" by a Sahinler Technician or the Agent Technician and must be reported to Sahinler in writing by fax or email.
- The manufacturer is responsible for the supply of free of charge spares only and cannot be held responsible for loss of work.
- Shipping and customs fees for the spare part must be paid by the end-user.
- If a technician travel is necessary Sahinler will not charge for labor and workmanship costs but the customer must pay traveling and accommodation charges.
- A Warranty claim does not relieve the Customer from payment obligations.
- The Customer can not ask or demand any reimbursement of damage nor the Customer will have the right to extend or delay payment obligations nor the cancellation of order and the refunding of damages as the guarantee is given for the defective parts of the machine and not for the job.



Note: All warranty claims must be applied with the Model, Serial Number and the Manufacture Year of the machine.



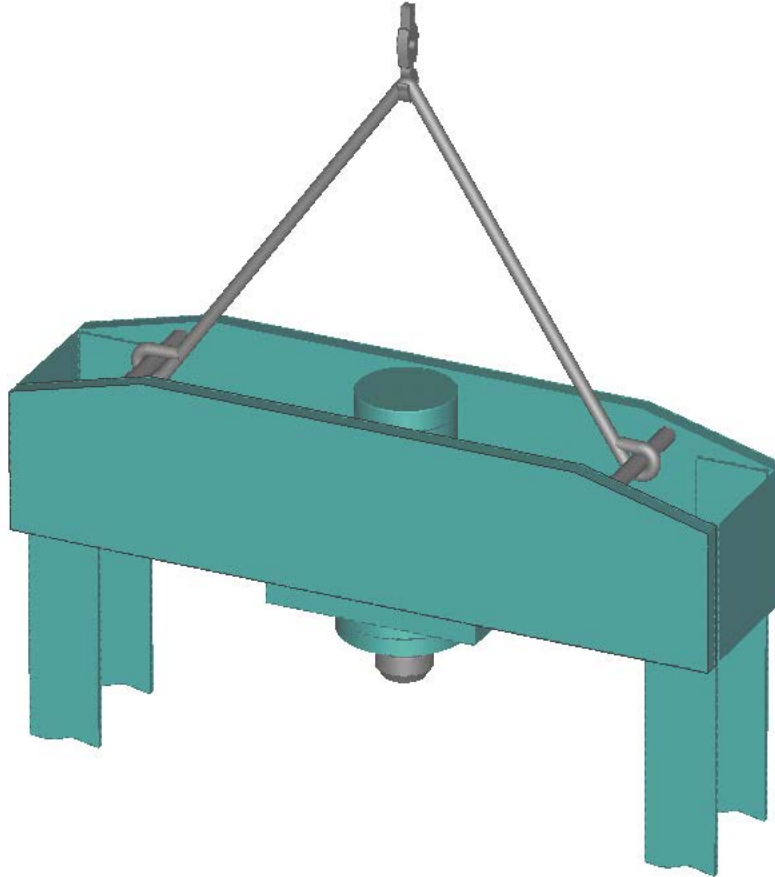
TRANSPORT AND LIFTING OF THE MACHINE

The machine weight is approximately 3000 - 3300 kg. Use necessary cranes and lift as shown. Please take extra care during lifting and moving. Use a steel rope with hooks capable of carrying 5 ton. If necessary consult with specialized companies for lifting.

Approximate Weight:

AP 1020 / 100 ton 1900 kg.

AP 1520 / 100 ton 2500 kg.



Attention: At the moment of receiving the machine, detach the protection nylons and verify the machine in order to determine any eventual transport damages that has occurred. Should you find out any damage occurred, indicate this case absolutely on the transport receipt certificate.

OPENING THE PACKAGE

If any visible damage exist on the machine when you receive the machine immediately informs the dealer or manufacturer. Also never forget to state the visible damage on transport documents.

The packing material is completely safe and do not consist any environmentally dangerous articles. However they must be kept out reach of children as some nylon products in packing may cause suffocation if used as a toy etc.

TECHNICAL PROPERTIES

Universal Hydraulic Pressbrakes			
Model		AP 1020 / 100 ton	AP 1520 / 100 ton
Press Power	kN	1000	1000
Max. pressure	bar	263	263
Stroke	mm	300	300
With of Working Area	mm	1020	1520
Distance Between Tables	mm	325	325
Bending Capacity	mm	8	8
Advance Speed	mm/sec	8	8
Working Speed	mm/sec	5	5
Return Speed	mm/sec	10	10
Motor Power	kW	7,5	7,5
Dimension of Die Table	mm	500x1020	500x1520
Die Table Center Hole	Ømm	100	100
Dimensions L x W x H	mm	2150x1000x2250	2650x1000x2250
Weight	kg	1900	2500

STANDARD SPECIFICATIONS

- Pressure gradeless adjustment (Pressure adjustment)
- Stroke gradeless Adjustment System (Stroke adjustment)
- Adequate work apace for large sheet metal
- Manual and two hand working
- Top Gooseneck pressbrake die
- Bottom die with 5 face prism
- Rexroth, Bosch or Parker hydraulic systems
- Electric's are Telemecanique or Siemens
- Arrangement system for taking down or up the table
- Suitable for CE regulations
- User manual book

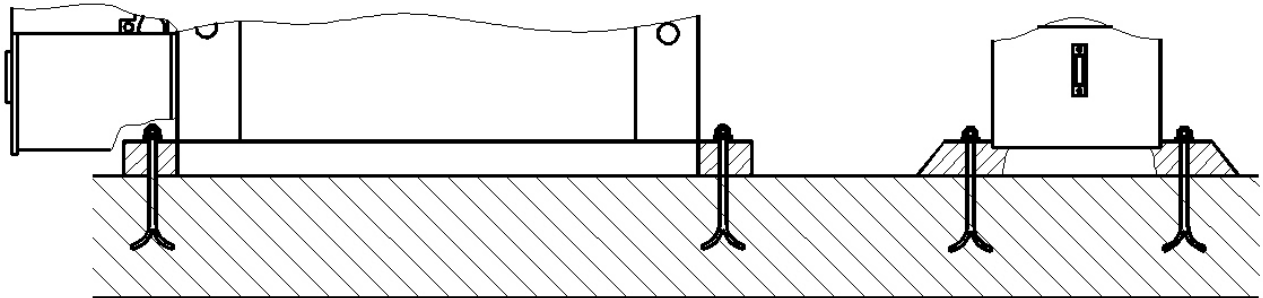
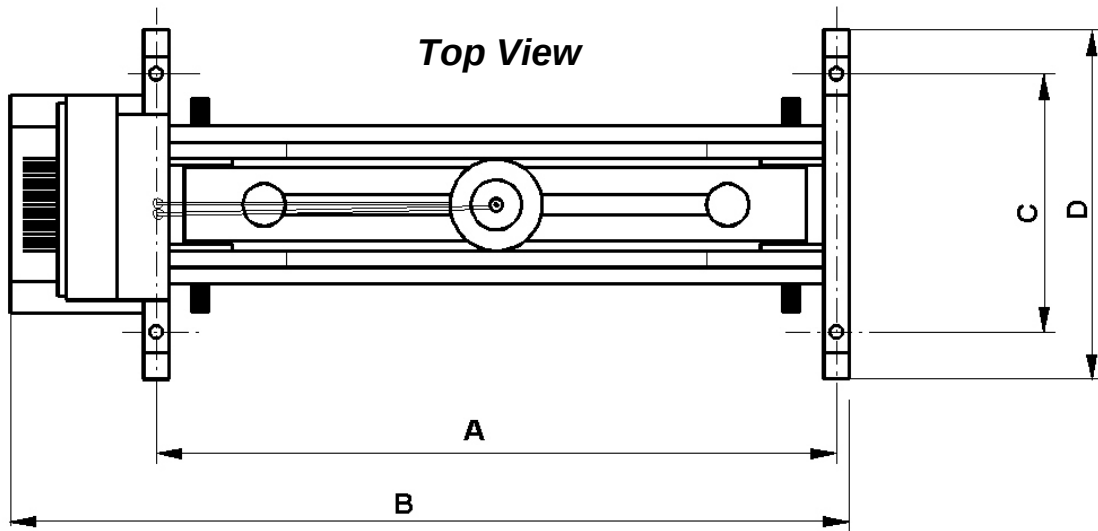
Special Features

- Optional Panbrake Die
- Down mound with different angles
- Down table special T – slots
- Working with foot pedal *
- Special order of fast working system *

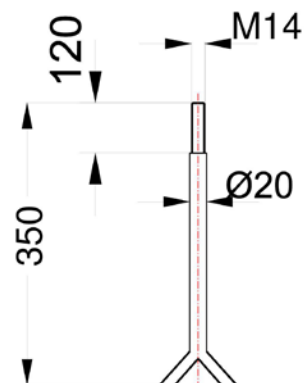


Foundation Plan:

On attached pages you can find foundation plan of the machine. You can bolt the machine if necessary.

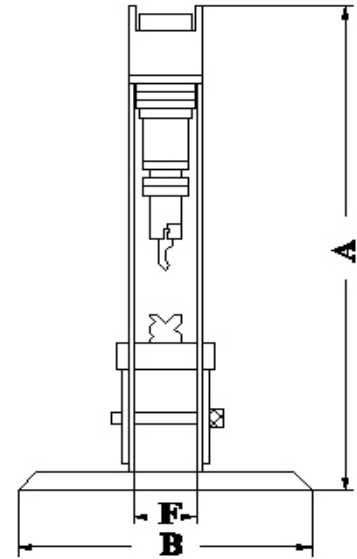
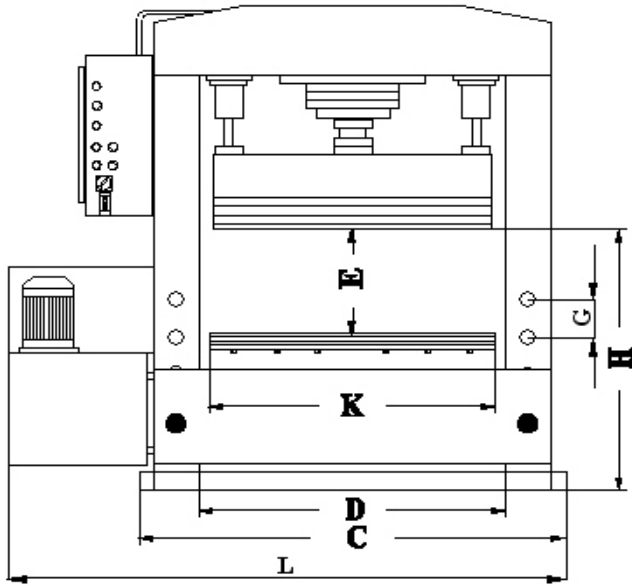


MODEL	A	B	C	D
AP 1020 / 100 t	1550	2150	665	1000
AP 1520 / 100 t	2050	2650	665	1000





Main Dimension of the Machine



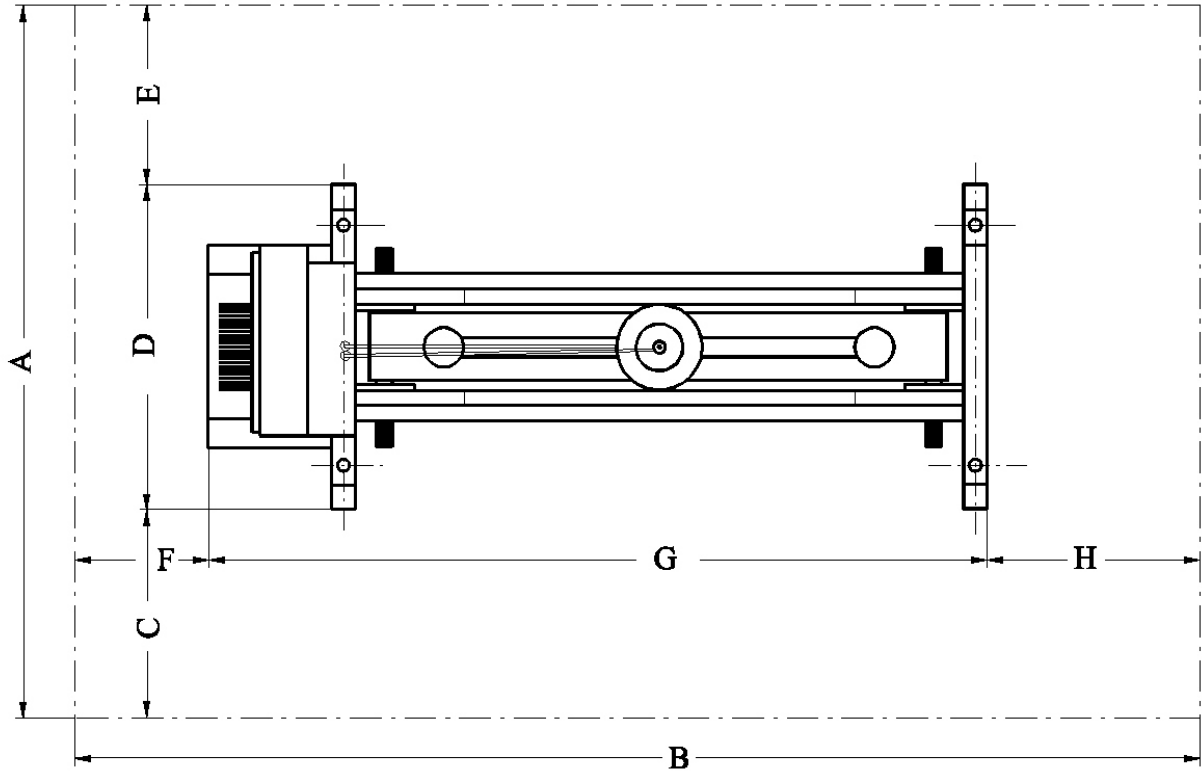
MODEL AP	A	B	C	D	E	F	G	H	K	L
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1020-100	2280	1000	1530	1070	260	250	190	1000	1020	2110
1020-150	2450	1000	1530	1070	260	290	190	1070	1020	2110
1520-100	2280	1000	2030	1570	260	250	190	1000	1520	2610
1520-150	2450	1000	2030	1570	260	290	190	1070	1520	2610

Area Requirement For the Machine and Tools:

The maximum tooling dimension are in conformance with the working surface and the distance between supports of the press.

The working zone is located at command area before the machine. The material to be treaded is only loaded from front part of the machine.

Attention: during the functioning the machine or functioning of the piston by an operator, never load material on the machine



MODEL	A	B	C	D	E	F	G	H
AP 1020 / 100 t.	2600	3110	800	1000	800	600	2110	400
AP 1520 / 100 t.	2600	3610	800	1000	800	600	2610	400

SETTING UP THE MACHINE

1. Lifting :

Use the crane to lift the machine. Be very cautious during lifting not to damage the machine or the personnel. Here are the weights of the machine:

Approximate weights:

AP 1020 / 100 ton. 3000kg.

AP 1520 / 100 ton. 3300kg.

2. Setting up the machine

For an efficient work and a long lasting machine beware these:

- Do not place the machine near a lathe or similar particle throwing machines
- Do not place the machine near base shaking heavy machines such as power hammers
- Cement the base of the machine
- The base must be perfectly flat for efficient work

3. Clean off all protective lubricants on the machine before working

4. Connect the electrics to a technician. If the machine is not specially designed it works on 380 V 50 Hz electricity. Be careful on R, S, T and C1, C2, C3 connections and of course the rotation of the motor. Their is a rotation arrow on the motor, please check with it.

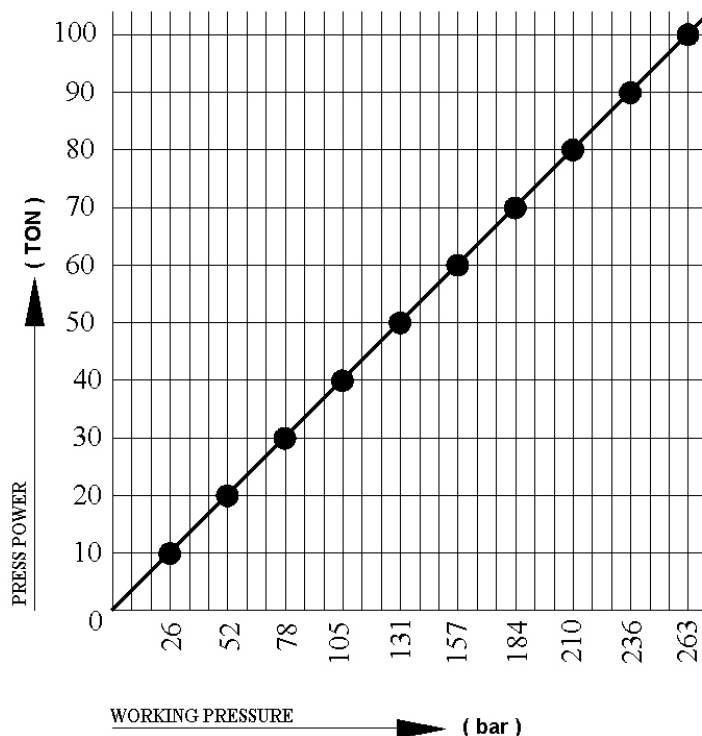
5. Some parts arrive tied up to the machine to avoid transport loss and damage. Please remove them before working.

6. The noise level on this machine is 70 decibels and complies with CSG Machine Noise Information Bureau 3rd Paragraph dated 18.01.1991

7. The machine produces no excess heat, radiation, poisonous gases in all forms and harmful emissions described by CE – Rules.

8. Manufacturer will not be responsible for any damages occurred during transport or any damages caused by electrical connection.

Capacity Chart





SAFETY DIRECTIVES

EXPLANATION FOR OPERATOR

Operator under age of 16 years to operate the machine is strictly forbidden (EC-Directive). The operator of the machine should carefully read this manual and understand the danger he might be in if he misuses or abuses the machine. If any part of this manual is unreadable or illegible please contact to the dealer and manufacturer.

The owner of the machine should be responsible for operating the machine with qualified personnel.

PERSONAL PROTECTION

Gloves and safety glasses and safety cap are recommended during operator.



Attention:

- No material should be fed if the machine is running.
- All emergency stop must be easily accessible.
- The user must be careful for third persons entering the operation area of the machine.

General Safety Instructions

Following instructions are meant for the operator of the machine and it is the End-User's responsibility to make sure the operator reads and understands the following and the User's Manual for safe operation.

- Read the User's manual before operating the machine.
- Always inform electric faults to electric technicians.
- Keep your working dress or long hair or necklace etc away from rotating parts.
- Make sure you know the position of Emergency Stop Buttons on the machine.
- Switch off the machine when **NOT** working.
- Work with necessary safety clothes if necessary (safety shoes, glasses , earplugs etc).
- Control the Safety features before working and ensure they are working properly.
- See and understand Safety Labels on the machine.
- Perform periodic maintenance.
- **DO NOT** overload the machine.
- If you see abnormal behavior of the machine, stop the machine and inform your supervisor immediately.
- Be careful of other people around the machine during operation.
- Never modify electric unit.
- Never remove any mechanic or electronic safety features from the machine.
- Be extremely careful during transport or re-placement of the machine and follow transport instructions in the manual to safely handle the machine.



Attention: Before the first use of the machine always check this list carefully for a safe start.

1. Check the emergency stop button on the command panel
2. Check for visible oil leak
3. Control of the buttons on the command panel

IMPORTANT POINTS

- The machine must be used by qualified and technical personnel at all times.
- All modifications and changes on the machine without the written confirmation of manufacturer is forbidden and if such a case occurs all responsibilities of the manufacturer will be out of consideration.
- Any such modification is also breach of CE directives
- The machine can be stored and used in closed areas however beware not to put it near any explosive, flammable or in any dangerous articles.
- In case any use of non-original spares or accessories and in case of injuries then, the manufacturer will not responsible of such claims.
- Beware of third persons entering the operation area of the machine.
- Beware of any obstacles entering the operation area of the machine.
- In long term stand-by's turn the main button to position 0 (zero)

Electrical Connections

Danger

All electric connections must be carried out by a qualified electric technician and any electrical fault must be immediately reported to a qualified electric technician.

This rating is for standard machine and can vary from country to country so please check the machine ID Plate found on the machine to see exact rating for specific countries.

Controlling the Direction of Rotation of Motors

When you first start the machine you must control the Direction of Rotation of Motors.

There is an arrow pointing the running direction of the motor on the motor housing. If this is not clearly visible then test if the machine operates normally that is the Ram moves up and down normally. Try it for 10 seconds approximately and if you don't see any movement that means Direction of Rotation of Motor is not correct and the pump is not working so immediately stop the machine disconnect the electric and reverse the phase cables and try again.

Warning

Don't work the machine with wrong Direction of Rotation for more that 1 minute as this will burn out the pump.

Operation Instructions

Before proceeding with this section make sure that the operate understands all safety instructions given up to here. If there is any part not understandable or not readable do NOT operate the machine.

Operation preparation

The machine must be prepared, installed and maintained at all times with the Main Power Switch at OFF (0) position.

Especially if you are going to install a new die or tool then the machine must be powered off and the Ram must be fixed with a wooden material so that it will not fall. Also:

- Check all guards and position devices
- Install the tool
- Check the positions of the tool
- Check all limit switches
- Power On the machine
- Prepare the material
- Adjust the stroke of the Ram

Electric Box Push Buttons

Electric Box drawing and the identification of the buttons are shown on the following pages

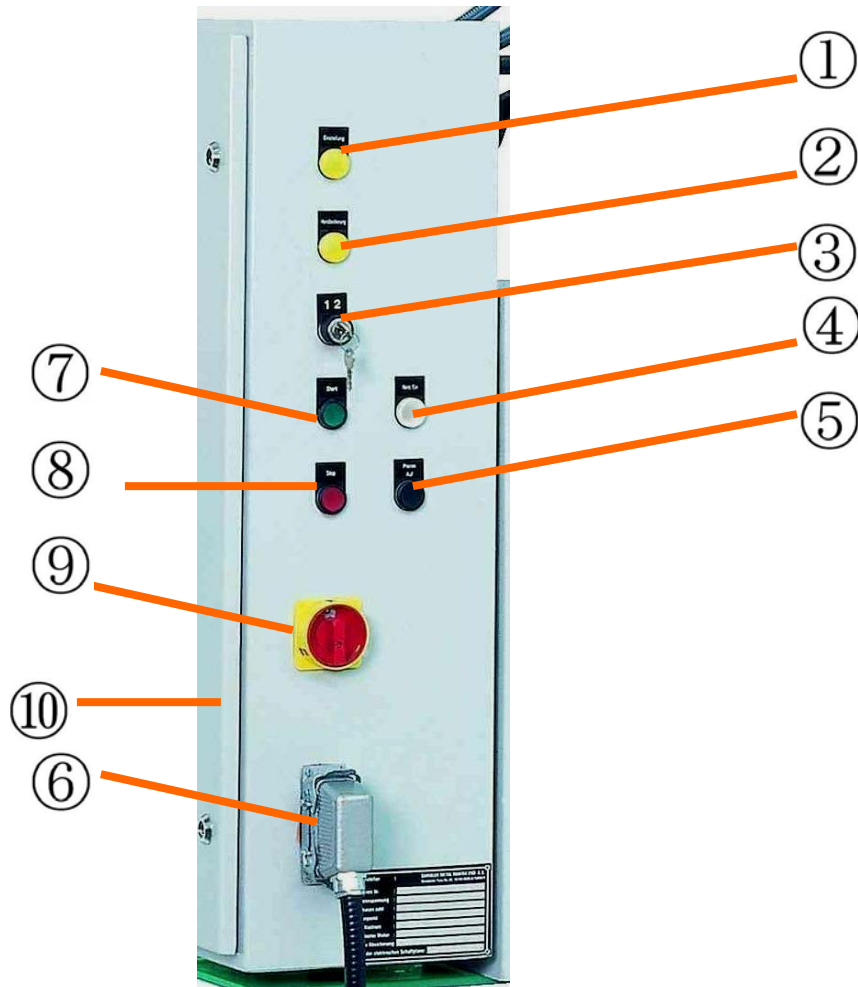
Emergency Stop Buttons

There is an Emergency Stop Button on the Mobile Control Panel. When this button is pressed the machine shuts down immediately and the ram stops instantly. To restart the machine you need to release the Emergency Button first then push the start button again.

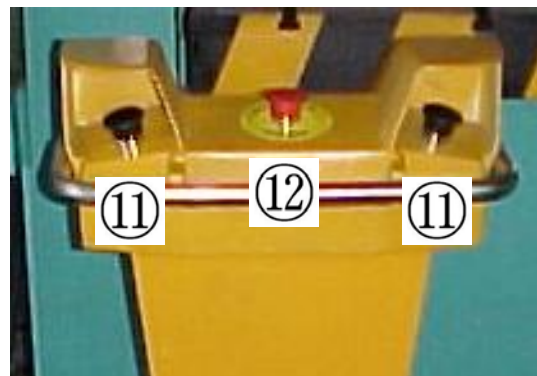
Two Hand Controls

Two Hand Control Buttons must be pushed simultaneously (approach 0.2 sec interval) or you will not be able to operate the machine. These are intended as a safety feature so that operator will not be able to put his/her hands into the danger zone while operating the machine.

ELECTRIC BOX OVERVIEW



1. ADJUSTMENT
2. TWO HAND
3. SELECTIVE SWITCH
 - 1 – Adjustment
 - 2 – Two Hand Control
4. POWER ON INDICATOR
5. RAM UP
6. CONTROL PANEL PLUG – IN
7. START
8. STOP
9. MAIN POWER
10. BOX COVER
11. TWO HAND CONTROL BUTTONS
12. EMERGENCY STOP



PROTECTIVE DEVICES

1. Emergency STOP buton
2. Two Hand Control



Electric box

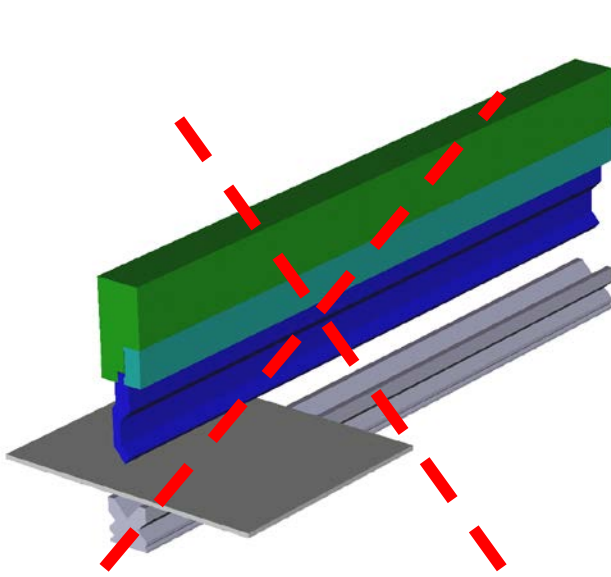


Switch system

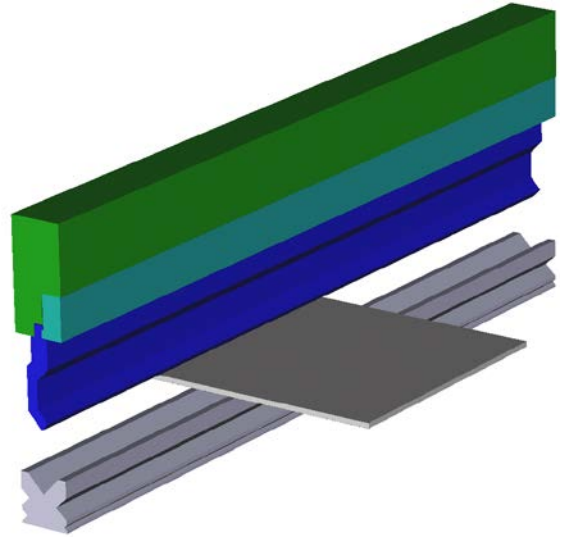




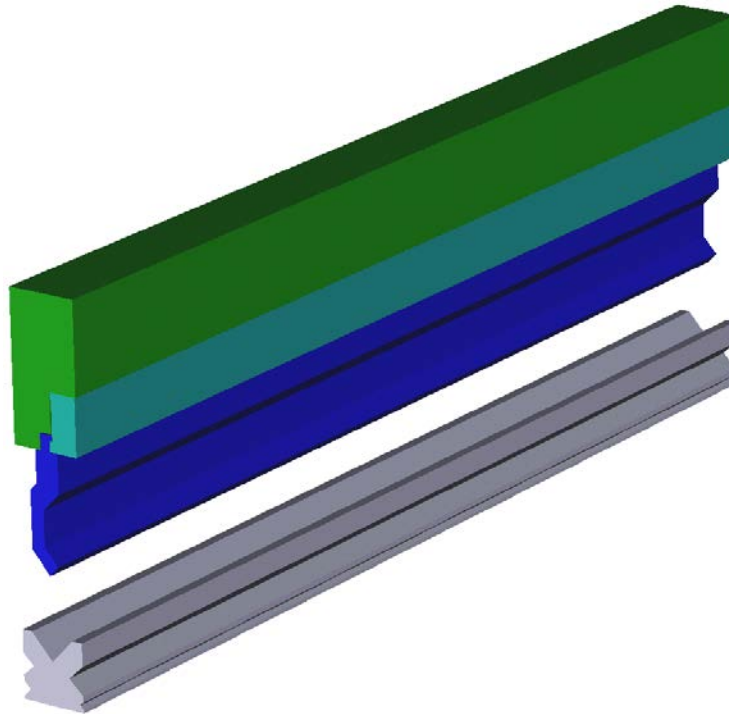
CORRECT WORKING POSITIONS



FALSE



TRUE

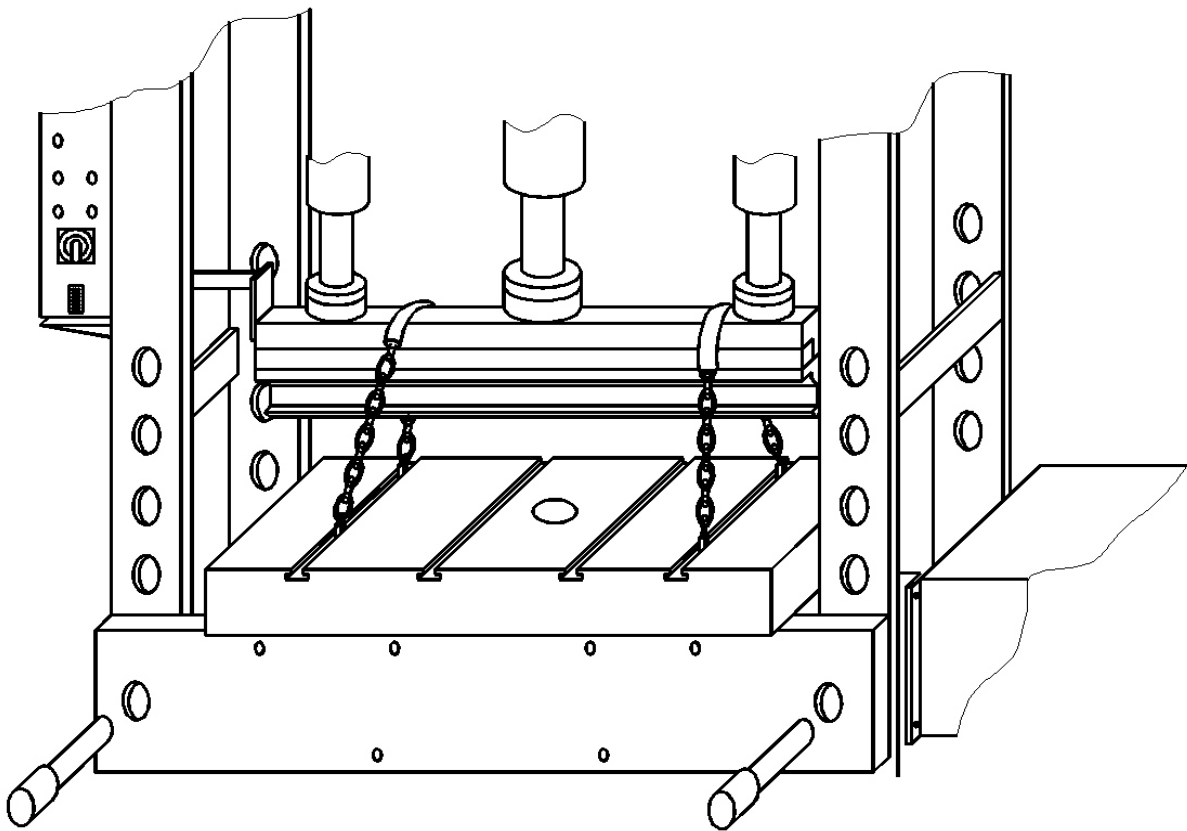


CHECK PARALLELISM

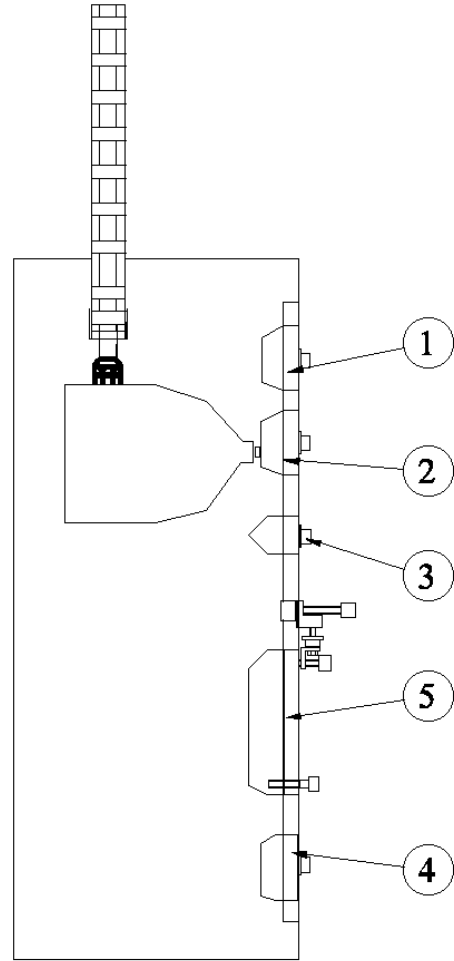
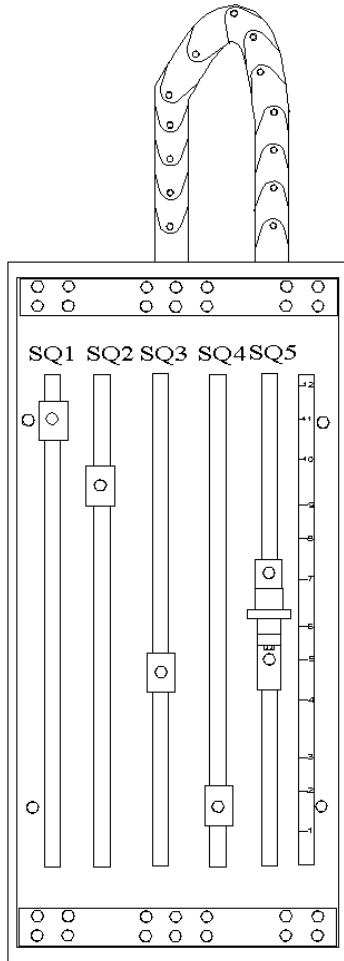


How to Lift the Table

1. *Lower the ram*
2. *Shut down the machine*
3. *Fix the table to the ram as shown*
4. *Remove fastening shafts on table holder*
5. *Adjust table by pushing the ram up down, very slowly*
6. *Fasten shafts to the table holder when adjustment is complete*
7. *Remove the lifting chain*



SWITCH SYSTEM



Stroke Adjustment

SQ1 Switch is the top safety Limit Switch. It is the last point the piston can move upward at all times. If for any reason the SQ2 does not stop the ram this switch stops the piston. This switch must **NOT** be changed at all times for safety.

SQ2 Switch is the top limit switch for the ram. This switch is adjustable and is user to adjust the point where the operator wants the ram to stop on upward motion.

SQ3 Switch is the speed switch which when activated slows the machine to working speed from Advance speed. This is adjustable also.

SQ4 Switch is the bottom safety limit switch. It is the last point the piston can move downwards at all times. If for any reason the SQ5 does not stop the ram this switch stops the piston. This switch must **NOT** be changed at all times for safety.

SQ5 Switch is the bottom limit switch for the ram. This switch is adjustable and is user to adjust the point where the operator wants the ram to stop on downwards motion.

MAINTENANCE AND REPAIRS

Maintenance Plan

What	When
Cleaning	Weekly
Hydraulic Oil Control and Filing	Weekly
Hydraulic Oil Change	Yearly
Hydraulic System Control	Yearly

Warning:

- Do not move the piston when adjusting or setting tools
- Change and adjust tools only when the machine is turned off
- Prepare the table
- Set up and adjust the tooling
- Double – check everything before starting to work again

Hydraulic System Maintenance

Hydraulic Oil can be harmful for the human skin. Avoid contact as much as possible. After finishing with maintenance clean your contact areas carefully.

Protect the Environment: recycle the used oil in the machine after removing it from the machine. Almost all material based oils are recyclable and are collected by Recycling Companies. Check with your local companies to recycle.

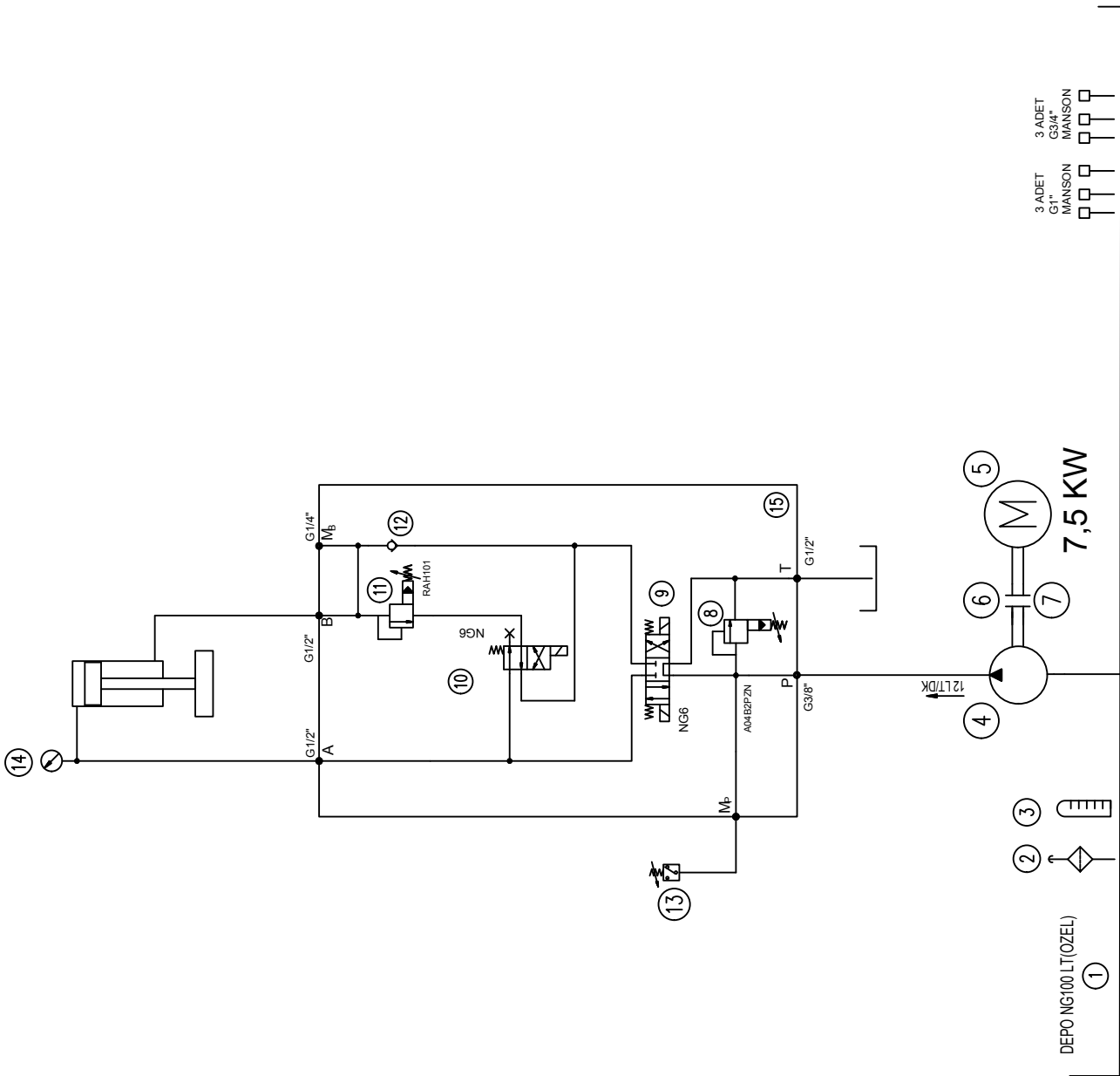
If there is any oil leak around the machine fill it with sand or sawdust to avoid any slippery surfaces which can be dangerous for other people. In general the Hydraulic System needs little maintenance and following points should be noted:

- Check the Oil level weekly from the Oil Gauge found on the hydraulic tank of the machine
- If the level is low fill with Shell Tellus Nr. 46 or equivalent.
- Once in 6 months control the Hydraulic filters inside the hydraulic tank and clean or replace if necessary
- Change the hydraulic oil at lease once a year. Fill with Shell Tellus Nr.46 or equivalent (ISO VG 46, DIN 51 519)
- Always close the tank cap tightly
- Control the bolts, seals, valves and Cylinder Seals for any visible damage once a week and replace them if necessary.

Oil Tank Capacity
 AP 1020 / 100 t. 90 lt.
 AP 1520 / 100 t. 90 lt.
 Shell Tellus Nr. 46



NO:	MALZEMENİN ADI :	ADET:
1	HİDROLİK DEPO NG100 LT	1
2	DEPO KAPAGI VE HAVALIK SDK-045 HASSEL	1
3	YAG SEVIYE VE ISI GOSTERGESİ L=127 HASSEL	1
4	DİSLİ POMPA 8,3 CC. SALAMI	1
5	ELEKTRİK MOTORU 7,5 KW 1450 D/D GAMAK	1
6	KAMPANA 1K300 HASSEL	1
7	ELASTİK KAPLIN DC38 1P-38 HASSEL	1
8	BASINÇ EMN.VALFİ A0482PZN PARKER	1
9	YON KONTROL VALFİ D1VW0080NJW PARKER	1
10	YON KONTROL VALFİ D1VW0208NJW PARKER	1
11	BASINÇ EMN.VALFİ RAH101S50 PARKER	1
12	ÇEKVALF CVH103P PARKER	1
13	BASINÇ SALTERİ LP1A3 PNOMEK	1
14	MANO.ø100x400 PANO TİP GLUS. PAKKENS	1
15	HİDROLİK BLOK STANDARD HBB-1021	1
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PROJE :	SERDAR BAYDAR	
ÇİZEN :	M.BAYOĞLU	
TARİH :	30.09.2017	
FİRMA :	ŞAHİNLER A.Ş.	
MAKİNA/ SİSTEMLER ADI:	STANDART UNİTE (AT-AP) 100 TON	

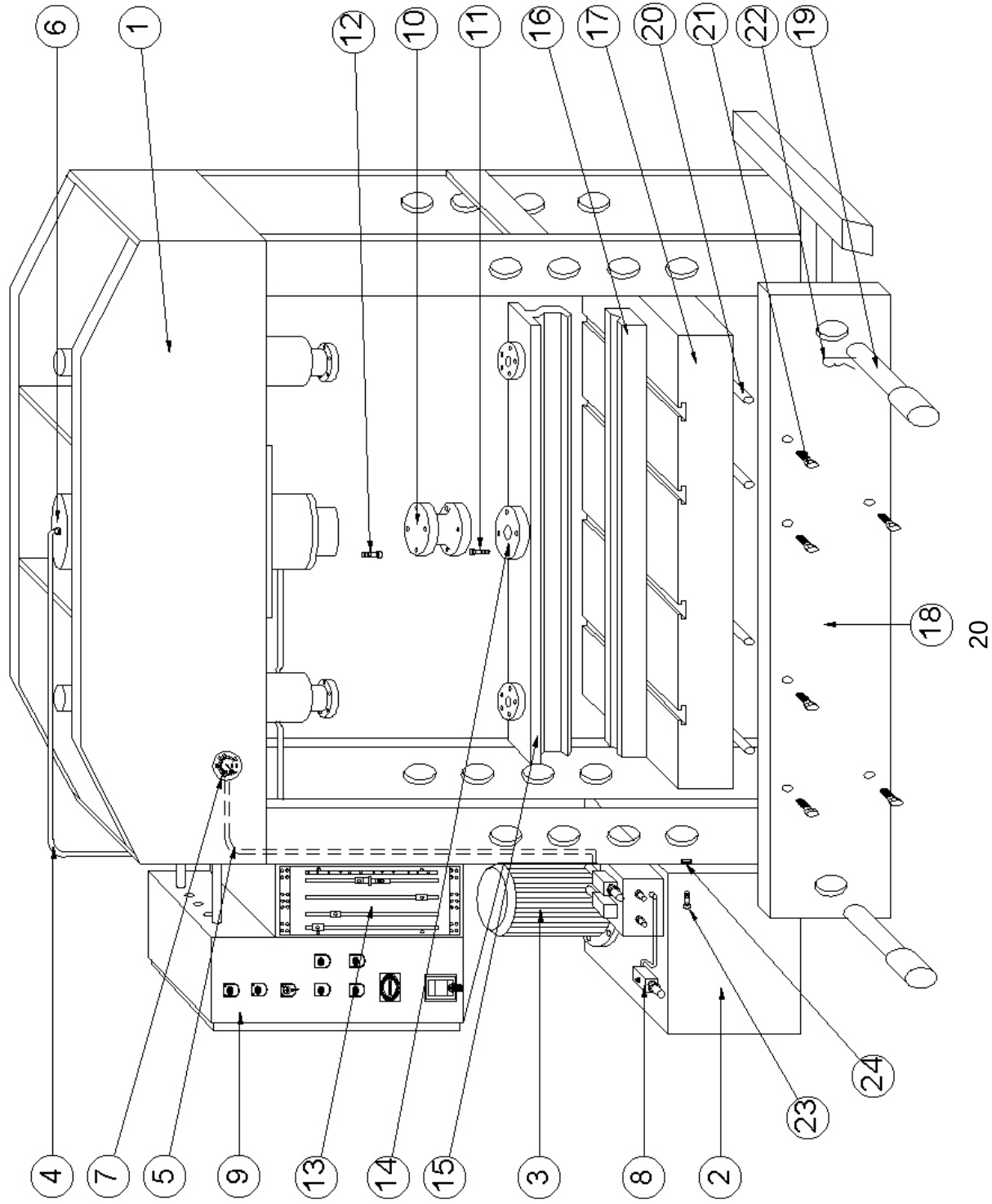




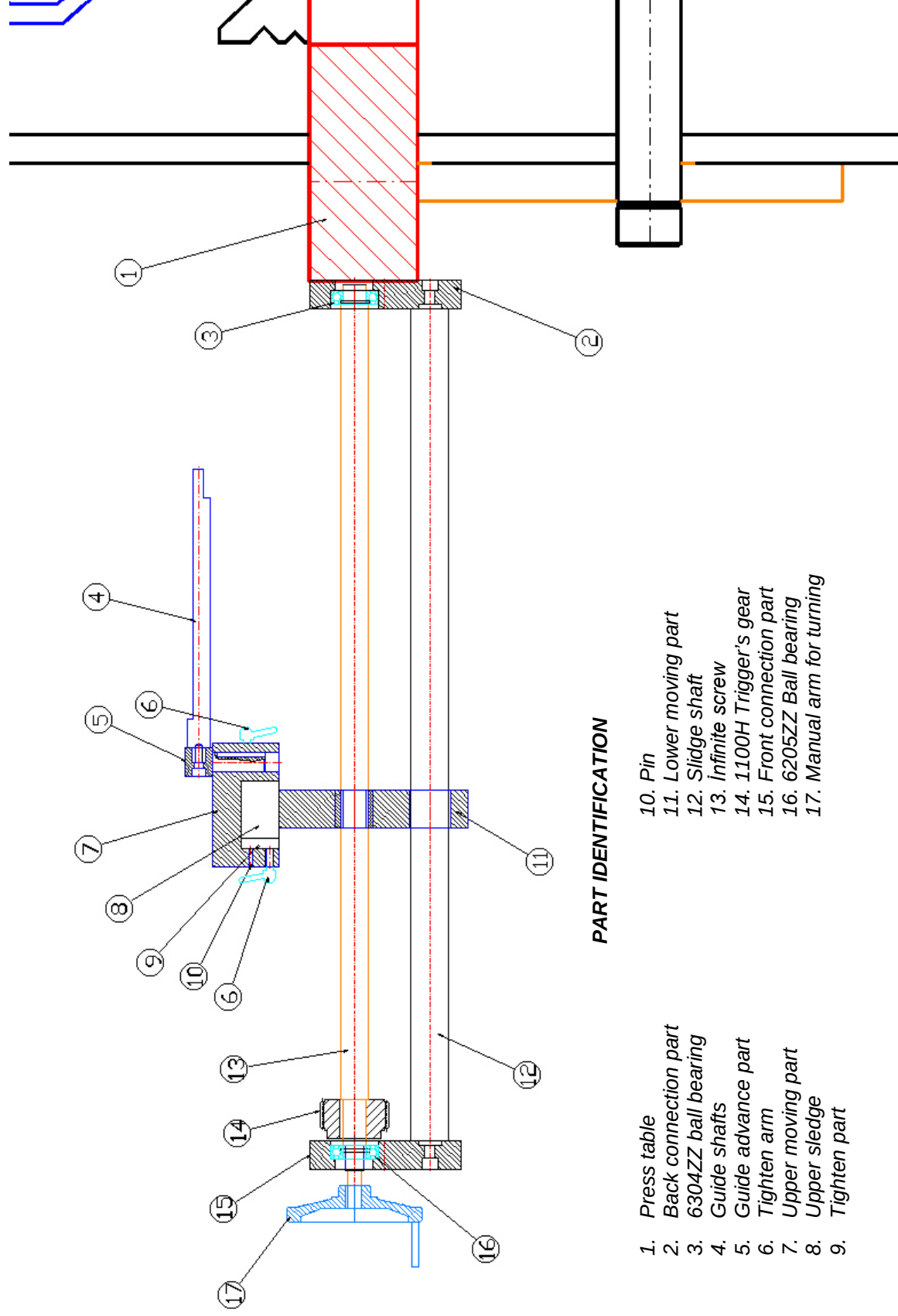
MAIN PARTS Model AP

1. *Frame*
2. *Oil Tank*
3. *Motor*
4. *Hydraulic Pipe*
5. *Hydraulic Pipe*
6. *Cylinder*
7. *Manometer*
8. *Switch*
9. *Electric Box*
10. *Adapter*
11. *Adapter Bolt*
12. *Adapter Bolt*
13. *Switch System*
14. *Adapter*
15. *Ram*
16. *Prism / Die*
17. *Lower Table*
18. *Side Supports / Table Holder*
19. *Side Supports Shaft*
20. *Side Supports Shaft*
21. *Bolt*
22. *Shaft Spring*
23. *Bolt*
24. *Nut*

MAIN PARTS Model AP



AP – Back Guide (OPTIONAL EQUIPMENT)

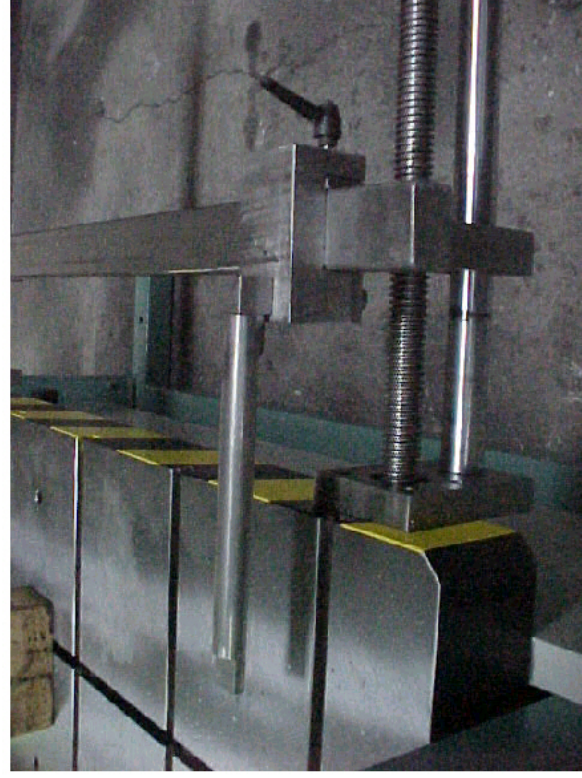
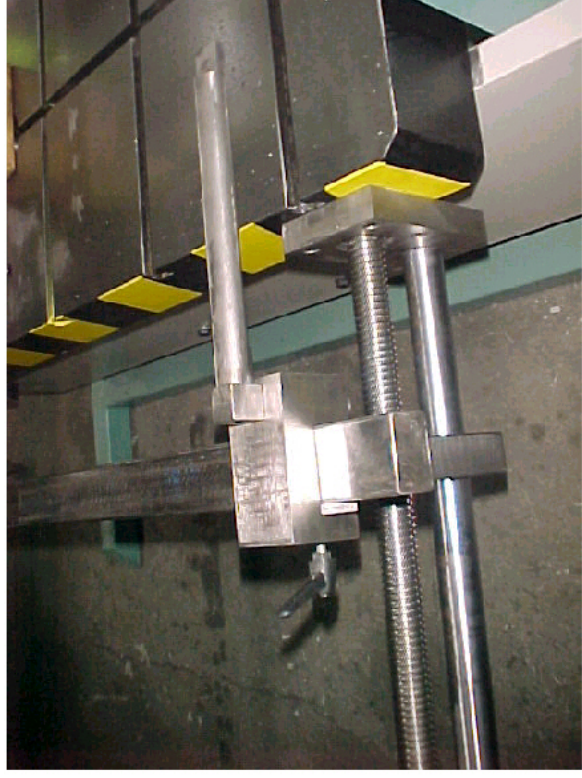


PART IDENTIFICATION

- | | |
|-------------------------|----------------------------|
| 1. Press table | 10. Pin |
| 2. Back connection part | 11. Lower moving part |
| 3. 6304ZZ ball bearing | 12. Slide shaft |
| 4. Guide shafts | 13. Infinite screw |
| 5. Guide advance part | 14. 1100H Trigger's gear |
| 6. Tighten arm | 15. Front connection part |
| 7. Upper moving part | 16. 6205ZZ Ball bearing |
| 8. Upper sledge | 17. Manual arm for turning |
| 9. Tighten part | |

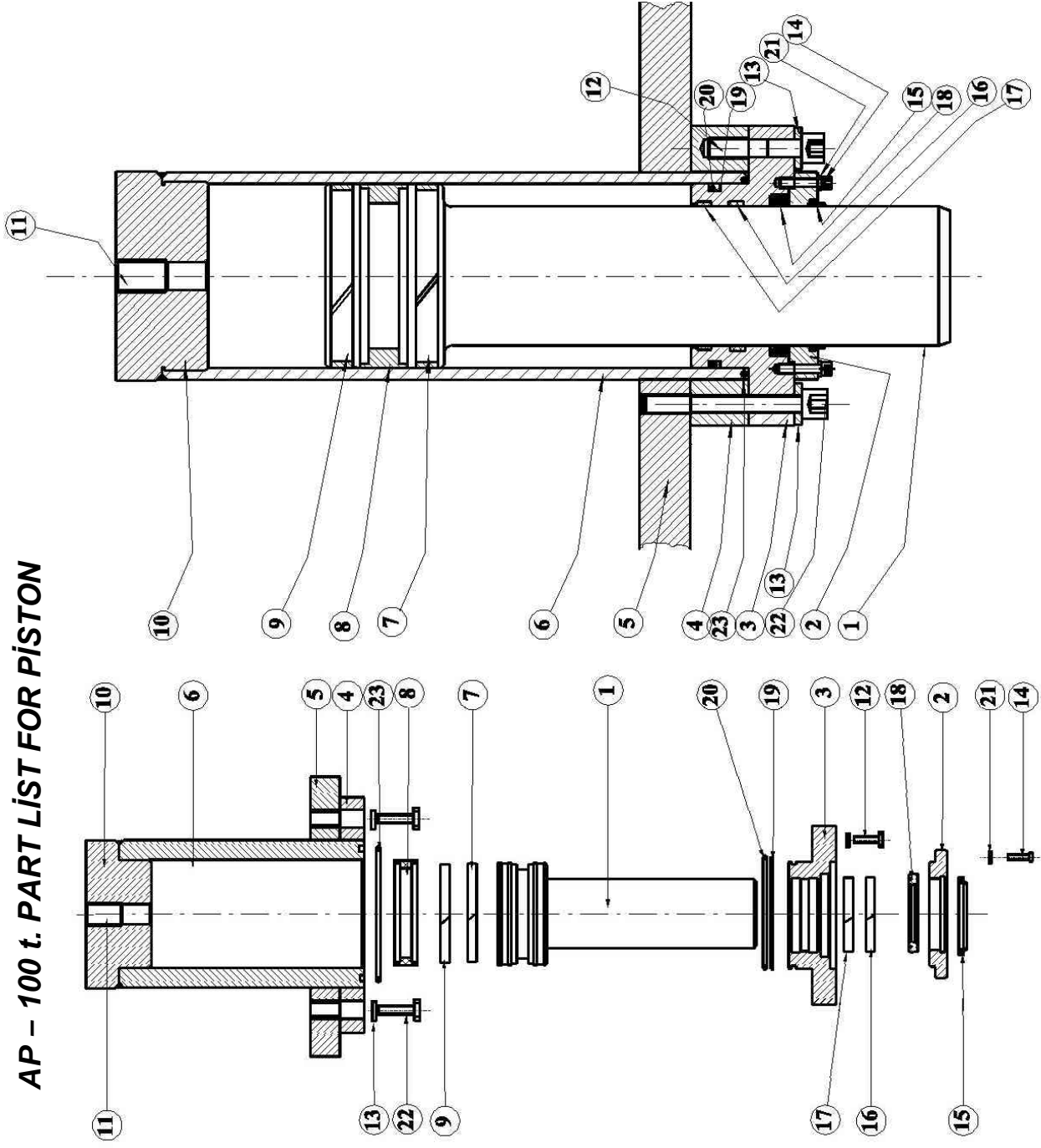


AP – Back Guide (OPTIONAL EQUIPMENT)





AP – 100 t. PART LIST FOR PISTON



1. Piston
2. Cylinder Flange
3. Neck Flange
4. Neck of cylinder
5. Machine frame
6. Cylinder pipe
7. Rubber Band
8. Piston Seal
9. Rubber Band
10. Back Cylinder Cap
11. Hydraulic Oil – In
12. Assembly Bolt
13. Washer
14. Assembly Bolt
15. Scraper
16. Rubber Band
17. Rubber Band
18. Neck Seal
19. Support ring
20. O – Ring
21. Washer
22. Assembly Bolt
23. O – Ring



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Müşteri :
Tesis tanımı :
Çizim numarası : 503
Komisyon :

Üretici şirket : LFSS Şahin Makina
Dosya ismi : AP HYDRAULIC PRESS (100 TON)
Proje ismi :
Marka :
Tip :
Kurulum :
Proje yöneticisi :

Oluşturma tarihi : Sorumlu : BULENT SEVİK En yüksek sayfa : 11
Durum : 02.08.2017 Sorumlu : BULENT SEVİK Toplam sayfa : 11

		Tarih	2017.08.02. 09:17:35	503	Kapak sayfası					
		Çizen	BULENT SEVİK							
		Kontrol	2017.08.02. 09:17:35							
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