SWISSMEX®

ENSILADORA DE 1 SURCO DE PRECISIÓN T-MSM-HM

MANUAL DE OPERADOR

minos agri

MODELO

633110

Impreso en México

BN633110-0321NA
R00

MANUFACTURER INFORMATION

Agricultural Machinery

Fatih Mah. 1191 Sk. No: 17/A P.K.35414 Gaziemir - İZMİR - TÜRKİYE

Ph : +90.232 281 54 04 - 281 63 30 - 281 63 31 Fax: +90.232 281 57 10

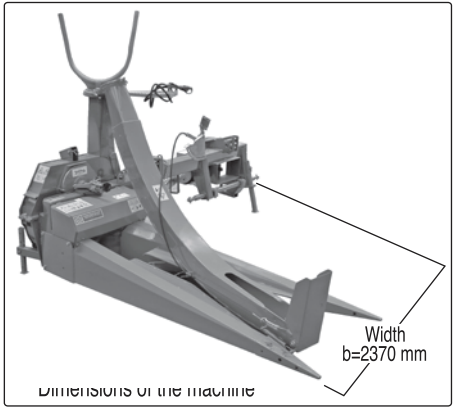
www.minosagri.com - e-mail: info@minosagri.com - www.facebook.com/minosagri - www.twitter.com/turkaygrup

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 mazie 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-roller that control the feeding of the maize to the disc.

•Never carry anyone or any animal on the machine.
•Pay attention on the traffic rules on public roads.
•Check out the lightening, warnıng 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

⚠ ATTENTION!

WHILE THE MACHINE IS CONNECTED TO THE TRACTOR AND IF THE TRACTOR IS IN WORKING POSITION.



Dimensions of the machine

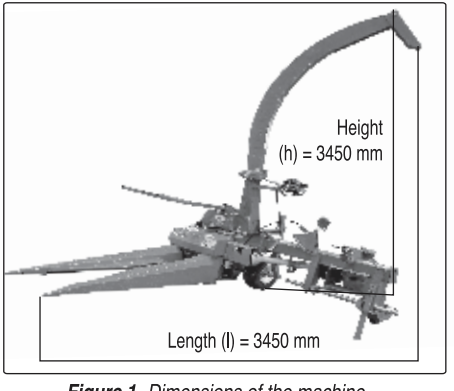


Figure 1- *Dimensions of the machine*

l(length)	b(width)	h(height)
3450 mm	2370 mm	3090 mm

TRANSPORTING :
•Never carry anyone or any animal on the machine.
•Pay attention on the traffic rules on public roads.
•Check out the lightening, warnıng 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 workng safely.

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

•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.

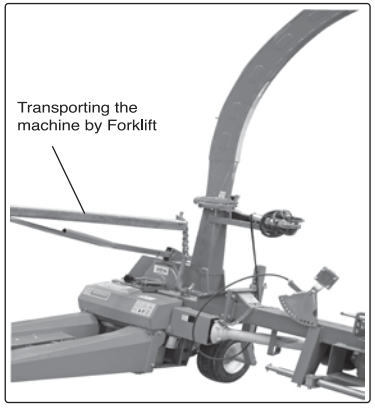


Figure 2- *Transporting the machine by Forklift and Palette*

⚠ ATTENTION!

PAY ATTENTION TO BE NOT UNDER THE MACHINE WHILE TRANSPORTING

A specially designed single line T-MSM Maize Chopper with gear box is an ideal machine for the small and medium size fields.

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.

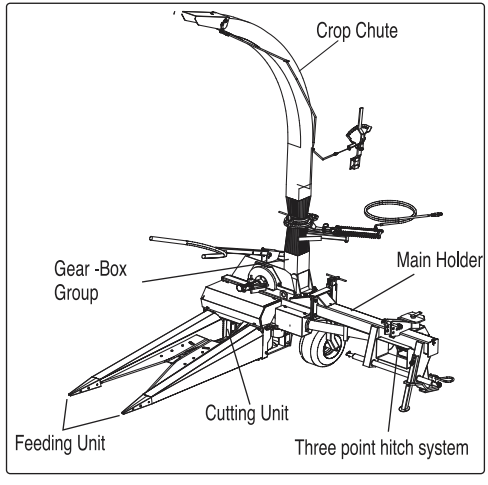


Figure 3- *Main parts of the machine*

1.Main Holder
2.Three point hitch System
3.Gear-box group
4.Cutting Unit
5.Feeding unit
6.Crop chute-Discharging shimney

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.

Figure 4- *1.Gear-box*

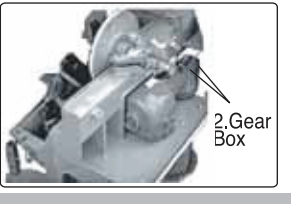
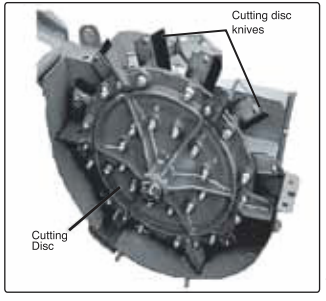


Figure 5-2 *Gear Box*

Cutting Disk and Cutting Operation
Cutting disc includes 12 knives, cutting elements and disc. The maize firstly laid down by the help of the wires on the feeding unit and the maize is taken inside of the feeeding 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.

Figure 6- *Cutting Unit*

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

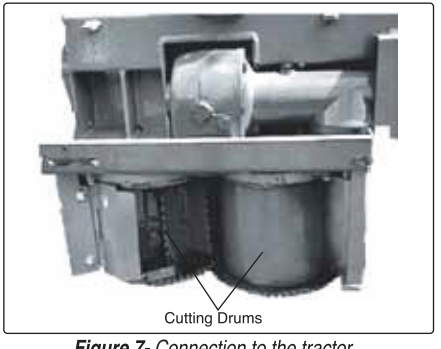


Figure 7- *Connection to the tractor*

Figure 7- *Cutting drums-Feeding unit*

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 assemblied 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. •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 tranferes to the cutting knives inside. The material which is crushed by the drums transfered to the crop chute than the silage crop is loaded to the romork which is connected to the machine. •There ara 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 weared, they should have changed by the new ones. The second type of the knives crumble the maize material which have been cut before by the first type of the knives.
The knives lied on the drums have to be grinded after aproximetely 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 disposial 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 mechanizm of the machine makes grinding by stone in a very short time and easy way. 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 slage can not give good performance and the knives can be weared in a very short time. To have a good result form 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.

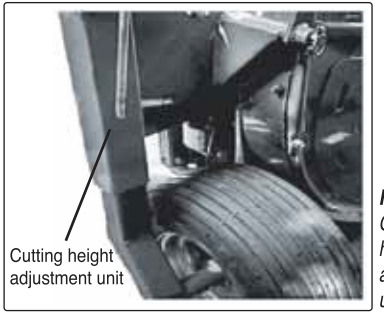
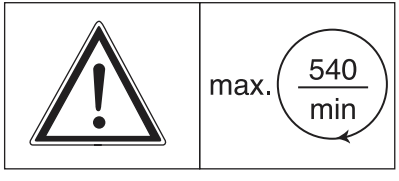


Figure 8- *Cutting height adjustment unit*

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 standarts 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 standart 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.

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.

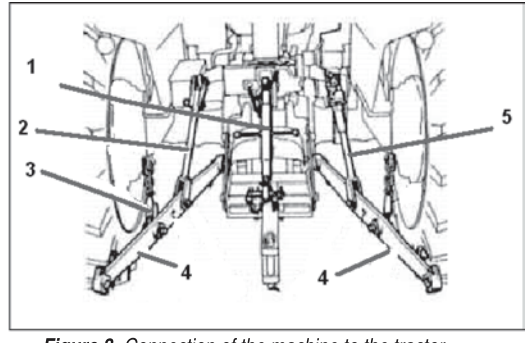
⚠ ATTENTION!
STOP THE ENGINE!! THEN ADJUST AND PREPARE THE MACHINE FOR WORK



•Max. Input rotation speed of T-MSM 'is 540 rpm

Category	Max. drawbar power (HP)	Lower hitch pin hole diameter Ø (mm) (max.)-(min)	Upper hitch pin hole diameter Ø (mm) (max)-(min)
I	...40	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)



1-Upper hitch arm
2-Left hanger arm
3- Stretchning chains
4-Lower hitch arm
5-Right hanger arm

Figure 8- *Connection of the machine to the tractor*

Connecting the pto shaft:
ES 500X750 and ES 400X850 Pto shafts are used in Maize Chopper.
•Before connecting the pto,clean the surfaces of spindle and lubricate them wtih 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 proteciton 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 wih 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.
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 sharply. For working in tendency fields you must be careful about if the tractor is decked out with the additional weights.
Start the height adjustment of the machine from the ground by theTractor's hydraulic arm in the position control level. In the position control level, if you move the hydraulic arm slowly the machine rises up, than 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 rises 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 Twin Disc Fertilizer Spreader the position control level must be chosen.

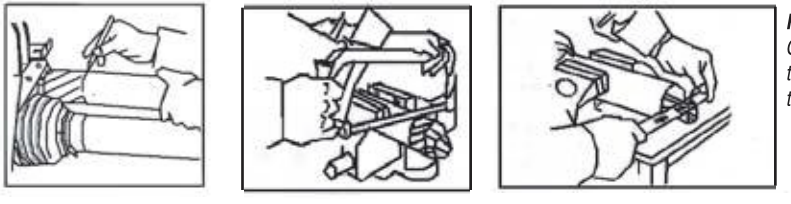


Figure 10- Connection of the machine to the tractor

⚠ 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 Türkay slage machines are accelarated directly by the shaft. By this feature, Türkay 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 slient 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.
Cutting disc with 12 special blades
A stable slage is ensured by means of the special designed cutting mechanism of the machine.The model T-MSMHM 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 T-MSMHM 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.Upon request, it is possible to operate the discharging chimney protrusion in paralel to cutting and carriage tractors.
Remote control of discharging chimney-crop chute
The discharging chimney of T-MSMHM model slage machine with gearbox can be adjust by a remote control without any need of operator's effort.The remote control system may be placed next to the tractor driver and even inside the cabin of the tractor.

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 Türkay slage machines are accelarated directly by the shaft.By this feature, Türkay 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 slient 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.
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 T-MSMHM 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 Minos slage machine, the slage maize is loaded rapidly on to the romork with the loading chamber.Upon request, it is possible to operate the discharging chimney protrusion in paralel to cutting and carriage tractors.
Remote control of discharging chimney-crop chute
The discharging chimney of T-MSMHM model slage machine with gearbox can be adjust by a remote control without any need of operator's effort.The remote control system may be placed next to the tractor driver and even inside the cabin of the tractor.

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, mainteance 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 Türkay 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.

Grinding and changing the knives:

•The changing of the knives must be done by technical and professional people. Because this avoids the danger of loosing of the knives and fliying 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 rolanty 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.

⚠ ATTENTION!

IN EACH PERIOD OF CHANGING THE KNIFE USE A NEW SECURITY NUT

•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.

Putting on the knives:

•Connect the knives in a regular line.

•Connect the kinves by their connecting screws and nuts.

•Tighten the security nut well and be sure that it is tightened enough.

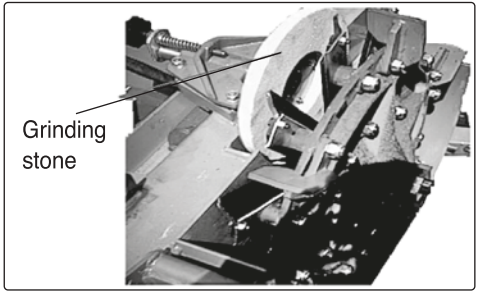


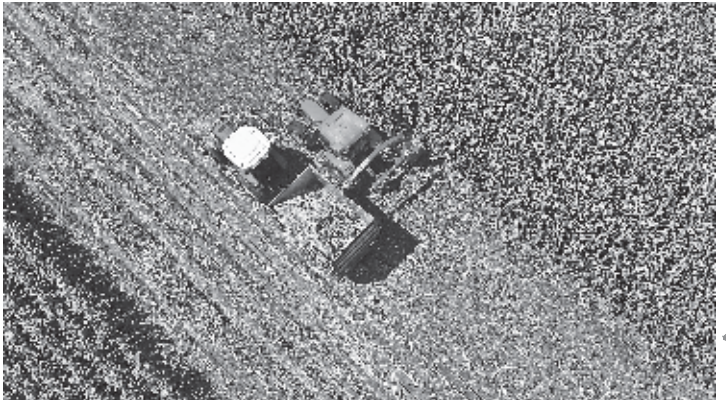
Figure 11- *Grinding stone*

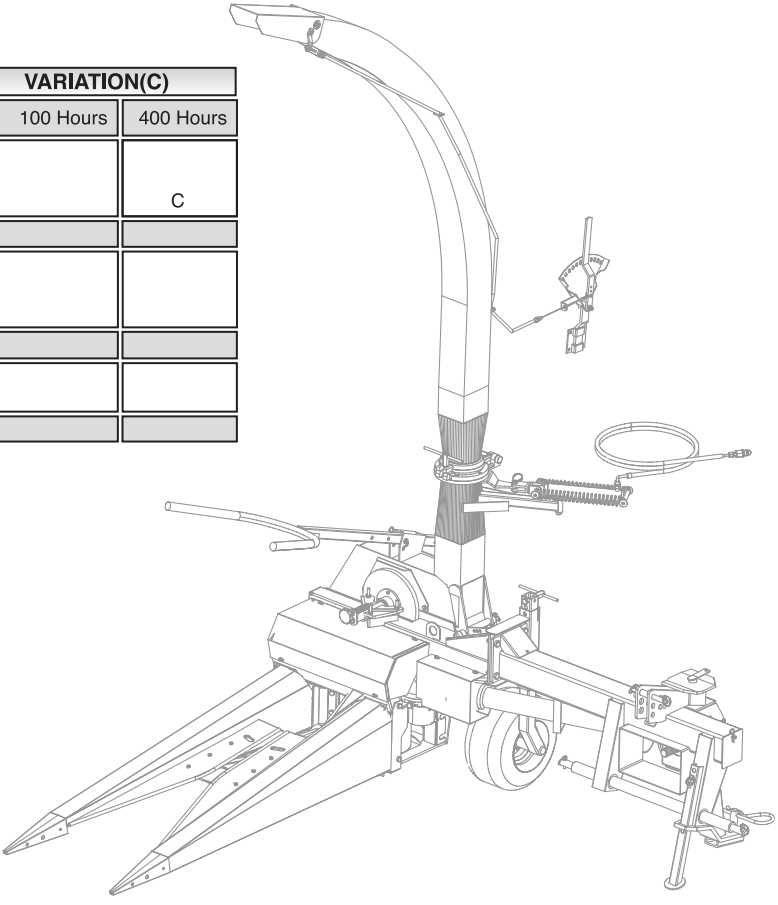
⚠ ATTENTION!

MAINTENANCE, REPAIRS,CLEANING MAY ONLY BE EXECUTED WHEN THE DRIVE AND THE ENGINEARE SWITCHED OFF AND THE IGNITION KEY IS PULLED OUT.

CONTROL(A)	MAINTENANCE(B)		VARIATION(C)		
Maintenance Period ==>	Daily	Weekly	30 Hours	100 Hours	400 Hours
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*





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.

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

⚠ ATTENTION!
READ OPERATORS MANUEL BEFORE STARTING TO WORK WITH THE MACHINE.

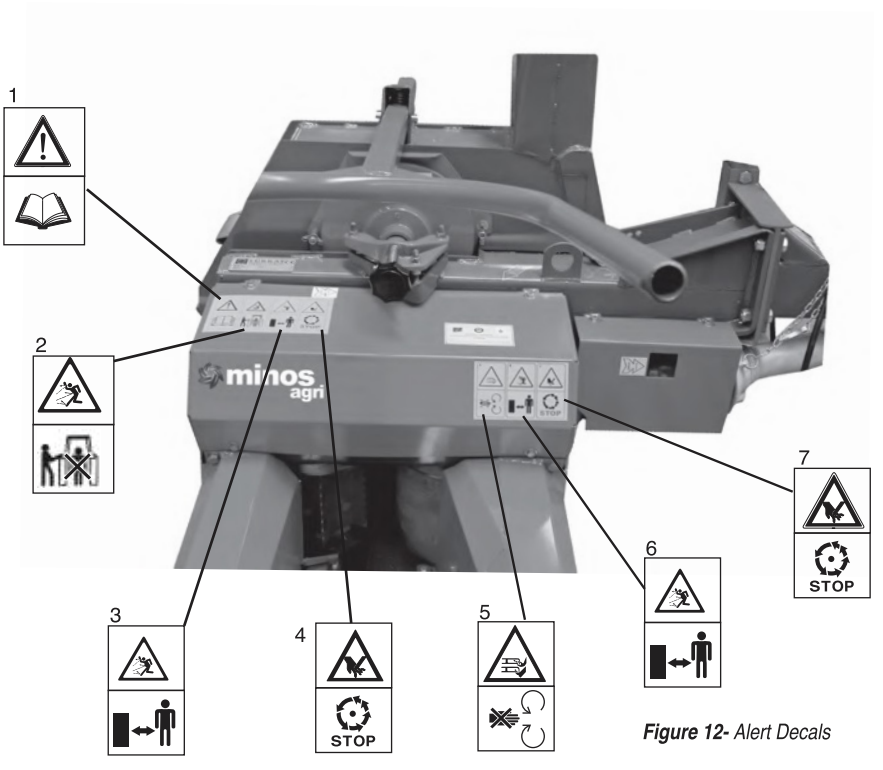
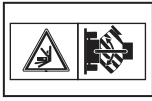


Figure 12- *Alert Decals*

1- Operators Manuel.
2- Never stay behind the tractor.
3- Never be in the working area of the machine.
4- Never touch to the machine while working.
5- Do not open or emove safety shields while the engine is running.
6- Never be between the machine and tractor.
7- Never touch the rotating parts of the machine.

•Besides the instructions from this readers manuel 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.

•It is prohibited to touch the machine until all parts are standing still

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

•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.

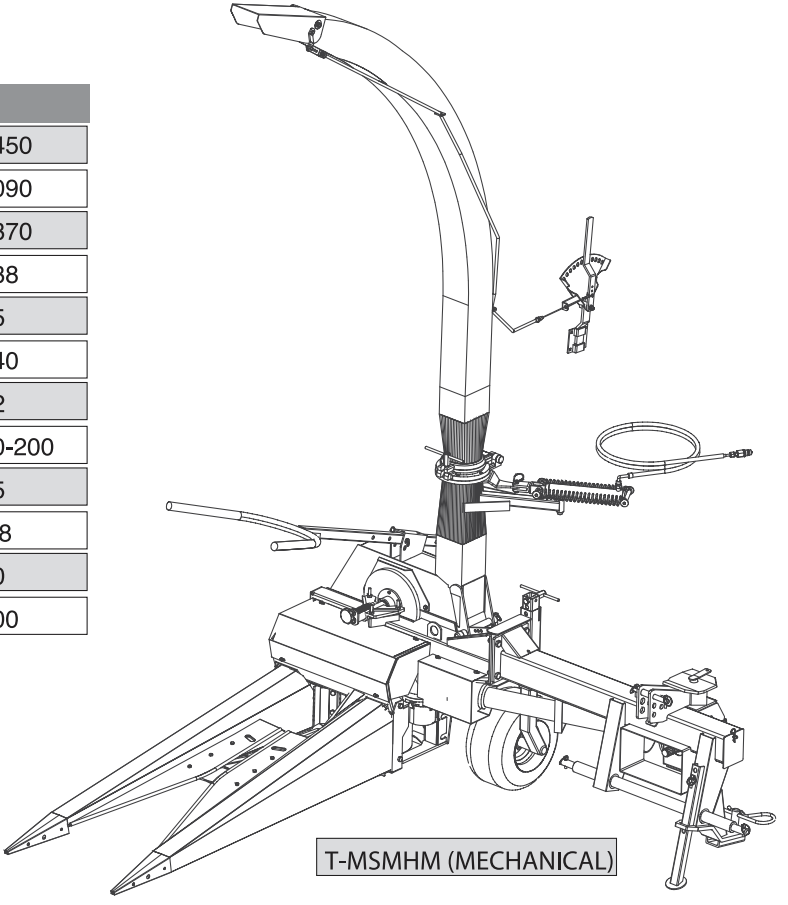
•Keep distance, objects(stones and other debris) can be flung away at very high speed.

•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;
•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 instructionsfastened 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 aparatus or machine.

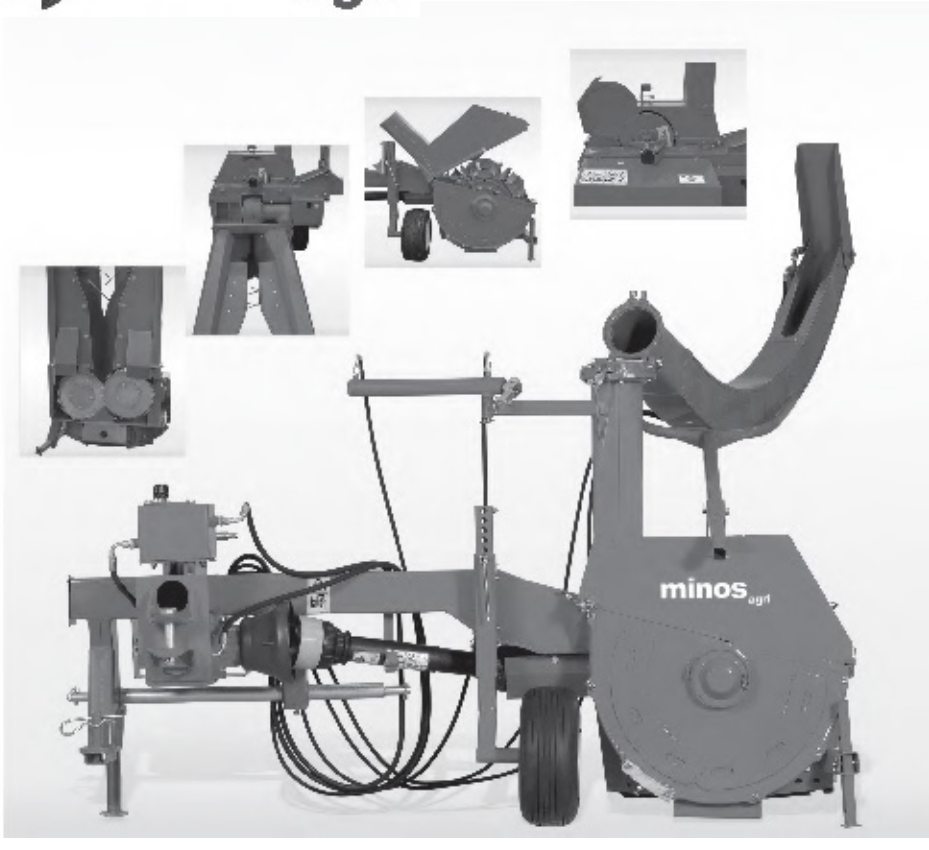
TECHNICAL VALUES	
LENGTH (mm)	3450
HEIGHT (mm)	3090
WIDTH (mm)	2370
WEIGHT (kg)-includes shaft	538
TRACTOR REQUIRED POWER (min) HP	35
ROTATION SPEED (rpm)	540
NUMBER OF KNIVES (Quantity)	12
CUTTING HEIGHT(min-max)(mm)	60-200
CAPASITY OF SILAGE (ton/saat)	35
LENGTH OF SILAGE (mm)	7,8
WORKING SPEED WITH TRACTOR (km/saat)	10
KNIFE DISC DIAMETER (mm)	700

Table 4 –*TECHNICAL VALUES*

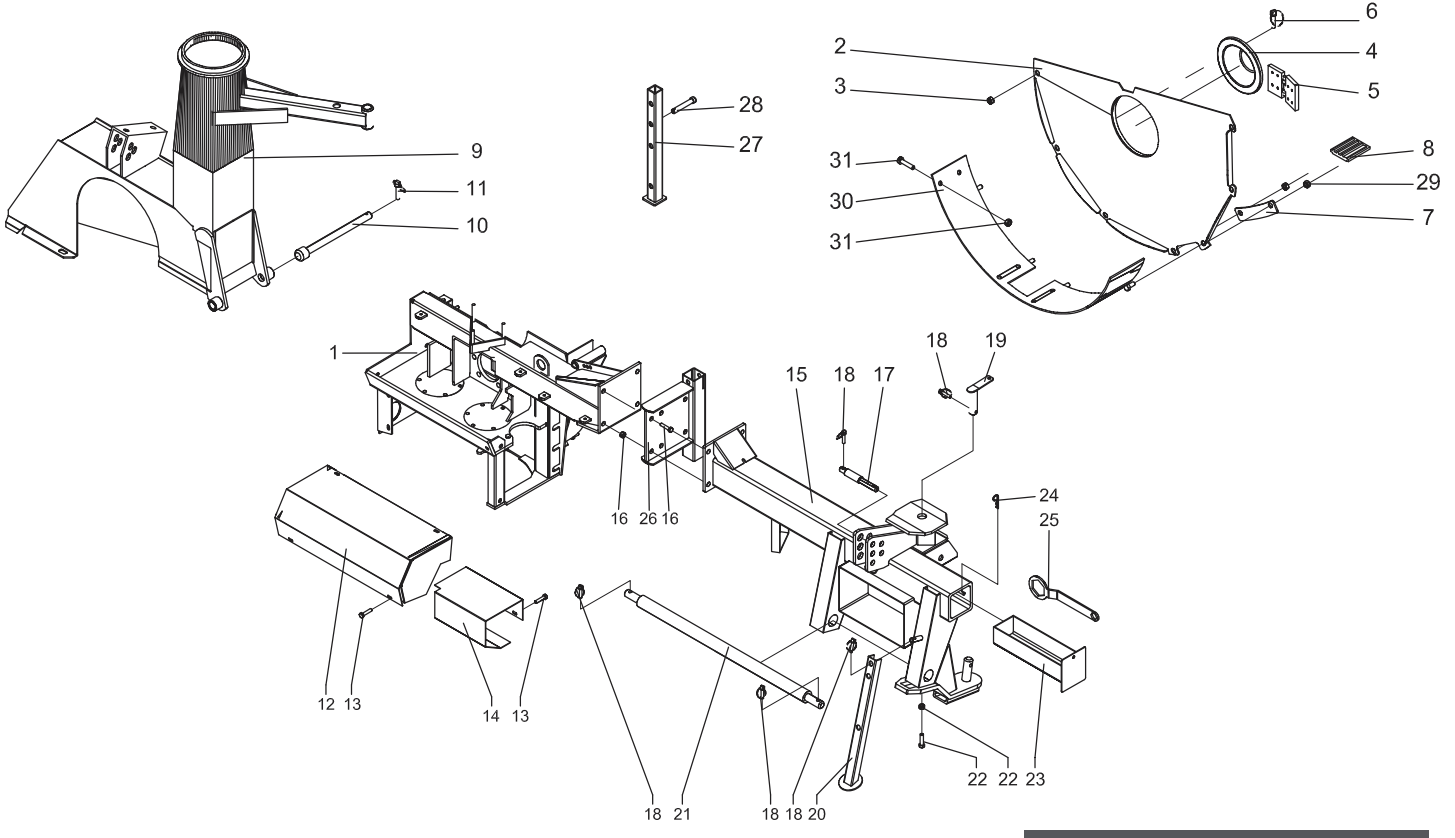


minos agri

T-MSMHM
MAIZE CHOPPER



T-MSMHM (Mechanical) SPARE PARTS LIST

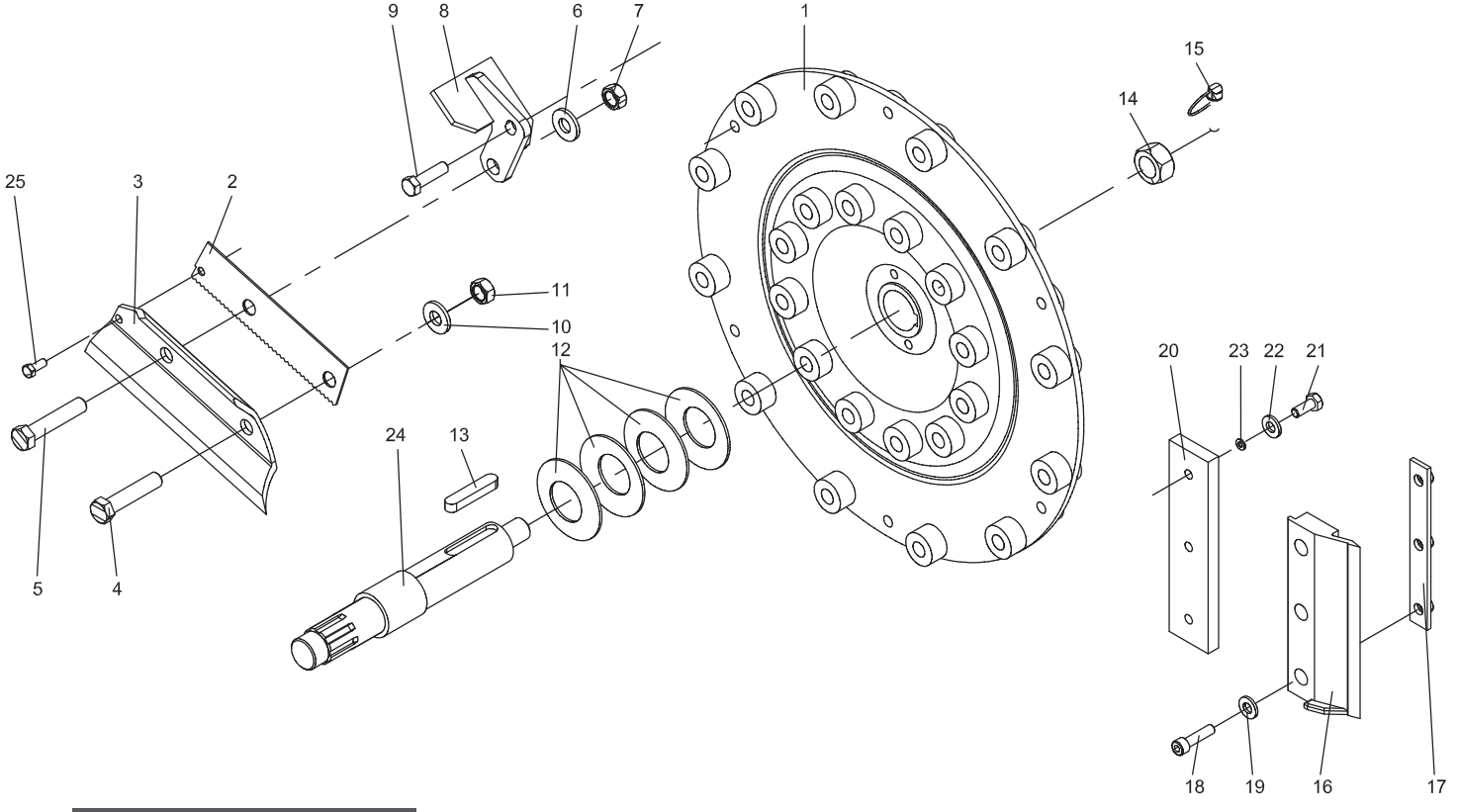


7.1 Mainflame,Panelling / T-MSMHM-1.3

SPARE PARTS LIST

7.1 Mainflame, Panelling / T-MSMHM-1.3

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)	Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM-1.3.1.1	Main fram		17	1	T-MSMHM-1.1.1.14	pin	
02	1	T-MSMHM-13.7.01	cover		18	3	PIM-MAŞ-ARM Ø5x30	lynch pin	PIM-MAŞ-ARM Ø5x30
03	7	SOMFIB-AKS-M10x1,5	Hex. nut	SOMFIB-AKS-M10x1,5 DIN 934	19	1	T-MSMHM-1.1.1.12	pin,trailer hit.	
04	1	T-MSMHM-1.3.7.05	cover		20	1	T-MSMHM-1.1.1.02	prop,parking	
05	1	T-MSMHM-1.3.7.06	Finge		21	1	T-MSMHM-1.1.1.04	Shaft,carrier	
06	1	T-MSMHM-1.3.7.04	lynch pin	Ø3x20	22	2	SOMFIB-AKS-M12x1,75	Hex. nut	
07	1	T-MSMHM-1.3.18	Bracked		22	2	CIV-M12x1,75x35-8.8	Bolt,hex-hd	FIRKETE-MAŞ-Ø3
08	2	T-MSMHM-1.3.1.18	Shredder plate		23	1	T-MSMHM-1.1.1.09	cover	
09	1	T-MSMHM-1.4.1	base,crop chute		24	1	FIRKETE-MAŞ-Ø3	Wire Satety	
10	1	T-MSMHM-1.8	Pin		25	1	T-MSMHM-AKS01	Triangle Key	
11	1	PIM-MAŞ-ARM Ø6	lynch pin	PIM-MAŞ-ARM Ø6	26	1	T-MSMHM-1.2.2	intermediate piece	
12	1	T-MSMHM-1.3.13	cover		27	1	T-MSMHM-1.3.1.16	prop,parking	CIV-KEL-M10x1.5x40-8.8 DIN934
13	7	CIV-M8x1,25x15-8.8	Bolt,hex-hd	CIV-M8x1,25x15-8.8 DIN 931	28	1	T-MSMHM-1.3.1.17	Pin	
14	1	T-MSMHM-1.3.1.2	cover		29	2	CIV-KEL-M10x1.5x40-8.8	wing,bolt	CIV-HAV-IMB-M8x1,25x25 DIN 7991
15	1	T-MSMHM-1.1.1.1	frame mtg.		30	1	T-MSMHM-1.3.1.1.30	sheet,metal	SOMFIB-AKS-M8x1,25 DIN934
16	8	SOMFIB-AKS-M16x2	Hex. nut	SOMFIB-AKS-M12x1,75 DIN934	31	12	CIV-HAV-IMB-M8x1,25x25	bolt, rec-hd	
16	8	CIV-M16x2x50-8.8	Bolt,hex-hd	CIV-M12x1,75x35-8.8 DIN931	31	12	SOMFIB-AKS-M8x1,25	Washer	



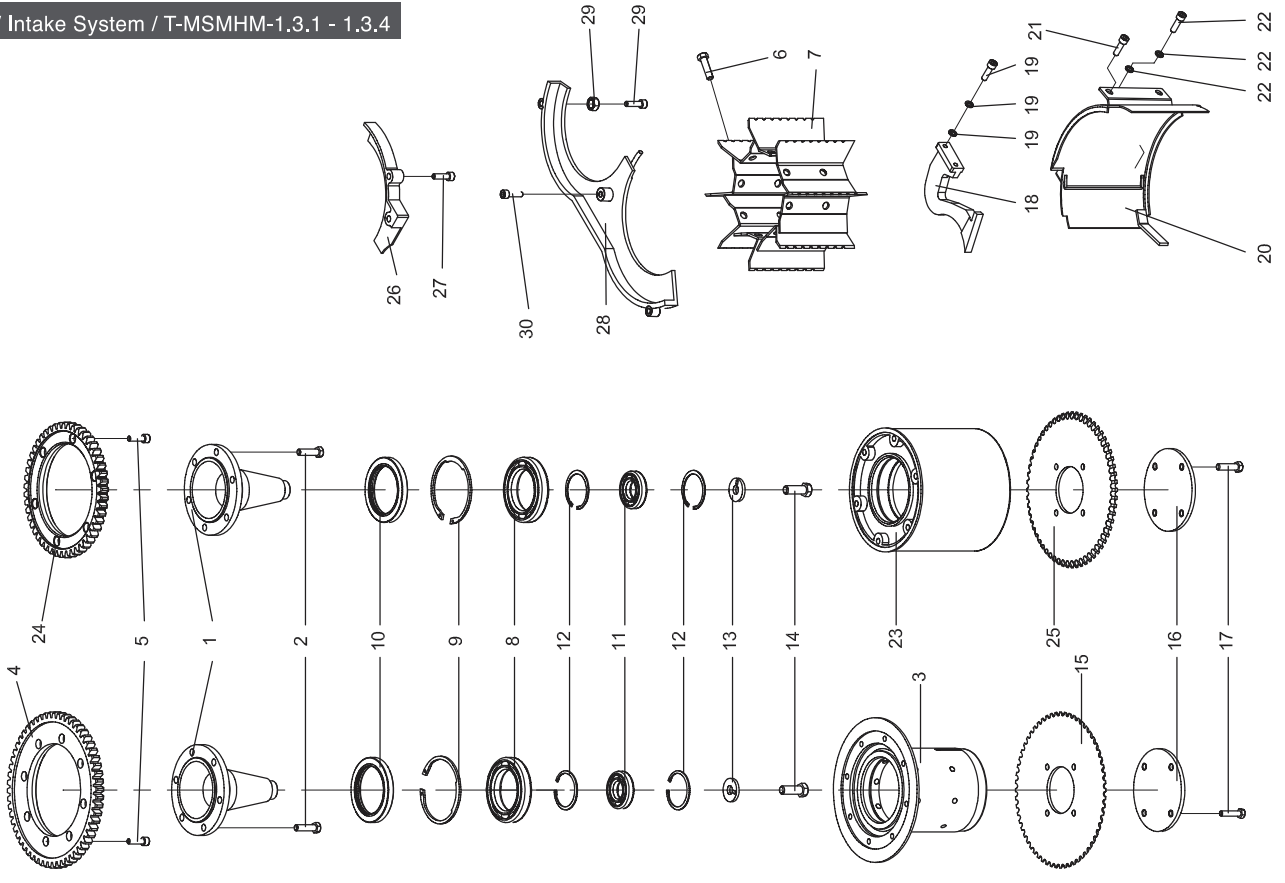
7.2 Cutting disk / T-MSMHM-1.3.6

SPARE PARTS LIST

7.2 Cutting disk / T-MSMHM-1.3.6

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM-1.3.6.1	Cutting Disk	
02	12	T-MSMHM-1.3.6.2	Strip,İmpact	
03	12	T-MSMHM-1.3.6.3	Knife	
04	18	CIV-M16x2x65x40-8.8	bolt, hex-hd	CIV-M16x2x65x40-8.8 DIN931
05	6	CIV-M16x2x75x40-8.8	bolt, hex-hd	CIV-M16x2x75x40-8.8 DIN931
06	24	T-MSMHM-1.3.6.9	washer	16.2x35x4
07	24	SOM-TAC-M16x2-8.8	safety nut	SOM-TAC-M16x2-8.8 DIN934
08	6	T-MSMHM-1.3.6.4	fan blade	
09	6	CIV-M12x1,75x40-8.8	bolt, hex-hd	CIV-M12x1,75x40-8.8 DIN931
10	6	RON-YAY-M12	washer, lock	RON-YAY-M12
11	6	SOM-FIB-M12x1.75	hex. Nut	M12x1.75 DIN931
12	4	T-MSMHM-1.3.2.1.13-14-15-16	spring	90x46x25
13	4	KAMA A14x9x69	key	KAMA A14x9x69
14	1	SOM-TAC-M24x1.5	nut, lock	SOM-TAC-M24x1.5 DIN 935
15	1	PIM-MAŞ-ARM Ø6	linch, pin	PIM-MAŞ-ARM Ø6
16	1	T-MSMHM-1.3.1.21	scraper	İthal 45 HRC
17	1	T-MSMHM-1.3.1.23	holder	
18	3	CIV-IMB-M10x1,5x40-8.8	bolt, allen-head	CIV-IMB-M10x1,5x40-8.8 DIN 912
19	3	RON-YAY-M10	washer, lock	RON-YAY-M10
20	1	T-MSMHM-1.3.1.1.27	brace	
21	3	CIV-M10x1,5x45-8.8	bolt, hex-hd	CIV-M10x1,5x45-8.8 DIN931
22	3	RON-YAY-M12	washer, lock	RON-YAY-M12
23	3	RON-DUZ-M10	Washer	M10 Ø13x28x3
24	1	T-MSMHM-1.3.2.1.2	drive shaft	
25	12	CIV-M8x1,25x20-8.8	bolt, hex-hd	CIV-M8x1,25x20-8.8 DIN 931

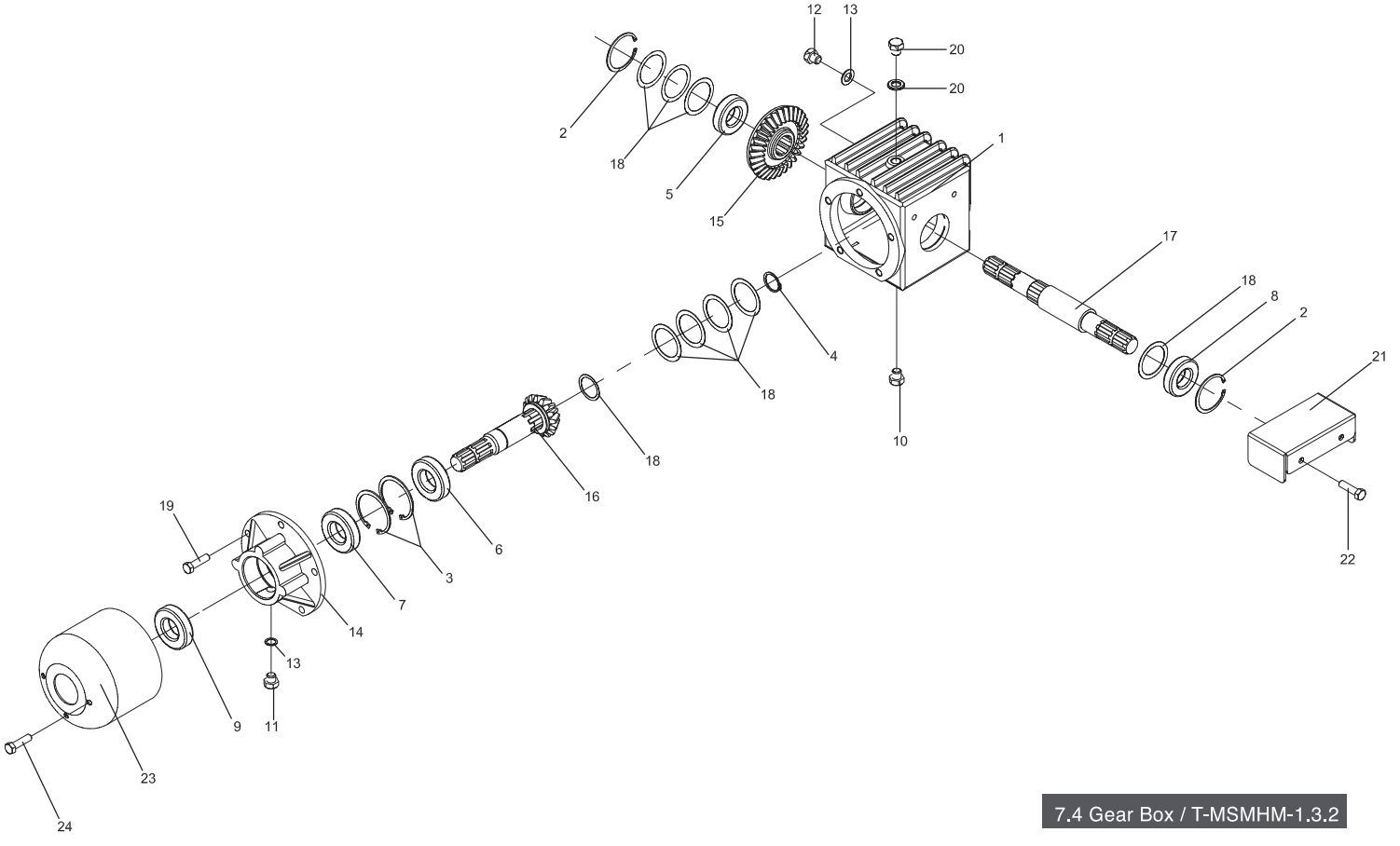
7.3 / Intake System / T-MSMHM-1.3.1 - 1.3.4



PARE PARTS LIST

7.3 / Intake System / T-MSMHM-1.3.1 - 1.3.4

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	2	T-MSMHM-1.3.4.11	Flange	
02	12	CIV-M12x1,75x35-8.8	Bolt, hex-hd	CIV-M12x1,75x35-8.8 DIN 931
03	1	T-MSMHM-1.3.4.1	roll, upper intake	
04	1	T-MSMHM-1.3.4.5	Spur gear	Z=58
05	14	CIV-M10x1,5x30 8.8	Bolt, allen-hd	CIV-M10x1,5x30 8.8 DIN 931
06	8	CIV-M12x1,75x20-8.8	Bolt, hex-hd	CIV-M12x1,75x20-8.8 DIN 931
07	1Tk	T-MSMHM-1.3.4.14	Tube	
08	2	RUL-16016 FAG	bearing	RUL-16016 FAG
09	2	SEG-DIN472Ø125x4-CK75	Retainer	SEG-DIN472Ø125x4-CK75
10	2	KEÇE-YAG-95x125x13 A	Seal	KEÇE-YAG-95x125x13 A
11	2	RUL-6207 2RS	Bearing	RUL-6207 2RS
12	4	SEG-DIN472Ø72x2,5-CK75	Retainer	SEG-DIN472Ø72x2,5-CK75
13	2	T-MSMHM-1.3.4.12	washer, lock	
14	2	CIV-M16x2x45-8.8	Bolt, hex-hd	CIV-M16x2x45-8.8 DIN 931
15	1	T-MSMHM-1.3.4.16	Knife	
16	2	T-MSMHM-1.3.4.17	Cover	
17	8	CIV-M10x1.5x30	Bolt, hex-hd	M10x1.5x30 DIN 931
18	1	T-MSMHM-1.3.1.13	Scraper	
19	2	RON-YAY-M10	washer, lock	RON-YAY-M10
19	2	RON-DUZ-M10	Washer	RON-DUZ-M10
19	2	CIV-M10x1,5x25-8.8	Bolt, hex-hd	CIV-M10x1,5x25-8.8 DIN 931
20	1	T-MSMHM-1.3.1.10	Guard	
21	1	CIV-M10x1,5x20-8.8	Bolt, hex-hd	CIV-M10x1,5x20-8.8 DIN 931
22	3	CIV-M10x1,5x35-8.8	Bolt, hex-hd	CIV-M10x1,5x35-8.8 DIN 931
22	5	RON-DUZ-M10	Washer	RON-DUZ-M10
22	4	RON-DUZ-M10	Washer	RON-DUZ-M10
23	1	T-MSMHM-1.3.5.1	roll, plain	
24	1	T-MSMHM-1.3.5.5	spur gear	Z=49
25	1	T-MSMHM-1.3.5.14	Knife	
26	1	T-MSMHM-1.3.1.8	Cover	
27	1	CIV-M10x1,5x25-8.8	bolt, allen-hd	CIV-M10x1,5x25-8.8 DIN 931
28	1	T-MSMHM-1.3.1.5	Cover	
29	2	CIV-M10x1,5x45-8.8	Bolt, hex-hd	CIV-M10x1,5x45-8.8 DIN 931
29	2	SOMFIB-AKS-M10x1,5	hex, nut	SOMFIB-AKS-M10x1,5 DIN 934
30	1	CIV-M10x1,5x45-8.8	bolt, allen-hd	CIV-M10x1,5x45-8.8 DIN 931

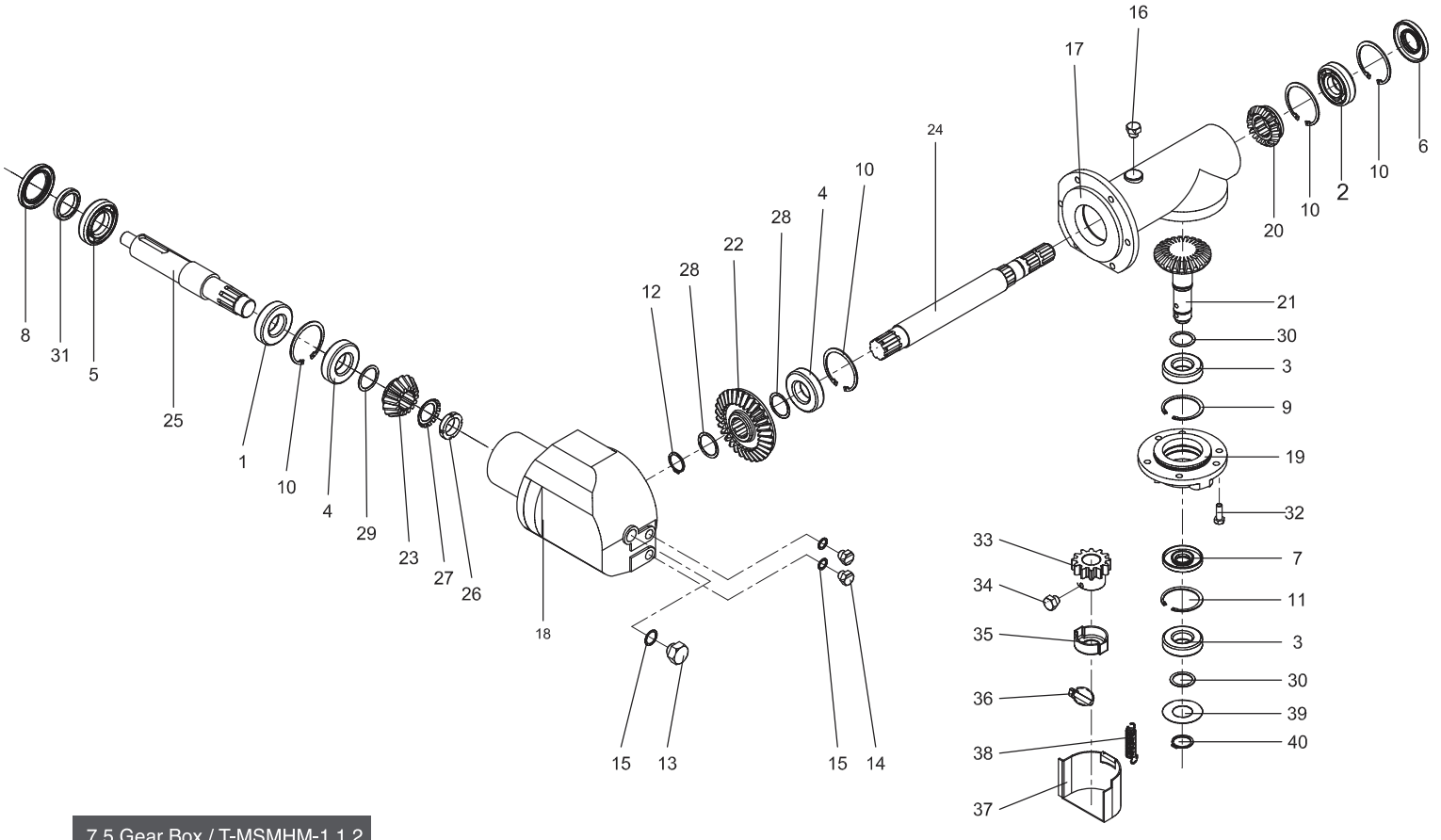


7.4 Gear Box / T-MSMHM-1.3.2

SPARE PARTS LIST

7.4 Gear Box / T-MSMHM-1.3.2

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM-1.1.2.1	gear box	
02	2	SEG-DIN472Ø72x2,5-CK75	Retainer	SEG-DIN472Ø72x2,5-CK75
03	2	SEG-DIN472Ø80x2,5-CK75	Retainer	SEG-DIN472Ø80x2,5-CK75
04	1	SEG-DIN471Ø40x1,75-CK75	Snap ring	SEG-DIN471Ø40x1,75-CK75
05	2	RUL-30207 NSK	Bearing	RUL-30207 NSK
06	1	RUL-30208 NSK	Bearing	RUL-30208 NSK
07	1	RUL-32208 NSK	Bearing	RUL-32208 NSK
08	2	KEÇE-YAG-35x72x10 AS	Seal , oil	KEÇE-YAG-35x72x10 AS
09	1	KEÇE-YAG-40x80x10 AS	Seal , oil	KEÇE-YAG-40x80x10 AS
10	1	TAPA-M16x2	screw plug	TAPA-M16x2
11	1	TAPA-M16x2	screw plug	TAPA-M16x2
12	1	TAPA-M16x2	oil level gauge	TAPA-M16x2
13	1	CON-BAK-16X22X1	Seal	M16 için Ø16xØ22x1
14	1	T-MSMHM-1.1.2.24	Flange	
15	1	T-MSMHM-1.1.2.3	Bevel gear	Z=25
16	1	T-MSMHM-1.1.2.14	Shaft	Z=18
17	1	T-MSMHM-1.1.2.2	Drive shaft	
18	2	SIM-50X72X1	Spacer	Ø50xØ72x1
19	5	CIV-M12x1,75x35-8.8	Bolt,hex-hd	CIV-M12x1,75x35-8.8 DIN 931
20	4	CIV-M16x2x30-8.8	Bolt,hex-hd	CIV-M16x2x30-8.8 DIN 931
20	4	RON-YAY-M16	Washer,lock	RON-YAY-M16
21	1	T-MSMHM-1.1.2.35	Guard	
22	2	CIV-M16x2x20-8.8	Bolt,hex-hd	CIV-M16x2x20-8.8 DIN 931
23	1	T-MSMHM-1.1.7	Funnel,quard	
24	3	CIV-M10x1,5x16-8.8	Bolt,hex-hd	CIV-M10x1,5x16-8,8 DIN 931

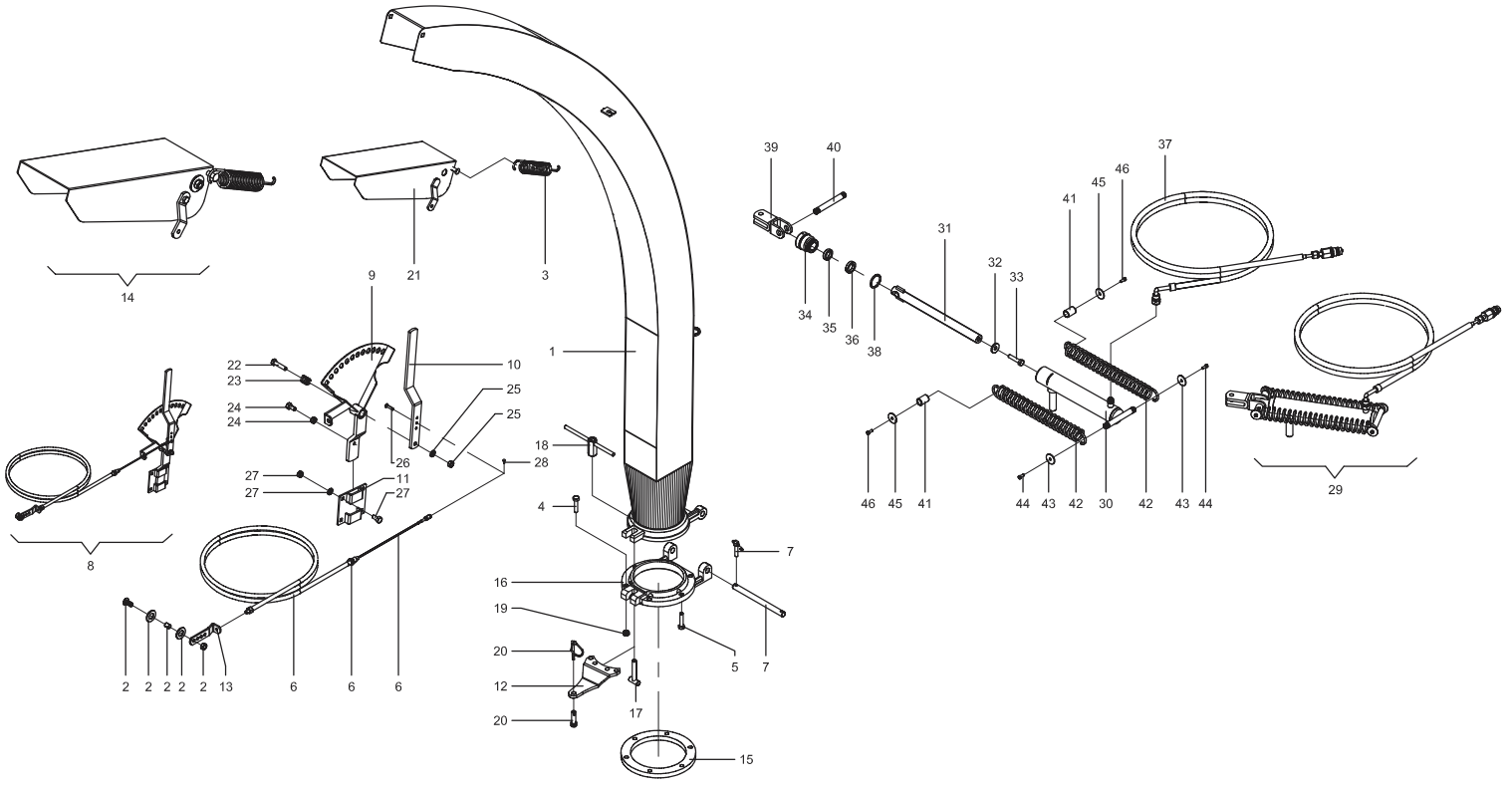


7.5 Gear Box / T-MSMHM-1.1.2

SPARE PARTS LİST

7.5 Gear Box / T-MSMHM-1.1.2

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	RUL-30208 URB	Bearing	RUL-30208 URB
02	1	RUL-6307 ORS	Bearing	RUL-6307 ORS
03	1	RUL-30207 NSK	Bearing	RUL-30207 NSK
04	2	RUL-30208 NSK	Bearing	RUL-30208 NSK
05	1	RUL-6209 DDU C3 NSK	Bearing	RUL-6209 DDU C3 NSK
06	1	KEÇE-YAG-35x80x10 AS	Seal, oil	KEÇE-YAG-35x80x10 AS
07	1	KEÇE-YAG-35x72x10 AS	Seal, oil	KEÇE-YAG-35x72x10 AS
08	1	KEÇE-YAG-60x85x8 AS	Seal, oil	KEÇE-YAG-60x85x8 AS
09	2	SEG-DIN472Ø72x2,5-CK75	Retainer	SEG-DIN472Ø72x2,5-CK75
10	5	SEG-DIN472Ø80x2,5-CK75	Retainer	SEG-DIN472Ø80x2,5-CK75
11	1	SEG-DIN471Ø35x1,5-CK75	Retainer	SEG-DIN471Ø35x1,5-CK75
12	1	SEG-DIN471Ø35x1,5-CK75	Snap ring	SEG-DIN471Ø35x1,5-CK75
13	1	TAPA-24x1.5	Screw plug	TAPA-24x1.5
14	2	TAPA-18x1.5	Screw plug	TAPA-18x1.5
15	3	CON-BAK-18	Seal	M18
16	3	TAPA-18x1.5	Plug, breather	TAPA-18x1.5
17	1	T-MSMHM-1.3.2.2.1	Housing upper	
18	1	T-MSMHM-1.3.2.1.1	Housing lower	
19	1	T-MSMHM-1.3.2.2.14	Flange	
20	1	T-MSMHM-1.3.2.2.9	Bevel gear	
21	1	T-MSMHM-1.3.2.2.18	Shaft pinion	Z=18
22	1	T-MSMHM-1.3.2.2.6	gear bevel	
23	1	T-MSMHM-1.3.2.1.7	gear bevel	Z=16
24	1	T-MSMHM-1.3.2.2.2	drive shaft	
25	1	T-MSMHM-1.3.2.1.2	drive shaft	
26	1	SOM-TAC-M35-8.8	nut, grooved	SOM-TAC-M35-8.8 DIN 934
27	1	RON-EMN-35	clip, locking	Ø35
28	2	SIM-40x50x0.5	spacer	SIM-40x50x0.5
29	1	SIM-40x50x1.2	spacer	SIM-40x50x1.2
30	1	SIM-35X45X1.5	spacer	SIM-35X45X1.5
31	1	SIM-35X45X1.5	Spacer	SIM-35X45X1.5
32	12	CIV-IMB-M10x1,5x30-8.8	bolt, allen-hd	CIV-IMB-M10x1,5x30-8.8 DIN 912
33	1	T-MSMHM-1.3.2.2.25	spur gear	
34	2	T-MSMHM-1.3.2.2.26	pin shear	Ø5
35	1	T-MSMHM-1.3.2.2.27	cover, bearing	
36	1	PIM-MAŞ-ARM Ø6x40	Lynch pin	PIM-MAŞ-ARM Ø6x40
37	1	T-MSMHM-1.3.3	cover	
38	1	T-MSMHM-1.3.29	spring tension	
39	1	SIM-36x80x1	spacer	SIM-36x80x1
40	1	SEG-DIN471Ø35x1,5-CK75	snap ring	SEG-DIN471Ø35x1,5-CK75



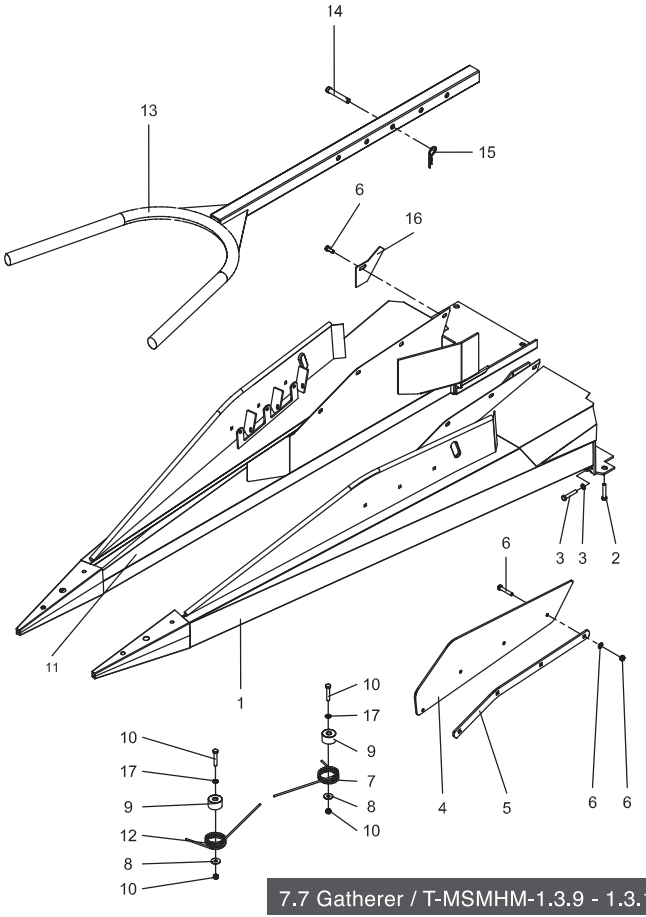
7.6 Crop Chute / T-MSMHM-1.4

SPARE PARTS LIST

7.6 Crop Chute / T-MSMHM-1.4

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM-1.4.12	Crop chute	
02	2	CIV-BOM- M10x1,5x25-8.8	Screw, saucer	CIV-BOM- M10x1,5x25-8.8 DIN931
02	2	T-MSMHM-1.4.17.3	Bushing	
02	2	RON-YAY-M10	Washer, lock	RON-YAY-M10
02	2	SOMFIB-AKS-M10x1,5	Hex. nut	SOMFIB-AKS-M10x1,5 DIN934
03	1	T-MSMHM-1.4.17.6	Tension, spring	
04	4	SOMFIB-AKS-M10x1,5	Bolt, hex-hd	SOMFIB-AKS-M10x1,5 DIN931
05	2	CIV-M10x1,5x55-8.8	Bolt, hex-hd	CIV-M10x1,5x55-8.8 DIN931
06	1	T-MSMHM-1.4.18.9.1	Cable assy	4500mm
06	1	T-MSMHM-1.4.18.9.2	Cable assy	5200mm
06	1	T-MSMHM-1.4.18.9.3	Cable assy	5900mm
07	1	T-MSMHM-1.4.13	Pin	Ø12x193mm
08	1 Tk.	T-MSMHM-1.4.18	Hat chimney command adjasment arm	
09	1	T-MSMHM-1.4.18.2	Holder	
10	1	T-MSMHM-1.4.18.5	lever assy	
11	1	T-MSMHM-1.4.18.1	bracket assy	
12	1	T-MSMHM-1.4.5.18	Plate	
13	1	T-MSMHM-1.4.18.12	link, flap control	
14	1	T-MSMHM-1.4.17	flap,crop chute	
15	1	T-MSMHM-1.4.2	Flange	
16	1	T-MSMHM-1.4.3		
17	1	T-MSMHM-1.4.15	Bolt	
18	1	T-MSMHM-1.4.16	Nut	
19	6	SOM-FIB-M10x1.5	hex.nut	M10x1.5 DIN 934
20	1	T-MSMHM-1.4.5.19	Pin	Ø5x30
20	1	PIM-MAŞ-ARM Ø4	Cotter Pin	PIM-MAŞ-ARM Ø4
21	1	T-MSMHM-1.4.17.1	Hat	
22	1	CIV-M10x1,5x45-8.8	Bolt, hex-hd	CIV-M10x1,5x45-8.8 DIN931

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
23	1	T-MSMHM-1.4.18.16	Pressure spring	
24	1	CIV-M10x1,5x20-8.8	Bolt, hex-hd	CIV-M10x1,5x20-8.8 DIN931
24	1	SOMFIB-AKS-M10x1,5	hex.nut	SOMFIB-AKS-M10x1,5 DIN934
25	1	RON-DUZ-M10	Washer	RON-DUZ-M10
25	1	SOMFIB-AKS-M10x1,5	hex.nut	SOMFIB-AKS-M10x1,5 DIN931
26	1	TMSMHM-1.4.18.10	Pin	Ø6x25
27	4	CIV-M8x1,25x35x25-8.8	Bolt, hex-hd	CIV-M8x1,25x35x25-8.8 DIN931
27	4	RON-DUZ-M8	Washer	RON-DUZ-M8
28	1	T-MSMHM-1.4.18.11	clip, cotte	2x25
29	1	T-MSMHM-1.4.5	Chimney turning part	
30	1	T-MSMHM-1.4.5.1	Hydraulic Clyinder	
31	1	T-MSMHM-1.4.5.2	Piston	Ø25x500
32	1	RON-DUZ-M10	Washer	RON-DUZ-M10
33	1	CIV-M10x1,5x30 8.8	Bolt, hex-hd	CIV-M10x1,5x30 8.8 DIN931
34	1	T-MSMHM-1.4.5.5	Bushing	
35	1	KEÇE-TOZ-25x33x5/7	Dust felt	KEÇE-TOZ-25x33x5/7
36	1	KEÇE-YAG-25x35x7 AS	Yağ Keçesi	KEÇE-YAG-25x35x7 AS
37	1	HORT-HID	Hidrolik Hortum	½ R2 240cm Kaplinli Rekorlu Hortum
38	2	O-RING-35X40X3		35X40X3
39	1	T-MSMHM-1.4.5.10		
40	1	T-MSMHM-1.4.5.11	Pin	
41	2	T-MSMHM-1.4.5.12	Bushing	
42	2	T-MSMHM-1.4.5.13		
43	2	RON-DUZ-M6	Washer	RON-DUZ-M6
44	2	CIV-M6x1x20-8.8	Bolt, hex-hd	CIV-M6x1x20-8.8
45	2	RON-DUZ-M6	Washer	M6
46	2	CIV-M6x1x20-8.8	Bolt, hex-hd	CIV-M6x1x20-8.8

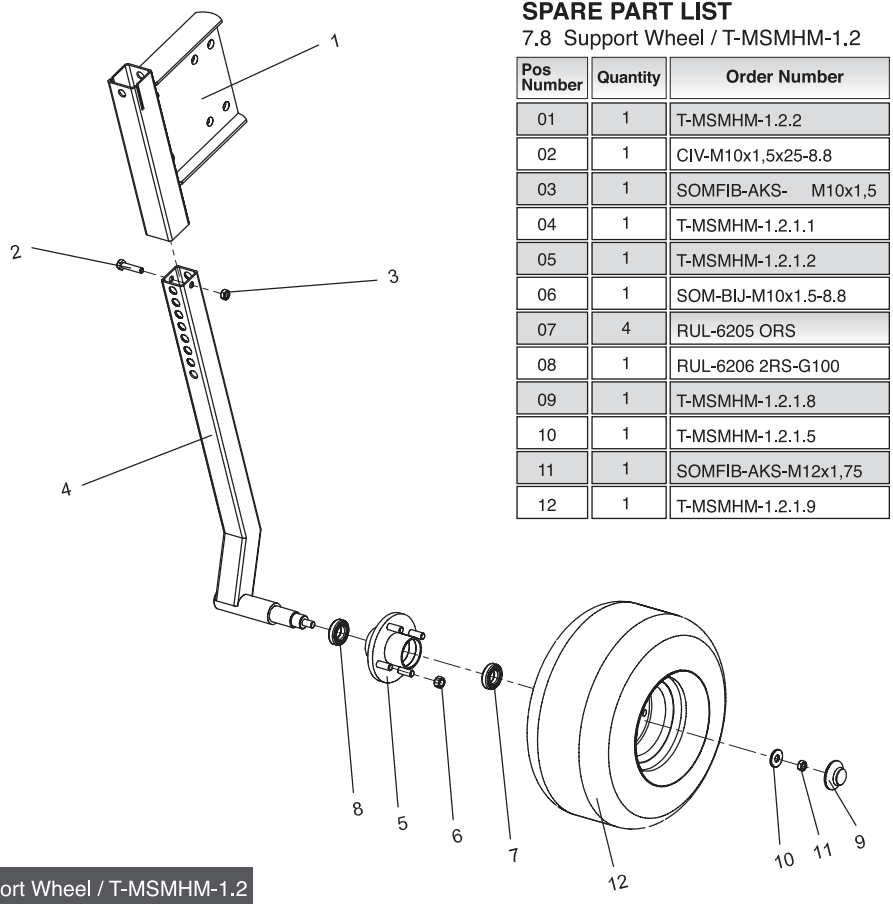


7.7 Gatherer / T-MSMHM-1.3.9 - 1.3.11

SPARE PARTS LIST

7.7 Gatherer / TMSMHM-1.3.9 - 1.3.11

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM-1.3.11.01	Gatherer	
02	2	CIV-M12x1,75x45-8.8	bolt, hex-hd	CIV-M12x1,75x45-8.8 DIN 931
03	8	RON-DUZ-M12	washer, lock	RON-DUZ-M12
03	8	CIV-M12x1,75x30-8.8	bolt, hex-hd	CIV-M12x1,75x30-8.8 DIN931
04	2	T-MSMHM-1.3.11.8	sliding rubber	105x417x5
05	2	T-MSMHM-1.3.11.9	Brace	365x25x5
06	8	CIV-M8x1,25x25-8.8	screw- saucer	CIV-M8x1,25x25-8.8 DIN 931
06	8	RON-DUZ-M8	Washer	RON-DUZ-M8
06	8	SOM-FIB-M8x1.25	hex, nut	M8x1.25 DIN934
07	3	T-MSMHM-1.3.11.4	Tine	
08	6	RON-DUZ-M8	washer	RON-DUZ-M8
09	6	T-MSMHM-1.3.11.3	Roller	
10	6	SOMFIB-AKS-M8x1,25	screw- saucer	SOMFIB-AKS-M8x1,25 DIN934
10	6	CIV-M8x1.25x50	gatherer	M8x1.25x50 DIN 931
11	1	T-MSMHM-1.3.9.01	gatherer	
12	3	T-MSMHM-1.3.9.4	tine	
13	1	T-MSMHM-1.4.21	arm	
14	1	T-MSMHM-1.4.22	pin	Ø12x70
15	1	GUP-3x45 DIN 94	clip, cotter	GUP-3x45 DIN 94
16	1	T-MSMHM-1.3.9.13	cover	
17	6	RON-DUZ-M8	washer	RON-DUZ-M8



SPARE PART LIST

7.8 Support Wheel / T-MSMHM-1.2

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM-1.2.2	Holder	
02	1	CIV-M10x1,5x25-8.8	Screw	CIV-M10x1,5x25-8.8 DIN 931
03	1	SOMFIB-AKS- M10x1,5	Nut	SOMFIB-AKS-M10x1,5
04	1	T-MSMHM-1.2.1.1	Holder	
05	1	T-MSMHM-1.2.1.2	wheel hub	
06	1	SOM-BIJ-M10x1.5-8.8	Pin	SOM-BIJ-M10x1.5-8.8
07	4	RUL-6205 ORS	Bearing	RUL-6205 ORS
08	1	RUL-6206 2RS-G100	Bearing	RUL-6206 2RS-G100
09	1	T-MSMHM-1.2.1.8	cover, bearing	
10	1	T-MSMHM-1.2.1.5	Washer	Ø34x13x5
11	1	SOMFIB-AKS-M12x1,75	hex. Nut	SOMFIB-AKS-M12x1,75DIN 934
12	1	T-MSMHM-1.2.1.9	wheel assy	

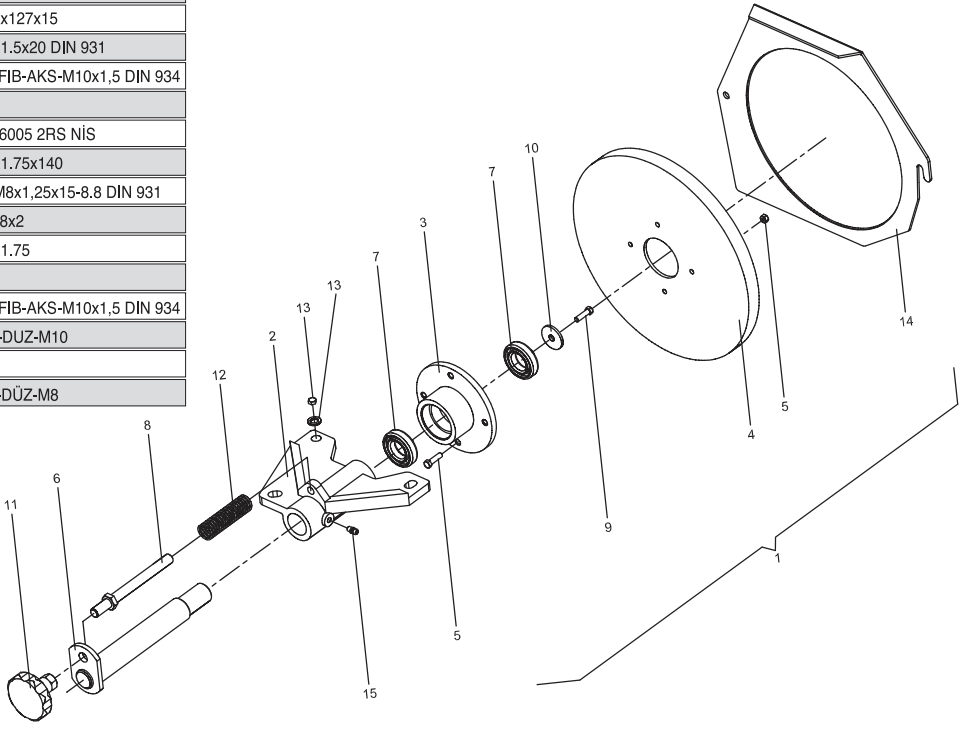
7.8 Support Wheel / T-MSMHM-1.2

SPARE PARTS LIST

7.9 Knife Sharpener / T-MSMHM-1.3.16

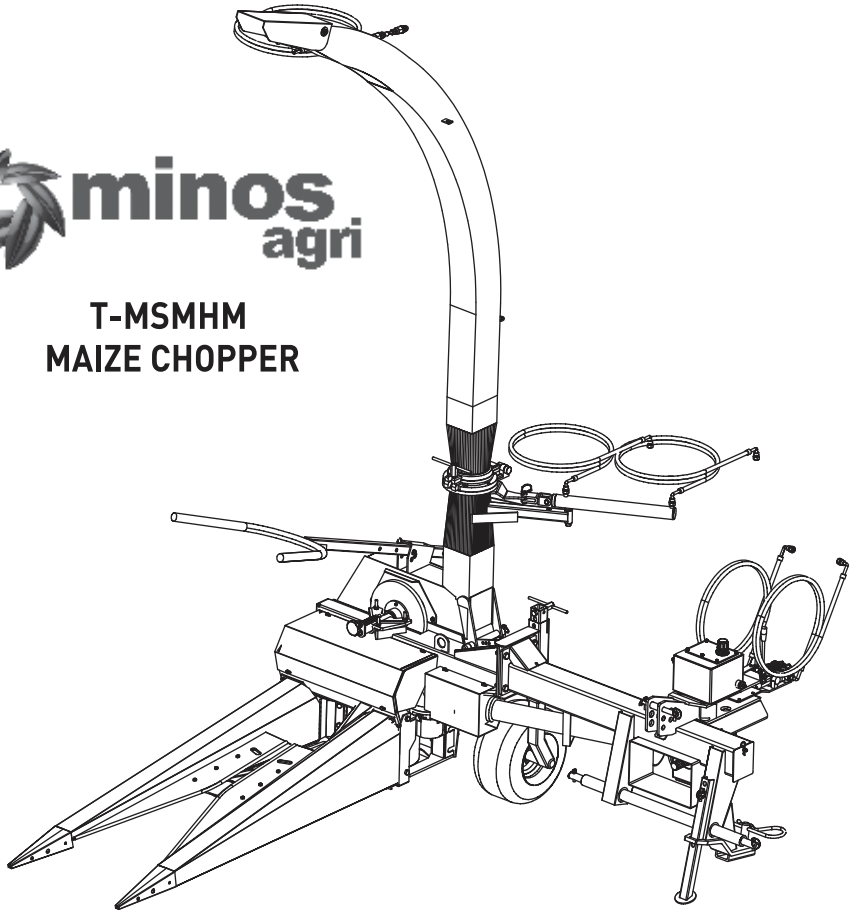
Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM-1.3.16	Knife sharpaner as.	
02	1	T-MSMHM-1.3.16.1	Bearing	
03	1	T-MSMHM-1.3.16.7	Hub	
04	1	T-MSMHM-1.3.16.12	Grinding wheel	Ø284x127x15
05	4	T-MSMHM-1.3.16.13	bolt,hex-hd	M10x1.5x20 DIN 931
05	4	SOMFIB-AKS-M10x1,5	hex, nut	SOMFIB-AKS-M10x1,5 DIN 934
06	1	T-MSMHM-1.3.16.2	Shaft	
07	2	RUL-6005 2RS NİS	Bearing	RUL-6005 2RS NİS
08	1	SAP-M12x1.75x140	pin, threaded	M12x1.75x140
09	1	CIV-M8x1,25x15-8.8	Bolt	CIV-M8x1,25x15-8.8 DIN 931
10	1	T-MSMHM-1.3.16.10	Washer	Ø9x38x2
11	1	TUT-PLAS-M12x1.75	star grip	M12x1.75
12	1	T-MSMHM-1.3.16.4	pressure spring	
13	3	SOMFIB-AKS-M10x1,5	hex, nut	SOMFIB-AKS-M10x1,5 DIN 934
13	3	RON-DUZ-M10	Washer	RON-DUZ-M10
14	1	T-MSMHM-1.4.7	Washer	
15	1	GRE-DÜZ-M8	Grease fitting	GRE-DÜZ-M8

7.9 Knife Sharpener / T-MSMHM-1.3.16

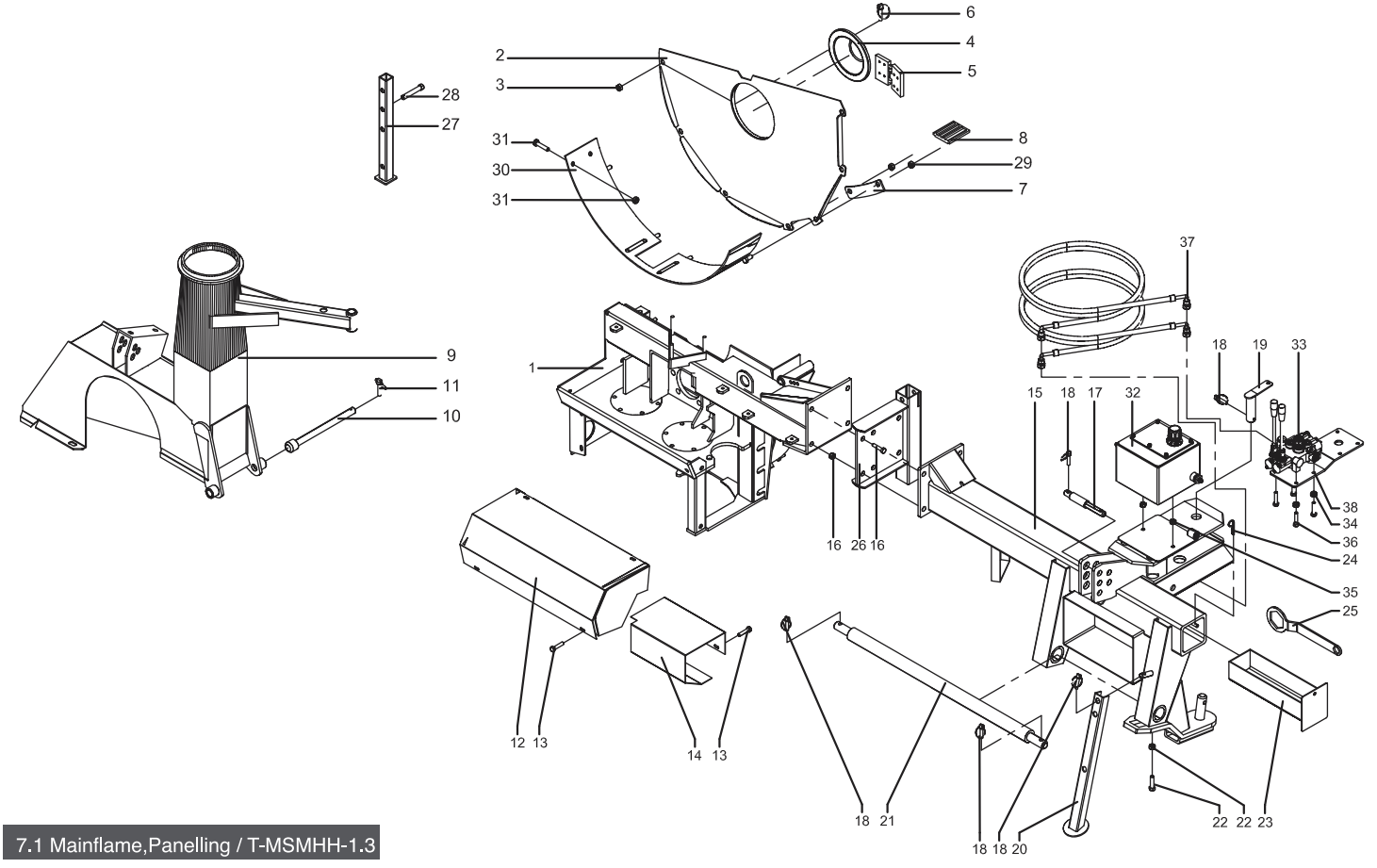


minos agri

T-MSMHM
MAIZE CHOPPER



T-MSMHH (Hydraulic) / SPARE PARTS LIST

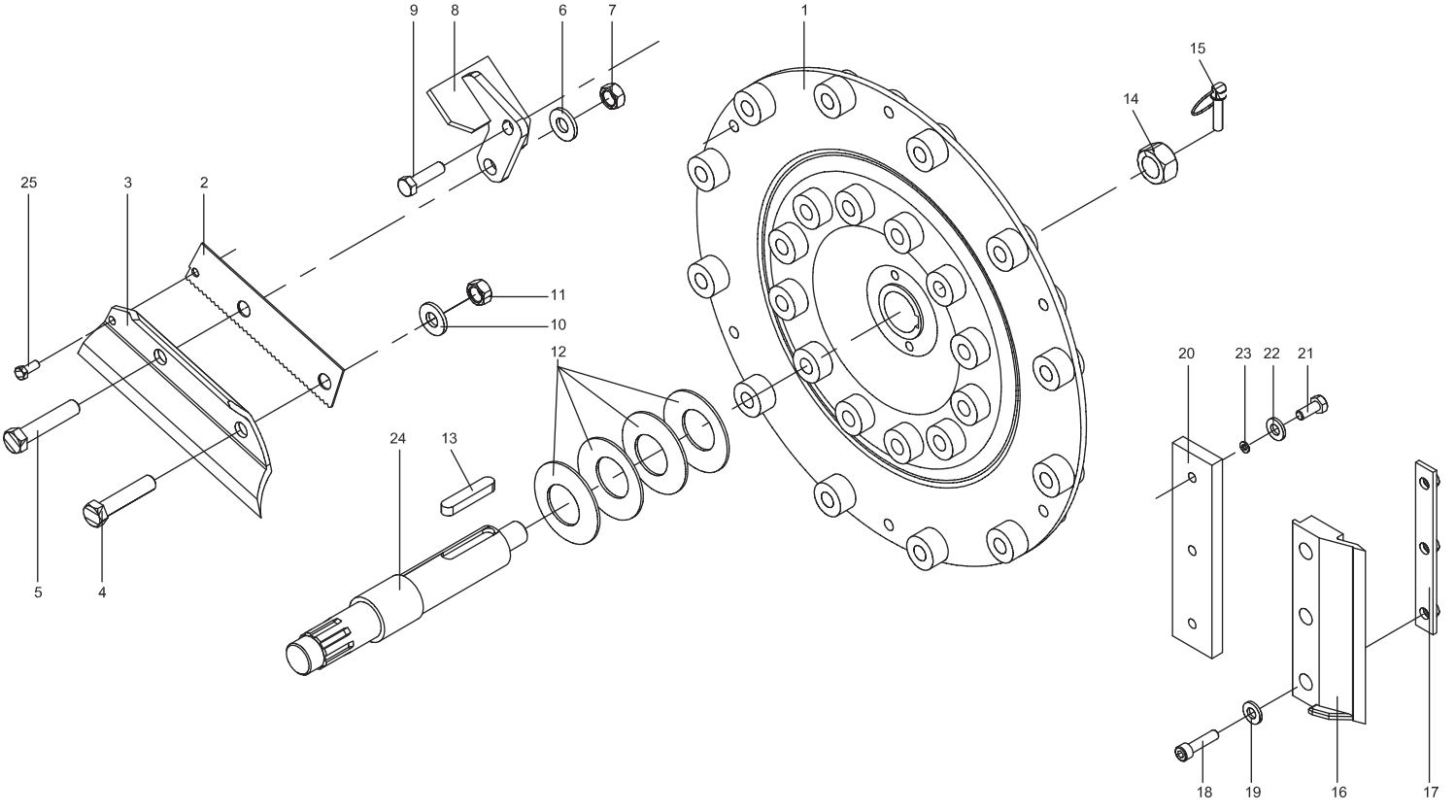


7.1 Mainflame,Panelling / T-MSMHH-1.3

SPARE PARTS LIST

7.1 Mainflame,Panelling / T-MSMHH-1.3

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM-1.3.1.1	Main frame	
02	1	T-MSMHM-1.3.7.01	cover	
03	7	SOMFIB-AKS-M10x1,5	Hex. nut	SOMFIB-AKS-M10x1,5 DIN 934
04	1	T-MSMHM-1.3.7.05	cover	
05	1	T-MSMHM-1.3.7.06	Finge	
06	1	T-MSMHM-1.3.7.04	lynch pin	
07	1	T-MSMHM-1.3.18	Bracked	
08	2	T-MSMHM-1.3.1.18	Shredder plate	
09	1	T-MSMHM-1.4.1	base,crop chute	
10	1	T-MSMHM-1.8	Pin	
11	1	PIM-MAŞ-ARM Ø6x30	lynch pin	PIM-MAŞ-ARM Ø6x30
12	1	T-MSMHM-1.3.13	cover	
13	7	CIV-M8x1,25x15-8.8	Bolt,hex-hd	CIV-M8x1,25x15-8.8 DIN 931
14	1	T-MSMHM-1.3.1.2	cover	
15	1	T-MSMHH-1.1.1.1	frame mtg.	
16	8	SOMFIB-AKS-M16x2	Hex. nut	SOMFIB-AKS-M16x2 DIN934
16	8	CIV-M16x2x50-8.8	Bolt,hex-hd	CIV-M16x2x50-8.8 DIN931
17	1	T-MSMHM-1.1.1.14	pin	
18	3	PIM-MAŞ-ARM Ø6x30	lynch pin	PIM-MAŞ-ARM Ø6x30
19	1	T-MSMHM-1.1.1.12	pin,trailer hit.	
20	1	T-MSMHM-1.1.1.02	prop,parking	
21	1	T-MSMHM-1.1.1.04	Shaft,carrier	
22	2	SOMFIB-AKS-M12x1,75	Hex. nut	SOMFIB-AKS-M12x1,75 DIN934
22	2	CIV-M12x1,75x35-8.8	Bolt,hex-hd	CIV-M12x1,75x35-8.8 DIN931
23	1	T-MSMHM-1.1.1.09	cover	
24	1	FIRKETE-MAŞ-Ø3	Wire Satety	FIRKETE-MAŞ-Ø3
25	1	T-MSMHM-AKS01	Triangle Key	
26	1	T-MSMHM-1.2.2	intermediate piece	
27	1	T-MSMHM-1.3.1.16	prop,parking	
28	1	T-MSMHM-1.3.1.17	Pin	
29	2	CIV-KEL-M10x1.5x40-8.8	wing,bolt	CIV-KEL-M10x1.5x40-8.8 DIN934
30	1	T-MSMHM-1.3.1.1.30	sheet,metal	
31	12	CIV-HAV-IMB-M8x1,25x25	bolt, rec-hd	CIV-HAV-IMB-M8x1,25x25 DIN 7991
31	12	SOMFIB-AKS-M8x1,25	Washer	SOMFIB-AKS-M8x1,25 DIN934
32	1	T-MSMHH-1.3.32	Depo Montajı	
33	1	T-MSMHH-1.3.33	Hidrolik Kontrol Valf	
34	2	SOMFIB-AKS-M8x1,25	Hex. nut	SOMFIB-AKS-M8x1,25 DIN934
35	2	SOMFIB-AKS-M10x1,5	Hex. nut	SOMFIB-AKS-M10x1,5 DIN934
36	2	CIV-M8x1,25x50-8.8	Bolt,hex-hd	CIV-M8x1,25x50-8.8DIN931
37	2	HORT-HID	Hidrolik Hortum	½ R2 240cm Kaplinli Rekorlu Hortum
38	1	T-MSMHH-1.3.38	Valf Bağlama Sacı	

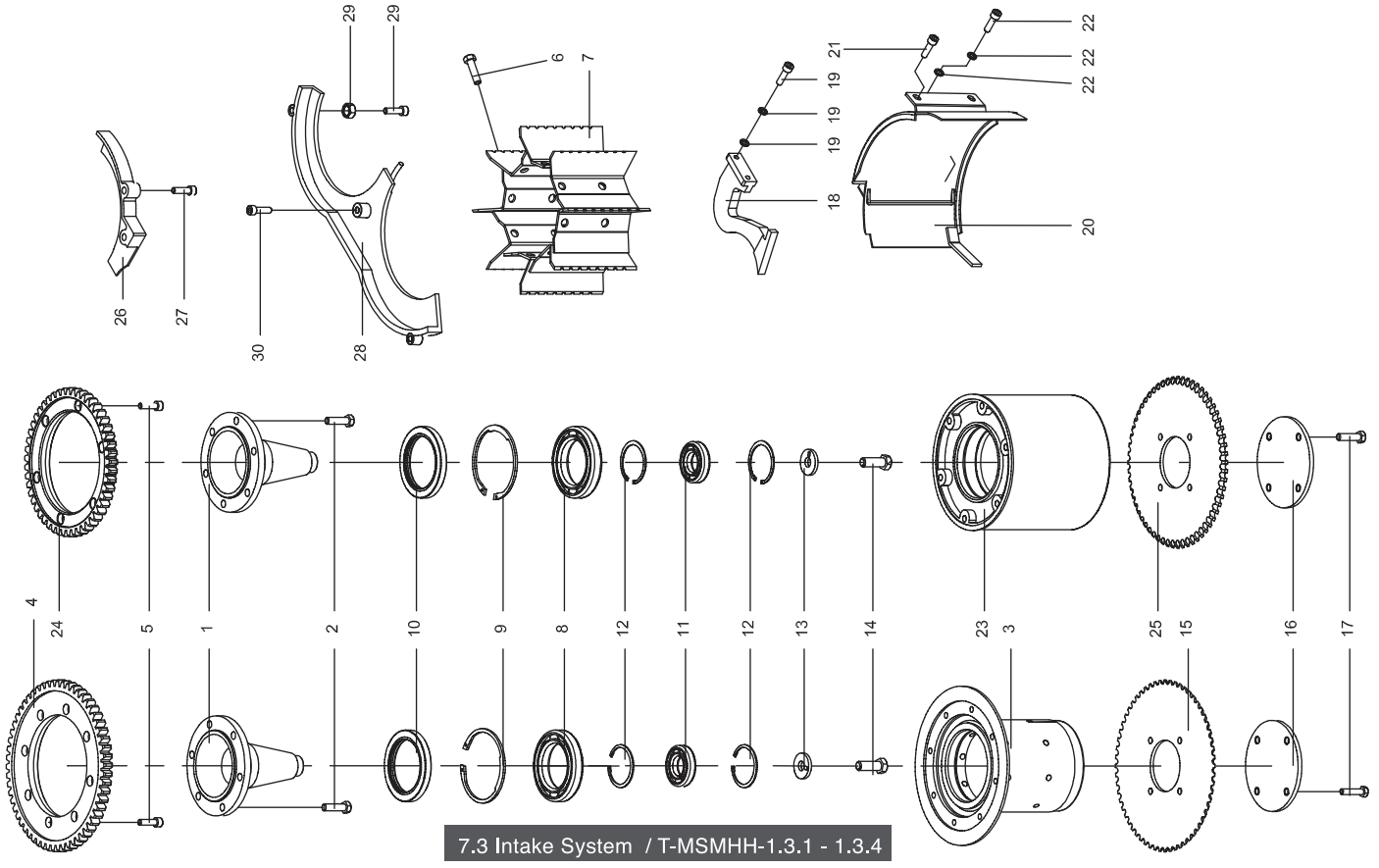


7.2 Cutting disk - T-MSMHH-1.3.6

SPARE PARTS LIST

7.2 Cutting disk / T-MSMHH -1.3.6

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM-1.3.6.1	Cutting Disk	
02	12	T-MSMHM-1.3.6.2	Strip,İmpact	
03	12	T-MSMHM -1.3.6.3	Knife	
04	18	CIV-M16x2x65x40-8.8	bolt, hex-hd	CIV-M16x2x65x40-8.8 DIN931
05	6	CIV-M16x2x75x40-8.8	bolt, hex-hd	CIV-M16x2x75x40-8.8 DIN931
06	24	T-MSMHM -1.3.6.9	washer	16.2x35x4
07	24	SOM-TAC-M16x2-8.8	safety nut	SOM-TAC-M16x2-8.8 DIN934
08	6	T-MSMHM -1.3.6.4	fan blade	
09	6	CIV-M12x1,75x40-8.8	bolt, hex-hd	CIV-M12x1,75x40-8.8 DIN931
10	6	RON-YAY-M12	washer, lock	RON-YAY-M12
11	6	SOM-FIB-M12x1.75	hex. Nut	M12x1.75 DIN931
12	4	T-MSMHM -1.3.2.1.13-14-15-16	spring	90x46x25
13	4	KAMA A14x9x69	key	KAMA A14x9x69
14	1	SOM-TAC-M24x1.5	nut, lock	SOM-TAC-M24x1.5 DIN 935
15	1	PIM-MAŞ-ARM Ø6	linch, pin	PIM-MAŞ-ARM Ø6
16	1	T-MSMHM -1.3.1.21	scraper	İthal 45 HRC
17	1	T-MSMHM -1.3.1.23	holder	
18	3	CIV-IMB-M10x1,5x40-8.8	bolt, allen-head	CIV-IMB-M10x1,5x40-8.8 DIN 912
19	3	RON-YAY-M10	washer, lock	RON-YAY-M10
20	1	T-MSMHM -1.3.1.1.27	brace	
21	3	CIV-M10x1,5x45-8.8	bolt, hex-hd	CIV-M10x1,5x45-8.8 DIN931
22	3	RON-YAY-M12	washer, lock	RON-YAY-M12
23	3	RON-DUZ-M10	Washer	M10 Ø13x28x3
24	1	T-MSMHM -1.3.2.1.2	drive shaft	
25	12	CIV-M8x1,25x20-8.8	bolt, hex-hd	CIV-M8x1,25x20-8.8 DIN 931



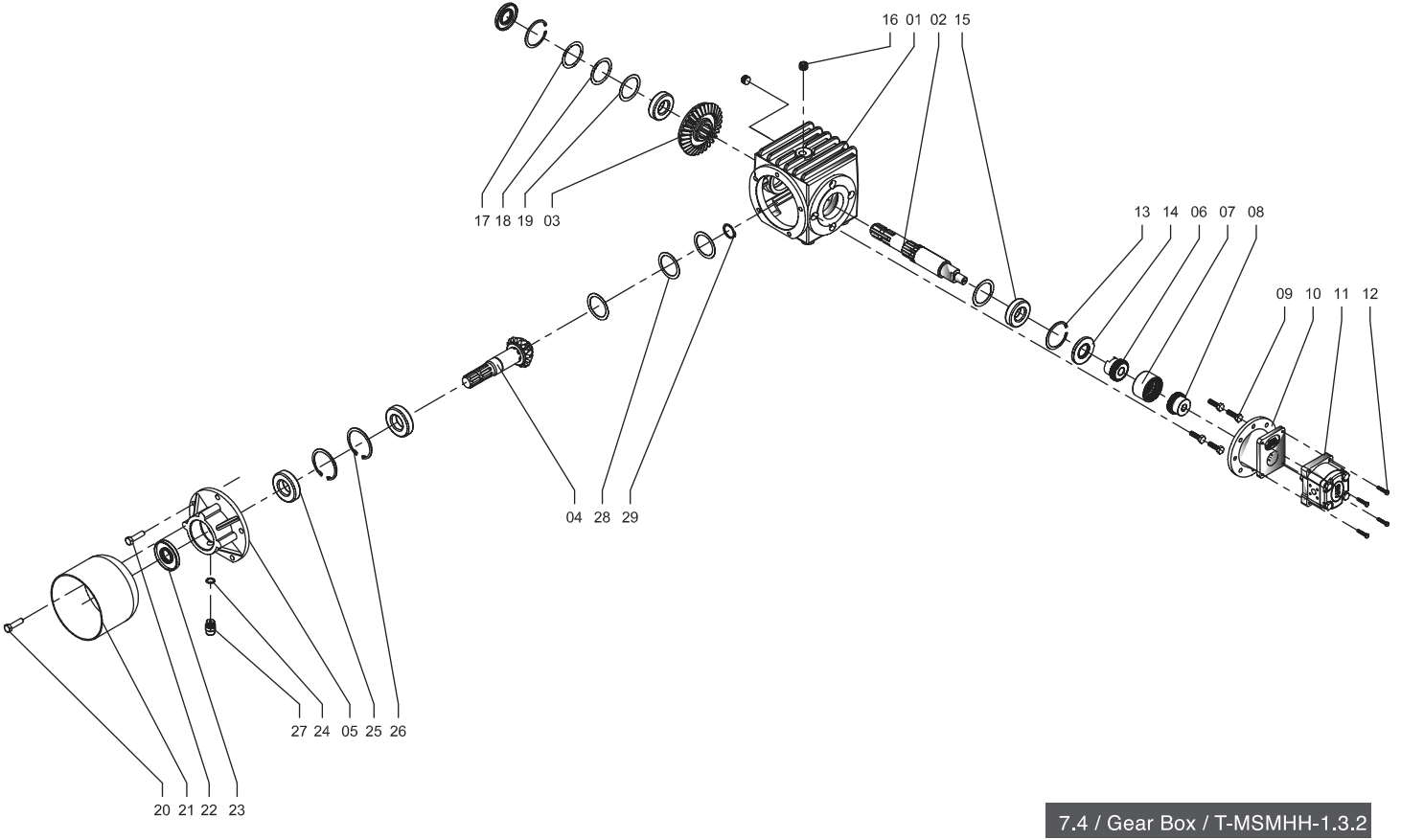
7.3 Intake System / T-MSMHH-1.3.1 - 1.3.4

SPARE PARTS LIST

7.3 Intake System / T-MSMHH-1.3.1 - 1.3.4

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	2	T-MSMHM-1.3.4.11	Flange	
02	12	CIV-M12x1,75x35-8.8	Bolt, hex-hd	CIV-M12x1,75x35-8.8 DIN 931
03	1	T-MSMHM -1.3.4.1	roll, upper intake	
04	1	T-MSMHM -1.3.4.5	spur gear	Z=58
05	14	CIV-M10x1,5x30 8.8	bolt, allen-hd	CIV-M10x1,5x30 8.8 DIN 931
06	8	CIV-M12x1,75x20-8.8	Bolt, hex-hd	CIV-M12x1,75x20-8.8 DIN 931
07	1Tk	T-MSMHM -1.3.4.14	Tube	
08	2	RUL-16016 FAG	bearing	RUL-16016 FAG
09	2	SEG-DIN472Ø125x4-CK75	Retainer	SEG-DIN472Ø125x4-CK75
10	2	KEÇE-YAG-95x125x13 A	Seal	KEÇE-YAG-95x125x13 A
11	2	RUL-6207 2RS	Bearing	RUL-6207 2RS
12	4	SEG-DIN472Ø72x2,5-CK75	Retainer	SEG-DIN472Ø72x2,5-CK75
13	2	T-MSMHM -1.3.4.12	washer, lock	
14	2	CIV-M16x2x45-8.8	Bolt, hex-hd	CIV-M16x2x45-8.8 DIN 931
15	1	T-MSMHM -1.3.4.16	Knife	

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
16	2	T-MSMHM -1.3.4.17	Cover	
17	8	CIV-M10x1.5x30	Bolt, hex-hd	M10x1.5x30 DIN 931
18	1	T-MSMHM -1.3.1.13	Scraper	
19	2	RON-YAY-M10	washer, lock	RON-YAY-M10
19	2	RON-DUZ-M10	Washer	RON-DUZ-M10
19	2	CIV-M10x1,5x25-8.8	Bolt, hex-hd	CIV-M10x1,5x25-8.8 DIN 931
20	1	T-MSMHM -1.3.1.10	Guard	
21	1	CIV-M10x1,5x20-8.8	Bolt, hex-hd	CIV-M10x1,5x20-8.8 DIN 931
22	3	CIV-M10x1,5x35-8.8	Bolt, hex-hd	CIV-M10x1,5x35-8.8 DIN 931
22	5	RON-DUZ-M10	Washer	RON-DUZ-M10
22	4	RON-DUZ-M10	Washer	RON-DUZ-M10
23	1	T-MSMHM -1.3.5.1	roll, plain	
24	1	T-MSMHM -1.3.5.5	spur gear	Z=49
25	1	T-MSMHM -1.3.5.14	Knife	
26	1	T-MSMHM -1.3.1.8	Cover	
27	1	CIV-M10x1,5x25-8.8	bolt, allen-hd	CIV-M10x1,5x25-8.8 DIN 931
28	1	T-MSMHM -1.3.1.5	Cover	
29	2	CIV-M10x1,5x45-8.8	Bolt, hex-hd	CIV-M10x1,5x45-8.8 DIN 931
29	2	SOMFIB-AKS-M10x1,5	hex, nut	SOMFIB-AKS-M10x1,5 DIN 934
30	1	CIV-M10x1,5x45-8.8	bolt, allen-hd	CIV-M10x1,5x45-8.8 DIN 931



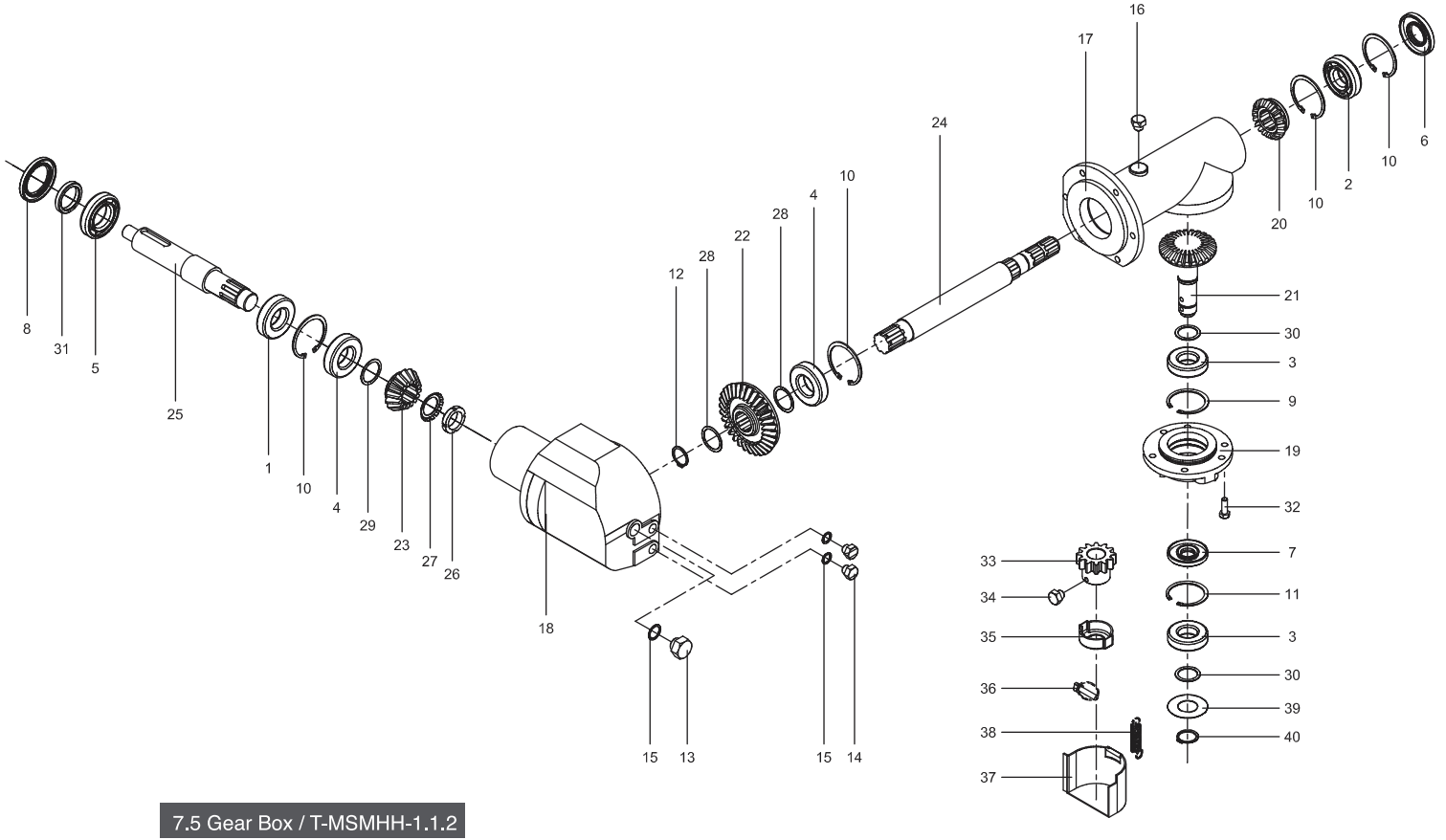
7.4 / Gear Box / T-MSMHH-1.3.2

SPARE PARTS LIST

7.4 Gear Box / T-MSMHH-1.3.2

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHMA-1.1.2.1	gear box	
02	1	T-MSMHH-1.1.2.2	Drive shaft	
03	1	T-MSMHM-1.1.2.3	Bevel gear	Z=25
04	1	T-MSMHM-1.1.2.14	Shaft	Z=18
05	1	T-MSMHM-1.1.2.24	Flange	
06	1	T-MSMHMA-1.1.2.36	Kaplin 1	
07	1	T-MSMHMA-1.1.2.37	Kaplin Ara Yatak	
08	1	T-MSMHMA-1.1.2.38	Kaplin 2	
09	4	CIV-M10x1,5x30-8.8	Bolt,hex-hd	CIV-M10x1,5x30-8.8 DIN 933
10	1	T-MSMHMA-1.1.2.35	Kaplin Koruma Kapağı	
11	1	AHS Q C 4/50/B 1000 DEV/DK 4 CM3	Hidrolik Pompa	PARTİ NO:18 CV
12	4	CIV-M6x1x30-8.8	Bolt,hex-hd	CIV-M6x1x30-8.8DIN 933
13	2	SEG-DIN472Ø72x2,5-CK75	Retainer	SEG-DIN472Ø72x2,5-CK75
14	2	KEÇE-YAG-35x72x7 AS	Seal , oil	KEÇE-YAG-35x72x7 AS
15	2	RUL-30207 NSK	Bearing	RUL-30207 NSK

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
16	2	T-MKR1857Z-1.3.21	Seviye-Boşaltma Tapası	M20X1.5
17	2	SIM-58X72X1	Spacer	Ø58xØ72x1
18	2	SIM-58X72X0.50	Spacer	Ø58xØ72x0.50
19	2	SIM-58X72X0.20	Spacer	Ø58xØ72x0.20
20	3	CIV-M10x1.5x16-8.8	Bolt,hex-hd	CIV-M10x1.5x16-8.8 DIN 933
21	1	T-MSMHM-1.1.7	Funnel,quard	
22	5	CIV-M12x1,75x35-8.8	Bolt,hex-hd	CIV-M12x1,75x35-8.8 DIN 933
23	1	KEÇE-YAG-40x80x10 AS	Seal , oil	KEÇE-YAG-40x80x10 AS
24	1	CON-BAK-16X22X1	Seal	
25	2	RUL-32208 NSK	Bearing	RUL-32208 NSK
26	2	SEG-DIN472Ø80x2,5-CK75	Retainer	SEG-DIN472Ø80x2,5-CK75
27	1	TCSP150A-1.3.4	Havalandırma Tapası	M20X1.5
28	2	SIM-58X72X2	Spacer	Ø58xØ72x2
29	1	SEG-DIN471Ø40x1,75-CK75	Snap ring	SEG-DIN471Ø40x1,75-CK75

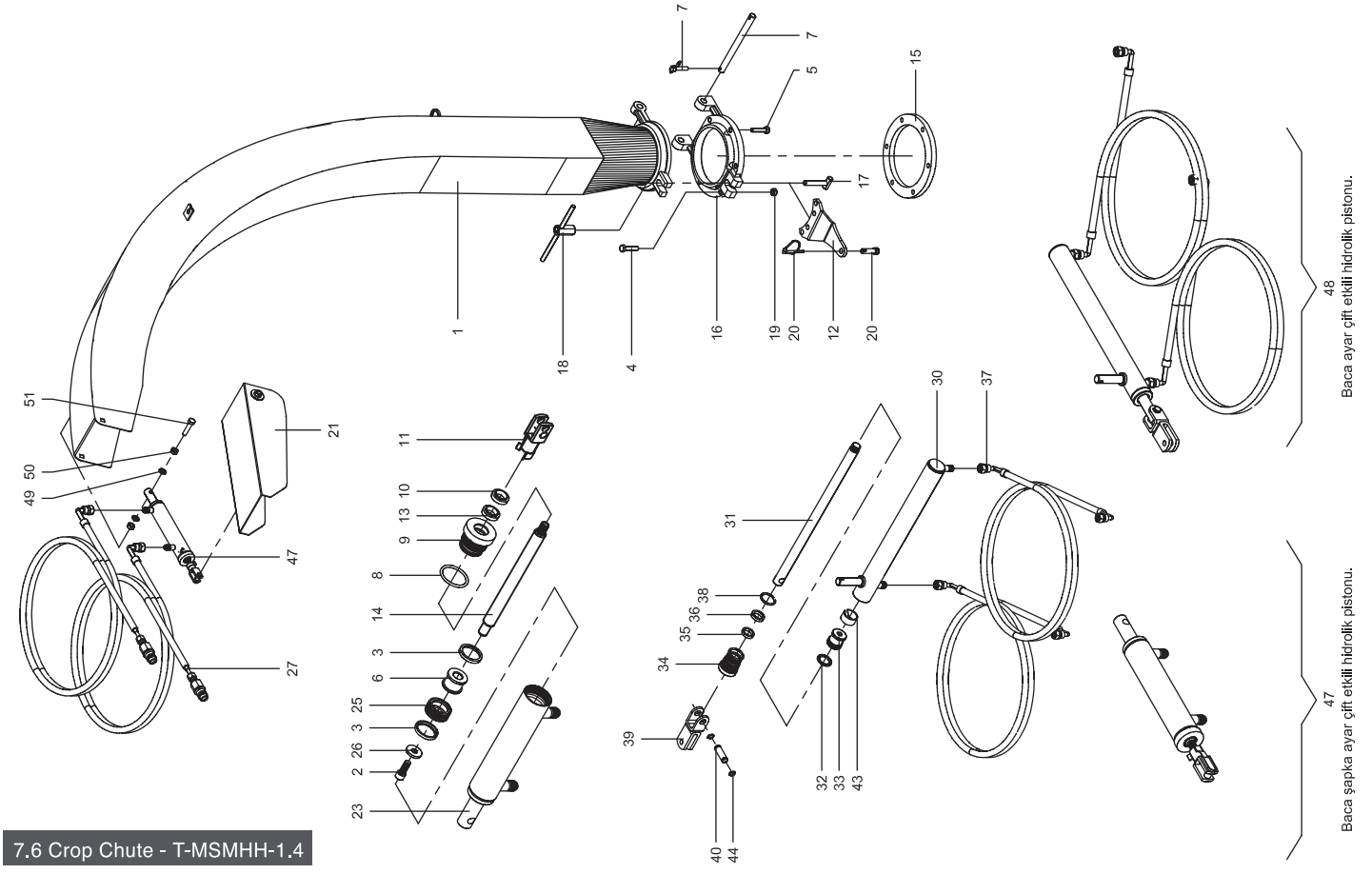


7.5 Gear Box / T-MSMHH-1.1.2

SPARE PARTS LIST

7.5 Gear Box / T-MSMHH-1.1.2

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	RUL-30208 URB	Bearing	RUL-30208 URB
02	1	RUL-6307 ORS	Bearing	RUL-6307 ORS
03	1	RUL-30207 NSK	Bearing	RUL-30207 NSK
04	2	RUL-30208 NSK	Bearing	RUL-30208 NSK
05	1	RUL-6209 DDU C3 NSK	Bearing	RUL-6209 DDU C3 NSK
06	1	KEÇE-YAG-35x80x10 AS	seal, oil	KEÇE-YAG-35x80x10 AS
07	1	KEÇE-YAG-35x72x10 AS	seal, oil	KEÇE-YAG-35x72x10 AS
08	1	KEÇE-YAG-60x85x8 AS	seal, oil	KEÇE-YAG-60x85x8 AS
09	2	SEG-DIN472Ø72x2,5-CK75	retainer	SEG-DIN472Ø72x2,5-CK75
10	5	SEG-DIN472Ø80x2,5-CK75	retainer	SEG-DIN472Ø80x2,5-CK75
11	1	SEG-DIN471Ø35x1,5-CK75	snap ring	SEG-DIN471Ø35x1,5-CK75
12	1	SEG-DIN471Ø35x1,5-CK75	snap ring	SEG-DIN471Ø35x1,5-CK75
13	1	TAPA-24x1.5	screw plug	TAPA-24x1.5
14	2	TAPA-18x1.5	screw plug	TAPA-18x1.5
15	3	CON-BAK-18	seal	M18
16	3	TAPA-18x1.5	plug, breather	TAPA-18x1.5
17	1	T-MSMHM -1.3.2.2.1	housing upper	
18	1	T-MSMHM -1.3.2.1.1	housing lower	
19	1	T-MSMHM -1.3.2.2.14	flange	
20	1	T-MSMHM -1.3.2.2.9	bevel gear	
21	1	T-MSMHM -1.3.2.2.18	shaft pinion	Z=18
22	1	T-MSMHM -1.3.2.2.6	gear bevel	
23	1	T-MSMHM -1.3.2.1.7	gear bevel	Z=16
24	1	T-MSMHM -1.3.2.2.2	drive shaft	
25	1	T-MSMHM -1.3.2.1.2	drive shaft	
26	1	SOM-TAC-M35-8.8	nut, grooved	SOM-TAC-M35-8.8 DIN 934
27	1	RON-EMN-35	clip, locking	Ø35
28	2	SIM-40x50x0.5	spacer	SIM-40x50x0.5
29	1	SIM-40x50x1.2	spacer	SIM-40x50x1.2
30	1	SIM-35X45X1.5	spacer	SIM-35X45X1.5
31	1	SIM-35X45X1.5	Spacer	SIM-35X45X1.5
32	12	CIV-IMB-M10x1,5x30-8.8	bolt, allen-hd	CIV-IMB-M10x1,5x30-8.8 DIN 912
33	1	T-MSMHM -1.3.2.2.25	spur gear	
34	2	T-MSMHM -1.3.2.2.26	pin shear	Ø5
35	1	T-MSMHM -1.3.2.2.27	cover, bearing	
36	1	PIM-MAŞ-ARM Ø6x40	Lynch pin	PIM-MAŞ-ARM Ø6x40
37	1	T-MSMHM -1.3.3	cover	
38	1	T-MSMHM -1.3.29	spring tension	
39	1	SIM-36x80x1	spacer	SIM-36x80x1
40	1	SEG-DIN471Ø35x1,5-CK75	snap ring	SEG-DIN471Ø35x1,5-CK75



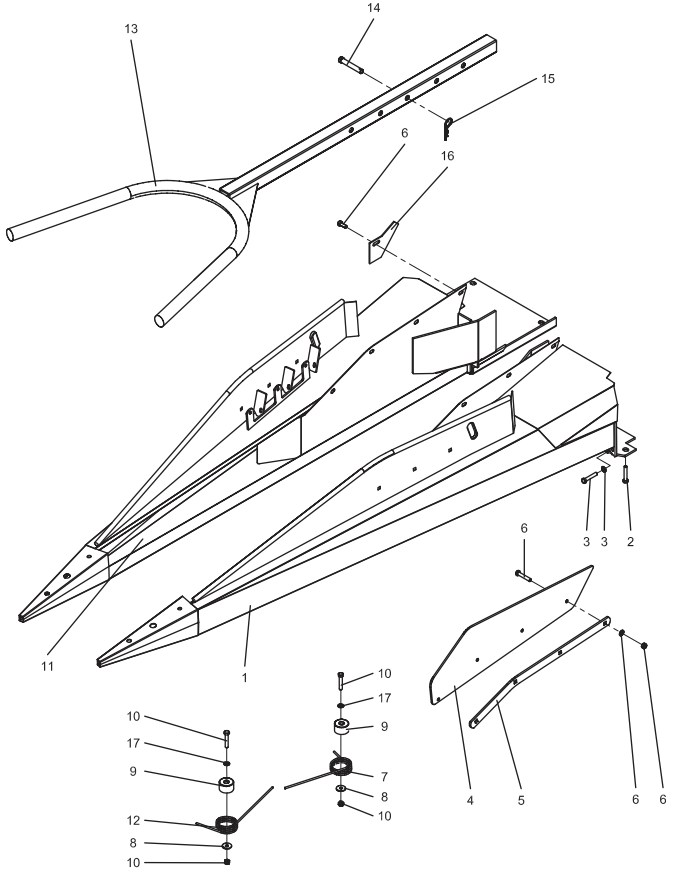
7.6 Crop Chute - T-MSMHH-1.4

SPARE PARTS LIST

7.6 Crop Chute / T-MSMHH-1.4

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM-1.4.12	Crop chute	
02	1	CIV-IMB-M8x1,25x25-8.8	İmbus Cıvata	CIV-IMB-M8x1,25x25-8.8 DIN 912
04	4	SOMFIB-AKS-M10x1,5	Bolt, hex-hd	SOMFIB-AKS-M10x1,5 DIN931
05	2	CIV-M10x1,5x55-8.8	Bolt, hex-hd	CIV-M10x1,5x55-8.8 DIN931
07	1	T-MSMHM-1.4.13	Pin	Ø12x193mm
06	1	T-MSMHH-1.4.47.3	Mil Piston Başlığı	
08	1	O-RING-30X3	O-Ring	O-RING-30X3 DIN 3771
09	1	T-MSMHH-1.4.47.4	Piston Yataklama Başlığı	
10	1	KEÇE-TOZ- 16x24x5/7	Dust felt	KEÇE-TOZ-16x24x5/7
11	1	T-MSMHH-1.4.47.5	Piston Şapka Ara Bağlantı Aparatı	
12	1	T-MSMHM-1.4.5.18	Plate	
13	1	KEÇE-YAĞ- 16x24x5/7	Yağ Keçesi	KEÇE-YAĞ-16x24x5/7
14	1	T-MSMHH-1.4.47.2	Çift Etkili Şapka Piston Mili	
15	1	T-MSMHM-1.4.2	Flange	
16	1	T-MSMHM-1.4.3	Üst Yataklama Flanşı	
17	1	T-MSMHM-1.4.15	Bolt	
18	1	T-MSMHM-1.4.16	Nut	
19	6	SOM-FIB-M10x1.5	hex.nut	SOM-FIB-M10x1.5 DIN 934
20	1	T-MSMHM-1.4.5.19	Pin	Ø5x30
20	1	PIM-MAŞ-ARM Ø4	Cotter Pin	PIM-MAŞ-ARM Ø4
21	1	T-MSMHH-1.4.17.1	Hat	
23	1	T-MSMHH-1.4.47.1	Piston Gövdesi	
24	1	SOMFIB-AKS-M10x1,5	hex.nut	SOMFIB-AKS-M10x1,5 DIN934
25	1	T-MSMHH-1.4.47.9	Özel Piston Keçesi	
26	1	RON-DÜZ-M8	Washer	RON-DÜZ-M8 DIN 125-A
27	2	HORT-HID	Hidrolik Hortum	½ R2 240cm Kaplinli Rekorlu Hortum
30	1	T-MSMHH-1.4.48.12	Piston Gövdesi	
31	1	T-MSMHH-1.4.48.8	Çift Tesirli Kromlu Piston Mili	

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
32	1	KEÇE-TEF-K17-40x29	Teflonlu Set Keçe	
33	1	T-HKR18508YT-1.1.25.08	Piston Başı	
34	1	T-MSM-1.4.5.5	Bushing	
35	1	KEÇE-TOZ-25x33x5/7	Dust felt	KEÇE-TOZ-25x33x5/7
36	1	KEÇE-YAG-25x35x7 AS	Yağ Keçesi	KEÇE-YAG-25x35x7 AS
37	2	HORT-HID	Hidrolik Hortum	½ R2 240cm Kaplinli Rekorlu Hortum
38	2	O-RING-35x3 DIN 3771	O-Ring	O-RING-35x3 DIN 3771
39	1	T-MSMHM-1.4.5.10	U Çatal	
40	1	T-MSMHH-1.4.48.2	Pim	
43	1	LAS-PIS-TEF-20x2,5	Keçe Yaprak	
44	2	SEG-DIN472Ø15x1-CK75	Retainer	SEG-DIN472Ø15x1-CK75
47	1	T-MSMHH-1.4.47	Şapka Pistonu Montajı	
48	1	T-MSMHH-1.4.48	Baca Hidrolik Kumanda Montajı	
49	2	RON-DUZ-M10	Washer	RON-DUZ-M10DIN 125-A
50	2	SOMFIB-AKS-M10x1,5	hex.nut	SOMFIB-AKS-M10x1,5 DIN931
51	1	CIV-M10x1,5x50 8.8	Bolt, hex-hd	CIV-M10x1,5x50 8.8 DIN931

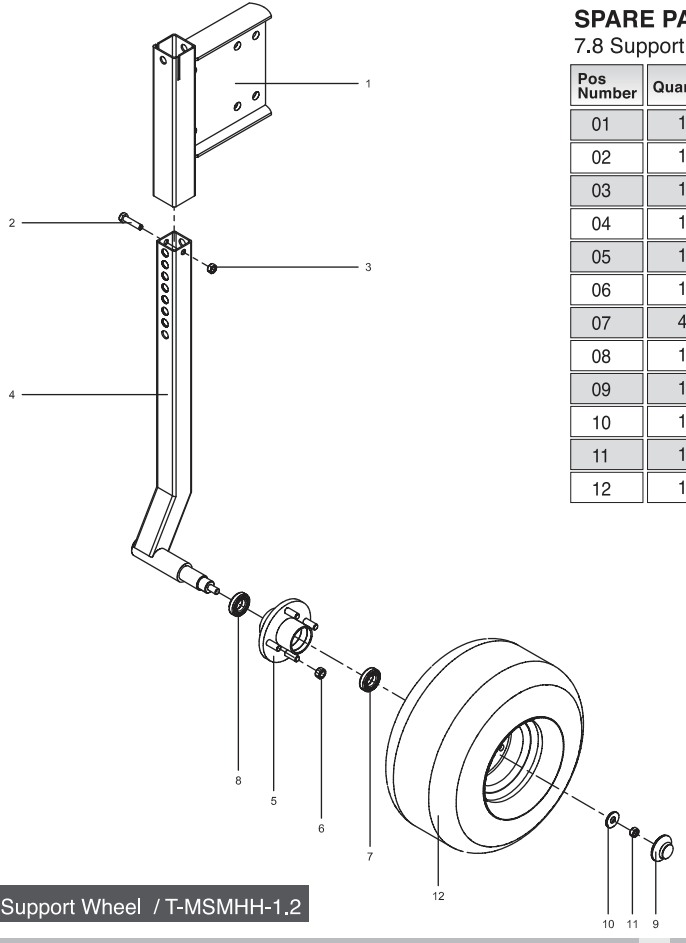


SPARE PARTS LIST

7.7 Gatherer / T-MSMHH-1.3.9 - 1.3.11

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM-1.3.11.01	Gatherer	
02	2	CIV-M12x1,75x45-8.8	bolt, hex-hd	CIV-M12x1,75x45-8.8 DIN 931
03	8	RON-DUZ-M12	washer, lock	RON-DUZ-M12
03	8	CIV-M12x1,75x30-8.8	bolt, hex-hd	CIV-M12x1,75x30-8.8 DIN931
04	2	T-MSMHM -1.3.11.8	sliding rubber	105x417x5
05	2	T-MSMHM -1.3.11.9	Brace	365x25x5
06	8	CIV-M8x1,25x25-8.8	screw- saucer	CIV-M8x1,25x25-8.8 DIN 931
06	8	RON-DUZ-M8	Washer	RON-DUZ-M8
06	8	SOM-FIB-M8x1.25	hex, nut	M8x1.25 DIN934
07	3	T-MSMHM -1.3.11.4	Tine	
08	6	RON-DUZ-M8	washer	RON-DUZ-M8
09	6	T-MSMHM -1.3.11.3	Roller	
10	6	SOMFIB-AKS-M8x1,25	screw- saucer	SOMFIB-AKS-M8x1,25 DIN934
10	6	CIV-M8x1.25x50	gatherer	M8x1.25x50 DIN 931
11	1	T-MSMHM -1.3.9.01	gatherer	
12	3	T-MSMHM -1.3.9.4	tine	
13	1	T-MSMHM -1.4.21	arm	
14	1	T-MSMHM -1.4.22	pin	Ø12x70
15	1	GUP-3x45 DIN 94	clip, cotter	GUP-3x45 DIN 94
16	1	T-MSMHM -1.3.9.13	cover	
17	6	RON-DUZ-M8	washer	RON-DUZ-M8

7.7 Gatherer - T-MSMHH-1.3.9-1.3.11



7.8 Support Wheel / T-MSMHH-1.2

SPARE PARTS LIST

7.8 Support Wheel / TMSMHH-1.2

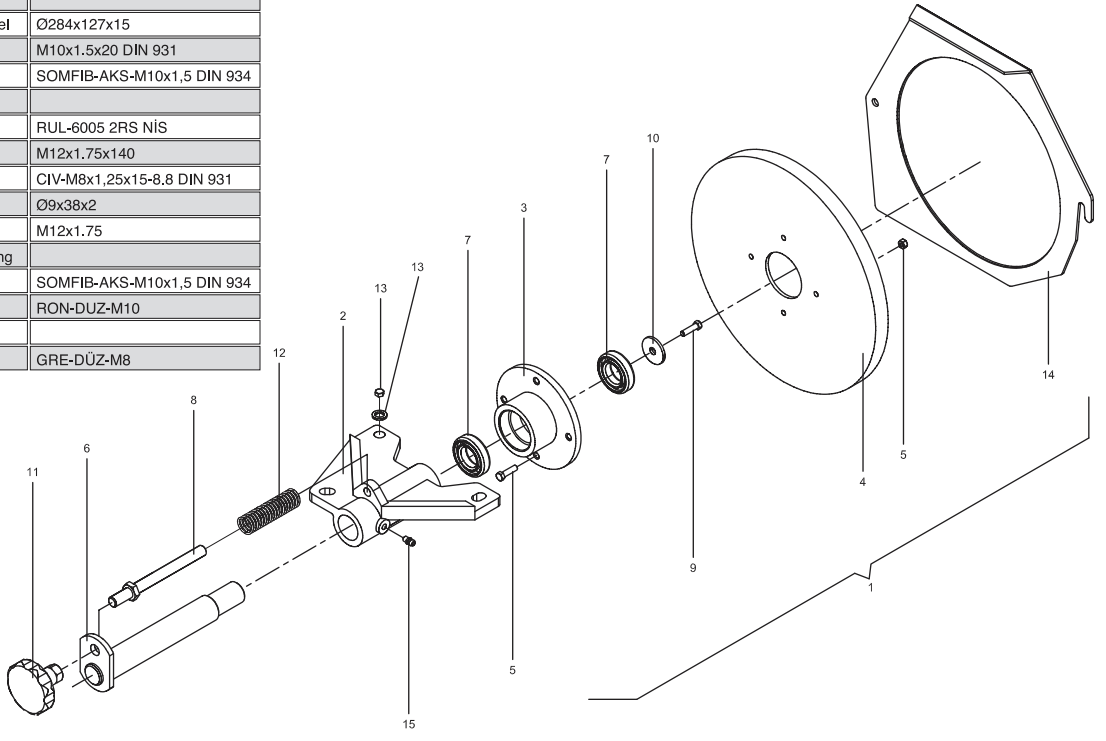
Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM -1.2.2	Holder	
02	1	CIV-M10x1,5x25-8.8	Screw	CIV-M10x1,5x25-8.8 DIN 931
03	1	SOMFIB-AKS - M10x1,5	Nut	SOMFIB-AKS-M10x1,5
04	1	T-MSMHM -1.2.1.1	Holder	
05	1	T-MSMHM -1.2.1.2	wheel hub	
06	1	SOM-BIJ-M10x1.5-8.8	Pin	SOM-BIJ-M10x1.5-8.8
07	4	RUL-6205	Bearing	RUL-6205 ORS
08	1	RUL-6206 2RS-G100	Bearing	RUL-6206 2RS-G100
09	1	T-MSMHM -1.2.1.8	cover, bearing	
10	1	T-MSMHM -1.2.1.5	Washer	Ø34x13x5
11	1	SOMFIB-AKS-M12x1,75	hex. Nut	SOMFIB-AKS-M12x1,75 DIN 934
12	1	T-MSMHM -1.2.1.9	wheel assy	

SPARE PARTS LIST

7.9 Knife Sharpener / T-MSMHH-1.3.16

Pos Number	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHM -1.3.16	Knife sharpaner as.	
02	1	T-MSMHM -1.3.16.1	Bearing	
03	1	T-MSMHM -1.3.16.7	Hub	
04	1	T-MSMHM -1.3.16.12	Grinding wheel	Ø284x127x15
05	4	T-MSMHM -1.3.16.13	bolt,hex-hd	M10x1.5x20 DIN 931
05	4	SOMFIB-AKS-M10x1,5	hex, nut	SOMFIB-AKS-M10x1,5 DIN 934
06	1	T-MSMHM -1.3.16.2	Shaft	
07	2	RUL-6005 2RS NİS	Bearing	RUL-6005 2RS NİS
08	1	SAP-M12x1.75x140	pin, threaded	M12x1.75x140
09	1	CIV-M8x1,25x15-8.8	Bolt	CIV-M8x1,25x15-8.8 DIN 931
10	1	T-MSMHM -1.3.16.10	Washer	Ø9x38x2
11	1	TUT-PLAS-M12x1.75	star grip	M12x1.75
12	1	T-MSMHM -1.3.16.4	pressure spring	
13	3	SOMFIB-AKS-M10x1,5	hex, nut	SOMFIB-AKS-M10x1,5 DIN 934
13	3	RON-DUZ-M10	Washer	RON-DUZ-M10
14	1	T-MSMHM -1.4.7	Washer	
15	1	GRE-DÜZ-M8	Grease fitting	GRE-DÜZ-M8

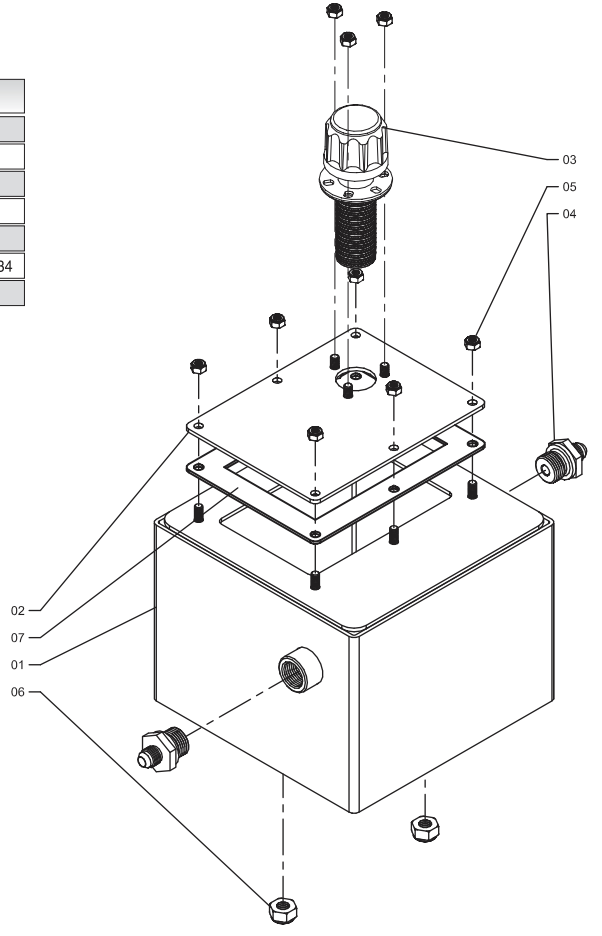
7.9 Knife Sharpener - T-MSMHH-1.3.16



SPARE PARTS LIST

7.10 Oil Tank Group- T-MSMHH-1.3.327.10

Pos No	Quantity	Order Number	Explanation	Norm (DIN)
01	1	T-MSMHH-1.3.32.01	Oil tank	
02	1	T-MSMHH-1.3.32.02	Oil tank upper connection plate	
03	1	T-MSMHH-1.3.32.03	Oil plug	
04	2	T-MSMHH-1.3.32.04	Hydraulic hose record	
05	6	SOMFIB-AKS-M6x1	Hexagonal nut	SOMFIB-AKS-M6x1 DIN 934
06	2	SOMFIB-AKS-M10x1,5	Hexagonal nut	SOMFIB-AKS-M10x1,5 DIN 934
07	1	T-MSMHH-1.3.32.07	Tank seal	



7.10 Oil Tank Group- T-MSMHH-1.3.327.10