CEYHAN SÜMER

GİNNING MACHINERY

ROLLER GIN AND FEEDER MACHINE
AND SPARE PARTS

Since 1967

In Ginning Machinery Manufacturing

I have been at your service since 1967...



ROLLER GIN MACHINE

SPARE PARTS CATALOG

GINNING MACHINE USER MANUAL

The machine is seated in its place and secured with bolts from four ends. Electrical lines are drawn, and the grounding cable is connected. An automatic feeder is placed on the machine. The leather roller is brought towards the knife while the bottom knife is at the center. The most ideal distance between the roller and the knives is 0.2 mm.

As the roller wears down, this distance can be up to 0.5 mm. If it exceeds this, efficiency drops; in that case, the roller must be moved towards the bottom knife. This is done as follows: While the machine is stopped, the roller bearing bottom bolt M 12 is loosened. It is performed by tightening the nuts on the M 16 leg.

Second point: By turning the roller pulley, the highest exit point of the bottom knife should be 14 mm from the center. If it exits more, the cotton comes out thin. If it exits less, the cotton comes out thick. This is adjusted from the 1" adjustment arm and the 1" nuts are tightened. The automatic board should approach the top knife by 15 to 20 mm. The bottom tip of the top knife should be 3.5 mm behind the mirror line. At the same time, it is set 1 to 2 mm above the roller center. The distance between the grid and the bottom knife is 7 mm. The grid is located 21 mm below the center according to the size of the cotton.

The goal here is for the roller to see the cotton. The roller rotates at 165 revolutions per minute. There are helical channels on it. Over time, these channels disappear. Masters reopen them with a small hand motor and a circular saw, 2 mm wide, 6-7 mm deep, at intervals of 30-35 mm. Naturally, while the machine is stopped, all belts of the machine are checked. Care is taken to ensure they are not loose. The forward-backward adjustment of the feeder is made. The feeder is adjusted and tightened so that the spikes throw the cotton into the mouth of the knives. The distance between the bottom drum and the top drum is adjusted. This is done from the bearings of the top drum. The important task here is the process of feeding as much cotton as the machine can consume.

Belt guards are checked. Motor belts should not be loose. The belts are tensioned using the bolt on the motor base. After the top knife is adjusted, all springs are tightened with the same tension. Do not put your hand in to tighten the springs by removing the front cover of the feeder while the machine is running. The spikes may catch your hand. One must be very careful. The roller may return to normal after operating for one or two hours. Old masters used to apply soap to the roller when the machine first started to lay down the fibers of the leather. Over time, the tip of the top knife thins out. Masters remove the knife together with the mirror, file it from end to end on the machine to make the tip 0.5 mm. Then they clean it with fine sandpaper.

The lubrication status of the bearings is stated in the catalog. Shell Alvania Grease is recommended. The adjustment of the machine is explained in the catalog, considering the finest details. For the ginning machine to operate efficiently, the master must show the necessary interest and effort, and it must be under constant attention and control. In our observations during operation, sometimes too much cotton comes to the machine and the machine gets choked. The machine should be stopped, the feeder lifted, and the accumulated cotton etc. should be removed and cleaned. The feeder is seated back in its place.

The top drum is lowered slightly and the bearings are tightened. This ensures that less cotton is fed into the machine. Top knife springs should be neither too tight nor too loose. All should be at the same normal tightness. At the end of a working day, when the machines are stopped, the feeders should be lifted and cleaning should be performed. If foreign materials accumulated in front of the

knives are removed, the cotton-taking capacity of the roller is increased. Roller ginning machines are used and preferred safely all over the world because they do not cut the fiber of the cotton.

We wish you a productive and successful business season.

ADJUSTMENT OF OUR SINGLE-KNIFE MACHINE

The names and numbers of the parts shown in the diagram are listed below.

No:

- **1:** Left-hand threaded ball bearing connected to the bottom shaft eccentric, Bearing No. 2305
- **2:** Adjustment arm, steel arm with right and left-hand threads
- **3:** Right-hand threaded bearing, Bearing No. 6305
- **4:** Gooseneck, the metal arm where the bottom knife is attached
- **5:** Bottom knife
- **5a:** Bottom knife height gauge
- **6:** Top knife, attached to the mirror
- **6a:** Top knife centering gauge
- **7:** Leather roller (drum)
- **8:** Eccentric arm
- **9:** Top knife adjustment gauge
- **10:** Mirror (Backplate)
- **11:** Grid
- **11a:** Clearance gauge between the grid and the bottom knife
- **12:** Top shaft height gauge

ADJUSTMENT OF THE MACHINE

Since both ends of the bottom knife are fixed, the roller is first pressed against the two ends of the bottom knife. If there is a protrusion in the middle of the knife, it must be straightened by loosening and tightening the nuts of the adjustment screws (rods) connected to the bottom knife and adjusted parallel to the roller along its entire length. Additionally, while the bottom knife is at the center of the roller, the gap between the roller and the bottom knife should be 0.5 to 1 mm. If left too wide, it will chew the cotton and fail to discharge it. Especially the clearance of the bottom knife should be checked frequently. Because as the roller wears down, it is necessary to close the gap, meaning the roller must be moved closer to the knife.

After the top knife (No. 6) is fixed to the mirror, the angled part of the top knife is pressed against the roller. During this process, it is not correct to over-tighten the springs. They should always be tightened to a normal level. The gauge shown as No. 6a in the diagram is the top knife adjustment gauge. The gauge is manufactured to be 1 mm higher than the roller center. The center control of the top knife with the gauge is performed as follows: The gauge is seated where the roller bearing sits and the knife is lowered to the gauge; both ends of the top knife must be parallel to the bottom knife. Essentially, the top knife should be adjusted to be 1 mm above the roller center line located on the ginning foot. In fact, the adjustment we are trying to make with the gauge above is this very setting.

The top knife, which is connected to the mirror, must be aligned using the mirror supports located on both sides of the machine. The mirror support can be moved forward and backward. Once the adjustment process is complete, it is secured. This fixes the mirror to the machine; after the top knife adjustment is made, the lock nuts must also be tightened. Additionally, the contact angle of the top knife with the roller is adjusted using the adjustment ruler shown as No. 9 in the diagram. This adjustment increases the efficiency of the machine. The adjustment is made as follows: While three sides of the adjustment ruler are in contact with the roller, when we pull the ruler upwards, the flat part of the ruler—the top side—should be flush against the mirror. In this state, when we move the ruler up and down, it must maintain contact with both the roller and the top knife. If the tip of the ruler does not make contact, this adjustment is achieved by the forward and backward movement of the mirror support. To ensure the normal flow of cotton, a 12 mm adjustment is set using the bottom knife height gauge (No. 5a), just as was done initially with the top knife.

This adjustment is provided by the adjustment arm shown as No. 2. The loosened lock nuts are then retightened.

When processing cotton with high humidity, the bottom knife (No. 5) must be raised using the arm shown as No. 2 in the diagram. In this way, although efficiency may decrease, normal operation is ensured. Adjusting our machine is very easy and does not tire the master. The ginning grid should be located 21 mm below the roller center. The gap between the grid and the bottom knife should be 7 mm wide. This clearance—that is, the gap—should be measured after the 12 mm adjustment of the bottom knife is made by turning the bottom shaft to raise it; at this moment, the distance between the grid and the knife should be 7 mm. It is necessary to cut helical channels at intervals of 30 to 35 mm on the leather roller of the gin. The channel depth should be between 3 and 5 mm.

CEYHAN SÜMER GINNING MACHINES

Our company has developed a grooving machine for this process. These channels are of great importance for cotton efficiency and cleanliness. Thanks to the channels on it, the roller pulls the clean cotton through the machine. In manually opened channels, some areas might be too wide. Seeds can get stuck and broken in these areas and mix into the clean cotton. Therefore, this issue should be emphasized with importance. If the adjustment conditions mentioned above are followed, the desired efficiency will be achieved.

Note: When the machines are taken for overhaul in the future, gauge No. 12 is used to check the position of the upper shaft in the machine. In this way, the height of the upper shaft on both sides of the ginning foot is ensured to be equal.

LUBRICATION

- **Main bearings:** Lubricate with rubber grease every 20 days.
- **Roller bearings:** Lubricate with rubber grease every few days.
- **Star bearings:** Lubricate with rubber grease every 2 months.
- **Eccentric bearings (upper and lower):** Lubricate with rubber grease every 20 days.
- **Tensioner pulley:** Lubricate with rubber grease from season to season.
- **Automatic crank sockets:** Should be lubricated with thin oil daily.

The sockets (wooden bearings) will sit in linseed oil for one month. Then they will be used.

SPEEDS (RPM)

- **Ginning bottom shaft:** 32 rpm
- **Roller speed:** 165 rpm
- **Crank speed:** 1000 rpm
- **Feeder bottom drum:** 20 rpm
- **Feeder top drum:** 56 rpm
- **Beater (Merdane):** 370 rpm

BEARINGS

- **1206 K C3:** Crankshaft bearing
- **1206 K C3:** Feeder bottom bearing
- **6210 C3:** Star bearing
- **1207 K C3:** Roller bearing
- **1207 K C3:** Beater tensioner bearing
- **6204 C3:** Beater bearing

- **6204 C3:** Ginning tensioner bearing
- **6202 C3:** Feeder tensioner bearing
- **1211 K C3:** Main bearing
- **6305 C3:** Right-hand threaded bearing
- **2305 C3:** Left-hand threaded bearing

BELT DIMENSIONS

Belt Name	Dimension / Type	Quantity
Feeder V-belt	17×1225 mm V-belt	1 unit
Gin motor V-belt	17×1500 mm V-belt	1 unit
Gin roller V-belt	17×2550 mm V-belt	1 unit
Feeder flat pulley belt	$2140\times50\times7$ mm brake lining belt	1 unit
Gin Crank flat pulley belt	$1730\times30\times7$ mm brake lining belt	1 unit
Beater flat pulley belt	$1900\times30\times7$ mm brake lining belt	1 unit

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PULLEY DIAMETERS

Pulley Name	Dimension / Type	Specification
Gin Motor pulley	$17\times1\times138$ mm	V-pulley
Gin V-pulley	$17\times1\times205$ mm	V-pulley
Gin Roller V-pulley	$\varnothing 80$ flat $\times17\times1\times110$ mm	Special pulley
Gin Crank pulley	$\varnothing 240$ mm	Flat pulley
Gin Roller pulley	$17\times1\times650$ mm	V-pulley
Gin Beater pulley	$\varnothing 110$ mm	Flat pulley
Feeder large flat pulley	$\varnothing 320$ mm	Flat pulley
Feeder small V-pulley	$17\times1\times85$ mm	V-pulley
Feeder large V-pulley	$17\times1\times245$ mm	V-pulley
Feeder small roller pulley	$\varnothing 100$ mm	Flat pulley

Figure 1

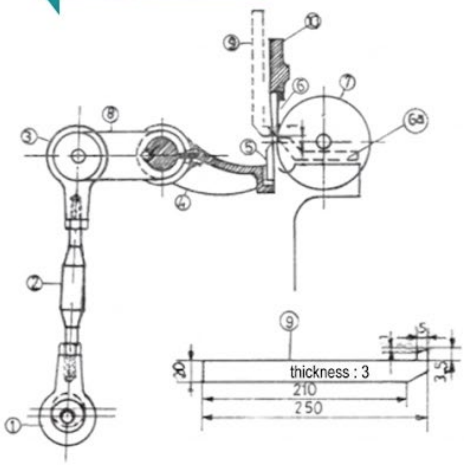
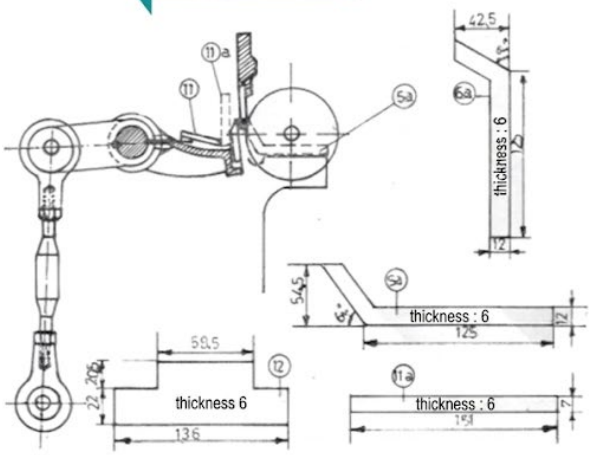
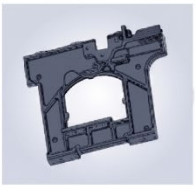


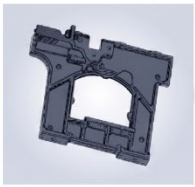
Figure 2



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COTTON GIN MACHINERY



C1
Gin Foot Right



C2
Gin Foot Left



C3
Gin Foot Top Right



C4
Gin Foot Top Left



C5
Gin Plate



C7
Perforated Ginning Comb Grid



C8
Ginning Plate Knife Top



C9
Ginning Knife Bottom with Fingers



C10/A
Steel Tenon Top Shaft



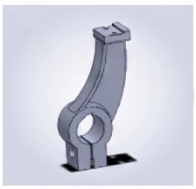
C12
Bottom Shaft with Dynamo Type 50



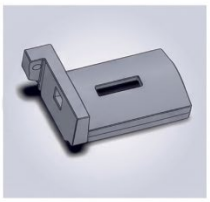
C13
Ginning Crank Shaft



C14
Ginning Tension Bar



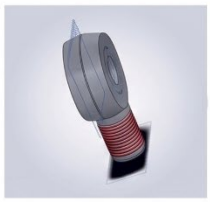
C15
Gin Goose Neck Right-Left



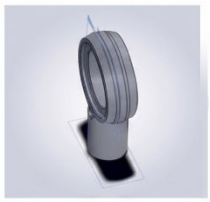
C16
Footing Mirror, Left



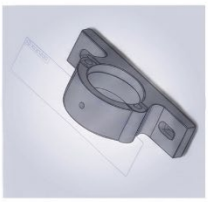
C17
Footing Mirror, Right



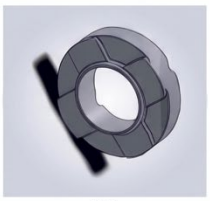
C18
Bearer right threaded, with bearing connecting lever contact



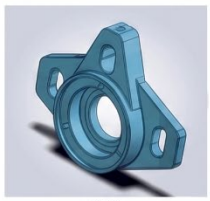
C19
Bearer left threaded, connecting with bearing lower shaft



C20
Bearing main crank-shaft to main shaft



C21
Bearing main cover



C22
Bearing star, right left, right left



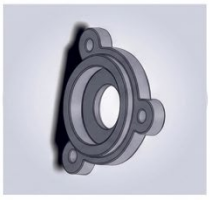
C23
Cover bearing star curved



C24
Cover bearing star straight



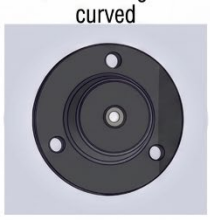
C25
Bearing crankshaft right left



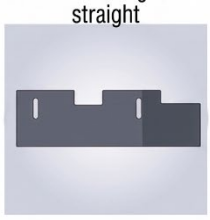
C26
Cover bearing crankshaft



C27
Lever counterweight bearing



C28
Cover bearing contact



C30
Plate side

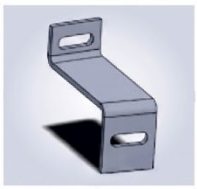


C31
Screw adjustmen

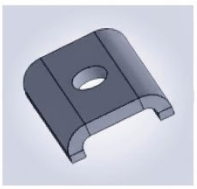
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C34
Gin Finger Crank Vergas



C38
Gin Z-Blade Blade (Grate)



C39
Gin Gripper Finger



C40
Gin Gasket



C41
Gin Upper Roller Bearing



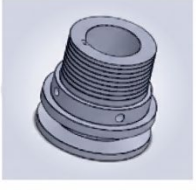
C42
Gin Eccentric Pin



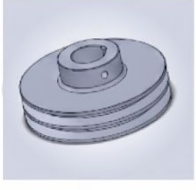
C44
Gin Vergas Pulley



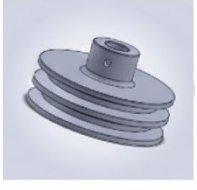
C47/A
Gin Roller Pulley 65mm



C49/A
Gin V-Pulley 10.5mm



C50
Gin V-Pulley 21mm



C51
Gin Motor V-Pulley



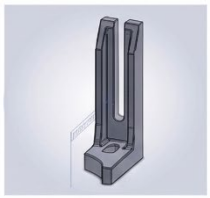
C53
Gin Automatic Vergas Board



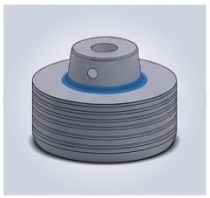
C55
Gin Rollers



C56
Vertical Roller Mount, Left



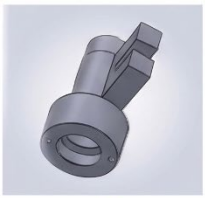
C57
Vertical Roller Mount, Right



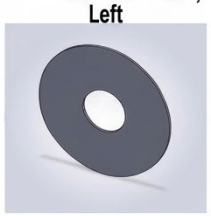
C59
Large Cup Roller with Blue Groove



C61
Roller Shaft with Internal Ring



C62
Vertical Roller Mount, Right



C63
Roller Mount, Laminates



C64
Vertical Roller Mount, Left



Y66
Feed Roller for Feed Motor Connection



C69
Cover Plate for Side Panel, Left



Y71
Feed Support, Top Left



Y72
Feed Support, Top Right



Y73
Feed Roller, Lower



Y74
Feed Roller, Upper



Y75
Product Identification Label



Y76
Angular Guide for Feed Motor Connection



C73/C
Gin Tensioner



Gin Roller



Y77
Lower Feed Shaft 25mm



Y78
Upper Feed Shaft 30mm



Y79
Feed Vergel Lever Arm Left



Y80
Feed Vergel Lever Arm Right



Y81
Feed Barbed Rack



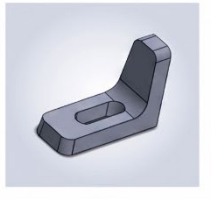
Y82
Feed Drum Pulley Lower/Upper



Y83
Feed Large Flat Pulley



Y84
Feed Large V-Pulley



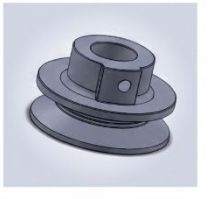
Y88
Feed Corner Bracket



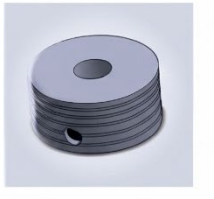
Y89
Feed Mounting Clamp



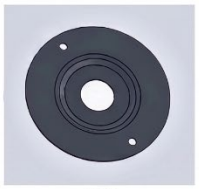
Y90 - 93
Feed Belt Tensioner



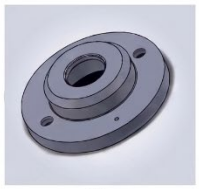
Y94
Feed Small V-Pulley



C95
Gin Roller Pulley 10-Spue Flat



Y96
Feeder Bottom Bearing
Bearing Cover



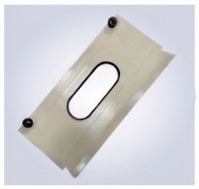
Y97
Feeder Bottom Bearing
Bearing Mount



Y98
Feeder Top Bearing
Cover



Y99
Feeder Top Bearing
Mount



Y100
Feeder Front Plate



Y101
Feeder Tray



Y102
Feeder Perforated
Bottom Plate



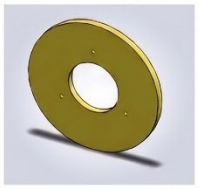
Y106
Feeder Small Side
Plate



C109
Ginning Roller Rubber



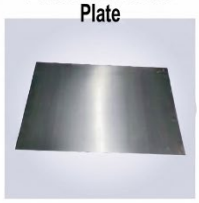
Helezon Yatağı
Auger Bearing



111
Plastic Roller Cover



C105
Rear Ginning Plate



C67
Straight Front
Ginning Plate



Temizleme Grubu Fırçası
Cleaning Group Brush



Temizleme Grubu Testeresi
Cleaning Group Saw
Blades

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ÇIRÇIR MAKİNALARI







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