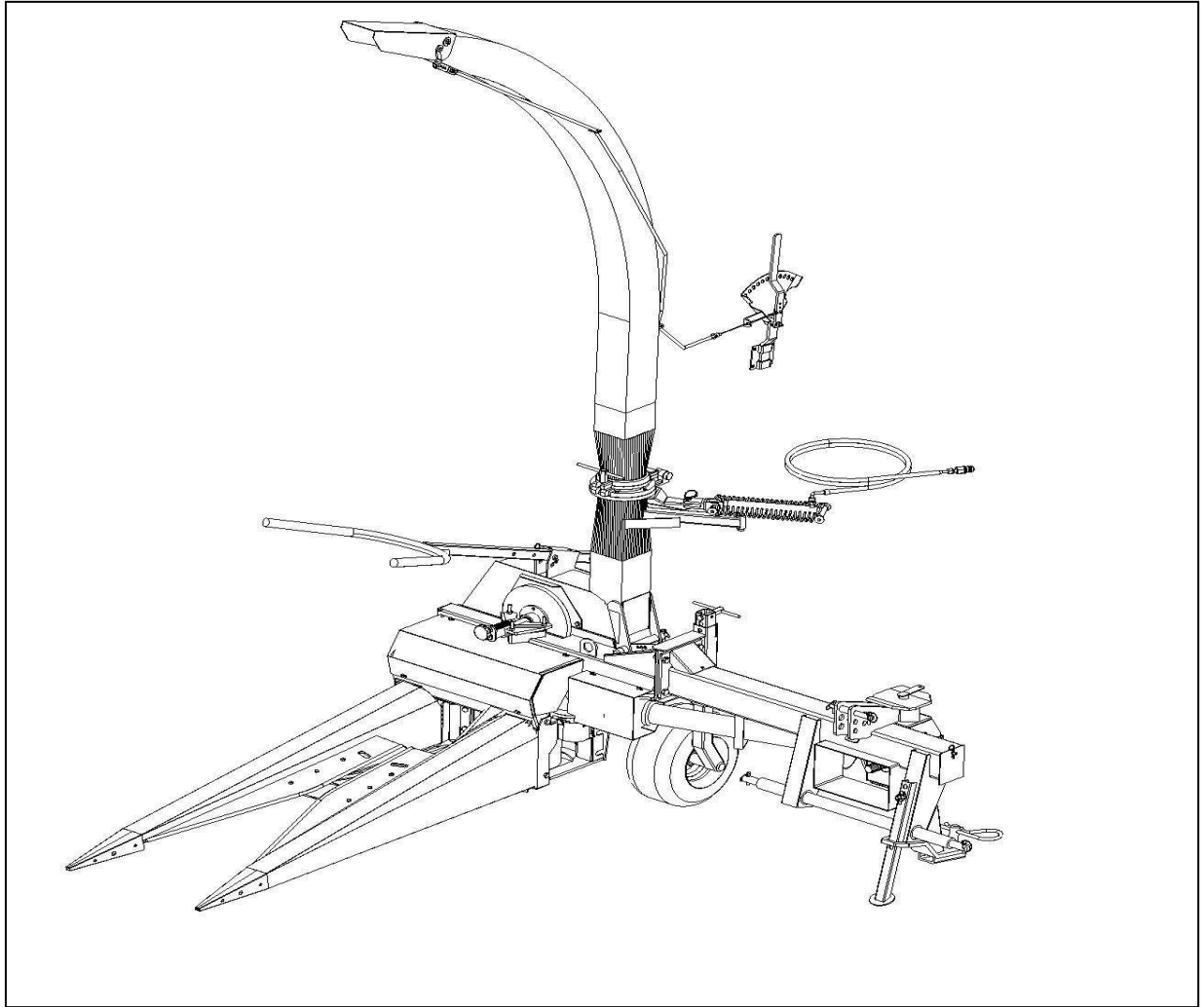




TURKAY TARIM MAKINALARI
SAN. ve TIC. LTD. STI.

MAIZE CHOPPER (TMSMHM)



OPERATORS MANUEL

Manufacturer Company: **TURKAY** TARIM MAKINALARI
SAN. ve TIC. LTD. STI.

Fatih Mah. 191 Sk. No:17 Sarnıc /IZMIR

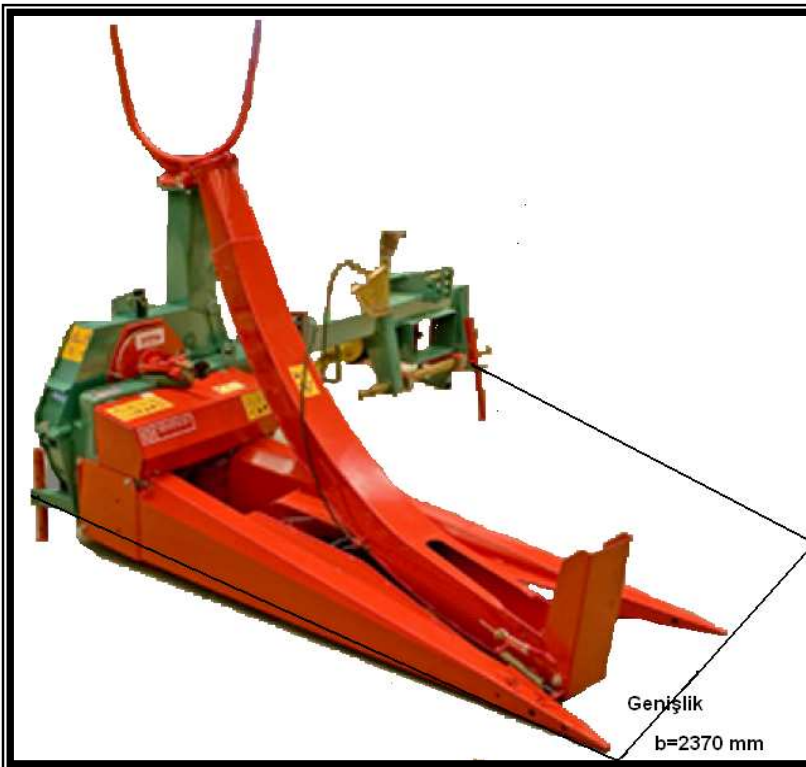
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MAIZE CHOPPER

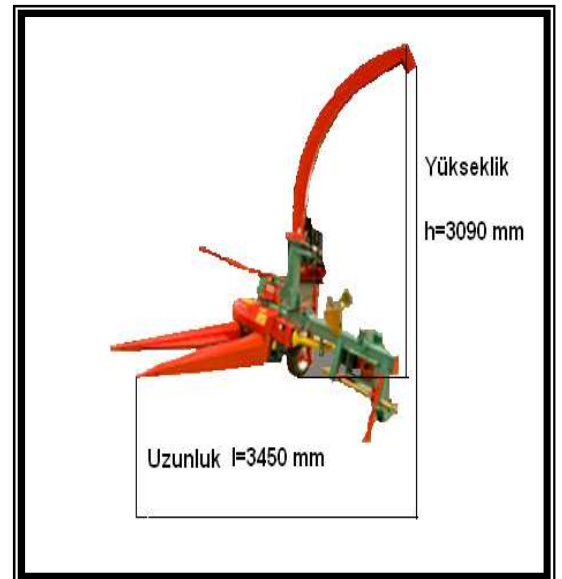
INTRODUCTION

The machine is designed to harvest maize to obtain forage or to feed animals directly. It cuts and chops maize. Maize is cut by a pair of disc knives, next is passed on inlet rollers and is directed to a set of twelve chopping knives. Crumbled plants together with pressed air are directed by the channel to the trailer. A special ribbed bottom of the milling area causes crushing corns. It improves feeding value of the green forage. Steering of the blown up forage stream is carried out from the tractor cabine. The harvester is suspended on the three point link of the tractor and the trailer is connected to the hook of the harvester. To get the best result from silage the maize harvester has to chop stems and crops perfectly. Maize harvester's feeding system is designed to feed the cutting discs at right angles for the best quality silage. The cutting disc is equipped with 12 specially hardened knives. There are two feeder drums and two drums-rollers that control the feeding of the maize to the disc.

l(Length)	w(width)	h(height)
3450 mm	2370 mm	3090 mm



Pic-1 : Dimensions of the machine



INTRODUCTION

TRANSPORTING :



**ATTENTION !
WHILE THE MACHINE IS CONNECTED TO THE TRACTOR AND
IF THE TRACTOR IS IN WORKING POSITION,**

- Never carry anyone or any animal on the machine.
- Pay attention on the traffic rules on public roads.
- Check out the lightening, warning decals, and protection guards before starting to work.
- Pay attention to work with the machine in the daylight. Especially at nights in public roads take care to have safety decal (light decal apparatus) on the machine

Transporting the machine ,

1. Transporting with forklift : You must choose a forklift according to the weight of the machine. Hold the machine from its weight center. Connect the forklift hook on the machine from the weight center. Start transporting the machine.

2. Transporting with crane: This method is same as transporting with forklift. Hold the machine from its weight center by crane. Pay attention if the security lock of the crane's hook is working safely.

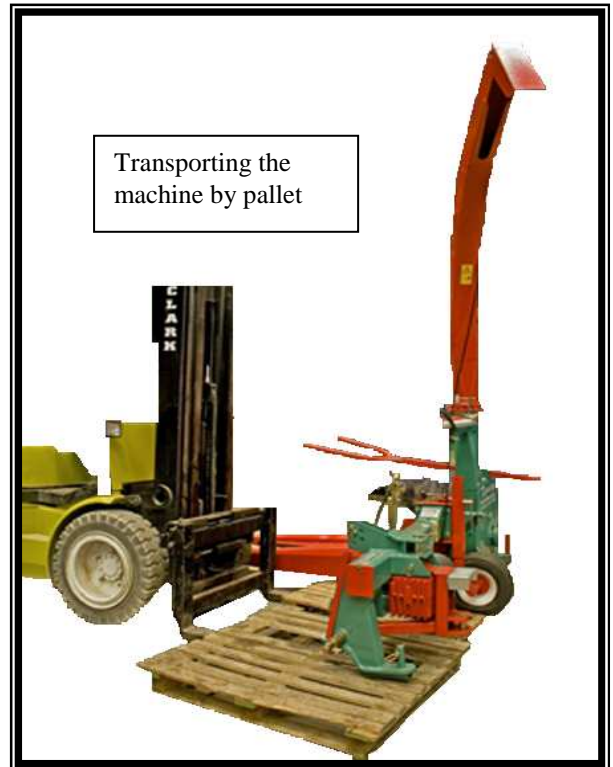
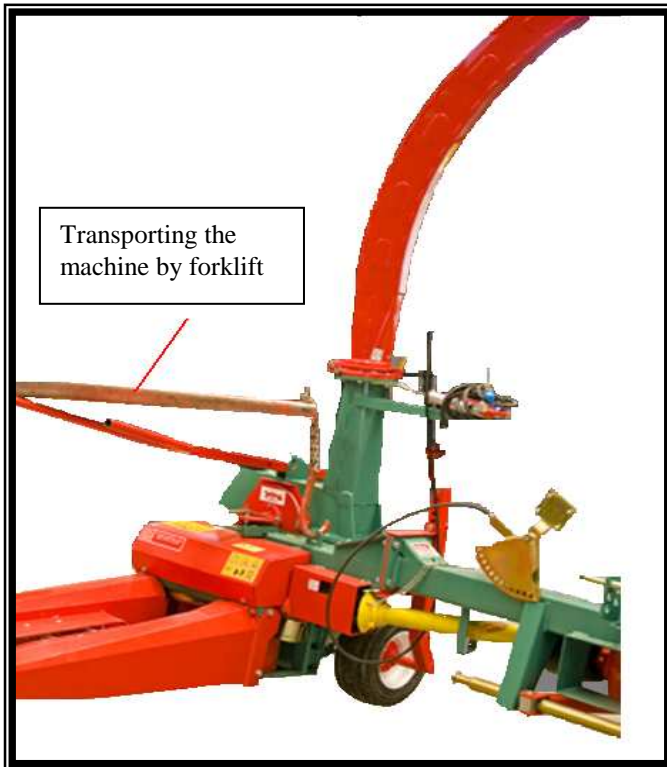
3. Transporting with palette: Choose palette according to the machine dimensions. Transport the machine by forklift while it is on palette.



**ATTENTION !
PAY ATTENTION TO BE NOT UNDER THE MACHINE
WHILE TRANSPORTING**

- Never be under the machine or near the machine while transporting it by forklift, crane or palette.
- Take care of the security of the hook and iron ropes. Be sure that they are full of security.

INTRODUCTION



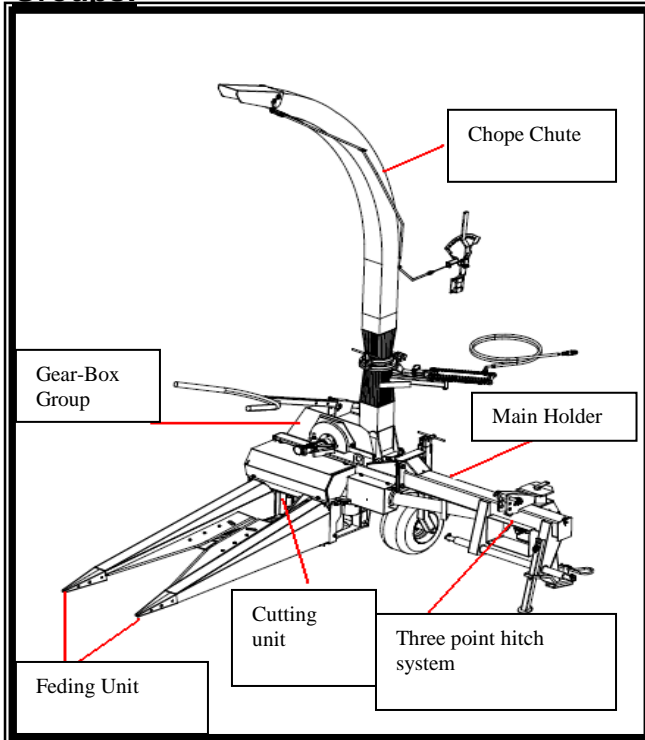
Pic.2 – Transporting the machine by Forklift and Palette

INTRODUCING THE MACHINE

A specially designed single line TSMHM Maize Chopper(hydraulic) with gear box is an ideal machine for the small and medium size fields.

The main parts of the machine:

Groups:



- Main Holder
- Cutting Unit
- Feeding Unit
- Gears
- Main Gears
- Crop Chute
- Feeding legs
- Adjusting height wheel
- Sharpening stone

Tractor connection parts:

- Tractor hydraulic arms connection part
- Tractor middle arm connection part
- Crop chute adjusting part
- Crop chute adjusting valve
- Romork connection part(4 wheels)
- Romork connection part(2 wheels)
- Shaft connection point for tractor power take off.
- Crop chute adjusting hydraulic piston

Pic. 3 – Main parts of the machine

Main Holder:

The main holder is produced from a bended sheet material.The first and second gear box take place on main holder.

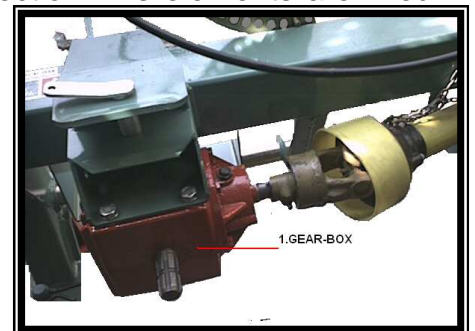
Also the three point hitch is connected to this holder by connection elements so the hitch can be shifted left and right.

Three Point Hitch System

It is produced from a square profile.The upper and lower connection parts that connects the machine to the tractor are produced from sheet material and welded on the profile.There are 2 connection elements that take place behind the lower connection part,and by this system the hitch can be shifted on the profile in the left and right direction.This elements are fixed with washer and fixing nuts.

Gear-Box Group

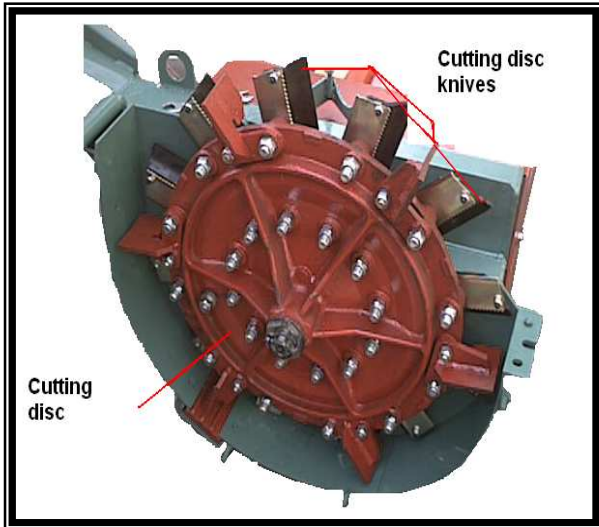
The rotation movement of the tractor power shaft of 540 rpm comes to the 1. gear box by the help of tractor shaft.This gear box which is placed on the hitch,moves together with the hitch when it is shifting left and right sides.The rotation movement is given to the second gear box by shaft by changing its direction to 90°.Than the movement goes to the cutting disc by the help of the gear that is connected to the spindle of the second gear box.



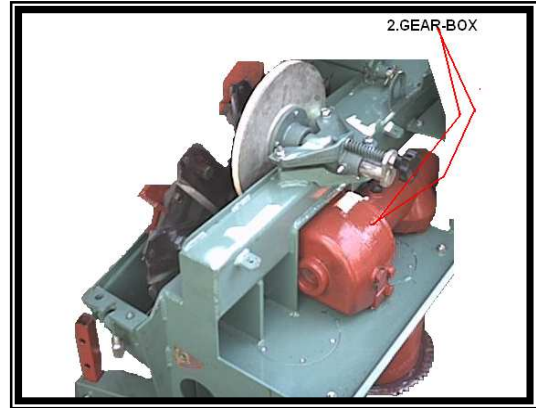
Pic. 4 – (1.Gear-box)

INTRODUCING THE MACHINE

- **Cutting Disk Unit:**



Pic.6 – Cutting Unit



Pic.5-2.Gear Box

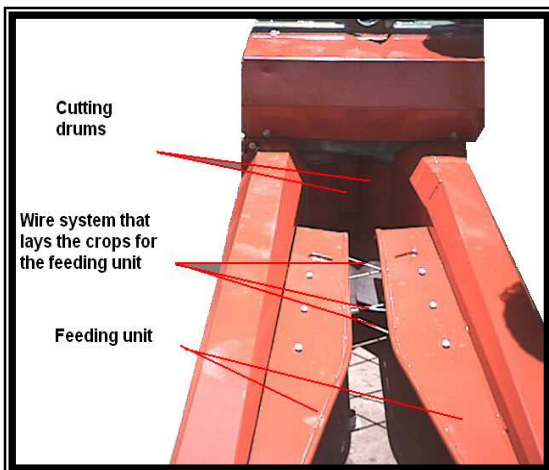
Cutting Disk and Cutting Operation

Cutting disc includes 12 knives, cutting elements and disc. The maize is firstly laid down by the help of the wires on the feeding unit and the maize is taken inside of the feeding unit by the help of the cutting drums, and the drums cut the maize. Before cutting take care of to control the oil levels of the gear boxes.

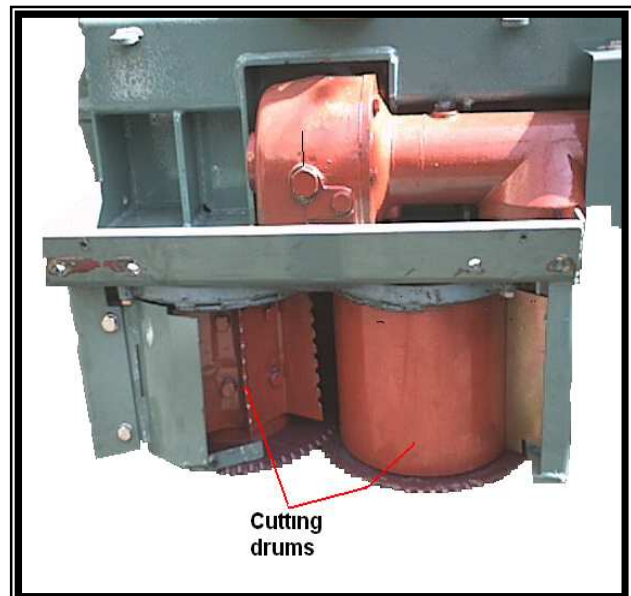
Cutting Unit:

The two cutting drums are full of security against the overload.

- **Feeding Unit :** It has 1 feeding drum with gears and 1 feeding drum without gears.1



Pic.7- Cutting drums-Feeding unit

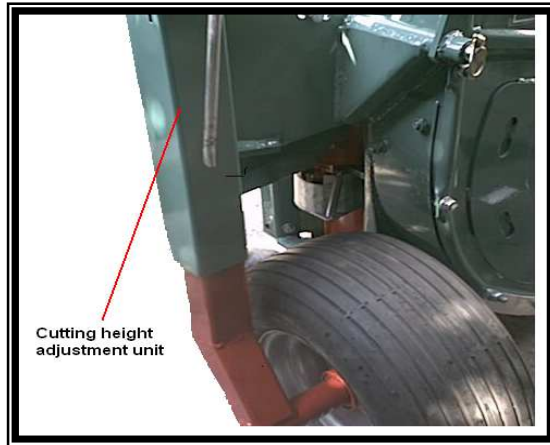


INTRODUCING THE MACHINE

Cutting Height Adjustment Unit:

It adjusts the cutting height of the maize. This cutting height is adjusted by shifting the holes of the profile. Cutting disc must be 10 cm higher than the soil.

Protection lid: This part is assembled to the main holder by connection elements and produced by sheet material. This prevents to give damage to the living beings by the cutting knives.



Pic.8- Cutting height adjustment unit

- The movement is given by side shaft to the cutting knives of the machine. The material which is cut by the knives of the drums transfers to the cutting knives inside. The material which is crushed by the drums transfers to the crop chute than the silage crop is loaded to the romork which is connected to the machine.
 - There are two types of knives in the Maize Chopper. The first type of the knives of the drums cut the silage material in regular cutting height. If these knives are worn, they should have changed by the new ones. The second type of the knives crumble the maize material which has been cut before by the first type of the knives. The knives on the drums have to be grinded after approximately 20 decars of work. The grinding is made by the grinding stone of the machine while the machine is working in rolanty.
- The all parts in Maize chopper as knife disc, cutting disc, drums, take their movement from the shaft. So the machine ensures a good working for long years without giving harm to the tractor with minimum power loss.
- This machine takes its movement from the PTO shaft so this provides power of disposal from the tractor drawbar force.
 - There are 12 cutting knives in the machine. And by the help of cutting arm the cutting height is adjusted to 5mm.
 - The most important fact of the silage quality is to take care of the knives. They must be sharp enough. The measure between the knives of the machine must be very short to have good results from the slage. By this fact the silage material can be more crumbled and it would be more suitable for making good silage material for the animals. .
 - By the grinding mechanism which is found in the cutting mechanism of the machine makes grinding by stone in a very short time and easy way.

PREPARING THE MACHINE FOR WORK

The stones and the other parts which will give damage to the machine will be cleaned from the field before the machine starts to work. If not the silage can not give good performance and the knives can be worn in a very short time. To have a good result from silage the machine must be well-adjusted to the ground. The working plane of the machine must be parallel to the soil surface. This can be adjusted by the upper arm of the three point hitch system of the tractor.

Connection of the machine to the tractor:

- Connect the Maize Chopper to the tractor by its three point hitch system. Dimensions comprising the standard specifications are divided into 4 categories. Fix the upper and bottom security pins by the standards of category II. **Note:** (Category I includes the tractor max. drawbar power 40 HP. Category II includes the tractor max. drawbar power 40-100 HP. This machine produced in the standard specifications of Category II. **Table-1** Adjust the upper and lower arm for to make the tractor parallel to the ground. While adjusting this the tractor should be in a flat surface.

Category	Max. draw bar power (HP)	Lower hitch pin hole diameter Ø(mm) (max.)-(min)	Upper hitch pin hole diameter Ø(mm) (max.)-(min)
I40	22,10-21,84	19,56-19,3
II	40-100	28,45-28,19	25,91-25,7
III	80-225	36,85-36,32	32,26-32
IV	180-400	50,8-49,7	45,5-45,2

Table-1. (Special hitch categories-dimensions associated with implement)



- Max. Input rotation speed of TMSMHM 'is 540 rpm



ATTENTION!
STOP THE ENGINE!! THEN ADJUST AND PREPARE THE MACHINE FOR WORK

PREPARING THE MACHINE FOR WORK

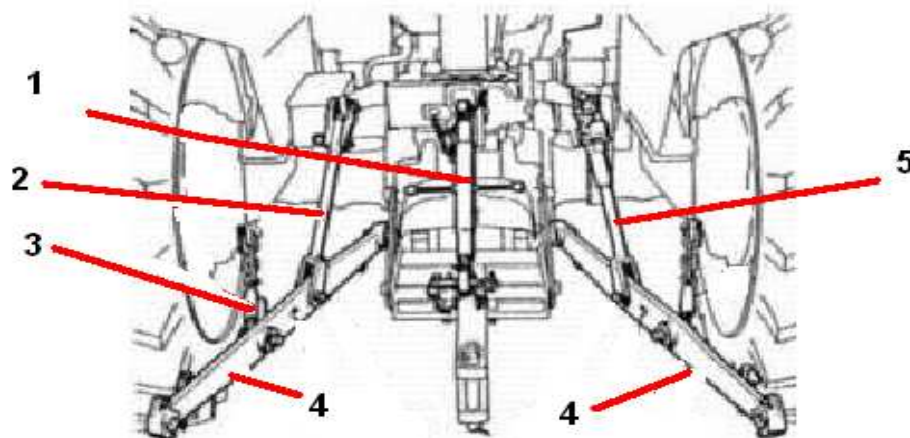
1-Upper hitch arm

2-Left hanger arm

3- Stretching chains

4-Lower hitch arm

5-Right hanger arm



Pic.9-Connecting the machine to the tractor

• **Connecting the machine to the tractor:**

• Firstly connect the lower non adjustable arm then adjustable arm at the end connect upper connection arm. While disconnecting the machine do the opposite.

• **Connecting the pto shaft:**

ES 500X750 Pto shaft is used in Maize Chopper.

• Before connecting the pto, clean the surfaces of spindle and lubricate them with grease. Later shift the shaft on the pto spindle until the pin fits into safely. The shifting distance must be at least 15 cm. Take pto shaft guard in a safety position by hanger. This safety position is for the tractor and for the rotation of fixed parts.

• P.T.O shaft can only be connected when the P.T.O connection and engine are switched off and the ignition key is pulled down.

• Connect the prescribed P.T.O. shaft and secure the P.T.O shaft connection by a chain. Make sure that the P.T.O shaft is in proper position on both ends. The adjustment of the P.T.O shaft is necessary for different tractors. To find out the right length. Shorten both shafts and protection tubes for exactly the same length.

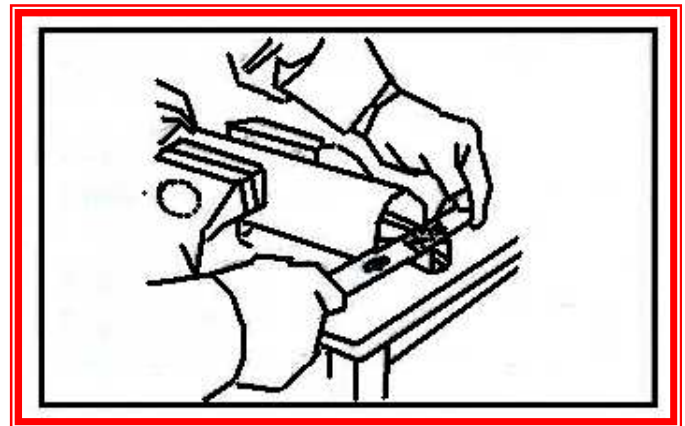
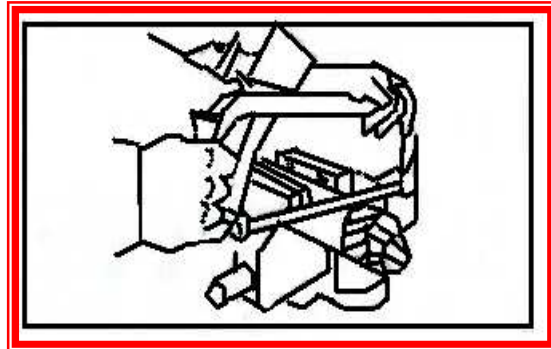
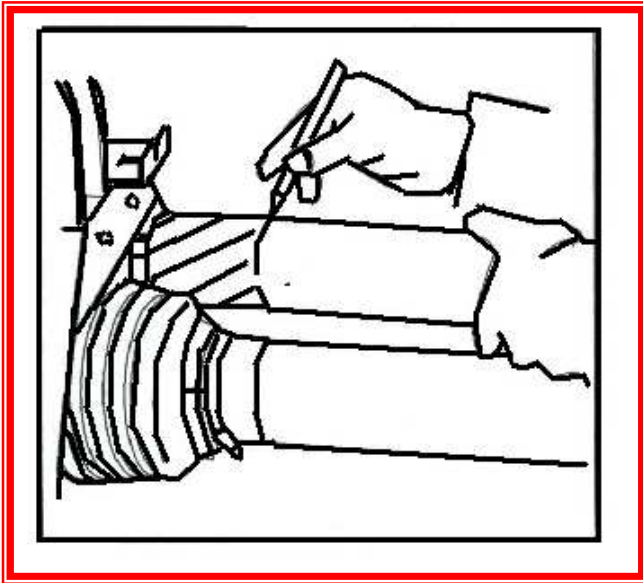
To find the right length:

Connect the machine to the tractor.

Pull out the P.T.O shaft entirely and connect each separate half of the shaft to the tractor and compare them with each other.

If the covering of the P.T.O shaft and P.T.O shaft does not run into the block at horizontal position. In case you need to shorten the P.T.O shaft. Shorten the shaft in exactly the same length. (Pic.10)

PREPARING THE MACHINE FOR WORK



Pic.10 – Cutting the shaft spindle for a suitable length for the tractor

- Pay your best attention to proper mounting and securing of the P.T.O shaft..
- Make sure that nobody is in the area of danger of the implement before switching on the P.T.O shaft connection.
- When working with the P.T.O shaft connection nobody is allowed to be in the area of rotating connection on the P.T.O shaft.
- After switching off the P.T.O shaft connection the danger of rotating heavier parts remains.Do not get close to the implement during this period.You can start to work only when the rotation is completely stopped.
- P.T.O shaft protection must be fitted on.And must be in perfect condition..
- Use only original P.T.O shafts prescribed by your manufacturer.Because the manufacturer will not take any responsibility if another shaft is used.

Transporting the machine to the field to prepare for work:

Start the engine of the tractor for a minute.Hold the machine with main hydraulic arm.Attach the security lock for not to damage to the hydraulic system while driving.Stretch the stretching chains to prevent swinging.Transport the machine empty (without fertilizer)to the field.Fill the fertilizer to the tank in the field.

- In transporting position,raise the machine up and lock the security pin to prevent the machine fall down.
- In turnings,take into consideration the load which is outside the centre of gravity and/or constant weight of the implement.
- Working with tractor in the tendency fields can give damage to the machine.But if you have to work in these tendency fields take care of working,do not turn the road bend fastly and

PREPARING THE MACHINE FOR WORK

sharply. For working in tendency fields you must be careful about if the tractor is decked out with the additional weights.

Before starting to work with the machine in the field:

Start the height adjustment of the machine from the ground by the Tractor's hydraulic arm in the position control level. In the position control level, if you move the hydraulic arm slowly the machine rises up, then it stops in a fixed level, then if you give movement to the arm the machine will go up again and then will stop. But the machine does not rise up to the max. upper level as in the drawbar control level.

Note: If the machine or the implement rises completely up, the front arm is in draw position. If the machine or the implement does not rise up completely it is in position control level. This position control level provides the machine to work on the soil by holding the machine in a specific height. While working with the position control level must be chosen.



ATTENTION!
NEVER TOUCH TO THE MACHINE WITH HAND, etc. WHILE IT IS WORKING.

Easy and safe joint:

The adjustable joint levers and two parking legs are clutching the tractor by three points. The wheel of the machine ensures a significant comfort on the load applied to the tractor.

Operating without chain

All movable parts (blade disc, cutting disc, clutching cylinders) of Turkey slage machines are accelerated directly by the shaft. By this feature, Turkey maize slage machine ensures a good working for long years without giving harm to the tractor with minimum power loss.

Automatically self sharpening cutting discs with drum

Automatically self sharpening two cutting discs made of special steel perform a clean and silent cut even if working at top speed operating condition. Both cutting discs can be replaced easily within a few minutes. The machine has also safety mechanism against overloads.

Feeding unit clutching the maize systems

Two feeding cylinders operating at different levels feed the blade discs safely and rapidly. The whole feeding unit is driven by the gears without any need of maintenance.

PREPARING THE MACHINE FOR WORK

Cutting disc with 12 special blades

A stable slage is ensured by means of the special designed cutting mechanism of the machine. The model TMSMHM has been designed with 12 blades by this purpose. So it is capable to perform the lengths of slage as complete 5 mm by means of its strong cutting lever made of "tungsten carbide"

Crushing plate

In order to crush particularly maize pieces completely, a crushing plate can be placed inside the cutting mechanism. The cutting adjustment of the mechanism can be easily adjusted by a bolt.

An easy and rapid self sharpening feature

One of the most significant factors required for the quality and flawless slage is the sharp blades and a distance between the blades and cutting plate that is replaced as possible as narrow. The sharpening process is able to be performed very easy by taking a very short time by means of cutting apparatus significantly replaced inside the cutting mechanism of TMSMHM Maize Chopper. The cutting range can be easily adjusted centrally.

High blowing capacity, a continues discharge of the slage machine

By means of the strong blade disc and disc vanes of Türkay slage machine, the slage maize is loaded rapidly on to the romork with the loading chamber.

Control of chimney-crop chute by hydraulic piston and valve

The discharging chimney of TMSMHM model slage machine with gearbox can be adjust by a hydraulic piston and valve with any need of operator's effort. The hydraulic valve and piston gives movement to the crop chute.

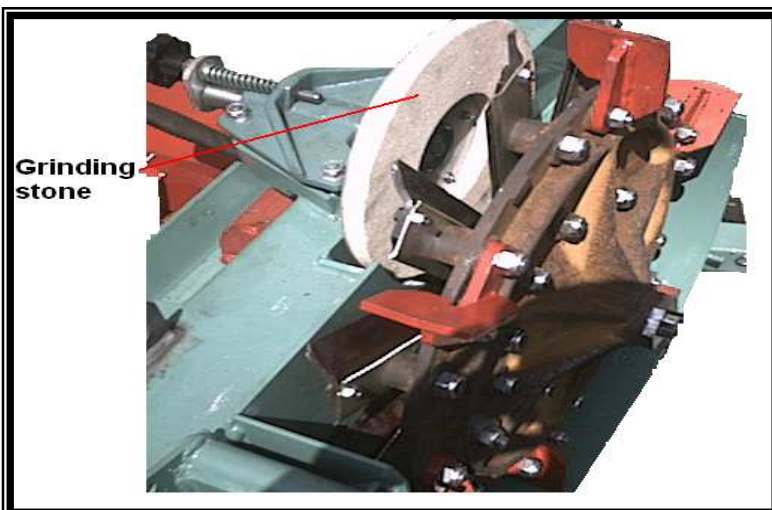
MAINTENANCE AND REPAIR



**ATTENTION !
MAINTENANCE,REPAIRS,CLEANING MAY ONLY BE EXECUTED
WHEN THE DRIVE AND THE ENGINE ARE SWITCHED OFF AND
THE IGNITION KEY IS PULLED OUT.**

Take care about the items that is written below for maintenance and repair :

- Cleaning,lubrication or adjusting of the implement,driven by the P.T.O shaft can be done when the connection and the engine are switched off and the ignition key is pulled out.
- Maintenance and repair must be done after the shaft and machine is disconnected from the tractor.
- Put the machine in a closed area after work,lubricate the parts and take care against rust.
- Control the nuts and screws every day to see if they are tightened enough.If not tighten them.
- Change the broken and weared parts.
- Choose the suitable parts while making maintenance.The parts must be safety.
- Use adequate tools and gloves during repairs,maintenance and cleaning.
- Lubricate the grease nipples everyday periodically.
- Control the gear box oil level in each 30 hours of work.Change the oil of the gear box after controlling the oil level in the period of 300 hours work.Use SAE 140 oil in the gear box.
- If you perform any maintenance on the lifted implement,always secure the implement by a suitable holder.
- While cleaning the machine use high pressured water.But take care of the bearings ,felts.
- For high working quality and working safety change weared knives on the cutting disc.
- Control screws and nuts of the knives connection parts periodically.Control the holes of connection part of the knives.If they are weared change them.
- Call Turkey technical service for the maintenance of the machine.(Table.2)
- The balance problems of the knives causes vibrations on the machine.So this vibrations cause big damage.While working if there is increasing in the vibrations and if the working knives make noise,stop the machine,look for the damage and try to repair it then start to work.



Pic.11 – Grinding stone

MAINTENANCE AND REPAIR

Grinding and changing the knives:

- The changing of the knives must be done by technical and professional people. Because this avoids the danger of losing of the knives and flying them out.

Grinding the knives:

Firstly open the cover lid of the grinding stone. Turn the grinding stone right by the help of the bolt. While grinding take care that the grinding stone is turning right. Do not forget to make the grinding while the machine is in rotary position.

How will you understand that the knives need grinding?

If the maize pieces are big and thick after harvesting, this means the knives of the machine needs grinding.

Taking out of the knives of the machine:

- Firstly disconnect the shaft and machine from the tractor.
- With the help of the lifting mechanism by turning the machine, hold the machine and take out of the knives easily.
- Take out the connection screw and nuts of the knives by an adequate tool.
- Attention: In each period of changing the knife use a new security nut.

Putting on the knives:

- Connect the knives in a regular line.
- Connect the knives by their connecting screws and nuts.
- Tighten the security nut well and be sure that it is tightened enough.

CONTROL(A)	MAINTENANCE(B)			VARIATION(C)	
	Daily	Weekly	30 hours	100 hours	300 hours
Bakım Periyot ⇒					
Lubrication (Level control of gear box oil) Variation of oil(SAE140)			C		C
Oil leakage control	A				
Wearing control of knife holders, knife connection holes, the flanges of knife holders		A			
Lub.grease nipples		B			
Tightness control (bolt-nut)	A		C		
Cleaning	B				

Table.2- MAINTENANCE PERIODS

WORKING SAFETY

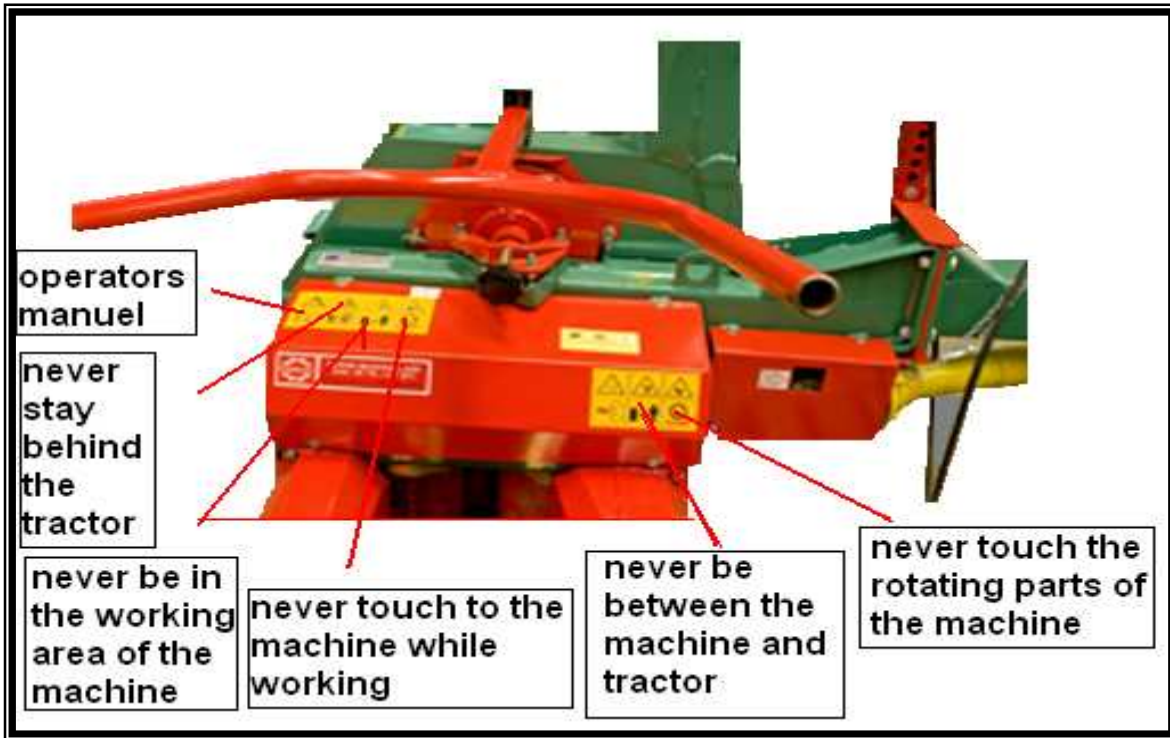
Safety decals:

There are 3 types of main safety decals. These are shown as,

Danger : When you see this alert symbol and heading be alert to the danger of injury of death of men and animals.

Alert : When you see this heading, be alert to the possibility of serious injuries because of using the machine out of the using rules.

Attention : When you see this heading, be alert to the possibility of damage to equipment, crop, building, etc. but to financial and/or juridical problems as well.



Pic.12 – Alert Decals



**ATTENTION !
READ OPERATORS MANUAL BEFORE STARTING TO
WORK WITH THE MACHINE.**

- All machines have stickers glued on. In this stickers machine type, address of manufacturer, machine serial number, model of the machine is prescribed.

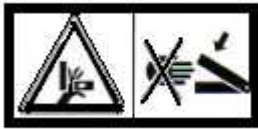


- Besides the instructions from this readers manual take into consideration all generally used safety and accident regulations.



- Stay away from slewing and unfolding area of the machine, this because of the danger of squeezing

WORKING SAFETY



- It is prohibited to touch the machine until all parts are standing still..
- When the machine is operating there is a possibility of amputation of limbs.It is prohibited to be in the danger area when there is danger of amputation.



- Stay away from the area of rotating and turning of the machine.



- Danger of injury.Keep a safe distance form the machine.



- Keep distance,objects(stones and other debris)can be flung away at very high speed.



- Stop the engine and ensure it cannot be re-started during performance of work on the machine.

- Make sure all operators are provided with the instruction manual and are aware of the risks and the safe operating procedures.They should particularly be aware of the safe use of the machinery ,celaring blockages and the recommended procedure for grinding the knives of the machine.
- Hazards are as follows take care about them:
The exposed cutterhead while sharpening.
The moving drive mechanisms.
Guards fouling the rotating cutterhead.
The grinding stone being ejected or breaking up while grinding.
Noise and vibration
- When grinding knives on trailed machines,do not lean over the grinding mechanism.
- Wear safety clothes,safety goggles when sharpening.
- Use mechanical handlers or handling aids when placing full additive containers onto the forager. It may be easier to top up the forager-mounted container from a bulk tank using a transfer pump.
- Take care when working on steep ground. This is particularly important when using a trailed forager with a towed trailer;
- Expose the knives for any reason (eg grinding)unless the cutterhead has stopped rotating;
- Attempt to open or close the cutterhead guards unless the cutterhead has stopped rotating;

WORKING SAFETY

- When blowing grass into a separately towed trailer consider the other driver and avoid sudden manoeuvres.
- Safety and warning decals, placed on the machine, give important instructions for safe work. Take them into consideration for your safety.
- Make sure you get familiar with all devices and elements for handling and with the functions before starting with the work.
- Avoid wearing loose-fitting clothes. Clothes should fit tight to the operator's body..
- Implements should be connected according to the instructions, fastened to the prescribed devices and secured.
- Never left the driving seat during driving.
- Strating devices for remote control should be secured in a way that, they can not be unintentionally released during transport or work.
- When disconnecting the machine from the tractor, place it on the flat ground..
- Never jump, sit or climb on the machine while it is connected to the tractor.
- Stopping or operating the machine must be done by the driver. No one may drive the tractor except the driver.
- Use protection for hearing and glasses while working with the machine if the tractor does not have a closed cabin.
- Never give maize crop to the feeding unit of the machine and never touch the machine by hand or feet, while the machine is working.
- Work with a technical and professional operators while working with Maize Chopper with an additional apparatus or machine.

TECHNICAL VALUES: TMSMHM MAIZE CHOPPER

TECHNICAL VALUES	TMSMHM (MAIZE CHOPPER)
LENGTH (mm)	3450
HEIGHT (mm)	3090
WIDTH (mm)	2370
WEIGHT (kg)-includes shaft	538
TRACTOR REQUIRED POWER (min) HP	40
ROTATION SPEED (rpm)	540
NUMBER OF KNIVES (Quantity)	12
CUTTING HEIGHT(min-max)(mm)	50-200
CAPACITY OF SILAGE (ton/saat)	35
LENGTH OF SILAGE (mm)	7,8
WORKING SPEED WITH TRACTOR (km/saat)	10
KNIFE DISC DIAMETER (mm)	700

TABLE 3 – TECHNICAL VALUES

MANUFACTURER INFORMATION

TURKAY TARIM MAKINALARI SAN. ve TIC. LTD. STI.

Address: Fatih Mah. 191 Sk. No:17 Sarnıç /IZMIR

Phone number: 0.232.281 54 04 / 281 63 30 / 281 63 31

Fax: 0.232.281 57 10



MANUFACTURER'S DECLARATION OF CONFIRMITY

**TÜRKAY TARIM MAKINALARI SAN. VE TİC. LTD ŞTİ.
FATİH MAH. 191 SOK.NO:17 SARNIC/İZMİR**

Declare under our own responsibility that the product(s); according to EC Machinery Directive 98/37/EC (Annex V)

TRADE MARK: TÜRKAY

PRODUCT TYPE: MAIZE CHOPPER

PRODUCT CODE: TSMHM, TSMHH

To which this declaration refers conform to,

The Following Standart(s) :

TS EN 1050 / Safety of machinery-Principles for risk assessment

TS EN ISO 12100-1 / Safety of Machinery-Basic Concepts General Principles for Design Part 1:Basic Terminology, Methodology

TS EN ISO 12100-2 / Safety of machinery; safety distances to prevent danger zones being reached by the upper limbs

TS EN 349 / **Safety of Machinery-Minimum Gaps to Avoid Crushing of Parts of the Human Body**

TS EN 703 / Agricultural machinery – Silage loading, mixing and/or chopping and distributing machines - Safety

The CE Mark on the product(s) and/or its(their) packaging signifies that TÜRKAY TARIM MAKİNALARI holds the reference technical file(s) available to the European Union authorities.

Issued at: İZMİR-TURKEY July 03.2006

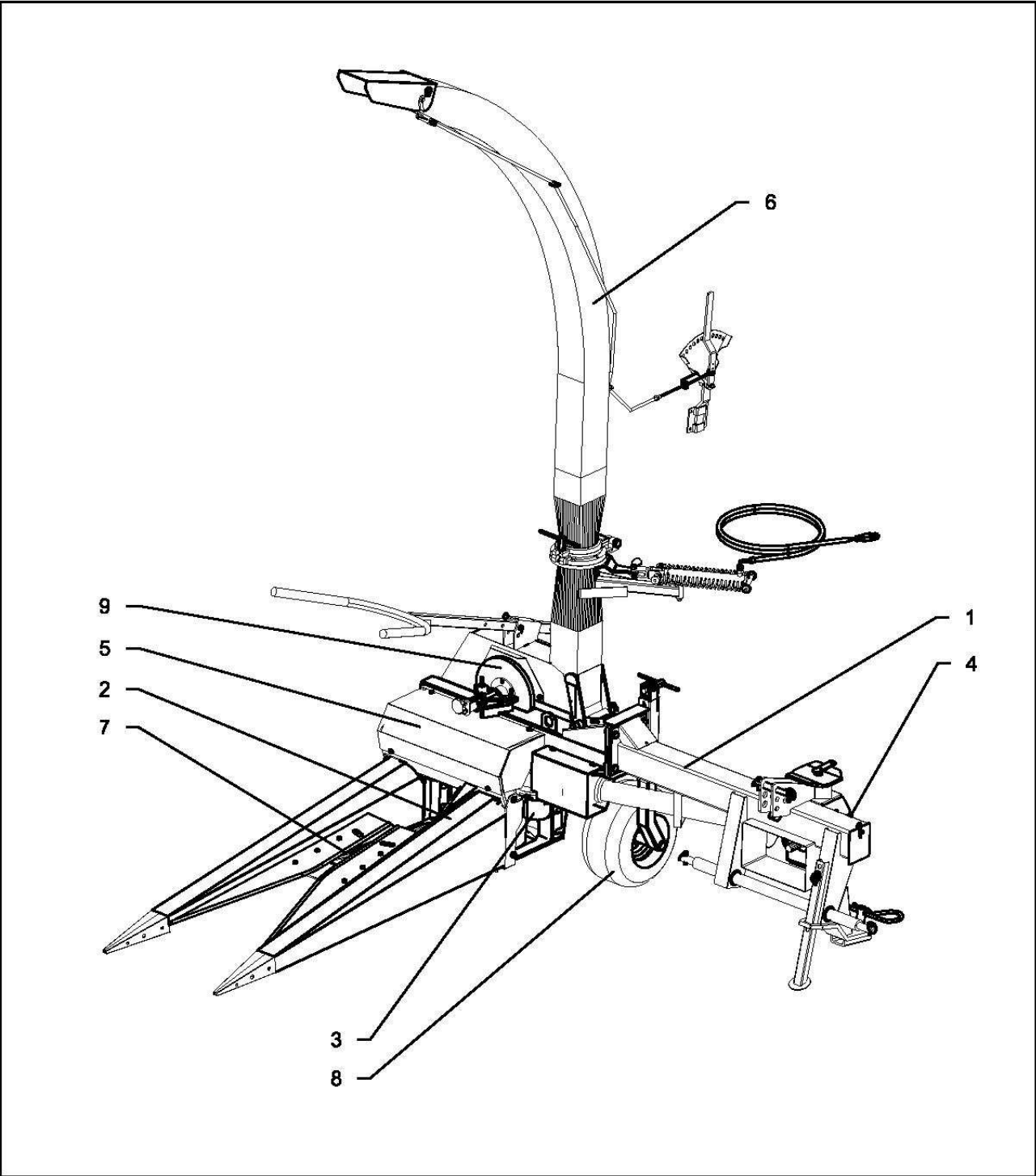
Authorised Signatory

Name : Bilgin TÜRKAY

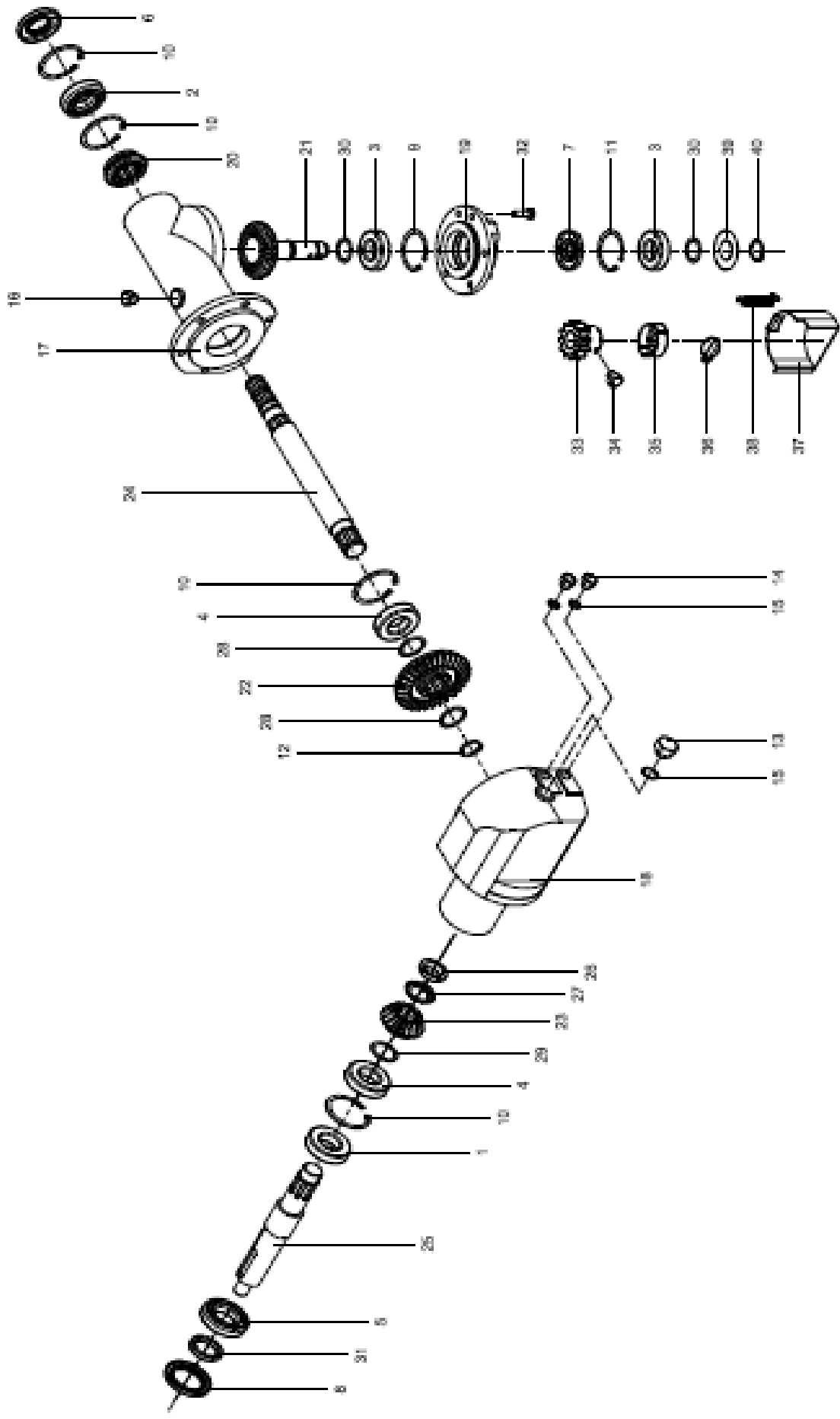
Title : General Manager

Signature :

TMSMHM



7- YEDEK PARÇA LİSTESİ / ERSATZTEILLISTE / SPARE PARTS LIST
 7-5 Ana Diği / Gıubu / Hauptgetriebe / Gear Box / TMSMHM-1-1.2



7-YEDEK PARA LİSTESİ / SPARE PARTS LIST

7.5 Ana Dişli Grubu / Gear Box / TMSMHM-1.1.2

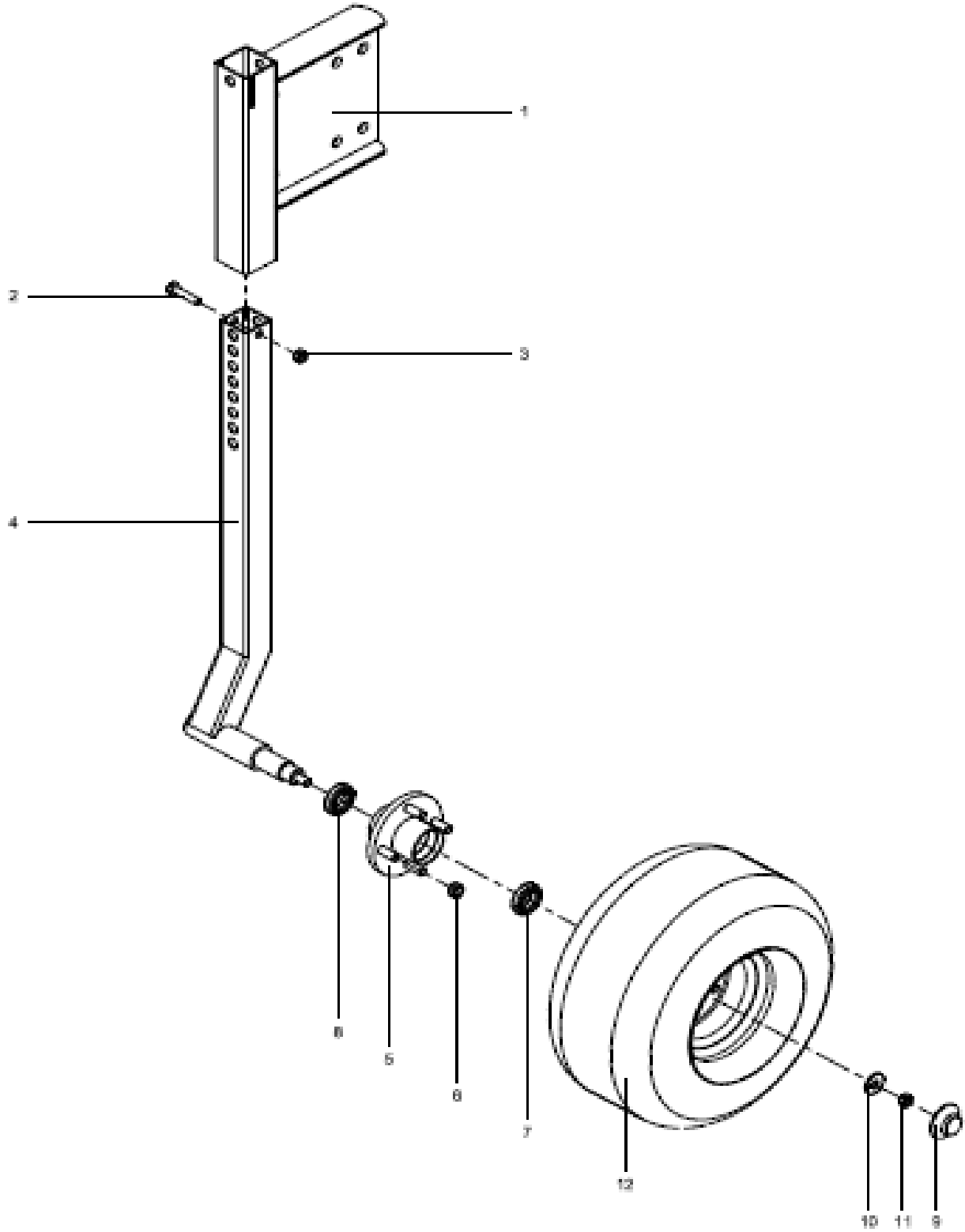
Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
01	1	RUL-30208 URB	Rulman	
02	1	RUL-6307 ORS	Rulman	
03	1	RUL-30207 NSK	Rulman	
04	2	RUL-30208 NSK	Rulman	
05	1	RUL-6209 DDU C3 NSK	Rulman	
06	1	KEE-YAG-35x80x10 AS	Yağ Keesi	
07	1	KEE-YAG-35x72x10 AS	Yağ Keesi	
08	1	KEE-YAG-60x85x8 AS	Yağ Keesi	
09	2	SEG-DIN472Ø72x2,5-CK75	İ Çap Segmanı	
10	5	SEG-DIN472Ø80x2,5-CK75	İ Çap Segmanı	
11	1	SEG-DIN471Ø35x1,5-CK75	Dış Çap Segmanı	
12	1	SEG-DIN471Ø35x1,5-CK75	Dış Çap Segmanı	
13	1	TAPA-24x1.5	Kör Tapa	
14	2	TAPA-18x1.5	Kör Tapa	
15	3	CON-BAK-M18	Bakır Conta	
16	3	TAPA-18x1.5	Kör Tapa	
17	1	TMSMHM-1.3.2.2.1	Dişli Kutusu Üst	
18	1	TMSMHM-1.3.2.1.1	Dişli Kutusu Alt	
19	1	TMSMHM-1.3.2.2.14	Flanş	
20	1	TMSMHM-1.3.2.2.9	Konik Dişli	
21	1	TMSMHM-1.3.2.2.18	Dişli Pinyon Z=18	

7- YEDEK PARA LİSTESİ / SPARE PARTS LIST

7.5 Ana Dişli Grubu / Gear Box / TMSMHM-1.1.2

Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
22	1	TMSMHM-1.3.2.2.6	Konik Dişli	
23	1	TMSMHM-1.3.2.1.7	Konik Dişli	
24	1	TMSMHM-1.3.2.2.2	Şaft	
25	1	TMSMHM-1.3.2.1.2	Şaft	
26	1	SOM-TAC-M35-8.8	Taçlı Somun	
27	1	RON-EMN-35	Emniyet Rondelası	
28	2	SIM-40x50x0.5	Layner	
29	1	SIM-40x50x1.2	Layner	
30	1	SIM-35X45X1.5	Layner	
31	1	SIM-35X45X1.5	Layner	
32	12	CIV-IMB-M10x1,5x30-8.8	Allen Cıvata	
33	1	TMSMHM-1.3.2.2.25	Düz Dişli Pinyon	
34	2	TMSMHM-1.3.2.2.26	Kovanlı Pim	
35	1	TMSMHM-1.3.2.2.27	Rulman Kapağı	
36	1	PIM-MAŞ-ARM Ø6x40	Mafsallı Emniyet pimi	
37	1	TMSMHM-1.3.3	Kapak	
38	1	TMSMHM-1.3.29	Çekme Yayı	
39	1	SIM-36x80x1	Layner	
40	1	SEG-DIN471Ø35x1,5-CK75	Dış Çap Segmanı	

7. YEDEK PARÇA LİSTESİ / ERSATZTELLISTE / SPARE PARTS LIST
7,8 Mesnet Teker / Grubu / Stützrad / Support Wheel / TMSMHM-1,2



7- YEDEK PARA LİSTESİ / ERSATZTEİLLİSTE / SPARE PARTS LIST

7.8 Mesnet Tekeri Grubu / Support Wheel / TMSMHM-1.2

Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
01	1	TMSMHM-1.2.2	Taşıyıcı Yatak	
02	1	CIV-M10x1,5x25-8.8	Altı Köşe Başlı Cıvata	
03	1	SOMFIB-AKS- M10x1,5	Somun	
04	1	TMSMHM-1.2.1.1	Aks Tutucu Kol	
05	1	TMSMHM-1.2.1.2	Tekerlek Poryası	
06	1	SOM-TAK-M12x1,75-8.8	Takviyeli Somun	
07	4	RUL-6205 ORS	Rulman	
08	1	RUL-6206 2RS-G100	Rulman	
09	1	TMSMHM-1.2.1.8	Rulman Kapağı	
10	1	TMSMHM-1.2.1.5	Özel Pul	
11	1	SOMFIB-AKS-M12x1,75	Altı Köşe Başlı Somun	
12	1	TMSMHM-1.2.1.9	Lastikli Jant	

7- YEDEK PARÇA LİSTESİ / SPARE PARTS LIS

7.3 Besleme Merdane Grubu / Intake System / TMSMHM-1.3.1 - 1.3.4

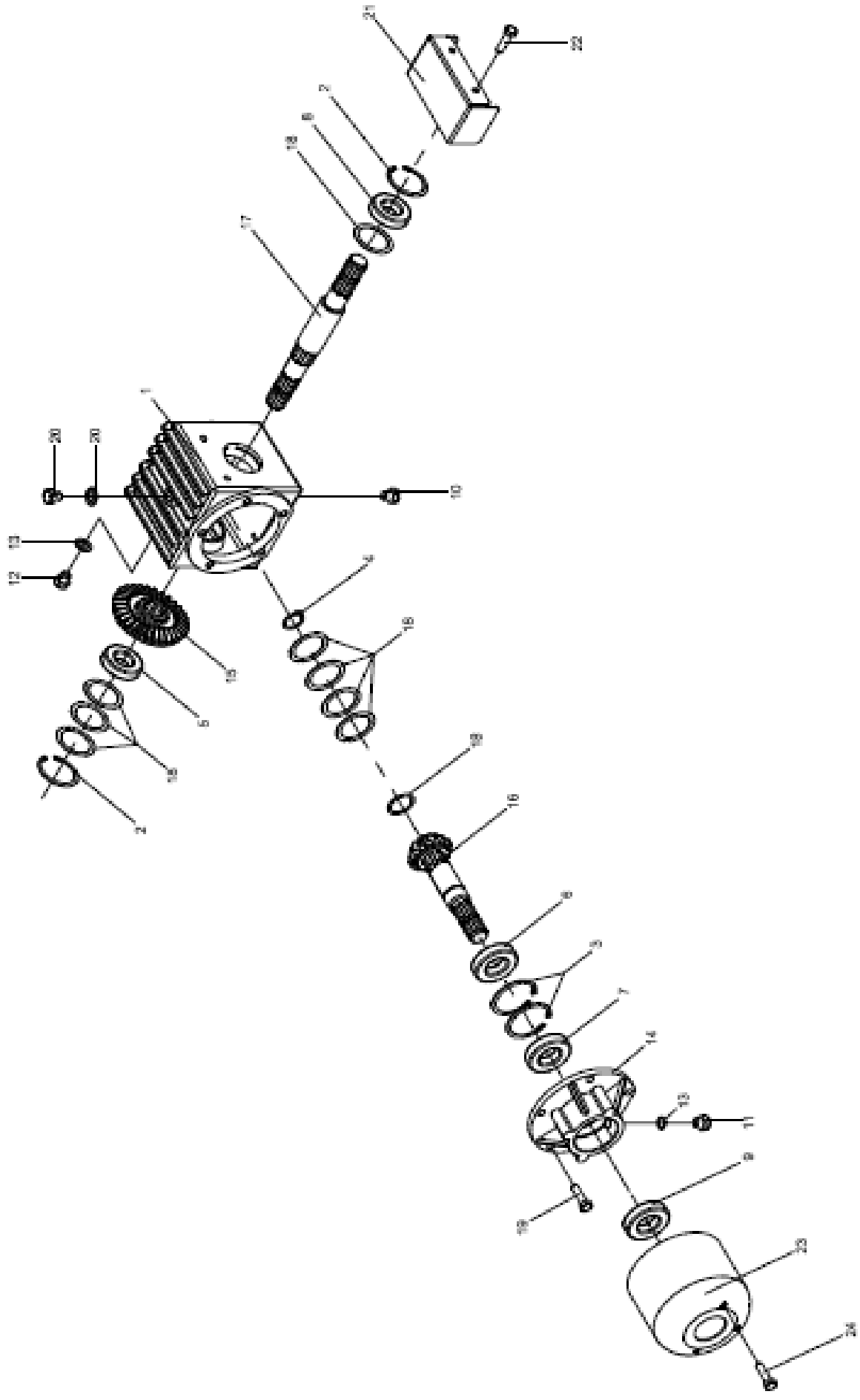
Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
01	2	TMSMHM-1.3.4.11	Dişli Taşıyıcı	
02	12	CIV-M12x1,75x35-8.8	Altı Köşe Başlı Cıvata	
03	1	TMSMHM-1.3.4.1	Dişli Gövdesi	
04	1	TMSMHM-1.3.4.5	Dişli Z:58	
05	14	CIV-M10x1,5x30 8.8	Allen Başlı Cıvata	
06	8	CIV-M12x1,75x20-8.8	Altı Köşe Başlı Cıvata	
07	1Tk	TMSMHM-1.3.4.14	Toplayıcı Tarak	
08	2	RUL-16016 FAG	Rulman	
09	2	SEG-DIN472Ø125x4-CK75	İç Çap Segmanı	
10	2	KEÇE-YAG-95x125x13 A	Yağ Keçesi	
11	2	RUL-6207 2RS	Rulman	
12	4	SEG-DIN472Ø72x2,5-CK75	İç Çap Segmanı	
13	2	TMSMHM-1.3.4.12	Özel Rondela	
14	2	CIV-M16x2x45-8.8	Altı Köşe Başlı Cıvata	
15	1	TMSMHM-1.3.4.16	Bıçak	
16	2	TMSMHM-1.3.4.17	Kapak	
17	8	CIV-M10x1.5x30	Altı Köşe Başlı Cıvata	
18	1	TMSMHM-1.3.1.13	Sıyırıcı	
19	2	RON-YAY-M10	Yaylı Rondela	
19	2	RON-DUZ-M10	Rondela	
19	2	CIV-M10x1,5x25-8.8	Altı Köşe Başlı Cıvata	

7- YEDEK PARA LİSTESİ / SPARE PARTS LIST

7.3 Besleme Merdane Grubu / Intake System / TMSMHM-1.3.1 - 1.3.4

Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
20	1	TMSMHM-1.3.1.10	Muhafaza Sacı	
21	1	CIV-M10x1,5x20-8.8	Altı Köşe Başlı Cıvata	
22	3	CIV-M10x1,5x35-8.8	Altı Köşe Başlı Cıvata	
22	5	RON-DUZ-M10	Rondela	
22	4	RON-DUZ-M10	Özel Rondela	
23	1	TMSMHM-1.3.5.1	Dişli Gövdesi	
24	1	TMSMHM-1.3.5.5	Dişli	
25	1	TMSMHM-1.3.5.14	Bıçak	
26	1	TMSMHM-1.3.1.8	Kapak	
27	1	CIV-M10x1,5x25-8.8	Allen Başlı Cıvata	
28	1	TMSMHM-1.3.1.5	Kapak	
29	2	CIV-M10x1,5x45-8.8	Altı Köşe Başlı Cıvata	
29	2	SOMFIB-AKS-M10x1,5	Altı Köşe Başlı Somun	
30	1	CIV-M10x1,5x45-8.8	Altı Köşe Başlı Cıvata	

7- YEDEK PARÇA LİSTESİ / ERSATZTEILLISTE / SPARE PARTS LIST
7.4 Kuyruk Diği Grubu / Mittelgehäuse / Gear Box / TMSMHM-1.3.2



7- YEDEK PARA LİSTESİ / SPARE PARTS LIST

7.4 Kuyruk Dişli Grubu / Gear Box / TMSMHM-1.3.2

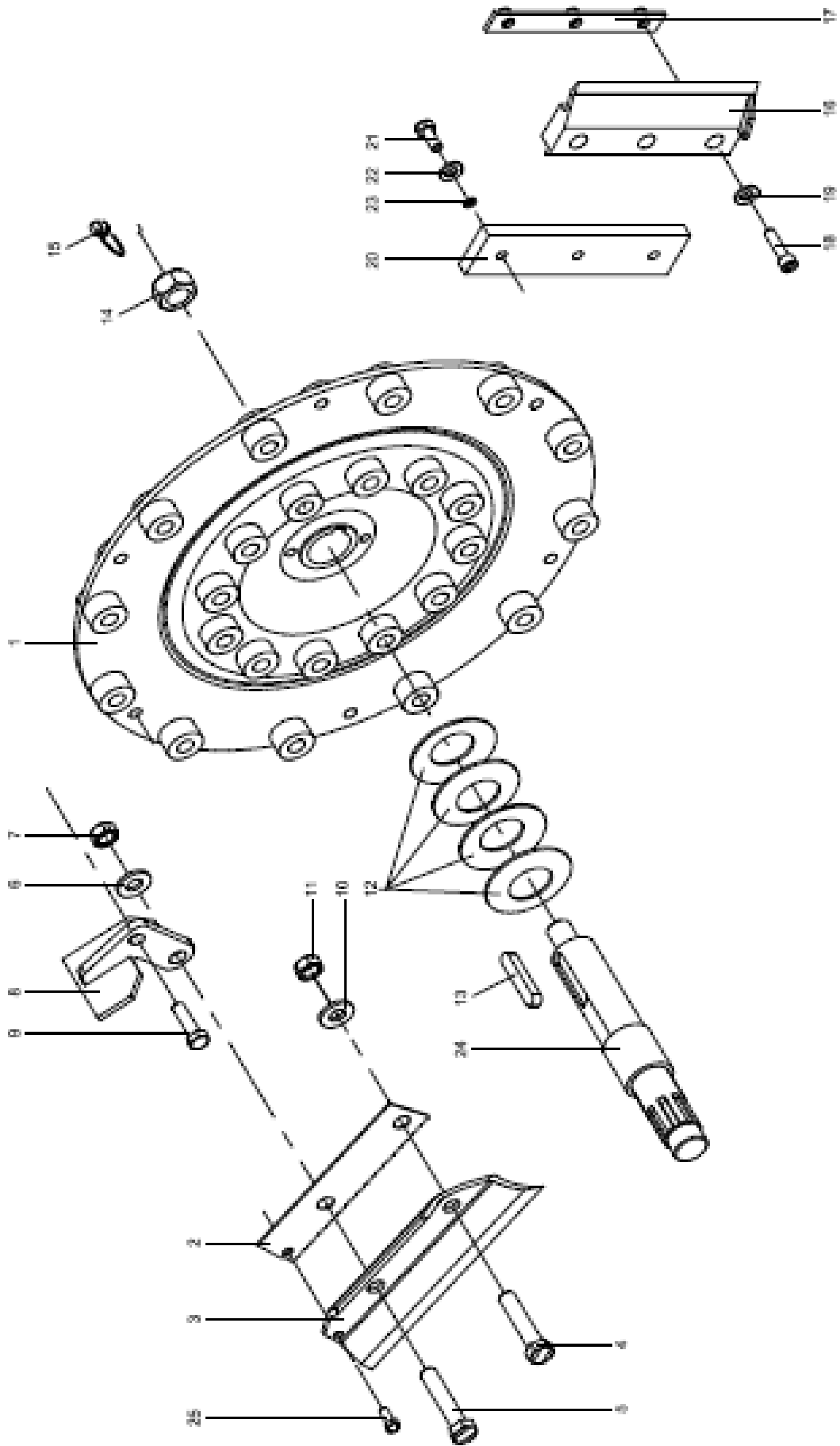
Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
01	1	TMSMHM-1.1.2.1	Dişli Kutusu	
02	2	SEG-DIN472072x2,5-CK75	İç Çap Segmanı	
03	2	SEG-DIN472080x2,5-CK75	İç Çap Segmanı	
04	1	SEG-DIN471040x1,75-CK75	Dış Çap Segmanı	
05	2	RUL-30207 NSK	Rulman Konik	
06	1	RUL-30208 NSK	Rulman Konik	
07	1	RUL-32208 NSK	Rulman Konik	
08	2	KEÇE-YAG-35x72x10 AS	Yağ Keçesi	
09	1	KEÇE-YAG-40x80x10 AS	Yağ Keçesi	
10	1	TAPA-M16x2	Allen Körtapa	
11	1	TAPA-M16x2	Allen Körtapa	
12	1	TAPA-M16x2	Allen Körtapa	
13	1	CON-BAK-16X22X1	Bakır Conta	
14	1	TMSMHM-1.1.2.24	Flaş Kapak	
15	1	TMSMHM-1.1.2.3	Konik Dişli Büyük	
16	1	TMSMHM-1.1.2.14	Saft	
17	1	TMSMHM-1.1.2.2	Ana Saft	
18	2	SIM-50X72X1	Aralık Pulu	
19	5	CIV-M12x1,75x35-8.8	Altı Köşe Başlı Cıvata	
20	4	CIV-M16x2x30-8.8	Altı Köşe Başlı Cıvata	

7- YEDEK PARA LİSTESİ / SPARE PARTS LIST

7.4 Kuyruk Dişli Grubu / Gear Box / TMSMHM-1.3.2

Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
20	4	RON-YAY-M16	Yaylı Rondela	
21	1	TMSMHM-1.1.2.35	Kapak	
22	2	CIV-M16x2x20-8.8	Altı Köşe Başlı Cıvata	
23	1	TMSMHM-1.1.7	Kapak	
24	3	CIV-M10x1,5x16-8.8	Altı Köşe Başlı Cıvata	

7- YEDEK PARÇA LİSTESİ / ERSATZTEILLISTE / SPARE PARTS LIST
 7.2 Kesme Diski / Messerschleifer / Cutting Disk / TMSM-M-1.3.6



7- YEDEK PARA LİSTESİ / SPARE PARTS LIST

7.2 Kesme Diski Grubu / Cutting disk / TMSMHM-1.3.6

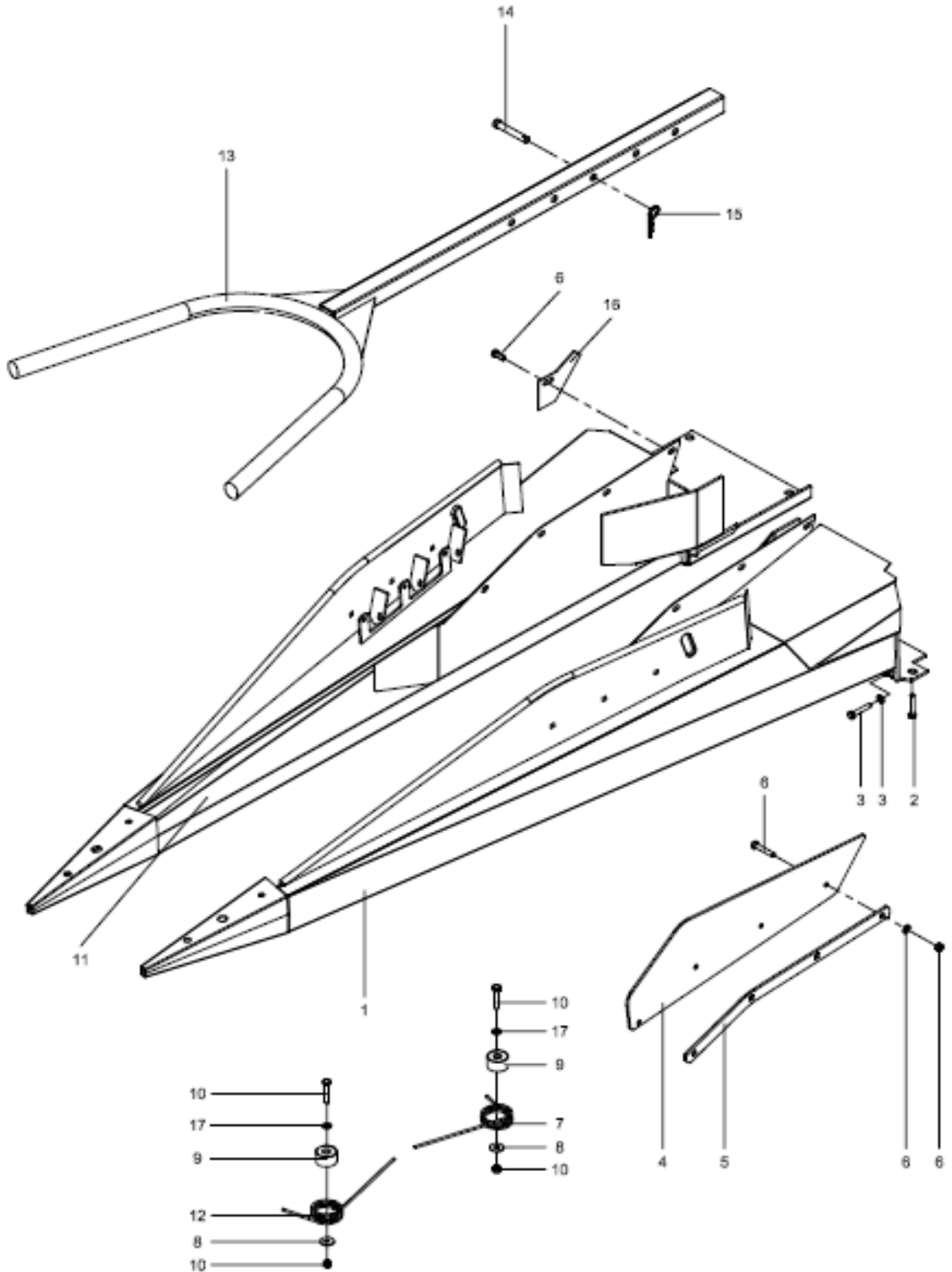
Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
01	1	TMSMHM-1.3.6.1	Kesme Diski	
02	12	TMSMHM-1.3.6.2	Alt Bıçak	
03	12	TMSMHM-1.3.6.3	Üst Bıçak	
04	18	CIV-M16x2x65x40-8.8	Altı Köşe Başlı Cıvata	
05	6	CIV-M16x2x75x40-8.8	Altı Köşe Başlı Cıvata	
06	24	TMSMHM-1.3.6.9	Özel Rondela	
07	24	SOM-TAC-M16x2-8.8	Taçlı Sıkmalı Somun	
08	6	TMSMHM-1.3.6.4	Pervane	
09	6	CIV-M12x1,75x40-8.8	Altı Köşe Başlı Cıvata	
10	6	RON-YAY-M12	Yaylı Rondela	
11	6	SOM-FIB-M12x1.75	Altı Köşe Başlı Somun	
12	4	TMSMHM-1.3.2.1.13/14/15/16	Çanak Yayı	
13	4	KAMA A14x9x69	Kama(iki üç radüslü)	
14	1	SOM-TAC-M24x1.5	Taçlı Somun	
15	1	PIM-MAŞ-ARM Ø6	Mandallı Kilitli pimi	
16	1	TMSMHM-1.3.1.21	Bıçak Sıyırıcı	
17	1	TMSMHM-1.3.1.23	Taşıyıcı	
18	3	CIV-IMB-M10x1,5x40-8.8	Allen Başlı Cıvata	
19	3	RON-YAY-M10	Yaylı Rondela	
20	1	TMSMHM-1.3.1.1.27	Plaka	
21	3	CIV-M10x1,5x45-8.8	Altı Köşe Başlı Cıvata	

7- YEDEK PARA LİSTESİ / SPARE PARTS LIST

7.2 Kesme Diski Grubu / Cutting disk / TMSMHM-1.3.6

Pos. Poz.	Amount Miktar	Order Number Numarası	Kind Açıklama	Standart
22	3	RON-YAY-M12	Yaylı Rondela	
23	3	RON-DUZ-M10	Düz Rondela	
24	1	TMSMHM-1.3.2.1.2	Şaft	
25	12	CIV-M8x1,25x20-8.8	Altı Köşe Başlı Cıvata	

7- YEDEK PARÇA LİSTESİ / ERSATZTEILLISTE / SPARE PARTS LIST
 7.7 Tarak Grubu / Torpedospitzen / Gatherer / TSMHM-1.3.9- 1.3.11

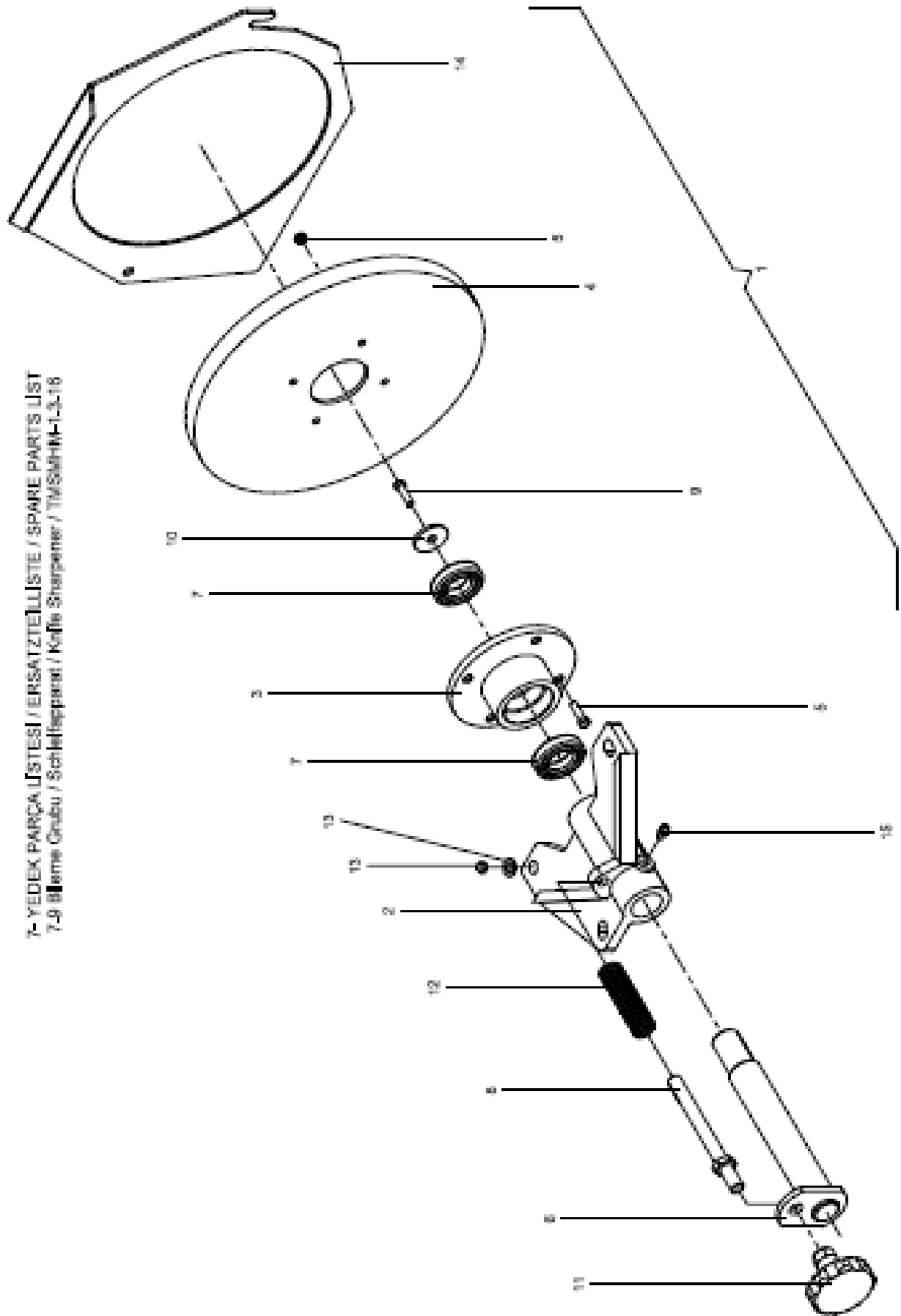


7- YEDEK PARA LİSTESİ / ERSATZTEİLLİSTE / SPARE PARTS LIST

7.7 Tarak Grubu / Gatherer / TMSMHM-1.3.9 - 1.3.11

Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
01	1	TMSMHM-1.3.11.01	Sağ Tarak	
02	2	CIV-M12x1,75x45-8.8	Altı Köşe Başlı Cıvata	
03	8	RON-DUZ-M12	Rondela	
03	8	CIV-M12x1,75x30-8.8	Altı Köşe Başlı Cıvata	
04	2	TMSMHM-1.3.11.8	Kaydırıcı Lastik	
05	2	TMSMHM-1.3.11.9	Lama	
06	8	CIV-M8x1,25x25-8.8	Altı Köşe Başlı Cıvata	
06	8	RON-DUZ-M8	Rondela	
06	8	SOM-FIB-M8x1.25	Altı Köşe Başlı Somun	
07	3	TMSMHM-1.3.11.4	Kurma Yayı	
08	6	RON-DUZ-M8	Rondela	
09	6	TMSMHM-1.3.11.3	Role	
10	6	SOMFIB-AKS-M8x1,25	Altı Köşe Başlı Somun	
10	6	CIV-M8x1.25x50	Altı Köşe Başlı Cıvata	
11	1	TMSMHM-1.3.9.01	Sol Tarak	
12	3	TMSMHM-1.3.9.4	Kurma Yayı	
13	1	TMSMHM-1.4.21	Kaldırıcı Çatal	
14	1	TMSMHM-1.4.22	Pim	
15	1	GUP-3x45 DIN 94	Gupilya	
16	1	TMSMHM-1.3.9.13	Örtme Sacı	
17	6	RON-DUZ-M8	Rondela	

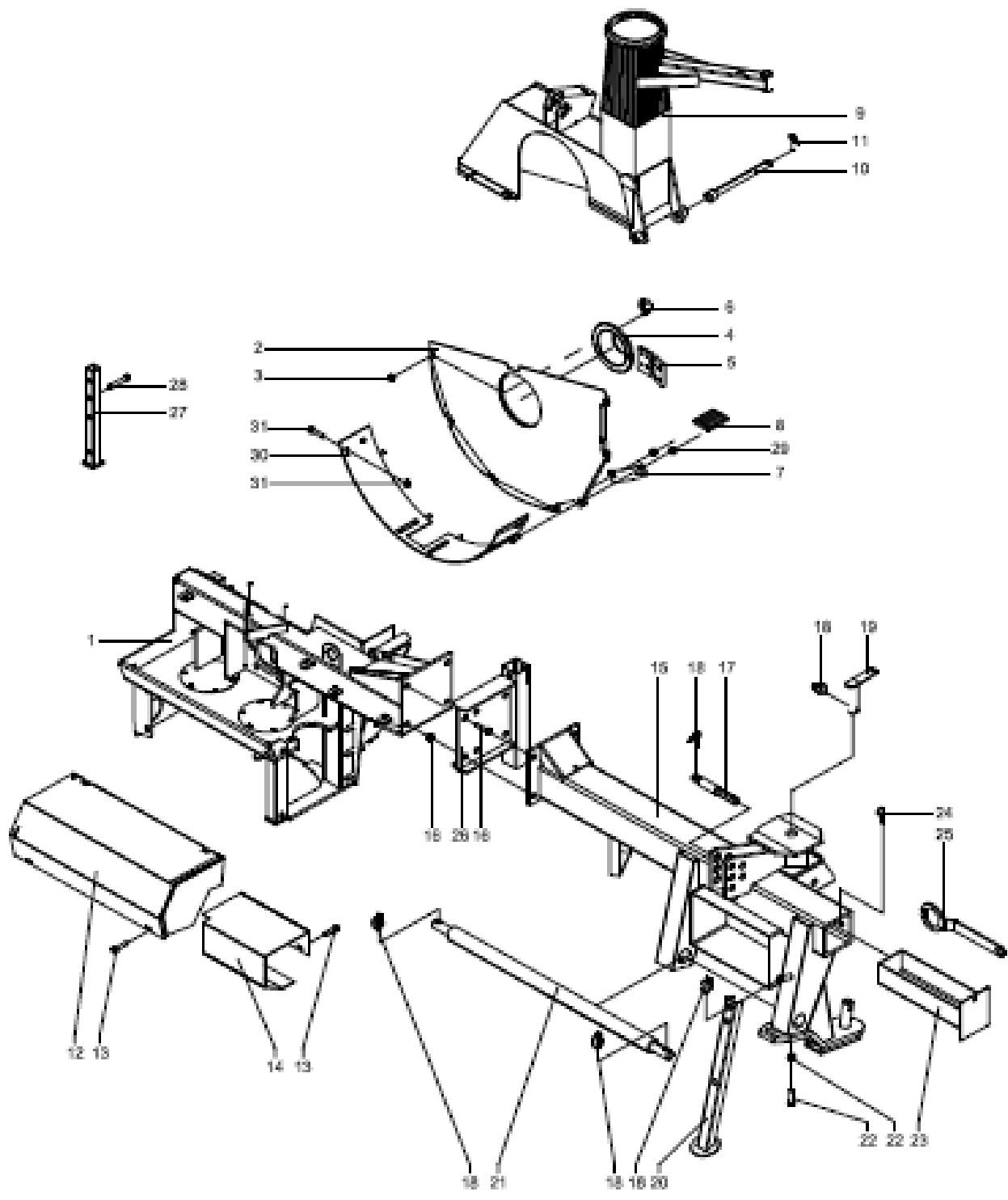
7- YEDEK PARÇA LİSTESİ / ERSATZTELLISTE / SPARE PARTS LIST
 7-9 Bileme Çubuğu / Schleifapparat / Knife Sharpener / TMS300H-1.3-18



7- YEDEK PARA LİSTESİ / ERSATZTEİLLİSTE / SPARE PARTS LIST**7.9 Bileme Grubu / Knife Sharpener / TMSMHM-1.3.16**

Pos. Poz.	Amount Miktar	Order Number Sipariř Numarası	Kind Açıklama	Standart
01	1	TMSMHM-1.3.16	Bileme Gurubu	
02	1	TMSMHM-1.3.16.1	Bileme Yatađı	
03	1	TMSMHM-1.3.16.7	Porya	
04	1	TMSMHM-1.3.16.12	Bileme Tařı	
05	4	TMSMHM-1.3.16.13	Altı Kõře Bařlı Cıvata	
05	4	SOMFIB-AKS-M10x1,5	Altı Kõře Bařlı Somun	
06	1	TMSMHM-1.3.16.2	řaft	
07	2	RUL-6005 2RS NİS	Rulman	
08	1	SAP-M12x1.75x140	M12 Saplama	
09	1	CIV-M8x1,25x15-8.8	Alt.Kõř.Bař. Saplamalı Cıvata	
10	1	TMSMHM-1.3.16.10	zel Rondela	
11	1	TUT-PLAS-M12x1.75	Plastik Tutamak	
12	1	TMSMHM-1.3.16.4	Yay (Baskı Yayı)	
13	3	SOMFIB-AKS-M10x1,5	Altı Kõře Bařlı Somun	
13	3	RON-DUZ-M10	Rondela	
14	1	TMSMHM-1.4.7	Koruyucu Kapak	
15	1	GRE-DZ-M8	Gresrlk	

7. YEDEK PARÇA LİSTESİ / ERSATZTEILLISTE / SPARE PARTS LIST
 7.1 Ana Gövde Grubu/ Gestell, Verkleidung / Mahflame, Panelling/ TMSMH-1,3



7- YEDEK PARA LİSTESİ / ERSATZTEİLLİSTE / SPARE PARTS LIST

7.1 Ana Gvde Grubu / Mainflame Panelling / TMSMHM-1.3

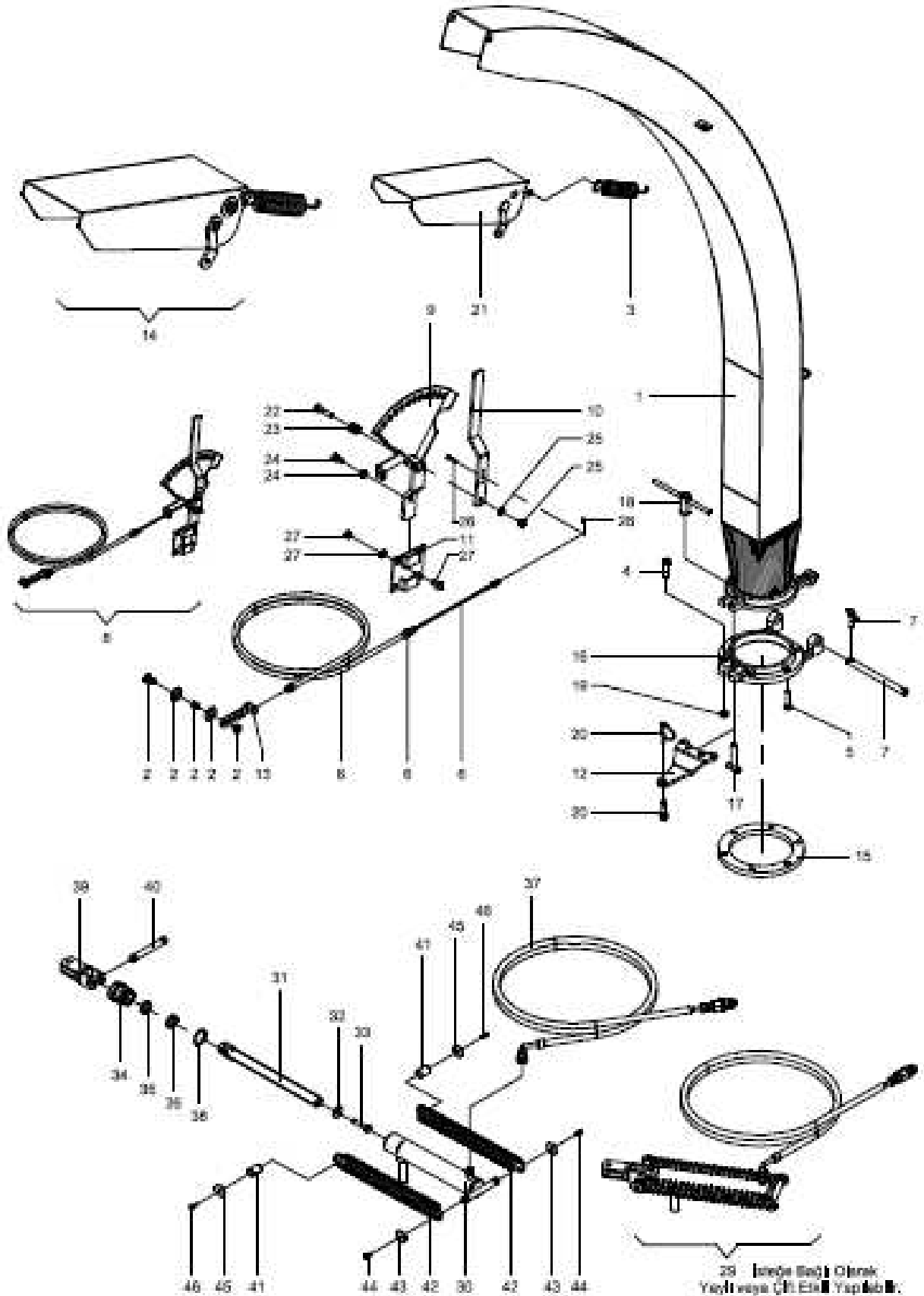
Pos. Poz.	Amount Miktar	Order Number Sipariř Numarası	Kind Açıklama	Standart
01	1	TMSMHM-1.3.1.1	Ana řase	
02	1	TMSMHM-13.7.01	Kapak	
03	7	SOMFIB-AKS-M10x1,5	Altı Kře Bařlı Somun	
04	1	TMSMHM-1.3.7.05	Kapak	
05	1	TMSMHM-1.3.7.06	Menteře	
06	1	TMSMHM-1.3.7.04	Halkalı Emniyet Pimi	
07	1	TMSMHM-1.3.18	Lama	
08	2	TMSMHM-1.3.1.18	Plaka	
09	1	TMSMHM-1.4.1	Baca Tařıyıcı Gvde	
10	1	TMSMHM-1.8	Mil	
11	1	PIM-MAř-ARM Ø6	Halkalı Emniyet Pimi	
12	1	TMSMHM-1.3.13	Kapak	
13	7	CIV-M8x1,25x15-8.8	Altı Kře Bařlı Cıvata	
14	1	TMSMHM-1.3.1.2	Kapak	
15	1	TMSMHM-1.1.1.1	řase	
16	8	SOMFIB-AKS-M16x2	Altı Kře Bařlı Somun	
16	8	CIV-M16x2x50-8.8	Altı Kře Bařlı Cıvata	
17	1	TMSMHM-1.1.1.14	zel Pim	
18	3	PIM-MAř-ARM Ø5x30	Halkalı Emniyet Pimi	
19	1	TMSMHM-1.1.1.12	ekici Pimi	

7- YEDEK PARA LİSTESİ / SPARE PARTS LIST

7.1 Ana Gvde Grubu / Mainflame, Panelling / TMSMHM-1.3

Pos. Poz.	Amount Miktar	Order Number Sipariř Numarası	Kind Açıklama	Standart
20	1	TMSMHM-1.1.1.02	Mesnet	
21	1	TMSMHM-1.1.1.04	eki Mili	
22	2	SOMFIB-AKS-M12x1,75	Altı Kře Bařlı Somun	
22	2	CIV-M12x1,75x35-8.8	Altı Kře Bařlı Cıvata	
23	1	TMSMHM-1.1.1.09	Kapak	
24	1	FIRKETE-MAř-3	Firkete	
25	1	TMSMHM-AKS01	Anahtar Altı Kře	
26	1	TMSMHM-1.2.2	Teker Tařıyıcı	
27	1	TMSMHM-1.3.1.16	Ayak	
28	1	TMSMHM-1.3.1.17	zel Pim	
29	2	CIV-KEL-M10x1.5x40-8.8	Kelebek Cıvata	
30	1	TMSMHM-1.3.1.1.30	ember	
31	12	CIV-HAV-IMB-M8x1,25x25	Havřa Bařlı Allen Cıvata	
31	12	SOMFIB-AKS-M8x1,25	Allen Bařlı Somun	

7- YEDEK PARÇA LİSTESİ / ERSATZTEİLLISTE / SPARE PARTS LIST
 7,8 Bacı Grubu / Auswurfkrümmer / Crop Chute / TMSMHM-1,4



7- YEDEK PARA LİSTESİ / ERSATZTEİLLİSTE / SPARE PARTS LIST

7.6 Baca Grubu / Crop chute / TMSMHM-1.4

Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
01	1	TMSMHM-1.4.12	Baca Gurubu	
02	2	CIV-BOM- M10x1,5x25-8.8	Mercimek Başlı Cıvata	
02	2	TMSMHM-1.4.17.3	Bur	
02	2	RON-YAY-M10	Yaylı Rondela	
02	2	SOMFIB-AKS-M10x1,5	Altı Köşe Başlı Somun	
03	1	TMSMHM-1.4.17.6	ekme Yayı	
04	4	SOMFIB-AKS-M10x1,5	Altı Köşe Başlı Cıvata	
05	2	CIV-M10x1,5x55-8.8	Altı Köşe Başlı Cıvata	
06	1	TMSMHM-1.4.18.9.1	elik Tel ve Koruyucu Tel	
06	1	TMSMHM-1.4.18.9.2	elik Tel ve Koruyucu Tel	
06	1	TMSMHM-1.4.18.9.3	elik Tel ve Koruyucu Tel	
07	1	TMSMHM-1.4.13	Pim	
08	1 Tk.	TMSMHM-1.4.18	Baca Şapka Kumanda Ayar Kolu	
09	1	TMSMHM-1.4.18.2	Kol	
10	1	TMSMHM-1.4.18.5	Kilit Kolu	
11	1	TMSMHM-1.4.18.1	Kilit Kolu Plakası	
12	1	TMSMHM-1.4.5.18	Yönlendirici	
13	1	TMSMHM-1.4.18.12	Rot Yatağı	
14	1	TMSMHM-1.4.17	Döndürme Plakası	
15	1	TMSMHM-1.4.2	Ara Flanş	
16	1	TMSMHM-1.4.3	Üst Yataklama Flanşı	

7- YEDEK PARA LİSTESİ / SPARE PARTS LIST

7.6 Baca Grubu / Crop Chute / TMSMHM-1.4

Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
17	1	TMSMHM-1.4.15	eki Cıvata	
18	1	TMSMHM-1.4.16	Özel Somun	
19	6	SOM-FIB-M10x1.5	Altı Köşe Başlı Somun	
20	1	TMSMHM-1.4.5.19	Pim	
20	1	PIM-MAŞ-ARM Ø4	Emniyet Pimi Mandallı	
21	1	TMSMHM-1.4.17.1	Şapka	
22	1	CIV-M10x1,5x45-8.8	Altı Köşe Başlı Cıvata	
23	1	TMSMHM-1.4.18.16	Basma Yayı	
24	1	CIV-M10x1,5x20-8.8	Altı Köşe Başlı Cıvata	
24	1	SOMFIB-AKS-M10x1,5	Altı Köşe Başlı Somun	
25	1	RON-DUZ-M10	Rondela	
25	1	SOMFIB-AKS-M10x1,5	Altı Köşe Başlı Somun	
26	1	TMSMHM-1.4.18.10	Pim	
27	4	CIV-M8x1,25x35x25-8.8	Altı Köşe Başlı Cıvata	
27	4	RON-DUZ-M8	Rondela	
28	1	TMSMHM-1.4.18.11	Gupilya	
29	1	TMSMHM-1.4.5	Baca Döndürme Düzeni	
30	1	TMSMHM-1.4.5.1	Hidrolik Silindir	
31	1	TMSMHM-1.4.5.2	Piston	
32	1	RON-DUZ-M10	Rondela	

7- YEDEK PARA LİSTESİ / SPARE PARTS LIST

7.6 Baca Grubu / Crop Chute / TMSMHM-1.4

Pos. Poz.	Amount Miktar	Order Number Sipariş Numarası	Kind Açıklama	Standart
33	1	CIV-M10x1,5x30 8.8	Altı Köşe Başlı Cıvata	
34	1	TMSMHM-1.4.5.5	Bur	
35	1	KEE-TOZ-25x33x5/7	Toz Keesi	
36	1	KEE-YAG-25x35x7 AS	Yağ Keesi	
37	1	HORT-HID ½ R2 240cm	Hidrolik Hortum	
38	2	O-RING-35X40X3	O-Ring	
39	1	TMSMHM-1.4.5.10	U Çatal	
40	1	TMSMHM-1.4.5.11	Pim	
41	2	TMSMHM-1.4.5.12	Bur	
42	2	TMSMHM-1.4.5.13	Gergi Yayı	
43	2	RON-DUZ-M6	Rondela	
44	2	CIV-M6x1x20-8.8	Altı Köşe Başlı Cıvata	
45	2	RON-DUZ-M6	Rondela	
46	2	CIV-M6x1x20-8.8	Altı Köşe Başlı Cıvata	