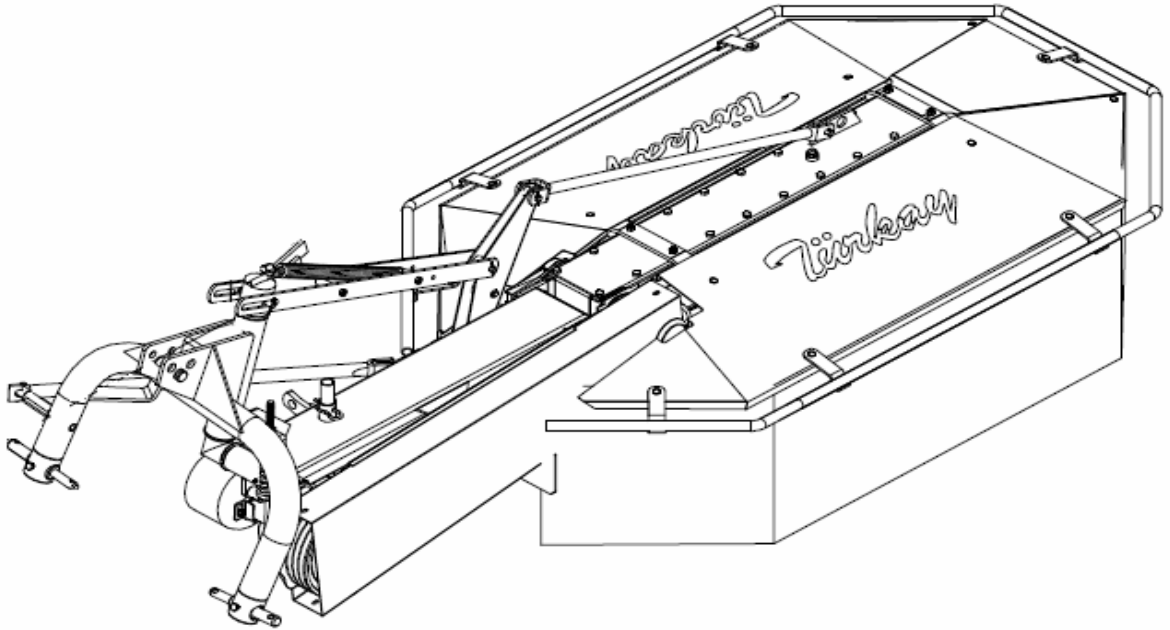




**TÜRKAY** TARIM MAKİNALARI  
SAN. ve TİC. LTD. ŞTİ.

# ROTARY DRUM MOWER (TTCBM135-165-190)



## Operators Manuel

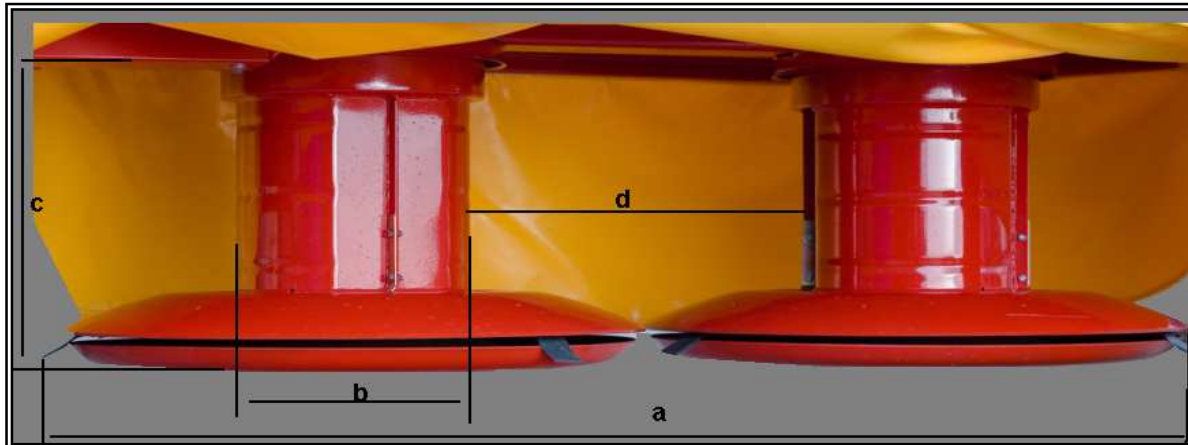
Producer Company: **TURKAY** TARIM MAKİNALARI  
SAN. ve TİC. LTD. ŞTİ.

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

☎:0.232.281 54 04 0.232.281 57 10 (Faks)

## **INTRODUCTION**

### **ROTARY DRUM MOWER**



**Pic. 1 – Dimensions of Rotary Drum Mower**

#### **Technical Specifications :**

General length (transport position)	:3200 mm
(working position)	:1340 mm
General width(transport position)	:1340 mm
(working position)	:3240 mm
General height	: 965 mm
Cutting(working)width (a)	:1650 mm
Diameter of the drum (b)	:300 mm
Height of the drum (c)	:460 mm
Distance between the drums(d)	:490 mm

TÜRKAY Company offers you the TTCBM Rotary Drum Mower which is driven by the tractor tail spindle, and connected to it with three point hitch system. It reaps, the feed plants, grass, meadow grass as well as wild plants and heath bordering the roads. It achieves high capacity with low power consumption and provides propellant saving. The action is transmitted serially through its three fold belt pulley. The belt of the pulley mechanism is tightened with a spring. It has an automatic security system. Reaping height can be adjusted. Adjustment is possible for road and work status.

Besides the instructions from this booklet take into consideration all generally used safety and accident regulations before working with the machine.

## INTRODUCTION

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### 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

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**Pic. 2 – Transporting the machine by Forklift and palette**



**ATTENTION !  
TAKE CARE OF THE HOOKS AND IRON ROPES OF  
THE CRANE AND FORKLIFT TO BE SAFETY ENOUGH**

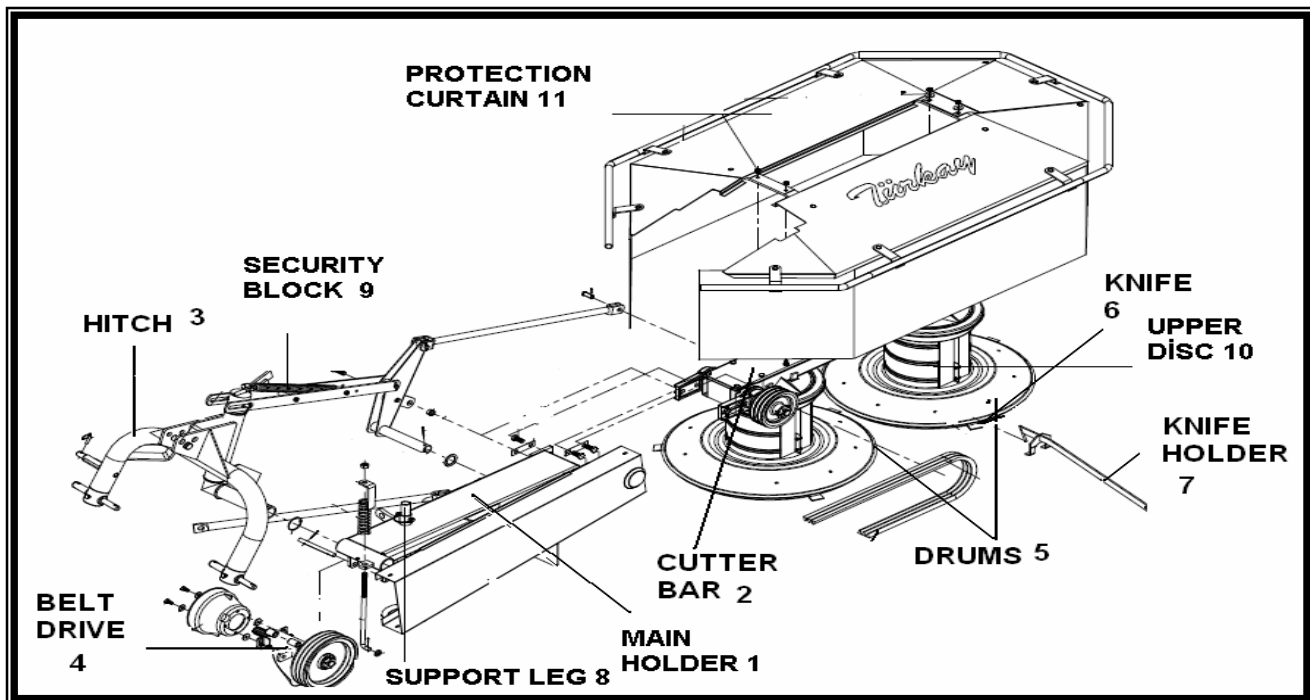
**Drum Mower** has been designed for mowing of all kinds of grass and clover on clean surfaces.

It consists of a cutter with 2 drums, where each of them is equipped with 3 knives. Drums are turnably fastened to the cutter-bar housing. Protection covers, covering the cutter bar from the top, are also fastened to the cutter bar housing. The cutter bar is surrounded by protection curtain.

The cutter bar is flexibly connected to the hitch by a square, welded profile. They are additionally connected by a discharging spring which discharges the pressure of the cutter bar to the ground. 3 point hitch for connection to the tractors of the I or II category is made of round tube.

Mower drive is led from the tractor over the P.T.O Shaft to the connecting shaft of the mower, belt transmission, gear-box transmission shaft to the gears in the gear-box and over them to the drums. Mower is equipped with a safety fuse which protects it from damages which may occur if the mower hits an obstacle.

## INTRODUCING THE MACHINE



**Pic. 3 – Main parts of the machine**

### **The main parts of the machine:**

1. Main Holder
2. Cutter-bar(gear box)
3. Three point hitch system
4. Belt drive
5. Drums
6. Knife
7. Knife holder
8. Support leg
9. Security block
10. Upper disc
11. Protection curtain

### **Required Tractor Equipment:**

- Mower may only be driven by a tractor shaft with max. 540 rpm.
- 3 point connecting bars of the I or II category

## INTRODUCING THE MACHINE

**Connection 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. The machine should be positioned as near to the tractor as possible, for using the whole working width(Şekil 4).



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

### Şekil 4- Makinanın traktöre bağlanması

- The main holder on the machine can be connected to the three point hitch system while the tractor is parallel to the ground as shown in the pic.4..
  - Connect the prescribed P.T.O shaft and secure the P.T.O shaft connection by a chain (Pic.4)
- Make sure that the P.T.O shaft is in proper position on both ends.
- If the load in front wheels is not enough put additional load.



Pic.5 Shaft connection chain

### Adjustment of the P.T.O Shaft,

The adjustment of the P.T.O shaft is necessary for different tractors. To find out 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 then compare them with each other .
  - In case you need to shorten the P.T.O shaft, make sure you shorten both shafts and protection tubes for exactly the same length.
  - File the end of the tube, remove the remainings of filling and lubricate gliding spots well.
- K T4 101 910 100( covered ,triangle piped 400 serial , machine side 1 3/8 Z6 , tractor side 1 3/8 Z6 -1000mm length) shaft is used in Rotary Drum Mower.
- 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.

## **INTRODUCING THE MACHINE**

### **Preparation of the mower for transport position**



If the machine is connected to the tractor and the machine is in transport position, take the pto shaft in safety by the chain. In working position connect the pto shaft to the tractor.

**Pic.6-Transport position**

### **Changing transport position to working position**



**1-disconnect the tension spring(Pic. 7)**



**2-Connect the tension pin and control(Pic.8)**



**Lowering of the Mower from the transport into the working position,**

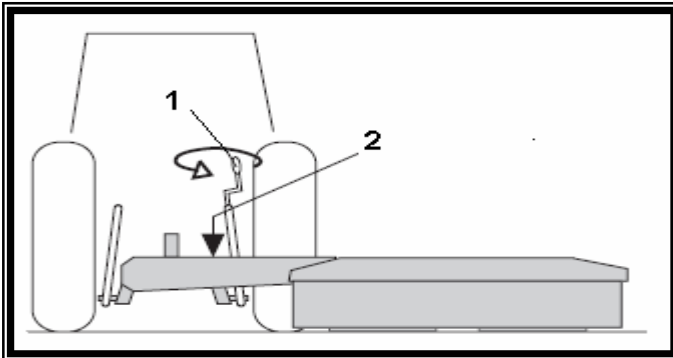
**In working position connect the pto shaft to the tractor**



**Pic. 9-Lowering of the Mower from the transport into the working position,**

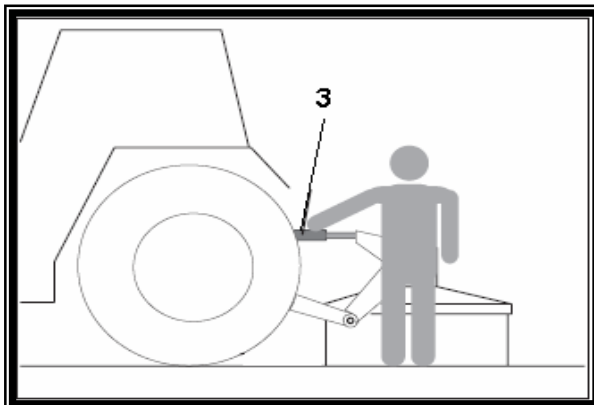
## INTRODUCING THE MACHINE

### Regulation of cutting height,



- The machine must be in horizontal position when it is connected to the tractor(2)
- By turning the tractor upper arm regulate the cutting height.(1)
- Fasten the tractor bottom arm,so you can prevent the vibrations on the machine while it is working.

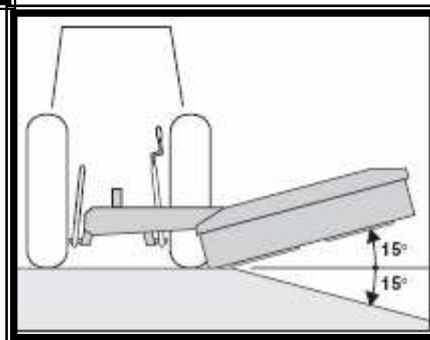
**Pic.10 Regulation of cutting height**



**Pic.11 Fastening of tractor bottom arm**

For a regular cutting,the cutting uniş should not be higher or lower ground

**Pic.12 Working angle of the ground**



of the machine distance form the

machine to the



**ATTENTION!**  
**NEVER TOUCH THE MACHINE WITH HAND,FOOT WHILE IT IS WORKING.**

### Mowing Instructions,

- Before entering with the mower into the grass,pay attention to achieve 540 rpm.on the P:T:O shaft.Those rotations should be kept during moving so that you get clean cut.
- Choose the gear which will enable best moving according to the ground condition.
- Change or turn around the knives on time.Only sharp knives provide the biggest capacity
- Pay attention to the fact that the middle beam is always parallel with the ground during moving so that the mower adjusts well to the ground.



## **INTRODUCING THE MACHINE**

### **Replacement of the protection curtain,**

- Untighten the screws for fastening the protection curtain .
- Pull the curtain out of the notch .
- Install new curtain and fasten it by screws.

### **Protection of the Mower ,**

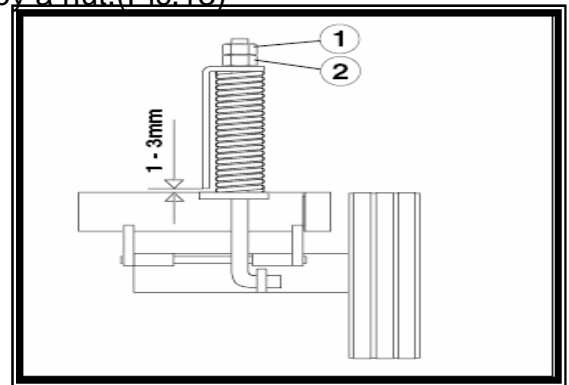
Drum mower is equipped with a safety fuse ,which gets released when the mower hits an obstacle.Mower moves backwards.In this case stop immediately and pull backwards so that the safety fuse will get contact again.Do not forget to remove the obstacle before starting to mowe again.The safety fuse does not function when driving backwards.In case the safety fuse in released too fast at normal working,adjust in by a nut.(Pic.13)

### **Belt tightening,**

The vee-belts are mostly stretched in the first working hours.On the tightening device there is a spring that enables the belts to remain tightened inspite of the stretching.We advise you to control the level of tightening from time to time (Pic.18)

### **Attention,**

If you tighten the belts more than necessary,there is a danger of damaging the bearings and shafts



**Pic.13 Belt tightening**

### **Working with Drum Mower:**



- Max. Input rotation speed of TTCBM1651 is 540 rpm



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

- 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 conneciton 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 manufacturar.Because the manufacturer will not take any responsibility if another shaft is used.

## **PREPARING THE MACHINE FOR WORK**

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- **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 300X1000 Pto shaft is used in Rotary Drum Mower

- 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.

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

## MAINTENANCE AND REPAIR

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

TTCBM1651 Drum Mower is produced by full of quality. So this machine will not need so much maintenance and repair after working with the machine.

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

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

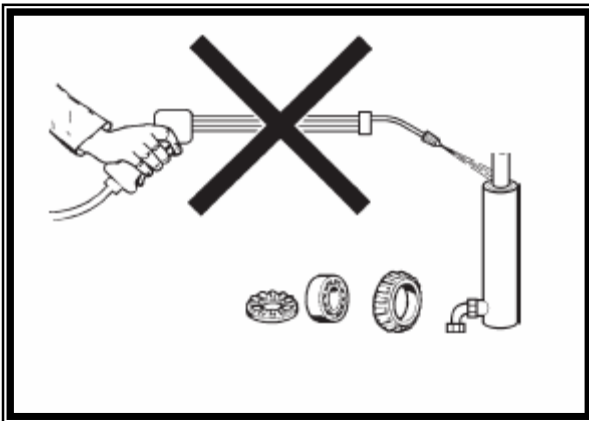
- Turn engine off when adjustment, service and repair work is to be done.
- Do not work under the machine without safe support
- Retighten all screws after the first hours of operation

Cleaning of machine parts

-Do not use high pressure water for the cleaning of bearing and hydraulic parts.

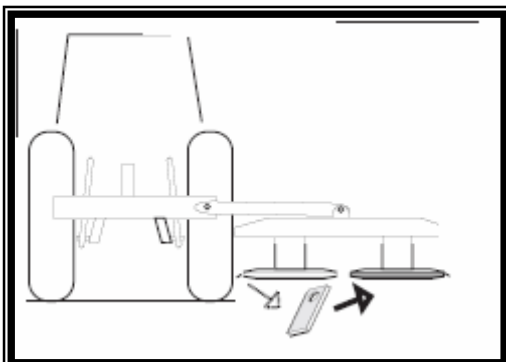
-Danger of rust

-After cleaning, grease the machine according to the lubrication chart and carry out a short test run.



**Pic.14-Cleaning of machine parts**

-The knife has cutting edges at both sides. Therefore it is possible as soon as one edge is blunt to take the knives and use it on the next drum



**Pic.15-Wearing of the knives**

## MAINTENANCE AND REPAIR

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### Replacing the knives

-Support the lever against the lower edge of the drum and press the flexible holder on the lower end of which is fixed the cutter on the pin.

Remove the damaged knives and apply a new one,at the same time the rests of fodder around the pins of the knife holders,eventually from the inner space of the discs

Remove the lever and check whether the pin of the holder has returned to the initial position and whether the knife removes the knife revolves freely on the pin

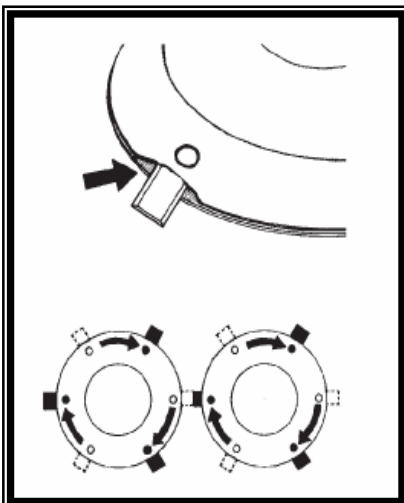


**Pic.16- Replacing the knives**

- Check the weariness of the knives more frequently on stony ground
- Check normally every 100 hours
- Check the mowing blade mountings more frequently when mowing on stony ground

**If mowing disc is worn through close to the mowing knives proceed as follows:**

- Remove bottom disc
- Undo nuts on kinfe mountings
- Tighten bolts frimly and check aftersome horus operation

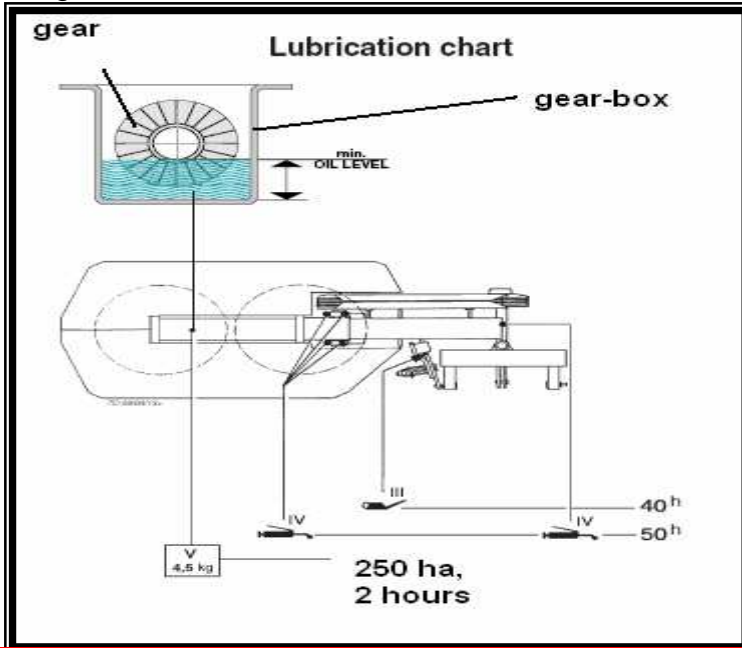


**Pic.17 – Changing of worn bottom disc**

## MAINTENANCE AND REPAIR

### **Lubrication :**

- Lubricate with grease before starting work and every 8 hours worked.
- Before any extended period of non-use, clean and lubricate driveshafts
- For winter working, grease the tube guards, to avoid them freezing together
- Gear oils according to operating instructions-however at least once a year
- Take out oil drain plug, let run out and duly dispose waste oil
- Before garaging the machine(winter season)an oil change and greasing of all lubricating points has to be done.Unprotected metal parts outside(joints e.t.c)have to be protected against corrosion



**Pic.18-Lubrication chart**

CONTROL(A) ⇒	MAINTENANCE(B)			VARIATION(C)	
	Daily	Weekly	30 hours	100 hours	400 hours
Lubrication (Level control of gear box oil) Variation of oil(SAE140)			A		C
Oil leakage control	A				
Wearness control of drums				A	
Lub.grease nipples		B			
Tightness control (bolt-nut)	A		C		
Cleaning	B				

**Table 3- Maintenance Periods**

## WORKING SAFETY

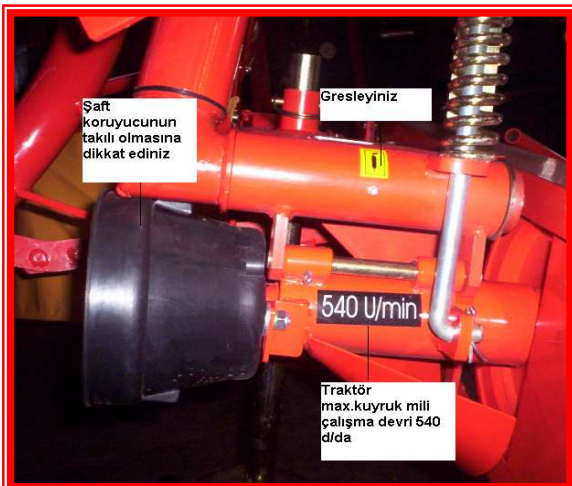
### Safety decals:

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 or 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.19 –Alert Decals

## WORKING SAFETY



**ATTENTION !  
READ OPERATORS MANUEL BEFORE STARTING TO  
WORK WITH THE MACNINE.**

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



**Do not open or remove safety shields while the engine is running**



**Stay clear of mower knife area as long as tractor engine is running**



**Wait until all machine components have completely stopped before touching them**



**Shut off engine and remove key before performing maintenance or repair work**



**Stay clear of swinging area of implements**



**Never reach into the crushing danger area as long as parts may move**

- Safety and warning decals, placed on the machine, give important instructions for safe work. Take them into consideration for your safety.

## **WORKING SAFETY**

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- 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.



## TECHNICAL DOCUMENTATION

<b>TEKNİK DEĞERLER / TECHNICAL DATA</b>			
Not: Rotary drum mower with curtain-(1351-1651-1901) Rotary drum mower without curtain (1352-1652-1902)	TTCBM135	TTCBM165	TTCBM190
	TTCBM1351 TTCBM1352	TTCBM1651 TTCBM1652	TTCBM1901 TTCBM1902
İş genişliği (mm): <i>Working width</i>	1350	1650	1900
Taşıma genişliği (mm): <i>Transporting width</i>	1200	1340	1460
Taşıma uzunluğu (mm) : <i>Transporting length</i>	2500	2850	3300
Makine yüksekliği (mm) : <i>Max.height</i>	1110	1110	1110
Ağırlık (kg) : <i>Weight</i>	385	420	485
Bıçak adedi : <i>Number of knives</i>	6	6	6
Tambur sayısı : <i>Number of drums</i>	2	2	2
Kuyruk mili devir sayısı (d/dak) : <i>Max.no.of P.T.O shaft rotations (U/min)</i>	540	540	540
Güç ihtiyacı (BG) : <i>Required tractor power (HP)</i>	30	40	50

## **MANUFACTURER INFORMATION**

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**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 MAKİNALARI  
SAN. VE TIC. 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:** ROTARY DRUM MOWER  
TTCBM1351-TTCBM1352-TTCBM1651-TTCBM1652-TTCBM1901-TTCBM1902

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

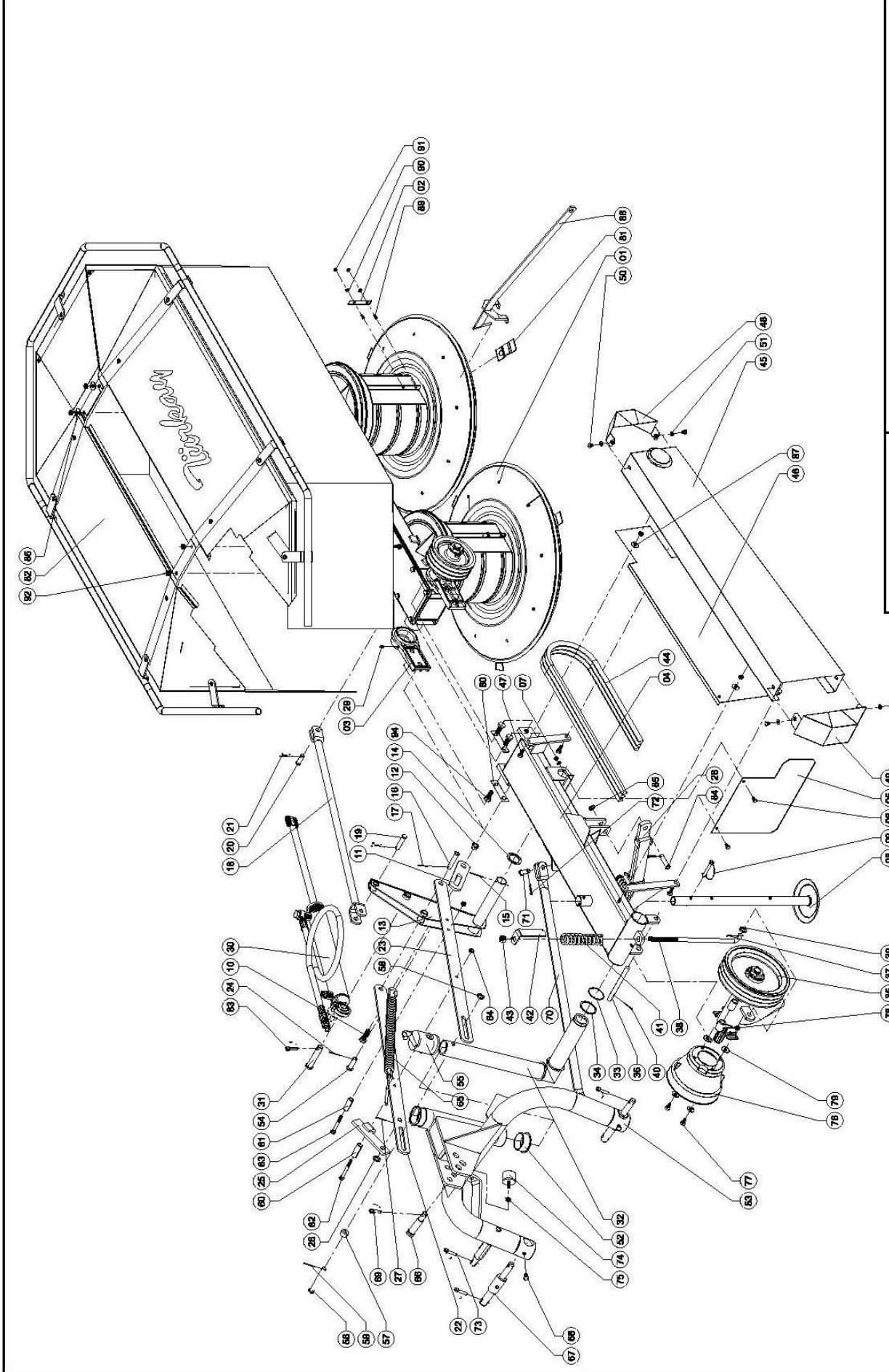
TS EN 745 / Agricultural machinery- Rotary mowers and flail mowery safety

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 :**



TTCBM1651-1 TAMBURLU ÇAYIR BIÇME MAKİNASI

## YEDEK PARÇA LİSTESİ / SPARE PARTS LİST

Komple Makina / Complete Machine / TTCBM1651-1

Poz. Numarası Pos Number	Miktar Amount	Sipariş Numarası Order Number	Açıklama Explanation	Standart Norm
01	1	TTCBM1651-1.2	Şanzıman Grubu	
02	4	TTCBM1651-1.2.59	Kırıcı Bıçak	
03	1	TTCBM1651-1.2.46	Mafsal	
04	1	TTCBM1651-1.3.1	Kaynaklı Ara Gövde	
05	1	TTCBM1651-1.3.20	Tozluk Sacı	
06	2	CIV-M8x1.25x20-8.8	Altı Köşe Başlı Cıvata	DIN 933
07	2	SOMFIB-AKS-M8x1,5	Altı Köşe Başlı Fiberli Somun	DIN 985
08	1	TTCBM1651-1.3.18	Destek Ayağı	
09	1	TOT-1.23	Yaylı Pim Montajı	
10	1	CIV-M16x2x50-8.8	Altı Köşe Başlı Cıvata	DIN 933
11	1	TTCBM1651-1.1.13	Bağlantı Laması	
12	1	TTCBM1651-1.10	Bağlantı Burcu	
13	1	TTCBM1651-1.1.7	Levyeye	
14	1	TTCBM1651-1.26	Ara Gövde ve Levyeye Rondela sı	
15	1	GUP-M6x70	Gupilya	DIN 94
16	1	TTCBM1651-1.1.22	Bağlantı Pimi	
17	1	GUP-5x40	Gupilya	DIN 94
18	1	TTCBM1651-1.1.8	Komple Şanzıman Üst Borusu	
19	1	TTCBM1651-1.1.23	Levyeye Bağlantı Pimi	
20	2	TTCBM1651-1.1.24	Şanzıman Üst Bağlantı Pimi	
21	2	FIRKETE-MAŞ- Ø3	Maşalı Firkete	
22	1	TTCBM1651-1.1.10	Komple Gergi Laması	
23	1	TTCBM1651-1.1.11	Gergi Laması	
24	1	GUP 4x40	Gupilya	DIN 94
25	1	TTCBM1651-1.1.9	Kilit	
26	1	RON-M16-DUZ	Düz Rondela	DIN 125

## YEDEK PARÇA LİSTESİ / SPARE PARTS LIST

### Komple Makina / Complete Machine / TTCBM1651-1

Poz. Numarası Pos Number	Miktar Amount	Sipariş Numarası Order Number	Açıklama Explanation	Standart Norm
27	1	GUP-3x30	Gupilya	DIN 94
28	1	TTCBM1651-1.3.7-1.3.8- 1.3.9-1.3.10	Komple Emniyet Mekanizması	
29	4	GRE-DÜZ-M6	Gresörlük M6	DIN 71412
30	1	TTCBM1651-1.1.30	Piston Grubu	
31	1	TTCBM1651-1.1.31	Piston Bağlantı Pimi	
32	1	TTCBM1651-1.1.4	Çeki Gönyesi	
33	1	SEG- Ø60x2-CK75	Mil Segmanı	DIN471
34	1	SIM-Ø72xØ60x2 mm	Mesafe Pulu	
35	1	TTCBM1651-1.4	Frezeli Kovan Grubu	
36	1	TTCBM1651-1.14	Bağlantı Mili	
37	1	GUP-5x40	Gupilya	DIN 94
38	1	TTCBM1651-1.15	Seviye Mili	
39	1	RON-DUZ-M16	Düz Rondela	DIN 125
40	1	GUP-5x40	Gupilya	DIN 94
41	1	TTCBM1651-1.17	Ayar Mil Yayı	DIN 17223
42	1	TTCBM1651-1.18	Gergi Sacı	
43	1	SOMFIB-AKS-M16x2	Altı Köşe Başlı Fiberli Somun	DIN 985
44	3	KAYIS-V 17x2850	V Kasnak Kayışı	
45	1	TTCBM1651-1.3.2	Kayış Kapağı	
46	1	TTCBM1651-1.3.3	Koruyucu Kapak Sacı	
47	4	CIV-M10x1,5x20-8.8	Altı Köşe Başlı Cıvata	DIN 933
48	1	TTCBM1651-1.3.24	Büyük Kasnak Davlumbaz Sacı	
49	1	TTCBM1651-1.3.13	Küçük Kasnak Davlumbaz Sacı	
50	4	CIV-M8x1,25x15-8.8	Altı Köşe Başlı Cıvata	DIN 933
51	4	RON-DUZ-M8	Düz Rondela	DIN 125

## YEDEK PARÇA LİSTESİ / SPARE PARTS LIST

### Komple Makina / Complete Machine / TTCBM1651-1

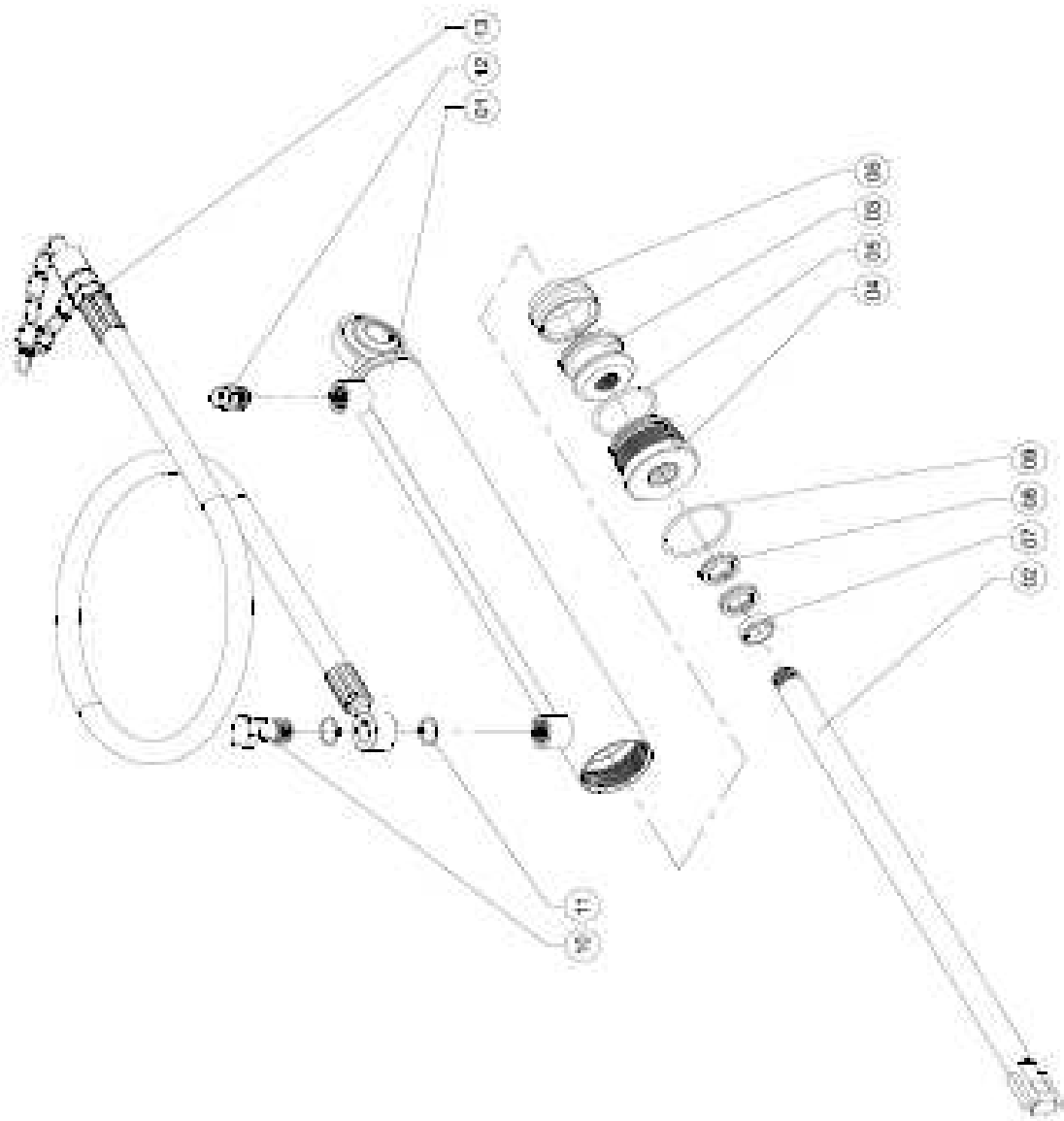
Poz. Numarası Pos Number	Miktar Amount	Sipariş Numarası Order Number	Açıklama Explanation	Standart Norm
52	2	TTCBM1651-1.1.5	Plastik Burç	
53	1	TTCBM1651-1.1.1	Üç Nokta Askı Düzeni	
54	1	TTCBM1651-1.1.22	Levyelaması Bağlantı Pimi	
55	1	TTCBM1651-1.1.6	Kep	
56	1	TTCBM1651-1.1.16	Kep Bağlantı Pimi	
57	1	TTCBM1651-1.1.17	Mesafe burcu	
58	1	RON-DUZ-M16	Düz Rondela	DIN 125
59	1	GUP-5x40	Gupilya	DIN 94
60	1	TTCBM1651-1.1.14	Mesafe Burcu 1	
61	1	TTCBM1651-1.1.15	Mesafe Burcu 2	
62	1	CIV-M10x1.5x90x25-8.8	Altı Köşe Başlı Cıvata	DIN 933
63	1	CIV-M10x1.5x80x25-8.8	Altı Köşe Başlı Cıvata	DIN 933
64	2	SOMFIB-AKS-M10x1.5	Altı Köşe Başlı Fiberli Somun	DIN 985
65	1	TTCBM1651-1.1.12	Üç Nokta Askı Yayı	DIN 17223
66	1	TTCBM1651-1.1.25	Çeki Pimi	
67	2	TTCBM1651-1.1.2	Üç Nokta Alt Çeki Pimi	
68	2	CIV-M10x1.5x30-8.8	Altı Köşe Başlı Cıvata	DIN 933
69	3	PIM-MAŞ-ARM-Ø10	Armut Başlı Maşalı Pim	
70	1	TTCBM1651-1.3.15	Ara Gövde Yan Borusu	
71	1	TTCBM1651-1.3.16	Yan Boru Bağlantı Pimi	
72	1	GUP-5x40	Gupilya	DIN 94
73	1	PIM-MAŞ-ARM-Ø10	Armut Başlı Maşalı Pim	
74	1	TTCBM1651-1.1.29	Dayama Takozu	
75	1	SOMFIB-AKS-M10x1.5	Altı Köşe Başlı Fiberli Somun	DIN 985

## YEDEK PARA LİSTESİ / SPARE PARTS LİST

### Komple Makina / Complete Machine / TTCBM1651-1

Poz. Numarası Pos Number	Miktar Amount	Sipariş Numarası Order Number	Açıklama Explanation	Standart Norm
76	1	TDRAM301S1.32	Plastik Şaft Muhafazası	
77	2	CIV-M10x1.5x25-8.8	Altı Köşe Başlı Cıvata	DIN 933
78	2	SOMFIB-AKS-M10x1.5	Altı Köşe Başlı Fiberli Somun	DIN 985
79	4	RON-DUZ-M10	Düz Rondela	DIN 125
80	1	TTCBM1651-1.09	Destek Sacı 3	
81	6	TTCBM1651-1.2.64	Bıçak	
82	1	TTCBM1651-1.5	Branda Grubu	
83	1	PIM-MAŞ-ARM-Ø10	Armut Başlı Maşalı Pim	
84	1	TTCBM1651-1.1.24	Şanzıman Üst Borusu Bağlantı Pimi	
85	1	RON-DUZ-M16	Düz Rondela	DIN 125
86	4	RON-DUZ-M12	Düz Rondela	DIN 125
87	4	RON-DUZ-M10	Düz Rondela	DIN 125
88	1	TTCBM1651-1.27	Bıçak Anahtarı	
89	8	CIV-M6x1x16-8.8	Altı Köşe Başlı Cıvata	DIN 933
90	8	RON-YAY-M8	Rondela Yaylı	DIN 127-B
91	8	SOM-AKS-M6x1-8,8	Altı Köşe Başlı Fiberli Somun	DIN 985
92	4	SOM-AKS-M12x1.75-8,8	Altı Köşe Başlı Fiberli Somun	DIN 985
93	4	RON-DUZ-M12	Düz Rondela	DIN 125
94	3	CIV-M16x2x35-8.8	Altı Köşe Başlı Cıvata	DIN 933



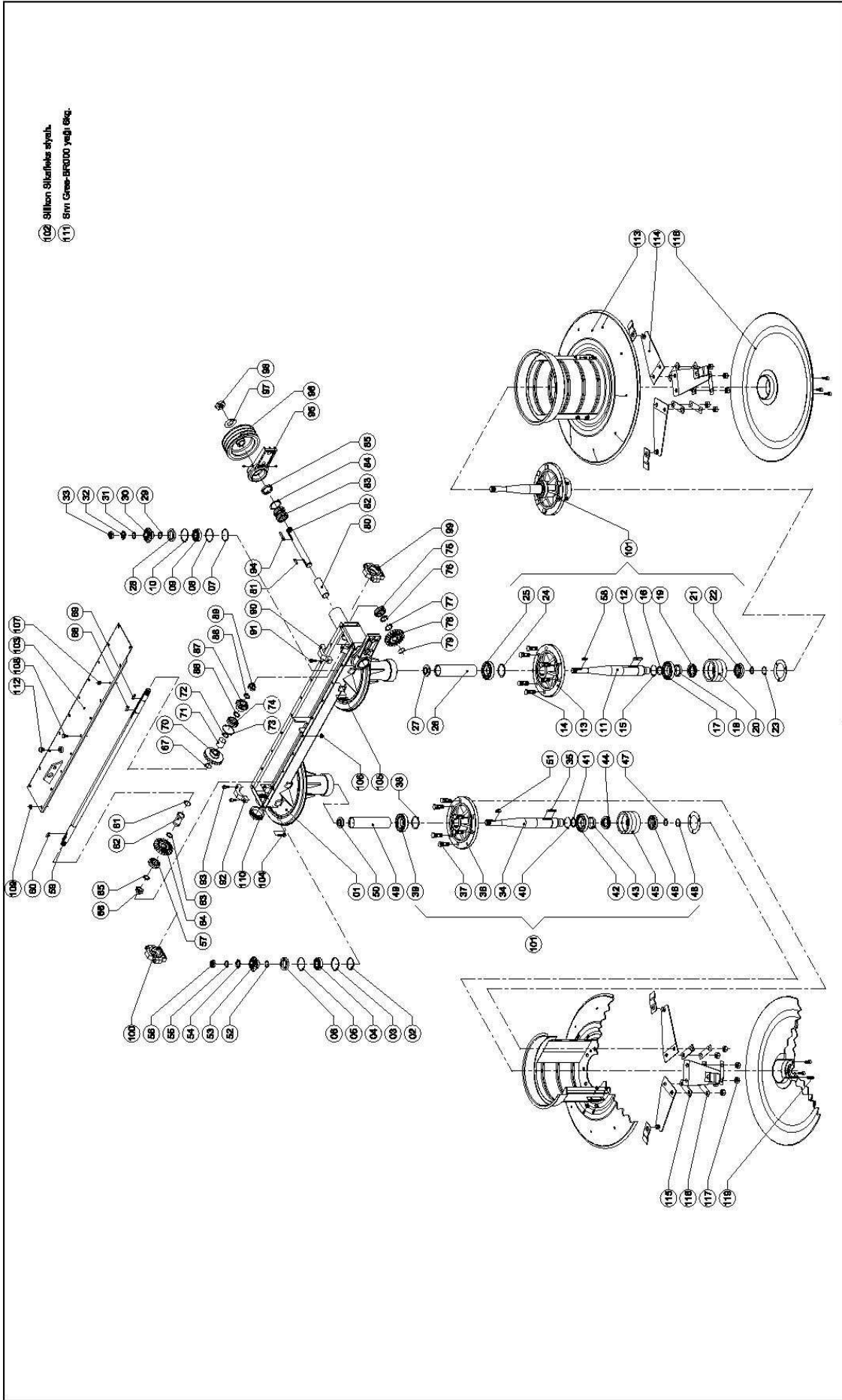


Sıra No	Grup Adı	Montaj Adı	Ali Montaj Adı
TTCBM1651-1.1.30	Elston Gubbu	-	-

## 1.YEDEK PARA LİSTESİ / SPARE PARTS LİST

### 1.1 Piston Grubu / TTCBM1651-1.1.30

Poz Numarası Pos.number	Adet Amount	Sipariş Numarası Order Number	Açıklama Explanation	Standart Norm
01	1	TTCBM1651-1.1.30.1	Piston Gövdesi	
02	1	TTCBM1651-1.1.30.2	Piston Mili	
03	1	TTCBM1651-1.1.30.3	Piston Başı	
04	1	TTCBM1651-1.1.30.4	Piston Somunu	
05	1	O-RING 50x4 NBR	O-Ring	TS EN 1524-8
06	1	KEE-YAG-44x60x20	Yağ Keesi	K18 060-044
07	1	KEE-TOZ-25x33x5/7	Toz Kee	DIN 3760
08	2	KEE-YAG-25x35x7	Yağ Keesi	DIN 3760
09	1	O-RING 60x3.5 NBR	O-Ring	TS EN 1524-8
10	1	THDR2109HOK-1.1.23	Hidrolik Hortum Bağlantı Rekoru	
11	2	RON-BAK-7/8"	Rondela Bakır	
12	1	TKMR130-1.4.18	Havalandırmalı Yağ Doldurma Tapası	
13	1	TTCBM1651-1.1.30.13	Hidrolik Hortum	HOR-2 SN DN12 DIN 20022 BD 275- 1/2"x300cm



Sıra No	Grup Adı	Montaj Adı	Alt Montaj Adı
TTCBM1651-1.2	Şanzuman Grubu	...	...

## 2. YEDEK PARA LİSTESİ / SPARE PARTS LİST

### 2.1 Şanzıman Grubu / Gear Box Group / TTCBM1651-1.2

Poz Numarası Pos.number	Adet Amount	Sipariş Numarası Order Number	Açıklama Explanation	Standart Norm
01	1	TTCBM1651-1.2.1	Şanzıman	
02	1	SEG-DIN472Ø62x2-CK75	Delik Segmanı	DIN 472
03	1	SIM-62x50x	Layner	DIN 988
04	1	RUL-6305 C3 ORS	Düz Rulman	DIN 625
05	1	SEG-DIN472Ø62x2-CK75	Delik Segmanı	DIN 472
06	1	KEÇE-YAG-40x62x10 AS	Yağ Keçesi	DIN 3760
07	1	SEG-DIN472Ø62x2-CK75	Delik Segmanı	DIN 472
08	1	SIM-62x50x	Layner	DIN 988
09	1	RUL-6305 C3 ORS	Düz Rulman	DIN 625
10	1	SEG-DIN472Ø62x2-CK75	Delik Segmanı	DIN 472
11	1	TTCBM1651-1.2.7	Konik Mil	
12	1	KAMA A8x7x55	Kama	DIN 6885
13	1	TTCBM1651-1.2.8	Porya	
14	6	TTCBM1651-1.2.19	Bijon	
15	1	TTCBM1651-1.2.78	Büyük Tel Segmanı	DIN 7993
16	1	SIM-62x50x0.8	Layner	DIN 988
17	1	RUL-6210 2RS-G100 C3	Düz Rulman	DIN 625
18	1	TTCBM1651-1.2.11	Rulman Ara Bilezik	
19	1	RUL-51109 KJ	Eksenel Rulman	DIN 711
20	1	TTCBM1651-1.2.13	İç Kovan	
21	1	RUL-6207 2RS G100-C3	Düz Rulman	DIN 625

## 2 YEDEK PARA LİSTESİ / SPARE PARTS LİST

### 2.2 Şanzıman Grubu / Gear Box Group / TTCBM165-1.2

22	1	TTCBM1651-1.2.15	Mesafe Pulu	
23	1	SEG-DIN471Ø35x2,5-CK75	Mil Segmanı	DIN 471
24	1	SIM-60x50x2,5	Layner	DIN 988
25	1	RUL-6210 2RS-G100 C3	Düz Rulman	DIN 625
26	1	TTCBM1651-1.2.17	Mesafe Borusu	
27	1	TTCBM1651-1.2.18	Mesafe Borusu Özel Burcu	
28	1	KEE-YAG-40x62x10 AS	Yağ Keesi	DIN 3760
29	1	TTCBM1651-1.2.5	Mesafe Pulu	
30	1	TTCBM1651-1.2.20	Küçük Yataklı Konik Dişli Z:15	
31	1	SIM-25x33x1	Layner	DIN 988
32	1	TTCBM1651-1.2.72	Özel Aspelya	
33	1	TTCBM1651-1.2.22	Konik Mil Ayar Somunu	
34	1	TTCBM1651-1.2.7	Konik Mil	
35	1	KAMA A8x7x55	Kama	DIN 6885
36	1	TTCBM1651-1.2.8	Porya	
37	6	TTCBM1651-1.2.19	Bijon	
38	1	SIM-60x50x2,5	Layner	DIN 988
39	1	RUL-6210 2RS-G100 C3	Düz Rulman	DIN 625
40	1	TTCBM1651-1.2.78	Büyük Tel Segman	DIN 7993
41	1	SIM-62x50x0.8	Layner	DIN 988
42	1	RUL-6210 2RS-G100 C3	Düz Rulman	DIN 625
43	1	TTCBM1651-1.2.11	Rulman Ara Bilezik	

## 2 YEDEK PARA LİSTESİ / SPARE PARTS LİST

### 2.3 Şanzıman Grubu / Gear Box Group / TTCBM165-1.2

44	1	RUL-51109 KJ	Eksenel Rulman	DIN 711
45	1	TTCBM1651-1.2.13	İ Kovan	
46	1	RUL-6207 2RS G100-C3	Düz Rulman	DIN 625
47	1	TTCBM1651-1.2.15	Mesafe Pulu	
48	1	SEG-DIN471Ø35x2,5-CK75	Mil Segmanı	DIN 471
49	1	TTCBM1651-1.2.17	Mesafe Borusu	
50	1	TTCBM1651-1.2.18	Gergi Halkası	
51	1	KAMA A8x7x32	Kama	DIN 6885
52	1	TTCBM1651-1.2.5	Mesafe Pulu	
53	1	TTCBM1651-1.2.20	Küçük Yataklı Konik Dişli Z:15	
54	1	SIM-25x33x1	Layner	DIN 988
55	1	TTCBM1651-1.2.72	Özel Aspelya	
56	1	TTCBM1651-1.2.22	Konik Mil Ayar Somunu	
57	1	RUL-6206 C3-ORS	Düz Rulman	DIN 625
58	1	KAMA A8x7x32	Kama	DIN 6885
59	1	TTCBM1651-1.2.23	Şanzıman Uzun Mil	
60	1	KAMA A8x7x32	KAMA	DIN 6885
61	1	TTCBM1651-1.2.24	Küçük Tel Segmanı	DIN 7993
62	1	TTCBM1651-1.2.25	Faturalı Mesafe Borusu	
63	1	SIM-45x30x1,5	Layner	DIN 988
64	1	TTCBM1651-1.2.27	Ayna Dişli Z:23	
65	1	TTCBM1651-1.2.29	Mesafe Pulu	

## 2 YEDEK PARA LİSTESİ / SPARE PARTS LİST

### 2.4 Şanzıman Grubu / Gear Box Group / TTCBM165-1.2

66	1	TTCBM1651-1.2.30	Şanzıman Uzun Mil Ayar Somunu	
67	1	TTCBM1651-1.2.24	Küçük Tel Segmanı	DIN 7993
68	1	KAMA A8x7x32	KAMA	DIN 6885
69	1	KAMA A8x7x32	KAMA	DIN 6885
70	1	TTCBM1651-1.2.27	Ayna Dişli Z:23	
71	1	TTCBM1651-1.2.31	Mesafe Borusu	
72	1	SIM-42x30x0,5	Layner	DIN 988
73	1	SEG-DIN472Ø62x2-CK75	Delik Segmanı	DIN 472
74	1	RUL-6206 C3-ORS	Düz Rulman	DIN 625
75	1	RUL-6206 C3-ORS	Düz Rulman	DIN 625
76	1	TTCBM1651-1.2.21	Mesafe Pulu	
77	1	TTCBM1651-1.2.6	Mesafe Pulu	
78	1	TTCBM1651-1.2.27	Ayna Dişli Z:23	
79	1	TTCBM1651-1.2.24	Küçük Tel Segmanı	DIN 7993
80	1	TTCBM1651-1.2.40	Mesafe Borusu	
81	1	KAMA A8x7x32	KAMA	DIN 6885
82	1	TTCBM1651-1.2.41	Kısa Mil	
83	1	RUL-6206 C3-ORS	Düz Rulman	DIN 625
84	1	SIM-45x30x1,5	Layner	DIN 988
85	1	KEÇE-YAG-45x62x7 A	Yağ Keçesi	DIN 3760
86	1	SIM-42x30x0,5	Layner	DIN 988
87	1	TTCBM1651-1.2.34	Büyük Yataklı Konik Dişli Z:15	

## 2 YEDEK PARA LİSTESİ / SPARE PARTS LİST

### 2.5 Şanzıman Grubu / Gear Box Group / TTCBM165-1.2

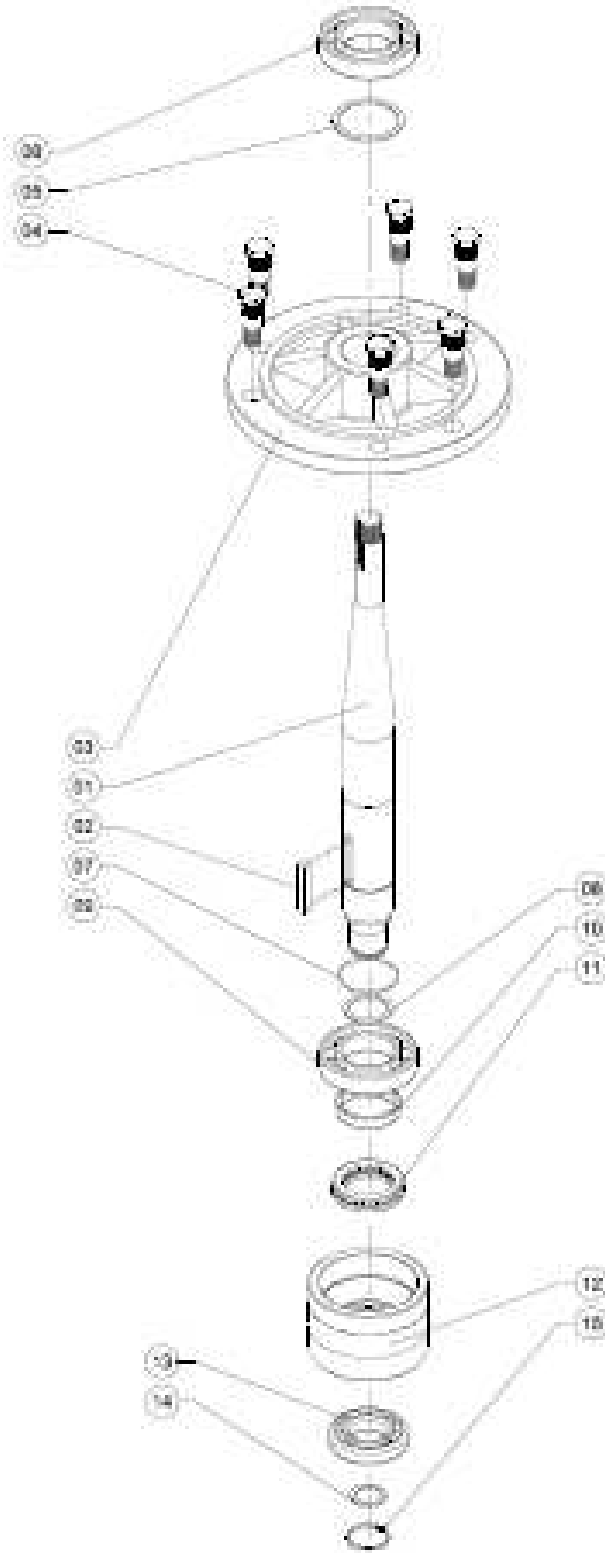
88	1	TTCBM1651-1.2.35	Mesafe Pulu	
89	1	TTCBM1651-1.2.30	Şanzıman Uzun Mil Ayar Somunu	
90	1	TTCBM1651-1.2.57	Şanzıman Uzun Mili Üst Destek Parçası 2	
91	2	CIV-IMB-M10x1,5x35-8.8	İmbus Cıvata	DIN 912
92	1	TTCBM1651-1.2.36	Şanzıman Uzun Mili Üst Destek Parçası 1	
93	2	CIV-IMB-M10x1,5x35-8.8	İmbus Cıvata	DIN 912
94	1	KAMA A8x7x55	KAMA	DIN 6885
95	1	TTCBM1651-1.2.46	Mafsal	
96	1	TTCBM1651-1.2.47	Şanzıman Kasnağı	
97	1	TTCBM1651-1.4.10	Somun Emniyet Sacı	
98	1	TTCBM1651-1.2.77	Kısa Mil Ayar Sağ Pasolu Somun	
99	1	TTCBM1651-1.2.74	Şanzıman İi Kep Faturalı(BİRLEŞMİŞ HALİ)	
100	1	TTCBM1651-1.2.73	Şanzıman İi Kep Faturasız(BİRLEŞMİŞ HALİ)	
101	2	TTCBM1651-1.2.101	Porya Montajı	
102	1	TTCBM1651-1.2.102	Sikafleks Silikon Siyah	
103	1	TTCBM1651-1.2.52	Şanzıman Kutusu Üst Kapak	
104	2	CIV-M10x1,5x40-8.8	Altı Köşe Başlı Cıvata	DIN 933
105	2	CIV-M10x1,5x40-8.8	Altı Köşe Başlı Cıvata	DIN 933
106	16	SOMFIB-AKS-M10x1,5	Somun Fiberli	DIN 985
107	2	SOMFIB-AKS-M10x1,5	Somun Fiberli	DIN 985



## 2 YEDEK PARA LİSTESİ / SPARE PARTS LİST

### 2.6 Şanzıman Grubu / Gear Box Group / TTCBM165-1.2

108	16	CIV-M10x1,5x20-8.8	Altı Köşe Başlı Cıvata	DIN 933
109	2	SOMFIB-AKS-M10x1,5	Somun Fiberli	DIN 985
110	2	TTCBM1651-1.2.39	Plastik Kapak	
111	1	TTCBM1651-1.2.111	Sıvı Gres-BR000 yağı 6kg.	
112	1	TAPA-YAG-HAV-Ø 3/8"	Yağ Tapası 3/8"	
113	2	TTCBM1651-1.2.58	Üst Disk	
114	6	TTCBM1651-1.2.114 (TTCBM1651-1.2.62,-1.2.63)	Bıçak Tutucu Montajı	
115	6	TTCBM1651-1.2.65	Destek Sacı 1	
116	6	TTCBM1651-1.2.66	Destek Sacı 2	
117	12	SOM-AKS-M16x2-8,8	Altı Köşe Başlı Somun	DIN 934
118	1	TTCBM1651-1.2.68	Alt Disk	
119	6	CIV-IMB-M10x1,5x35-8.8	İmbus Cıvata	DIN 912

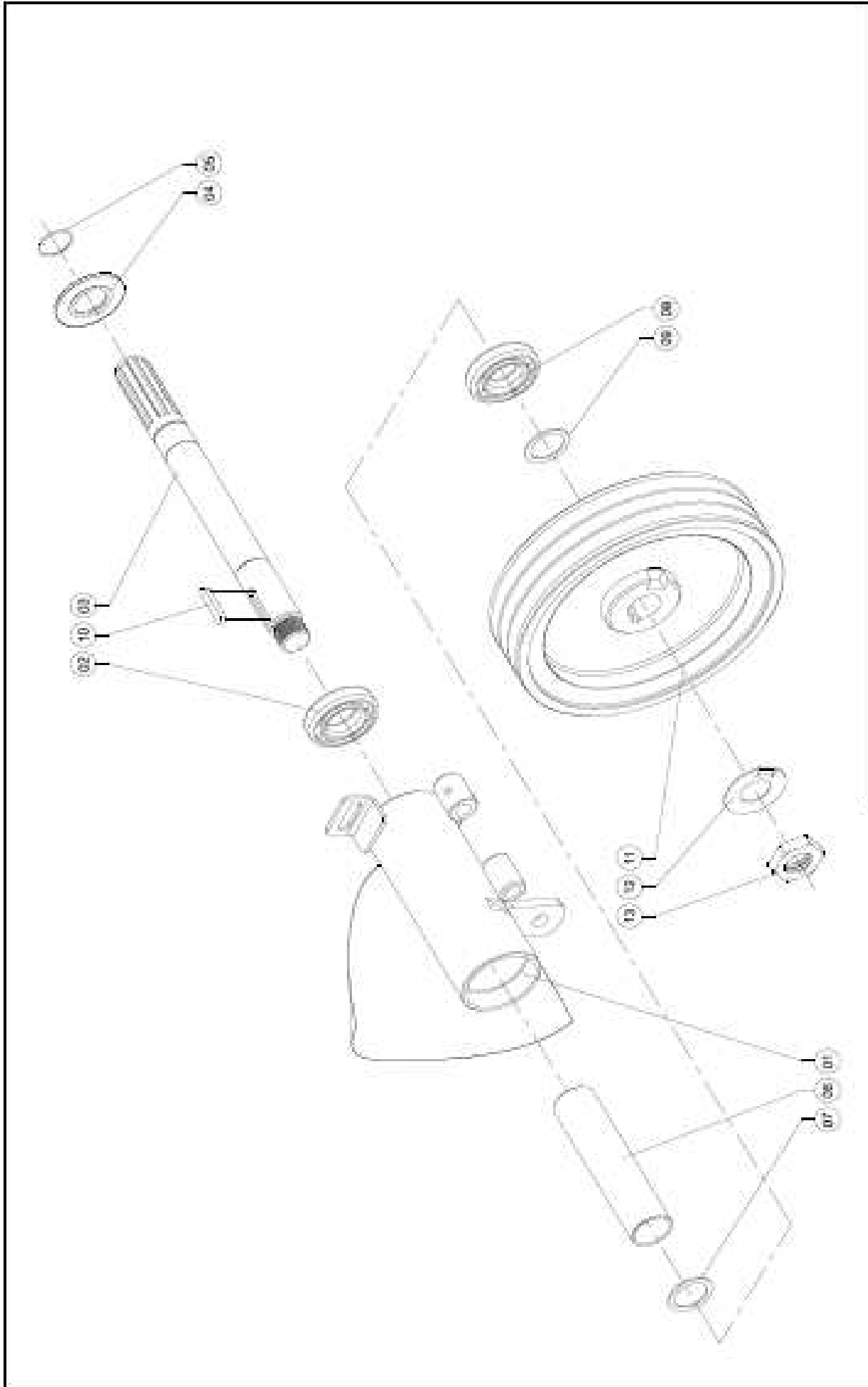


Sıra No	Grup Adı	Montaj Adı	Alt Montaj Adı
TTCBM1651-1,2,101	Şarjman Grubu	Panya Montajı	..

### 3 YEDEK PARA LİSTESİ / SPARE PARTS LİST

#### 3.1 Şanzıman Grubu Porya Montajı/ TTCBM1651-1.2.101

Poz Numarası Pos.number	Adet Amount	Sipariş Numarası Order Number	Açıklama Explanation	Standart Norm
01	1	TTCBM1651-1.2.7	Konik Mil	
02	1	KAMA A8x7x55	Kama	DIN 6885
03	1	TTCBM1651-1.2.8	Porya	
04	6	TTCBM1651-1.2.19	Bijon	
05	1	SIM-60x50x2,5	Layner	DIN 988
06	1	RUL-6210 2RS-G100 C3	Düz Rulman	DIN 625
07	1	TTCBM1651-1.2.78	Büyük Tel Segmanı	
08	1	SIM-62x50x0.8	Layner	DIN 988
09	1	RUL-6210 2RS-G100 C3	Düz Rulman	DIN 625
10	1	TTCBM1651-1.2.11	Rulman Ara Bilezik	
11	1	RUL-51109 KJ	Eksenel Rulman	DIN 711
12	1	TTCBM1651-1.2.13	İ Kovan	
13	1	RUL-6207 2RS G100-C3	Düz Rulman	DIN 625
14	1	TTCBM1651-1.2.15	Mesafe Pulu	
15	1	SEG-DIN471Ø35x2,5-CK75	Mil Segmanı	DIN 471

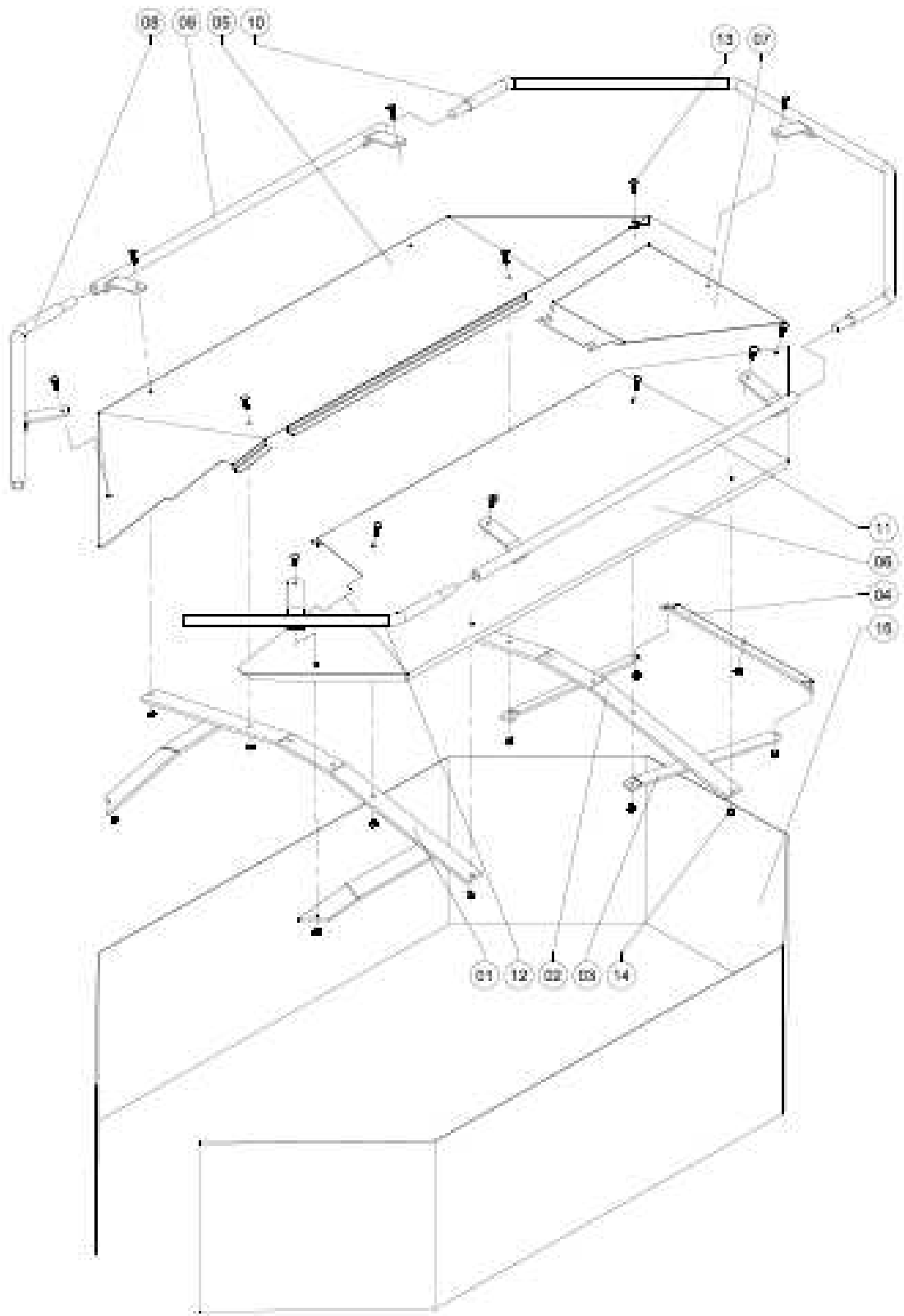


Sıra No	Grup Adı	Montaj Adı	Açıklama
TTCBM1651-1.4	Freze Kovan Grubu		

## 4 YEDEK PARA LİSTESİ / SPARE PARTS LİST

### 4.1 Frezeli Kovan Grubu / TTCBM1651-1.4

Poz Numarası Pos.number	Adet Amount	Sipariş Numarası Order Number	Açıklama Explanation	Standart Norm
01	1	TTCBM1651-1.4.1	Frezeli Kovan Bearing Housing	
02	1	RUL-6207 RS C3 ORS	Rulman Bearing	DIN 625
03	1	TTCBM1651-1.4.3	Kuyruk Mili Shaft	
04	1	TTCBM1651-1.4.4	Kapak Caver	
05	1	SEG-DIN471Ø35x2,5-CK75	Segman Elastic Ring	DIN 471
06	1	TTCBM1651-1.4.6	Mesafe Borusu Distance Tube	
07	1	TTCBM1651-1.4.7	Mesafe Pulu Washer	
08	1	RUL-6207 RS C3 ORS	Rulman Bearing	DIN 625
09	1	TTCBM1651-1.4.7	Mesafe Pulu Washer	
10	1	KAMA A8x7x45	Kama	DIN 6885
11	1	TTCBM1651-1.4.09	Büyük Kasnak	
12	1	TTCBM1651-1.4.10	Somun Emniyet Sacı	
13	1	TTCBM1651-1.2.49	Altı Köşe Başlı Özel Somun Nut	

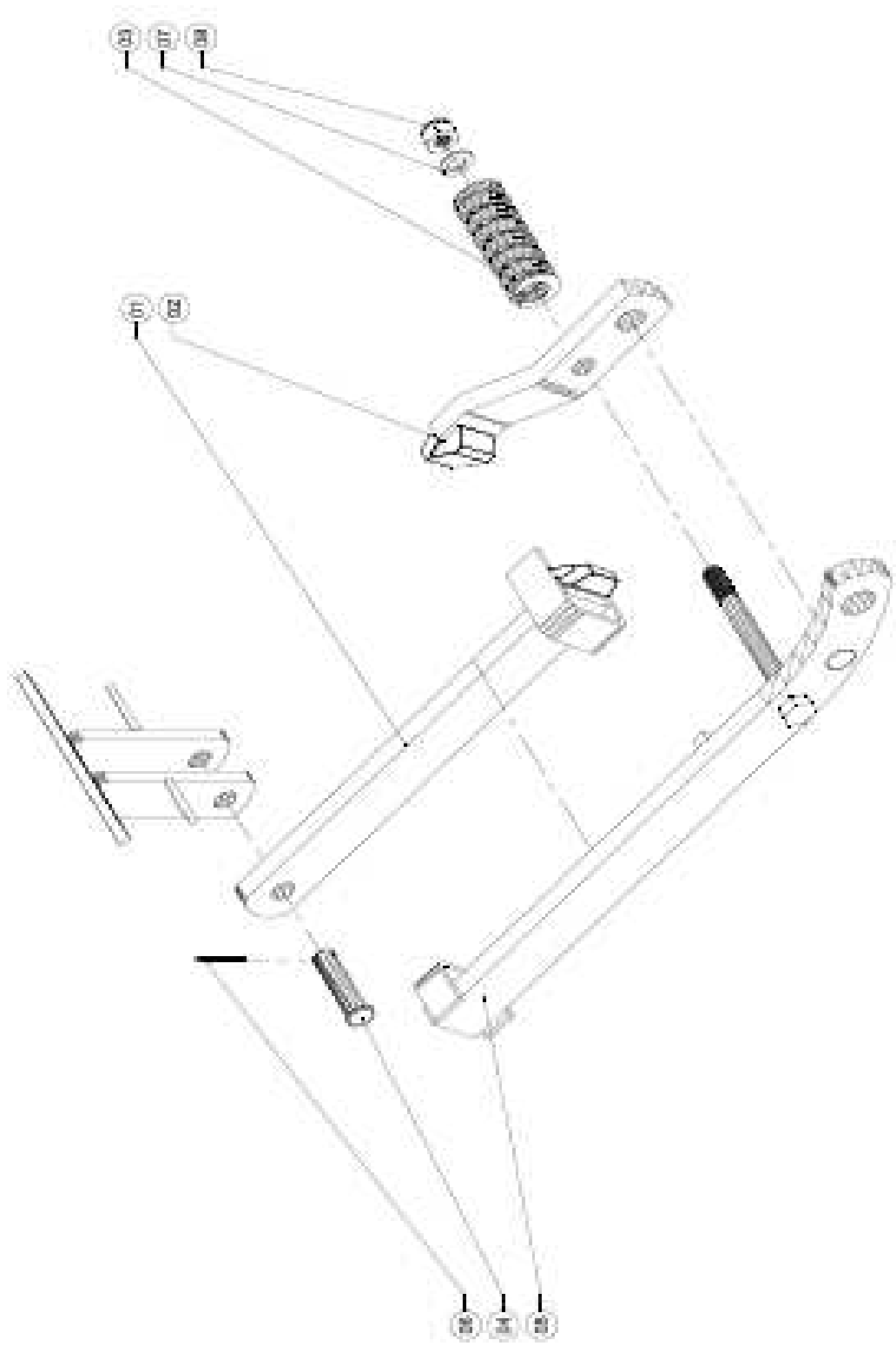


Resim No	Grup Adl	Montaj Adl	Alt Montaj Adl
TTCBM1651-1.5	Branda Grubu		

## 5 YEDEK PARA LİSTESİ / SPARE PARTS LİST

### 5.1 Branda Grubu / TTCBM1651-1.5

Poz Numarası Pos.number	Adet Amount	Sipariş Numarası Order Number	Açıklama Explanation	Standart Norm
01	1	TTCBM1651-1.5.4	Branda Bağlantı Laması	
02	1	TTCBM1651-1.5.4.01	Branda Sacı Sol	
03	1	TTCBM1651-1.5.5	Bağlantı Laması1	
04	1	TTCBM1651-1.5.6	Bağlantı Laması2	
05	1	TTCBM1651-1.5.1	Branda Sacı Sol (Kaynaklı)	
06	1	TTCBM1651-1.5.2	Branda Sacı Sağ (Kaynaklı)	
07	1	TTCBM1651-1.5.3	Branda Sacı Ön	
08	1	TTCBM1651-1.5.10	Branda Borusu 4	
09	1	TTCBM1651-1.5.8	Branda Borusu 2	
10	1	TTCBM1651-1.5.7	Branda Borusu 1	
11	1	TTCBM1651-1.5.9	Branda Borusu 3	
12	1	TTCBM1651-1.5.11	Branda Borusu 5	
13	13	CIV-TAV-M8x1,25x30	Tava Cıvatası	DIN 603
14	13	SOM-AKS-M8x1,25-8,8	Altı Köşe Somun	DIN 934
15	1	TTCBM1651-1.5.15	Branda 50x485 cm.	



Sıra No.	Grup Adı	Montaj Adı	Alt Montaj Adı
TTCBM1651-1.28	EMİYET KİLİ GRUBU	-	-



## 6.YEDEK PARA LİSTESİ / SPARE PARTS LİST

### 6.1 Emniyet Kilit Grubu / TTCBM1651-1.28

Poz Numarası Pos.number	Adet Amount	Sipariş Numarası Order Number	Açıklama Explanation	Standart Norm
01	1	TTCBM1651-1.3.8	Emniyet Laması Düz	
02	1	TTCBM1651-1.3.9	Kaynaklı Emniyet Laması	
03	1	TTCBM1651-1.3.10	Emniyet Yayı	DIN 17223
04	1	TTCBM1651-1.1.24	Şanzıman Üst Borusu Bağlantı Pimi	
05	1	TTCBM1651-1.3.7	Emniyet Kaynaklı Laması	
06	1	GUP-3x45	Gupilya	DIN 94
07	1	RON-DUZ-M14	Rondela Düz	DIN 125
08	1	SOMFIB-AKS-M14x2-8.8	Somun Fiberli	DIN 985